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UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

ANNUAL REPORT OF COOPERATIVE EXTENSION WORK
IN AGRICULTURE AND HOME ECONOMICS
STATE OF NEVADA

1947

by
Cecil W. Creel
Director of Agricultural Extension



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ANNUAL REPORT
OF
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION DIVISION
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING
FISCAL YEAR 1946-1947

I NAME OF PROJECT - 1*A Administration

State Office Staff, Organization and Duties

The State Office staff of the Agricultural Extension Division of the University of Nevada, for the fiscal year ending June 30, 1947, consisted of a Director, an Administrative Assistant, a Chief Clerk, an Extension Editor, an Assistant Director for County Agent Work, an Assistant Director for Junior Extension Work, an Assistant Director for Home Demonstration Work, an Extension Marketing Specialist, an Extension Agricultural Economist, an Extension Soil Conservationist, an Extension Forester, a part-time bookkeeper and five clerks and stenographers.

The Director of Agricultural Extension is in administrative charge of all cooperative extension work in the State of Nevada, both for the University of Nevada and the United States Department of Agriculture. The Director is also Dean of Agriculture of the University of Nevada and in such capacity has general administrative authority over the College of Agriculture and the Agricultural Experiment Station. During the fiscal year, in the absence of the Director from the state, the President of the University, or in his absence the Vice-President has served as Acting Director. Approximately seventy percent of the Director's time is devoted to the Extension Service, and the remaining thirty percent to the College of Agriculture and Experiment Station.

The Administrative Assistant to the Dean of Agriculture, has been delegated supervision of all equipment, films, clerical staff, correspondence, preparation of and filing of budgets, records and reports of the Extension Service. He acts as State Publication Distribution Officer for the receiving and distribution of bulletins and printed material. Approximately two-thirds of his time is devoted to extension work and one-third to the College of Agriculture and Experiment Station. He aids the Dean in the preparation of budgets, reports and in other administrative matters in the College of Agriculture and Experiment Station.

The Chief Clerk acts as secretary to the Director and Administrative Assistant and has supervision of the State Office clerical staff. She is in general charge of Extension correspondence and the preparation and filing of records and reports. She assists in the preparation of payrolls, checking of accounts and the keeping of financial records of the Agricultural Extension Division.

The Extension Editor edits all bulletins, prepares news releases, and is in charge of the weekly news service supplied to Nevada newspapers and agricultural publications of adjoining states which serve Nevada.

The Assistant Director for County Agent Work, has supervision of all adult agricultural extension projects in the various counties.

The Assistant Director for Junior Extension Work, has supervision of all 4-H Club and Older Youth Work in the various counties. He has charge of the State 4-H Club Camp.

The Assistant Director for Home Demonstration Work, has supervision of all home economics extension work in the various counties, including girls 4-H Club Work.

The State Extension Marketing Specialist, while not a cooperative employee, is in charge of the extension marketing project. His duties consist of assisting extension agents in developing agricultural marketing programs, including the furnishing of help in the organization of cooperative marketing associations for crops, livestock and livestock products. This work includes educational guidance to cooperative associations and marketing of dairy and poultry products, sponsored both by the County Farm Bureaus and agencies of the U. S. Department of Agriculture. The State Extension Marketing specialist also handles extension work in agricultural credit, with particular reference to the financial assistance which can be furnished to farmers and stockmen by the various federal credit agencies. A portion of his time is devoted to the agricultural outlook work and educational work in connection with the agricultural conservation and land-use planning projects. An important proportion of the time is devoted to promoting dairy and poultry industry of the state by dispensing technical information to dairy and poultry farmers.

The Extension Agricultural Economist is responsible for extension work in farm management, especially in relation to the keeping of farm accounts, so that a ranch operator will have an overall financial picture of his enterprise. Aid is given in the preparation of income tax reports. Work with land-use planning committees has diminished during the war period, but some work is accomplished on land-use, land appraisal, land purchase, land selling and assistance to returning World War II veterans. He also assists with the agricultural outlook work and devotes some time to the training of discussion groups, as well as conducting education work in connection with the agricultural conservation program. He acts as dairy specialist for the state and aids the marketing specialist with poultry information and material.

The Extension Soil Conservationist is responsible for the state program of the extension work in soils and soil conservation. He assists the extension agents and groups of farmers in the organization of soil conservation districts, and following the organization of such districts, works with the extension agents and soil conservation district directors in the preparation of effective demonstration and work programs for said districts. He also assists extension agents in setting up soil and fertilizer tests and demonstrations in cooperation with the Department of Soils of the Nevada Agricultural Experiment Station.

The Extension Forester is responsible for carrying out farm forestry activities in cooperation with the ranch population of the State. Management of windbreaks or woodlots, cutting of forest products from forest lands, planting of trees, conservation, rural fire protection and other educational projects are provided.

Field Staff, Organization and Duties

The field staff of the Agricultural Extension Division for the fiscal year ending June 30, 1947, consisted of eleven full-time men extension agents, one man extension agent on sabbatical leave, two full-time men assistant extension agents, one part-time man assistant extension agent, and six full-time women extension agents. The men extension agents are in charge of the agricultural extension projects, including crop and livestock 4-H Club work. They continue to act as secretaries for the County Agricultural Conservation Associations, and were responsible for the educational work for this program in their respective counties and districts. In the absence of women extension agents in certain counties, the men agents carried the responsibility for home economics 4-H Club work, with such assistance as could be given them by occasional visits from the Assistant Director for Home Demonstration Work.

The women agents were in charge of the home demonstration extension projects, including home economics 4-H Club work, in the counties and districts to which they were assigned. Work and plans for the year were organized around needs for the post-war effort. Additional federal funds made it possible to appoint one full-time district extension agent to serve three new counties.

With the exception of three Assistant Agents, all agents were paid their entire salaries from Federal and State Funds appropriated for the support of cooperative extension work in Nevada. In addition to their state appointments, these agents also carried appointments from the United States Department of Agriculture.

With the exception of some extension work on a participating basis with the Board of County Commissioners, in Esmeralda County, it has still been necessary during the fiscal year to limit the regular activities of the extension agents to the thirteen counties of the state having legally organized farm bureaus. This restriction was necessary both from the standpoint of efficiency and from the fact that travel funds for extension agents is available only from county and state sources in those counties having organized farm bureaus.

The extension agents have continued to make their offices in the eleven county seats best located from the standpoint of proximity and highway connections to the agricultural communities they are designated to serve. Seven of these county extension offices are located in Federal Buildings, three offices are located in County Court Houses, and one office is located in a state building, suitable for the purpose. Thirteen extension agents and one assistant are housed in the seven Federal Offices, three extension agents are located in the three Court Houses, and two agents and one assistant are established in one state building.

CHANGES IN EXTENSION ORGANIZATION

DUTIES AND RELATIONSHIPS OF PRINCIPAL OFFICERS

There have been no changes in the organization of cooperative extension work in Nevada during the past year. The duties and relationships of the principal officers have continued as assigned on July 1, 1945, and February 2, 1946.

The Director of Agricultural Extension has continued to devote approximately 70% of his time to the duties of the position and the remaining 30% to the duties of Dean of Agriculture. The Administrative Assistant, Assistant Directors and Specialists are immediately responsible to the Director on all matters affecting their work. The men and women extension agents are responsible to the Director on fiscal and operational matters and to the Assistant Directors on project activities. The Assistant Director for County Agent work is in charge of adult agricultural projects, the Assistant Director for Home Demonstration work, the Home Economic projects, and the Assistant Director for Junior Extension Work, the 4-H Club and Older Youth projects. Specialists conduct their work with farm people through the Extension Agents and in cooperation with the Assistant Directors.

The Director recommends the appointment and salaries of all technical personnel to the President and Board of Regents of the University of Nevada and to the Director of Extension Work, United States Department of Agriculture. By delegation of authority from the President and Board of Regents, the Director appoints and fixes the salaries of County Extension Agents in consultation with Boards of Directors of County Farm Bureaus, in the counties concerned. (This arrangement terminates December 31, 1947, when the legal connection between the Extension Service and County Farm Bureaus end)

A. Relationships with Other Divisions of the University of Nevada

The Agricultural Extension Division is organized as a definite administrative unit of the University of Nevada and is coordinate in rank with the other two agricultural units of the institution, the College of Agriculture and the Agricultural Experiment Station. Coordination of the work of the three divisions is achieved through the office of the Dean of Agriculture. The Dean also serves as Director of Agricultural Extension. Relationships between the staffs of the three units are excellent and a definite coordination of work in major agricultural subject matter fields, has been secured during the past fiscal year.

B. Relationships with State Regulatory Agencies

Relationships with the State Department of Agriculture, State Veterinary Control Service, State Food & Drug Control office and State Department of Health have been excellent. Cooperation with these other state agencies has been effective on both the state and county levels.

C. Relationships with Farm Organizations

The Extension Service has continued to conduct its program through the county farm bureaus, in the thirteen counties having such farm organizations. By action of the 1947 Nevada Legislature, legal relationships between the Agricultural Extension Division and Boards of Directors of County Farm Bureaus, terminated as of December 31, 1947. Following that date, the legal cooperating unit on the county level, will be the Board of County Commissioners. The Extension Service has had the active support of both the State and County Farm Bureaus during the past twenty-seven years. While the legal connection is now terminated, we are confident that the Farm Bureau will continue to give extension work effective support and assistance in all counties. The Extension Service has had good working relationships with the Grange and State and County Livestock Associations throughout the years.

D. Relationships with the Nevada State Fair, the Nevada State Livestock Show & County Fairs

The Agricultural Extension Division has continued to assist in the collection and preparation of crop, livestock, home economics, and 4-H Club exhibits at the Nevada State Fair, the Nevada State Livestock Show, and the various County Fairs. State, district, and county extension workers also act as judge at all of these fairs.

E. Relationships with the Agricultural Committee of the Nevada Bankers' Association, and the Agricultural Commission of the American Bankers' Association

The Extension Service has enjoyed excellent relationships with both the Nevada Bankers' Association and the Agricultural Commission of the American Bankers' Association. County key bankers have been active in promoting extension projects and have given extension agents material assistance in promoting 4-H Club Work.

F. Relationships with Bureaus and Offices of the United States Department of Agriculture

The Extension Service has worked in harmony with all U. S. Department of Agriculture agencies serving Nevada farm people. The Director has served as a member of the State U.S.D.A. Council, and the Agricultural agents as members

of the county U.S.D.A. Councils, These councils have proven most effective in promoting cordial relationships and mutual understanding between agencies.

The Extension Service has shared office space with the Production and Marketing Administration on the University Campus and in most federal and county buildings throughout Nevada. The Director is a member of the State Production and Marketing Committee and attended all but two meetings of the Committee during the year. The County Agricultural Agents serve as Executive Secretaries of the County Agricultural Conservation Associations, in all counties of the state.

The Director has continued to serve as Chairman of the State Soil Conservation Advisory Committee. This committee has not been operative during the year.

The Director has been Chairman of the State Soil Conservation Committee during the past year and in this capacity has worked with the Soil Conservation Service on problems affecting the organization and operation of Soil Conservation districts. County Agricultural Agents have continued to serve as Secretaries of these districts.

The Director has served as a member of the Farmer's Home Administration Advisory Committee for Nevada and has attended all meetings of that committee.

Frequent conferences were held during the year with representatives of the above agencies, as well as with representatives of the Forest Service, Bureau of Entomology and Plant Quarantine and Rural Electrification Administration. Relationships with all Department Bureaus and Offices were most cordial, throughout the year.

G. Changes in Relationships of Extension Specialist and County and District Extension Agents.

No changes in the above relationships have occurred during the past fiscal year.

Source of Extension Revenue

Revenue for the support of the Agricultural Extension Division of the University of Nevada, including the Cooperative Extension work carried on in several counties in the State was derived from the following sources during the fiscal year ending June 30, 1947:

A. Federal Appropriations -

(1) Federal Smith-Lever and Bankhead-Jones Fund	- \$ 40,493.58
(2) Federal Capper-Ketcham Fund	- 20,583.19
(3) Federal Norris-Doxey Fund	- 1,200.00
(4) Federal Additional Cooperative Fund	- 11,955.08
(5) Federal Bankhead-Flannagan	- 34,048.66
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Total Federal Funds	- \$108,280.51

B. State Appropriations -

(1) College and State (Non-offset)	- \$ 30,582.90
(2) College and State (Offset to Federal Funds)	- 40,337.32
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Total State Funds	- \$ 70,920.22

C. County Appropriations -

(1) Appropriations by Boards of County Commissioners (Non-offset)	- \$ 35,328.77
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Total County Funds	- \$ 35,328.77

Grand total of all public funds available for support of Extension work during the fiscal year - \$214,529.50

- 1 - Dewick Plaster Craft and 1 copy New Essentials of Upholstery
- Booklets - Rugmaking, pressure cooking decorating knitting and crafts
- Book of Crochet, 2 extension cards, and 2 books
- 10 - #963 Wrapper File Boxes (for stencils)
- 2 dozen - copies of "Hand Knits for Juniors"
- 1 Presto Cooker
- 1 - National Can Sealer
- 2 - Boston School Cooking Books
- 3 - Presto Cookers, 3 Presto Dividers, 1 Kitchen Miller
- 2 - water bath canners, 2 Foley Food Mills
- 2 - Sad Irons, 1 light wt. Patalle Sewing Machine, 1 E-7
6773981 Attachment
- 1 - Boseler Model #OA3 Opaque Projector
- 1 - U. S. Government Manual 1947 - First Edition
- 1 - Underseat car heater
- 1 - Philco car radio and aerial
- 1 - Pierce wire recorder
- 1 - brief case
- 1 - Handy Freeze Pan - Model 314

Extension Staff as of June 30, 1947

Administration

Cecil W. Creel, Director of Agricultural Extension
Clarence E. Byrd, Administrative Assistant
Marie Watkins, Chief Clerk

Publications

Alfred L. Higginbotham, Extension Editor

Supervision

Thomas E. Buckman, Assistant Director for County Agent Work
Margaret M. Griffin, Assistant Director for Home Demonstration Work
Paul L. Maloney, Assistant Director for Junior Extension Work
Otto R. Schulz, State Supervisor, Emergency Farm Labor Program
William A. Goodale, Assistant State Supervisor, Emergency Farm Labor Program

Specialists

L. E. Cline, Extension Marketing Specialist
Wm. S. Hayes, Extension Forester
Otto R. Schulz, Extension Soil Conservationist
Verner E. Scott, Extension Agricultural Economist

District Extension Agents - Agricultural

H. Lee Hansen	Douglas and Ormsby Counties
Wm. N. Helphinstine	Eureka and White Pine Counties
Elwyn Trigero	Humboldt and North Lander Counties

Assistant District Extension Agents - Agricultural

James G. Jensen	Churchill & Southern Lander Counties
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County Extension Agents - Agricultural

Archie R. Albright	Washoe County
Fred C. Batchelder	Pershing County
Ferren Bunker	Lincoln County
Louie A. Gardella	Lyon County
Mark W. Menke	Elko County
Ray K. Petersen	Clark County
Albert J. Reed	Pershing County (returned from sabbatical
John H. Wittwer	Clark County leave June 19, 1947)
Charles R. York	Churchill County

Assistant County Extension Agents - Agricultural

Leonard Anker	Washoe County
Warren Welsh	Lyon County

District Extension Agents - Home Demonstration

Olive C. McCracken
Rose Spezia
J. Hazel Zimmerman

Douglas, Ormsby & Storey Counties
Elko County
Clark & Lincoln Counties

County Extension Agents - Home Demonstration

Madge Elder
Lena Hauke
M. Gertrude Hayes

Lyon County
Churchill County
Washoe County

P U B L I C A T I O N S

Uncertain and needy world conditions in 1947 continued to exert demands for agricultural information for the purpose of increasing production of food and fibre during post-war years.

To meet these needs, the vehicle which continued to provide the major material for distribution was the "News Story". By means of these stories, magazine articles, bulletins, leaflets, radio talks, advertisements, and other media the Extension Editor informed Nevadans of the objectives, developments, results and approved practices growing out of subject matter projects. The 10 radio stations and 35 newspapers located in the state were large factors in the dissemination of agricultural news story material.

Approximately 167 state-wide stories were released for 1947. Extension agents are now making available worthwhile educational information on excellent projects which they are pushing forward or completing. Agent news story production showed a 20% increase over last year and represented the largest increase in many years.

New bulletins are in the process of being written and printed upon various subjects of much importance.

Following is a list of the printed and mimeographed publications issued November 1, 1946 to October 31, 1947 :--

Printed Bulletins

<u>Number</u>	<u>Title and Author</u>	<u>Pages</u>	<u>Copies</u>
Leaflet	Poultry Freezing for Home Use Reprinted by Permission of California Agricultural Extension Service	2	4000
Bulletin 78 (Revised)	Nevada 4-H Club member's Record Book -- Food Selection and Preparation and Food Preservation Projects	12	2000
Bulletin 79 (Reprint)	The Spic-and-Span Girl -- Book I -- 4-H Clothing Clubs by Lena Hauke, County Extension Agent	110	3000
Bulletin 86 (Revised)	Nevada 4-H Club Member's Record Book -- Clothing and Home Improvement Projects	12	2000
Bulletin 95	The Nevada Hay Bale Stacker by Louis Titus, Professor of Farm Mechanics	6	3000

Bulletin 97 Making Cheese at Home 15 4000
by V. E. Scott, Professor
Dairy Husbandry

Mimeographed Material

Film Catalog for 1947, by Clarence E. Byrd, Administrative Assistant
to Dean of Agriculture

1948 Turkey Crop Production and Distribution, by Louis E. Cline,
Extension Marketing Specialist

4-H Club Members Record Book by Paul L. Maloney, Assistant Director
for Junior Extension Work

4-H Achievement Day, by Paul L. Maloney, Assistant Director for
Junior Extension Work

Supplement for Film Catalog, by Clarence E. Byrd, Administrative
Assistant to Dean of Agriculture

Today's Home Builds Tomorrow's World, by Margaret M. Griffin, Assistant
Director for Home Demonstration Work

Film Supplement, by Clarence E. Byrd, Administrative Assistant to
Dean of Agriculture

Film Catalog, by Clarence E. Byrd, Administrative Assistant to Dean
of Agriculture.

Repair that Old Purse, by Margaret M. Griffin, Assistant Director for
Home Demonstration Work

Soap Making at Home, by Margaret M. Griffin, Assistant Director for
Home Demonstration Work

Preventing and Removing Mildew, by Margaret M. Griffin, Assistant
Director for Home Demonstration Work

Home Dyeing with Commercial Dyes, by Margaret M. Griffin, Assistant
Director for Home Demonstration Work

Parliamentary Procedure as Applied to Womens Extension Clubs, by
Margaret M. Griffin, Assistant Director for Home Demonstration Work

What a 4-H Girl Should Know, by Margaret M. Griffin, Assistant Director
for Home Demonstration Work

Clothing Refresher Course Material, by Margaret M. Griffin,
Assistant Director for Home Demonstration Work

Food Habits of Nevada Grade School Children, by Margaret M. Griffin,
Assistant Director for Home Demonstration Work

Windbreaks in Nevada, by William S. Hayes, Extension Forester

Nevada 4-H Club Members Record Book, by Paul L. Maloney, Assistant
Director for Junior Extension Work

The Influence of Size and Sex of Turkeys, by Louis E. Cline, Extension
Marketing Specialist

A Limited Nutrition Study (short form), by Margaret M. Griffin,
Assistant Director for Home Demonstration Work

A Limited Nutrition Study (long form), by Margaret M. Griffin,
Assistant Director for Home Demonstration Work

New Scientific Facts on Canning Low Acid Foods, by Margaret M.
Griffin, Assistant Director for Home Demonstration Work

Spraying Crops for Flies, by Thomas E. Buckman, Assistant Director
for County Agent Work

Extension Work as a Career, by Cecil W. Creel, Director of Agricultural
Extension Service

Cattle Grubs and Lice, by Thomas E. Buckman, Assistant Director for
County Agent Work

Time to Treat Cattle for Grubs, by Thomas E. Buckman, Assistant Director
for County Agent Work

A Pasture Handbook, by Albert J. Reed, Extension Dairy Specialist

Calories from Some Everyday Foods, by Mrs. Penelope Rice, Extension
Nutritionist

Feed Consumption and Growth Rate of Turkeys, by Lewis E. Cline, Extension
Marketing Specialist

Place of Irrigated Pastures in Nevada Agriculture, by Thomas E. Buckman,
Assistant Director for County Agent Work

High Altitude Cake Modifications, by Margaret M. Griffin, Assistant
Director for Home Demonstration Work

Proceedings of the Extension Livestock External Insect Control Conference
AND Training School for County Agents and Others, by Thomas E. Buckman,
Assistant Director for County Agent Work.

Methods Used in Distributing Publications

Distribution of bulletins, circulars, including mimeographed circulars, is made to interested persons, resident in Nevada, chiefly through the extension agents. A supply is sent to each county or district office and from there either mailed out or personally delivered by the agents to interested persons. The state extension office retains sufficient copies of all publications to supply direct requests for the same from citizens of Nevada, the U.S. Department of Agriculture, other State extension offices, and reasonable demands from citizens of other states.

SUMMARY REPORT OF WORK ACCOMPLISHED ON PROJECTS

County Agent Work

The agricultural project work conducted with adults by the county and district extension agents, is supervised by the Assistant Director for County Agent Work. The principal activities and achievements in the adult agricultural extension work the past year are summarized as follows:

- a. Spraying cattle for cattle grubs, lice and fly control, established as an approved farm and ranch practice throughout the state.
- b. Spraying of dairy barns to control flies established as an approved farm practice.
- c. Spraying sheep to control ticks satisfactorily demonstrated as an approved ranch practice.
- d. Weed control work, using latest methods and equipment, started as an extension project, by county agents, in counties having most serious weed control problems.
- e. Cooperation with Agricultural Experiment Station investigative programs as follows:
 1. Experimental and observational fertilizer test plots in the following counties:

Churchill, Clark, Douglas, Elko, Lyon, Pershing & White Pine

2. Alfalfa variety test plots in Clark County.
3. Meadow hay improvement demonstrations and range improvement-Knoll Creek Field Station, Elko County
4. Alfalfa Seed production - Churchill, Lyon, Humboldt, and Washoe Counties.
5. Tomato plant production - Clark and Nye Counties.
6. Management of irrigated pastures.
7. Acreage of Ranger and other alfalfa wilt resistant alfalfas greatly increased throughout the state.
8. Greater use of certified potato seed in commercial potato growing counties.
9. Rural Fire Protection stressed in all counties. Assistance given to the State Fire Warden in organizing three new fire districts organized under the state law.
10. Continued progress made towards solution of Southern Nevada, Irrigation and Flood Control problems.
11. Considerable demonstration equipment secured from armed services at small cost that will be of great use to county agents in staging educational demonstrations throughout the state, during the next three to five years.

Home Demonstration Work

Home Demonstration Work has been conducted the past year principally with rural women and chiefly by the women extension agents. The work has been done under the supervision of the Assistant Director for Home Demonstration Work.

The Nevada Home Demonstration Program has centered around better homes, good health, successful family living, and general community betterment. It has been

an educational program conducted on the farm and in the home instead of in the classroom.

During its more than thirty years in Nevada, the scope of home demonstration work has been expanded, at the request of rural women, to embrace nearly every phase of rural family life. During the past year more than ever before, a greater variety of topics were of most vital concern to thinking farm women throughout the state. There was an increasing emphasis on community health programs, including medical and hospital facilities. Housing came in for its share of attention from rural women, especially remodeling, landscaping and other beautification. Now that electrification is rapidly being made available to most rural areas, there was an increased interest in modernizing farm homes and thereby reducing the amount of labor through well-planned conveniences. Not only were farm women interested in more convenient homes, but in making farm homes more attractive. Not enough has been done as yet in developing the type of rural architecture that is best suited to country life.

There was an increased interest on the part of homemakers in all branches of family life such as family relations, child guidance, nutrition, work simplification, farm and home management. Wise buying in view of current high prices, was emphasized.

Local public matters came in for a greater share of attention including education and recreation. Homemakers clubs devoted more time to the study of international problems. In many instances, a part of each monthly meeting was set aside for discussions of these timely subjects.

Workshops were established in Douglas, Ormsby and Washoe Counties. The workshops are equipped with sewing machines, stoves, refrigerating units, upholstery materials, and various equipment needed in the work that they are doing, and provide a place where women can come and get assistance from the home demonstration agent with their problems including those in home improvement, clothing construction, food preparation and preservation. This service is in addition to homemakers' meetings and home visits made by the agent . . . a service that will help to meet the needs of an ever expanding home demonstration program. It is hoped that similar workshops can be provided for other counties.

During the past year, seven county and district women agents served twelve counties in Nevada. The other counties served by men agents were assisted in carrying some home demonstration projects by the Assistant Director for Home Demonstration Work.

Junior and Older Youth Work

The 4-H Club and Older Youth Extension work has been conducted by extension agents under the supervision of the Assistant Director for these programs. Membership in the 4-H Clubs of Nevada has increased by 59 percent since July 1, 1946. The percentage of completions has also been higher in 1947 than for many years. The quality of the work conducted by 4-H Club members has also been stressed.

The training of an adequate number of local leaders has been emphasized by the supervisor. District, county and state meetings have been held for the purpose of teaching the local leaders to better understand the way young people react to varying situations at different ages as a background for being able to keep these young people interested in club work for a longer period of time.

At these district, county and state leaders meetings the supervisor gave special emphasis to the important question of how to make 4-H Club meetings more interesting and educational. Actual demonstrations were given on the subject of making club meetings interesting and educational by bringing in groups of club members to the meeting, thereby putting the suggestions made into actual practice.

In 1949, a larger number of club members own their livestock and crops than in any previous year. More and more club members are getting into business for themselves and taking on partnership with their parents. This is considered an important change from the time when too many club members merely claimed certain stock or crops as their project, without having any financial interest in the projects themselves.

The State 4-H Club Camp was held at the University camp grounds at Lake Tahoe under the leadership of the Assistant Director for Junior Extension Work. At this camp emphasis was placed on organized recreation with educational features throughout the camping period being conducted.

Agricultural Economics

Extension work in agricultural economics was conducted during the year by two part-time agricultural economists, cooperatively employed with the College of Agriculture and a State Extension Marketing Specialist. Projects were undertaken in Agricultural Outlook Work, Agricultural Planning, Farm Accounts, Farm Management, Poultry Marketing, Livestock Marketing and the Establishment and Promotion of Farmer Cooperatives. These activities were conducted with farmers and livestock men throughout the state, by the three above mentioned specialists, working in cooperation with the County and District Extension Agents.

Farm Labor

The Extension Farm Labor program was started May 10, 1943 and is to be terminated December 31, 1947. During this time 28,510 placements of agricultural workers were made. The following data indicates interesting facts:

<u>Year</u>	<u>No. of Orders</u>	<u>No. of all Placements</u>	<u>No. Mexican Nationals Imported</u>	<u>No. Farmers Served</u>
1943	3206	5618	551	1143
1944	3250	6069	665	1321
1945	7236	7186	871	1359
1946	3667	4832	406	1200
1947	2730	4795	301	1058

County Extension Agents were responsible for the labor program in their areas. Eight county Farm Labor Assistants, appointed for 3-6 month periods, and 14 clerks serving on a part-time basis, comprised the county staff. The State Supervisor, Assistant Supervisor and some part time assistance, conducted the program on the state level. From the above table, considerable less demand for the farm labor program was experienced during 1947, so the latter part of the year was devoted to liquidation of the program. Only 179 victory farm volunteer youth were placed in 1947. The excellent job accomplished of mobilization of farm workers, (youth and adults) within the state, handling of migratory workers, bringing in and placing Mexican Nationals, developing labor saving devices and many other phases of the work constitutes another important service which the extension service rendered to agriculture.

Forestry

Activities of the Extension Forester for 1947 were confined largely to (1) Formation of new rural fire protection districts where possible and feasible, and increased effort in already established districts; (2) Furthering establishment of windbreaks or shelter belts throughout the state; (3) Further aid to ranchers in establishing woodlots, growth of proper trees for fencepost and lumbering purposes; (4) Research conducted and stimulation of adaptable wood preservation methods for treatment of fenceposts, and (5) Aid given to 4-H club work by demonstrations presented at State 4-H club camp, and facilitating the sale of Christmas trees by the Douglas County 4-H club.

Fire truck equipment, city pumpers and fire extinguishers have been gradually obtained by many counties and districts in the state through cooperative efforts of the extension forester. The forester gave lectures, demonstrations, used visual aids and other means before schools, 4-H club, rancher groups and other organizations to increase interest in fire protection. Visits were made to individual ranches.

Twelve counties purchased 17,500 trees for shelter belt and shade for pasture purposes. More adaptable types of trees are being secured for these purposes, as well as for fence posts and lumbering.

Demonstrations for preservation of wood, especially fence-posts, were made before many groups.

Soil Conservation

On the privately owned lands in the State of Nevada, farmers have largely carried out Soil Conservation Programs in cooperation with federal agencies. The Extension Service, Agricultural Adjustment Administration, and the Soil Conservation Service, constituted largely the cooperating agencies with the farmers in promoting soil and water conservation practices and programs.

During the past year, the work of the Soil Conservation Service has been extended to most sections of the state. Most of the work was carried on in areas included within the 12 organized soil conservation districts. A new conservation district was organized in Ruby Valley. Off-area farm plans and conservation was not carried out this year because of the curtailment of funds to the Soil Conservation Service. The total number of plans requested to November 1, 1947, reached 99 representing an acreage of 306,193 while 90 of these plans were completed for a total of 121,152 acres. The Extension Service, cooperating with the Soils Department of the Nevada Experiment Station, established two experimental test plots for fertilizers in Douglas County. It is hoped that a solution to alfalfa production, as well as improvement in potato production, will result from these experiments. Conferences, field demonstrations, and news stories have been used throughout the year when advisable. Some work was done on irrigation systems and practices in various areas. Cooperation was given to the Production and Marketing Administration in the various phases of their conservation practices and in meetings with County Agents and Soil Conservation technicians.

For a detailed report of work accomplished during the past year on each approved cooperative extension project, reference is made to the following reports attached hereto, and which are a part of this general report of the Agricultural Extension Division:

- PROJECT I-B Publications, Report of Extension Editor A. L. Higginbotham.
- PROJECT II-A County Agent Work (Adult Agricultural Projects),
Assistant Director Thomas E. Buckman
- PROJECT II-B Home Demonstration Work (Adult Home and Community Projects),
Assistant Director Margaret M. Griffin.
- PROJECT II-C Junior Extension Work (4-H Club and Older Rural Youth Projects)
Assistant Director Paul L. Maloney, assisted by Assistant
Director Margaret M. Griffin.
- PROJECT III Soil Conservation, Extension Soil Conservationist, Otto R. Schulz
- PROJECT V Farm Forestry, Extension Forester, William S. Hayes
- PROJECT VI Agricultural Economics, Extension Agricultural Economists
Verner E. Scott and Eldon E. Wittwer
State Extension Marketing Specialist, Lewis E. Cline
- PROJECT VIII Emergency Farm Labor, State Supervisor, Otto R. Schulz,
and Ass't. State Supervisor William A. Goodale.

GENERAL CONDITIONS AND OUTLOOK FOR 1948

A State Extension conference was held at the University of Nevada in December 1947 to discuss the program of work for the ensuing year and new organizational and operational procedures made necessary by changes in the State Extension law. At this conference, meetings were held with all College of Agriculture and Experiment Station Staff members, to ascertain the contribution these men and women could make to the state extension program as well as the specific aid they were prepared to give both the agricultural and home demonstration agents in carrying on their project work. The new State law, effective January 1, 1948, makes radical changes in county extension fiscal procedures. County funds will be disbursed on claims first approved by the senior county agricultural agent, rather than the President of the County Farm Bureau. These claims must also be approved by the Director of Agricultural Extension and countersigned by the Comptroller of the University, before final approval by the County Commissioners and payment by the County Treasurer.

County Extension budgets, indicating proposed expenditures from federal, state and county funds, will be prepared annually in January each year by the Director of Agricultural Extension and presented to Boards of County Commissioners by the County Agricultural Agents. These budgets, besides indicating proposed expenditures, will also include the requested County Tax levy to provide the county's share of cooperating funds for the ensuing calendar year. County Agents received detailed instructions regarding these procedures at the conference, and it is believed that they will be able to carry their new fiscal assignments with a minimum of delay and confusion.

The question of county program committees to advise and assist both the men and women agents in formulating and carrying out their annual programs of work, was discussed at the Conference. County Farm Bureau Directors have been assigned this responsibility by State law since 1919. The 1947 law, terminates this responsibility, but makes no mention of any substitute county committee to assume it.

The apparent intent of the law is to leave the State Extension Director free to appoint such county advisory committees as are needed. It was agreed at the State Conference, that for the year 1948, the Director would individually appoint the members of the Boards of Directors of the County Farm Bureaus to serve on these committees. In those counties having other farm organizations, certain of their principal officers would also be appointed. For example, in Washoe County, the Master of the Grange and the President of the Grange Home Economics Club, will be named as members of the Committee. In Elko County, the principal officers of the Cattle and Woolgrowers Associations will be asked to serve. It was agreed that by following the above procedure, long-time county extension programs could be carried forward with the least interruption during 1948. It is evident, however, that in selecting future extension program committees, consideration must be given to factors other than the holding of an office in farm and livestock organizations.

State Extension funds cannot be increased before July 1, 1949, and revenues from county tax levies available for use in 1948 will not exceed those available in 1947. Rising costs of operation and the necessity of increasing salaries of all extension workers, has temporarily halted all plans for staff expansion in the

in the counties. Federal Bankhead-Flannagan funds, originally used to pay the salaries of the State Extension Nutritionist and the Home Demonstration Agent serving Humboldt and Pershing Counties, will have to be used elsewhere in 1948 to prevent further staff reductions. It is also anticipated that any further increase in these federal funds in 1948 will likewise have to be used to maintain the present staff. There is urgent need for at least three more Home Demonstration Agents, to meet the calls being made upon the Extension Service, from the counties not now being served, except for occasional help from the Assistant Director and temporary per diem workers. To meet these and other needs, additional funds from state and county sources will be required and plans must be prepared in 1948 to present these facts to Boards of County Commissioners and members of the State Legislature.

The Extension Service undertakes its program of work in 1948 with the active cooperation of the University's resident teaching and research staffs, as well as that of the Bureaus and Offices of the Department of Agriculture, and other Departments of the Federal Government serving the farm people of Nevada. The legal separation from the Farm Bureau has been accomplished in a spirit of good feeling, with assurances that the Extension Service and its program, will continue to have the active support of that influential farm organization. Likewise, the Grange and state and county livestock associations, have indicated support and cooperation, through the willingness of their principal officers to serve on county extension advisory committees. Boards of County Commissioners have also indicated their support in fifteen of the seventeen counties of the state, by entering into cooperative agreements with the Agricultural Extension Division of the University, for extension work in their counties in 1948. With the support of the farm and rural town people in these fifteen principal counties, the Agricultural Extension Division can look forward to a successful year of service in 1948.

NEVADA AGRICULTURAL EXTENSION SERVICE

II. A COUNTY AGENT SUPERVISION

ANNUAL REPORT

FOR

CALENDAR YEAR

1947

Thomas H. Buckman
Project Leader

1. 1947 COUNTY PROJECT PLANS REVIEWED

Project plans of county agents for 1947 were reviewed and approved in all counties. This work was interrupted on account of resignations of a number of agents and the difficulty of acquainting new agents with program plans. Progress in program planning, however, was generally satisfactory. The more experienced agents submitted a large number of well-planned projects for the approval of the State Extension Office.

Two state-wide subject-matter projects were adopted and carried on in all counties. Projects referred to were - Control of External Parasites in Livestock and Weed Control. Results secured were good where equipment for spraying was available and where there were no changes in County Agent personnel.

2. INDUCTION OF NEW AGENTS

Induction conferences were held with most of the new appointees. Several, however, did not need much instruction on account of experience gained as Assistant County Agents, or on the farm labor program.

In introducing new agents to their jobs, use was made of the 81-page Nevada Project Plan as applied to agricultural projects (by Thomas E. Buckman).

Continued reference was made of the agricultural project files in the State Office containing all project plans written since 1928 by Nevada County Agents and approved by the State Extension office. This file contains 637 project plans and progress reports and is the best source of information available for acquainting newly appointed agents with projects that have been started and carried on successfully or unsuccessfully, in any particular county.

3. IN SERVICE TRAINING OF COUNTY AGENTS

In February, most of the Nevada County Agents attended one or more of a series of demonstrations for the Control of External Livestock Insects. The meetings were held in Western Nevada on February 1 to 9 inclusive. By attending these conferences, it was

possible for agents to become acquainted with E. W. Laake of the Bureau of Entomology and Plant Quarantine, one of the world's authorities on cattle grub control and to see for themselves, how demonstrations should be carried on and the kind of equipment necessary and methods used in handling the equipment.

Dr. Laake's itinerary in Nevada was as follows:

SCHEDULE FOR DEMONSTRATIONS
LIVESTOCK INSECT CONTROL
IN WESTERN NEVADA

<u>Date - 1947</u>	<u>Time</u>	<u>Place</u>	<u>Kind of Meeting</u>
February 1	Morning	Reno	Conference with Charles Fleming
	8:00 p.m.	Minden	Dr. Agl. Exp. Station
	Overnight at	Minden	Farm Center Meeting
February 2	Morning	Enroute to Reno	Sunday - Nothing Scheduled
February 3	12:45 p.m. to 1:00 p.m.	Radio Broadcast - KOH	
	1:00 p.m. to 3:00 p.m.	Reno	Demonstration spraying cattle for grubs and lice
February 4	8:00 p.m.	Enroute to Fallon	Farm Center meeting of interested stockmen
	Overnight	Fallon	
February 5	Morning p.m.	Fallon Enroute to Yerington	Conference with Agent York Conference with County Agent Gardella, late afternoon or evening
	Overnight at	Yerington	
February 7	10:00 a.m. to 3:00 p.m.	Smith Valley Plymouth Co. Ranch	Spraying demonstration to control grubs and lice
February 8	10:00 a.m. to 3:00 p.m.	Minden	Spraying demonstration- cattle grub and lice
	Overnight at	Reno	
February 9	Sunday	Reno	Nothing scheduled

Another such training meeting was held in the fall at Minden, October 10 and 11. Agents from each county gathered here to meet with Dr. W. W. Robbins and his Assistant Mr. W. A. Harvey, Weed Control Specialists of the University of California.

Dr. Robbins and Mr. Harvey and the agents for two days discussed every angle of weed control that concerns Nevada, as well as the use of equipment.

At the conclusion of the discussion, the agents viewed equipment that the County Agent Supervisor had assembled there for their inspection. So they would be better informed as to the kind of equipment needed and how it operated.

In addition to the two training conferences mentioned, the County Agent Supervisor acted as Chairman of the State Extension Conference Planning Committee, and was able to arrange this conference so that both new and experienced agents were able to obtain a better concept of proven methods and procedures, used by the Extension Service to carrying on extension work in agriculture and home economics throughout the state.

The program for the weed control meeting was as follows:

DATE: OCTOBER 10, 1947

PLACE: COURT HOUSE, MINDEN, NEVADA

- 10:00 A.M. OPENING REMARKS - THOMAS E. BUCKMAN, ASSISTANT DIRECTOR FOR COUNTY AGENT WORK.
- 10:10 A.M. INTRODUCTIONS
- 10:20 A.M. DR. W. W. ROBBINS, BOTANIST
UNIVERSITY OF CALIFORNIA
COLLEGE OF AGRICULTURE
DAVIS, CALIFORNIA
- 11:20 A.M. DISCUSSION
- 12:00 A.M. ADJOURN
- 12:15 P.M. LUNCH - MINDEN INN
- 1:30 P.M. EQUIPMENT FOR SPRAYING WEEDS - W. A. HARVEY
- 2:30 P.M. RESULTS OF WEED CONTROL FIELD TEST PLOTS TO DATE
LEE BURGE
INSPECTOR., NEVADA STATE DEPARTMENT OF
AGRICULTURE
- 3:30 TO 4:00 P.M. DISCUSSION
- 4:15 P.M. ADJOURN

DATE: OCTOBER 11, 1947

PLACE: COURT HOUSE, MINDEN, NEVADA

- 10:00 A.M. DR. W. W. ROBBINS
MR. W. A. HARVEY
HOW TO PLAN AND LAY OUT EFFECTIVE WEED CONTROL TESTS
AND DEMONSTRATION PLOTS AND FOLLOW UP NEEDED.
- 11:00 A.M. EQUIPMENT AVAILABLE FOR COUNTY AGENT TESTS AND DEMON-
STRATIONS IN 1947 - THOMAS E. BUCKMAN.
- 11:30 A.M. DEMONSTRATION OF EQUIPMENT - MR. LOUIS TITUS
ASSISTED BY FRED BATCHELDER AND LEONARD ANKER
- 1:00 P.M. ADJOURN

The following summary of the Proceedings of this conference were recorded by Fred C. Batchelder, County Agent of Lovelock, at the request of the writer, gives a review of the discussion that took place at this training meeting.

The weed conference was planned by the writer Thomas E. Buckman, ten months in advance. During the summer a special trip was made to the San Francisco Bay Region to interview manufacturers of spray equipment and chemicals. On the return trip to Reno, Dr. Robbins and Dr. Harvey were interviewed at Davis, California, regarding the possibility of their coming to Nevada to meet with the County Agents regarding weed control problems.

Proceedings as recorded by Fred C. Batchelder attached.

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EXTENSION WEED CONTROL CONFERENCE
MINDEN, NEVADA
October 10-11, 1947

The meeting was called to order at 10:25 A.M. in the Courtroom, Courthouse, Minden, by Thos. E. Buckman, Assistant Director for County Agent Work. Mr. Buckman introduced Dr. W. W. Robbins and Mr. W. A. Harvey, weed control specialists of the University of California at Davis, and said that they would lead discussion during the meeting. He also introduced Lewis E. Harris, George B. Millard, John F. Mudge, of the Sherwin Williams Company, and Mr. R. L. Westholm of the Shaw Company.

Mr. Buckman said that the purpose of the meeting is to map out a plan for control of weeds in Nevada. He told how the chemical companies and equipment manufacturing companies were all helping with all of their resources but that farmers look to the Extension Service for local information. He pointed out that a knowledge of available materials and how to use them is necessary to answer farmers questions. He said that every county in the state was represented at the meeting.

Upon introducing Dr. Robbins, Mr. Buckman suggested that each agent secure a copy of the book "Weed Control" by Robbins, Crafts and Raynor when it is revised in the near future. Dr. Robbins was called upon to lead the discussion on the principal progress in weed control during the last few years. He emphasized that more has been done in weed control in the last five years than in all previous history. He said that about half a million acres was sprayed for weed control in California in 1947.

Principal Achievements in Weed Control in Last Few Years --

- I. Development of selective herbicides.
 - 1. 2,4-D Principal development.
 - 2. Dinitro Compounds - Sinox, Sinox W., Dow Selective, Dinitrosol W, Chipman Selective
 - 3. Oils
 - A. Crops on which Selective herbicides are used:
 - 1. All cereals including rice - 2,4-D and Dinitros
 - 2. Corn and milo - 2,4-D
 - 3. Carrots and related crops - oils
 - 4. Turfs - 2,4-D
 - 5. Onions, flax, peas, garlic - dinitro selective
 - 6. Alfalfa - dinitro selectives
- II. Development of fortifying agents
 - 1. Dinitro compounds)
 - 2. Pentachlorophenol) used with oil and
 - 3. Sulphur) oil-water emulsions
- III. Low Volume Applications
Used to use 100 to 150 gallons per acre, now can go as low as 3 gallons -- made possible by 2,4-D because it doesn't have to cover much of plant to be effective.

Established alfalfa is oil tolerant and has been sprayed with up to 150 gallons of diesel oil per acre without injury. It won't hurt to continue spraying year after year as there is no evidence that oil stays in the ground. In seed production, it is best to start with a seedling spray and follow up with the established alfalfa spray. If the alfalfa is in rows, it may be possible to lower the nozzles and spray under the alfalfa.

Adjourn for Lunch and Reconvene at 2:10 p.m.

Archie Albright and Louie Gardella reported that the pre-emergency spraying of onions didn't prove too successful because of the second growth of weeds. They reported that burning with kerosene worked the best.

Mr. Harvey said dinitros worked well in California but that weed control is always a local problem as local conditions caused varied results. Albright said that in Washoe County they burned off the first crop of weeds but that they got a second crop which must be sprayed.

The Shaw Company representative told about their weeder which was developed in the South for cotton and is being used in California; it is a two burner using propane. He believes he can furnish one to the Nevada Extension Service for experimental work.

Mr. Harvey suggested trying sodium pentachlorophenate at about 80 gallons per acre. It can be obtained as Dowicide G or Monsanto Santobrite. The Sherwin Williams representative said that local conditions have a lot to do with strengths of chemicals that plants will tolerate.

Louie Gardella asked what can be done with wild Iris and reports that it is very serious pest in pastures in Lyon County. He said that in tests he had received good results by spraying with Chipman 40%, 2,4-D salt at the rate of one quart with one quart diesel oil per acre in water. Lee Burge said that 1 1/2 pounds of 60% 2,4-D salt with diesel oil seemed to work. The best time to spray is in the bud stage and not later than when the first blossoms appear.

Lee Burge reported on his experimental work. He reported that the following treatments seemed best on the given plants:

- Yurba mansa (in southern Nevada) - 2,4-D Rate of 1 1/2# to 2# acid per acre
- Willows - 2,4-D plus 2 to 4 gallons of diesel oil, followed by burning when dry. Re-spray the regrowth -- Total coverage is necessary but an atomized spray is satisfactory. Spraying should be done before July first.
- Chicory - 2,4-D
- Rosebushes - Ammate and Atlacide; 2,4-D will not work
- Members of Carrot family, such as Water Hemlock & Parsnip - 2,4-D

White Top	- 2,4-D at proper time, and chlorates and atlacide or sodium chlorate. 7# of Borax plus 1# of chlorate to square rod. Apply to ground and wet the ground to wash it in. 2,4-D will s top seed formation.
Leafy Spurge	- Chlorate as soil applicant - 2,4-D will not work.
Morning Glory	- 2,4-D
Canadian Thistle	"
Sunflowers	"
Ulia	"
Buckwheat	"
Sandburr	2,4-D may work
Pigweed	2,4-D
Bassia	"

The only time grain germination was impaired was when the grain was sprayed after it had passed through the dough state according to tests made by Burge. Harvey reported that he had never found germination damage although he had not tried spraying after the grain was matured. Each agent was urged to write to the State of California, Department of Agronomy, Bureau of Chemistry, at Sacramento, and secure a list of brands of 2,4-D for sale in California.

Spot spraying is a local problem and all of the above factors enter in. Mr. Harvey emphasized that the best way to completely cover a spot is to mark out a zone and spray the entire zone because if you don't, you are bound to miss some of the plants on the edge of the spot.

Treatment for Dodder, as given by Dr. Robbins, is oil the patches and burn them rapidly. Bad infestations should be plowed up. This is the only effective treatment. For Puncture Vine, he said to spray with straight diesel oil because this kills the burrs that have taken root. Don't move the plant because it will scatter seed and the oil will penetrate most of the dry seed around the plant.

Meeting adjourned until 9:30 a.m. October 11th.

Mr. Harvey said that the action of 2,4-D, is faster in warmth but as long as it is warm enough for growth of plants, 2,4-D will act.

Discussion of Equipment by Mr. Harvey

You need equipment that will put on any volume from 300 gallons down to the lowest volume you will ever use per acre. New processes call for as low as 2 1/2 gallons per acre. Established alfalfa should be sprayed at from 80 to 120 gallons per acre and grain sprayed at from 10 to 2 1/2 gallons per acre.

Equipment should have the following:

Pump, motor, tank, agitator, boom, nozzles, screening, speedometer, pressure regulator, and gauge.

Pump - 100# pressure for weeds.

Motor - Best to have separate motor and not use power take-off, especially for large volumes.

Tank - Size should depend on type of spraying, large tank for large volume work, etc.

Gauge - Put as close as possible to outlet and mount them on a short piece of pipe so no liquid will get into them. Get a gauge that will accurately register the pressure you want. For low pressure, a 50# gauge is enough. An Essick compressed air sprayer is handy but may need additional agitators. The Sherwin-Williams man showed pictures of a tractor mounted sprayer being put out by their company. Bronze gear driven pumps are available from the Alanell Pump Distributors, 1523 18th Street, Sacramento. Their No. 4 pump is about the right size.

Mr. Harvey talked about Experimental Plots:

In putting out experimental plots, it is very necessary to have replicas. Single series are no good; at least duplicates and triplicates are better. Leave plenty of check strips with 2,4-D because drift will bother the edges. Strips should be scattered around the field. One long strip isn't as good as 2 or 3 short ones farther apart.

For low volume work you need a field boom because a hand boom variates too much. A little variation makes a lot of difference.

For alfalfa sprays you can use a hand boom if you know how much it is delivering. Run the boom into a bucket to measure rate of delivery.

Try to make strips the size of the harvester, if you want yield tests. Make strips width of combine. Another way is to take square rod or square yard samples, or 1/1000 acre samples -- any given size. Take at least three samples per plot and the same from check plots. To pick at random, throw something into plot and use a frame to put there. Then harvest within frame.

Plots should be laid out at random across field so that some strength doesn't hit twice in same area.

Buckman spoke on Weed Control Organization within the State.

He said the State Department of Agriculture has done a lot of experimental work and is still doing it, and that the county agents are doing a lot of the same type of work. He would like to form a cooperative effort with Lee Burge as project leader for the state. The University of California will give all possible assistance and Mr. Buckman and Mr. Titus are now working on equipment.

In response to questions from Ray Peterson, Dr. Robbins said that for Johnson Grass and Bermuda Grass the best treatment is to plow with a moldboard plow and spring tooth harrow after the plowing to drag the roots out. Do this repeatedly as the grass starts to grow again. He also said that straight stove oil should be alright for a pre-emergency tomato spraying and that a pint of dinitro per 50 gallons of oil might be added to get Bermuda grass.

Mr. Harvey said that very little data was available on airplane applications, that the airplanes have the advantage of low volume spraying because of their greater speed, and that each sprayer seems to have his own type of applicator and no standardization has been done. No organized experimenting has been done and each sprayer is more or less on his own.

Dr. Robbins explained the weed control program at the Davis Experimental Farm. He said that each department furnishes their pro-rata share of money and a full time man with skilled helpers works under the Department of Botany and that since this arrangement, the farm has greatly reduced its weed problem and that when each department tried to handle their own, the farm became very weedy.

The meeting was removed to the outside of the Courthouse where Mr. Buckman demonstrated three types of equipment that can be used for demonstrational work and the Shaw Company representative showed a small pumping outfit that he loaned to Mr. Buckman for experimental work.

Meeting adjourned at 1:15 P.M.

Several regional county agents' supervisory conferences were held during the early part of the year. At these conferences, extension methods and procedures were discussed.

4. SPECIAL ASSISTANCE TO COUNTY AGENTS

Continued assistance was furnished all County Agents in securing action on problem that requires follow-up with public officials in Reno or vicinity or elsewhere.

5. NEWS SERVICE

The Extension Editor's attention was called to the advisability of sending out news stories, whenever an outstanding piece of work was done, thought to be of interest throughout the state. The Editor was also furnished with subject-matter for news stories from time to time.

Several conferences were held with Extension Editor Higginbotham regarding the operations of the news service and the use of the radio during the year.

6. PHOTOGRAPHY

Photographs were taken of the Clark County tomato and celery plant industry. The 4x5 negatives were made into 8x10 enlargements, used by the Clark County Extension office, to show progress being made in tomato plant production. The pictures were also used by the Agricultural Experiment Station in their reports.

Several agents were instructed with the use of their official cameras.

Pictures taken by the writer, were furnished the Extension Editor for use, in several state-wide news stories.

At the request of the Washoe County agents, a photographic record of the 4-H Club Achievement Day and Homemakers' Day was made.

Approximately 100 pictures of cattle and spraying demonstrations were taken, both in black and white and in Kodachrome.

Approximately 25 of these pictures were made into 2x2 slides for use at meetings.

7. STAFF CONFERENCES CALLED BY THE DIRECTOR ATTENDED

A staff conference consisting of the Director and the three Assistant Directors was called during the year by the Director for the purpose of discussing the State Extension Conference.

Another such conference was held following the Supervisory Workshop Conference at Pullman, Washington.

A state-wide extension staff conference was held in Reno on December 8 - 12 inclusive. A complete report of this conference is given in the "Proceedings", compiled by the Assistant Director for County Agent Work, which appears in the back of this report.

8. REGIONAL COUNTY AGENT SUPERVISORY CONFERENCES

Two regional county agent conferences were held during the year.

9. CONFERENCES WITH SPECIALISTS

Conferences with specialists Schulz and Hayes were held, regarding as to how they could best carry on their programs in cooperation with the County Agents. As a result of these conferences and plans, noticeable improvements were made in the soils work and in the forestry and state fire control programs.

Several conferences were also held during the year with Fred W. Wilson, Livestock Specialist for the Extension Service.

Mr. Maloney, State 4-H Club leader was furnished with information regarding the acquisition of surplus equipment from Army and Navy surplus.

Miss Griffin assisted the writer in performing his duties as Chairman of the Farm Safety Week.

Conferences were also held with Mr. Louis Titus regarding agricultural engineering work.

A number of conferences were held with Charles E. Fleming, Director of the Agricultural Experiment Station and His Project Leaders

for the new projects listed below, financed by State funds.

1. Soils
2. Range management and meadow hay improvement
3. Tomato Plant Production
4. Alfalfa and seed production.

10. SPECIAL WORK PARTICIPATED IN

Two meetings of the Tomato Plant Advisory Committee at Logandale were attended early in the year.

Negotiations carried on since 1939 by the writer, for the purchase of 340.97 feet of beach and approximately 3 acres of land between the original State 4-H Club Camp grounds at Lake Tahoe were completed and the purchase was made, under authority made by the law passed by the 1947 Session of the Nevada legislature.

PURCHASE OF LAKE FRONTAGE FOR THE STATE 4-H CLUB CAMP

Negotiations for purchase of 340.97 feet of beach and approximately three acres of land between the original camp grounds were completed, under authorization made under a law passed by the 1947 session of the legislature. In making the authorization the legislature also set up the state 4-H camp as a state institution.

The complete story of the acquisition follows herewith:

LAKE FRONTAGE ACQUIRED FOR THE
STATE 4-H CAMP AT LAKE TAHOE

Quote "Negotiations that have been pending since 1942, for 340 feet of beach and a strip of ground between the 4-H camp and Lake Tahoe, were completed this week when the down payment was made on the property.

Thomas E. Buckman, now assistant director for county agent work of the extension service, who was for twenty years 4-H camp director and developed the state 4-H camp project for the extension service at Lake Tahoe, represented the extension division in the negotiations with the owners - Mr. and Mrs. Wallace Park of Gardnerville, for the purchase of the beach.

In making the announcement, Mr. Buckman stated, that with the beach frontage just acquired, the State of Nevada has one of the finest 4-H camp sites in the country. Buckman also said that the Nevada State 4-H camp site compares very favorably with that of the Jackson Mill State 4-H camp of West Virginia and any of the new state camps that are now being developed for 4-H clubs in Illinois, Kansas, Iowa and New York.

The original Nevada camp site consisted of 30 acres of timbered land near Edgewood in Douglas County at Lake Tahoe. This was acquired

by the Extension Service in 1938 from Mr. and Mrs. William Rabe of Gardnerville, but lacked any beach frontage on Lake Tahoe. The property just acquired from Mr. and Mrs. William Park provides an excellent beach contiguous to the original site, which makes the west boundary of the camp the shores of Lake Tahoe.

The property was acquired for the Nevada camp, under an enabling act passed by the 1947 Nevada Legislature. Attorney Albert Hilliard, Regent and Attorney-General Alan Bible represented the state in the legal negotiations, while George L. Sanford of Carson City, represented the owners.

The purchase price will be retired in amortized payments of \$2,000 annually over a period of years and will be provided for annually in the county extension budgets by the Director of the Extension.

The initial down payment of \$1,000 was a donation made from private funds by the Churchill, Douglas, Elko, Lyon, Humboldt, Pershing, and Washoe County Farm Bureaus.

Title for the State 4-H Camp was vested in the State of Nevada as provided for in the enabling act of the last legislature.

For the first time in its long history, the State of Nevada holds title to land on the shores of Lake Tahoe, Mr. Buckman concluded in making this announcement."

March 6, 1947

LETTER SENT TO PEOPLE WHO COOPERATED WITH THE WRITER IN THE PURCHASE OF THE BEACH FOR THE 4-H CAMP.

" TO WHOM IT MAY CONCERN: - The 4-H Camp Bill previously referred to has been introduced into the Assembly as AB-No.,239 and was referred to the Committee on Ways and Means."

Sincerely yours,
THOMAS E. BUCKMAN
Assistant Director "

Assembly Bill No. 239 passed both the Assembly and Senate without a dissenting vote and was approved by Governor Vail Pittman on March 27, 1947.)

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF NEVADA

13

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION
AND
U. S. DEPARTMENT OF AGRICULTURE
COOPERATING

EXTENSION ADMINISTRATION OFFICE
UNIVERSITY OF NEVADA
RENO, NEVADA

To: Nevada State Farm Bureau
Board of Directors
County Farm Bureaus
Director Cecil W. Creel
All County Agents

Mr. C. H. Gorman, Vice President
and Controller, University of Nevada
Nevada Legislative Bureau
Governor Vail Pittman
Senator Cox
George Miller, Assemblyman

TO WHOM IT MAY CONCERN:

Herewith is attached a copy of the proposed bill creating the State 4-H Camp as a State Institution. It clears the title of the present property, provides for the acquisition of the lake frontage between the westerly present 4-H Camp boundary and Lake Tahoe. I have prepared this bill at the request of the Nevada State Farm Bureau and in cooperation with Mr. Frank Helmick, now deceased.

During the summer Frank Helmick, as Legislative Counsellor, accompanied me to the camp grounds and went over the property. Following this the undersigned conferred with Mr. Helmick on what should go in the camp bill, and the bill as drawn represents his idea and the writers so far as it was possible for Attorney General Bible to include them in the proposed bill. The bill as drawn and as presented to you was drafted by the Attorney General's office. The bill follows herewith:

Section 1 Creates the State 4-H Camp as a State Institution and so worded that Clark and Lincoln Counties can at some future time establish a regional 4-H Camp sometime in the future in Southern Nevada when conditions warrant. This is in accord with a verbal understanding made sometime ago with the Farm Bureau Directors of Clark and Lincoln Counties.

Section 2 States the function of the 4-H Camp Institute and Exhibit.

Section 3 Title of the camp to be vested in the State of Nevada to hold for the participating counties.

Section 4 Management of the camp is placed in the hands of the Agricultural Extension Division, University of Nevada. The Board of Regents of the University serve as a Board of Control for the property. They are to approve uniform regulations for the use of the property, the same to be prepared by the Director. This section also provides, the Director may cooperate with the Farm and Livestock Organizations of the State, the Forest Service, or the State Park Commission, Counties and Cities, private organizations and individuals in order to carry out the purposes of the act.

The property when not in use, under regulations drawn up by the Director, with approval of the Board of Regents, may rent the property, but not primarily for profit nor in competition with private enterprises. Any rental received is to be deposited in the Comptroller's Office at the University. The property cannot be sold without the consent of the Legislature.

Section 5

Any county having an enrollment of 25 or more 4-H Club members, may erect a county cabin on the grounds subject to the uniform regulations. This will enable Churchill, Pershing, Douglas, Humboldt and Washoe Counties to complete their plans for erecting a county cabin on the grounds. The title of Lyon County to the building erected by Lyon County and known as the Lyon County cabin is protected. County Commissioners may appropriate money to be used for the construction of a county cabin.

Section 6

The Director of Extension is authorized and directed to budget for each county's annual share of the cost of the purchase of the original camp grounds, and the lake frontage when and if it is purchased. The Director is authorized to negotiate for the transfer of the title of the original camp grounds, Escrow No. 119 to the State of Nevada and to acquire the lake frontage.

Section 7

The Director is authorized subject to the Board of Regents approval to adjust boundaries and rights of ways, to provide for adequate roads on the grounds, and provide adequate fire protection. If any change of title to the land is involved, this is to be ratified by the Legislature.

Section 8

The Director may use any or all members of his staff to operate the 4-H Camp.

The proposed bill when enacted would be effective whether or not Assembly Bill No. 26, or Assembly Bill No. 130- changing the method of appropriating money for Extension work, is enacted.

Respectfully submitted:
Thomas E. Buckman

THOMAS E. BUCKMAN,
Assistant Director for County
Agent Work

TEB/w
Encls.
Mar. 4, 1947

D. 1

March 5, 1947

MEMO:

At a meeting held last night attended by Director Creel and myself, the Executive Committee of the Nevada State Farm Bureau and as many other Farm Bureau members as could be assembled, unanimously approved the proposed enclosed Bill, creating the 4-H Camp as a state institution.

President Frank Sottelmeyer was instructed to take the Bill to Carson City, to present to members of the Nevada Legislative Bureau - Senator Walter Cox and Assemblyman George Miller. The matter of introducing the Bill was to be left up to Senator Cox and Assemblyman George Miller.

Thomas Buckman

THOMAS E. BUCKMAN,
Assistant Director for
County Agent Work

TEB/w

State of Nevada

DEPARTMENT OF ATTORNEY GENERAL

Carson City, Nevada

March 3, 1947

Mr. Thomas Buckman
Assistant Director
County Agents
Agricultural Extension Service
University of Nevada
Reno, Nevada

Dear Mr. Buckman:

At your request we are handing you herewith an original and two copies of the 4-H Club bill, with changes as suggested by you.

Very truly yours,

Sgd / Homer Mooney
Deputy Attorney General

HM:MN
Incs.

The writer, Thomas E. Buckman, was delegated to confer with the Attorney-General, to draw up a Bill for the transfer of the original 4-H Club Camp Grounds, from the Nevada State Farm Bureau to the University of Nevada and the State and to also provide for the purchase of the beach frontage between the original camp grounds and Lake Tahoe owned by W. D. Park.

An Act to establish the State 4-H Camp Institute and Exhibit; providing for the acquisition and use of property for the same; providing for the conduct of the same; recognizing the same as a part of the cooperative work undertaken by the State of Nevada in pursuance to the state acceptance of the Smith-Lever Act of Congress approved May 8, 1914, and for other purposes.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE
AND ASSEMBLY, DO ENACT AS FOLLOWS

Section 1. The "State 4-H Camp Institute and State Exhibit of Boys' and Girls' Club Work" heretofore located at the State 4-H Club Camp in Douglas County, Nevada, is hereby continued and established as a state institution under the name "State 4-H Camp Institute and Exhibit" and located in Douglas County, Nevada, with branches, as or when located, in the respective counties of this state. The same is referred to in this act hereinafter as the Institute.

Sec. 2. The functions of the Institute are to improve rural life by helping 4-H Clubs and others in the work of teaching and exhibiting to boys and girls the standards of life embodied in the creed of 4-H clubs in the United States and the means of making a better living in agriculture and home economics. It is also contemplated that the Institute shall render such help to discover and develop leadership, aptitudes, and skills to teach, demonstrate, and thus continue said work.

Sec. 3. The title to the present site of the State 4-H Club Camp in Douglas County, Nevada, and of an additional strip of land west of the same and bordering on Lake Tahoe, comprising four acres more or less, is and shall be vested in the State of Nevada, subject to the conditions of the contract for the purchase of said tracts, and deeds and instruments shall be prepared assigning, conveying or evidencing such title abso-

lutely to the State of Nevada as soon as practicable after payment has been made therefor under the provisions of such contracts and this act and not otherwise.

Sec. 4. The Director of the Agricultural Extension Division of the University of Nevada, hereinafter called the director, under the supervision and control of the board of regents of the University of Nevada, is authorized and directed to take possession of, care for and manage all property, lands, buildings and equipment of the Institute (subject to the paramount title of the State of Nevada;) to make uniform regulations for the use and occupancy thereof, not contrary to the provisions of this act, and to attend to its entire business and financial affairs. To that end the director may cooperate with farm and livestock organizations in this state, the United States Forest Service, the State Park Commission, counties and cities in this state, private organizations and individuals in order to carry out the purposes of this act.

The lands, premises and property of the Institute, or any of the same, may, when not required for immediate use or occupancy, be made available, under regulations prescribed by the director with the approval of the said board of regents, for occupancy and use by other public or private organizations, for convention, or other non-commercial and non-profit purposes, at such charge or rental as shall be compensatory but not primarily for profit nor in competition with private enterprise. All moneys received in payment of such rents or charges shall be credited to the account of the Institute and all disbursements for the Institute shall be made on claims against the same as a part of the available funds for agricultural extension provided for the Public Service Division of the University of Nevada, or in cooper-

ation with state and federal laws, or otherwise.

No lands used by the Institute and belonging to the State of Nevada shall be sold except pursuant to express authority from the legislature in each case or class of cases affected, and all such lands shall be held subject to any limitations, covenants, conditions and reversions that may be contained in the contracts or conveyances under which they were or may be acquired.

Sec. 5. Any county in this state maintaining an enrollment of twenty-five (25) or more members of a 4-H club in such county, as may be found from the records by the director, may erect a building on the lands occupied by the Institute, subject to uniform regulations prescribed by the director and approved by the said board of regents. Said building may be reserved and devoted in whole or in part for the use of said county and the benefits of the 4-H clubs of said county. Funds for the same may be appropriated by the board of county commissioners from the general fund in the county treasury of the county affected. Any such building heretofore so erected may be subject to continued use and occupancy, with the right to improve or enlarge the same, as in the case of such buildings to be hereafter erected.

Sec. 6. The director in the work of supervising and preparing budgets for agricultural extension, in cooperation with the federal government and others in carrying out the purposes of the Smith-Lever Act of Congress approved May 8, 1914, and the state's acceptance of the same, shall see to it that the annual share and contribution of each county affected is budgeted and revenue to cover such share or contribution is provided for and that all other budgets and provisions to provide for funds to cover the same are duly prepared and adopted so as to include among other things provision for paying the annual share of

each county affected falling due in any year on the purchase price of any property heretofore contracted for or which shall hereafter be contracted for according to the provisions of such contracts. The director is authorized to continue all negotiations and dealings necessary or convenient and to make contracts for the use and benefit of the Institute and the State of Nevada respecting the lands now occupied by the Institute (and particularly those mentioned in Escrow No. 119 with the Trust Department, First National Bank of Reno, Nevada) and respecting the lands westerly therefrom comprising four acres more or less on the shore of Lake Tahoe in Douglas County, Nevada. To this end the director is authorized in the name of the Institute and the State of Nevada to make any covenant and accept any condition affecting the use of such tracts of lands, or either of them, which the proposed grantor may now lawfully demand, provided, the right to demand any such covenant or to impose any such condition has not heretofore been waived by such grantor or proposed grantor.

Sec. 7. The director is authorized with the approval of the said board of regents to conduct negotiations for the acquisition of rights of way; for the adjustment of boundaries; for adequate highways and means of ingress and egress respecting the site of the Institute and for adequate fire and other protection through public or private agencies, provided, that no such negotiations shall bind the State of Nevada, or require the conveyance by it of any lands or rights in or to lands, the record title of which is or shall be in the State of Nevada, unless or until the same shall be ratified and specifically authorized by the legislature.

Sec. 8. The director is charged with the duty to see that the general purposes and objects of this act are carried out; provided

March 27, 1947

EXCERPTS FROM REPORT OF LEGISLATIVE COUNSEL - FRANK HELMICK

"One of the major accomplishments of the Farm Bureau organization during its connection with the Extension Service, was the purchase of some 30 acres of land at Lake Tahoe in 1948, on the Douglas County side, which has provided one of the finest 4-H club camp grounds in the entire country. Purchased at a price of \$13,500, the property is estimated to be worth at least \$150,000 at the present time.

"The property is in the process of being paid off from County Farm Bureau tax funds, the sum of \$1,082 a year being paid toward the purchase price, with a balance of about \$6,500 remaining to be paid at the present time. Title to the property, which is now in escrow, is in the name of the Nevada State Farm Bureau, and under the reorganization program will be transferred to the State on behalf of the counties of the State which are paying for it.

"The property has numerous buildings situated on it, including a large kitchen and dining hall, boys and girls dormitories, and county cabins.

"Negotiations were under way, as this was written, to acquire an additional tract of about five acres which would provide the camp ground with a sandy beach on the lake itself." (Printed January 1947.)

(NOTE OF EXPLANATION:) The State Farm Bureau signed the contract for the Deed for the 4-H Club Camp but did not pay anything towards the cost. This money was paid from county extension budgets. Extension money was the only money that went into the purchase of the original camp grounds. In order to make the record complete, the writer thinks this explanation necessary as the following statement in Mr. Helmick's report, did not mention the part the Extension Service played in the purchase of the 4-H Club Camp. What the State Farm Bureau did was to sign a contract for a deal, an act for which they deserve the highest praise.

Inasmuch as the reports of the Extension Service are the official record of what happened when the 4-H Camp was acquired, the writer feels it necessary to make this explanation in connection with the purchase of the 4-H Club Camp.

The Nevada State Farm Bureau entered into the contract at the request of the Extension Service and as presented by the writer for the Extension Service. Interested readers can confirm this by examining the Memorandum of Agreement between the Extension Service and the Nevada State Farm Bureau signed by George Ogilvie, President, Florence Bovett, Secretary for the State Farm Bureau and Thomas E. Buckman, Acting Director for the Extension Service.

SPECIAL WORK (Continued)

Acquisition of demonstration equipment from the Army and Navy.

About the middle of the year it appeared that it would be possible to acquire surplus equipment from all kinds of demonstration work for use in Project II-A - County Agent Work.

Aggressive methods, accordingly, were followed in locating equipment. The supervisor, at the request of the County Agents, set out to secure such equipment as was needed.

A large quantity of equipment worth thousands of dollars was secured. The complete story of what was acquired follows on the next page.

Particular attention should be paid, in reading this report, to the principal use or contemplated use of the equipment secured. Most of the equipment acquired was secured with a definite use planned, if not immediately, during the next three or four years.

REPORT OF SURPLUS ARMY, NAVY, AND AIRFORCE EQUIPMENT

Secured by: Thomas E. Buckman,
Assistant Director for County Agent Work

For the Agricultural Extension Division and other departments of the University including County Extension Offices.

January 6, 1947 to May 25, 1948

- PART I. Donations secured through U. S. Office of Education.
- PART II. Secured by purchase from War Assets Administration.
- PART III. Donations from W. A. A.
- PART IV. Donations F. W. A. and U.S.O.E., under Public Law 697.

The acquisition of surplus equipment for demonstration purposes was a very important activity in 1947. The first part of this section of the county agent supervisor's report, pages 1 to 11 inclusive, tells about equipment acquired in 1947. The ground work for the acquisition of equipment acquired from pages 12 on, was laid in 1947.

PART I

Donations secured through Paragraph 7-316, Regulation Number 7

Procurement procedure based on directives of the Division of Surplus Property, U. S. Office of Education, Federal Security Agency, Washington D. C.

and

Headquarters Sixth Army Property Disposal Branch, Presidio of San Francisco, California.

Donations from the Navy were secured under PRD Regulation No. 1, Circular Letter 29-46, released July 30, 1946, under procurement procedure similar to directives issued by the Navy and approved by the U. S. Office of Education.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
5	May 16, 1947	Camp Beale, Calif.	Ford 1 and $\frac{1}{2}$ ton cargo truck	Used, good condition	\$ 1200.00	Used for hauling demonstration material and equipment. This truck has been used to haul many tons of surplus equipment from Army or Navy installations to Reno.
6	May 16, 1947	Camp Beale, Calif	Hobart Electric are welder, capacity 30 amperes, mounted on a one ton two wheel trailer.	New, but parts missing.	1000.00	This machine was repaired and put into order by the grazing service shop and is available for use whenever called for by the extension service. The repair job was done without cost to the extension service.
7	May 16, 1947	Camp Beale, Calif.	Truck International K-5, Brush fire truck.	Almost new, had 1000 miles on it.	1500.00	This truck was acquired with the idea converting it into a livestock spray rig, but this was found to be impractical so an agreement was worked out with the Experiment Station where they took it over and converted it into a truck for hauling livestock.

(Continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
					\$	(Continued from page 2) It is headquartered at the Knoll Creek Exp. Station in Elko Co. and is available to Elko Co. Agents for transportation of 4-H livestock to the Elko Co. or Jr. Livestock Show in Reno.
8	May 16, 1947	Camp Beale, Calif.	Electric Generator Set 5 KW mfg. Co. with panel board, AC	Used, repairs needed.	400.00	Not put into use yet. Have considered mounting it on a trailer to provide electricity for the extension service public address system and for operation of motion picture projectors where electricity not available.
9	May 16, 1947	Camp Beale, Calif.	Electric Welder, gas engine type, P and Hr300 Amperes	Used, but in good condition	1000.00	This was secured for the Farm Mechanics Shop but it was decided to not be adaptable for inside work so it was put on a trailer and sent to the Knoll Creek Exp. Station for use of the station and extension service in Elko County.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
10	May 16, 1947	Camp Beale, Calif.	One GMC 6 x 6 Van Body Truck, short wheel base	Used, almost new, had 4000 miles on it	\$ 2500.00	The water purification unit in this truck was dismantled and removed and its place was installed a high pressure livestock spraying unit purchased for use in Northeastern Nevada. It is headquartered at Elko and is used principally for spraying operations but has also been used to transport 4-H livestock and to secure surplus equipment from Utah.
11	May 16, 1947	Camp Beale, Calif.	1 1/4 three gal. hand sprayers	New	720.00	Used by county agents in Washoe, Lyon, Douglas, Churchill, Pershing, Humboldt, Elko, Lander, Eureka and White Pine counties for weed control tests and demonstrations.
12	June 10, 1947	Camp Beale, Calif.	Tractor, one Allis Chalmers with Hough front, hydraulic lift and loader and Hoist, crawler type, gasoline powered.	Used, Excellent Condition	3180	So far used for assisting in establishing pasture demonstrations at the Newlands Field Station, at Fallon. The battery was missing so the Experiment

(continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u> (continued from pg.
						Station purchased a battery for it, and paid for the tune up job in order to put it into operation.
13	June 10, 1947	Camp Beale, Calif.	Tractor, Crawler Type, Diesel 60 DBHP Allis Chalmers with bulldozer	New	\$ 7395.00	So far in sub soiling demonstrations in Churchill County. Range reseeding work is planned for this tractor mostly in Western Nevada.
14	May 8, 1947	Tooele, Utah	Two electric Generator units	Poor	100.00	Received in poor condition damaged in transit. Plan to dispose of as soon as regulations permit.
15	May 8, 1947	Tooele, Utah	Two small wheel barrow compressors	Fair	100.00	Repaired. One in use weed control Fallon and the other at Knoll Creek Exp. Station, Elko, Co.
16	April 9, 1947	Unknown	One 3/4 KW single phase AC gas driven Motor Generator Set	Excellent	250.00	In use at Knoll Creek Experiment Station.
17	April 24, 1947		20 portable telephones	Good	300.00	Held in storage for use cooperative fire control demonstrations.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
18	May 23, 1947	Stockton General Depot, Stockton, California.	Two, Compressor trucks with Leroi compressor engine driven, 105 GPM. Compressor mounted on GMC 6 x 6 truck with long chassis. The trucks were equipped with air driven pavement breakers, Diggers, wood boring drills, grease guns, air hose, nail drivers, pneumatic chain saws, circular saws, etc.	Good, used had a trip overseas and back	\$ 10000.00	<p>The two compressors and tools, hose, etc. Were transferred to the Mackay School of Mines. The two truck chassis were retained for agricultural use. One truck was completely overhauled and is headquartered at Ely in charge of the county agent and is used for livestock spraying. The grazing district put up most of the money on repairing the truck and enough more to buy a \$1300 spray outfit which is hauled by the truck.</p> <p>The two compressors have been installed at the entrance of the Mine shaft. The Mackay School of Mines has driven into a side hill on the Northeastern part of the campus for instruction purposes. The compressors will furnish air power for use of air tools in the shaft. One truck remains to be placed in operation. (Continued)</p>

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
					\$	(Continued from pg. 6) Under a cooperative arrangement with Director Fleming, the Exp. Station is to put this truck into operating condition. It will have a flat rack body and will be used as a Agronomy Truck. It is a 6 x 6 and can also be used to haul the Diesel Tractor, Item on the Freuhauf 8 ton trailer to any point in the state where it is needed.
19	May 8, 1947	Tooele, Utah	Stationary, shop One gas driven compressor, mfg. Curtis	New but damaged in transit	250.00	This will be in use at the Farm Mechanics Shop as soon as an electric motor can be secured for it. The compressor came equipped with a gasoline motor not suitable for inside shop work on account of the noise and gas fumes.
20	July 1, 1947	Stockton General Depot, Stockton, California.	Trailer, Fire Pumper, 2 wheel 500 gals. per min. completely equipped	New	2500.00	This is being used by the Lake Tahoe Fire District in Douglas Co. (includes St. 4-H camp) a part of a cooperative fire control demonstration area. (continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
						(continued from pg 7) There is a cooperative effort between the extension service, State Fire Warden and the Toyabe National Forest. Two more fire districts are needed on the Nevada side of Lake Tahoe, one in Douglas and one in Washoe counties. It is hoped the demonstration area will provide the incentive for organization of the other districts that are needed.
21	January 1, 1948	Ogden, Utah	15 lengths of 1 and $\frac{1}{2}$ inch fire hose	New	\$ 750.00	Acquired at a cost of \$43.20 (paid for by the fire district) for use in fire control demonstration area, Lake Tahoe Fire control district.
22	July 31, 1947	Tooele, Utah	Hoist chain spur gear	Used, not complete	50.00	Hold in storage, will when repaired probably be used at Knoll Creek or with the other two tractors when needed at projects mentioned.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
23	August 25, 1947	Camp Beale, Calif.	Tractor-Hebard Hebard Model Midget Shop Mule with Farm All U2 engine	Used, operating condition but repairs re- quired	\$ 300.00	It was thought this tractor could be converted to farm use, but this was found to be impractical. Accordingly it very likely will be turned over to the Farm Mechanics Shop where it may have some use. The other probable use is in the Mechanical Engineering Dept., where the engine might be used. If found not usable there permission will be secured to salvage it. The engine being a Farm All U2 it has some value.
24	November 3, 1947	Camp Beale, Calif.	Jeep $\frac{1}{4}$ ton truck 4 x 4	Used, in excellent condition	1000.00	Used as a weed control sprayer. A spray boom has been mounted on the front of the truck and a spray unit acquired by purchase from surplus has been mounted back of the drivers seat. It is headquartered at Lovelock and has been used in Pershing, Churchill and Douglas counties so far. It is one of the most (continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
						(continued from Pg 9) valuable pieces of equipment acquired.
25	August 28, 1948	Camp Beale, Calif.	Trailer 4-wheeled, flat	Used	\$ 300.00	Not in use as yet but when rebuilt will have utility for transportation of demonstration equipment.
26	August 28, 1948		4-wheeled pneumatic tire trailer	Used	400.00	Used as a livestock trailer for transporting 4-H livestock and weed control demonstration equipment in Douglas and Ormsby counties.
27	August 28, 1948	Camp Beale, Calif.	150 feet steam (rubber hose)	Used good	175.00	Held in storage.
28	January 20, 1948	Benecia, Arsenal	GMC Twin Diesel Motor and controls 375 Horse power Power unit, complete with all accessories	Used, almost new operating condition crated	3500.00	Stored at Reno, Agric. Exp. Station. Is very valuable as a power plant or deep well pumping. Will be used testing and demonstrations designed to meet irrigation and drainage problems. At the present time I have under consideration the use of this engine in the Pahrump Valley in Nye & Clark (continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
					\$	(continued from pg 10)
						counties in connection with the proposed expansion of tomato plant production in Southern Nevada.
29	December 23, 1947	Stockton General Depot	Tractor Crawler Type Diesel Engine driven with Angle Dozer cable operated 2 Drum Rear Mounted, Caterpillar D-4	New	8700.00	Secured for range re-seeding demonstrations and other work at the Knoll Creek Range Station in Elko county where it is headquartered. A derrick lift capable of lifting 1500 lbs. was installed on the rear of the tractor by the Exp. Station. The tractor and lift was used to load the two FWA bldgs. that went to Knoll Creek on a Western Pacific Co. flat car, and was used again at the Henrie Station on the UP Co. seven miles from Knoll Creek. Then again to unload this equipment some 30,000 lbs. and next to erect the buildings. The tractor was also used to level the ground where the buildings were erected. Mark Shipley, Supt. of the (continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u> (continued from pg. 11)
30	March, 1948	Naval Supply Clearfield, Utah	Centrifigual Pumps	New, spare parts in- cluded	\$3600.00	Knoll Creek Station hopes to get the re-seeding demonstration and meadow improvement work completed this summer and fall using the tractor. I was able to secure transportation of this tractor from Stockton to Reno without cost to the university. One pump went to the Civil Engineering Dept., one went to Farm Mechanics., the others are in storage pending disposition for agricultural use.
31	December 24, 1947	Aviation Naval Supply Center, Oakland California	Aerial Cameras	Used	500.00	Mostly valuable for lenses, these are stored and being looked over for use as ground cameras. I hope to get one 4 x 5" Big Bertha" camera with 15 inch lenses made up out of this outfit. One camera a Fairchild is complete and it is being reserved for aerial mapping in case we want to do such work.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
32	November 1, 1947	Stockton, General Depot, Stockton, California	Truck, Forklift Clark	Used, repairs required	\$ 800.00	Not in use yet, repairs required. Will be used for loading and unloading equipment. It will lift 4000 lbs. and has possibilities for use as a piece of farm equipment.
33	October 25, 1947	Stockton General Depot, Stockton, California	Compressor, air Portable, 250# working pressure mfg. De Vilbiss	Used gas engine needs repairs	445.00	Plan to use this to provide compressed air to operate air powered pruning shears. As yet none of this equipment has been demonstrated to Nevada farmers.
34	October 25, 1947	Stockton General Depot, Stockton, California	Trucks 2 wheeled hand made of oak, with hard rubber tires straight back. 12 secured		360.00	Used Extension warehouse in several county and on campus.
35	November 4, 1947	Stockton, General Depot, Stockton, California	Crane, Willamette Hyster, 10,000 lbs. capacity, self propelled, on pneumatic tires,	Used	4000.00	Used for loading and unloading equipment. This was secure at my special request. The College of Agriculture at Davis, California has a similar Hyster, however our is a later model. This piece of equipment is kept at the (continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
						(continued from pg. 13)
						the Toiyabe Forest Service repair shop, which adjoins the extension warehouse in Reno. The Forest Service repaired the hyster without cost to the extension service in turn for use of it when not used by the extension Service.
36	February 20, 1948	Stockton General Depot, Stockton, California	8 ton, 4-wheeled heavily constructed trailer	Used	\$ 1000.00	This trailer was given to the extension service as the result of my special request, that it be provided in order to transport the HD Diesel Tractor which weighs 8 tons, described in Item 13. It cost us 43 cents per mile to haul this tractor from Camp Beale to Reno. With one of our GMC 6 x 6 trucks we can do this at a considerably lower figure as the trucks were a donation. Two sets of heavy loading ramps

(continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u> (continued from pg.14) for driving equipment up on the trailer were included with the trailer.
37	May 16, 1947	Camp Beale, Calif.	One Waukesha Pump unit, 3 inch pump with 4 cylinder engine and 6 lengths of two inch hose with bronze couplings, also 200 feet of 1 inch rubber hose. This equipment was in the truck secured and described in Item 10.	New, but used	\$1000.00	This pump was used by the extension soil conservationist to irrigate the soil test plots put out by the experiment station in Douglas county last summer (1947). Without the pump and hose one of the plots would have been lost and one years experimental work lost.
38	December 29, 1947	Signal Corp. Ogden, Utah	Power, Unit, Electric generating set, operated by Cunnams Diesel Engine 120 to 208 volts 25 KW 60 cycles	Used good	4000.00	Stored at Elko for use in rural electrification demonstrations in isolated communities where electric power not available to groups of ranches. Alternate use as a power plant to operate pumps for irrigation and drainage tests and demonstrations.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
39	April 29, 1948	Sierra Ordnance Depot, Herlong, California.	40 F.M. Receivers 40 F.M. Transmitters 35 No. 35 Dynamotors	New	\$ 4000	To be used in cooperation State Fire Warden, Fire Districts, U.S. Forest and Grazing Service, State and City Police, Range Fire control. Cost government over \$49000, require No. ? S alteration - 5 dynamotors needed 40- No 3T to complete equipment. Forest Service and Reno Police Department working on two sets to determine availability. Equipment secured at request of Extension Forester who is also Assistant State Fire Warden. Sets will probably be installed at State 4-H Club camp and Knoll Creek Experiment Station, Elko, county.
40	May 8, 1948	General Depot Stockton, Calif.	One Jaeger pump unit 2 in pump and gas engine one Marlow pump unit	New	500	Test Plot irrigation or weed control same
41	March 21, 1948	Stockton General Depot, Stockton, California	One tilting type trailer 4-wheel	Used Repairs Required	150	Secured for purpose of hauling fork lift and small equipment. can be hauled by any 4 x 2 or other heavy truck.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
42	January 1947 to May 1948 Miscellaneous Equipment	Toole, Utah Bencia and S. F. Bay Region	One welder, obsolete will dispose of as soon as regulations permit. 24 generators, a few tools, 2 used grease dispensers, buckets, scales, etc.	Used	\$ 500.00	
<u>Not yet received, value estimated before inspection.</u>						
43	May, 1948	Oakland, Calif.	One Ray burner one 6 $\frac{1}{2}$ HP AC motor	Used	200.00	To extension Service Agricultural test and demonstrations
44	May, 1948	Navy Supply Oakland, Calif.	Still cameras Aerial torpedo do recording cameras	Used	500.00	Will be inventoried when received. Some probably can not be used as re- ceived. One aerial with telephoto lens will go to Geology Department, the other to Physics department. One of these cameras may be suitable for Journalism Dept.
45	May 12, 1948	Naval Shipyard Vallejo, Calif.	Generator Set. Compressor Unit Generator Set 115V Spare Parts for Electric Megaphone system. Spare parts for electric megaphone system. Spare parts and tools for (cont'd)	Used Some re- pairs required.	5000.00	agr. Ext. Division " " " " "

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
			(continued from pg 17)			
			Battle announcing system.			
			"MCNAB"(Item 5)			Agricultural Ext Div.
			Panel Board 440V AC 3'x3'			Physics.
			for electrical control system.			
			Rectifier heater			"
			Transformer			Extension Service
			Generator Set 115/230V			Mechanical Engineering Dept.
			Deisel Engine, Excello			Ext. & Mech. Eng. Dept.
			Electric Plant 2 KVA			Mechanical Eng. Dept.
			Panel Boards			" " "
			Probe, Transmission Line Test			" " "
			Rectifier			Physics Dept.
			Charger, Tungar for Batteries			Mechanical Engineering
			Rheostat, 120 V 60 C			" "
			Panel Control Board			" "
			Cases, Navigators			Extension Division
			Roller Sheet			Mech. Engineering
			Roller Sheet Metal			" "
46	May, 1948	McClellan Field Sacramento, Calif	Block Indicator	Used	5000.00	Mech. Eng. Dept.
			Projector			" " "
			Timer			Electrical Eng. Dept.
			Camera			Journalism & Agl. Ext.
			Radio Set			" " "
			Bench			Elect. Eng & Agr. Ext.
			Bench			Electrical Eng. Dept.
			Brake and Folder			" " "
			Brake			Mech. Eng. Department
			Compressor			" " "
			Compressor			Farm Mechanics
			Control			Physics Dept.
			(continued)			Elect. Eng.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
			(cont'd pg. 18)		\$	
			Compressor			Agri. Ext. Dept.
			Compressor			Mech. Eng. Dept.
			Compressor			" " "
			Extractor			" " "
			Grinder			Farm Mechanics
			Machine			Mech. Eng.
			Anvil			Farm Mechanics
			Camera			Agr. Ext.
			Camera			" "
47	May, 1948	Tonopah Air Base	4 Duplex steam pumps	Used	600.00	Mechanical Eng. Dept.

PART II

Purchases made from the War Assets Administration under Regulation 14

At first 40 percent discount was allowed on everything.

Later on certain items were purchased at 95% discount.

The discounts made it possible to secure the items listed. Without the discounts, funds would not have been available for purchase of the items listed.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
1	October, 1947	Sierra Ordnance Depot, Herlong, California	Dispenser, Grease, Alemite powered with NPR B and S 1 and $\frac{1}{2}$ HP engine	New	\$ 1950.00	Five units used as grease dispensers with tractors and other heavy equipment. Balance held in storage, engines used as a separate unit when ever a 1 and $\frac{1}{2}$ HP gasoline motor needed for running a spray pump or other such demonstration apparatus. \$118
2	October, 1947	Sierra Ordnance Depot, Herlong, California	Fuel Tanks	New	80.00	Used as in tanks for spraying, reserve water supply or fuel. \$40
3	October, 1947	Sierra Ordnance Depot, Herlong, California	7.20 x 50 truck or bus tires, 20 purchased	New recaps	800.00	Ten secured for Bldg. grounds, ten for extension division. \$3.60 each.
4	October or Nov.	Alameda Naval Supply, Alameda, California	One low bed, Carryall Trailer 6 $\frac{1}{2}$ tons capacity	New	1700.00	Purchased jointly by Ext. Div. and Agric. Exp. Station. Any Univ. owned 4 x 2 larger can haul this. It will haul Ext. Div. smallest Crawler type tractor. Has been used to secure equipment. Soils Dept. has used it this spring to haul equipment used in putting in fertilizer plots at Lovelock & Fallon. Spring 1948.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
5	October, 1947	Naval Ammunition Depot, Hawthorne, Nevada	Torpedo Compressor unit, containing a unit, containing a new 8 and $\frac{1}{2}$ HP Wisconsin AHH engine	New	\$ 3400.00	Contains new engine 8.5 HP largest single cylinder engine, Wisconsin one of the best made. Purchased for engine. Can be used as motor for sprayers, grinders, pumps any type of equipment where gas engine adaptable. Distributed as follows: Elko County Ext. 5 Washoe Co. Ext 1 State Ext. Office 4 Ext. Forestry Project 1 Eureka, White Pine Ext. 1 1 Lincoln Co. Ext. 1 One Ladino Farm U. of N. one unalloted to Co. Ext. use. Cost \$510
6	October, 1947	Reno Air Base, WIA	1 transformer electric	New	200.00	Use not determined yet. This was picked up at a cost of \$5
7	November, 1947	Hamilton Field San Rafael, Calif.	2 buses, 29 passenger LHC.	Used	5000.00	Secured for 4-H club work, Lincoln County and Elko County, negotiations are underway for another bus for Churchill county.
8	May 8, 1947	Sierra Ordnance Depot, Herlong, California	Trailer Tank Water 250 Gals two wheel one ton	Used	450.00	Purchased to secure wheels and tires for (continued)

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
						(Cont'd from pg. 2) for trucks sent to White Pine and Elko counties. Two trailers are stored in Reno the third was sent to White Pine and Eureka. Trailers can be used to make livestock and weed sprayers or water tank for high pressure fog fire fighting. \$198
9	January, 1948	Naval Supply Annex Stockton, Calif.	Pump, portable Bronze Gear driven by B and S 1 and HP gas engine with 25 feet of hose	New	2270.00	With slight modification used as a low pressure weed control spray pump. All county extension offices have been furnished one of these pumps, six are in operation as of this date on weed control work. Pumps were furnished the Farm Mechanics, Agronomy, Civil Engineering and Bldg. and grounds departments. One was sent to the Knoll Creek Exp. Station, also to the Moapa Valley Exp. Sta. at Logandale. In addition ten were secured through the FWA. \$227 each.

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
10	Sept. 4	Army Depot Ogden Utah	5 electric Motor generator sets powered with a B and S 6 HP gas engine 2 and $\frac{1}{2}$ KW AC 110 volts	New	\$ 1250.00	Stored. Will be used as power plants in counties when needed for demon- stration work. Where electricity is not avail- able they will be used for lighting power for oper- ating motion picture machines and still pro- jects and public address systems. \$48.70
11	Jan. 30, 1948	McClellan Field, Sacramento, Calif.	Two wisconsin 3 and $\frac{1}{4}$ x $\frac{1}{4}$ AHP wisconsin single cylinder gasoline engines	New	310.00	In storage. Will be used as a power plant where gas motor this size needed in demonstration or test work.
12	November 21, 1947	Sierra Ordnance Herlong, Calif	Van truck bodies 156" x 90" steel frame	Used	1000.00	Purchased for Nevada Agric. Exp. Station. At present time they are providing temporary storage for the Soils Department at the Reno Agri. Exp. Sta. Alameda Ave. It is planned to place one van at each of the five fertilizer investigative plots being established in Western Nevada counties. They can be locked, are weather rodent and insect proof and make excellent storage. Cost 525

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
13	Jan. to April 1946	Army Tooele, Utah	217 1/4 Phister 1 gal. carbon carbon tetrachloride fire extinguishers stored pressure for relaease of stream 30 to 40 feet steel cylinder in original packages	New	\$65,220	194 used at U of N in- cluding State 4-H Camp, balance used in counties for cooperative rural fire control pro- gram in Pershing, Hum- boldt, Elko, Eureka, White Pine, Lincoln, Nye, Churchill, Lyon, and Douglas Counties. Cooperating farmers put up purchase price, fifty cents each plus freight and cost of handling. Fair value was figured at whole- sale price or \$30 each. List price has been quoted from \$47.50 to to \$80 each.
14	November, 1947	Marine Corps Richmond, Calif.	Two 20,000 lb. cap. acity scales for weighing Livestock. Fairbanks Mfg.	New	500.00	Used at Knoll Creek Experiment Station. Cost \$25
15	April, 1948	Navy, Richmond, Calif.	4000 ft. hard rubber refueling hose, 4 inch inside diameter 6 inch outside	New	2000.00	To be used by soils Dept. in irrigation of test plots. It makes a good pipe. Has bronze casings or connections. \$100.
16	March, 1948	Stockton General Depot, Stockton, California.	One large worthington centrifugal pump and electric motor	New	600.00	To be used by soils de- partment in irrigation of test plots. \$30

<u>ITEM</u>	<u>DATE ACQUIRED</u>	<u>WHERE ACQUIRED</u>	<u>DESCRIPTION</u>	<u>CONDITION</u>	<u>FAIR VALUE</u>	<u>PRINCIPAL USE OR CONTEMPLATED USE</u>
17	May, 1948	Mare Island Shipyard	10 pumps various sizes	Used	\$ 2800.00	For use of Soils Department Experiment Station \$53.
18	May, 1948	Naval Supply Annex, Stockton, California.	10 Briggs and stratton 1 and 3/4 HP gasoline engines	New	635.00	Purchased by Extension Service. This is a desirable size for use in many kinds of testing and demonstration work. \$31.
19	May, 1948	Sierra Ordnance Depot, Herlong, California.	5 Tarpulins 10 x 14	New	90.00	Purchased by Extension for protection demonstration equipment. Cost 45.
20	May, 1948	Riverbank, Calif.	2740 ft. 6 inch inside diameter hose with iron pipe nipples and connections	New	1750.00	Used for irrigation water pipe. Purchased by experiment station for soils department. Cost \$87.50.

PART III

Donations - Equipment received from the
War Assets Administrations, 100% Discount

<u>Item</u>	<u>Date</u>	<u>Installation where secured</u>	<u>Description</u>	<u>Condition</u>	<u>Fair Value</u>	<u>Principal Use or Contemplated Use</u>
1.	January February	McClellan Field Sacramento, California	Magnaflux, magnetic inspection and Testing Machine	Used, but in almost new condition	\$ 1100	Civil Engineering Laboratory - Testing iron and steel to detect weak- nesses.
2.	same	Mare Island Ship Yard, Vallejo, California	Pipe Bending Machine	New, never used.	\$ 1800	Mechanical Engineering Dept., Machine is complete weighs 2700 pounds. Includes a small portable unit. Will bend pipe from 1/4 inch to 4 inches in diameter. Has complete set of new diesel and extra parts.
3.	same	same	same	same	\$ 1800	Soils Dept. Agriculture Experiment Station. Will be installed in new building being erected for the soils department on the campus. The soils laboratory and field work requires considerable machinery. This should prove a valuable addition to the departments equip- ment.
4.	same	same	Tube bending machine	same	\$ 1800	This is a different type than the one described above. The use will be the same as for in Item 3.
	February	McClellan Field	Lapping Machine	Used but new condition	\$ 1300	Mechanical Engineering

<u>Item</u>	<u>Date</u>	<u>Installation Where Secured</u>	<u>Description</u>	<u>Condition</u>	<u>Fair Value</u>	<u>Principal Use or Contemplated Use</u>
5.	April 14, 1948	Ft. Ord, California	1,340 Bedsteads wooden, double decking type, single can be used either as double deck or twin.	Excellent condition, knocked down, have had inside storage	\$ 9380	150 were ordered for use of Junior Livestock Show Exhibi- tion but the order came through for 1340. Three hundred of the beds are to go to the Nevada Girl Scout organizations. The remainder will be divided up between the Future Farmers, State Fair, Elko Fair, Knoll Creek Experiment Station, one small lot goes to the Austin High School. The balance will probably goto University organizations who need them or to the State 4-H Club Camp if it is decided they need any more beds. It will take two fifty foot box cars to haul the beds to Reno and the cost will be 35 cents each.

PART IV.

Donations from Federal Works Agency and U.S. Office of Education
operating under Public Law 697

Purpose to provide
education and training to Veterans of World War II

<u>Item</u>	<u>Date</u>	<u>Installation Where Secured</u>	<u>Description</u>	<u>Condition</u>	<u>Fair Value</u>	<u>Principal Use or Contemplated Use</u>
1	Jan 14, 1948	McClellan Field	10 Wisconsin single cylinder gas engines Model AHF 5 1/2 to 7 HP with reduction gear and gear shift	Unused, New	\$ 1550	Power plant wherever gasoline motor needed. One in Use. Mechanical Engineering Laboratory. One in use Farm Mechanics Laboratory. One sent to Knoll Creek Experiment Station, Elko County for use in preparing for cooperative arrangement with Geology Dept. for summertime instruction 20 G.I.'s Others in storage or on loan to extension service to be used where subject matter can be developed for residence teach- ing in the College of Agriculture.
2	Feb. 25, 1948	Naval Supply Annex, Stockton, California	10 Portable Refueling Pumps and with hose	Unused, New	\$ 2720	Useful as a pump. Buildings and County grounds Dept., using one for this purpose; Farm Mechanics has one; Civil Engineering one; One loaned to Agricultural Experiment Station at Logandale, Clark County. Others in storage until proper use developed.

The FWA has made some 20 filings on equipment that I have called Mr. Gorman's attention to, as equipment that the Colleges of Agriculture, Engineering and Journalism Department could use. At this time the results of the filings are not known due to a book keeping jam in the War Assets Administration. It is known that a number of items requested were not secured, because they were items that federal agencies and Veterans have priority and were taken by them before FWA had an opportunity to acquire such items for the University of Nevada.

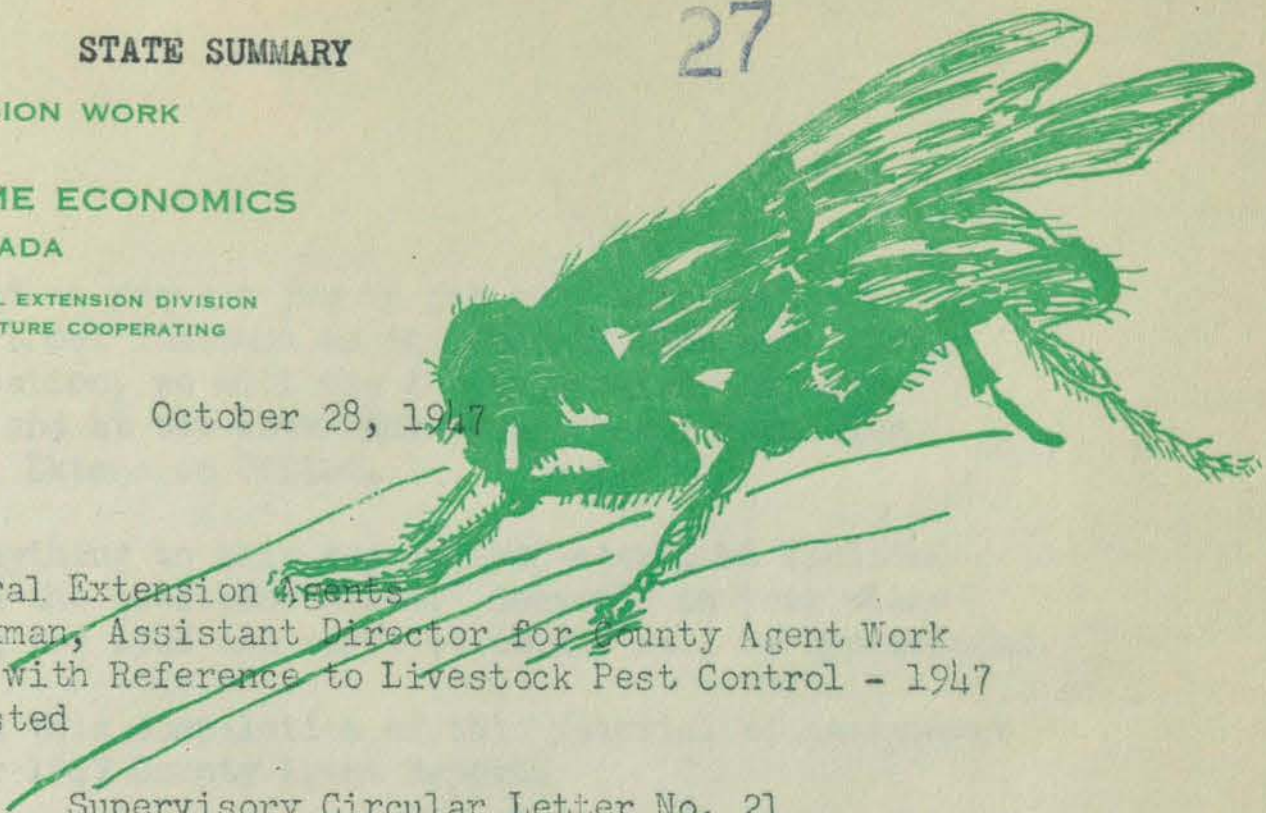
11. BALE STACKER DEMONSTRATED

The bale stacker constructed during the war on the Nevada campus by Louis Titus, in the Farm Mechanics Shop, in cooperation with the writer, was demonstrated in Washoe and Pershing Counties. One of these machines was constructed in Churchill County. Plans for the construction of the machine were completed and printed for distribution to farmers during the year.

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
STATE OF NEVADA

UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION DIVISION
AND U. S. DEPARTMENT OF AGRICULTURE COOPERATING

October 28, 1947



To: All Agricultural Extension Agents
From: Thomas E. Buckman, Assistant Director for County Agent Work
Subject: Information with Reference to Livestock Pest Control - 1947
Reply Requested

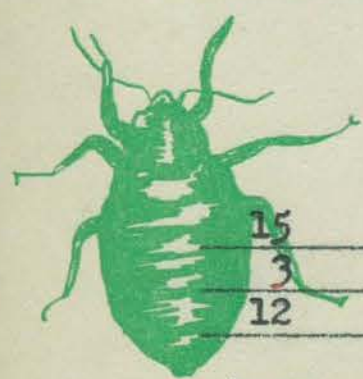
Supervisory Circular Letter No. 21

EXTENSION SERVICE
COUNTY AGENT WORK

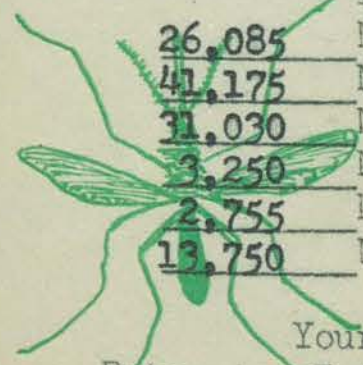


Dear Agent:

Please prepare the following report for each county you work in. Where two agents are employed in the county, both should get together to complete one report for the ~~county~~ State.



- 59 Total number of power sprayers used for livestock pest control in your ~~county~~ State.
 - 30 Operated on owner's farm only.
 - 15 Privately owned for custom work.
 - 7 Cooperative or association owned and operated.
 - 7 Publicly owned and operated.
- 15 Number of cattle dipping vats in operation.
- 3 Number of dipping vats for sheep, goats, etc.
- 12 Estimated number of sprayers that would have been purchased had they been available.
- 4130 Estimated amount in pounds of rotenone used in the control program (in terms of 5% rotenone root).
 - Was there any shortage? 10 No 1 Yes
 - If so, how much.
 - When (month).
- 10,384 Estimated amount, in pounds, of DDT used (in terms of technical product).
 - No Was there any shortage.
 - If so, how much?
 - When (month).
- 944 Number of farms where barns and animals were sprayed for fly control.
- 26,085 Number of cattle treated for grubs. \$ _____ Estimated Savings
- 41,175 Number of cattle treated for flies. \$ _____ Estimated Savings.
- 31,030 Number of cattle treated for lice. \$ _____ Estimated Savings.
- 3,250 Number of sheep treated for ticks. \$ _____ Estimated Savings.
- 2,755 Number of hogs treated for mites. \$ _____ Estimated Savings.
- 13,750 Number of poultry treated for lice, mites, etc. \$ _____ Est. Savings



Your reply will be part of a National summary and is requested by Extension Entomologist, M. P. Jones, and C. D. Lowe, Extension Animal Husbandman.



I had intended to request you to put such information in your 1947 annual report, but inasmuch as the Federal Extension office also wants this information, we will use their questions to make our own state summary and at the same time secure the information desired by the Federal Extension Office.

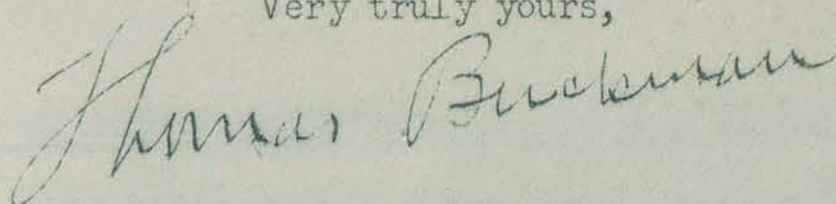
Please add anything to this report that should be included that is not covered in the questions asked. Comments on your plans for Livestock Spraying for 1948 and supplies needed will be appreciated.

You will find this compilation of this material of assistance to you in writing your 1947 County Agent Report.

We are mailing you two copies; one for your reply to us and one for your files.

Thanking you for your reply, I am

Very truly yours,

A handwritten signature in cursive script that reads "Thomas E. Buckman". The signature is written in dark ink and is positioned below the typed name.

Thomas E. Buckman
Assistant Director for
County Agent Work

TEB:ba

14. SPECIAL SUBJECT MATTER MEETINGS ATTENDED

The writer attended the County Agent Supervisory Workshop, or conference called by the Federal Extension Office at Washington State College, Pullman, Washington, March 12, to 21, 1947, and found it very much worthwhile. All of the time spent at the meeting was voted to study ways and means of improving the efficiency of extension work in agriculture and home economics. Outstanding educational authorities from Cornell University and the University of Chicago, addressed the supervisors from the eleven western states. Representatives of the Federal extension office also made valuable contributions to the success of this conference.

15. SPECIAL TRIPS MADE TO SECURE SUBJECT-MATTER FOR USE IN THE COUNTIES

Early in July, the writer visited the San Francisco Bay area to visit manufacturers supplying Nevada with spray equipment and chemicals used in livestock pest and weed control. This trip provided a large fund of information that proved most useful in starting the 1947-1948 livestock spraying program and in making plans for the weed control conference held in October at Minden.

In September, a similar trip was made to the California State Fair where one full day was spent at the Farm Machinery Exhibit, studying spray equipment. Practically every manufacturer in the United States had their latest machines on display, with factory representatives present to demonstrate the use and operation of the machines.

Several trips were made to the California College of Agriculture at Davis, California, to confer with the Agricultural Engineering Department there regarding use of equipment.

NEWS RELEASES DURING THE YEAR

1 9 4 7

NOW SAID GOOD TIME
TO SPRAY CATTLE
FOR CONTROL OF LICE

DURING THE WINTER MONTHS IS A GOOD TIME FOR NEVADA CATTLEMEN TO SPRAY THEIR ANIMALS FOR THE CONTROL OF CATTLE LICE, THOMAS BUCKMAN OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE SAID THIS WEEK.

THE PESTS ARE ESPECIALLY NUMEROUS DURING THE WINTER BECAUSE THEY CAN HIDE EASILY IN THE HEAVY COATS OF THE CATTLE. IT IS DURING THIS SEASON, TOO, THAT THEY DO THE MOST DAMAGE, SUCKING BLOOD FROM THE ANIMALS AND CAUSING SEVERE IRRITATION.

BECAUSE OF WINTER DAMAGE BY LICE, CATTLE GO TO PASTURES IN THE SPRING IN POOR CONDITION.

CATTLE LICE ARE DIFFICULT TO COMBAT ON THE AVERAGE NEVADA FARM OR RANCH, BUCKMAN POINTED OUT THIS WEEK, ON ACCOUNT OF POOR FACILITIES FOR HANDLING THE CATTLE.

SPRAYING MACHINES, HOWEVER, ARE NOW AVAILABLE IN MANY PARTS OF THE STATE AND AFFORD ONE OF THE BEST METHODS FOR CONTROL OF CATTLE LICE.

ANIMALS INFESTED WITH CATTLE LICE MUST BE THOROUGHLY TREATED FROM THE FACE TO THE TIP OF THE TAIL AND DOWN TO THE HOOFS. THE BACKS SHOULD BE DRENCHED.

THERE MUST BE A GOOD STRONG PEN FOR HOLDING THE ANIMALS.

LIVESTOCK MUST BE TREATED TWO OR PERHAPS THREE TIMES WITH AN APPROVED INSECTICIDE.

(MORE)

DUST TREATMENT
OF SEED WHEAT
IS RECOMMENDED

NOW IS THE TIME FOR NEVADA FARMERS TO TREAT SEED WHEAT WITH COPPER CARBONATE DUST TO CONTROL BUNT OR COVERED SMUT, ACCORDING TO THOMAS BUCKMAN, ASSISTANT DIRECTOR OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE FOR COUNTY AGENT WORK.

ONE OF THE ADVANTAGES OF THIS METHOD OF CONTROL, BUCKMAN SAID, IS THAT SEED MAY BE TREATED AT ANY TIME IN ADVANCE OF THE SEEDING SEASON AND THAT NOW, WHEN WORK IS SOMEWHAT SLACK, IS A GOOD TIME.

THERE ARE MANY OTHER ADVANTAGES OF THE COPPER CARBONATE TREATMENT, BUCKMAN POINTED OUT.

IT IS, HE SAID, CONVENIENT, WITH NO SLOPPING OR DISAGREEABLE SOAKING, AND NO SWOLLEN SEEDS.

IT IS ECONOMICAL, SINCE THERE ARE NO SEED LOSSES FROM POOR GERMINATION.

IT IS EFFICIENT, THE EXTENSION MAN SAID. IT EFFECTIVELY DISINFECTS SEED, PROTECTS SEED FROM RE-INFECTION FROM OTHER SEED, BAGS, OR THE SOIL, AND MAKES PLANT GROWTH VIGOROUS FROM THE START.

IT IS ALSO PROFITABLE, BUCKMAN STATED. IT RESULTS IN INCREASED YIELDS AND BETTER STANDS OF BETTER QUALITY GRAIN. SEED DOES NOT DETERIORATE AFTER TREATMENT.

IT IS A SAFE METHOD. COPPER CARBONATE DUSTING REDUCES DANGER FROM SEEDING IN DRY SOIL. SEED GERMINATION IS UNINJURED BY DUSTING.

FIRST ESSENTIAL IN TREATING THE WHAT IS TO DUST THE GRAIN THOROUGHLY WITH THE REQUIRED AMOUNT OF CARBONATE, ACCORDING TO
(MORE)

BUCKMAN, WHICH IS 3 OUNCES OF STANDARD COPPER CARBONATE TO 100 POUNDS OF WHEAT.

MIXING MAY BE DONE IN A BARREL, CHURN, OR CEMENT MIXER.

HOMEMADE DUSTING MACHINES, HE POINTED OUT, ARE EASILY MADE.

THE SECOND ESSENTIAL, HE SAID, IS THAT MIXING SHOULD BE DONE SO AS TO AVOID INHALING OF THE DUST. TREATED GRAIN IS POISONOUS TO LIVESTOCK.

COPPER CARBONATE TREATMENT IS NOT EFFECTIVE FOR LOOSE SMUT OR WHEAT, BEING THE METHOD OF CONTROL FOR BUNT OR COVERED SMUT ONLY.

NEVADA CATTLE HERDS
ARE SPRAYED
TO CONTROL GRUBS

DAMAGE TO NEVADA HERDS BY CATTLE GRUBS IS COSTING NEVADA STOCKMEN A LOT OF MONEY EACH YEAR, ACCORDING TO THOMAS BUCKMAN OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE.

NOT ONLY DAMAGE TO HIDES BUT THE NECESSITY OF TRIMMING GRUB-DAMAGED MEAT FROM CARCASSES AT SLAUGHTER TIME IS AMONG THE TOLL TAKEN BY THE LITTLE BUG.

NO FIGURES ARE AVAILABLE AS TO THE EXTENT OF THE DAMAGE BY GRUBS IN THIS STATE, BUCKMAN SAID, BUT IT IS BELIEVED TO BE APPRECIABLE.

SPRAYING HAS PROVED TO BE ONE OF THE MOST EFFECTIVE AND ECONOMICAL WAYS TO TREAT HERDS OF MORE THAN ONE HUNDRED ANIMALS AND IS NOW BEING PRACTICED IN SEVERAL PARTS OF THE STATE, AND WINTER IS ONE OF THE BEST TIMES TO DO THE WORK.

SEVERAL THOUSAND HEAD OF CATTLE IN THE STATE HAVE BEEN SPRAYED FOR THE PESTS JUST RECENTLY, AS PART OF A STATE-WIDE CAMPAIGN TO CONTROL GRUBS, LICE, AND OTHER LIVESTOCK PESTS.

AS ASSISTANT DIRECTOR IN CHARGE OF COUNTY AGENT WORK, BUCKMAN IS HEADING THE CAMPAIGN.

GRUBS DEVELOP FROM EGGS OF A FLY LAID ON THE HEFL OF A COW, YEARLING, OR CALF. LATER, THEY SPREAD TO OTHER PARTS OF THE ANIMAL.

THE GRUB BORES A HOLE THROUGH THE SKIN OF THE ANIMAL AND ENTERS THE FLESH, WHERE IT FEEDS, EVENTUALLY LOCALIZING UNDER THE SKIN ON THE BACK, WHERE IT CUTS HOLES IN THE HIDE. IN THIS MANNER, GRUBS REDUCE THE VITALITY OF THESE ANIMALS AND CUT DOWN THE VALUE OF THE CARCASS.

(MORE)

FROM-UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE, RENO, NEV.
COOPERATIVE AGRICULTURAL EXTENSION WORK, ACTS OF MAY AND JUNE, 1914.
CECIL W. CREEL, DIRECTOR A. L. HIGGINBOTHAM, EDITOR.

IF GRUBS ARE ELIMINATED DURING THE WINTER, BUCKMAN POINTED OUT, THERE WILL BE NO FLIES IN THE SPRING TO LAY EGGS.

ACCORDING TO EXPERIMENTS IN OTHER STATES, A FARM OR RANCH MAY BE KEPT FREE OF PESTS SOMETIMES MERELY BY KEEPING THE CATTLE ONE-HALF MILE FROM A NEIGHBOR'S CATTLE.

THIS IS POSSIBLE BECAUSE THE HEEL FLY LIVES NOT MORE THAN 2 OR 3 DAYS AND, DURING THAT TIME, MUST LAY HER EGGS.

AS SHE COMES FROM THE GROUND, SHE IS HEAVY WITH EGGS AND CANNOT FLY FAR.

COMPLETE DIRECTIONS FOR SPRAYING OF CATTLE FOR THE CONTROL OF GRUBS, BUCKMAN POINTED OUT, IS IN THE HANDS OF ALL AGRICULTURAL EXTENSION AGENTS THROUGHOUT THE STATE.

CATTLE PEST CONTROL
AUTHORITY
TO HELP STOCKMEN

DEMONSTRATIONS IN THE CONTROL OF LIVESTOCK PESTS IN WESTERN NEVADA WILL BE CARRIED ON IN FOUR COUNTIES DURING THE FIRST TEN DAYS OF FEBRUARY UNDER THE DIRECTION OF ONE OF THE NATION'S AUTHORITIES IN THIS FIELD.

COMING TO NEVADA TO GIVE THE BENEFIT OF MANY YEAR'S EXPERIENCE IN LIVESTOCK PEST CONTROL WILL BE F. W. LAAKE OF DALLAS, TEXAS, RESEARCH ENTOMOLOGIST OF THE U. S. BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE.

DR. LAAKE IS BEING BROUGHT TO THE STATE BY THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE TO CONFER WITH STOCKMEN AND OTHERS, IT WAS ANNOUNCED THIS WEEK BY THOMAS BUCKMAN, ASSISTANT DIRECTOR FOR COUNTY AGENT WORK.

IN ADDITION TO HIS CONFERENCES, DR. LAAKE WILL OBSERVE FIVE DEMONSTRATIONS ON THE CONTROL OF CATTLE PESTS IN FOUR NEVADA COUNTIES.

FIRST OF THE DEMONSTRATIONS WILL BE HELD NEAR RENO ON FEBRUARY 3. THE NEXT WILL BE HELD AT FALLON ON THE 4TH, WITH A MEETING OF INTERESTED STOCKMEN SCHEDULED FOR FALLON THAT EVENING.

THE THIRD DEMONSTRATION WILL BE HELD ON FEBRUARY 6TH AT THE PEOPLES MARKET PACKING PLANT CORRALS AT YERINGTON, THE NEXT AND FOURTH WILL TAKE PLACE IN SMITH VALLEY ON FEBRUARY 7 AT THE PLYMOUTH COMPANY RANCH, AND WILL BE FOLLOWED BY A SIMILAR AFFAIR NEAR MINDEN ON FEBRUARY 8 AND AN EVENING MEETING OF ALL THOSE INTERESTED.

(MORE)

IN ALL DEMONSTRATIONS, SPRAYING OF CATTLE TO CONTROL GRUBS AND LICE WILL BE DONE. AT YERINGTON CONTROL OF SHEEP TICKS WILL BE DEMONSTRATED.

COUNTY EXTENSION AGENTS IN RESPECTIVE COUNTIES WHERE THE DEMONSTRATION WILL BE HELD WILL MAKE LOCAL ANNOUNCEMENTS REGARDING THE TIME OF THE DEMONSTRATION MEETING.

WHILE HERE, DR. LAAKE WILL CONFER WITH CHARLES FLEMING, DIRECTOR OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXPERIMENT STATION, DR. EDWARD RECORDS OF THE DEPARTMENT OF VETERINARY SCIENCE AT THE UNIVERSITY OF NEVADA, DR. WARREN EARL AND GEORGE SCHWEIS OF THE STATE DEPARTMENT OF AGRICULTURE, AND A NUMBER OF COUNTY AGENTS AND EXTENSION WORKERS.

THE VISIT OF DR. LAAKE TO NEVADA IS ANOTHER STEP FORWARD IN THE CAMPAIGN OF LIVESTOCK PEST CONTROL INAUGURATED FOR 1947 AT A RECENT MEETING OF STOCKMEN AND OTHERS AT ELKO. BUCKMAN IS DIRECTOR OF THE CAMPAIGN.

AGENTS ARE READY
TO AID FARMERS
WITH SEED MIXTURES

INFORMATION ON PASTURE AND HAY SEED MIXTURES FOR VARIOUS TYPES OF NEVADA SOIL IS AGAIN AVAILABLE THROUGH THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE AGENTS THROUGHOUT THE STATE.

EITHER IN DOCUMENTARY FORM OR THROUGH PERSONALLY GIVEN HELP, SUGGESTIONS AS TO SUITABLE SEED MIXTURES COVER DEEP, WELL-GRAINED SOIL WITH LOW ALKALI CONTENT; DEEP SOIL WHICH IS POORLY GRAINED; SHALLOW OR SANDY SOIL; ALKALI SOIL WHICH IS WET; AND POORLY IRRIGATED DRY LAND.

ALSO AVAILABLE FOR FARMERS IN THE STATE WHO ARE PLANNING TO SEED LAND FOR PASTURE OR HAY THIS SPRING IS A BULLETIN OF THE NEVADA EXTENSION SERVICE WHICH COVERS MOST GRASSES AND CLOVERS KNOWN TO GROW IN NEVADA. COPIES OF THIS BULLETIN ARE AVAILABLE THROUGH APPLICATION TO THE EXTENSION AGENTS.

"NEVADA FARMERS AND RANCHERS HAVE LONG KNOWN THE NECESSITY OF PROVIDING THE KINDS AND TYPES OF SEEDS BEST ADAPTED TO THEIR PARTICULAR RANCHES," BUCKMAN SAID.

"FACED WITH THE NEED OF PLANTING NEW, ADAPTED GRASSES AND RECOGNIZING THE NECESSITY OF IMPROVING OLD STANDS OF FORAGE PLANTS, THEY SOMETIMES ARE PUZZLED AS TO WHICH VARIETY TO SELECT."

BOTH THE BULLETIN AND THE INFORMATION AVAILABLE FROM COUNTY AGENTS IS DESIGNED TO HELP FARMERS WITH THIS PROBLEM.

BUCKMAN ALSO POINTED OUT THAT TWO OTHER THINGS ARE IMPORTANT IN ESTABLISHING GOOD STANDS.

(MORE)

ONE, HE SAID, IS TO PREPARE THE BEST SEED BED POSSIBLE AND NOT TO EXPECT RESULTS FROM SIMPLY SCATTERING SEED ON THE SURFACE OF THE GROUND.

THE OTHER IS TO AVOID OVER-USE IN THE FIRST YEAR AND TO GIVE THE PLANTING MAXIMUM CARE AFTER THAT.

EAR TICK CONTROL
INFORMATION
READY FOR STOCKMEN

THE LATEST INFORMATION ON THE CONTROL OF EAR TICKS IN NEVADA CATTLE HERDS IS NOW AVAILABLE TO STOCKMEN OF THE STATE THROUGH UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE AGENTS IN THE VARIOUS COUNTIES.

PREPARED BY C. W. RUDE AND H. E. PARISH OF THE DIVISION OF INSECTS AFFECTING MAN AND ANIMALS OF THE RESEARCH ADMINISTRATION OF THE U. S. DEPARTMENT OF AGRICULTURE, THE LEAFLET WAS ISSUED ONLY A FEW MONTHS AGO.

DATA OF THIS TYPE WAS REQUESTED BY CATTLEMEN FROM WASHOE, CHURCHILL, LYON, AND NYE COUNTIES ATTENDING THE RECENT PEST CONTROL DEMONSTRATIONS AND WAS OBTAINED BY THOMAS BUCKMAN, ASSISTANT EXTENSION DIRECTOR, WHO IS IN CHARGE OF THE PEST CONTROL CAMPAIGN.

COPIES OF THE LEAFLET, NO. E-695 BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE, ^{ARE AVAILABLE} WITHOUT CHARGE UPON APPLICATION BY A RANCHER TO HIS COUNTY AGENT.

RUDE AND PARISH POINT OUT THAT THE EAR TICK IS WIDELY DISTRIBUTED IN THE UNITED STATES. IT IS MOST ABUNDANT IN THE SEMI-ARID PORTIONS OF THE SOUTHWEST, INCLUDING NEVADA, AND IS CONSIDERED A MAJOR PEST OF LIVESTOCK IN THAT AREA.

IT ATTACKS CATTLE, HORSES, SHEEP, GOATS, DEER, AND, OCCASIONALLY, MAN.

THE IMMATURE STAGES OF THE TICK ATTACH TO THE EARS. WHEN FULLY FED, THE NYMPH DROPS TO THE SOIL AND MOLTS TO THE ADULT STAGE.

AS THE RESULT OF STUDIES CONDUCTED IN TEXAS, A NEW METHOD OF CONTROLLING THE EAR TICK HAS BEEN DEVELOPED AND IS EXPLAINED IN THE LEAFLET, BUCKMAN SAID.

NEVADA FARMERS
SPRAY CATTLE
TO STOP HORN FLY

SPRAYING TO CONTROL THE HORN FLY, PEST OF NEVADA CATTLE, HAS BEGUN IN THE STATE THIS YEAR.

WITH THE FLY REPORTED NUMEROUS BY LOUIE A. GARDELLA, UNIVERSITY OF NEVADA EXTENSION SERVICE AGENT IN LYON COUNTY, SOME RANCHERS THERE ARE ALREADY AT WORK TO CONTROL THE PEST.

HORN FLY CONTROL DEMONSTRATIONS WERE ORGANIZED IN SEVERAL PARTS OF THE STATE LAST YEAR BY VARIOUS COUNTY AGENTS, WORKING WITH THOMAS BUCKMAN, EXTENSION ASSISTANT DIRECTOR FOR COUNTY AGENT WORK.

AT THAT TIME, FARMERS AND RANCHERS WERE SHOWN HOW TO USE DDT TO TREAT LIVESTOCK AND BARNES USED BY CATTLE.

THAT THE HORN FLY IS A SERIOUS PEST TO LIVESTOCK WAS SHOWN THE RANCHERS, AS WELL AS APPROVED METHODS OF CONTROL.

DURING THE EARLY SUMMER, COWS WERE BEING PESTERED BY AS MANY AS 500 FLIES EACH, WHILE COUNTS ON BULLS RANGED UPWARD TO 5,000 FLIES. BY MIDSUMMER, THE COUNT ON COWS NOT TREATED WITH DDT HAS SPIRALED TO 3,000, AND, ON A NUMBER OF INDIVIDUAL BULLS, ESTIMATES REACHED 20,000.

TREATMENT WITH DDT EITHER GREATLY REDUCED OR COMPLETELY ELIMINATED THE PESTS.

THE LITTLE BLACK INSECT WHICH IS CALLED THE HORN FLY IS A SERIOUS PEST TO LIVESTOCK IN NEVADA FROM THE MIDDLE OF MAY UNTIL FROST IN THE FALL, BUCKMAN POINTED OUT THIS WEEK.

IT CAN BE IDENTIFIED READILY AND DISTINGUISHED FROM THE LARGER FLIES THAT ATTACK LIVESTOCK BY ITS SMALL SIZE AND THE FACT THAT IT FEEDS WITH ITS HEAD DIRECTLY DOWNWARD.

(MORE)

HORN FLIES GENERALLY FEED ON THE PORTION OF THE ANIMAL WHICH LIES JUST OVER THE RIBS. IN MIDSUMMER WHEN FLIES ARE AT THEIR PEAK, THE BACKS AND NECKS OF BULLS ARE FREQUENTLY COMPLETELY COVERED WITH FLIES.

WHEN FLIES HAVE FINISHED FEEDING, THEY ALIGHT ON THE BASE OF THE HORNS, FROM WHICH CHARACTERISTIC HABIT THEY HAVE ACQUIRED THEIR NAME.

SPRAYING WITH DDT TO CONTROL HORN FLIES IS DONE BY POWER DRIVEN SPRAYERS EQUIPPED WITH TWO LINES OF HOSE AND A THREE-NOZZLE BROOM ON THE END OF A 6 FOOT EXTENSION ROD, BUCKMAN SAID THIS WEEK. THE SAME OUTFIT IS USED TO SPRAY BARN.

THE SPRAYERS USED LAST YEAR MAINTAIN A PRESSURE OF 4 TO 5 HUNDRED POUNDS WITH THE NOZZLE AND THROW A FINE OR MISTY SPRAY ON THE CATTLE AND ON THE WALLS AND CEILINGS OF THE BARN.

A FULL-GROWN COW REQUIRES ABOUT 1/2 GALLON OF THE LIQUID AND A YEARLING ABOUT 1/4. THE BACK OF THE ANIMAL FROM THE HEAD TO THE TIP OF THE TAIL IS DRENCHED.

THE 0.2 PERCENT DDT IN WATER SUSPENSION KILLS THE FLIES IN A SHORT TIME.

FLIES SWARM FROM THE ANIMALS AS THEY ARE BEING TREATED, ONLY TO ALIGHT ON THEM AGAIN. IN A FEW MINUTES, FLIES ON THE TREATED ANIMALS BEGIN TO DANCE AND FLUTTER THEIR WINGS, PRESENTLY FALLING TO THE GROUND, WHERE THEY DIE.

DURING THE DEMONSTRATIONS LAST SUMMER, NEVADA LIVESTOCK MEN OBSERVED THAT TREATED CATTLE IN BARN AND PASTURES WERE QUIET AND FED THROUGHOUT THE DAY AFTER DDT TREATMENT, WHILE CATTLE THAT HAD NOT BEEN TREATED WERE FIGHTING THE FLIES CONTINUOUSLY.

EVEN ON THE DAY FOLLOWING TREATMENT, A FEW FLIES WHICH LIT ON THE TREATED ANIMALS, FED FOR A FEW MINUTES, THEN DANCED OFF TO THE GROUND, WHERE THEY DIED.

TREATMENT OF BARN
HELPS COMBAT
FLIES ON LIVESTOCK

TREATMENT OF THE INSIDE OF NEVADA LIVESTOCK BARN WITH DDT IS A GOOD WAY TO COMBAT STABLE AND HOUSE FLIES, ACCORDING TO THOMAS BUCKMAN OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE.

SPRAYING THE BARN WITH 0.2 PERCENT DDT AT INTERVALS DURING THE SUMMER IS AN EFFECTIVE CONTROL OF THESE FLIES.

IF THERE IS NO FIRE HAZARD, BARN MAY BE TREATED WITH 5 PERCENT DDT IN OIL, THE EFFECT OF WHICH LASTS LONGER.

MANY BARN IN VARIOUS PARTS OF THE STATE WERE SPRAYED WITH DDT TO CONTROL FLIES LAST YEAR AND WITH GREAT SUCCESS.

IN CHURCHILL COUNTY ALONE, 50 DAIRY BARN RECEIVED TREATMENT ACCORDING TO EXTENSION AGENT C. A. YORK. ALL DAIRY BARN IN CLARK COUNTY HAVE ALREADY BEEN SPRAYED ONCE OR MORE THIS YEAR.

CONSIDERABLE CARE MUST BE TAKEN IN APPLYING DDT SPRAYS TO BARN, BUCKMAN POINTED OUT. EXTENSION AGENTS IN THE VARIOUS COUNTIES HAVE FULL DETAILS.

DDT, HE SAID, SHOULD BE SPRAYED ON FEED OR HAY, AND NONE SHOULD BE APPLIED TO FEED BOXES. IN MILK HOUSES, SPECIAL CARE SHOULD BE TAKEN TO REMOVE THE MILK UTENSILS AND TO COVER THE SPRAYER AND TABLES WITH PAPER.

IN APPLYING THE SPRAY, BUCKMAN SAID THAT FARMERS SHOULD TREAT THE WALLS, CEILINGS, HANGING WIRES, AND SIMILAR PLACES WHERE FLIES PREFER TO ALIGHT.

SPRAYING WALLS THAT HAVE BEEN COVERED WITH WHITWASH IS OF LITTLE OR NO EFFECT, SINCE THE LIME AFFECTS THE VALUE OF DDT.

(MORE)

STABLE AND HOUSE FLIES BREED IN MANURE PILES NEAR BARNs AND AWAIT THERE FOR RETURNING CATTLE.

THE STABLE FLIES FOLLOW THE CATTLE INTO THE BARNs AND ATTACK THE LEGS AND OTHER PARTS OF THE ANIMAL. THEIR BITE IS VICIOUS AND THEY DRAW MUCH BLOOD FROM THE ANIMALS WITHIN A SHORT FEEDING TIME.

WHEN THE FLIES HAVE FINISHED FEEDING, THEY FLY TO THE BARN AND ALIGHT ON THE INSIDE WALLS, STANCHIONS, AND CEILINGS WHERE THEY REST AND DIGEST THEIR FOOD.

HOUSE FLIES ARE EVER PRESENT--IN HOUSES, IN BARNs, IN FEED-LOTS, AND EVEN IN PASTURES.

FEEDING ON LIQUIDS OF ALL KINDS, THEY SEEM TO PREFER MILK, LIQUID ABOUT SORES, AND SWEET LIQUIDS. HOUSE FLIES ARE KNOWN TO TRANSMIT MANY DISEASES COMMON TO HUMAN BEINGS AND THEY MAY TRANSMIT SOME OF THE DREAD DISEASES OF LIVESTOCK.

HOUSE FLIES FOLLOW CATTLE INTO THE BARNs, WHERE THEY FIND RESTING PLACES, AS DO THE STABLE FLIES.

FARM SAFETY WEEK
IN NEVADA
SET FOR JULY 20-26

FARMERS AND RANCHERS THROUGHOUT THE STATE ARE BEING CALLED UPON BY THOMAS BUCKMAN, ASSISTANT DIRECTOR FOR COUNTY AGENT WORK OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE, TO USE FARM SAFETY WEEK, JULY 20-26, TO CHECK UP ON AND ELIMINATE FARM HAZARDS.

WHILE THE PREVENTION OF ACCIDENTS WHICH COST PROPERTY AND LIVES IS A YEAR-ROUND JOB, BUCKMAN ASKED THAT THE RURAL PEOPLE JOIN DURING THE WEEK TO FOCUS ATTENTION ON THE FARM SAFETY PROBLEM.

AGRICULTURAL EXTENSION AGENTS IN THE STATE ARE COOPERATING WITH THE FARMERS IN TAKING STEPS TO MAKE LIFE ON FARMS AND RANCHES SAFER.

THE OCCUPATIONAL DEATH RATE IN AGRICULTURE NATIONALLY, BUCKMAN SAID, CONTINUES TO BE THE LARGEST OF ANY LARGE INDUSTRY, AND NEVADA FARMERS ARE NOT EXEMPT FROM LOSS.

HE POINTED OUT THAT, ACCORDING TO THE RECORDS OF THE NEVADA STATE INDUSTRIAL COMMISSION, ABOUT ONE THOUSAND ACCIDENTS PROBABLY WILL OCCUR ON NEVADA'S FARMS THIS YEAR, WITH AROUND FIVE DEATHS OR CASES OF PERMANENT DISABILITY, AND FORTY OF PERMANENT PARTIAL DISABILITY.

INCLUDED, OF COURSE, IS NOT THE GREAT LOSS OF PROPERTY, OR THE INCONVENIENCE OR LOSS OF TIME.

FARMERS AND FARM HOMEMAKERS CAN USE THE WEEK ADVANTAGEOUSLY, THE EXTENSION MAN SAID, IN CHECKING UP ON HAZARDS IN CONNECTION WITH

(MORE)

MACHINERY AND EQUIPMENT, BUILDINGS AND THE FARMYARDS, FIRE DANGERS, HANDLING OF ANIMALS, ELECTRIC SYSTEMS, THE USE OF HAND TOOLS, SANITATION AND HEALTH, AND THE FARM HOME.

BUCKMAN IS CHAIRMAN OF THE NEVADA STATE COMMITTEE OF EXTENSION WORKERS AND OTHERS WHO ARE COOPERATING WITH THE FARM SAFETY DIVISION OF THE NATIONAL SAFETY COUNCIL DURING THE WEEK.

MORE STOCK SPRAYING
TO CONTROL PESTS
FORECAST FOR NEVADA

INCREASED SPRAYING OF CATTLE IN NEVADA TO CONTROL EXTERNAL PESTS THIS WINTER AND SPRING WAS FORECAST RECENTLY BY THOMAS E. BUCKMAN, ASSISTANT DIRECTOR FOR COUNTY AGENT WORK OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE.

SPEAKING AT A DEMONSTRATION OF THE USE OF SPRAY EQUIPMENT IN CHURCHILL COUNTY, BUCKMAN POINTED OUT THE VALUE OF LIVESTOCK PEST CONTROL AND SAID THAT THE OUTLOOK IS FOR MORE AND BETTER SPRAYING EQUIPMENT IN THE STATE NEXT YEAR.

OLD MACHINES, HE STATED, HAVE BEEN GREATLY IMPROVED AND ORDERS BY RANCHERS ARE NOW BEING FILLED MORE PROMPTLY.

THREE OF THE BEST TYPES OF SPRAYERS FOR THE CONTROL OF EXTERNAL LIVESTOCK PARASITES WERE DEMONSTRATED AT THE GATHERING ON THE ED VENTURACCI RANCH.

ABOUT FIFTY STOCKMEN, VOCATIONAL AGRICULTURAL STUDENTS AND 4-H CLUB MEMBERS WITNESSED THE DEMONSTRATION.

WITH COUNTY EXTENSION AGENTS CHARLES YORK AND JAMES JENSEN OF CHURCHILL COUNTY IN CHARGE, THE EFFECTIVENESS OF A LARGE, HIGH-PRESSURE SPRAYING OUTFIT MOUNTED ON A TRUCK WAS DEMONSTRATED.

THE 400-GALLON TANK OUTFIT, CAPABLE OF DELIVERING 35 GALLONS A MINUTE AT A PRESSURE OF 1,000 POUNDS, WAS OBTAINED BY THE AGRICULTURAL EXTENSION SERVICE WITHOUT COST FROM WAR SURPLUS.

IT IS MOST USEFUL FOR SPRAYING QUICKLY LARGE NUMBERS OF CATTLE.

IN CONTRAST, A SMALL SPRAY OUTFIT CAPABLE OF DELIVERING 4 OR 5 GALLONS PER MINUTE AT 400 POUNDS PRESSURE FROM ONE HOSE, WAS DEMONSTRATED. (MORE)

YORK AND JENSEN SAID THAT THE SMALL SPRAY OUTFIT IS WELL SUITED FOR THE USE OF SMALL LIVESTOCK OUTFITS.

ALSO DEMONSTRATED WAS A BOX-LIKE, SPRAY-TYPE CHUTE EQUIPPED WITH MORE THAN 20 NOZZLES SET AT ANY ANGLE SO THAT THEY COMPLETELY DRENCH CATTLE PUT THROUGH THE CHUTE IN 8 OR 10 SECONDS.

SHOWN BY THE REPRESENTATIVE OF THE MANUFACTURERS, THIS IS A LOW-PRESSURE CONTROL USED CHIEFLY FOR LICE AND FLIES BUT IS ALSO USEFUL TO CONTROL CATTLE GRUBS THROUGH A DEVICE WHICH SPRAYS LIQUID THROUGH A RAKE-LIKE HANDLE THAT SCRATCHES AN ANIMALS BACK AT THE SAME TIME.

YORK SAID THAT DIFFERENT TYPES OF EQUIPMENT ARE NEEDED BY SMALL AND LARGE OPERATORS.

BUCKMAN CALLED THE ATTENTION OF THE STOCKMEN AND OTHERS TO THE MULTIPLE USES OF THE HIGH-PRESSURE EQUIPMENT--LIVESTOCK EXTERNAL PARASITE CONTROL, WEED CONTROL, AND FIRE FIGHTING.

INSECT PEST CONTROL
WITH LIVESTOCK
SAID TO SAVE GRAIN

CONTROL OF INSECT PESTS ON LIVESTOCK IS ONE OF THE MEASURES BY WHICH NEVADA RANCHERS MAY GET THE GREATEST BENEFIT FROM FEED CONSUMED, ACCORDING TO THOMAS BUCKMAN, ASSISTANT DIRECTOR FOR COUNTY AGENT WORK OF THE UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION SERVICE.

"PRESENCE OF CONSIDERABLE NUMBERS OF CATTLE GRUBS IN THE BACKS OF BEEF ANIMALS", BUCKMAN SAID THIS WEEK, "MAY INTERFERE WITH THE NORMAL FATTENING, AND THE ANIMALS MAY NOT FINISH AS WELL UNTIL THE GRUBS HAVE BEEN REMOVED.

"NUMEROUS GRUBS IN THE BACKS OF DAIRY CATTLE MAY REDUCE MILK FLOW."

ROTENONE, THE EXTENSION MAN SAID, IS THE ONLY MATERIAL RECOMMENDED BY THE UNITED STATES BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE FOR THE CONTROL OF CATTLE GRUBS AND IS BEING USED BY CTOCKMEN THROUGHOUT NEVADA. IT IS SAFE, EFFECTIVE, AND HAS PROVED ITS VALUE THROUGH EXTENSIVE USE OVER A PERIOD OF SEVERAL YEARS. ALTHOUGH ROTENONE WAS SCARCE DURING THE WAR, A LARGER SUPPLY IS NOW AVAILABLE.

LARGE NUMBERS OF NEVADA CATTLE WILL BE TREATED WITH ROTENONE DURING THE NEXT FEW MONTHS, BUCKMAN SAID.

AN ADDITIONAL REASON FOR TREATING ROTENONE IN NEVADA HERDS, BUCKMAN SAID THAT THE ANIMALS MAY ALSO BE WASHED, DUSTED, OR DIPPED.

FORMULAS FOR THESE TREATMENTS AND METHODS OF APPLICATION AS RECOMMENDED BY THE ENTOMOLOGY AND PLANT QUARANTINE SPECIALISTS FOLLOW: (MORE)

SPRAY -- USE $7\frac{1}{2}$ POUNDS OF 5-PERCENT ROTENONE-BEARING DERRIS OR CUBE POWDER TO 100 GALLONS OF WATER. APPLY WITH A POWER SPRAYER AT 400 POUNDS PRESSURE. USE 1 GALLON OF SPRAY PER ANIMAL, HOLDING THE SPRAY NOZZLE 12 TO 16 INCHES FROM THE BACKS OF THE ANIMALS. THIS IS THE TREATMENT MOST COMMONLY USED.

WASH -- USE 12 OUNCES OF 5-PERCENT ROTENONE POWDER AND 4 OUNCES OF GRANULAR LAUNDRY SOAP TO 1 GALLON OF WATER. APPLY ABOUT 1 PINT PER ANIMAL, RUBBING IT INTO THE BACK THOROUGHLY.

DUST -- MIX THOROUGHLY 1 PART OF 5-PERCENT ROTENONE POWDER WITH 2 PARTS OF PYROPHYLLITE OR TRIPOLI EARTH. USE ABOUT $3\frac{1}{2}$ OUNCES OF DUST PER ANIMAL, RUBBING IT INTO THE HAIR AND GRUB OPENINGS WITH A STIFF BRUSH.

DIP -- USE 10 POUNDS OF 5-PERCENT DERRIS POWDER AND 2 OUNCES OF SODIUM LAURYL SULFATE TO 100 GALLONS OF WATER. HOLD THE ANIMALS IN THE DIPPING VAT FOR TWO MINUTES.

PROCEEDINGS

STATE EXTENSION STAFF CONFERENCE

DECEMBER 8, 9, 10, 11 and 12, 1947

UNIVERSITY OF NEVADA

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COMPILED FROM REPORTS OF SESSION SECRETARIES REPORTS

BY

THOMAS E. PUCKMAN

ASSISTANT DIRECTOR COUNTY AGENT WORK

AGRICULTURAL EXTENSION SERVICE

UNIVERSITY OF NEVADA

RENO, NEVADA

PROCEEDINGS - STATE EXTENSION STAFF CONFERENCE
 DECEMBER 8, 9, 10, 11 and 12, 1947
 UNIVERSITY OF NEVADA

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October 27, 1947

TO THE ASSISTANT DIRECTORS AND EXTENSION SPECIALISTS:

Please attend a meeting in my office, at 3:30 p.m., today for the purpose of discussing arrangements and general program for the next State Extension Conference.

Following a conference with President Moseley this morning, a decision was tentatively reached to hold our State Conference December 8-11, with the understanding that the Agents would plan to remain over until December 12th for the purpose of attending the meeting with the Members of the Board of Regents, scheduled for that day, at which time agricultural programs and policies of the University of Nevada will be discussed.

I have telegraphed Director Wilson to ascertain if we can have representation from the Washington office, if our conference is held on the above-mentioned dates.

SIGNED/ Cecil W. Creel,
Director

October 30, 1947

To - All Men and Women Extension Agents and
Assistant Extension Agents
From - Cecil W. Creel, Dean and Director
Subject - State Extension Conference

Circular Letter No. 50

Dear Agent:

Our State Extension Conference will be held at the University of Nevada, December 8th to 12th inclusive. On December 12th, President Moseley has arranged for a general meeting of all members of the University Staff, offering service to ranchers and homemakers, to meet with the Board of Regents of the University. In addition to the Resident Teaching Staff, this of course includes all Experiment Station workers, and all State and County Extension workers, except clerical employees.

It is necessary that you arrange your work in your county or district, so as to be in attendance during the entire period of the conference which will start at 8:30 a.m. Monday, December 8th.

I have appointed Assistant Director Thomas E. Buckman as Chairman of the Program Committee for this conference. Please write him direct any suggestions you may have as to topics you would like to have discussed. There are many matters of National, State, and University interest affecting our cooperative extension work, which must be included for discussion on the conference program. Your suggestions of topics will be welcome, however, and given consideration insofar as program time permits.

The Nevada State Farm Bureau Annual Meeting will be held in Reno immediately proceeding our Conference, December 4-6th inclusive. You are authorized to attend this meeting, and since our future relationships with the County Farm Bureaus will be a topic of discussion, I consider it desirable that you do attend, if you can arrange to be away from your office for the 9 day period required to attend both this meeting and our conference.

Very sincerely yours,

SIGNED/ Cecil W. Creel
Dean and Director

December 1, 1947

Mr. Thomas E. Buckman
Assistant Director
Agricultural Extension Division
University of Nevada

Dear Mr. Buckman:

This is to remind you of the meeting on Friday, December 12th at 2 p.m. in the Education Auditorium, at which all those connected with the agricultural program of the University of Nevada have been requested to be present. All students in the College of Agriculture have also been invited to attend and it is expected that County Extension Agents and other workers in Extension will be present.

The purpose of this joint conference is to give the Regents an opportunity to view the work being done in the combined agricultural effort at the University and to effect a further coordination of the various agricultural services to the students of the University and to the farmers and ranchers of the State of Nevada.

Your presence is urgently requested. Please sign the enclosed copy of this letter and return it to this office as an indication that you will be able to attend.

Sincerely yours,

SIGNED/ John O. Moseley,
President.

(Notice of December 12th meeting sent to each member of Extension Staff
by President Moseley)

PROGRAM

STATE EXTENSION STAFF CONFERENCE

DECEMBER 8, 9, 10, 11 and 12, 1947

GENERAL SESSION COMMENCES ON DECEMBER 8, 1947 at 8:30 A.M.

MEETING PLACE - DECEMBER 8, AUDITORIUM, EDUCATION BUILDING

UNIVERSITY OF NEVADA

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Session Chairman - Thomas E. Buckman
Session Secretary - Fred C. Batchelder

DECEMBER 8th

MORNING

8:30	Opening of the Extension Conference and Introduction of John O. Moseley, President, U. of N.	Cecil W. Creel Dir. Agri. Ext. Service
9:00	The Investigative Program of the Agricultural Experiment Station	C. E. Fleming, Dir. Agri. Exp. Station
9:25	Meadow Hay Investigations	Mark W. Shipley
9:50	Cooperative Alfalfa Research in Nevada	Dr. O. F. Smith
10:15	Recess - Ten Minutes	
10:25	Chemical Composition of Nevada Range Plants and Forage Crops. Quality of Irrigation Waters of Nevada	M. R. Miller
11:00	The Veterinary Control Service, How it Serves the Livestock Industry	Dr. Edward Records
11:25	Cattle Development and Weight Gains under different Management Practices	C. A. Brenen
11:50	Resume of Investigations Conducted at Newlands Field Station	F. B. Headley
12:15	Adjourn for lunch at University Dining Hall	

(Lunch will be served daily for the group at 12:30 p.m., at the University Dining Hall, Campus, Price 70-cents)

Session Chairman - Thomas E. Buckman
Session Secretary - Leonard Anker

AFTERNOON

1:30	Food Conservation	Margaret M. Griffin
1:45	USDA Council for Nevada. Its Function and important Activities for 1948	George Hardman, Chairman
2:15	The Pure Food and Drug Laboratory Services Rendered Nevada's Agriculture	Wayne Adams, Dir.
2:45	How the Extension Rural Fire Protection Program is Progressing	William S. Hayes, Ext. Forester
3:00	Recess - Ten Minutes	
3:10	Assistance Residence Teaching Staff can Render Farmers through County Extension Agents.	V. E. Scott, Dir. Residence Teaching
	(All instructors from College of Agriculture will be present)	
3:40	Presentation by College of Agriculture Instructors as arranged for by Director Scott.	
4:40	Adjourn.	

AGRICULTURAL SECTION

MEETING PLACE-DECEMBER 9, EXTENSION CONFERENCE ROOM

Session Chairman - Otto R. Schulz
 Session Secretary - William A. Goodale

DECEMBER 9thMORNING

9:00	Closing the Farm Labor Program	Otto R. Schulz
10:00	Objectives of the Experiment Station on Soils Experimental Program	C. E. Fleming, Dir. Agri. Exp. Station
10:15	Recess - Fifteen Minutes	
10:30	Rapid Soil Tests	V. E. Spencer
12:15	Adjourn for Lunch at University Dining Hall	

AFTERNOON

1:30	Importance of Soil Reaction (Ph) to Soil Fertility	V. E. Spencer
2:30	Recess - Fifteen Minutes	
2:45	Adapting Field Fertility Experiments to Nevada's Present Needs	V. E. Spencer
3:00	Round Table Discussion of 1946 Field Experiment Program	
4:30	Adjourn	

HOME ECONOMICS SECTIONMEETING PLACE - DECEMBER 9, OFFICE OF DIRECTOR CREEL
EXTENSION BUILDING

Session Chairman - Margaret M. Griffin
 Session Secretary - Lena H. Berry

MORNING

8:30	Introduction and Announcements	Margaret M. Griffin
8:35	Production and Price Outlook for Consumer Goods	E. Wittwer, Chairman Agri. Economics Dept. U. of N. College of Agriculture
9:30	Problems in Housing and Home Management	Dr. Jean Warren, Head, Div of Home Economics, College of Agri. U. of C.
12:15	Adjourn for lunch at University Dining Hall	

MEETING PLACE-AFTERNOON, Room 104-COLLEGE OF AGRICULTURE

1:30	Housing and Home Management (Continued)	Dr. Jean Warren
3:00	Recess - Fifteen Minutes	
3:15	Housing and Home Management (Continued)	Dr. Jean Warren
3:30	Adjourn	

EVENING

7:30	Dinner Meeting - Epsilon Sigma Phi National Extension Fraternity - Place to be announced by	M. Gertrude Hayes
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GENERAL SESSION - DECEMBER 10, 1947 - 4-H CLUB WORK

MEETING PLACE - CONFERENCE ROOM, EXTENSION BUILDING

Session Chairman - Paul L. Maloney
Session Secretary - Noal Clark

DECEMBER 10th

MORNING

- 9:00 Our Obligation to 4-H Club Work under Bankhead-Flannagan, Keeping Members in Club Work at Older Ages Dir. Creel
H. Lee Hansen
- 9:30 Evaluating and Standardizing Club Projects Gertrude Hayes
- 9:50 Report on Club Congress trip
- 9:50 Junior Livestock Show. Value of 4-H Achievement Days Archie Albright
- 10:10 Club Work as related to Dairy Program
- 10:40 Needs of Club Work Relating to New Literature A. J. Reed
Charles York
- 11:00 County Councils - Advantage and Use of.
- 11:00 Report on Club Congress Trip. Need of greater variety of Projects and Making them more adapted Lena H. Berry
- 11:20 Objectives of 4-H Club Work. Needs as relates to New Literature, etc. Hazel Zimmerman
- 11:40 Value of Junior Exhibits to Livestock Shows and prices Paid for Junior Exhibits, etc. Mark W. Menke
- 12:15 Adjourn for Lunch at University Dining Hall

AFTERNOON

- 1:30 The Agricultural Extension News Service, How It Functions -- How stories are Released and to Whom A.L.Higginbotham
- 2:30 4-H Club Camp, Objectives, Outlook, Programs. Louie Gardella
- 2:50 4-H Club Camp, Objectives, Outlook, Programs . Olive McCracken
- General Discussion of Entire Club Camp Program Group
- 4:30 Adjourn.

GENERAL SESSION - DECEMBER 11, 1947MEETING PLACE - EXTENSION CONFERENCE ROOM

Session Chairman - Cecil W. Creel,
 Director, Agri. Ext. Service
 Session Secretary - Mark W. Menke

DECEMBER 11thMORNING9:00

How the Nevada Extension Service will operate in the
 Counties of Nevada, under Chapter 90, Page 299,
 1947 Statutes of Nevada - to be presented by Dir. Creel
 County Commissioners - cooperative
 Agreements necessary
 Director prepares budget
 Budget adopted, tax levy to be made by
 commissioners.
 Extension Fund-what is it - where disbursed.
 Record of Claims - Where kept.
 State's Cooperative share - what is it.
 Copy of budget filed, who prepares it - who
 signs it.
 Modifications of the budget-how made.
 State appropriation placed - where,
 Monies expended by director.
 Counties eligible.
 Property previously acquired--title.
 1947 budgets in effect.
 Disposition of balances 1947 - County F.B. Balances
 Farm Bureau Relationships.

One Hour Discussion.

County Agents Reports, Project Plans and
 Reports - Discussion Leaders

T. E. Buckman
 M. Griffin

One Hour Discussion.

12:15

Adjourn for lunch at University Dining Hall.

AFTERNOON

Session Chairman - Thomas E. Buckman
 Session Secretary - John H. Wittwer

1:30

The Place of Irrigated pastures in Nev. Agriculture F. Willhite

1:40

Livestock Problems F. W. Wilson

(Continued)

GENERAL SESSION - DECEMBER 11, 1947 (CONTINUED)

MEETING PLACE - EXTENSION CONFERENCE ROOM

DECEMBER 11thAFTERNOON

2:00

ECONOMIC OUTLOOK FOR 1948

Dr. Eldon Wittwer
Chairman, Agri. Eco-
nomics Dept.

1. Introduction of U. of N. Agricultural Economics Members and Brief Statement of Work for each is responsible.
2. Sources of Outlook and Economic Information That is available to County Agents.
3. Distribution of Economic Reports and Publications with information as to where or how they may be obtained by County Agents.
4. Presentation of general economic Outlook and Agricultural Outlook and price information for 1948.

3:00

Recess

3:10

5. Price and market outlook report for leading Nevada Farm Products.

L. E. Cline

3:35

6. General Discussion of Economic Situation

Group

4:30

Adjourn

EXTENSION SERVICE CONFERENCE DECEMBER 12, 1947

Morning reserved for individual conferences.

12:15 a.m. Adjourn for lunch at University Dining Hall.

GENERAL SESSION DECEMBER 12, 1947

MEETING PLACE - AUDITORIUM, EDUCATION BUILDING

AFTERNOON

2:00 Meeting of all agricultural workers with the Board of Regents of the University of Nevada.

After meeting with Board of Regents, conference will adjourn.

THE REGISTRATION OPENING DAY OF CONFERENCE DECEMBER 8th, 1947

William Helphinstine	Madge Elder
William S. Hayes	Wayne Adams
Cecil W. Creel	James G. Jensen
Fred Batchelder	Charles R. York
C. E. Fleming	Mrs. Andrew Rice
Dr. Joe Robertson	O. F. Smith
J. Kirk Day	Dr. Fisher
Forest Willhite	Ferren Bunker
E. E. Wittwer	Prof. Blodgett
Edward Records	C. A. Brennen
Howard Mason	Dr. Larry Dunn
Lloyd Dowler	M. R. Miller
V. E. Scott	Louis Titus
Paul L. Maloney	Thomas E. Buckman
L. E. Cline	John O. Moseley
J. H. Wittwer	Noal F. Clark
Edward C. Reed	Mark A. Shipley
Otto R. Schulz	Lew R. Goodner
Mrs. Alice B. Marsh	F. B. Headley
Donald Drown	Lena H. Berry
Jessie Pope	M. Gertrude Hayes
Mark Menke	Clarence Byrd
Dr. Lowrance	Leonard A. Anker
J. Hazel Zimmerman	A. J. Reed
Dr. Lehenbauer	F. W. Wilson
Rose M. Spezia	Louie A. Gardella

MINUTES OF STATE EXTENSION STAFF CONFERENCE
Morning Session - December 8, 1947

The meeting was called to order by Session Chairman Buckman at 8:40 a.m., who introduced Cecil W. Creel, Director of the Nevada Extension Service.

Director Creel: This is the first Extension Conference since the War and is very timely since about half of the Extension Staff have been employed since the war. It is just 33 1/3 years ago that a Memorandum of Understanding between the University of Nevada and the U. S. Department of Agriculture set up extension work in Nevada. Dr. Verner E. Scott is the oldest extension employee in Nevada with 33 years. The first grant in aid for extension work was \$10,000 and has grown until this year it will be \$227,000 besides the Farm Labor program. Most heads of the agricultural departments of the University will talk before the group during the conference.

Director Creel then introduced Pres. John O. Moseley, of the University of Nevada. Dr. Moseley welcomed the group to the campus and called attention to the meeting of the agricultural staff to be held on December 12. He mentioned a few of the problems facing a president of a University and pointed out that the most serious difficulty at the University of Nevada is the lack of money. He announced that organized correspondence courses have been started in some subjects and that he hopes that they will soon have some in agriculture for people of the state.

Mr. Buckman announced that luncheon would be served at the University dining hall.

Mr. Buckman introduced all new members of the Extension staff and also introduced Mr. C. E. Fleming, Director of the Agricultural Experiment Station. Mr. Fleming reported upon the experiments now being carried on by the Experiment Station and pointed out that the Experiment Station is largely supported by Grant-In-Aid Funds and that these funds must be spent on specific projects. He traced the growth of the experiment stations in the United States from the Hatch Act until the present time. He reported that there are now nine departments in the Nevada Experiment Station carrying on 26 projects at the present time. He reported in detail work being carried on in tomato plant culture, soil fertility, and meadow hay and grazing experiments.

Mr. Buckman introduced Mark A. Shipley, of the Experiment Station staff, who spoke on his work in meadow hay and grazing experiments using cattle from weaners to selling weights started in 1939 to determine a forage acre requirement factor. A copy of Mr. Shipley's remarks is attached.

Mr. Buckman introduced Dr. Oliver F. Smith, Plant Pathologist of the USDA, who spoke briefly on the alfalfa experiments carried on in the state. A copy of his remarks are attached.

Mr. M. R. Miller was then introduced and explained the workings of the State Chemical Laboratory. He said that the State Laboratory was started as a research laboratory but because of the small personnel and the large volume of analytical work being done, very little research is done. He described the method of analysis of a sample of hay to give the listeners an idea of what the work consists of. He pointed out that feeding analysis methods had hardly changed in the last 75 years.

Dr. Edward Records traced the growth of the Veterinary Control Service from 1887 until the present time. He explained that the State Board of Livestock Commissioners were a separate organization but they have always appointed the state veterinarian to be their executive secretary although this is not called for by law. He said the heaviest year the Veterinary Control Service has ever had was 1938 when 51,000 diagnoses were made. He reported that there are now 30 vets in the state which is a good ratio to the number of livestock. He said that most specimens for diagnosis should be sent in by vets whenever possible but if no vet is available, any one can send them in.

The meeting recessed for lunch.

Respectfully submitted,

SIGNED/ Fred C. Batchelder, Session Secretary

MEADOW HAY AND GRAZING INVESTIGATIONS
BY
MARK A SHIPLEY

During the past six years this station has been gathering information relative to this work. In the years 1942 through 1945 samples of meadow hay were taken at weekly intervals from a small inclosure in a meadow in north eastern Elko County. Beginning about June 15th each year and each week thereafter until September 15th the hay was clipped by hand from ten square feet of surface area. The hay clipped from these small areas each week was dried, then weighed and a sample of each analyzed chemically. Regrowth on each area was clipped on September 1, and treated in the same manner as the hay clippings.

During the summer of 1945 the hay was harvested from a meadow in Elko County for the purpose of conducting actual feeding experiments during the winter hand feeding season of 1945-46. Part of the hay was harvested on July 10 and the remainder on September 10. Thirty head of two year old steers weighing an average of 535 pounds were purchased in Elko County. The hay and steers were shipped to Fallon, Nevada where feeding facilities were available at the Newlands Field Station.

The feeding tests were started on November 21, 1945 and ended on March 1, 1946. The steers were fed in individual pens. Each steer had access to water and salt at all times and were fed all of the hay they would eat but nothing else. Each steer was weighed every two weeks. The hay was weighed into each pen daily and that which was not eaten from the previous feeding was weighed back.

At the end of 100 days the steers that were fed hay harvested on July 10, weighed 151 pounds more per animal than they did at the beginning of the feeding test, while those on the hay harvested September 10, weighed 2 pounds per animal less.

The preceding discussion summarizes the work completed on this project to March 1946 and has been reported in the 1946 annual report of the board of control. In order to convey a complete picture of the work done on this project it seems essential that it be included in this report along with the following discussion of the work done during the past year.

At the close of the 100 days feeding period all of the steers were put on the same feed and were on a good summer range in Elko County until sold on September 13, 1946. At selling time the steers that were fed the early cut hay outweighed the others by an average of 69 pounds per animal. At the price received per pound for the steers there was \$10.35 difference per animal in the two groups.

The last individual weighings of each steer in this experiment were on September 13, 1946. However, these steers were placed on meadow hay aftermath for 21 days beginning September 14, 1946 and ending October 4, 1946 and when weighed as a group on October 4, the average gain for each steer was 2.79 pounds per day after applying a 3 per cent shrink.

Due to the economic importance of the results obtained from this project to the agricultural and livestock interests of the state it seemed essential that the work be continued over a sufficient number of years to obtain a long time average and extended in scope to include the rewards or penalties that are reflected in weight gains or losses of beef cattle due to the various haymaking, hand-feeding and grazing practices.

During the summer of 1946 a field station was established near Contact, Nevada in Elko County, and is now known as the Knoll Creek Field Station. By December 10, 1946 the building program at the Knoll Creek Station was far from completed but had advanced far enough that the essential feeding corrals, hay storage and living quarters were ready in time to begin the first winter feeding tests.

The 30 steers used in these first feeding and grazing experiments were purchased from the U. C. Land and Cattle Company at Contact, Nevada as weiner calves on December 1, 1946, weighing as an average 435 pounds.

The meadow hay used during the first winter feeding season at the Knoll Creek Station was harvested from a native meadow approximately seven miles from the station and known as the Vineyard Ranch. The hay classed as early cut was harvested on July 8, and the late cut hay on August 25. The forage composition was extremely uniform throughout the meadow where both early and late cut hay was harvested.

On December 12, 1946 the 30 weiner steers were weighed individually and put into the 24 feeding pens. The 15 steers in each group were placed as follows: nine pens of 1 steer to the pen and three pens of 2 steers to the pen. Water and salt was available to all steers in the pens at all times. A lean-to shed provided shelter on the west side of each feeding pen.

All hay fed was weighed into the various pens daily and that hay refused by the steers was weighed back at regular 3 day intervals. One group of steers received hay harvested July 8, 1946 and the other group hay harvested August 25, 1946.

At the end of a 138 day feeding period which fell on April 30, 1947 the steers that were fed the early cut hay gained an average of 86.4 pounds per steer, while those steers which received late cut hay gained 35.0 pounds in the same period.

At the close of the winter hand feeding period on April 30, 1947 both groups of steers were put on the open range where they remained until September 3, 1947. At the close of this summer grazing period on September 2, all steers were weighed individually. At that time the steers which had been fed early cut hay outweighed those fed late cut hay by 33.8 pounds per steer. At the price received for beef in the fall of 1947 the 33.8 pounds more per steer for those which were fed early cut hay represents approximately \$7.50 if they had been sold on September 3.

After all of the steers had been weighed on September 3, 1947 ten of each group were put on native meadow hay aftermath and regrowth and five of each group were put back on the same summer range. All steers from the meadows and range were again weighed on October 4, 1947. On October 4, the steers that were put in the meadow on September 3, made very large gains. The ten that were fed early cut hay during the 46-47 winter period and turned in the meadow September 3, gained 38 pounds per steer while those fed late cut hay gained 73 pounds per steer during this 30 day fall grazing period. The five that were fed early cut hay and turned back on the open range September 3, gained 22.5 pounds per steer while the other five gained 40 pounds each in the same period.

The 30 steers used in these feeding and grazing tests will be carried for one more year under conditions as described for the past year and then sold as long two year old steers in the fall of 1948.

An invitation is extended to the Extension Service, College of Agriculture and Soil Conservation Service to cooperate with the Agricultural Experiment Station on future planning of work undertaken at the Knoll Creek Station.

ALFALFA DISEASE INVESTIGATIONS - Dr. Oliver F. Smith

When the alfalfa program was first started it was readily recognized that the bacterial wilt disease is the worst enemy of alfalfa in most of the alfalfa growing areas of western, central, and northern Nevada, especially where irrigation water is plentiful. At the time the alfalfa project was initiated here it was known that alfalfa varieties differ considerably in their resistance to the organism which causes this disease but it was not known which varieties were best adapted to conditions in Nevada and would give the largest yields of hay. It was quite obvious that what was needed most of this state was definite information on the adaptability of available varieties in order that the alfalfa growers could be advised as to which variety or varieties are best suited to their needs.

To get information on the adaptation of alfalfa varieties for Nevada, variety test plots were established in several counties of the state. Test plots consisting of practically all the commonly known varieties of alfalfa have been established in Washoe, Churchill, Pershing, Lyon, Elko, White Pine, and Nye Counties. Actual hay yields have been taken from those close enough to Reno and plots located at more distant places are used for observational purposes only.

In Douglas County yields were taken on 18 different varieties for a period of five years. At the end of that period most of the varieties had been killed by the bacterial wilt organism. The only varieties which still had a good stand were the wilt resistant varieties, Ranger, Orestan, and Hardistan. For the first two years several of the good producing varieties such as Baltic, Grimm, Ranger, Cossack, Orestan, and Dakota Common gave good yields and there was not a significant difference in the amount of hay produced by these varieties. By the third year bacterial wilt had begun to kill plants in the wilt susceptible varieties and their yields began to decrease. In the fifth year the wilt susceptible varieties yielded only 57% as much hay as the wilt resistant varieties, Ranger and Orestan. For the five-year period, Ranger and Orestan average 1.5 tons of hay per acre more than the susceptible varieties. Furthermore these wilt resistant varieties produced about as much hay the fifth year as they did the first and second year. This fall which is the seventh year for these plots, Ranger and Orestan still have very good stands whereas the other varieties are killed out nearly 100 percent. Thus if yields would have been taken more than five years the differences in yield for the seven year period would have been still greater.

On the Newlands Field Station at Fallon, we have just completed a five year test of several of the best yielding commonly grown alfalfas varieties and 15 new strains of alfalfa which have been developed at other Experiment Stations in cooperation with the U. S. Department of Agriculture. The purpose of this type of test is to keep well informed on new varieties of alfalfa which are being developed in order to make sure we have "up to the minute" information, for our alfalfa growers on all varieties which may be placed on the market. In this test Ranger has yielded equally as well as any other strain or variety in the test. For comparison, just a few yield data will be given. These figures are average yearly yields for the five year period. Ranger 7.93, Buffalo 7.56, Grimm 6.97, Orestan 6.93, Ladak 6.93 and Baltic 5.78. These results show that for areas where bacterial wilt is a serious factor in alfalfa hay production, Ranger is as good or better than anything else on the market.

Another advanced nursery of this type will be established in Nevada next year. In it will be four new varieties which have been synthesized this year by the U. S. Department of Agriculture in cooperation with some of the agricultural experiment stations located in the middlewest and probably others from some of the experiment stations in the east. These new synthetics are alfalfas which may be placed on the market in the near future and we want to have the necessary information on them when and if they are increased for commercial production.

On the Experiment Station here at Reno we have had several varieties under test. The results have been much the same as in other areas where bacterial wilt is a major factor in alfalfa hay production. The wilt resistant varieties Ranger and Orestan have proved to be the best with Ranger a little better than Orestan.

The results which I have summarized so far were obtained in areas where bacterial wilt is an important factor in hay production. While bacterial wilt is a factor in most of the alfalfa growing areas of western, central, and northern Nevada, it is not at present doing excessive damage in all the areas. We had one set of plots near Lovelock, in Pershing County, where bacterial wilt is not at present a very serious factor in hay production.

In the test plots at Lovelock 12 different varieties of alfalfa were seeded. Results from this test show that Ranger, Ladak, Cossack, Grimm, Baltic, and Kansas Common gave about the same production. Ladak was quite outstanding the first year but was not better than the others after the first year.

To summarize these results from different locations we can quite definitely say that where bacterial wilt is a factor in alfalfa hay production, Ranger or Buffalo should be used and preferably Ranger. Orestan is a good wilt resistant alfalfa but has not yielded quite as well as Ranger or Buffalo. Furthermore, Orestan is a poor seed producer and due to its unpopularity in the middlewest and east, due to its high susceptibility to leaf spot disease organisms, there is very little chance that seed of this variety will ever become commercially available. For areas where bacterial wilt is not a factor in hay production such varieties as Cossack, Grimm, Baltic, and in some areas Ladak are equally as good as Ranger or Buffalo.

It may be of interest to some to know of the origin of Ranger and Buffalo. Ranger was developed at the Nebraska Agricultural Experiment Station through a cooperative project between that station and the U. S. Department of Agriculture. It is a synthetic of 5 wilt resistant selections, from Cossack, Turkistan, and Ladak. Buffalo was developed at the Kansas Agricultural Experiment Station as a mass selection from Kansas Common. It was also developed through a cooperative project between that station and the U. S. Department of Agriculture. Both of these alfalfas were developed especially for resistance to the bacterial wilt organism. Ranger is best adapted for the northern alfalfa growing areas and Buffalo is best adapted to the central alfalfa growing areas of the United States.

I know that several of the county agents have been recommending Ranger alfalfa to the farmers on the basis of tests which have been conducted in your county but it has been very difficult to obtain seed and in some cases the price has been extremely high when available seed was located. However, seed is becoming more plentiful all the time. Good possible sources for Ranger seed are: Carter Snell, Miles City, Montana; Sunland Industries, Inc., Fresno, California; and F. Lagomarsino & Sons, Sacramento, California. If you want seed of Ranger you should place your order early.

Another factor which is important in hay production in some areas of Western Nevada is the stem nematode Ditylenchus dipsaci. This species of nematode invades the young crown buds of alfalfa causing them to become swollen, prevents stem elongation, and in cases of severe infection, causes the crowns of the plants to rot. This disorder of alfalfa is much less widespread in its distribution than bacterial wilt but where the causal agent is present and environmental conditions are favorable, it will kill a stand of alfalfa quicker than the bacterial wilt organism.

The stem nematode trouble is at present located only in some of the irrigated valleys of the west. Since practically all the alfalfa breeding work has been done in the middle west and east, the nematode problem has been largely untouched.

Wherever the stem nematode is present, bacterial wilt is also present. Thus it is necessary to have a variety of alfalfa which is resistant to the organisms which cause both of these diseases. Fortunately, we do have one variety of alfalfa which is highly resistant to the stem nematode and is fairly resistant to bacterial wilt, but it is only a fair seed and forage producer. This alfalfa has been named Nemastan, due to the fact that it is of Turkistan origin and is resistant to stem nematodes. This alfalfa is being used as parental material for developing a new alfalfa which will be resistant to stem nematode and to bacterial wilt. We believe that substantial progress has already been made in that direction. We have ten selected strains from Nemastan which have been under test for two years here on the Experiment Station farm, where the stem nematode and bacterial wilt are both factors in alfalfa hay production. This year the four best selections yielded over eight tons of hay per acre in three cuts as compared with yields of 6.07 and 4.80 tons per acre for Ranger and Buffalo respectively. In other tests here on the station, where stem nematode has not been a factor, Ranger has yielded 8 tons of hay per acre. Thus the nematode damage has caused a reduction in yield of about 2 tons of hay per acre.

These results are only preliminary however and are not for publication as further testing is necessary to determine the resistance to bacterial wilt of some of these selections and to determine their ability to withstand winter conditions in Nevada. However, our plans at present are to put together as a synthetic four of the best selections we have at present for a possible new variety which will be resistant to stem nematode and bacterial wilt.

We believe that another important factor in alfalfa hay production is the proper management of the crop. It is a common practice in many parts of Nevada for farmers to pasture their alfalfa fields in early fall and late spring besides cutting two or three crops of hay. It has been shown by Experiment Station workers in the middle west and east that when top growth is removed too frequently from alfalfa it hastens the thinning of stands and reduces yields of hay in subsequent years. This phase of alfalfa hay production has not been thoroughly investigated for the western region of the U. S. So we do not know the extent of damage being done to alfalfa by fall and spring pasturing. We believe that damage is being done and we are now beginning some experimental work which will give us information on this phase of alfalfa production.

Afternoon Session
December 8, 1947

MARGARET M. GRIFFIN

Subject: FOOD CONSERVATION

The Nevada State Food Conservation Committee was appointed by Governor Pittman as a part of the National Program. This committee consists of the following: Mrs. Christie Corbett, Chairman; Margaret M. Griffin, Vice-Chairman; Miss Mildred Swift, Secretary; Miss Mildred Huber, Mrs. Andrew Rice, Mrs. Florence Bovett, and Mrs. Gloria Bowman.

Griffin explained the committee's activities in sponsorship of the "Friendship Train" and thanked Extension personnel for their work in contributing to the filling of two freight cars with food. Attached is a report prepared by the Nevada Production and Marketing Administration in regard to the quantity of foodstuffs donated by Nevadans to the "Friendship Train".

Miss Griffin went on to explain that the State Livestock Feed Conservation Committee is in control of the Livestock Feed Conservation Program, while her committee was charged with the responsibility of human food conservation. It was explained that the U.S.D.A. Councils in each county were to cooperate with both of these committees.

The major burden of food conservation work will probably fall on Extension personnel. Home Demonstration Agents are already working on this problem.

GEORGE HARDMAN

Subject: U.S.D.A. Councils for Nevada:
Its Functions and Important Activities for 1948.

Hardman explained that U.S.D.A. agencies were involved in these councils and that their purpose is to provide a meeting place for the exchange of information for all personnel working on agriculture on the county level. The councils should result in a unified agricultural program. Hardman stated that the big job for county U.S.D.A. councils at the present time is the long-range planning for post-war agriculture. He urged county agents to become familiar with the chart entitled "Potential Crop and Livestock Requirements as Related to National Agricultural Resources". Attached is a copy of this table.

Hardman also urged that county agents study a letter he had written to the county councils entitled, "Long Range Agricultural Policy and Programs of the U.S.D.A."

Re-activation of the county U.S.D.A. councils was urged by Edward C. Reed, executive assistant of the state production and marketing association. He suggested, however, that meetings only be called when there was matter of sufficient importance to justify the time being spent.

CHESTER A. BRENNEN

Subject: Cattle Development and Weight Gains under Different Management Practices.

Brennen compared gains made to weaner calves fed in open fields and those fed in lots. He stated that insufficient additional gains were made by lot-fed calves to justify feed lot expenses provided the calves had a wind break protection.

He compared early and late calving with the younger calves being fed protein supplement during the winter. The results he explained, show it was advisable to feed protein supplements to late-dropped calves in order for them to catch up with April-born calves.

Brennon explained the advantage of April calving over late summer calving in that at the same feed cost, the April-born calves could be marketed at 20 pounds heavier weights.

Included herein is a summary of Mr. Brennen's conclusions drawn from a study of different cattle ranch management practices in northeastern Nevada.

Plans for a self-feed cattle feed rack and a grain trough designed by Brennen, and in practical use at the Knoll Creek Experiment Farm may be secured by writing Mr. Brennen at Elko.

WAYNE ADAMS

Subject: The Pure Food and Drug Laboratory, Services Rendered Nevada's Agriculture.

As Director of the state Pure Food and Drug Laboratory, Adams explained his organization assisted very much the dairy industry. Tests were made on butter, milk, cream and cheese for both individuals, wholesalers and manufacturers. Analyses of domestic water supplies are also made by his department Adams concluded by explaining that they check each stock scale in Nevada at least once a year, these checks being made shortly after August 1st and prior to most cattle sales.

F. B. HEADLEY

Subject: Resume of Investigations Conducted at Newlands Field Station.

Headley reported that as a result of work conducted at the Newlands Field Station, 29 bulletins have been published. They cover the following subjects: Swine (7); Dairy (8); Alfalfa production (3); Turkeys (3); Beef Cattle (1); White Top (1); Agricultural Economics (6). Copies of these bulletins may be obtained from the Nevada Experiment Station.

V. E. SCOTT

Subject: Presentation of the staff of the College of Agriculture, with an explanation of assistance they may render County Extension Agents.

Scott explained the primary functions of the various departments of the College of Agriculture. He emphasized that instructors could be called upon for special assistance by Extension personnel. Following this, he introduced the faculty by departments, having each elaborate on the type of assistance they could render.

Biology Department

- | | |
|------------|------------------------------------|
| Billings | - Plant Identification |
| Lehenbauer | - Plant Diseases and Horticulture |
| Fischer | - Zoology and Wild Life Management |

- Miller - Identification of Fish, Reptiles and Invertebrates
- Lowrance - Animal Physiology

Civil Engineering Department

- Blodgett - Surveying, Structural Design, Power and Water Development

Agronomy Department

- Robertson - Cooperation in Forage Production and Related Demonstrations
- Dunn - Agronomic Demonstrations

Animal Husbandry Department

- Wilson - Cooperation in all Animal Husbandry Lines

Agricultural Economics Department

- Wittwer - General Economic Problems and Outlook Information

Farm Mechanics Department

- Titus - Application and Development of New Types of Farm Machinery.

Home Economics Department

- Swift - General Home Economics
- Marsh - General Home Economics
- Pope - General Home Economics
- Rice - Nutrition

A SUMMARY OF CONCLUSIONS DRAWN FROM A STUDY OF DIFFERENT CATTLE
RANCH MANAGEMENT PRACTICES IN NORTHEASTERN NEVADA

By C. A. Bremen

Nevada Agricultural Experiment Station

Reno, Nevada

December 1, 1947

(1) That weaner calves and yearlings, as normally handled in Northeastern Nevada, make most all of their gains during periods of the year while grazing green forage and gain little or lose weight during the rest of the year.

(2) That long yearling steers wintered as usual in Northeastern Nevada, suffer a very substantial winter shrinkage which is at least 50 pounds or more one year with another.

(3) That calves born in April and pushed along by feeding them adequate good quality hay in the field after the fashion usually practiced by stockmen, develop late good 780 pound feeders when they are twenty months old (one winter on the ranch) or good 1111 $\frac{1}{4}$ pound feeders at 29 months of age after spending two winters on the ranch. That similiar calves fed in a feed lot at hay racks during the winter they were weaners, but otherwise handled as usual, weighed only a few pounds more as long two year olds than calves fed and handled as usual in Northeastern Nevada (Table I 1127# - 1111 $\frac{1}{4}$ # - 13 #).

(4) That calves born in May and June may be developed into good 750 pound feeder steers at sixteen months of age by feeding them all the good bright hay they will consume from feed racks along with a moderate protein supplement. That April calves handled and fed as above made practically the same weight at seventeen months of age without the protein supplement.

(5) That in general, high winter gains are followed by low summer gains, and conversely shrinkage or low winter gains are followed by high summer gains.

(6) That the use of a feed lot and feed racks are not needed to develop early spring born calves into satisfactory feeders, but rather are useful and practical to save hay during soft weather when the ground is muddy. The feed lot and allied equipment also offers a means of hastening gains and developing short age steers into satisfactory feeders at a younger age than usual, which might be beneficial under conditions found on some ranches especially during years when a favorable price ratio of feed to cattle exists (i.e., low feed cost and high priced finished cattle).

(7) That the old "V" type hay racks and plank grain bunks normally used in Northeastern Nevada are extremely wasteful which may be largely eliminated by replacing them with the improved box type hay rack and grain bunk designed by the Nevada Agricultural Experiment Station.

(8) That summer c calves under Northeastern Nevada conditions and husbandry practices do not develop into satisfactory feeder steers until they are at least twenty four months of age (two winters on the ranch) when they weigh approximately 900 pounds in contrast to calves born in April which weigh slightly more than 1100 pounds after two winters on the ranch.

(9) That ranchers generally should plan their husbandry practices to have all, or as many calves as possible, born in the spring as soon as the weather is safe for them to drop.

(10) That it appears practical to start feeding hay to yearling steers a few weeks earlier in the fall, and also to hold them on hay a little later in the spring than usual in order to avoid the heavy shrinkage usually suffered by such market cattle during these critical periods of the year.

(11) That once winter shrinkage is checked or added weight gains are made by an improved practice, then the steers should be thereafter handled in a manner to preserve or further that headway; otherwise, they are likely to lose most, if not all, of the weight gain made.

Services that can be rendered to Ranchers and Homemakers
Of Nevada by the University of Nevada Agricultural Department
By: Director V. E. Scott

The organization of the University of Nevada Agricultural plant, while perfectly clear in its legal set up, is quite confusing to the agricultural public for which it is set up to serve.

There are 4 distinct agencies within the University and several agencies outside, all of which serve agriculture in different ways, and most of which duplicate some of the activities of each other. The general public classifies most of them in a loose way and may contact any one of them for information pertaining to another.

On the Campus Are:

1. College of Agriculture
2. Public Service - including
 - a. Experiment Station
 - b. Extension Service
 - c. Food & Drug Laboratory

Agencies affiliated with, but not a part of the University;

1. State Department of Agriculture
2. U. S. Soil Conservation Service
3. Nevada State Farm Bureau, and several other whose names identify the type of service rendered and which are not duplicated.

Experiment Station

The primary function of the Experiment Station is to conduct planned research, however, the researchers often times are best fitted to disseminate information about their specific projects and this is considered a good practice so long as it does not interfere too much with planned projects. Usually, contacts such as this are advantageous to the researcher.

Extension Service

The function of the Extension Service is the dissemination of Agricultural knowledge to people, both adult and youth, with no restrictions as to persons, but with an attempt to operate on a project basis.

The Extension Service is the logical organization to receive requests for Agricultural information and it is organized for the purpose of carrying out such activities. In Nevada, the Extension Service does not employ specialists in each field of agricultural endeavor, hence it is necessary to depend on all groups of specialists.

Food and Drug Laboratory

The Food and Drug Laboratory has a specific duty of checking weights and measures and enforcing food and drug laws. In addition to this the laboratory does

many services such as water and other analyses not set up in its specific duties.

You have already discussed Public Service facilities and you are familiar with the functions and services of organizations outside the University. It is my pleasure to discuss the responsibilities of the College of Agriculture. By "College of Agriculture" I mean all of the departments in the University that have a part in agricultural instruction, for example, Dean Palmer teaches "Rural Electrification", hence he is a member of the Agricultural faculty.

The College of Agriculture is made up of two schools, Agriculture and Home Economics; its primary function is the teaching of residence students. Before there was an Extension Service, the staff of the College of Agriculture did extra curricular work in the form of conferences, lectures, letters and services for people of the state. With the advent of the Extension Service, much of the service and information work was taken over by Extension Agents and Extension Specialists, however, with our small organization, it is impossible for the Extension force to cover all agricultural fields, hence, as I said before, the specialists in all departments of the University are called on for such information and services as they can give without interfering too greatly with the duties which are specifically assigned to them.

The University employs specialists for the teaching of Agronomy, Anatomy, Animal Husbandry, Agricultural Economics, Bacteriology, Botany, Chemistry, Dairy Husbandry, Electrical Engineering, Farm Mechanics, Home Economics, Horticulture, Physiology of Animals, Poultry Husbandry, Range Management, Soils, Zoology, wild Life, Game Management and of course a large number of others that do not deal directly with farmer interests. I have listed these specialties not only to remind you of some of the courses you may have studied while in College, but to indicate fields on which you are at liberty to draw when need arises. I am also taking the liberty to tell you some of the names of specialists, and I have asked some of them to talk to us about their line of work. May I introduce Professors of Home Economics, Miss Swift, Miss Pope, Mrs. Marsh and Mrs. Rice; from the Department of Biology, Dr. Lowrance, Dr. Billings, Professor Fisher and Professor Miller; from the College of Engineering, Dean Palmer, Electrical Engineering, Professor Blodgett, Civil Engineering, Professor Van Dyke, Mechanical Engineering.

We are trying to shift Dr. Lehenbauer from the Department of Biology, offering him the position of Professor of Horticulture in the College of Agriculture. He has served the people of Nevada in that field for many years, and may I introduce the other members of the College of Agriculture. Dr. Dunn, who is teaching Soils, Dr. Robertson, teaching Agronomy with a specialty of Range Management. Professor Titus, teaching Farm Mechanics and known to all of you for his Extension work in that field as well as for his work in farm accounts. Professor Wilson, Animal Husbandry; you have all taken work with Prof. He is best known among livestock men for his work among breeders of purebred cattle and sheep, and for his work in promoting quarterhorse activities. He is in charge of official testing of dairy cattle in Nevada. Dr. Wittwer, problems in Agricultural Economics; Mr. Walker, Manager of the College farms and specializing in selection of dairy cattle. I have varied activities in Poultry Husbandry, Dairy Husbandry, and Farm Management.

Now that you know us, let me ask some of the men and women to talk for themselves about their departments.

I asked Dean Palmer to tell us something about electrical problems. He said the department is glad to have you send problems to the Engineering College. Sometimes specific information is needed in order to give correct information. The Dean can not be with us today, but he will be glad to have you make appointments for conferences if you have engineering problems.

Miss Pope, of the Department, Home Economics .

Dr. Lowrance, Chairman of the Department of Biology.

Professor Blodgett, Chairman of the Department of Civil Engineering.

Dr. Robertson, Professor of Agronomy.

Contribution to Nevada By Home Economics

By: Miss Jessie Pope

The Department of Home Economics at the University of Nevada has a rich contribution for the homes, and those people in the homes, of Nevada.

Our library is steadily growing and contains much of the old and more of the new in the area of home living.

We daily answer questions concerning what piece of equipment is most efficient; what fabrics are the best buy; which ones shrink the least; are the new ones really good? ---and, why, since I came to Nevada is my baking so unsuccessful?

Home Economics includes the field of child development and family living. Why is three year old John's behavior socially undesirable; how much does it cost to have a baby?

Questions from those who insist upon keeping the family dining room ask, how to serve a Christmas dinner to all Uncle Walter's relatives, and not be worn to a frazzle.

There are always those who wish, or need to be aware of, their calories--shall I eat potato--or what can I serve my family when meat is so high? How can I stretch our food dollar?

Your home problems are our problems; therefore, we invite you to share them. You will find our Home Economics family on the campus understanding and helpful.

The altitude recipes for butter cake have been worked out by the class in experimental cookery.

December 9th meeting
Agricultural Extension Staff
Held in Conference Room
Farm Labor and Soils meeting

W. A. Goodale, Secretary

Mr. Otto Schulz, acting as chairman, called the meeting to order at 9:15. Present were members of the State Extension Staff, the Agricultural Experiment Station, the Faculty of the College of Agriculture and others.

Mr. Schulz opened the meeting under the heading of "Closing the Farm Labor Program". He stated that the job is about completed as far as the extension service is concerned, and the duties and responsibility of Farm Labor placements will soon be turned over to other agencies. After a witty story about his ear ringing and his eyes popping out, Schulz went on with the meeting.

Mr. Schulz briefly gave the reasons for and how the farm labor program was formed. He then showed and explained charts showing the activities of the program for the full five years and it was brought out that 1945 had been the big year in placements and also the hardest year of the program.

Due credit was given the people in the counties where the big job really was and met in fine order.

It was pointed out by Mr. Schulz that placement of farm laborers was not all of the program but that accomplishments in labor utilizations, exchange of labor, labor saving machinery and other things had been a very important part of the program.

In another chart shown by Mr. Schulz it was shown that a total of about 30,000 placements had been made over the five year period of the program. Of those 30,000 placements 18,800 had been local placements made within the counties, 2564 were Victory Farm Volunteers, 2794 individual Mexican Nationals, 5472 Intra-state workers, mostly sent out from the Reno office and 1000 Inter-state workers.

The Emergency Farm Labor Program expires on December 31, 1947 and will thereafter be handled by the U.S.E.S. and State Employment Services as before the war. This agency, it was reported will maintain offices and operate about on a par with their pre-war schedule.

Mr. Schulz stated that there is between 20 and 30 Mexican Nationals still in the state that they have been moved out rapidly by the labor branch recently and that an effort is being made to retain the few Mexicans still in the county. Negotiations are being carried on with the Mexican Government for this purpose and if such can be arranged it will probably be handled by the Emigration Service.

A great deal of concern was shown by the agents as to what would happen after the change over. Most of them felt that the farmer would continue to go to their offices to obtain help in getting workers. Mr. Schulz suggested a letter be sent to all farmers informing them of the change and he distributed a sample letter that might be used for the purpose. Some of the agents were concerned over the possibilities that their offices would still be jammed with farm workers who would not go to the offices of the U.S.E.S.

John Wittwer wanted to know if his office could still screen Agricultural Workers. Director Creel explained that this would be a matter to be settled between Wittwer and the Manager of the U.S.E.S. office in his town but no funds would be obtainable for Mr. Wittwer to do this work.

Quite a discussion followed as to the success of a farm labor placement program under the new setup.

Mr. Schulz expressed thanks to the agents and others connected with the program for the cooperation he had received.

Director Creel was then asked to say a few words. He extended the thanks of M. L. Wilson and M. E. Wilson to the agents, Schulz and others connected with the Farm Labor program for the fine manner in which they had conducted the program. Creel then explained briefly the legislative procedure which terminated the program and did not allow for any type of farm labor or utilization in extension. Differences between major farm groups in Washington and insistence of C.I.O. and other labor unions, he said, was responsible for the lack of legislators continuing some

kind of farm labor program. He impressed on the agents that the loss of funds from the Farm Labor program would probably result in the Extension Service having to economize in several ways.

Mr. Creel then passed on to the subject of soils. He is looking with great expectations to the soils program and the coordination between Experiment Station, Extension Service and the College of Agriculture in such a program. New problems are arising every day in the soils field, he said, and he expects the soils research program to be one of the biggest and most important to be carried on.

Recess was called for at this time 10:15. Mr. Schulz reopened the meeting at 10:30 with another Schulz story and stated the rest of the day would be taken up with the discussion of soil and related problems. He said that since people of the state were becoming more soil conscious and new problems were being brought up every day that it was a bit of luck to have such men as Spencer and Dunn at the University with their knowledge of and experience in soil.

Director Fleming of the Experiment Station was then called on by Schulz. Mr. Fleming stated that soils should be discussed and talked about more fully, that the lack of data on soils of the state, created a great problem to begin with. Lack of feed and forage in Nevada seem prevalent and should be studied. Nevada depends very much on the irrigated lands. He said that the Experiment Station had a good and well equipped laboratory where studies of soils could be made but field work was another thing. There is on hand no equipment or implements to carry on field work but this condition will soon be remedied. Plans for a new building 20' X 48' are now under way. The building will be used for storage and mixing fertilizer, storage and development of field equipment and for heavy, noisy machinery. All other help possible is to be given the soils department in getting the soils research program under way. The program will now be adequately financed and new equipment will be added rapidly. A technician is to be added to the Soils Department staff to care for pot cultures and soils testing. Funds were short when Carson Valley project was started but by wonderful cooperation between agencies concerned the first year work was carried on successfully. Mr. Fleming closed by saying the program had his complete backing and many unknown things concerning soils of Nevada were going to be found out.

Mr. Schulz then turned the meeting over to Mr. Spencer for his demonstrations and explanations of rapid soils tests.

Mr. Spencer opened with the remark that in the beginning there was no agriculture, so also in the beginning there was no soils tests. He then outlined the development of soils tests, how they were made and for what substances tests were made.

Who uses soils tests?, almost every one present at the meeting could benefit by a test that would be positive. Fertilizer manufacturers and salesman in order to show need for fertilizer so that they could sell it could all use good positive soils tests. Most soils tests were developed and built around reactions of soils in the humid areas of the east. Much is yet to be done in developing good positive soils tests that will fit our semi-arid conditions of Nevada. So Mr. Spencer advised to be careful about drawing conclusions on reactions of the present tests.

Spencer then gave a discussion and explanation of rapid soils tests. Tests are of two kinds, reaction and nutrient (plant food). He then demonstrated and explained the phenolphthalein and combers tests for alkali and acid soils and then tests for nitrogen, potassium phosphorus. It was lunch time when this was completed and meeting was adjourned at 12:15.

Meeting was again called to order by Mr. Schulz and turned over to Mr. Spencer for his talk on P^h and soil fertility.

Mr. Spencer explained that all substances are divided into three parts, acid, neutral and alkaline. P^h is a symbol by which the acidity or alkalinity of a soil is expressed. P^h was explained very fully.

Slides were shown to demonstrate how tests were made in a given field and from these tests how a soils map can be built up to show the need of and the use of sulphur or other corrective substance. Mr. Spencer discussed the possibility of a testing program of this type in the high schools of the state. Also as a possible 4-H project.

Mr. Spencer then went into a discussion of field experimental plots and the importance of replications for accurate results. Results of the work on the field plots were shown by slides and an explanation of the results obtained was given.

Mr. Spencer closed his talk with the remark that if a successful experimental program is to be carried out in the state the Experiment Station or the University of Nevada should have title or long lease the ground where experimental fields are to be established. Security and control of these fields are necessary for a successful long time program. After passing out a questionnaire on soils problems in the counties the meeting was closed by Mr. Schulz.

Some of the agents declared this meeting to be one of the most interesting and constructive of any meeting they had ever attended.

HOME ECONOMICS SECTION

December 9, 1947 - Extension Building

Session Chairman - Margaret M. Griffin
Session Secretary - Lena Hauke Berry

Minutes of Meeting

Speaker - Dr. Eldon Wittwer, Chairman, Agricultural Economics Department, College of Agriculture, University of Nevada.

TOPIC - PRODUCTION AND PRICE OUTLOOK FOR CONSUMER GOODS

Our National wealth depends upon our population. The population of the United States is increasing rapidly. Four major population trends are as follows:

1. Number of families are increasing. More homes are being established. Extra large market for homes, appliances and furniture.
2. Population is growing older. Greater percentage 20-60 years. More workers. More people over 60. Greater demand for medical services. Social Security and unemployment.
3. Smaller cities increasing in size. Movement west is continuing.
California has increased 36.2%
Oregon has increased 33%
Washington has increased 35%
11 Western States have increased 24.1%
The birth rate is increasing.

4. Population is becoming more homogeneous. By 1950 only about 1% will be foreign born. People are learning to like similar types of things.

Labor

The size of our labor force is increasing - approximately 60,000,000 workers. More women are working. Formerly 1 out of 8. Now about 1 out of 4.

Longer working hours - 40-54 hours per week. There is now a downward trend which will likely continue.

Goods can't be used until they are produced. Productivity per man hour has increased. Machines may replace more workers until labor shift can be made.

1850 - 6% of energy used in production was mechanical.

1920 - 17% mechanical

6% human

21% animal

1947 - 96% mechanical

2% human

2% animal

Consumer goods will be 50% higher by 1950. There will also be an increase in the amount of dairy products used.

Clothing

3 long-time clothing trends:

1. Shift from home and custom made clothing to factory made.
2. Synthetics - Rayon and Nylon - replacing cotton, wool and silk.
3. Greater standardization of clothing - sizes, materials.

Housing

1940 census shows that 16 million homes out of 37 million need remodeling. During next 10 years, 20 million homes will be needed - cost will be 115 billion dollars, based on the 1944 dollar.

Household Equipment

Trend is increasing for more electrical and refrigeration equipment.

Consumer Transportation

Increasing as income increases.

100,000 personally owned cars and airplanes.

In 1916 a person traveled 400 miles.

In 1940 a person traveled 2400 miles.

By 1950 there will be 36 million automobiles.

Medical Care

Increases as income increases.

Advances in medicine have decreased the death rate.

Deaths resulting from cancer and heart disease have increased - almost

Doubled in past 50 years.

Social Security payments will be increased approximately 80%.

Economy

U. S. economy has been unstable. The big problem is "How To Overcome This Unstable Economy."

Social and racial problems.

World peace problems.

Do we know how to use and cope with these problems for prosperity?

Prices of farm products at highest point now.

Prosperity will depend on how we use the facilities at hand.

Speaker - Dr. Jean Warren, Head, Division of Home Economics, College of Agriculture, University of California, Davis, California

TOPIC - PROBLEMS IN HOUSING AND HOME MANAGEMENT

New Housing Research

Miss Maude Wilson of Oregon is head of a new housing research project that is now underway. At the present time survey blanks to be used are being decided upon.

A survey will be made in 10 rural areas in 10 western states. \$3,300.00 appropriated for each state. Survey will be conducted in:

1. Subtropical irrigated areas
2. Livestock group areas.

The survey is to be made of farm homes

1. As they are now.
2. What people do in their homes.

Plans will be formulated for

1. Remodeling of old homes, and
2. Standardization of new homes

Study of Kitchen Utensils and Menus

200 families were given a set of utensils to use in cooking and asked to report on the following questions:

1. What food was cooked for last 6 meals?
2. What utensils were used?
3. How were vegetables cooked?

Summary

12 large kitchen utensils are needed by the typical homemaker in California:
3 saucepans - 1 qt., 2 qt., 4 qt.
2 frying pans - 6 inch, 10 inch
2 mixing bowls- 1 qt., 3 qt.
2 baking pans or cake pans
1 large kettle or tea kettle
1 toaster
1 coffee pot

Smaller utensils needed:

can opener
butcher knife
paring knife
spoons - measuring and stirring
1 cup measure
egg beater
flour sifter
bottle opener
pan cake turner

Refrigeration

Frozen food industry will revolutionize food preservation.
Individual home units will be within reach of all.
Urban homes will have refrigerators with 1 cu. ft. freezing storage.

Other Equipment

Dishwashers require lots of hot water.
Washing machines
Many automatics
Non-automatics very good and economical to use. Use less water.
Electric and gas driers still expensive. Spindriers even more expensive.
Water heaters can be improved.
Ironers or mangles are a saving with flat work.
Irons - many types and shapes on the market.

Kitchen Storage and Kitchen Equipment

Kitchen storage should provide:
Cupboards for dishes and
Cupboards for pots and pans.
Window shades may be used for doors on cupboards.
There is no ideal kitchen arrangement. Basic rule - Keep stove, sink and meal table at a minimum distance apart for ease of preparation and satisfactions.
If no one is happy, you have failed. Personal factor is the one important factor.
3 factors leading to satisfactions;
1. Arrangement.
2. Utilization of equipment.
3. Personal Habits.

Household Tools

3 essential tools needed - hammer, saw, screwdriver.
Have tools marked so you can identify your own.
Yankee Spiral - Ratchet Screw Driver No. 30-A is a good one to own.
Keep nails in glass jars so they can be easily seen.
Start hammering with hammer directly on nail head. Use ball peen hammer.
To start a screw use a gimlet to dig a hole in board. Remove gimlet and put in screw. Brace and bit may also be used. Use a good screw driver - a long one is best. You buy screws by length and diameter.

Wire brads 1- $\frac{1}{4}$ X 18
Nails $\frac{7}{8}$ X 18
Regular nails
finishing nails

Use either 4 or 6 penny nails for most household purposes.

Cross cut saws

Sold by no. of teeth per inch.

Select one with shorter sawing blade.

Panel saw or cabinet makers saw - 10 teeth per inch.

Always draw a line where sawing is to be done.

Place thumb of left hand along pencil line and start sawing on the line.

Partitions in drawers:

For partitions attach batten to outside board with 5/8" brads.

Use quarter rounds to divide the dividing partitions.

Nails and screw eyes can also be used to support the partitions.

Use coping saw to make curved edges.

Ironing

1. Have ironing board proper height. Adjustable board can be regulated to correct height.
2. Wide ironing board - 18 inch. (With a wide ironing board and a sleeve board one can iron almost anything.)
3. Sprinkle clothes and have moisture evenly distributed. (Wax paper and seal sacks are good to use.)
4. Fold napkins and handkerchiefs when starting to iron.
5. Drilling makes a good cover for an ironing board. Wet drilling then stretch on to dry.

House Cleaning

1. Mothers should have help with house cleaning.
2. Vacuum and brush upholstery then go over with mixture of 1 cup warm water and 1 cup solvent. Use sponge or cloth.
3. Remove spots with cleaning fluid.
4. Use glue to clean woodwork and painted walls - 1 tsp. glue (Le Pages) 1 pint warm water. Wash with cloth. Leaves shiny surface.

MORNING SESSION, December 10, 1947

Remarks by Paul L. Maloney

Remarks By Director Creel

National Association of County Agents

Bankhead Flannagan - 4-H work is primary obligation for such funds.

Remarks by Mrs. Bovett

Remarks by H. Lee Hansen

4-H Projects - Beef, Dairy, Hogs, Chickens

Parent relationship

Long-time projects emphasized

County 4-H Council importance

Recreation

Build a good program, select worthwhile projects, visit projects, keep up personal contacts with members and parents. Organize councils, encourage savings, have recreation and livestock shows.

Remarks by Gertrude Hayes

Report on Club Congress trip

Remarks by Archie Albright

Junior Livestock Show

Junior Livestock Board

Dressler
Hopper
Albright
Dowler
Fred Wilson

\$1500 from state
600 from donation to finance show

Achievement Day comments as carried out in Washoe County.

Remarks by A. J. Reed
Project work and planning work
Remarks by Charlie York
County Councils for 4-H Clubs

DECEMBER 10, 1947
Afternoon Session

Remarks by Al Higginbotham
Extension Service job is teaching rural people not attending college in manner of demonstration and publication.
Home, church, etc. place people get education in addition to school.

Extension Methods
Mass communication medium is most important, Newspapers is one, Radio, Magazines
35 newspapers in state.
90,000 copies per issue
110 newstories average in United States.
49 No. in Nevada
In service training in newspaper and radio McGaban of KOH

Remarks by Lena Berry
Comments on club congress, value of such a trip to members, friendship train donation - meal costs up to \$6000.00
\$15000.00 in scholarships given.

Remarks by Hazel Zimmerman
Objectives of 4-H Club Work - boys and girls chance to become good citizens
Comments on literature - need for something on Gardening, more simple record books dairing books for 4-H, Forest project, projects continued from year to year, fire, home repair projects.

Remarks by Mark Menke
Judges give reason for place winners
Livestock prices too high - suggestions made for something to bring about reasonable prices.

Remarks by Louie Gardella
4-H Club Camp - from adult viewpoint
Committee work on camp problems

Remarks by Olive McCracken
4-H Club Camp - from youth viewpoint.

MORNING SESSION DECEMBER 11, 1947

The session was called to order by Director C. W. Creel at 9 a.m.
Dr. Oliver Smith announced that Dan Best, Woodland, California has certified Ranger Alfalfa for sale at 75¢ per pound.

Director Creel next started an explanation of the status of the Extension Service in relation to Farm Bureau, the Nevada State Legislature and County

Commissioners under chapter 94 page 299, 1947 statutes of Nevada. Budgets and clearing up of bills before January 1 were discussed in detail. Claims are to be signed by the senior man agent, sent to the Director of Extension, then to the University Controller and then to the County Treasurer.

Mr. Gorman suggested the 25th of the month as the deadline for which all claims should be in the State Extension office for each month. It was decided that bills should flow from the county to the State Office as they are received and Mr. Byrd was to prepare a transmittal sheet for this purpose. Three copies will be needed, one to be retained in the county office.

Mr. Buckman suggested that a copy of the True-Howard agreement be sent to each county office.

Director Creel instructed all agents to clear all records of Farm Bureau business from the Federal Extension offices before December 31, 1947. This condition may be different in counties where extension offices are in county buildings or other than Federal buildings.

Assistance can be given to cooperatives etc. and borderline cases should be carefully examined.

Further instructions were to be sent to county offices after a meeting with the State Farm Bureau Directors and Director Creel.

Lists of County Farm Bureau offices were to be left with Director Creel.

Business of Soil Conservation districts boards is not to be kept in Extension offices by extension agents.

Mr. Buckman discussed Extension reports required and project reports, mentioning monthly statistical and narrative reports, annual reports and progress reports.

Two monthly narrative and statistical reports are required in the state office, the men's go to Mr. Buckman and Maloney and the women's go to Miss Griffin and Mr. Maloney.

William Hayes next spoke on fire control districts, their formation and operation. MARK W. MENKE -- Secretary

December 11, 1948 - EXTENSION SERVICE CONFERENCE

1:30 p.m.

Thomas E. Buckman,
Chairman

Thomas E. Buckman introduced F. M. Willhite, who spoke on Irrigated Pastures.

Subject-matter will be summarised by the Extension Service Office and mimeographed.

Range pastures at mercy of elements.

Irrigated pastures subjected to elements only when rain fall fails.

Dairy (1)

Therefore county agents should encourage use of pastures -

At Newlands Project on Dairying \$54.00 per acre.

If dairy men can make money, beef man should.

1. Improved soil fertility, and
2. More substantial citizen in community.

Have enough pasture to carry cattle over interim periods from time of taking cattle off range even though purchase of hay becomes necessary to carry stock thru.

Limitations to feeding based on costs of production versus profit factor. Better utilization of pasture and feed can be effected thru use of weaner calves rather than mature stock.

For Nevada ranges, must have high type of range-high type of cattle and operator (Chester Brennen)

Western Nevada counties must direct effort toward development of irrigated pastures to meet economic situations that are before us.

F. Wilson. Take old poor cows- bred to calve-pasture-feed to condition for sale. Clean up and replace year after year. But -

Otto Schulz-the best utilization of irrigated pastures thru weaner feeding.

F. Wilson- Success seems to have followed buying well ranged cattle in the Humboldt River Ranges, buying feed to finish and selling-even so. Pasture represents most economic feeding.

Thomas E. Buckman - We are looking forward to a Field Day for irrigated pastures sometime during May 1948 at Newlands Station.

2:05 p.m. Prof. F. Wilson - Desires to work with agents on Production and Marketing of Meat animals. Shall be available after January 1, 1948. Field trips whereby problems might be studied at close range.

Fenced range areas adjacent to farms offers splendid advantages to the producer. Horses of little value on pastures and ranges taking place of cattle questionable economic management. Indians might be helped in his management problems.

Taking advanced students to various parts of state where worthwhile practices are being carried on would be helpful to the industry. F. Wilson would have two months out of the year to assist in work.

Thomas E. Buckman - Work on Liver-Fluke seriously needed.

F. Wilson - Livestock auditorium for conventions with Agricultural, Livestock, Mining exhibits facilities probably on Fair Grounds area, underway.

Gardella - 80% of cattle including calves affected with liver-fluke. Eradication of internal and other parasites have possibilities of immense savings in feed time and money.

F. Wilson - These conditions are evident in most Nevada valleys

Gardella - Livers in deer are infected also.

C. Brennen - Plans for yards - feed racks - boxes developed to meet needs of individual ranchers assembled under a class in unit for cutting - branding - spraying - dehorning and all activities of the stock ranch. Must be learned - and subject to change through improvement. *

* Must be supplemented for larger operations. (See Plan)

Thomas E. Buckman- Hog feeders - Louie Gardella got plans from York of Fallon. Buckman announced and asked for three leading projects done and three leading projects for 1948, wanted from each agent for Cecil W. Creel before they leave the Building.

Dr. Eldon Wittwer - Associate Economic workers. Dr. Wittwer is a full time teacher, College of Agriculture, and member of the Extension Service as Agricultural Economist.

V. E. Scott - Farm Account Work - Farm Management - Income Taxes

L. E. Cline - Marketing Specialist - Production Specialist - Turkeys and Poultry

Howard Mason - Experiment Station work. Project leader for marketing research under Hope-Flannagan appropriations. Land appraisals - Custodian of local surveys and maps

Publications in field of Agricultural Economics

Howard Mason - Department has prices on farm crops and commodities dating back to 1909 - month by month. Brennen has cattle prices back to 1909

Just use good judgment in interpretations of outlook reports - may change with weather and other disturbances.

LONG TERM OUTLOOK FOR WESTERN AGRICULTURE.

1. The rapidly growing population, which has already caused and will continue to create agricultural adjustment problems in the west.

Population increase since 1940. California 42.2%, Oregon 39.3, Washington 26.7, United States average 8.5%.

2. Program for new development of irrigation.

Proposed irrigation projects would furnish supplemental water to over one million acres in Idaho, 2.3 million acres in California and water for over 2 million acres of new land in eight western states.

Other projects could bring another 2.5 million acres under cultivation.

More water makes more intensive cultivation possible.

3. Sharp increase in intensity of use of resources.

Transfer from beef to dairy; extensive to intensive crops.

4. Problems of huge range area. Problems of maintaining high level of forage production. As the range area is relatively fixed, improved forage production, more effective control and prevention of fires, reseeding of depleted range, proper stocking rates, and improvements in handling and feeding livestock are the major means toward increased production.

Now to summarize, the prospects for the future has its strong spots and its weaknesses.

- I. Favorable to a continued rise in activity, lending strength to the boom, are these factors:

1. Building boom through at least the first half of 1948 seems assured.

High expenditures for new equipment.

2. Foreign aid, if voted as expected, assures a high level of federal spending through 1948. Almost certain larger spendings than in 1947.

3. Wage increases apparently on the way will push consumers incomes and buying power up another notch. A third round of wage increases would have its greatest effect in the second quarter of 1948.

4. High farm income and purchasing power will be boosted still higher by rising grain and food prices. World supply of foods will be below needs throughout 1948.

II. Unfavorable developments, the weak spots are these:

1. High cost of living, still rising, cuts off more and more people from markets. Wages and salaries of many workers are not keeping pace with advancing prices. This group must cut back on purchases.
2. Credit restrictions, may slow the rate of expansion of money supply. With fewer dollars consumers would be able to buy less.
3. Rise in inventories is taken as a warning of trouble ahead. Not especially high now based on high volume of sales, but rate of increase in inventories is going up. A sudden drop in sales, and a price decline could cause many businesses to liquidate their holdings at a loss.
4. High building costs may stop the building boom after the present wave of urgent demand is met. A down turn in building is predicted for 1948. The outlook is for continued boom for another six months. What will happen after that depends on wage and price developments just starting now.

L. E. Cline reported on Nevada Production and Prices.

County Agents should have a good library on livestock and crop production reports. Keep them filed as received to facilitate use.

Mr. Howard Mason gave a report on the Longtime Outlook on Beef Cattle.

Shifts in population in the west coast, necessitating a greater movement of beef into that area. The decrease in beef cattle so far as demand is concerned, outlook for at least the immediate outlook might improve. This does not imply increased prices except that it appears to be favorable. Later on may change negatively. Competition keen

among higher grades - may be periodically -- may produce more profitably at certain seasons of the year.

Thomas E. Buckman made a check on distribution of fire extinguishers. Meeting at 11:00 A.M. Friday, December 12 for final report on fire extinguishers.

Securing busses from Surplus War Materials. @ Probable cost of \$54.00, use for transportation of 4-H workers and members and other commodity groups in extension work.

Get the trucks, then determine storage facilities, etc. Insurance and Public Liability. Title must remain with University Extension.

THE PLACE OF IRRIGATED PASTURES
IN
NEVADA AGRICULTURE

by

Forrest M. Willhite

Superintendent, Newlands Field Station

Fallon, Nevada

THE PLACE OF IRRIGATED PASTURES IN NEVADA AGRICULTURE

By, Forrest M. Willhite*

Pastures may be viewed from several different angles, none of which will be found of major importance over another. The first question that rises has to do with determining what land of a given farm shall be seeded to pasture. In the past it has been considered practical to utilize the marginal or nearly marginal lands for this purpose. An objection to this practice is that it has probably handicapped the use of rotation pastures more than any one single factor, because by the very nature of the soils the pastures were grown on, their production or carrying capacity was low and limited. It should be readily understood that soils of high producing possibilities will produce economically any crop adapted to the locality be it grain, alfalfa, or pasture.

We now find ourselves faced with the important problem of what constitutes a balance between rotation pastures and dry feed production on the farm. In developing the problem and seeking its solution the following points must be kept in mind: (1) distribution of water; (2) number of livestock to be carried; (3) cost of dry feeds; (4) labor and its availability; and (5) economics of handling.

Distribution of Water

Because of their relatively shallow roots, pastures require more water than the deeper rooted crops, and because they are growing all

* Superintendent, Newlands Field Station, Fallon, Nev., Division of Soil Management and Irrigation, Bureau of Plant Industry, Soils, And Agricultural Engineering, Agricultural Research Administration, Department of Agriculture.

summer they will require more moisture than grain. If there is a shortage of water after June or July, some careful consideration would be required in the selection of the grass varieties to be used.

Where water is sufficient for irrigating pastures the year round, the number of livestock for any farm unit should average approximately two animal units per acre for the growing season. Thus, if a farmer with 80 acres of crop land has 80 head of cattle he should set aside 40 acres of good producing land for pasture, leaving the rest for grain and hay.

Livestock Carried

The farmer who produces hay and grain for sale over a period a years will find that his sale of crops is at the mercy of the buyer. As a general rule a small livestock farmer can purchase feed, in comparison to rotation pastures, much more cheaply than he can raise it if he will utilize his available land as pasture. With this thought in mind, it is recommended that a farm be made top heavy on rotation pasture.

Feed and Labor Costs

Under the present economic setup many farmers are having difficulty in getting their hay into the stack because of shortage of labor and of machinery and other equipment. For this reason, with the cow doing the harvesting herself, the labor situation is materially eased and the interest and depreciation of high-cost machinery is decreased.

Economics of Handling

The economics involved in haying methods and grazing are of considerable importance. Briefly, an acre of land producing 4 1/2 tons of alfalfa hay will bring approximately \$90 gross at present prices. A conservative estimate, based on experimental data, shows that a cow every month will consume her own weight in hay. On this basis, and with the carrying capacity of an acre being two cows per month for 6 months, or one cow per year per acre, then the gross income from 1 acre of pasture is equivalent to approximately \$120, making a net gross difference between the two types of farming of \$30 per acre. An estimate of the cost of getting the hay off of the field to the cow would be approximately \$5 per ton, and that of handling the pastures \$5 per acre. The net difference then is \$47.50 in favor of pasture utilization of hay land. Corroborative evidence in support of this practice is found in the fact that on Newlands Project there were 500 acres of rotation pasture in 1933 and more than 10,000 acres in 1946.

Establishing Rotation Pastures

The foregoing has been offered as an argument for the development of rotation pastures. The next logical step would be to ask how should we go about establishing them. In Nevada there are three distinct types of land utilization upon which rotation pastures are seeded. They are (1) land just reclaimed from the rough; (2) land in alfalfa; and (3) land in grain.

In establishing pastures, it is preferable to have as short an irrigation run as practical. A rule of thumb is that the sandier the soil the shorter the run, and as we approach the clay soils, the longer the run. Remember that pasture grasses are relatively short-rooted and the leaching of plant food below the root zone is lost for the benefit of that crop.

Land Recently Reclaimed

In the case of seeding pasture on recently reclaimed land or on land in the process of being reclaimed, it should be remembered that the grasses are in all probability more susceptible to death at the time of germination than any other crop we attempt to grow.

Therefore, on largely alkali or tight clay areas (popularly classed as alkali land) it is not advisable to try to establish a rotation pasture until the soil has been improved by other treatment.

On the other hand, if a farmer does decide to seed such land to pasture, the seedbed should be well prepared and irrigated to see that all irregularities are properly leveled. After correcting improperly leveled areas, the field can be harrowed, seeded and harrowed to cover.

If this type of land is seeded in fall, the grass will have difficulty in establishing itself and this, coupled with the winter kill, will result in a poor stand. Spring seeding is to be preferred where irrigation can be often enough to keep the soil moist and have a more favorable growing season for the crop. It is well to recog-

nize that on salty and alkali soils that soil does not have to become very dry to exterminate the crop, because in the presence of alkali and salts the effectiveness of water in the soil for crop growth is decreased. Alkali and salty soils require more water for crop production than good soils.

The use of a nurse crop under these conditions is unadvisable for it only offers competition to the young crop just seeded both from the standpoint of fertility and the use of water.

Land in Alfalfa

There are two ways to establish pasture on an old alfalfa stand: (1) The alfalfa may be plowed after the third crop has been harvested and allowed to lie in the rough all winter. In March the seedbed is prepared by disking, leveling where needed, and harrowing in time for seeding about April 10. (2) Where the alfalfa has been thinned out to 30% or less a good pasture stand can usually be obtained by thoroughly disking the alfalfa field, planting the grass seed, and covering it. Since this does not kill all the old alfalfa, care should be taken to irrigate according to the need of the grass seedlings rather than for the surviving alfalfa. It may be advisable to clip the alfalfa to prevent smothering the newly seeded grass.

Land In Grain Or Corn

In establishing pastures following grain crops, plowing before seeding to pasture is not recommended unless it is necessary to re-level the land. Remember that a good seedbed is one that is well

packed and firmed, and plowing makes it necessary to refirm the seedbed. A good disking of the straw mulch or the stalks, followed by harrowing, will afford an excellent seedbed following grain or corn.

When pasture follows grain it may be seeded from August 20 to September 15. When pasture follows corn it may be seeded about the first of April the following year. Fall seeding has advantages over spring seeding in that it gets ahead of annual weeds, it provides more use next season, and it avoids sandstorms in spring.

Grass Mixtures

It is impossible to be specific in recommending grass mixtures for the State as a whole. The relative merits of a number of grasses and clovers, however, may be discussed as to palatability and soil and climatic conditions.

Orchard grass under favorable water and temperature conditions has probably as high a carrying capacity as any grass adapted to the northern area of the State. Though tolerant to alkali and salt conditions and to low fertility, it is subject to severe frost injury, and this should be taken into consideration in its use in certain sections of the State. In comparison it probably recovers more rapidly than other grasses. It does well in the summer heat and if not allowed to become too luxuriant is highly palatable.

Bromegrass has as one of its chief drawbacks that it is hard to establish. In fact very little brome will be observed the first year after seeding. It has the advantage, however, of doing well

on all droughty to semidroughty soils. It is not severely injured by frost and produces well during the summer months. In pastures where bluegrass is likely to move in, it will give the brome real competition, primarily because the brome is slow in establishing itself. It is a good, highly palatable feed.

Rygrass either common, perennial, or Italian, has its place in a pasture mixture. During the hot months of summer it remains more or less dormant and is not so well adapted to soils of low fertility as other grasses, but its redeeming feature is that it starts earlier in spring and grows later in fall than most other grasses. It is also well adapted to the alkaline or salty soils. In spring and fall it is highly palatable.

Meadow fescue and Alta fescue are useful pasture mixtures. Although some stations report that their palatability is above that of other grasses, this has not been the experience at the Newlands Field Station. Fescue is well adapted to alkaline and salty soils and to all our climatic conditions.

I have had no experience with grasses in southern Nevada and for this reason am rather hesitant about discussing them. Suffice it to say, however, that all the grasses already mentioned might have their place in southern Nevada. I understand that there will be some pasture work inaugurated in that area this year. This will be welcomed by the local farmers.

Selection of Legumes

The selection of legumes for pastures depends upon three factors: (1) moisture available; (2) alkali and salt; and (3) climatic conditions. On soils that are inclined to be droughty and requiring much irrigation, sweetclover and alfalfa should be used, as they are relatively deep-rooted. On soils that are wet and inclined to be alkaline, strawberry and sweetclover should be utilized. On soils between these two extremes alfalfa, sweetclover, and Ladino clover may be used.

In permanent pastures a 50:50 mixture of legumes and grasses is desirable, and for this reason the rate of seeding is important. Seed may be saved by careful preparation of the seedbed for it is axiomatic that the better the seedbed the less required. A good method for determining the quantity of seed is to use 4 pounds each of orchard grass, bromegrass, rygrass, and legumes. In the legume mixture there should not be more than 2 pounds of any one kind. A desirable legume mixture would be 1 pound each of alfalfa, sweetclover, Ladino clover, and strawberry clover. Other grasses may be substituted or added.

Seeding is important and may be done either by broadcast or drill. I prefer broadcasting by first sowing half the seed in one direction and the other half in the other direction. This will give fairly uniform distribution. A light piece of equipment, such as a harrow with teeth sloping back or a brush drag, may be used to cover. Seed covered too deep or too shallow is wasted.

Immediate irrigation should follow. Irrigation should be frequent enough to keep the top of the soil moist during the germination period. As soon as germination has begun and the young plants are coming through nicely, irrigation should be held to a minimum because of the nitrogen requirement of young plants. On soils that are subject to leaching this is especially important, for if the nitrates are removed below the root zone the plants will begin to turn yellow and may even perish.

Pasture Management Program

Once the pastures are established it is necessary to introduce a good management program. It is well to keep in mind that the most cases young pastures are grazed too early. It is necessary to allow the pasture to establish itself before livestock are turned in because if the plants are not well rooted the animals will pull up and trample out a great deal of the stand. It is good practice to remove the first crop of pasture as hay and then pasture rather lightly the rest of the year. Where fall seeded, pasture the next year according to what the turf will stand.

Rotation Grazing

In the grazing program of pastures one should attempt to estimate the time required for a pasture to recover between grazings. In the main this will generally be found to be about 4 weeks. Therefore, to keep the pasture in rotation, one should have the pasture cross-fenced into five equal producing areas. This is probably the most important

thing in good pasture management. What it really amounts to is placing a large herd on a small area for a short time, giving the pasture 4 weeks in which to recover.

It is well to emphasize the importance of root food storage in the recovery of the pasture grass, for it is upon the root storage that young pastures depend for restarting. Late fall pasturing after heavy frosts is not desirable, because it exposes the plant to severe winter injury. A pasture should not be grazed much below the 1- to 2 inch stubble, for if grazed lower some areas will be badly over-grazed. Overgrazing of pastures usually results in two things: First, killing out the stand, with the result that weeds take the place of pasture; and second, encouraging the moving in of bluegrass. Bluegrass is probably one of the worst weeds we have in the pastures for our larger livestock, for a number of reasons -- its water requirement is greater; its palatability decreases with age; its carrying capacity in summer is low; and it competes with other good grasses.

The irrigation of pastures is important. Over-irrigation encourages weed growth and bluegrass encroachments at the expense of the higher producing forage grasses. Under-irrigation decreases the production of grasses and reduces their palatability. At the present time there is probably nothing better than the farmer's judgment to tell him when a pasture should be irrigated.

Do pastures fit in a rotation ? The answer is definitely, Yes. Under Nevada conditions a grain-alfalfa-grain-pasture rotation does well. When the restoration of fertility was not considered important, alfalfa was formerly left in until the stand was so poor that it was not practicable to use it for alfalfa hay production.

Mining farms by the continuous removal of crops is not desirable practice in any system of long-time profitable farming. Farm fertility may be maintained or improved by a system of rotation, supplemented by regular additions of manure and phosphate fertilizer.

On this basis a 16- to 18-year rotation, to complete one cycle, would be desirable, beginning with alfalfa, then 2 years of grain, and completing the cycle with 6 or 7 years of pasture. In order to distribute the work more evenly the rotation might be established on half the farm the first year, one-fourth the farm the second year, and the last fourth the third year, which would have the farm without grain for 3 to 4 years. This is not a bad feature of this rotation, since for the most part grain can be bought about as cheaply as it can be raised.

Maintaining Soil Fertility

The maintenance and improvement of soil fertility is possible under a livestock program where permanent pastures are part of the picture. Pastures are an ideal place to haul manure, and probably no crop responds to this practice as much as pasture. Along with the manure an annual phosphate application can be made, thereby building up an element that is so badly depleted under any system of

farming. On a livestock farm one should be in position by the conservation of manure, to supply at least 20 loads of manure per acre over his entire pasture. It is good practice to spread 100 to 200 pounds of treble superphosphate over the pasture land, using the manure spreader as the applicator.

If 200 pounds of treble superphosphate and 20 loads of manure to the acre are applied, simply spread 10 pounds of treble superphosphate over the top of the manure on the spreader. Early in spring, drag the pastures with a harrow to spread and break up the manure. On soils that are well drained and subject to leaching, the use of a nitrogen fertilizer in combination with the other treatments will increase production, especially if applied after the first grazing. The application of 100 pounds of ammonium sulfate after each grazing period would probably double the carrying capacity during the summer months if adequate irrigation water is available. It should be kept in mind, however, that too much nitrogen encourages grasses at the expense of the clovers.

Making Pastures Productive

There has been much discussion of the renovation of old pastures and perhaps it has its place. It may be pointed out, however, that under careful management in all probability a pasture would not need renovation during the life in the rotation recommended. Under the present irrigation system it seems more logical to tear up an old pasture, rotate it, and go back into new pasture, than attempt

to improve what we have. There are many reasons against renovation of old pastures, and perhaps the most important is that in practically every case after renovation the pasture will be treated as an old pasture, resulting (1) in the well-established plants killing out the new seed; (2) in lack of water; and (3) in the trampling out of the new seeding by grazing according to what the old pasture would stand.

Many pastures will show spotty growth conditions after grazing. It is well to clip off the areas, so that thereafter more uniform grazing will be accomplished. If through mismanagement weeds come up in the pasture they should be removed before they seed. This may be done by using a contact spray or by mowing them off.

In conclusion, a good pasture results from seeding a well-balanced grass mixture on good land that has been properly prepared. With adequate water, good management, and proper fertilization the income from 1 acre of pasture will be greater than for 1 acre of alfalfa, and the life of the pasture will equal the life of the alfalfa.

LIST OF DAILY, WEEKLY, AND MONTHLY, FREE ECONOMIC PUBLICATIONS

USEFUL TO COUNTY AGENTS

* Used in Resident teaching. (Monthly Reports)

*Agricultural Prices
Bureau of Agricultural Economics
U. S. Department of Agriculture
Washington 25, D.C.
(Prices by States)

U.S.D.A. Meat Production
Production and Marketing Administration
U.S.D.A.
Washington, D.C.

*Agricultural Production
Address same as above
(Country as whole and by states)

*Agricultural Outlook Digest
Same Address as above
(Monthly can be secured from USDA)

Farm Income Situation
Address same as above

Marketing Activities
Production and Marketing Administration
U.S.D.A.
Washington, 25, D.C.

Demand and Price Situation
Address same as above

Daily Reports

*Livestock and Meat Situation
Address same as above

Cattle and Feed Situation
Production and Marketing Administration
729 Appraisers Building
San Francisco 11, California

Livestock and Wool Situation
Address same as above

The Dairy Situation
Address same as above

Lamb Feeding Situation
Same Address as above

Poultry and Egg Situation
Address same as above

Stockyard and Feeder Cattle and
Sheep Receipts
Same Address as above

Wheat Situation
Address same as above

Wheat Market Review
709 U.S. Appraisers Building
San Francisco 11, California

Feed Situation
Address same as above

Summary of Egg and Poultry Markets
Room 737
630 Sansome Street
San Francisco 11, California

Wool Situation
Address same as above

Marketing and Transportation Situation
Address same as above

Barley and Feed Grain Market Review
709 U.S. Appraisers Building
San Francisco 11, California

*Statistical Summary
Address same as above

Feed and Market Review
Address same as above

*The Agricultural Situation
Address same as above

California Livestock and Range Report
P.O. Box 1528
Sacramento 6, California

U.S. Department of Agriculture
Office of Information
U.S. Department of Agriculture
Washington 25, D.C.

Note: Order only those for which you might have regular use.
Outlook Reports from the U.S.D.A. on most Agricultural Commodities, etc.

Nevada Crop Report
P.O. Box 2189
Salt Lake City 13, Utah

Daily Livestock Market Report
729 Appraisers Building
San Francisco 11, California

Western Livestock and Range Report
543 Custom House
Denver 2, Colorado

Dairy Market Report
(Dairy and Poultry Products)
Room 737
630 Sansome Street
San Francisco 11, California

Dairy Products and Eggs
Cold Storage Holdings
Room 737
630 Sansome Street
San Francisco 11, California

U.S. Cold Storage Holdings
729 Appraisers Building
San Francisco 11, California

Prices Received by Farmers for Farm
Products
709 U. S. Appraisers Building
San Francisco 11, California

Crops and Markets
Bureau of Agricultural Economics
U. S. Department of Agriculture
Washington, D. C.

FEED SUPPLY AND DEMAND

The outlook for feed supply has been materially reduced for 1947-1948, principally because of the short 1947 corn crop. This feed outlook will affect materially the price of feed and the production of meat animals. The over all outlook for feed supplies is considered less favorable than for any time during the past five years.

The total supply of feed concentrates for the feeding season just begun is estimated to be 14 per cent smaller than last season.

In terms of livestock and poultry to be fed, the total supply of feed concentrates for 1947-1948 season is estimated to be about 12 percent less than last year.

By-product feeds are expected to be also somewhat smaller than the record amounts fed last season. Most of the reduction will be in grain by-products. Some of this reduction will depend upon the amount of wheat flour

milled for export use. It is estimated that less grain will be used for processing, thus reducing the amount of distillor's dried grains and corn gluten feed.

The prospect for high protein feeds is a bright spot in the picture for next year. Oil seed cake and meal is expected to show an increase over last year of about 5 percent.

The per animal unit supply of high protein feeds may be near the record amount for the new year. Cottonseed and linseed meals will account for most of the increase, with soy bean meal somewhat less than last year.

The supplies of animal proteins are expected to be a little smaller for 1947-1948 than for last year. This is accounted for by an anticipated decrease in slaughter of livestock for 1948. On a per animal unit basis protein supplies from all sources for 1947-1948 are expected to be a near record.

Since the grain crops, other than wheat, go to make up the bulk of the feed supply, it will be of interest to know the outlook for feed supplies from these sources. On October 1st, the supply of corn for 1947-1948 was the smallest in ten years, and about one fifth smaller than last year. It is estimated that the corn harvest this fall will be 800,000,000 bushels less than 1946-1947 record. The carry over of old crop corn during the 1947-1948 season is expected to be reduced to its lowest level since the years following the 1934-1936 droughts.

Oat Supplies

The oat supply for next year is smaller than the record supply for two previous years. The 1946-1947 oat crop is considered to be about 25% smaller than the amount harvested for each of the past two years. The total utilization of oats is expected to be about 15% less than for 1947. Most of the utilization reduction will be in quantities fed to animals.

Barley

Barley production for 1947 was the largest since 1943, but the carry over on July 1st was the smallest in recent years. Imports of barley, which accounted for an important part of the supply during the war years, are expected to be negligible next year. A strong demand for barley for feed, and for industrial and food uses is anticipated.

Oil Seed Cake and Meal

The total supply of oil seed cake and meal for domestic feeding during the 1947-1948 feeding season is expected to be around 5% larger than last year. Cotton seed products production based on the size of the cotton crop is about one third larger than last year.

The soy bean meal crop, however, is estimated to be about 8% smaller this year than last year. Peanut cake and meal is expected to be somewhat larger next year than the past year, while the copra cake and meal output will be about the same as last year.

In general, the feed supply for 1947-1948 is expected to be less than last year, the strong demand is expected to continue, and prices may be expected to be above those of 1946-1947.

Wheat Situation

In general the price and supply situation with reference to wheat for 1947-1948, and later indicates increased acreage with increased demand and increased prices.

Because of current high prices it is anticipated that growers in general will plant as large or larger acreages for the 1948 crop as for 1947. This will mean that the goal calling for 75 million acres will be planted.

This was about the same acreage as was planted last year which resulted in the production of 1,428,000,000 bushels. This, with stocks on hand of 83,000,000 bushels, made the total supplies available beginning July 1, 1947

approximately 1,511,000,000 bushels, which represented the greatest supply on hand since 1942.

It is impossible to make an accurate forecast of wheat yields for next year, but assuming that 75 million acres are planted again for next year and that the yields are equal to the 1937-1946 average of 14.3 bushels per seeded acre, the total yield would be 1,070,000,000 bushels. If we assume that 800 million bushels are used for domestic purposes, then 270 million bushels would be available to export or to add to carry over. This would not be sufficient for anticipated export demands from this country.

If, however, we assume yields of 16.3 bushels per acre, which was the 1942-1946 average, when the weather was especially favorable, and if 75 million acres were planted the result would be approximately 1,220,000,000 bushels. Such a crop would provide 850 million bushels for domestic uses. This would probably take care of export demands for next year if conditions abroad improved sufficiently.

If less than 75 million acres is planted, and a yield less than 16.3 bushels per acre is secured, a shortage may be expected and prices would rise to above support levels. In event of a larger crop, the prices with reference to support levels will depend upon export demands. It is anticipated that foreign demand will again exceed supplies available in surplus producing countries.

The War Department has granted funds to continue supplying wheat and flour to occupied areas. It is expected that the demand for U. S. exports in 1947-1948 will be substantially greater than supplies available for export.

Exports of wheat including flour began to be big business in 1944. The next year exports of 390 million bushels were one fourth larger than the previous high record of 1920-1921. In 1946-1947 exports were 400 million bushels. In August of this year, it was estimated that 400 million bushels

would also be needed for export in 1947-1948. Later on this estimate was revised upward to 500 million bushels, because of greater needs of distressed people in other countries. This led to a campaign to save 100 million bushels of wheat through the feed conservation plan so that the 500 million bushels would be available for export from this country.

Compared with our possible 500 million bushels for export, Canada is expected to export about 200 million bushels, Australia 80 million, Argentina 75 million and other countries including Russia about 50 million.

THE LIVESTOCK SITUATION

The most outstanding feature of the livestock situation, aside from the high price level, is the very large number of cattle and calves going to slaughter. Records of slaughter under federal inspection indicate that more cattle and calves are going to slaughter now than at any previous time. The total number is estimated at 5 per cent greater than the previous high record in 1945. Because of that high record slaughter, cattle numbers are said to have decreased 3,000,000 head by the end of that year.

If cattle slaughter shows the same rate of increase for the remainder of the year as occurred in the first seven months of 1947, the grand total for the year will be near 37,000,000 head. In 1941 the total slaughtered was less than 26,000,000 head.

Slaughter records show that the cattle industry is marketing 50 per cent more cattle and calves this year than the average for the five years preceding the war. The cattle numbers at the beginning of this year, however, exceeded the average of the previous five years by 20 per cent. The large increase in slaughter this year is being obtained by drawing heavily on reserves of cattle, normally held for further growth, replacements and expansion. This situation has been brought about by strong demand and high level of cattle prices. Slaughter steer weights have been the highest since record keeping

was started in 1938. For 1947 average weights have been nearly 50 pounds lighter than for 1946.

The sharp reduction in total cattle numbers this year, and an anticipated reduction in grain feeding will naturally result in smaller slaughter supplies in 1948.

PRICES

The price of lambs is expected to continue high in 1948. Although lamb prices have averaged higher in 1947 than in the last 35 years, the prices of sheep, lambs and wool have been low, compared to prices of beef cattle. This has resulted in a shift from sheep to cattle in a large number of instances in the west.

Lamb prices have also been relatively low as compared to hog prices. The prices of ewes are low, relative to lamb prices, which reflects the weak demand for breeding ewes, the relatively low prices for wool, and the strong demand for slaughtered lambs.

Hog Outlook

The number of pigs saved in 1947 is expected to be slightly larger than in 1946, and the slaughter of hogs, during the first nine months of 1948 may be expected to furnish as much weight as during the same period in 1947, although the hogs may be smaller, due to high feed prices and finishing to lighter weight.

Prospects are that the 1948 spring pig crop will be smaller than the 1947 spring pig crop, because of reduced supplies of corn and a corn-hog ratio that is below average. The hog slaughter in the last four months of 1948 will depend largely on the 1948 spring pig crop since about half of the crop is marketed during the last four months of the year.

Sheep and Lambs Outlook

The number of stock sheep on farms January 1, 1948, is expected to be smaller than the 20 year low number of January 1, 1947. No increase in the number of stock sheep is anticipated during the year 1948. Difficulty in securing sheep herders and the cost of general production items, together with relatively low prices for wool, will be retarding influences for the next year as they have been in the past. Fewer sheep and lamb numbers are expected to be fed this fall and winter than for the same time last year.

The reduction in sheep and lamb numbers has been in the western states, which is the source of most lambs for feeding. High prices for feeder lambs and for grain, together with poor wheat pastures in the corn belt, have been important factors in numbers of lambs to be fed.

The number of lambs saved in 1947 were 9 per cent less than a year earlier, and the smallest since 1925. It is anticipated that the 1948 lamb crop will be even smaller because of a reduction in number of breeding ewes.

General Session - 2:00 P.M. December 12th:

Education:

The purpose of this meeting was stated by Dr. Moseley to be as follows:

"The purpose of this joint conference is to give the Regents an opportunity to view the work being done in the combined agricultural effort at the University and to effect a further coordination of the various agricultural services to the students of the University and to the farmers and ranchers of the State of Nevada."

Inasmuch as this was Dr. Moseley's meeting, the Extension Service did not keep any minutes of this session.

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION

C. W. CREEL

DIRECTOR

Annual Report of Extension Work in Agricultural
Economics and Marketing

(Project No. 6)

for

January 1st to December 31st

1947

L. E. CLINE

Extension Marketing Specialist

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION DIVISION AND
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

NAME OF PROJECT:	Agricultural Economics and Marketing Date Approved August 8, 1930
SUBJECT PROJECT: 1947	Marketing Agricultural Products
SUBJECT PROJECT PHASE 1947:	Cooperative Marketing and Cooperative Marketing Associations
MAJOR PHASES OF PROJECT WORK:	Percentage of time devoted to each phase of project:
Agricultural Outlook Work	20 %
Establishing and Promoting Farm Cooperatives	20 %
Poultry and Egg Production and Marketing	15 %
Turkey Production and Marketing	10 %
Marketing of Livestock	10 %
Miscellaneous	15 %
News Releases	10 %

INTRODUCTION AND SUMMARY

The Agricultural Extension activities of this office for the calendar year 1947 were conducted along much the same lines as during the previous year, except for a change of emphasis in some of the activities as compared to last year. These activities were concerned principally with the production and marketing of commodities that are commonly produced and best adapted to this state.

The principal phases of this work for 1947 as carried on by this office during the period mentioned are as follows: Agricultural Outlook and Market Studies and Reports including news releases, Production and Marketing of Poultry, Eggs and Turkeys, Marketing of Hay, Production and Marketing of Rabbits, Organization of farmers' cooperatives, and cooperating with federal agencies in federal agricultural programs.

In addition to the above mentioned principal activities, there were a number of miscellaneous activities which did not fall under the above project phases.

The Agricultural Extension Activities in Nevada must of necessity labor against handicaps because of limited population and its scattered location. In order to overcome this handicap, the Extension Service, especially in areas of sparse

population must resort to correspondence, news stories and circular letters in order to contact a fair proportion of the farming population. Town and neighborhood meetings are depended upon to a considerable extent for promoting programs, where activities depend on organized effort.

The following is a numerical summary of the various activities carried on by this office in connection with Agricultural Extension Work.

Number of days in Office	--	175
Number of days in Field	--	71
Number of days sick leave	--	22 1/2
Number of days annual leave	--	13 1/2
Number of miles traveled by auto and bus	--	5,730
Number of miles traveled by train	--	3,300
Number of conferences with County Agents	--	36
Number Farm Bureau Meetings attended	--	7
Number of members in attendance	--	288
Number of Hay Marketing meetings attended	--	3
Number in attendance	--	60
Number Cattle Marketing meetings attended	--	2
Number in attendance	--	75
Number Fallon Farmers' Cooperative Meetings attended	--	3
Number in attendance	--	46
Number of Fallon Dairymen meetings attended	--	4
Number in attendance	--	115
Number of Washoe Dairymen Meetings attended	--	3
Number in attendance	--	65
Number of Poultry Association Meetings attended	--	9
Number in attendance	--	79
Number of Clark Dairy Association Meetings attended	--	2
Number in attendance	--	12
Number of Mason Valley Turkey Growers Meetings attended	--	2
Number in attendance	--	16
Number Farm Bureau Livestock Marketing Meetings attended	--	5
Number in attendance	--	300
Number of Hope Flannigan meetings attended	--	1
Number of attendance	--	20
Number of Norbest Turkey Grower's Association Meetings attended	--	1
Number in attendance	--	35
Number of Dairy Artificial Insemination Meetings attended	--	1
Number in attendance	--	18
Number of News stories prepared	--	12
Number of trips outside the state	--	3
Number of trips inside the state	--	36

AGRICULTURAL OUTLOOK

One of the principal activities of this office from the time the work was first organized has been agricultural outlook as it applies to production and marketing in Nevada. This office receives 37 state and national reports of crop and livestock prospects, prices, crop and livestock movements to market seasonally as well as storage holdings of all farm commodities, nationally and by locations.

These reports are carefully studied and filed and made the basis of information for news releases, meetings and correspondence with Nevada farmers, and for guiding them in their production and marketing operations.

COOPERATIVE MARKETING ORGANIZATIONS FORMED IN 1947

PRODUCTION AND MARKETING OF LIVESTOCK

The work in connection with the production and marketing of livestock consisted largely in efforts in connection with the promotion and establishment of a cooperative livestock association promoted by the Nevada State Farm Bureau. Assistance was rendered by this office in the promotion phases of this organization as well as in the final preparation of the Articles and By-Laws and the incorporation of the association, under the non-profit corporation law of the state.

MINDEN COOPERATIVE CREAMERY CO.

Early in 1947 the stockholders of the Minden Butter Co. of Minden, Nevada, decided to convert their organization into a cooperative association.

The principal reason for bringing about this decision was that they did not want to be subject to federal income tax. They felt justified in this attitude, since a majority of the patrons were stock holders. This office was invited to participate in discussions with stockholders and patrons and to assist in a reorganization of the company into a non-profit cooperative enterprise and help in drawing up organization papers to accomplish this purpose.

This new organization was financed by the sale of preferred stock and certificates of interest and will be further financed by deductions from proceeds of members' business with no profits to the association, all proceeds above the cost of operation going to the members participating in the business.

NEVADA PLANT GROWERS, INC.

The Southern Nevada Plant Growers' Association completed their organization and began functioning early in 1947. This office devoted considerable time to setting up this organization, and assisted in preparing its organization papers. The commodity handled by the organization consists mainly of tomato plants,

although other vegetable plants such as celery, cabbage and cauliflour are handled to a less extent.

This association now ships tomato plants to customers in a number of states from California to the Atlantic coast. These vegetable transplants are especially desired by commerical vegetable growers, because they are grown in the field under outside conditions and are much more vigorous than plants grown in greenhouses and can be produced cheaper.

The objective of the association is to produce more uniform and dependable plants free from disease and at the same time solve a number of problems of transportation facing the industry there, such as temperature control, packaging of plants and the number of crates per car, etc.

The association hopes to bring all of the plant growers within the association.

FALLON FARMERS' COOPERATIVE, INC.

Another farmers' cooperative organized in 1947, the Fallon Farmers' Cooperative, Inc., was established by the merging of the newly formed Churchill County Agricultural Association and the Churchill County Poultrymen, Inc. The latter association was an organization of poultrymen, organized in 1923 for the purpose of marketing eggs and poultry and supplying the members with feed. The other organization set up by this office in 1947 was intended to market farm products and purchase for its members, supplies and equipment.

Since the membership in these two organizations amounting to about 100 each, were largely the same, it was decided to merge them into one cooperative association. This called for dissolution of the two former associations and the creation of a new one to take their places. This office assisted in this change and the new organization is functioning in a very satisfactory manner in their own property.

LYON COUNTY HAY GROWERS ASSOCIATION

The Lyon County Hay Growers Association was launched in December at a meeting of Mason Valley Alfalfa hay growers, who make it a practice of producing surplus alfalfa hay. Prospective members of this proposed association held an organization meeting and asked this office to participate and explain the type of organization that would be desirable and the possible benefits that would be obtained through such an organization.

At this meeting this office was asked to assist in the formation of the organization papers to be presented at a later meeting for review and possible acceptance. This was done and papers were perfected by the organization committee at the end of the year, when the organization was finally formed and the incorporation completed. Marketing operations got under way promptly through an operating agreement with the Antelope Valley Hay Marketing Association of southern California. Increased prices were received promptly by the hay marketing association over the prevailing prices in the area prior to the operations of the association. This association should be a good going concern for the 1948 alfalfa harvest.

WESTERN NEVADA DAIRYMEN, INC.

The Western Nevada Dairymen, Inc. was first conceived in 1946 in the dairy committee of the Nevada State Farm Bureau, and began to take definite shape in 1947 in this committee. The dairymen in the western part of Nevada have felt for some time that there should be an organization of such producers in the milk sheds of Reno, Fallon, Lovelock, Yerington and Minden, in matters of prices, marketing methods, sanitary requirements, etc. This office was invited to participate in the discussions and to give consideration to the organization plans if it were thought best to set up a cooperative in the area to represent producers.

After a number of meetings this office was asked by organization committees to assist in setting up local associations, where organizations had not already been set up in the various dairy centers, naming in particular, Fallon, Yerington, and Lovelock. Local associations were already functioning in Reno and Minden.

Complying with this request, a new cooperative was set up in Fallon, named the Newlands Dairymen, Inc. to serve that area. The other two at Yerington and Lovelock are yet to be formed.

Western Nevada Dairymen Inc., the regional association, representing all the locals is now in process of formation. Assistance has been rendered in the formation of the organization papers and the final organization is expected to be perfected early in 1948, when all local dairy associations have been organized and have taken membership in the regional association.

In addition to the above new organizations, considerable time has been devoted to attending meetings and giving assistance to such old organizations as the Nevada Poultry Producers, Inc., Reno, Nevada; Clark Dairymen, Inc., Overton, Nevada; Douglas Agricultural Association, Minden, Nevada; Nevada Turkey Growers' Association, Yerington, Nevada; Pershing Agricultural Association, Lovelock, Nevada; Mason Valley Turkey Growers' Association, Yerington, Nevada.

Considerable assistance has also been rendered to the Norbest Turkey Growers' Association, a regional association, which operates through the Nevada Turkey Growers' Association and handles all turkeys exported from the state.

During the time this office has been functioning, approximately 90 cooperatives organizations have been organized in the state. Some of them have been organized for marketing temporary surplus crops. Others have been organized to serve local industries that were not permanently adapted to the locality, while others have been organized to serve industries adapted to the localities and have functioned continuously.

Practically all of the organizations, if not in operation now, are capable of resuming operations on short notice if needed.

POULTRY AND EGG PRODUCTION AND MARKETING

The poultry and egg production and marketing have been given the usual amount of attention, amounting to about 15 % of the time of this office. The poultry and egg industry in Nevada is very sensitive to feed supplies and prices for the nation as a whole, since Nevada feed, poultry, and egg prices are directly affected by the prices in the surrounding states.

Since Nevada has always been a deficit producer of grains as well as poultry and eggs, the industry is always at a disadvantage in competing commercially with outside poultry products. In spite of this situation, however, a certain percent of Nevada farmers produce poultry and eggs on a commercial scale and make a fair living at it. This industry enable small landholders to have a full time job and also provides larger landholders with a part time job. There are sufficient eggs produced in the state in most years to provide a small surplus for a short period of time when production is greatest, although recent reductions in production and late increases in population promises to create a steady demand at all times of the year which can not be filled from local sources.

This situation favors a more extensive development of the poultry industry in the state, and it is anticipated that, if and when feed prices get more in line with poultry product prices, more poultry products will be produced locally. Nevada has advantages in the way of green feed and grain supplies together with excellent climate, which makes it advantageous to develop a poultry industry. It has been profitable in the past and it is hoped that with conditions back to normal it will again be found profitable.

The principal assistance given by this office to this industry has been in connection with cooperative marketing, feeding, and disease control. The work has been done by personal contact, attendance at meetings, news stories and correspondence.

Turkey Production and

TURKEY PRODUCTION AND MARKETING

Turkey production and marketing in the past has been an important project, but turkey production in Nevada has suffered a serious shrinkage the same as it has in the United States as a whole. Since the war ended this has been due principally to the high feed prices and the curtailment in government buying and a general increase in cost of production as compared to prices received. Turkey prices have increased to some extent but not in keeping with the cost of production. The increased feed prices were in evidence early in the season and this kept the producers discouraged, until it was too late to change their plans.

As a general rule when a crop of any kind is curtailed seriously, prices rise to compensate for the extra cost, but this was only partially so in 1947 so that profits were not as good as in the two previous years.

This office has in the past devoted considerable time to the turkey industry because it seemed well adapted to the crops and climatic conditions of the state. Turkeys grown in Nevada have had a good reputation on the

market since as early as 1925 when cooperative marketing of turkeys was established. Since that time practically all surplus turkeys have been shipped out of the state by cooperative methods.

Nevada has pioneered in many phases of turkey production and marketing, and has been the source of information in this connection for other turkey growing areas.

The work of this office in connection with this project has been along the lines of educational work in connection with the various phases of brooding and feeding, disease control, preparation for market and marketing. Special emphasis has been placed on cooperative marketing methods.

It is felt that the turkey industry is worthy of promotion in the state, and it will be given special attention each year. The work in connection with this project is by means of circular letters, bulletins, meetings, visits to farms, through organizations, correspondence and news stories. This office has kept in close touch with this industry each year during the production and marketing seasons.

As a special feature of the turkey marketing project carried on by this office, a research study was finished in 1947 for the purpose of determining the relationship of the percentage of edible turkey meat to the size and sex of the turkey. Since the recent development of the Broad-breasted strain of turkeys, the size of the turkeys have been materially increased until hen turkeys average about 16 pounds and tom turkeys about 25 pounds. This has created a marketing problem, requiring most of the tom turkeys to be sold to institutions and even hen turkeys in most instances are too large for family use.

The turkey industry was faced with the problem of persuading the families to use the larger turkeys or be faced with much lower prices or possibly no sale. If it could be shown that the large turkeys were more economical in the yield of edible meat, it seemed that this would afford some chance of relief in marketing the large toms and offer an inducement for buying them.

This office was asked by the Norbest Turkey Growers, doing business in this state, to conduct a research study to determine the relationship of edible meat to the various sizes of turkeys, the cost to be defrayed by this organization. The experiment was finished and thereports made during 1947. The results of the study had wide publicity, since it was the first information of this nature assembled. The study revealed that the percentage of edible meat increased in direct ratio to the size of the turkey.

This information has been used to promote the sale of large turkeys and has helped to hold up the prices of such turkeys, the price of which had often been depressed as much as 10cents per pound under light weight turkeys.

The Nevada Experiment Station has more recently conducted work along this same line. The results of these two studies will be well worth the time and effort put into them in increased returns to the turkey producers.

MARKETING OF LIVESTOCK

Work in connection with the marketing of livestock has been principally through outlook studies and the development of a livestock marketing association in cooperation with the Nevada State Farm Bureau.

This office has kept abreast of market demands and prices and supplies of cattle going to market as well as cattle put on feed in the state and in the corn belt areas. Information in this connection has been disseminated in the form of news stories after having been assembled from government federal reports.

It is anticipated that cooperative marketing activities will be in full operation early in 1948. It is very important that this project get under way as soon as possible, because of the lack of slaughter facilities in Nevada to take care of present and future needs.

It is the plan of this cooperative marketing association to cooperate with the Valley Livestock Marketing Association of Stockton, California. By this cooperative arrangement the Nevada association will be able to take advantage of the facilities of a going concern, and the experiences in market contracts which have been developed by them, and will not need to set up duplicate facilities and personnel.

MISCELLANEOUS

In addition to the regular plan of work that is formulated prior to the beginning of the year and then pursued through the year, there is always a lot of unforeseen jobs, some of which may be of a minor nature and of short duration, while others may develop into important projects that require a definite amount of time and may be sufficiently serious to exact time that was allotted to other projects.

For a number of years and especially during and since the war, our national government has originated national emergency programs, which were intended to be put into action by state and county governments and agencies on short notice, most of which were what was known as "must programs" and took precedent over activities already planned. Such superimposed programs are A.A.A., Soil Conservation and Domestic Allotment, Crop Insurance, Grain Conservation and Meatless and Poultryless days; Bread saving program, and Fat saving program; Labor employment program, Destruction of Insect Pests, and Increasing poultry production; and also other emergency programs. Practically all of these programs required attention and some time by this office.

The work of this office included cooperating with other government agencies on the campus on the University, including the Experiment Station, Animal disease control work and various county extension offices. Much of the work of this office was facilitated by the harmonious cooperation of the county extension agricultural agents.

During the past year this office has served as Civil Service contact agent between the state agricultural extension agents and the Civil Service Bureau in Washington. All applications for Civil Service records and retirements go through this office and a complete set of forms and informational material are available at this office. Efforts are constantly being made to show the eligible employees the advantages of Civil Service participation and in assisting them in making application for the benefits under the Civil Service program.

UNIVERSITY OF NEVADA
Agricultural Extension Division
Cecil W. Creel
Director

Annual Report of Agricultural Extension Work
(Project 2-B)
Extension Work in Home Economics
for
1947

By
Margaret M. Griffin
Assistant Director
for
Home Demonstration Work

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION SERVICE
AND

U. S. DEPARTMENT OF AGRICULTURE COOPERATING
STATE OF NEVADA
1947

Name of Project: 2-B Extension Work in Home Economics by means
of County and District Extension Agents.

Leader: Margaret M. Griffin, Assistant Director for
Home Demonstration Work.

I. SUPERVISORY ACTIVITIES

A. Supervisory Situation

The Assistant Director for Home Demonstration Work had charge of the Home Economics Extension work in the state and directly supervised all women agents and a part-time nutrition specialist. She assisted in the formulating of state, district, county and community programs of work in the home economics field; suggested and approved changes made in programs; prepared and approved subject-matter materials used and published by the State office and agents; coordinated work with other agencies; provided for suitable and adequate publicity for the Home Economics Division of the State Extension Service; proposed and provided for needed and approved expansion of programs; assisted agents in acquiring suitable work centers, working materials, equipment and supplies.

The Assistant Director for Home Demonstration Work supervised all 4-H and older youth work in the field of Home Economics, working with the Assistant Director for Junior Extension Work. She supervised leadership training for leaders of 4-H home economics projects and all subject-matter material used for these projects. She assisted the Assistant Director for Junior Extension Work with county, district, and state-wide 4-H programs such as county and state achievement programs and state club camp.

The Assistant Director for Home Demonstration Work cooperatively worked with the Assistant Director for County Agent work in the following: personnel relationships of county and district agents, including office procedure, joint reports, etc. In the development of programs concerning home gardens, farm homes and buildings, and frozen foods, the Assistant Director for County Agent work provided some supervisory assistance to the women extension agents especially in those phases of the work that come more directly under the field of Agriculture, rather than Home Economics.

B. PERSONNEL PROBLEMS

1. Staff

During the fiscal year, November 1, 1946 to October 31, 1947, the staff of the Home Demonstration Division of the Extension Service underwent some changes. As of October 31, 1947, the staff consists of the following:

Miss Margaret M. Griffin Assistant Director for Home
Demonstration Work
Dr. Penelope B. Rice Nutrition Consultant (1/8 time)

<u>Women Extension Agents</u>	<u>County</u>
Miss M. Gertrude Hayes	Washoe
Mrs. Lena Hauke Berry	Churchill
Mrs. Olive C. McCracken	Douglas, Ormsby, Storey
Mrs. Rose Spezia	Elko
Miss Madge Elder	Lyon and Mineral
Miss J. Hazel Zimmerman	Clark and Lincoln

Mrs. Eda L. Carlson, Extension Nutritionist, resigned in January, 1947, as her husband accepted a position in Washington, D. C. Her position was not filled. The Assistant Director for Home Demonstration Work assumed her duties.

Miss Rae Scott, woman agent for Elko County, resigned December 31, 1946. Mrs. Rose Spezia, who had served as agent for Humboldt, Pershing, and Northern Lander Counties was transferred to the Elko position on April 1, 1947. Her previous position was not filled during the fiscal year, due to lack of funds and also lack of a suitable applicant.

Miss J. Hazel Zimmerman was assigned as district agent for Clark and Lincoln Counties on February 1, 1947.

During the summer months, June, July, and August, Mrs. Theo Sherman was employed as an assistant agent for Churchill County.

Thus, after January 1, 1947, six agents and one assistant agent served directly ten of the sixteen agricultural counties in the State, and the Assistant Director for Home Demonstration Work served as agent-at-large to the other counties. Additional personnel is necessary in order to adequately meet the needs of all of the counties in the State. Agents-at-large cannot do the work satisfactorily. The extensive area of counties, isolated homes and travel conditions do not allow for enough follow-up work with all groups when agents are assigned to more than two counties.

Existing budgets made no allowance for an expanded home demonstration program. Salaries for agents, Mrs. Spezia, Mrs. McCracken, Miss Zimmerman, and the assistant agent, Mrs. Sherman came from Bankhead-Flannagan funds. Travel and other expenses were met by some Federal and some State funds. Further needed expansion of the program will require more funds -- State and Federal.

It is very advisable that a home demonstration agent be assigned to Pershing, Humboldt and Northern Lander Counties in order to carry on the program that was organized there by Mrs. Spezia.

Additional specialists are needed on the State staff, especially one in the fields of housing and home improvement. The system heretofore used of assigning specialist duties to agents is not satisfactory especially because of the expansion of their regular programs which curtails the amount of time that might be devoted to specialist duties. Furthermore, "specialists" should be qualified in their individual fields. It would be advisable to have both a specialist in nutrition and one in housing and home improvement, or at least a part-time person attached to the staff in each field.

2. Training

a. Agents

Because of the difficulty that exists in finding trained and experienced personnel for home demonstration positions, it has been necessary to provide pre-service and in-service training particularly adapted to the type of personnel that we can employ.

No specialists from the National Office visited Nevada during the year, which was regrettable as the training and inspiration that they could have provided to the personnel would have been of great value. Although training programs were held, it was not possible to hold workshops attended by all agents every two months as planned. This was due to the heavy schedules of the agents and also because of travel expense.

In-service training was provided the various agents in the counties by means of conferences and demonstrations conducted by the Assistant Director of Home Demonstration Work. Subject-matter materials, visual and other teaching aids were prepared, selected and disseminated to the agents by the State staff.

Workshop training in tailoring and textiles was provided for the women agents, October 6-11, 1947, when Mrs. Lois P. Smith, Clothing Specialist, Utah Extension Service, came to Reno through the courtesy of the Utah Extension Service. This work-shop offered very excellent assistance in the field of advanced clothing.

Plans have been made whereby Dr. Jean Warren, Head, College of Home Economics, California Agricultural College, will conduct a work-shop in Home Management for the women agents in December, 1947.

Exchange visits by agents between counties was done in the line of training. Agents acted as judges at the Elko County Fair and at the Nevada State Fair held at Fallon during the summer. The Assistant Director for Home Demonstration Work served as a judge at both the White Pine and Elko County Fairs.

Agents were provided training offered by various public agencies such as the Red Cross, Cancer Control Program, Tuberculosis Association, and Health Clinics, to the extent that they were able to give their cooperation in bringing a knowledge of these programs and their provisions to the women in their groups. They also brought cases needing care to the attention of health authorities.

Agents were influenced to make a continuous evaluation of their work accomplishments and of current trends in order to adjust their programs to best meet present and changing conditions.

In addition, training conferences were held with the agents when they were in Reno for such state-wide activities as the State Achievement Day Program, Junior Livestock Show, and during 4-H Camp. Joan Frye, Educational Bureau, Spool Cotton Company was in attendance at the State 4-H Camp and conferred with agents and 4-H leaders.

Miss Jane Gibbs, Stylist, Simplicity Pattern Company of New York conferred with agents when she put on a 4-H fashion show in Reno in March, 1947.

There is a great need for agents to take continuous additional training. Provision of training courses in the Extension field, both graduate and under-graduate, should be provided at the University of Nevada. Opportunities for the professional advancement of agents must become more available, and they must be given an opportunity to have time to take this work.

b. Leadership Training

The expansion of the 4-H program in homemaking projects necessitated training of new leaders and the agents spent much time in working with the leaders both individually and in groups.

Leadership training conferences were conducted by the agents and the Assistant Director for Home Demonstration Work throughout the year. In Churchill County the program functions well through a Leaders' Council. In Washoe County, the leaders meet several times a year not only for training, but to organize and carry on various community programs, and contests among their groups. These include gardening programs, health drives, safety campaigns, hobby-shows and others.

There is a need for much more leadership training. State-wide programs would be of value, but district or county programs seem to be most effective. There is an apparent need of more standardization of the work throughout the State, both in 4-H and adult work done under lay leaders.

c. Training for State Staff Members

The Assistant Director for Home Demonstration Work attended the regional conference on housing research held at the University of California, January 15-18, 1947, and also participated in some of the meetings conducted on nutrition research. She attended the Extension Supervisory Work-shop conducted at Washington State University, Pullman, Washington, March 12-21, 1947; and the Regional Extension Conference at Corvallis, Oregon, August 3-8, 1947.

3. Improvement of Working Conditions to Retain Agents

Opportunities and facilities for studying the Federal Retirement System were made available to the agents. Mr. L. E. Cline, a specialist in the State Office was put in charge of this service, and some of the agents made arrangements to avail themselves of this opportunity.

Salary increases were made for all Home Demonstration Agents.

Additional equipment and educational supplies were provided for the women agents during the year. Each agent was supplied with a portable Singer sewing machine and table, cooking equipment, steam irons, pressure sauce plans, thermometers, and various other supplies and equipment.

Slides, movies, visual aid materials, subject-matter materials were continually supplied. Since the time of the agents is being taken more and more with group and individual contacts in their attempts to work with more people, it seems that it would be advisable for a larger part of the demonstration and illustrative materials to be prepared at a central point for distribution to the agents. They do not have sufficient time to spend hours in the preparation of all of the materials required -- or at least their time could be spent to better advantage if this phase of their work could be alleviated.

Work centers were established in two communities, Gardnerville and Carson, and plans are materializing for more of these centers, especially one in Reno. The centers serve as a means of reaching more people as well as a means of publicizing what the Home Demonstration Program has to offer.

The Assistant Director for Home Demonstration Work has assisted the agents with their schedules so that more efficiency has resulted. This can be further stressed, and such efficiency will have to be worked out if the home demonstration field will appeal to young women now preparing for their careers.

Subject-matter materials have been revised both for adult and 4-H work. Timely subject matter has been published and given to agents and others requesting it.

4. Developments under Bankhead-Flannagan Funds

Through these funds it was possible to employ three full-time women agents, serving eight to nine counties, that had not been provided with the service, one assistant agent who worked during the summer months.

C. PROGRAM

1. Program Determination

During the past year, all Home Economics work both for adults and rural young people was centered on programs contributing to their needs and interests as homemakers and members of their family groups and communities. Agents worked closely with councils, executive committees and with entire homemaking clubs in determining the program that was to be carried on and also in regard to its execution.

It was continually apparent that homemakers were needing and requesting help with their many new problems in the rapidly expanding field of family and community life. Every effort was made by the agents to give the homemakers a broadened program of homemaking. Economic problems and public policies; social relationships, adjustments and cultural values; health and medical care; housing; farm and home financial planning; consumer education; parent education and family life were programs in which increased assistance was given to rural people in helping them to solve their problems of community welfare, and their responsibilities as citizens in regard to both national and international situations.

Members of Homemakers Clubs were encouraged to develop their own programs for the year with the assistance of the agents. In almost all instances part of the program time was given to the women themselves for the consideration of economic problems, current topics of national and international significance; cultural pursuits. A definite indication of the recognition, on the part of the homemakers of the responsibilities, needs and demands of people living together was continually evidenced during the year, as well as their increased appreciation of the cultural values, and of current economic trends and forces.

The labor situation was improved. In addition to more farm laborers being available, more women were available for cooking jobs which allowed the farm homemaker to have more time for other activities. The increased interest in work simplification methods was an outgrowth, in many instances, of the experiences of the homemaker during the war years.

Although the War has ended, many projects that were an outgrowth of the emergency were continued, emphasized and expanded. Food production and conservation; clothing conservation; repair and care of furnishings were programs which still were of major consideration. Home and farm management, home and yard improvement, gardens, family and community relationships were of concern to all groups.

Home demonstration agents continued to work with the women on fat salvage, clothing collection, Red Cross drives and sewing, bond committees, price control boards, USO, health clinics, tuberculosis and cancer control programs.

The Assistant Director for Home Demonstration Work assisted the new agents in the organization of new homemakers' clubs, and in those communities that did not have a regular agent, gave demonstrations and met with the clubs. Ten new homemakers' clubs were organized this year in three counties which previous to the Emergency Program did not have this service.

The expansion of the home demonstration program to reach more families in areas of the State not hitherto given assistance, both in adult and 4-H fields, was the major supervisory problem of the Assistant Director for Home Demonstration Work during the past year. Newly assigned agents needed assistance in many ways, and in addition it was necessary to create on the part of the people themselves an appreciation of what the Extension Program had to offer to them.

Agents were encouraged and assisted in obtaining and analyzing local factual data. Individual contacts were maintained as much as possible, and the agents not only contacted but became active members of various local groups and organizations. For instance, the agent in Washoe County is a member of the State Board of Directors for the Nevada Tuberculosis Association; the district agent for Ormsby, Douglas and Storey Counties was a member of the P.T.A. School Lunch Committee; the Elko County agent has served for a number of years as County Nutrition Chairman. Community contacts such as these have been an invaluable means of determining needs of the individual and the community.

Planning and advisory groups were used more extensively during the past year, and included 4-H councils as well as executive and advisory groups for homemakers' clubs. In one county an executive homemakers' committee, composed of the presidents of each homemakers' club, meets monthly for the purpose of program determination, community relationships, 4-H sponsorship and other problems that are of interest to the various clubs. As a result of the cooperation between these councils and the agents, closer integration of all programs designed for the farm family, i.e., home demonstration, agriculture and junior work has resulted. Monthly and annual Farm Center and Farm Bureau meetings were planned to include something of interest from each program, goals as well as accomplishments.

2. Fields of Major Emphasis

Foods and Nutrition

Food production and preservation continued to receive special emphasis throughout the year. Garden projects were greatly stressed and many rural families continued not only to supply food for themselves but in addition for the market. Many rural families also produced meat, eggs and poultry for their home use for the first time as a result of the scarcity and high prices of these foods. There is a need for a specialist in truck gardening and the growing of small fruits.

A greater interest in meal planning, consumer education, sugarless recipes, meat substitutes, etc. was also evidenced by urban as well as rural homemakers.

Food preservation, particularly freezing, continued to be a program of great interest to the homemakers. While there are commercial locker plants in only four communities in the State, many farm families installed deep freeze units. Assistance was given in the selection and use of home freezing equipment to many more people this year than ever before.

The one full-time specialist attached to the State staff was the Extension Nutritionist, (resigned January, 1947). She gave much assistance to the agents in the nutrition field, and conducted workshops and gave demonstrations in many localities where agents were not assigned. These included food preservation, work simplification, and time-saving cookery. Her services were greatly missed, especially in the preparation and review of subject-matter materials.

The nutritional consultant (who works 1/8 time) supervised publicity, and publication of subject matter and also worked with the Nutritionist in carrying on the follow-up state-wide study of one-day food records that was undertaken in the Spring of 1946 by the State Food and Health Coordinating Committee, of which the Extension Service was an integral part. All agents cooperated extensively in this study. The Assistant Director for Home Demonstration Work is a member of the Executive Committee of the Nevada Food and Health Coordinating Committee, (now the Nevada Citizens' Food Committee) which is an outgrowth of the Nevada State Nutrition Council. The findings of these studies were brought to the attention of civic groups, parents, teachers, public health nurses, continually during the year by the Nutritional Consultant, the Extension Nutritionist and the Assistant Director for Home Demonstration Work. This was an effective means of implementing foods and nutrition work.

The Assistant Director and agents continued throughout the year to lend all possible assistance with school lunch projects. In some communities, homemakers' clubs actively sponsored the programs.

Home Management and Housing

The home management program continued to assist homemakers to utilize more efficiently their finances, time and labor. Housing improvement, and work simplification methods received much attention, as well as consumer education as to the selection of furnishings, equipment, etc. Kitchen improvement and refinishing and upholstering of furnishings were of interest to all groups. Workshops in upholstery ranging from one-week to four-week periods were conducted by all agents and also by the Assistant Director for Home Demonstration Work, and by the Extension Nutritionist before the time of her resignation.

It is hoped that, during the coming year, more work can be done in housing. Agents are in need of additional training in this field, and surveys need to be made before any effective program may be carried out. Research in this field, especially the Regional Research Project, will be of unlimited assistance to the Extension workers.

Budgets and accounting studies carried on cooperatively by the Extension Service and the Experiment Station were of immeasurable help to farmers. Farm and family outlook material formed a basis of discussions at meetings. Definite types of record books were shown and explained to the end that more families were keeping farm and home accounts than ever before. In one county, Washoe, 275 families were assisted in making food budgets by the woman agent.

Money management and family relationship discussions were held at homemakers' and 4-H Club meetings. Families have more money to spend. Children are working and in some cases the mother. Guidance is needed in the spending of money.

Motion-studies on the preparation of various foods, meal preparation, use of equipment were carried on. Also, discussions were held on the choice, use and care of new equipment available.

Yard improvement and home ground beautification was approached from both the point of safety and appearance. In one county, Churchill, approximately 90% of homes in the county carried on some phase of yard improvement work. This program was very popular in Washoe and Elko Counties due to large number of newly constructed home and housing units. Safety measures were an aid in building up community morale as well as improving the appearance of the farm home.

In those counties that did not have the services of a regular agent, the agent-at-large met a great demand for assistance with all phases of home improvement. In order that the program would be continued when the agent was not present, leaders were trained to carry on the work.

Clothing

Clothing selection, remodeling and conservation, and care and repair of sewing equipment formed the basis for the work done in the counties in this field. Clothing clinics were conducted throughout the State. Good grooming, clothing suited to the individual, remodeling of hats and furs and knitted garments, glove making, consumer education were all stressed. The clever and resourceful use of substitute materials such as feed sacks formed on the interesting demonstrations throughout the year, and this was one of the entries at the Nevada State Fair.

Family Life and Parent Education

As a result of the War and the many consequent adjustments of family life, many new requests for assistance were made of the agents. These included problems in parent education, family relationships, community relationships, child development and guidance. Some phase of this work was included in every homemakers' meeting. Special programs were designed to assist young homemakers, GI wives. This program can and will be given further impetus.

Health

In addition to the work that is done in health education such as sanitation, nutrition, production and proper utilization of adequate home food supplies, emphasis was directed, during the year, to assisting rural people to organize for group medical services. The agents assisted the women and 4-H youth to analyze their own health problems and to avail themselves of more adequate health facilities and services, such as Blue Cross Hospitalization Insurance.

Continued cooperation with the State Department of Public Health was maintained, especially in the furtherance of good growth and development programs in rural schools.

Health and safety projects were conducted. In one county, each family was asked to make a check of fire and safety hazards in their home. 4-H members made a similar check in their homes. If there was more than one 4-H member in a family, one of the boys or girls would check a neighbor's home.

4-H Club Work

The Assistant Director for Home Demonstration Work supervised 4-H Home Economics projects, supervised leadership training of leaders for these same clubs, and assisted the Assistant Director for Junior Extension Work in all joint undertakings that involved problems in the home economics field such as club camps and 4-H achievement days and contests.

4-H Foods and Home Improvement project record books were revised; the revision of the subject matter booklets for foods projects was almost completed.

The Assistant Director for Home Demonstration Work lent every effort to expanding the 4-H program. Leadership selection and training was emphasized. Organized training programs were inaugurated in all counties having agents.

4-H County Achievement programs were given more publicity and prestige, and again this year a State Achievement Day Program was conducted at the University of Nevada at which county winners competed for State honors. Entries in Style Dress Revue, Kerr Canning, Meal Preparation, Girls' Record, Clothing Achievement were judged in the morning of October 4, by the following judges: Mrs. Edward Reed; Mrs. Chester Elliott; and Miss Mildred Huber, State Supervisor of Home Economics Education.

The following girls were named State winners:

Canning	First - Alice Melendy	Washoe
	Second - Dorothy Berger	Ormsby
	Third - Theo Ann Smitten	Churchill
Style Dress Revue	First - Carmae Sorensen	Churchill
	Second - Thelma Tobler	Clark
	Third - Thelma Winkelman	Douglas
	Fourth - Bonnie Wilson	Lyon
	Fifth - Miriam Sharp	Nye
	Sixth - Joyce Hoover	Washoe
Clothing Achievement	First - Mary Getto	Churchill
	Second - Juanita Quick	Lincoln
	Third - Lorraine Bassman	Douglas
	Fourth - Wilma Cinocchio	Washoe
Food Preparation	First - Jean Crook	Churchill
	Second - Lucille Pulsipher	Clark
	Third - Dorothy Harmon	Douglas
Frozen Foods	First - Hazel Heath	Churchill
	Second - Shirley Whipple	Clark
	Third - Eileen Pezzi	Washoe
Girls' Record	First - Rena D'Andrea	Washoe
	Second - Loretta Bassman	Douglas
	Third - Margaret Soares	Churchill
Health	First - Ardis Dickerson	Washoe
	Second - Delva Hendrix	Churchill

State winners: Mary Getto, Alice Melendy, Rena D'Andrea, Carmae Sorensen, Ardith Dickinson, Jean Crook and Gloria Tacchano (winner in gardens project), attended the National 4-H Congress in Chicago.

They were accompanied by Paul L. Maloney, Assistant Director for Junior Extension Work; Miss M. Gertrude Hayes, County Extension Agent; Mrs. Lena H. Berry, County Extension Agent, and Mrs. C. H. Melendy, 4-H Leader.

Efforts are being made to organize 4-H homemaking projects on a yearly basis, enrolling new members during February, March and April. Women agents have been successful in expanding the 4-H program in both the home economics and agricultural fields. The annual Junior Livestock Show, county and state achievement programs, exhibits at county and the State Fair have served as an impetus to the program. Also the close sponsorship of the 4-H program by the homemakers' clubs has been of great assistance in developing the junior work.

II. COOPERATION WITH OTHER AGENCIES

Close cooperation relations were maintained with all organizations and agencies that had to do with the problems of rural and urban people. Included among these are the Nevada Food and Health Coordinating Committee, State Department of Education, Department of Public Health, Red Cross, Child Welfare and Old Age Assistance Divisions, Tuberculosis Association, Agricultural Adjustment Agency, Soil Conservation Service, Office of Price Administration, U. S. Employment Service, County Commissioners, Farm Credit Administration, Federal Land Bank, Indian Service, schools, churches, fraternal organizations, Maternal and Infant Care Program, and others.

Planning and guiding efforts in the solution of local and State problems constituted the major contribution of such cooperative relationships, as well as the avoidance of duplication and promotion of services. The small population of communities in Nevada has always made for a high degree of cooperation among agencies, and the fact that staffs of programs are limited in number has been a factor in this.

Throughout the history of home demonstration work in Nevada, the closest working relationships have been maintained with the Department of Public Health. The nutritional studies conducted by the Nevada Health and Food Coordinating Committee were actively carried on by public health nurses and women extension agents in cooperation with school officials. The chairmanship of the Nevada Citizens' Food Committee, formerly the Nevada Health and Food Coordinating Committee, rotates among representatives of the State Department of Public Instruction, State Department of Public Health and the Extension Service, the vice-chairmanship is held by one of the agencies, and that of past-chairman being the assignment of the other group.

The Assistant Director for Home Demonstration Work served as State Chairman for the Friendship Train Activities. Members of the Nevada State Farm Bureau and Extension agents lent enthusiastic and effective assistance in successfully accomplishing the goals of this program. The quota set for Nevada was one car load of food; two cars were filled.

The homemakers' clubs are continually becoming more active in community affairs. Many new activities originated during the War, have continued, and the assistance given to the Red Cross, Tuberculosis and Cancer Control Program is particularly noteworthy. The women have become more active in promoting the services of these agencies, and in creating an awareness among rural people of the advantages of the services which are provided. Similarly, throughout the State, the Extension Service continued to work with all interested groups and organizations in bringing assistance needed to make for a more correctly informed rural citizenry in regard to their social, economic, national, state and community affairs.

III. MAJOR DEVELOPMENTS CONTEMPLATED FOR 1948

1. Further expansion of the homemaking program to areas in State not now provided with this service.

Need for one full-time agent in Pershing and Humboldt Counties and one agent, preferably full-time, in White Pine County.

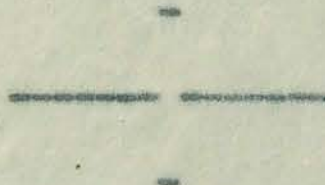
2. Improved and increased leadership for adult and 4-H group.

Leadership training on an improved scale is essential. Agents need assistance in the selection of better leaders. It is hoped that more workshops, training conferences, and more opportunities for professional advancement may be provided during the coming year.

3. An effective sound program in homemaking education that will adequately meet the needs of homemakers and 4-H girls.
4. A more correctly informed rural citizenry in regard to their social, economic, national, state and community affairs.
5. The increased efficiency of homemaking methods in use by all homemakers within the State.
6. Further development of the neighborhood leadership technique.
7. Improvements in 4-H Home Economics Club work as follows:
 - Increased club enrollment
 - Increased project completion
 - More and better trained leaders
 - Increased participation on the local, county, and state levels in 4-H contest. Further development of the truly educational values of "contests."

8. The development and accomplishment of a sound and effective health program that will result in improved nutritional and all other health promotional activities on the part of both young people and adults.
9. Revision of subject-matter materials previously published by Nevada Extension Service, especially 4-H Home Economics Project subject matter.
10. A more adequate program of pre-service and in-service training for home demonstration agents.
11. To develop improved working relationships between staff members and cooperating groups and agencies.
12. To develop and expand programs with all cooperating groups that are concerned with solving community, state, national, and international problems.

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION
UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING



ANNUAL REPORT OF AGRICULTURAL EXTENSION NEWS SERVICE

FOR

1947

BY

A. L. HIGGINBOTHAM, EXTENSION EDITOR

REPORT OF THE EXTENSION EDITOR
AGRICULTURAL EXTENSION DIVISION
UNIVERSITY OF NEVADA

For the Year 1947

By

A. L. Higginbotham

The fighting war is over. On the battlefronts, the conflicts have ceased. But the "cold war" continues.

On the food front, therefore, the battle continues on an emergency basis as usual. For food and fiber are still needed in large quantities to feed a hungry, war debilitated world--U. S. service men and women at home and abroad, civilians, and hungry persons in foreign countries.

Food helped win the war. Food is now being asked to win the peace.

The food production emergency is still with us.

News Service Ready for Emergency

Into this situation, the news service of the University of Nevada agricultural extension service continues to fit efficiently, as it did during the war years.

During 1947, the news service has brought to every farmer and homemaker in the state who reads or listens, the importance of the peace, food efforts and facts related to it which lead toward achievement of the goals which result from victory.

Service is Prepared

The problem of conveying information to the people of the state as quickly and effectively as possible is one for which the news service was prepared with a background of twenty years of practice.

It swung into the job as "natural" one for the news service, since post war information, dynamic and of the moment, is particularly adapted to handling as news. Food and food production continue, in this emergency, to be big news.

THE NEWS SERVICE

In terms of practices adopted, which is the goal of extension work, the news story is, by all odds, the cheapest and most effective extension technique. This principle is not only well recognized, but it has been proven time and again by surveys of unquestioned accuracy.

The press and radio, in matters related with farming as well as in other fields, formed the chief media in passing on information and in keeping up effort on behalf of the nation in its post-war crisis.

News Reflects Post-War Effort

The need for reaching rural people quickly with information which was news of the highest value was great. Through the press of the state, this goal could be realized.

The result was a steady flow of current, newsworthy, vital information to farmers and farm homemakers definitely related to their part in the national food effort.

News is Dynamic and of the Moment

A great deal of this effectiveness may be attributed to the fact that extension information in the form of news is far more dynamic than in the form of technical information.

Displayed in a local, thoroughly read newspaper with stories bright with the dynamic of the contemporary, extension news catches the urge to immediate action which stimulates activity on the farm or anywhere.

Extension news, moreover, is not read as one studies a textbook, but naturally, casually, as a farmer each day or each week takes time out to get acquainted with the changing nature of his cultural environment.

Read in Receptive Spirit

As such, it is accepted in a more receptive spirit than is the reading or studying of information which the farmer knows he ought to understand, but which is pretty hard work after a day following the plow or pitching hay. Extension news brings the information in homeopathic doses assimilated easily and without pain. In fact, it is even pleasantly taken.

News Story Chief Medium

This past year, as during the war years which preceded it, found the old-line medium of the news story bearing the brunt of the burden. Not only is it the key to public opinion in Nevada at all times, and, therefore should be stressed above all, it is especially vital in post-war times because it is the primary medium of post-war news.

Radio also, as one of the speedier methods, was stressed during the year, and Nevada radio stations carried more farm news than ever before.

Two new bulletins were issued by the extension service during the year. Bulletins, in general, however, are less fitted than other commonly used media to the speed needed in emergencies.

With agents relieved of some of the wartime rush of their jobs, and with many new agents in the service, stress was given them in the use of mass media in extension work. And, under this stimulus, their news story production showed a sharp increase.

PMA and SCS News Covered

The extension editor also is prepared to handle the information work of the Nevada Production and Marketing Administration office, which is of considerable volume and the Nevada final preparation and distribution of Soil Conservation news originating in the regional office, as well as stories from the Nevada office.

In accordance with the request of the federal extension office, the Nevada editor worked out a signed arrangement with Pacific region office of the Production and Marketing Administration for the handling in Nevada of Nevada PMA news originating in the regional offices.

Specialist Number Limited

Chief handicap of the news service during the year has been the limited number of specialists as sources of news.

If news is to be handled so as to have a personal appeal, it must be localized. Specialists for this function are not available in many important fields. Those available have worked with a will and done a good job. But much, if not most, of the copy used by the news service is stimulated by suggestions of the extension editor, who has even acted as an unofficial garden story source, although everything has been checked by quotable extension workers.

Moreover, specialists are not anywhere near equal in their cooperation with the news service in stories. During the 1946 report year, for example, various specialists in the state office (some of them with administrative duties) varied in news story representation from 2 to 14. And some of the lowest ranking specialists are in contact more frequently with material of news value than those ranking high. It's really a matter of interest and willingness to work.

I.Q. and Education are Index

The method of presenting farm and home information to any group of persons must depend to a very large degree upon their intelligence and ability to understand.

If these factors are of a low grade, material must be adapted to that kind of reader and listener. If, on the contrary, there is a high I.Q. and an extensive educational background, the appeal can be made at a much higher level.

The rural people of Nevada, to whom the extension service directs its information through various channels, are very much above the average in intelligence and in education.

Nevada Farmers Rate High

According to the 1940 census, the median number of school years of Nevada rural people, 25 years and older, was 8.4, a figure exceeded in only seven other states.

This figure includes Nevada's Indians, who have their own extension service. The major contact of the extension news service, however, is with native whites. Among these, the median number of school years completed is nine, a standing exceeded only by Utah and Massachusetts.

Many College Graduates

While most rural people are not college graduates, the percentage of this group among the farm population is a significant index of the general intelligence and background. Only two states in the union exceed Nevada in the number of rural farm people, 25 years and older, who have completed four or more years of college. In Nevada the percentage is 9.5, again exceeded only by that of Utah and Massachusetts.

In brief, therefore, the appeal to Nevada farm people can be pitched at near the top level for farm people anywhere in the United States.

Map Shows Distances

A map issued by the national highway users conference during World War II, indicates dramatically how dependent are Nevada rural people upon secondary contacts for their information and stimulus.

According to the map, there are three enormous areas in the United States which are 25 miles or more from any railroad line. Of these areas, two include large parts of Nevada. The third includes parts of New Mexico, Arizona, Utah, and Colorado.

Secondary Contacts Important

With so many of Nevada's rural people living in such an isolated area, the effectiveness of such secondary contact agencies as the newspaper, the magazine, the bulletin, the radio, and similar mass community methods is evident.

It is with such factors as these in mind, that the University agricultural extension news service is operating.

Development Is Reviewed

In 1947, the news service was conducted by the extension editor, A. L. Higginbotham, who also is professor of journalism in the University of Nevada. During the University year, about four-fifths of his time is devoted to resident teaching, but, during the summer recess, with the exception of a month's vacation, he devotes his entire time to extension editorial duties.

Thus, the news service to newspapers and the radio service, which require regular attention, are maintained the year around.

The news service of the University of Nevada Agricultural Extension Service was inaugurated by Higginbotham in 1927, on a very small scale, and during the years since, has been developed to its present status, which in general, is ample to carry the load of news and editorial work during the normal years. In time of emergency, additional, part-time help is needed, and it has not been available in 1947.

News is Concrete

Extension news, in contrast to general scientific information, is related intimately to the physical and social environment with which the farmer and farm housewife deal nearly every day.

It has, therefore, a reality, a concreteness, which is appealing to the practical man or woman.

Wholesome competition between neighbors arises and practices are adopted for social reasons which bear fruit in economic and general cultural terms.

Because of additional social and psychological factors, the news story is superior as a means of conveying extension information to the rural people of a state.

News is Cheap

But, practices are adopted through news stories not only efficiently, but cheaply, as well.

And the reason for that lies in the fact that the newspapers, in serving the interests of their readers, bear the major portion of the expense of the dissemination of this information in the form of news stories.

The average news story issued by the agricultural extension service of the University of Nevada reaches the people of the state in nearly eighty-thousand copies of printed newspapers, and through several radio stations.

Many of these people are not farmers, but they often are gardeners, homemakers, or persons deeply interested for patriotic, social and economic reasons in the rural life of the state. And, nearly all of them are both federal and state taxpayers and are the rightful recipients of the services of the agricultural extension service.

State Stories News Service Backbone

State-wide stories, the backbone of the news service, go to the entire state list and to Nevada radio stations, as well as to newspapers and farm journals, the press association, and feature services outside the state; in addition, is the special news service to five or fewer publications and radio stations.

In a normal year, the number of state-wide stories should run between 100 to 150, the latter being about the top amount of copy which Nevada newspapers can wisely use in peace time.

War Increases Newsworthiness

The fact that a nation is at war alters this estimate somewhat and the volume of 1945, which was nearly double the minimum in normal times, reflects the great market for such news, both by the papers themselves and by the readers. In 1947, therefore, it was natural that the volume should drop somewhat.

One of Greatest Volumes

An analysis of the news service for the year, reveals that it has reached one of the highest figures in its peacetime history, running to 155 stories, totalling 56,005 words, about the same as 1946.

News always reflects the current situation. And, of course, was so with subject matter of the 1947 state-wide news service.

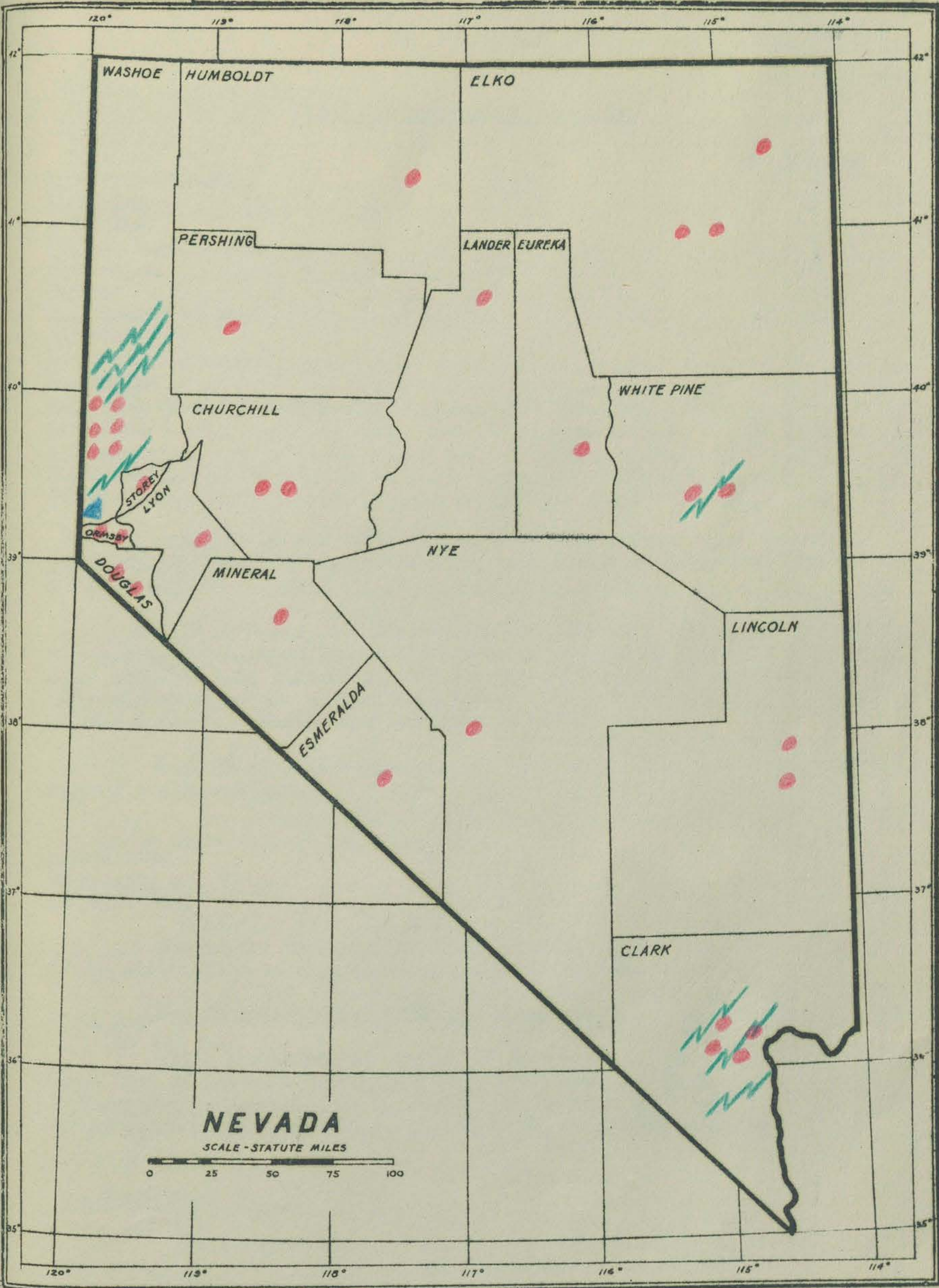
During the year, as in the previous year, the color of the entire news story output was shifted to relate everything, if possible, to the farmers' and farm homemakers' part in the national post-war effort.

In the table below, is a breakdown of state-wide story numbers in relation to source and to the post-war emergency. Many more stories than indicated, however, are in support of the work of the Production and Marketing Administration, since, from a policy point of view, it often is desirable to originate copy along the lines of their objectives with extension specialists as educators.

	<u>No. Stories</u>
Post-War Emergency Extension Activities	10
Regular Extension Activities	78
Nevada Office of the PMA	17
Soil Conservation Service	2
Miscellaneous	48

No Pattern Followed

The idea throughout the year was to do everything in the news service to carry post-war vital information. No attempt was made, as might be the case in normal times, to follow any set pattern related to a desirable emphasis in relation to the improvement of farming, ranching, and homemaking in the state.



Chief Subject Matter Categories

	<u>No. Stories</u>
Food Preservation	9
Gardening	10
Nutrition	12
Postwar Regulations	1
Production	18
Salvage	1
Utilization of Food	5
Manpower	2
Loans and Insurance	3
Homemaking	6
Horticulture and Forestry	11
Personnel	1
Outlook	8
Engineering	3
General	65

Analysis of the state-wide news stories further shows that the great emphasis has been on agriculture, rather than on homemaking or on 4-H Club work.

This probably is a sound emphasis. Although homemaking stories run to only about one-third of the number of stories concerning agriculture, it is probable that that is a natural division in terms of news value. And, on account of the wartime emphasis on food and clothing, the number of home economics stories has increased in recent years.

Undoubtedly, there is room for many more 4-H club stories, news copy of a high caliber.

	<u>No. Stories</u>
Agriculture	101
Homemaking	36
4-H Club Work	18

How is the news service servicing the various geographical groups in the state--farm people, non-farm rural people, and townspeople?

The following table tells the story.

While the number of stories of interest to rural people is many times that of interest to non-farm rural people and no stories were designed entirely for townspeople, it is encouraging to note that nearly one-third of the stories were applicable, in some form, to all three groups.

	<u>No. Stories</u>
Farmers and Farm Homemakers	93
Other Rural People	16
Townspeople	1
All three groups	45

Specialists Determine Pattern

While the extension editor exerts every effort to keep the emphasis on the most important projects and to produce a balanced service with variety and interest, much of the nature of stories in the news service is determined by the activities of the specialists in the state office.

The activities of each state specialist determine, to a very large extent, the nature of the information from which news service stories can be written. If for some reason, a specialist emphasizes a certain phase of his work for a long period of time, that emphasis is inevitably reflected in the news service. No matter how many suggestions are made by the extension editor, if the specialist does not have time to work on them, they do not produce information which can be used as news for papers or radio.

State Policy is Factor

In like manner, emphasis throughout the state determines, to a very large part, the nature of the emphasis in the state-wide news service. If a certain goal is being sought by the entire service, which requires an unusual amount of effort on the part of every member of the staff, whether in the counties or in the state office, it is obvious that some other things must be neglected.

With Nevada's small staff, it has been impossible for us to take on all of the obligations and to do all of them as thoroughly as we would like. The result has been that we have often devoted a major portion of our time to the things of the moment, rather than those which might be more important from the long point of view.

News Activity Varies

Great variation occurs in the number of stories originating from various members of the Nevada extension staff.

An analysis of the year 1946, reveals that one specialist was responsible for material for 14 state-wide stories, while another was authority for but two.

Of course, the kind of material handled by various specialists and agents is a determining factor in news value, but it does seem as though there should be less of a gap between the various workers in their news activities.

Cooperate With PMA and SCS

Every effort was made during the year to cooperate fully with the Nevada office of the Production and Marketing Administration and Soil Conservation Service in their Nevada activities.

Soil conservation news concerning Nevada's agriculture is supposed, by agreement, to be handled by the extension editor through cooperation by the Nevada state office of the Soil Conservation Service

The extension editor continued during the year to handle news from the Nevada office of the Production and Marketing Administration.

A considerable portion of the total stories in the state-wide news service for the year dealt with PMA activities.

Special Stories Written

Since approximately the same time is required to prepare a story for the papers of the state, as for one for only a few publications, the state-wide story is and should be stressed.

Nonetheless, at certain times, one strong publication or group of smaller publications need and desire some special writing for them, and special stories are then prepared. In 1947, such stories were written in a total of several thousand words.

4-H Camp Special News Event

In 1946, the Nevada 4-H club camp resumed its annual sessions, and an entirely new program, with the chief emphasis on recreation, was developed. Activities of the camp were covered daily in 1947, by the extension editor, but since the state-wide contests were no longer on the program, the volume of copy was much smaller than previous years.

Newspaper Circulation Grows

The circulation of the papers as a whole continued to grow during 1947, in view of a sharp increase in state population--in percentage, second greatest in the United States--despite the shortage of newsprint.

As a result of these factors, a greater number of Nevada citizens joined the newspaper audience and are among the readers of Extension Service news stories. Total circulation in 1947, was about 77,000 for a population of about 150,000.

The number of newspapers published in the state was maintained through the year with the loss of one daily, established in 1946.

As a result, the chief agency of publication open in the state, came through another year, although plagued by post-war problems, especially that of manpower.

Meat Stories Used by All

The play of Extension Service stories by the papers in the state remained at a high point during the year.

Over the year, the state's editors have continued to recognize that while mining is regarded as the state's primary industry, agriculture and stock raising is the industrial backbone of Nevada.

No definite survey of the percentage of the Extension News Service stories used by the papers of the state was made during 1947, but it probably about equalled the percentage determined in previous surveys--about 80 percent of the average for all the papers of the state, although the volume increased greatly.

In comparison with Nevada's 80 percent, in some states a batting average of 20 percent is considered good.

Cordial Relationships Continue

As in previous years, the extension editor maintained cordial relationships with the newspapermen of the state. Through contacts over the years, both as Professor of Journalism in the University of Nevada and as extension editor, he is now acquainted personally with nearly all of the publishers, editors, and other newspapermen in the state.

This friendly acquaintanceship continued through 1947, through visits to many editors of the state in their own newspaper offices.

Chosen NSPA Officer

Early in the fall of 1943, the secretary-treasurer of the Nevada State Press Association joined the army, and the extension editor was asked to serve as secretary-treasurer until a successor is chosen, a post he held during 1947.

In this capacity, the extension editor is in a position to work more closely than usual with the newspapermen of the state, and to ascertain their needs and develop their cooperation.

Many Journalism Graduates on State Papers

A large number of additional journalism graduates of the University joined the staffs of papers in the state, increasing the total of University of Nevada journalism graduates, trained by the extension editor as professor of journalism, at work in Nevada. Known personally through the years of teacher-student contact, these young men and women are a vital factor in the success of the News Service.

Papers Read Regularly

One of the most important parts of the extension editor's work in connection with the News Service, has been the regular reading of practically every newspaper published in this state. All but a few of the Nevada news-

papers are sent direct to the extension editor as a gracious compliment in return for the agricultural news stories. From one-sixth to one-fifth of the total time of the extension editor, is spent reading and scanning these papers in an effort to keep him informed as to:

1. The use of Nevada agricultural extension service copy.
2. News stories originating with the various extension agents.
3. Agricultural news stories originating with the staff of the paper itself.
4. Editorial comment concerning Nevada's agriculture.
5. Changes in journalistic technique and the personnel of the various papers.
6. Other matters involving a sound conduct of an agricultural news service in this state.

THE COUNTY AGENT SERVICE

News with a local angle is the most avidly sought by newspapermen everywhere.

Especially, however, is this true of the community newspaper, which is mostly read by farmers and farm homemakers. And much news which is of great importance in one small community has little or no value in another. These principles apply to news of farming, ranching, and the farm home, as well as to other kinds of local news.

Agents are reporters.

Realizing the importance of these laws in the dissemination of news of interest to farmers and farm homemakers, the extension editor through the years has encouraged and helped the agents in the various counties and districts of the state to serve as reporters of such news for the newspapers in their communities.

Beginning with some of the agents antagonistic to the idea, others lukewarm, and only a few convinced, the extension editor has, by repetition of the principles and by aid and suggestion, stuck with the idea, until in recent years and until the load of detail incidents the war effort bogged them down, most of the agents have been active and efficient in disseminating, through their local journals, news of agricultural and home activities in their own communities.

In 1946, for the first time in seven years, the average number of stories produced by the typical Nevada agent showed an appreciable increase, an important straw in the wind. And, in 1947, the upward trend continued, with a really big gain by the agents in the use of the news story as a medium of extension education.

Figures Reveal Accomplishment

The figures tell the story of the development of this idea over the years.

In 1927, when the extension editor began the missionary work, the average production of each of the agents in the service during the year was 31.5 stories annually. Without interruption, the annual production of news stories by the average agent rose steadily for five years, being, in 1932, an average per agent of 76.3, well over twice the figure at the beginning.

During the emergency years, with each agent striving to learn the intricacies of much new work of a national nature, the production slumped, falling, at its lowest, to an annual average of 50.7 in 1936.

In 1937, however, the agents began to grasp the details of the emergency programs and to find in them a new source of news, with the result that the rise continued, and it was carried even higher in 1938, when a new high of 85 stories on the average was reached, approximately three times the production current when stimulation of this activity began about a decade before.

Decline Sets In

In 1939, a decline started in the number of stories produced by the agents, which reached its low point in 1941, with an annual average production of 71.2.

In 1942, a very slight rise occurred, reaching a peak of 71.5 news stories average annual agent production.

In 1943, however, the agents' news story production began a sharp drop which continued through 1944.

In 1943, the figure for the state was 58.9 stories and in 1944 the number plunged to 43.1, a figure as low as the production of any year except three in the history of the Extension News Service.

Figure Rises in 1945 and 1946

In 1945, for the first time in eight years, an increase in the average agent's annual production of news stories occurred, the figure rising from 43.1 in 1944 to 44.5. "So slight an increase may be meaningless," the editor said in his 1945 report. "It may indicate a reversal of the downward trend. It may mean only a pause. It may also reflect an increased effort on the part of the extension editor to interest the agents in extension work through news stories. The 1946 report will tell which."

And 1946 did tell something: for a second year, the trend reversed and moved upward. The typical agent news story production rose to 48.8, an increase of almost 10 percent.

1947 Shows Big Gain

But, 1947 was the real test. If the increase continued, it would be the third year in a row. Three certainly makes a trend. Moreover, during 1947, the extension editor made a strong effort, through a series of circular letters running about one a week for three months, to stimulate production. By individual letter, by personal interview, and by other means, the editor also sought to stimulate production, however, lacking in skill.

And, in 1947, the agents did pass the test magnificently. The trend is definitely upward, and, as the years go, it gains acceleration.

For during the 1947 report year, average per agent news story production jumped from 48.8 to 58.4, an increase of almost one-fifth.

This was accomplished, moreover, during a period which saw many

new agents join the extension service force, some of whom did not stay long enough to get into news story production.

The goal for 1948, is for a similar increase, coupled with a higher skill in news writing. Plans are being made by the extension editor to give increasing attention to this project.

Agents Have Little Time for News Work

Why had this marked decline occurred since the beginning of the war?

The answer, the extension editor believes, is not difficult to discover. It lies not in lack of know-how, not in lack of initiative or energy, not in lack of news, but, on the contrary, in lack of time. This is the judgment not only of the extension editor, but of the agents themselves.

The multiplicity of additional duties which have fallen on the shoulders of the extension agents throughout the state on account of the war effort has left them little or no time to devote to news story production. Even though news story production rose appreciably in 1947, this difficulty still plagues the agents.

That this analysis is a true reflection of the situation was borne out at a meeting recently when the extension editor asked the assembled agents to explain why the production volume had declined. Without exception, the agents stated that the reason was lack of time and that other factors were negligible.

Home Economics Volume Declines

That this is the case is found borne out also by the fact that, in 1943, for the first time in a number of years, the production of the women agents also showed a marked decline. Throughout the history of the Extension News Service, the women agents in the counties have been steady, regular, and effective producers of news copy. The drop continued in 1944 and 1945. In 1946, slight gain was registered--but it was very slight.

NUMBER OF NEWS STORIES WRITTEN BY MEN AND WOMEN AGENTS
1927 1947

<u>Date</u>	<u>Agents</u>	<u>Total Agents</u>	<u>No. News Stories</u>	<u>Average No. Stories By Men & Women</u>	<u>Total No. News Stories</u>	<u>Ave. No. Per Agent</u>
1927	8 men 3 women	11	309 39	38.5 13.0	347	31.5
1928	8 men 3 women	11	384 79	40.8 20.6	463 463	42.0
1929	11 men 5 women	16	309 351	28.0 70.2	660	41.2
1930	11 men 5 women	16	556 250	50.5 50.0	806	50.8
1931	12 men 5 women	17	633 492	50.2 90.8	1125	66.1
1932	12 men 5 women	17	763 537	60.3 107.0	1300	76.3
1933	12 men 5 women	17	707 535	58.8 107.0	1242	73.0
1935	14 men	18	707* 336*	50.1 80.4	1038*	57.6*
1936	13 men 5 women	18	556 557	40.2 111.2	913	50.7
1937	11 men 5 women	16	842 294	70.6 50.8	1153	69.8
1938	13 men 5 women	18	1060 471	81.5 94.0	1531	85.0
1939	13 men 5 women	18	950 418	73.8 83.6	1368	76.0
1940	14 men 5 women	19	914 468	65.3 93.6	1382	72.7
1941	14 men 4 women	18	891 391	63.6 97.8	1282	71.2
1942	14 men 4 women	18	845 442	60.4 110.5	1287	71.5
1943	12 men 4 women	16	619 324	51.6 81.0	943	58.9

NUMBER OF NEWS STORIES WRITTEN BY MEN AND WOMEN AGENTS (CONT.)
1927 1947

<u>Date</u>	<u>Agents</u>	<u>Total Agents</u>	<u>No. News Stories</u>	<u>Average No. Stories by Men & Women</u>	<u>Total No. News Stories</u>	<u>Ave. No. Per Agent</u>
1944	13 men 4 women	17	419 314	32.2 78.5	733	43.1
1945	12 men 5 women	17	403 354	33.6 71.0	757	44.5
1946	17 men 8 women	25	637 584	37.4 73.0	1221	48.8
1947	15 men 6 women	21	609 620	40.6 103.3	1229	58.4

*Figures for 11 months only (December 1934-Oct. 1935, inclusive). Adjusted to 12 month basis for comparison.

Ratio to State News not Explanation

The Extension Editor at first thought that possibly the great volume of state-wide news stories had had a tendency to reduce the production of the agents for their local newspapers.

A study of the figures during the last dozen years, however, indicates that this is not the cause.

Although it is true that agent production reached a low figure of 43.1 in 1944 when the state story total reached its maximum of 245 stories, a high figure in both state and local stories occurred in several years simultaneously.

Table Reveals Relationship

The following table gives the figures for the last ten years in both locally produced and state-produced stories:

<u>No. Produced Per Agent 10 years</u>	<u>No. State-Wide Stories Issued 10 years</u>
1936 - 50.7	112
1937 - 69.8	152
1938 - 85.0	134
1939 - 76.0	108
1940 - 72.7	134
1941 - 71.2	131
1942 - 71.5	193
1943 - 58.9	194
1944 - 43.1	245
1945 - 44.5	192
1946 - 48.8	156
1947 - 58.4	155

The extension editor plans, however, to put more emphasis upon the training of the newer agents during the next year, as he did last, together with stimulus for the older agents. Plans have already been made to talk periodically at the regular monthly meetings of the women agents, and preparations have already been made for a news writing school at the 1948 state-wide extension conference. A state-wide competition among the agents may be adopted.

Agent Production Varies

During 1947, one of the home demonstration agents wrote, or was responsible for 234 stories. Another home demonstration agent was responsible for 14. Opportunities for publication were almost identical.

This represents the variation in the use of news as an extension method between one agent and another.

The variation among the men agents was not so great, but it also illustrates the same principle--that news story production depends, to a very large extent upon the desire to use this proven and sound medium. One of the men agents was responsible for 97 stories, another, for only 2.

Women Agents Beat Men

Again, in 1947, as for many years, the home demonstration agents outstripped the men agents more than two to one in news story production. Six women produced more stories than 15 men. This is in view of the fact that agricultural news is very much more easily handled than news of home economics.

Agent Experience Reveals Time Lack

An illustration of the time required to produce good news stories on the local level occurred in 1944, on the part of one of the agents.

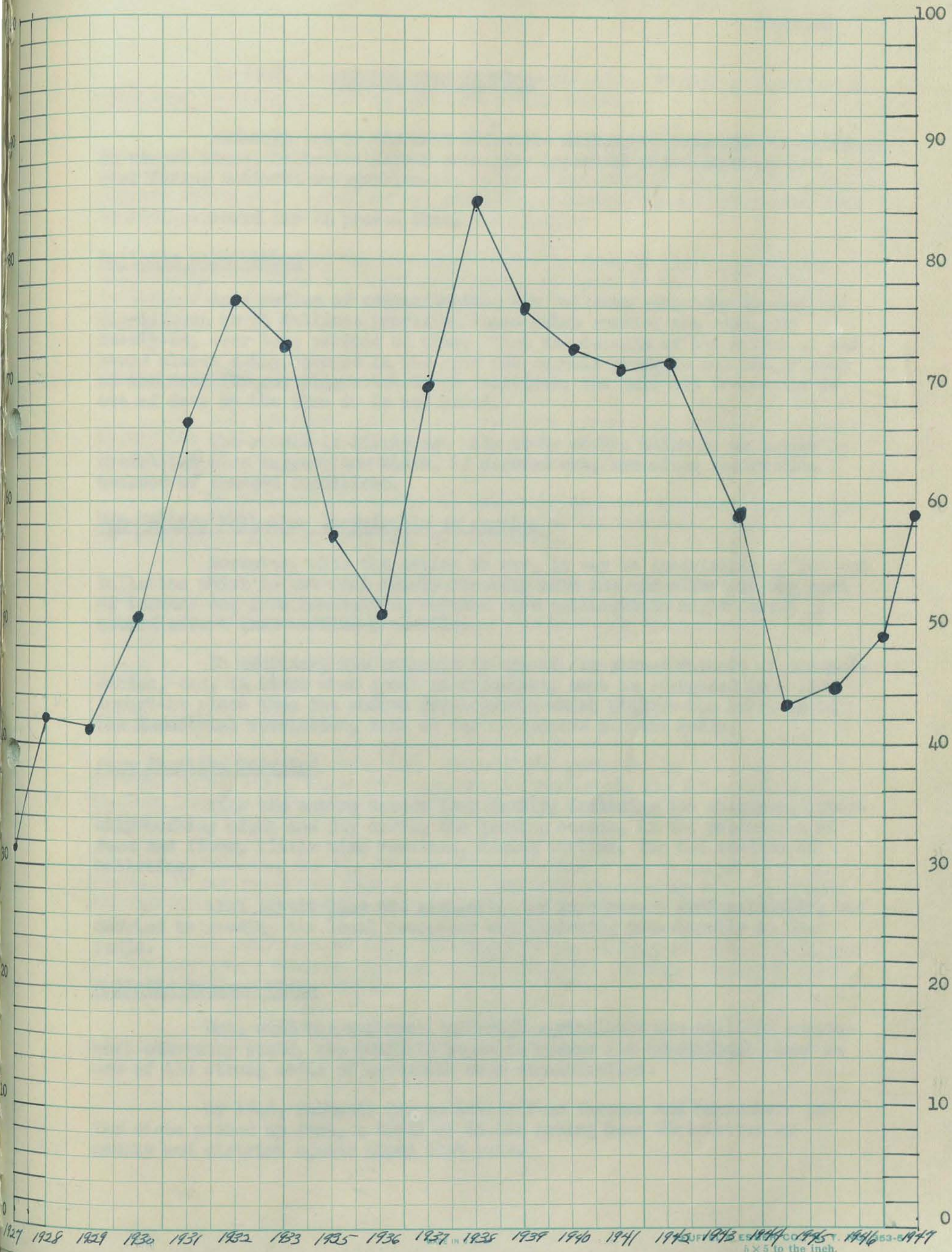
In a talk with the extension editor, the agent explained that he had made a determination to produce one story for each of the two strong papers in his territory each week.

He started out to do this job magnificently, producing in the early stages a number of pieces of copy so good that with some changes they were suitable for rewriting for the state news service. They took, he found, however, a considerable amount of time, often consuming as much as a total day in the gathering and preparation of the material for one story.

An inevitable result was that he could not keep it up without neglecting other phases of his extension job, until now, several months after his beginning, stories appear only very sporadically.

A similar occurrence in the summer of 1944, in another county in the state resulted in the starting of a weekly garden column which lasted about seven weeks, until the agent lost interest in it, or found the pressure of other duties so great that he could no longer continue his job as columnist.

When the confusion of the post-war period is over, with a stable personnel again in the field, it is likely, especially under stimulus by the extension editor, that news story production by Nevada agents will rise to its pre-war heights and what is admittedly the cheapest extension method will again come into its own.



THE BULLETIN SERVICE

Although one of the most effective methods of extension teaching in normal times, bulletins have a much less important place in extension work during national emergencies.

World War II proved that.

Bulletin Slow Method

As a medium of communication, the bulletin generally is most significant as it outlines practices whose value remains the same, or nearly so, over long periods of time. When the demands of the nation at war cause almost daily changes in the need for certain products and the urgency of the need for revising established practices, the bulletin frequently is out of date by the time it is published.

The result is likely not only to be advice which is no longer useful but also suggestions which, if carried out, are often inadvisable because of changed conditions.

Non-Wartime Bulletins Inadvisable in Wartime

Moreover, with the nation at war, it may be inadvisable to put out bulletins which do not deal fairly directly with the war effort on the part of farmers and farm homemakers, because such publications might divert needed effort from wartime production.

In addition, the bulletin is one of the slower methods of communication, and, in times when speed is important, must be relegated to a less important place than the modern developments which utilize the hurry-up of the industrial revolution, such as the newspapers and the radio.

Farm Families Occupied

With the entire Nevada farm family, including the children, literally working night and day during the growing season, in the production of food and fiber, little time remained, during wartime, for the reading of bulletins.

What little time was available for improvement professionally, was devoted to reading the local newspaper and listening occasionally to the radio.

Bulletin Resumes Place

But, with the war over, although agriculture was still in a somewhat emergency state, the bulletin began to resume its traditional place as one of the strong media of extension mass communication.

By 1946, requests for bulletins from farmers and homemakers in the state picked up fast, a total of 63,184 having been distributed by county and district agents alone that year.

In 1947, the upward trend dropped sharply. Bulletins distributed that year through the agents, totalled nearly 24,000.

The bulletin had come to the fore again, however, although it would not be surpassing the development of the new media of mass communication, such as radio, had definitely reduced the comparative effectiveness of the bulletin. Farmers surveyed in Eaton county, Michigan, recently, placed bulletins fifth in their list of sources of useful information.

Not only did the use of bulletins by farmers and homemakers decline during the war, but their production, at least by the University Agricultural Extension Service. The pressure of war tasks, changes in personnel, and other factors left no time, or skill for the production of bulletins.

Bulletin Program Outlined

But, with the bulletin returning to normal, the extension editor, during the 1947 report year, undertook a study of the bulletin situation in the University of Nevada Agricultural Extension Service.

He reviewed the number of bulletins on hand, the need for reprinting and revision, the desirability of rewriting old bulletins, demands for new bulletins, and bulletins now in preparation.

On the basis of this study, a bulletin plan for the service was made covering a number of years. Specialists and agents were asked to go ahead with revision, rewriting, and preparation of new bulletins.

In brief, following a decline during the war, bulletin activity in the extension service is again under way.

Two New Bulletins Issued

Two new bulletins were prepared and published by the extension service during 1947, three were revised and reprinted, and a reprint of a leaflet from the University of California on the freezing of poultry was issued.

Bulletin No. 97, "Making Cheese at Home," was prepared by V. E. Scott. It was rewritten from a similar bulletin prepared by him many years ago and long out of print, but in great demand.

As professor of dairy husbandry in the College of Agriculture, and as for many years dairy specialist of the extension service, Professor Scott is an authority in this field.

The bulletin was issued in a volume of 4,000 copies, which will meet farm homemakers' demands for a number of years.

Gives Working Drawings

Second bulletin of the year is No. 95, "The Nevada Hay Bale Stacker," by Louis Titus, extension engineer. This bulletin gives working drawing and working photographs, taken by Assistant Director Thomas Buckman, of the stacker, which was developed as a labor saving device by Titus and others.

Bulletin No. 79, "The Spic and Span Girl," by Mrs. Mary Stillwell Buol, late assistant director for home economics, one of the basic bulletins in girls' 4-H Club work in Nevada, was reprinted. Three thousand copies were printed.

Also reissued with few changes were Bulletins No. 78 and No. 85, 4-H club record books for food selection and preparation and food preservation projects and for clothing and home improvement projects. Two thousand copies of each were published.

Cooperative Plan Proposed

At the western states extension conference in Oregon during the summer of 1947, a project was looked into which may give some promise of effecting economies in bulletin production and in increasing quality.

It is that various western states purchase good bulletins which fit their needs from other states when possible. At the end of the report year, this project has not been used by Nevada. Miss Margaret Griffin, Nevada extension assistant director for home demonstration work, is one of three on this western states committee.

All bulletins published by any division of the University of Nevada now must be approved by the institution's committee on publications, to insure high quality and consistency with the policy of the university. The extension editor is chairman of this committee.

THE RADIO SERVICE

Newest medium of mass communication is radio.

In part because of its novelty, radio has become one of the most popular means of the dissemination of information.

Important everywhere, it is especially so in a sparsely populated state like Nevada. And it is ready-made outlet for extension information.

Nevada Farmers Lead Nation in Radios

Among the most avid newspaper readers in the nation, Nevada farmers and homemakers are also among the most avid radio listeners.

This fact has been made evident by previous surveys, but was substantiated in a recent survey made by the Joint Committee on Radio Research.

The study showed that in percentage of radio sets in rural homes, Nevada, along with Oregon, led the entire nation with 97 percent of the state's farm homes having radios.

Extension Early Cooperator With Radio

Since the early development of radio, the University of Nevada agricultural extension service has been active in the use of this new medium of mass communication.

Even before any stations existed in Nevada, but during the period when stations in other states were receivable in Nevada, the extension editor began to cooperate with the western radio service of the U.S. Department of Agriculture which, in turn, provided agricultural copy for National Broadcasting Company stations in the Far West.

Nevada's First Station Assisted

Nevada's first station, KOH, Reno, and for many years the only one in the state, eventually became affiliated with the National Broadcasting Company and provision of copy for broadcast through the western radio office of the USDA was accelerated in view of the fact that a Nevada station carried it.

Generous production of such copy continued by the Nevada extension service until the termination of the chain broadcasting of Western Agriculture in the west through the U. S. Department of Agriculture.

From the very beginning of KOH's development, various farm programs were broadcast and, in all of them, the U. of N. extension service lent a helping hand. In recent years, this has involved not only the supplying of local copy and the encouragement of local cooperation by extension personnel, but even the organization of the farm program.

Farm News Program Established

In 1945, the broadcasting of farm news by KOH became so important that a special farm editor was employed. At first, a 15-minute daily farm news program was given. The program was organized and arranged by the extension editor.

In the years between, this program developed until it is now broadcast twice a day, and an editor is devoting all his time to this function.

One of the programs is put on early in the morning and the other during the noon hour.

KOH, at present, with increased power, reaches most of Nevada.

Radio station KOH is the only station in the state, at present, to have a complete farm program. KATC, Reno, 250 watts, also has a farm program. All other stations use farm copy off and on.

Other Stations Licensed

For many years, KOH was the only station in the state. A few years ago, however, another station, KENO, was established in Las Vegas.

The extension editor immediately made available to it the regular news stories of the University of Nevada agricultural extension service and also arranged for it to receive Farm Flashes, which were edited locally by the county agent whenever necessary.

KENO uses this copy as part of one of its regular news broadcasts, a spot probably even better than a regular farm period.

More New Stations Go On Air

This was the radio situation in Nevada up until the spring and summer of 1946. At that time, three new stations received licenses from the Federal Communications Commission and began to broadcast. One of these stations was in Boulder City and the other two in Reno. All had limited power.

Since the Boulder City area was adequately covered by KENO, Las Vegas, nothing was done about servicing there. During 1947, the Boulder City license has been transferred to Kly, Nevada, but the station is not operating yet.

Both the new Reno stations, KOLC and KATC, were so concerned with getting started that, so far, only KATC has shown any interest in farm news.

Four additional stations in the state may be established within the next year—one in Elko, one in Ely, and two more in Reno. A fifth in Las Vegas is a possibility.

Nevada To Be Well Covered

When, therefore, all of the new stations, together with the old, are operating, the entire state of Nevada will be well covered by radio for the first time in its history. Whereas other nearby states with not much greater population have, for a long time, had complete radio coverage, Nevada has not.

This will bring about a new situation in the development of radio as an agency of extension communication.

New Approach Needed

It will involve a new approach on the part of the extension service.

Ideally, it should involve a special service, rather than a general newspaper-radio service for the stations. So far, all Nevada stations have been entirely satisfied with the general state-wide news service which both they and the newspapers receive.

It will also involve activity on the part of agents in the communities where these stations are located. So far, practically the only agents to take any part in radio broadcasting have been those in Reno and in connection with the KOH farm program.

With the manpower situation as it is, the state office is in no position to provide special service for radio stations.

Agents In Need of Training

In the field, agents, practically all of whom know little or nothing about radio broadcasting, are hesitant to undertake the use of this medium. Training through the extension editorial office is needed, just as it is needed in farm news writing for the newspapers.

The extension editor hopes to devote considerable time in the next year to developing at least an elementary approach to these skills.

Radio Survey Is Basis

In recent years, the extension service has made a number of careful surveys of rural listening habits to Nevada radio stations. Any radio program of the future will continue to be based upon the facts brought forth by these studies.

MISCELLANEOUS

While the News Service, the radio service, the bulletin service, and the county agent service are the extension editor's main responsibility, there is another on which only a general report can be given.

That is the position of one of the persons of the service who has had extensive experience in a variety of things closely related to many of the other activities in the extension service.

And, rarely a day goes by during which the extension editor is not called upon for an expression of opinion, for information, or for help in connection with the public presentation of information or visual education.

Printing Is Handled

All of the printing of any kind used by the state office during the year was cleared through the extension editor. Arrangement, styling, paper stock, typography, estimates when done by private concerns, proofing, volume, etc., all were handled by the extension editor.

As a result of this plan, the style and typography of much of the printed matter was improved and made more appealing, as well as being done by the least expensive and most efficient method.

He's Franking Privilege "Lawyer"

Over the years, the extension editor has been delegated the function of what might be called the services' "Franking privilege lawyer".

Normally, the duties in connection with this function are not arduous but, during the last report year, many changes were made in the federal penalty privilege regulation concerning the extension services of the various states.

A great deal of detailed work in understanding and helping others understand and apply these regulations fell on the shoulders of the extension editor.

It is unfortunate that so much time by so many persons has to be devoted to these detailed matters, but, of course, the extension service must be governed by law.

Directory
of Nevada
Newspapers
1947

The Nevada State Press Association
OFFICE OF THE SECRETARY
DEPARTMENT OF JOURNALISM
UNIVERSITY OF NEVADA
RENO

F NEVADA NEWSPAPERS--1947

Publisher	Editor	Business or Advertising Manager	Circulation	ABC, Unver. or Sworn	Ann. Local Subscription Rate	Cols. to Page	Column Width-Depth	Basic Adv. Rate-Inch Local-Foreign	Mat Max. Size
Mrs. D. E. Williams	Robert H. Sanford	Mrs. D. E. Williams	973	Sworn	\$ 2.50	7 13	21½	.30 .35	full page
Claude Smith	Claude Smith	Claude Smith	1,304	ABC	\$ 3.00	7 13	21¾	.42 .42	full page
Robert Carter	Marvin E. Carter	Robert Carter	892	Sworn	\$ 6.00	5 12	14½	.45 .49	full page
F. F. Garside	C. P. Squires	W. V. Wright	3,600	Sworn	\$ 5.00	8 12	20½	.60 .60	full page
F. F. Garside	A. E. Cahlan	W. V. Wright	10,260	Sworn	\$12.00	8 12	20½	.75 .91	full page
James H. Dooley	James H. Dooley	N. J. Bernier	2,500		\$ 8.00	5 2⅜	16	.75 .84	10¼x16
John Suverkrup	John Suverkrup	Annette Suverkrup	554	ABC	\$ 3.00	7 12	21½	.30 .30	5 column
Chris H. Sheerin E. B. Steninger	Chris Sheerin	Chris Sheerin	1,925	Sworn	\$ 9.00	8 12	20	.40 .49	full page
Warren Monroe	Warren Monroe	Warren L. Monroe	1,200	Sworn	\$ 2.50	8 12	20¾	.35 .42	full page
Charles Triplett	Charles Triplett	Charles Triplett	875	Sworn	\$ 3.00	7 12	19¾	.42 .42	4x15 in.
Robert A. Crandall	Robert A. Crandall	Minette Crandall	460	Sworn	\$ 2.00	6 12	19¾	.35 .40	
E. Moyle	E. J. Moyle	E. J. Moyle	400		\$ 3.00	6 12	20	.35 .30	6x10 in.
Avery Stitser	William Friel	Toni G. Uren	2,800		\$ 9.50	8 12	20	.42 .42	16x20 in.
Avery Stitser	Ethel Estes	Toni G. Uren	872		\$ 2.50	8 12	20	.35 .35	8x20 in.
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W. L. Davis, Jr.	W. L. Davis, Jr.	W. L. Davis, Jr.	875	Unver.	\$ 2.50	7 12	20	.35 .42	full page
Arthur N. Suverkrup	Arthur N. Suverkrup	Ruby C. Suverkrup			\$ 9.00	7 12	20	.35 .40	
Paul K. Gardner	Paul K. Gardner	Paul Gardner	800	Sworn	\$ 2.50	8 12	22	.35 .35	12x20 in.
W. L. Davis, Jr.	W. L. Davis, Jr.	W. L. Davis, Jr.	400	Unver.	\$ 2.50	7 12	20	1.00 1.00	full page
Peter Burke Paul Weaver, Sr.	Peter Burke	Peter A. Burke			\$ 2.00	7 12	20	1.00 1.00	full page
Catholic Press Society	Rev. John T. Smith	Carl Gaertner	*		\$ 1.00	8 12	20	1.00 1.00	full page
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R. L. Richie	R. L. Richie	R. L. Richie			\$ 1.75	5 12	14	1.50 1.50	
Associated Students of the University of Nevada	Lloyd Rogers	Richard Rowley	1,700	Unver.	\$ 1.50	7 12	20	.70 1.00	full page
E. C. Mulcahy	E. C. Mulcahy	E. C. Mulcahy			\$ 4.50	7 12	20	.35 .42	full page
Vail Pittman	Paul Leonard	Paul Leonard	1,802	Sworn	\$10.00	8 12	20	.45 .49	12x20 in.
Vail Pittman	Maurya Wogan	Paul Leonard	1,825	Sworn	\$ 2.50			.45 .45	

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NEVADA AGRICULTURAL EXTENSION SERVICE

that farming is a business and that the best be made through the use of the best methods of the farm.

II-C 4-H CLUB WORK

ANNUAL REPORT

As such, the program should be planned by the club members. In order for the program to be effective, it should be planned every phase of production, quality of product and the farmer's life.

FOR

CALENDAR YEAR

1947

If the rural community is to be improved, it must be improved in its production, its methods, its efficiency, and its quality of life. The program should be planned every phase of production, quality of product and the farmer's life.

Every 4-H club should be planned with a possible future leader in mind. The program should be with the view of giving the club members appreciation of the privileges and responsibilities of the farmer's life.

One of the primary objectives of the program should be to adapt the teaching of the program to the needs of rural boys and girls. The program should be planned every phase of production, quality of product and the farmer's life.

BY

PAUL L. MALONEY, 4-H CLUB WORK

FOR THE PERIOD FROM

NOVEMBER 1, 1946 to OCTOBER 31, 1947

FOREWARD

Farmers, ranchers and business men have come to realize that farming is a business in which permanent improvement can best be made through work and education of the boys and girls of the farms.

As such, the 4-H Club program requires definite and careful planning by extension workers and the entire family of the club member. As in any business, if the 4-H Club program is to be effective, it must study and demonstrate to the community, every phase of production, trends in marketing, sales appeal, quality of product and cost, and with special emphasis upon a fuller farm life.

1. If the rural citizenry on our American farms and ranches is to be improved in its thinking and be made more capable, more efficient, more self-reliant and with more pride in its occupation the start must be made with our rural youth.

2. Every 4-H Club boy and girl should be looked upon as a possible future leader in their communities, therefore, their training should be with the view of giving them the vision of greater appreciation of the privileges and of the opportunities of country life.

3. One of the primary objectives of the 4-H Club program should be to adapt the teachings of the Extension Service Programs to the needs of rural boys and girls in order to prepare them to assume the leadership aspects as relates to the social, recreational, cultural and spiritual life as well as to the efficient production and operations of the farm units in their communities.

4. The 4-H Club program should be planned and operated in such a way that it will be a part of the life of the farm family and will be a part of the life of the community.

5. One of the most important problems and at the same time, one that is most difficult to administer, is to be able to get the most appointed agent to see the vision of the broad objectives of the Junior program, and to see the long-time value that can be derived from properly conducted club demonstrations. It is to be able to give the club member sufficient inspiration from his program of activities to give him a greater height of vision so that he or she will remain in club work for a longer period of time.

II. Objectives, methods, and results related to

A. Personnel problems.

2. Induction training and apprenticeship of new agents

A four-day extension conference was held at the University December 8th to 11th inclusive. One day was devoted to the 4-H Club program with special emphasis being placed on discussions that would help the newly appointed agents. Subjects were opened for discussion by a presentation of the problems, with general participation through questions. Subjects discussed were as follows:

1. "Our Obligation to 4-H Club Work under the Bankhead-Flannagan Act" by Director Creel.
2. Keeping Members in club work at older ages.
3. Evaluating and Standardizing Club Projects.
4. Report on National Club Congress trips
5. Junior Livestock Shows, prices paid for junior exhibits.
6. Value of 4-H Achievement days.
7. Methods and procedures of formulating plans and goals.
8. County councils.
9. Need for making club projects adapted to local conditions.
10. Objectives of 4-H club work.
11. Needs as relates to new literature for Nevada.
12. Agricultural news stories as relates to junior work.
13. 4-H Club camp, objectives, outlook and programs.

With so few students from the College of Agriculture graduating and with industrial concerns offering large salaries in comparison to starting salaries of county agents, the problem of keeping in the personnel adequate in numbers, and quality of the workers, is serious in Nevada.

One of the most important problems and at the same time, one that is most difficult to administer, is to be able to get the newly appointed agent to see the vision of the broad objectives of the junior programs, and to see the long-time values that can be derived from properly conducted club demonstrations. Also to be able to give the club member sufficient inspiration from his project to challenge him to greater heights so that he or she will remain in club work for a longer period of time.

Other important features that the supervisor is endeavoring to instill in the newly appointed agents through personal visits and group conferences is to cause the agents to realize that club members react differently at various ages, and that he should plan to separate the groups according to their biological demands. The county agents must realize that an average boy at 14 years or older wishes larger objectives, wishes to answer challenges, desires to actually own livestock of his own, or control a piece of ground as his own. Most boys and girls can actually do a great deal more than the average adult thinks they can do.

The agent must realize that boys and girls at an age of around 15 desires to be given an opportunity of expressing themselves in matters relating to community life, toward making plans for their own future, and to be heard on many important questions.

Every county agent has been visited more than one time during the year, the newly appointed and those who have been transferred, have been visited many times. These agents have been given encouragement and praise for the good features of their programs, and are encouraged, at the same time, to see the broad objectives of the possibilities of their work.

When it is realized that at least half of the present farm boys and girls will leave the farms for city jobs, it can be seen that the actual production projects are less valuable than those which teach the members to be able to "get along with other people" and to think and analyze situations that arise.

While it is sincerely believed that the newly appointed agent should spend two or three months in a "trainer county", the demands for immediate service in the counties has prevented this practice from being followed. Assistant county agents are needed in such counties as Lyon, Washoe, Clark, and White Pine counties so that when a vacancy occurs in a county one of these assistants can be placed as full agent to fill the vacancy created.

At the present time the newly appointed agent is given a few days training in the Reno office to acquaint him with the routine of reports, informational material available, agencies from which to expect assistance, a brief study of monthly and annual reports of other agents. He is taken to visit near-by county offices.

After the newly appointed agent has been introduced to his new job in his county the supervisor makes subsequent visits as often as needed to give him the help and assistance required.

4. Improvement of county staff relationships

The proper attitude toward the entire service as well as to individuals within the service is of greatest importance whether he is newly appointed, or has been in the service for many years.

The supervisor believes that it is one of the important functions to maintain this attitude and sense of loyalty from members of the county staff toward every county in the state and toward the superiors in office.

B. Assistance supervisors give agents in the development of agricultural, homemaking, and youth segments of the Extension program in the counties.

1. Obtaining and analyzing local data.

While an agent is getting established, and after he has become established in his county one of the most important requirements is to obtain and analyze local factual data. An agent must have sufficient background information regarding the local situation to be able to intelligently formulate a long time program based on the needs within the locality.

As an example agents appointed to a livestock county is encouraged and assisted to secure certain background information relating to the livestock industry such as total numbers of livestock as relates to summer and winter feed; are replacement heifers carefully selected; where do stockmen secure their breeding bulls and the quality purchased; feeding practices followed for both range and purebred stock; the general management practices and marketing procedures.

From a study of this information and a series of conferences and meetings with local leaders and cooperating organizations a long time program, beneficial to the entire stock industry can be formulated, and the 4-H Club projects based on the needs of the county livestock industry.

Agents are now being requested to analyze, not only the actual farming and ranch business, but to include the farm homes as well. The needs for such a survey was brought to the supervisor through the remarks made by Director M. L. Wilson at a recent extension conference when he stated "the day is passed when the county agent must concentrate on purely production problems, farmers and their entire families must enjoy the cultural advantages of our modern world, and the successful county agent must have that vision and a willingness to carry out a program of human relationships."

This statement by Director Wilson is taken to the agents in the counties of Nevada. Agents are requested to study it and analyze their communities according to the valuable precepts which it enjoins.

It is only after a carefully conducted survey and study of data secured that a program that meets the needs of the people in the county or communities can be determined, and through meeting with and discussing these problems on a basis of a cooperative partnership the data will be accepted and programs worked out accordingly.

2. Setting Objectives.

The supervisor realizes that objectives must be established and efforts made to reach the objectives and then set new and higher ones. While the supervisor sets objectives and works toward their completion, it is also realized that club leaders and county agents must also establish goals. The real pleasure and value of any program is in setting goals and then striving to reach those objectives, and when they are reached establish larger ones and not reach a goal and quit satisfied. The value seems to be in going toward the goal, not in reaching it.

As an example of objectives established by the supervisor:

1. Assist agents and leaders to establish goals and objectives for their club programs.
2. Secure a higher number of completions from a larger enrollment.
3. Where there is a boy or girl of club age eligible for club enrollment they should be given an opportunity to come under the benefits of the program.
4. Establish a higher degree of coordination between junior work and adult work.
5. Teach club members, through their leaders and agents, the value of planning their projects and club meetings.
6. Make supervision more effective in 1948.
7. Hold three district leaders meetings, and one state-wide meeting.
8. Hold a larger percentage of club members in the upper teen ages.
9. Make the state 4-H Club camp more valuable to the members in 1948.
10. Secure adequate publicity for the county and state programs.

While it is true that the supervisor has not been able to get all the agents to see the vision of the broader field and possibilities and demands for an enlarged program on the rural youth problems, nor any of the agents to see the complete picture, yet progress is being made in this respect and plans are for a continued effort along this line.

3. Part committeemen, local leaders, club members, and other people play in determining county Extension program.

The success of a junior program depends to a great extent, upon the type of local leaders heading the undertaking. Proper training for these leaders is a most important yet difficult task. Three leader training meetings have been held. Not only were the leaders assisted with "methods and procedures" but they were caused to realize the valuable part they play in this great educational undertaking, 4-H Club Work.

It has been found that older club members, those who have graduated from club work, make very good leaders. They can serve as assistant leaders before they finish their club work and in this way secure invaluable assistance to equip them for leadership of a club of their own. Agents are encouraged to take advantage of this supply of leadership in formulating their long-time plans through training these young leaders early in their club work, and giving them added responsibilities each year.

An over-all adult leader gives proper direction to these younger leaders. At the same time the ambitious, young club graduate gives enthusiasm and can emphasize the recreational side of the program to good advantage, they can also easily see the advantage of permitting the members the opportunity of formulating plans for their own meetings. The use of junior leaders also has a tendency to hold the members in club work longer, and causes other club members to desire to be junior leaders also, and is a great help to the adult leaders.

In the leadership training groups attended the supervisor emphasized the need for maintaining the enthusiasm of the club members. Young people are naturally enthusiastic and if this attitude can be maintained toward their club projects, the members will remain in club work longer and receive more benefit from the program.

The club leaders were encouraged at the leader training meetings to meet with the club members and plan their programs as far in advance as possible, this gives each member a chance to look into the future and carry out the plans made, and to use their imaginations and individualism in conducting their work. It is believed that long time planning will encourage the members to complete more projects and stay in the work a longer period of time.

In training the junior leaders, the supervisor suggests to the adult leaders that the juniors be assigned certain jobs, and be given progressively more important jobs as the member portrays the ability to carry on with the added responsibilities, and not start a junior leader out with full leader responsibilities which might discourage a potential leader and cause them to refuse to act.

The supervisor realizes his responsibility in assisting the county agents, local leaders and others in analyzing the problems and assisting with the plans of proper procedures.

The supervisor has secured invaluable assistance from the Washington Extension Office such as the direct information furnished by the National Advisory Group "10,000,000 Youth, Let's Help Them Plan Their Future" and the 10 guideposts for 4-H Clubs, together with the philosophy furnished by Director Wilson and Mr. Hochbaum.

4. Cooperation of specialists, county Extension workers, State Supervisors, and leaders in planning and carrying out county Extension programs.

It must be realized that the specialist and supervisors are not working at cross purposes in getting the county agents and leaders to emphasize their individual projects to the exclusion of other important work. If the entire extension program is to function properly there must be a close cooperation between all groups who have the welfare of the farm, farm home, and community at heart.

In making farm plans these plans must be over-all plans including the farm, farm home, the farm boy and girl with consideration for the community as a whole.

It is imperative that all workers concerned with the extension program have confidence in each other and, with one aim in view; work for the very best interest of whole department.

The necessity for reaching the young people with vital issues and questions seems more important today than before the recent war, young people must be taught to think for themselves and plan for the entire community. These plans must be attainable, yet of sufficient scope to give permanence and be practical in their application, and all extension workers must realize that our program must keep abreast of the broadening requirements of the times.

5. Integration of agriculture, home demonstration, young adult, and 4-H Club programs from the standpoint of the farm family as a unit.

It is the belief of the supervisor that county agents sometimes get so busy and involved in rendering personal services that they miss the main objectives and possibilities of Extension work. That is, ranchers and club members are often more willing to advance or take constructive projects than we are to give them. The Extension service is often the weak spoke in the wheel.

The county programs are discussed with the county agricultural agent and the home demonstration agent together, with emphasis being placed on a complete farm and home plan, including the 4-H members with a long-time plan of projects based on progressive standards each year. That this goal is being accomplished can be realized with the increased number of club members who purchase livestock of their own each year.

Club members are being encouraged to actually own all of the units involved in their club demonstrations. Agents can see the value of this type of projects over the ones where the members merely "claim" the animal or crop for a short time and the proceeds or animals going back to the parent.

It has been found that meeting with the parents and club members together, and formulating a long-time plan for the club member either for home improvement or livestock ownership creates good feelings between the parents and the county agents. It is then easier for the agent to make plans for adult work on the individual farms or homes.

These joint meetings also cause the club members to take their work more seriously and to realize that they are now getting old enough to plan for the future. Club members like this planning period, they enjoy the goals held out to them and it makes the parents realize the value of planning as a necessary part of their own successful farm life.

Good club meetings, effective projects, valuable demonstrations, assistance to the community as a whole, do not just happen to be good **THEY MUST BE PLANNED TO BE GOOD.** It is difficult to over emphasize adequate planning. To refuse to make plans is to merely mark time and hope that things turn out right, when plans can be made to make certain that they turn out as desired.

It has been found desirable to make plans for at least five years in advance with progression shown for each year. This permits the club members and parents to visualize the end results. It is

impossible to put into effect a planned program on every farm, for the reason that many parents and club members do not have the capacity to visualize ahead, they make no plans, but accept the results as they come to them. Then there is the difficulty of getting the agents to see the value of plans, especially to put the required time to these kind of farmers who do not see the value of planning, to sell them on the procedure.

The Agents and club leaders are encouraged to summarize each 4-H Club program in the presence of the parents, pointing out the mistakes as well as suggestions for strengthening the project for the coming year. Most parents enter into such a summary in a wholehearted way. It is in these summaries where the alert agent can integrate the agriculture, home demonstration and junior programs to the advantage of the entire family unit.

The supervisor realizes that the farm, farm home and children should be considered as a unit in making plans and that the entire family, which includes the children should participate. This type of plan takes time to properly present and work out in detail, and with the county agent busy on so many programs it is difficult to get them to agree to put on the individual planning program, therefore, the agent is encouraged by the supervisor to select a few families each year and formulate plans with these families, with special emphasis on the 4-H Club programs.

6. Development of urban work.

While some work has been done with urban youth, such as victory gardens and rabbit clubs to meet the demands for additional food during the war, there is a demand and a need for work to be carried on with urban youth, the lack of adequate personnel makes it impossible to develop a long-time program.

The Boy Scouts are very active in Nevada and are carrying out a fine program, yet most boys and girls should be given more responsibilities along practical lines of work.

As a rule, parents are suffering from an overdose of a desire to carry the responsibilities of their children and to wish to make life easier for their children than life was for the parent when they were young. The 4-H Club program strives to make up for this

attitude of the parents by giving the club members responsibilities early in life, and to increase these responsibilities each year. It is believed that young people will be able to make adjustments later in life when this procedure is followed. Urban boys and girls need these responsibilities early in life the same as rural children.

C. Assistance supervisors give agents in carrying out Extension programs.

1. In choice and use of methods.

The supervisor attended the Conference held at Salt Lake City in November, 1946; the Workshop at Pullman, Washington in March, 1947, and the conference and workshop at Corvallis, Oregon. Being newly appointed in the work of supervisor, these workshops furnished invaluable information to me, and has given me a background and base on which to build and work.

The inspiration, enthusiasm and facts secured from these conferences has been carried to the counties of Nevada in personal conversations with agents and leaders as well as in group and leader training meetings.

One of the fine things about the 4-H Club programs is the flexibility permitted from the National Extension Office. This permits the agents to exercise their own initiative and gives them a wide choice of methods to be used in carrying the work to completion. No effort is made to standardize the methods to be used by the county agents however, certain principles are standard and can be used generally.

It seems more important for agents to see the values of the possibilities which lie within a well balanced educational program based on the needs of the individual and community than upon endeavoring to emphasize certain methods that must be used to the exclusion of his own ideas. The effort has been to try and direct those ideas of the individual agent along practical lines.

2. In Selection, Training, and use of local leaders.

In conducting a 4-H Club program, with either boys or girls, local leadership is of great importance. Without local leaders it would be impossible to conduct a satisfactory club program as the county extension workers could not carry out the programs alone. Local leaders multiply the work that can be done.

Personal visits have been made, by the supervisor and county agents, to local leaders, giving them encouragement and suggestions, and making them realize that they are a vital part of the extension program.

In other districts it has been found advantageous to call small groups of leaders together and have them exchange ideas and experiences. In these meetings the supervisor endeavored to lend inspiration and enthusiasm as well as cause the leaders to see the long-time overall picture of the possibilities of a well balanced club program.

The supervisor does not single out any one agent nor any one program and emphasize this for the agent or leaders, but endeavors to develop the leadership of the entire state so that they can make a real contribution toward the main objectives of 4-H Club work and extension as a whole.

Few county workers have the time nor knowledge to properly train local leaders, it is therefore, largely the responsibility of the supervisor to arrange for adequate training for the lay leadership.

It is believed that one of the main difficulties of securing local leaders is due to the fact that they do not feel sufficiently well versed themselves to take over the responsibilities of leadership. That is, the average farmer does not feel qualified to advise boys how to properly finish a beef calf for show purposes. The farmer is reluctant to take this responsibility for fear that if the boy does not win or stand close to the top in the competition that he will be blamed for not doing a good job of advising the club member. A woman leader some times feels reluctant to be the leader in a class of dress making for fear the club members parents will criticize the methods being taught at the club meetings. For these and many other reasons it is vitally necessary that leader training meetings be held. And in those meetings that are held and in visits to local leaders and prospective leaders it is intended to overcome those questions in the minds of the leaders by giving them proper training and confidence.

3. In methods of evaluating and checking results:

(b) Checking results against goals selected

Agents and leaders are assisted and encouraged to set goals in formulating plans for the club year. After plans and goals are

made they must be referred to throughout the year to determine what can be done to meet any unfilled portions, and at the end of the club year, these goals must be studied and compared with the original plans to find out if any portions have not been met and if not, why not.

It is only after a thorough study of the plans and goals established for the previous year that an intelligent set of plans and goals can be made for another year. That is, the weaknesses can be strengthened and the work made more effective.

- (c) Evaluation of results obtained including preparation and use of rating sheets.

No rating sheets are used for evaluating the work done by county agents. The evaluation of the past years work consists of a personal conference with each agent before the next year's goals are established. There are so few agents on the Nevada Extension staff that this is not a difficult undertaking, and in general the supervisor knows the work that is being done by each agent.

The supervisor must be able to evaluate the work as a whole before he can teach agents to properly evaluate their own. There is a great deal of difference between evaluation and criticism, even though the two sometimes get so close together that the attitude and objective must distinguish between the two, as an example the evaluation of the popular boys project, feeding a baby beef, can be made. Every boy in a range livestock or cattle feeding area should have the experience of feeding baby beef long enough to teach them the value of our common feed grains, to teach them the value of quality steers over the common bred kind, and to teach the members to judge cattle according to accepted standards. However, the feeding project should not be emphasized to the exclusion of club projects in range livestock work such as heifer club composed of the very best heifers available and through these good heifers demonstrate to the club member, family and community the value of good breeding and selection and care.

In a range country, after the baby beef calves have been slaughtered there is nothing left to show any degree of improvement of the livestock within the area. It is true, that the club member has received a higher price for the top animals than the actual

market will stand, and this sympathy bid made by a commercial concern can be charged to advertising and good will but no value can be placed on the project as far as improvements to the range livestock in the community are concerned.

In many of the strictly feeding areas, where boys and girls baby beef clubs should offer some valuable data, from their accurately kept records, relative to feeding costs and profits to be made in feeding steers in the area. However, this valuable demonstration is too often valueless, as in the desire to compete with the very best of the crop of calves being fed, the members leave the practical side by purchasing a purebred calf at twice or three times what a good grade calf would cost, then feed the calf grains and supplements that are shipped long distances into the community at very high prices and often placed on a nurse cow for the full feeding period.

In evaluating this kind of project, it is realized that if the club member is going to stand close to the top and receive one of the high bids that he must purchase quality calves and feed as champions are being fed, yet if the 4-H feeding project is to be of most long-time value to the club member and community it must offer a practical approach, such as feeding steers the way the county agent would recommend that a commercial feeder fit his steers for the open market. The range livestock boy should carry out practices in better methods of handling, breeding and selecting range cattle.

(d) Local studies to determine more effective methods.

An extension worker owes it to himself to seriously consider his entire program and evaluate each item as well as the program as a whole. This evaluation should be carried out with the local situation well in mind as a background. If the extension worker has set objectives, he must measure the progress that is being made, if he is to improve his program and clarify the purposes and results in his own mind.

The supervisor makes this evaluation one of the first orders of business in visiting the county office. The current months work is taken and compared with the objectives set up by the agent and each project is considered from this point of view and the local situation.

bring the work to the public. The agents are encouraged to invite all rural people, adults as well as juniors to county-wide achievement meetings, and to advertise that these meetings are open to the public and encourage urban people to attend through honoring certain urban, civic minded individuals who are sponsoring the junior work.

The supervisor places the greatest emphasis upon building a firm program based on the needs of the district and then giving adequate publicity to the program objectives and results achieved, as the method that will create the most favorable sentiment toward Extension.

Special events in 4-H Club circles are emphasized, such as securing the Governor to proclaim State 4-H Club Week by proclamation, and securing the Mayor and local bankers to participate in achievement meetings, and notables such as the Governor to appear and speak at our annual 4-H Club camp. Boys and girls give radio talks and appear at luncheons given by service clubs for special program on 4-H Club work.

III. Brief evaluation of your accomplishments as a supervisor or State Leader in terms of major responsibilities. Outlook and recommendations.

One goal for 1947 was to increase the number of club members enrolled and secure a larger percentage of completions.

With the exception of 1918, when large numbers of urban boys and girls were enrolled in back yard garden and rabbit projects as a food producing program for world war one, the past enrollment was the largest ever secured in Nevada.

Realizing that it is not entirely the number enrolled which determines the value of the junior program, but the number finishing their projects is also a factor, completions are also at a high point. As an example the following counties have completed their work and submitted to the State office the following final report forms properly completed and verified:

Nye County	100%	completions	
Elko County	66.6%	"	
Lander County	85%	"	
Douglas County	85.5%	"	
Washoe County	87.6%	"	
Ormsby County	100%	"	
Churchill County	91%	"	Largest total enrollment.
Clark County	56%	"	Man agent responsible for 4-H program transferred to Experiment Station before reports were completed.
Lincoln County	70%	"	
Lyon County	75%	"	

This achievement by the counties is significant inasmuch as the gains were made with a large turn-over of personnel and with only one agent devoting the major portion of his time to the 4-H Club program and with newly appointed agents getting acquainted with their programs with adults.

At the Extension Conference held December 8, the supervisor endeavored to transmit the enthusiasm received from the National Club Congress as to the magnitude and possibilities of the junior program.

While it is slow to get changes made in the procedure of conducting club meetings, yet some progress has been made in getting agents to incorporate more educational discussions in the regular and special club meetings. Information has been supplied on such subjects as United Nations; Universal Military Training; Our Way of Life and a group of questions and answers for general discussion.

Agents are realizing more than ever the advantages of having the club members plan, not only for their own programs, but to include the entire family and community. And to take community projects in addition to their individual projects.

The largest number of delegates and leaders attended the National Club Congress in Chicago which have been sent from Nevada. There being eleven delegates and four leaders, in 1946 - six delegates attended.

The supervisor judges livestock at a large number of county and district 4-H fairs. At these judging events detailed reasons are given for the placing of the animals in order that the exhibits might be of greater value to the exhibitors.

The First National Bank of Nevada renewed the \$200 scholarship to be given for the most outstanding 4-H Club boy or girl in Nevada.

While the program at the state camp does not meet entirely the views of the supervisor, yet the county agents decided upon the recreational type of camp and it is believed that the agents must feel a part of the planning of the camp if it is to be a success. Believing that the main objectives of a junior program is to cause the members to think and plan for themselves and develop the leadership talents to the fullest extent, the running and management of

the state camp has been turned over to the members. The work, play and programs are developed by the members at senior council meetings.

The number of club members lost from the program the first two years of enrollment is a serious problem and can be met only by serious planning by the agents and leaders within the counties. The projects must be help up as objectives and on a progressively larger basis each club year. The club member must be kept enthusiastic about his work and be made to realize that he or she belongs to an important organization of young people, in fact the largest in the world.

Applying the axiom "one picture is worth 1000 words" the supervisor encourages agents and leaders to make fuller use of moving pictures and educational slides.

A large number of club members should participate in educational demonstrations.

We need more leader training on a county and district basis, and more detailed in-service training of procedures in developing educational club meetings.

It is difficult for an agent to be responsible for the adult and the junior program, it is hard to get one agent to serve the two programs, therefore, Nevada needs more assistant agents emphasizing the 4-H work.

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION
CECIL W. CREEL
DIRECTOR

Annual Report of Extension Work in
Farm Labor

For the Period
January 1, 1947 to December 31, 1947

Otto R. Schulz
State Supervisor Farm Labor
and
William A. Goodale
Ass't. State Supervisor Farm Labor

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
 UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION DIVISION
 AND UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATING

- I. NAME OF PROJECT VII Extension Work in Farm Labor
- II. PERIOD COVERED January 1, 1947 to December 31, 1947
- III. INTRODUCTION:

This is the final report on the Emergency Farm Labor Program which was given to the Agricultural Extension Service as a war time emergency to supply needed farm labor for the production of essential war time food and fibers. The Agricultural Extension Service was given the responsibility of recruiting and placing agricultural workers by Congress in April of 1943. It was continued each year thereafter until this year when the program terminates as of December 31, with a thirty day liquidation period to January 30, 1948. On January 1, the Nevada Employment Service will resume the operations of recruitment and placement of agricultural workers.

When the Extension Service assumed this responsibility in 1943, the shortage of farm workers, and farm equipment, had created a critical situation in the production of essential food and fibers throughout the country. Many Nevada farmers were of the opinion that they could not reach their production goals as labor would not be available to get the crops planted and harvested.

The Extension Service, through the county agents, immediately set out on a program of complete mobilization of all available labor supplies in each county and community. This coupled with a determination of need or labor requirement by each county gave a complete picture of the job to be done.

With the whole hearted cooperation of farmers and ranchers who worked long hours, the exchange of labor between farmers, the complete mobilization and full utilization of all available sources of supply, and the importation of foreign workers, in cooperation with the Office of Labor, all crop goals were reached and not a single crop lost, due to shortage of labor.

Each year thereafter the labor supplies became shorter and the production demand greater which increased the responsibilities of the Extension Service on this program. The peak was reached in 1945, which was considered the most difficult year, but the fundamental principles established the first year were adhered to which gave the same successful results each year.

1946 was considered a year of reconversion from war time to peace time economy and while the program encountered difficulties of individuals, readjusting themselves, many problems were envolved as the demand for high production still prevailed, but more domestic workers became available which tended to alleviate the acute shortage of the previous year.

During the past year, the problem has been considerably minimized especially during the latter part of the year. It was especially noted that more experienced agricultural workers are now available and the problem is changing from one of finding workers for the job to one of finding jobs for the workers.

Throughout the program, the Extension Service conducted an intensive campaign on labor saving devices and equipment to simplify jobs and reduce labor requirements. Several pieces of equipment such as hay bale loaders and stackers were constructed in cooperation with the Mechanics Shop of the College of Agriculture. This equipment was well demonstrated through County Agents at field meetings and tours. Blue prints and construction instructions were given farmers, who constructed the equipment for their own use and exchange with others.

This program, in addition to alleviating some of the labor problems, will be of lasting benefit in securing more efficient production methods.

Since May 1, 1943, when the Extension Service was given the responsibility of this program, there has been 28,510 placements of agricultural workers. These placements by years, with the number of orders received and the number of farmers with whom workers were placed is shown below:

	No. of Orders	No. Placements	No. Farmers
1943	3206	5618	1143
1944	3250	6069	1321
1945	7236	7186	1359
1946	3667	4832	1200
1947	2730	4795	1058

IV. ORGANIZATION:

On May 10, 1943, the Agricultural Extension Service of the University of Nevada entered into an agreement with the Administrator of the War Food Administration whereby the Extension Service would assist in providing an adequate supply and distribution of farm workers in the State of Nevada for the production and harvesting of agricultural commodities essential to the prosecution of the war, in accordance with the Federal Act of April 29, 1943, (Public Law Number 45). The Congress and President recognized the need for continuing this program during 1944 and thereby enacted similar legislation known as Public Law 229. In accord with this legislation, a supplemental agreement was signed between the War Food Administration and the University of Nevada continuing the aforementioned program in effect for the calendar year 1944. The continuation of the war and the ever diminishing supply of farm labor caused this procedure to be followed again for 1945. Requested high production of farm commodities to meet the threatening world famine following the war and a still very questionable labor supply caused the program to be carried on through 1946 and again in 1947 to January 30, 1948.

State Organization:

The above agreement entered into by the University of Nevada and the Secretary of Agriculture places the responsibility of the Farm Labor Program on the Director of Extension. Therefore, this program has been operated under the direct supervision of C. W. Creel, Director of Extension, who has taken an active part in promoting, establishing policies and forwarding

all phases of the program.

The personnel on the state level consists of a State Supervisor and one Assistant State Supervisor. The Assistant State Supervisor, Mr. W. A. Goodale, worked on the program from January to October 1, when he transferred to the Soils Department of the Nevada Experiment Station. Arrangements were made with the Dean of the College of Agriculture for the part-time services of Mr. Titus, Agricultural Engineer, to stress labor utilization and conduct demonstrations on use of labor saving equipment and devices. During the peak seasons, two additional Assistant State Supervisors were used - one on the Victory Farm Volunteer Program and the other on Housing and Transportation, and Foreign Labor Program.

The Assistant Director of Extension and State Extension Specialists have assisted in various phases of the program, such as determining needs, and developing full utilization and efficient use of labor, and conducting demonstrations with labor saving equipment.

The State News Editor was in charge of all State-wide publicity using regular educational channels, such as newspapers, radios, posters, and pamphlets. He also prepared material for use by County Extension Agents in the counties.

State Farm Labor Committee:

The State Farm Labor Committee appointed by the Extension Director at the beginning of the program in 1943 has served throughout the program. Its members represent all the sections of the State and major types of agriculture. The Committee functions in an advisory capacity on the farm labor program and assists in informing people within their areas of the labor problems and means of solution.

The names and addresses of this Committee are:

William B. Wright, Chairman, Deeth, Nevada
 Edward A. Settelmeyer, Secretary, Reno, Nevada
 Norman Annett, Member, Wellington, Nevada
 Fred Bressler, Member, Minden, Nevada
 Edwin C. Marshall, Member, Logandale, Nevada

Although it was not found necessary to hold a regular meeting of this committee during 1947, all its members were contacted numerous times for advice on problems of the program.

County Organization:

County Extension Agents were given the responsibility of the Farm Labor program in their respective counties. Eight county Farm Labor Assistants were appointed for periods from three to six months to assist agents during the peak season and fourteen county clerks or clerical assistants were appointed on part-time basis according to need in the counties.

The County Extension Agents office was used as the center of the activities in all counties of the State. In two counties, it was found necessary to rent additional office space for housing the Farm Labor activities during the peak season.

In Clark and Washoe Counties, recruiting centers were also established in the agents' offices for recruitment of workers for State-wide distribution. These locations are where most of the workers congregate and, therefore, provided sources from which labor could be drawn for other areas.

County Advisory Committee:

County Advisory Committees of from three to seven farmers representing the different communities of the counties and the various types of agriculture acted as advisory committees to the County Extension Agent in determining the policies and in assisting with the Farm Labor Program in the counties. These committees also acted as County Wage Boards in those counties where this was found to be necessary.

V. PROPOSED SOLUTION:

To assist farmers in meeting the critical labor problem, the Extension Service, in cooperation with the Farm Labor Advisory Committees, developed the following procedure:

1. Determination of farm labor requirements by counties for major enterprises and periods of need.
2. Complete mobilization of all available workers to be undertaken in every county, community and neighborhood.
3. Training programs to be provided in cooperation with the State Department of Education to give essential training to inexperienced workers.
4. Educational programs to be conducted with farmers to secure their utmost cooperation in the use of untrained workers. Farmers will be encouraged to increase the practice of exchanging labor between farms. The best methods developed for full utilization and most efficient use of labor will be stressed.
5. Providing intrastate transportation for workers when needed.
6. Programs developed by the Labor Branch, P.M.A., for recruiting workers from outside the state, will be discussed with farmers and assistance will be rendered agencies responsible for handling these programs.

VI. METHODS AND ACCOMPLISHMENTS:

1. Determination of Requirements

The determination of requirements or need of workers is considered one of the most important factors relating to all phases of the Farm Labor Program; therefore, this was one of the first items undertaken early in 1947. During 1943 a very detailed survey of need was conducted by listing each farm with its labor requirements. During that year, a close analysis of actual requirements were checked with the estimated need and through this experience and that of 1944, 1945, 1946, and with the changing labor supply in mind, estimates of requirements for 1947

were made. These estimates were made on the county level and after the need was determined, the County Agent and County Farm Labor Advisory Committees determined all the available labor supplies within the County and then forwarded a request to the state office for the labor needed from outside the county to fill their needs.

By this method of determining needs by individual farms, the information becomes very valuable in arranging for better utilization of labor and also the exchange of labor and equipment between farmers of the community.

The operations requiring important quantities of hired labor are the handling of range cattle and sheep, commercial dairy farms, haying grain, potato, onion, and truck crops and tomato plants. A considerable number of extra men are hired for miscellaneous tasks under the general heading of spring and fall work.

About 2,800 men are employed year-round as general farm or ranch hands. In the range country, most of these men will work as cow hands or on specialized jobs with sheep when extra work is to be done with the stock, as in lambing or the roundup. About 500 men are employed as year-round riders with cattle and 1,000 as shepherders, camp tenders, etc. About 200 extra riders are employed in the spring and again in the fall. Around 2,000 extra men are used for lambing. Dairying is largely a family enterprise in Nevada and only about 350 dairymen are hired.

Haying requires a relatively large amount of seasonal labor, most of it of a migratory type. A peak load of 6,200 men is reached at the height of the season. The requirements and timing of hay labor needs for the three areas of the state are quite different. Southern Nevada uses about 200 men more or less continuously in alfalfa harvest from May to October. Western Nevada uses about 2,500 for alfalfa and tame hay with the peak reached in late June, followed by a drop to about half that number through July and a slightly lower but broader peak about the first of August. Grain harvest blends in with the second crop of alfalfa but second crop hay and grain combined normally use somewhat fewer men than first crop hay. Third crop hay comes on in the last of September and used about half as many men as for other crops. The range country of the Northern and Eastern sections of the state starts haying in late June but does not get into full swing until July and continues at a declining rate into September on the larger ranches. The peak number of hay hands employed is about 3,500 and occurs in July.

Onion and potato harvest overlaps or closely follows third crop alfalfa, about the first of October and requires about 800 to 1000 workers.

In Southern Nevada, truck crops and tomato plants reach a peak labor requirement of about 300 workers in April and May.

2. Mobilization - Supply

Following the determination of need, it was necessary to mobilize all forces to see if the need could be supplied. The cooperation of various organizations were secured such as schools, Chamber of Commerce, Farm Bureaus, etc. to lend their assistance in interesting and listing

people who would be available for farm work. Through this procedure, counties were able to determine fairly accurately what their needs would be from outside the county. While this phase of the program did not produce a large number of workers, it materially assisted in bringing to the attention of all people the need of agricultural workers. It did not get a large number of workers, as in our small populated areas there is not a very large number of people available who could leave their work for long enough periods to materially help the agricultural production program, except for the youth in which interest was considerably stimulated by this method.

The results of this program indicated that about 70% of the need for year-round workers and 40% of the seasonal workers could be secured from within the state. It also brought out that one of the most difficult factors to estimate was the movement of regular transit workers into the state and counties during seasonal operations. It was found during 1947, that this movement was greatly increased over the previous war years which made necessary an immediate adjustment of the estimated need for outside labor.

3. Training Programs:

Training programs developed in cooperation with the State Department of Education were limited mainly to High School youth volunteering for farm work. County Extension Agents and Vocational Agricultural instructors cooperated in providing necessary instructions. This training consisted mainly of giving boys and girls information on farm life and the conditions and type of work so that they would know what to expect when they got to the farm. The training for specific jobs was placed with the farmer for on-the-job training.

Training meetings were held with farmers, at which time they were given information on training methods and how to explain different jobs to the youth. After youths were placed on the farm, some follow-up visits were made to determine effectiveness of program and make further suggestions where necessary.

This same procedure was followed for all workers and Mexican Nationals.

The reports received from the follow-up visits were very gratifying as it was found that the farmers conducted some very good training programs and many of the inexperienced workers soon were found to be very good hands with horses and farm machinery.

4. Educational Programs With Farmers:

Educational Programs were conducted through regular extension methods such as Community Center meetings, newspapers, personal visits and local leaders for the purpose of securing most efficient utilization of all available labor. It was necessary to create attitudes among farmers favorable to using inexperienced workers and youth.

The exchange of labor between farmers was stressed and eight counties reported having organized programs for exchanging labor and equipment in nineteen communities. These programs were effective in reducing the total labor needs, as well as efficient use of equipment.

In addition, reports show that in eleven counties, 767 farms were assisted in labor-saving methods, sharing labor and equipment, etc.

Some advancement has been made in bringing to farms the advantages to be gained by good housing for agricultural workers. This work has been carried on in only a few localities where housing is below the standard of the rest of the state. Little can be done along this line because most of the farms and ranches of Nevada are already equipped with houses and bunk house facilities to adequately take care of their workers.

State Extension Specialists have assisted by determining what labor-saving devices could be effectively employed and furnished information to County Agents for their use.

5. Labor Utilization and Work Simplifications

The Work Simplification Program in Nevada, while not showing anything new of a starting nature for 1947, when taken as an overall picture for the five years of the program, certainly shows some very satisfactory results. Through the efforts of County Agents and Farm Labor Associates many new and varied pieces of mechanized equipment have appeared on the farms and ranches of the state and are doing all sorts of labor saving jobs.

Power and tractor hay mowers are used more extensively than any other piece of mechanized equipment. Many types of power buck rakes have come into use in recent years. These are both tractor mounted and truck or automobile mounted. A 24 foot hay rake is being used in several sections that cut raking time greatly. Pickup and automatic balers are handling much of the hay that was previously stacked by the old methods. Many balers are in custom use making it possible for the small farmer to get his hay baled without the expense of owning a machine. Hay choppers are becoming more popular for growers who carry on feeding operations. Storage and feeding barns are being developed along this line to save man power. One farmer uses a building 150' x 50' shoving the hay directly into the barn the full length. One man can feed 100 steers in this barn in record time. Combined harvesters, trailers for use behind pickup balers, trucks and jeeps for power for hay wagons and trailers, new type hay stackers and many other implements have come into use and are being developed.

Two pieces of equipment developed by the University of Nevada are having a profound effect upon labor requirements. These are the baled hay loader and the bale stacker. It began as a labor utilization project in 1944 by Thomas Buckman, Assistant Director, and Louis Titus, Professor of Farm Mechanics of the College of Agriculture, the baled hay loader, which originated in California, was developed to meet Nevada conditions. Demonstrated throughout the state, the bale loader was immediately accepted by farmers and many have been built. In one county the agent reports that the labor necessary to load bales from the field onto trucks has been cut 75%.

The bale stacker was developed as a companion device for the bale loader. Also designed and built by Mr. Titus, the stacker is

intended to reduce the time needed to unload the bales from the truck and to stack them. Composed of a 30 foot long bale shoot which can be raised and lowered, powered by a 1 1/2 H.P. engine, the stacker can handle bales as fast as two men can feed them onto the machine and stack them and will elevate them to a height of 12 to 14 bales. This stacker was built in 1945, demonstrated the latter part of that year and in 1946, and was used more extensively in 1947. A bulletin has just been prepared by the Extension Service and is now ready for release, showing the complete plans and specifications of the stacker including drawings, detailed photographs, a bill of materials, and an explanation of the construction of the stacker.

A program was instituted with the larger potato growers to induce them to use mechanical harvesters, rather than hand picking. After conferring with county agents and some of the growers, arrangements were made for a tour of the potato area in Klamath Falls, Oregon, where growers have been using mechanical harvesters successfully. County agents and representative growers were taken to Klamath Falls where the county agent there had outlined a tour to growers using various types of machines. The growers discussed the advantages of the different types of diggers, and exchanged ideas and answered many questions of mechanical picking. The growers attending the tour arranged for the purchase of new equipment upon their return. According to reports from county agents, three of the larger growers purchased and used the mechanical harvesters this year.

6. Transportation:

Nevada as the sixth largest state in area has the smallest population. Its agricultural centers are scattered over wide areas. About 85% of the farms depend upon hired labor for year-round and seasonal periods. It is estimated that approximately 2,400 farms employ hired help. Past surveys indicate that there are about 2,800 year-round workers required and approximately 6,200 summer months and seasonal workers needed. About 70% of the former are recruited locally and 40% of the seasonal workers can be found locally.

This means that a large number of workers must be transported to meet area demands. It is estimated that 150 miles is about the average number of miles workers have to travel. Transportation is furnished from one county recruiting office to another county recruiting office.

To accomplish this the services of ten state and interstate stage lines are utilized as well as the vehicle services of Extension Agents and Emergency Farm Labor Supervisors.

Day hauls of V.F.V. were made in most cases by growers under the direction of Extension Agents and Farm Labor Assistants. Much of this adequate and safe transportation by the farmers was done in family cars and farm trucks.

All transported workers are sent and received by authorized agents - checking their departure and meeting them upon arrival.

A total of 769 workers were transported under this program during the year. In some cases it was necessary to provide meals and a night's lodging for these workers while in the process of placement. When this was necessary, arrangements were made with local hotels and restaurants to provide this service and payment was made to them.

This program has worked very successful and made possible the greatest utilization of available workers and provided for proper distribution with minimum amount of loss of time in getting workers to the areas of need.

7. Housing:

In Nevada the Extension Service relies upon private housing to provide shelter for agricultural workers and does not operate any farm labor camps. In two areas within the state, Lovelock and Las Vegas, farmers cooperated and housed workers in a camp. Both camps were mainly used for housing and feeding Mexican Nationals who worked for various farmers within the area. All the responsibility of operation of the camps were handled by the farmers who cooperated on the program. The maximum did not at any time exceed seventy workers. County Extension Agents and Emergency Farm Labor Supervisors have given the matter of housing first attention when placing workers.

Satisfactory housing is an important factor in attracting workers to an area of employment. Workers have not been assigned to private housing that did not meet approved sanitation and safety standards.

Educational programs stressing need of better housing have been stressed in the counties directed toward essential sanitary and housing facilities.

This program should be enlarged and well supervised in the future as there is still considerable improvement to be made on some farms.

All growers are required to furnish a cot and mattress. Workers are expected to provide their own bedding.

It is a pleasing fact that in the case of most V.F.V. a personal interest in the worker is quickly developed and the young boys are recipients of many family considerations.

8. Interstate Labor:

It was found again during 1947, that during certain sharp peak demands for labor, the Farm Labor recruiting offices could not meet the demand. These periods sometimes coincided with periods in our neighboring state of California where their requirements were somewhat reduced. Therefore, it was possible for us to secure some workers from Sacramento through the cooperation of the California Extension Service.

In addition to routing workers into our areas as need arose, the Sacramento office recruited a special bus load of 32 workers for potato harvest in the Yerington area.

9. Foreign Labor:

Due to the success experienced in previous years with the use of

Mexican Nationals transported from Mexico, this labor source was again utilized in 1947 to augment the domestic supply.

Following the determination of need and the complete mobilization of workers within the county, Extension Agents certified to the State Director the number of workers needed to be imported into the county to meet the needs. These needs were accumulated on the state level and determinations made of the numbers that could be supplied from other counties in the State which left the number needed to be supplied from outside the state. On this basis, a certification of need was made to the Labor Branch, P.M.A. for foreign workers by the Extension Director.

This certification of need was revised from time to time as the changing supply of domestic labor changed the need for foreign workers.

To fill this need of foreign labor, workers were transported from Mexico under the supervision of the Labor Branch, Production and Marketing Administration.

Upon arrival at their destination within the State, County Extension Offices supervised their distribution to the farmers, and their transfer from one grower to another. The contracts, payrolls and medical care given these workers and their transportation was under the jurisdiction of Mr. Lee Perry, Area Representative of the Labor Branch, P.M.A. Owing to the well knit organization of County Extension Offices and their proximity to the growers many of these agents and farm labor assistants were consulted frequently by the growers and called upon to help the farmers transport the Mexican Nationals, to arrange for their reassignments and to supervise their needs and grievances.

The following table shows the importation of Mexican Nationals by years and the number remaining at the end of the program from original shipments:

<u>Year Imported</u>	<u>Number Imported</u>	<u>Number Staying To End of Program From Original Shipment</u>
1943	551	5
1944	665	8
1945	871	23
1946	406	18
1947	301	51
Totals	<u>2794</u>	<u>105</u>

Importation of Mexican Nationals followed in about the same proportion as the Farm Labor demands was to the available domestic supply. In other words, starting with 1943, the domestic supplies became more critical each year until 1945 when the peak was reached, which we considered our most difficult year in supplying labor, and when we utilized our greatest number of foreign workers. Since 1945, the labor problem has gradually decreased each year. This year the importations were the lowest during the entire period, and the domestic supply is now practically meeting the demand.

It is interesting to note that 5 of the first 551 imported, or about 1%, stayed through the entire period, and were with the same employers during the entire time. Of the 1944 importations 8 were still remaining or about 1½%. Of the 1945 importations, 23 were still on

hand, or about 3%. Of the 1946 importations, 18 remained, or about $4\frac{1}{2}\%$, and of the 1947 importations 51 remained or about 15%. From the results of this program, it was felt that about 10% of the importations for any given year would remain over the winter, and the percentage decreased each year thereafter by about half. In other words, 10% remained for one year, 5% for two years, 2% for three years, and about 1% for four or more years.

Extension Farm Labor Supervisors worked diligently to improve inter-relations of farmers and workers in order to achieve maximum results. Growers were required to furnish standard housing and living conditions, to pay prevailing wages and to instruct new and untrained men in farming and ranching skills. This policy paid dividends as in almost every case the laborer responded satisfactorily.

As in previous years, the Extension authorities promoted this common ground of understanding by distributing an English-Spanish Phrase Book for employers of Mexican Nationals in Nevada. It served well as a ready reference to assist the farmer and town merchants in their contacts with the Mexican Nationals.

VII. VICTORY FARM VOLUNTEERS:

The increased supply of adult workers had a profound effect upon the V.F.V. program in 1947. The number of youth available seemed to be about the same as in previous years but the opportunities of placing them were greatly decreased. Farmers and ranches prefer adults when they are available, for the heavy work which is necessary in Nevada agriculture.

Although placement of youths by the Extension Farm Labor Program fell to 179 this year, these were all town and city youths, and this does not take into consideration the large numbers of farm boys who work on their parents or neighbors farms. Neither is considered the large number of youths who find farm jobs through their own efforts, many of whom were placed in previous years through the V.F.V. Program.

Mr. Edwin Whitehead was again in charge of the V.F.V. Program as a part time Assistant State Farm Labor Supervisor. His report on the program is attached.

VIII. MIGRATORY PROGRAM

In keeping with the migratory program for the Western States, an Information Station was opened at Fernley, Nevada, on May 1 of this year. This location was chosen due to its proximity to the junction of two main East-West highways and one important North-South highway. Directional signs were erected about one mile on each side of the station, with a main sign pointing to the office which was located about one block off the main highway in the town of Fernley. We were fortunate in obtaining a local rancher's wife to take charge of the station. In addition to having a fine background of farm and ranch work, she also had stenographic ability and experience in interviewing workers.

This station in addition to furnishing information to migrants of work opportunities in the Western States proved of great value in

placing workers in the local area and referrals to other sections of the state.

During the period in which the station was operated, a total of 251 interviews were made representing 329 adults and 31 youth.

This program achieved better utilization of migrant workers, by directing them to areas of labor shortages, and away from surplus areas, which reduced their travel and saved considerable time which would have been lost had they continued on to their original destination.

The station was closed at the end of October when it was found that the amount of migratory travel over this route was not sufficient, after this trial of a year, to warrant its maintenance.

IX. SUMMARY AND OUTLOOK:

The charts on the following pages present a fairly accurate summary of the highlights of the recruitment and placements of the Farm Labor Program for 1947, and for the entire five years of the program.

Chart Number 0 summarizes the placements and source of supply of farm workers during the five year period in which the program was handled by the Extension Service. The blue column represents the 28,510 placements made, the red column represents the 18,806 placements recruited from within the counties. This clearly shows that the major accomplishments were performed right on the local level by mobilizing local labor supplies. The green column represents the 2,564 Victory Farm Volunteers which constituted an important segment of the program. The yellow column shows the 2,794 Mexican Nationals imported during the five years. The purple column represents 5,472 intra-state workers that were recruited and moved between the counties. The last column is 913 inter-state workers, mostly coming from Sacramento.

Chart Number 1 The set of blue columns show the total number of workers which were placed in the state for each of the five years of the program. The other sets of columns on the chart show, for each year of the program, the source from which these placements were made. The red set of columns represent the local placements within the counties. The other four sets of columns represent the number of individuals placed of each type of worker as follows: Green, Victory Farm Volunteers; Yellow, Mexican Nationals; Purple, transported intra-state workers; and Brown, inter-state workers.

Chart Number 2 Shows the placement for year-round and seasonal workers on a monthly basis. This chart indicates that the peak season of employment comes during the month of July. This is caused mainly by the large acreage of wild hay which usually comes on about the last part of June. The second peak occurs about in August when the second cutting of hay occurs and the other peaks come the latter part of September and October with the third crop alfalfa, onion and potato harvest demand. On this chart the red represents seasonal workers placed and the blue, the year-round workers placed.

Chart Number 3 Shows the requests and placements by months. This chart shows that requests for both seasonal and year-round workers have exceeded the placements but this is caused by a slight lag of the placements and some reductions on farmers requests by cancelled orders using fewer men, working longer hours, machines and exchanging labor, so the requests were sufficiently filled and that all crops were harvested without loss.

Chart Number 4 is a comparison of Mexican Nationals used in the years 1943, 1944, 1945, 1946, and 1947. The number of Nationals working in the state on the first of each month is shown for each of the five years. This chart shows the peak demand for the Nationals was the year 1945 and as more white labor became available during 1946 and 1947, the requests for Mexican Nationals became less.

In conclusion, it may be stated that the Farm Labor Program has completed another satisfactory year through the cooperation of farmers and all groups concerned. The farmers and ranchers are well pleased and realize that the aid given them in securing labor, in the use of labor saving machinery, and in the exchange of labor and machinery has helped materially in getting crops harvested.

The accomplishments of the Extension Service of Nevada in this war time undertaking of recruitment and placement of farm workers, is probably best summarized in the following editorial of the Reno Evening Gazette of December 27, 1947.

A SPLENDID JOB

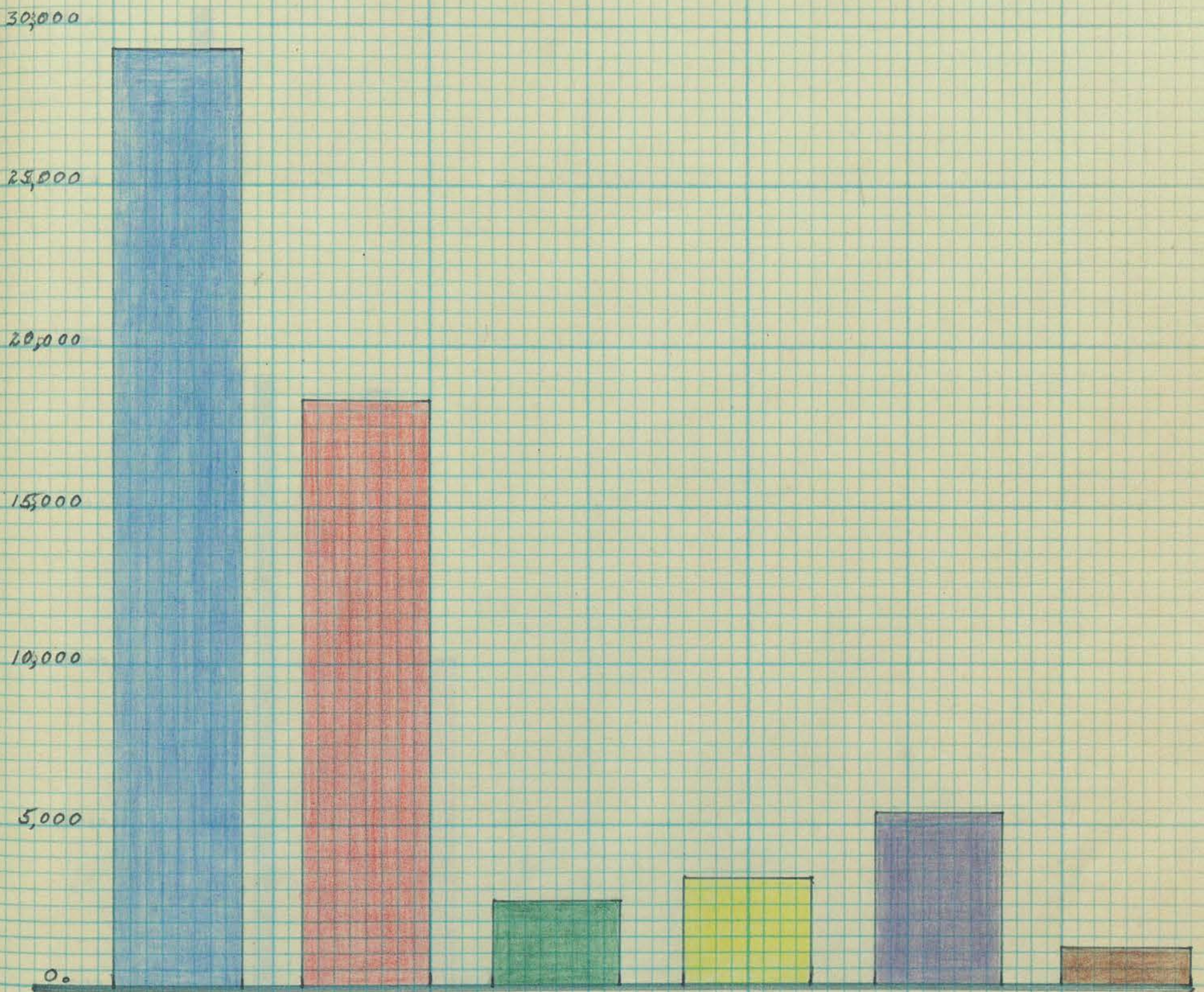
Impending reversion of the job of recruiting and placing Nevada farm laborers from the University of Nevada Agricultural Extension Service to the State Employment Service calls to mind the splendid work done by the former during the war years.

At times in the war time period the farm labor shortage constituted one of the greatest threats to the success of our war effort. The generals who mapped our military strategy played no more important roles than the administrators who sought and obtained the labor necessary to produce food crops. In Nevada, as in other states, the agricultural extension service assumed the brunt of this task, in addition to fulfilling its other responsibilities--also connected with producing bigger and better farm crops.

In less than five years, the University of Nevada Agricultural Service made more than 28,000 placements of farm workers within the state. It enlisted the services of the "victory farm volunteers," brought in workers from other states, and placed the Mexican nationals brought here to help alleviate the crisis. Without this help Nevada farmers could never have set the enviable production records with which they were credited. It was a job that ranks in importance alongside some of the more spectacular military victories of the war.

NEVADA

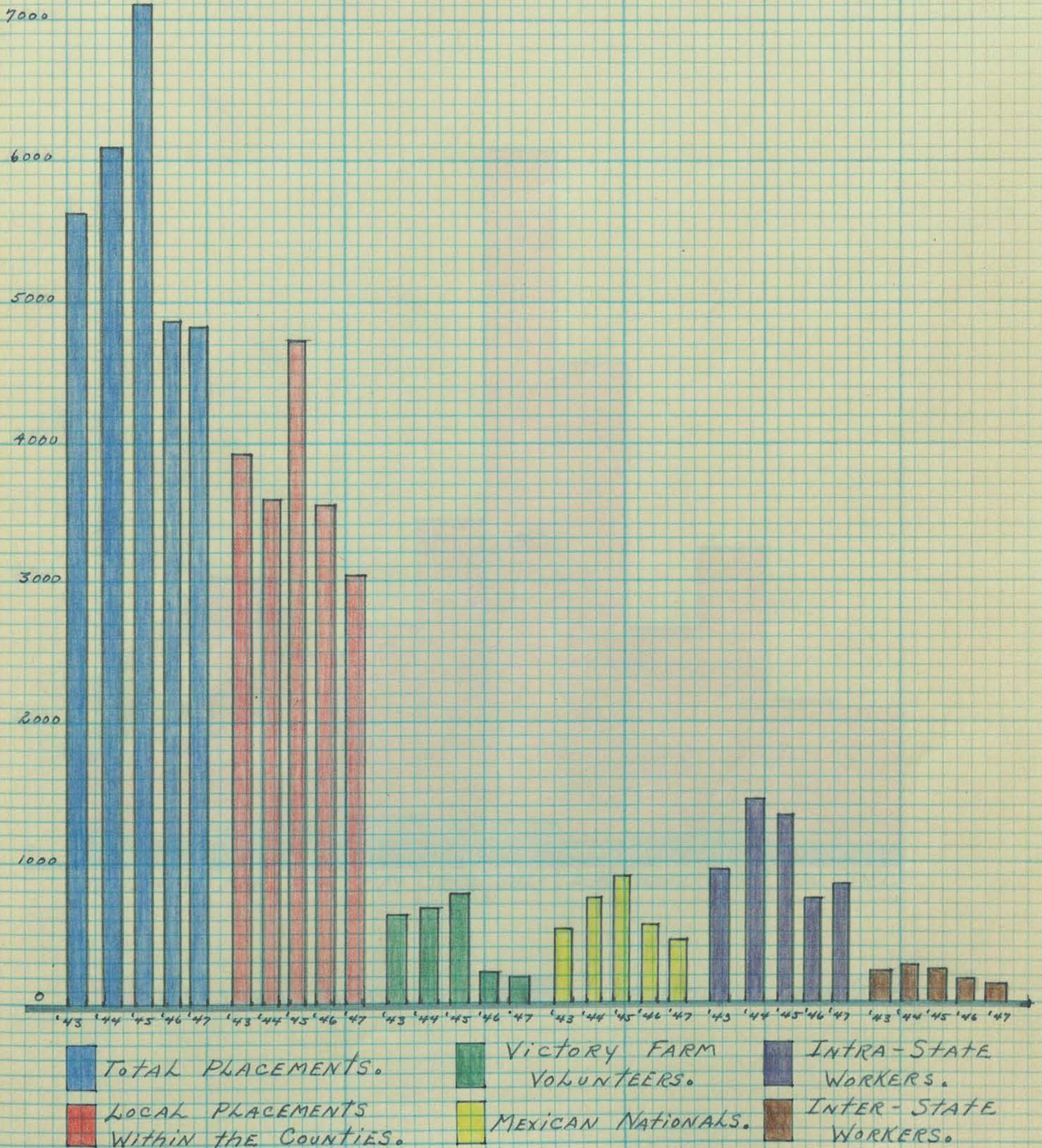
TOTAL PLACEMENTS AND SOURCE, 1943-1947



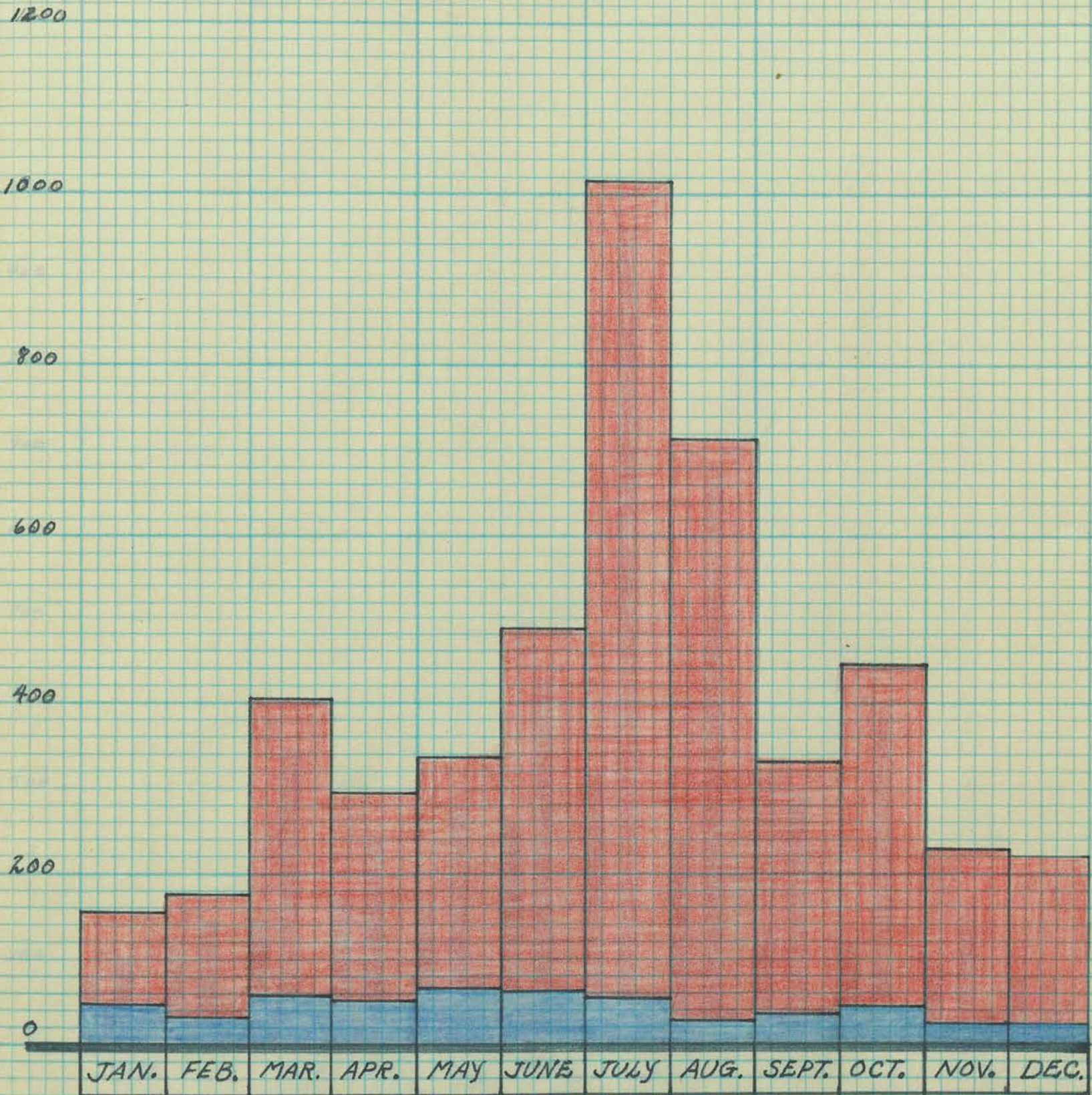
 Total Placements	 Victory Farm Volunteers	 Intra-State Workers
 Local Placements Within the Counties	 Mexican Nationals	 Inter-State Workers

NEVADA

NUMBER AND SOURCE OF WORKERS PLACED
IN THE STATE
5 YEAR COMPARISON.
1943-1947.

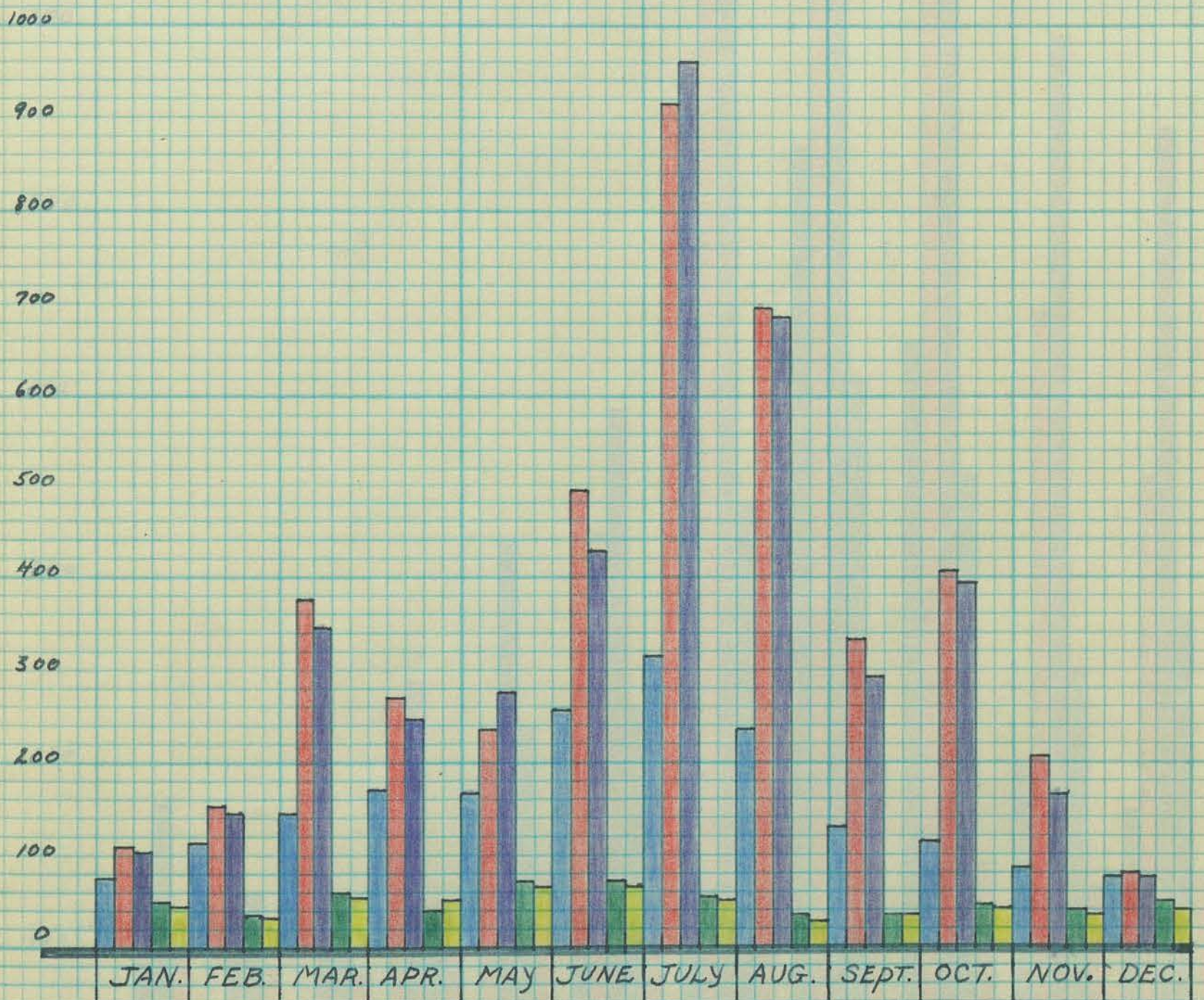


TOTAL PLACEMENTS By Months of SEASONAL
And YEAR-ROUND WORKERS. 1947.



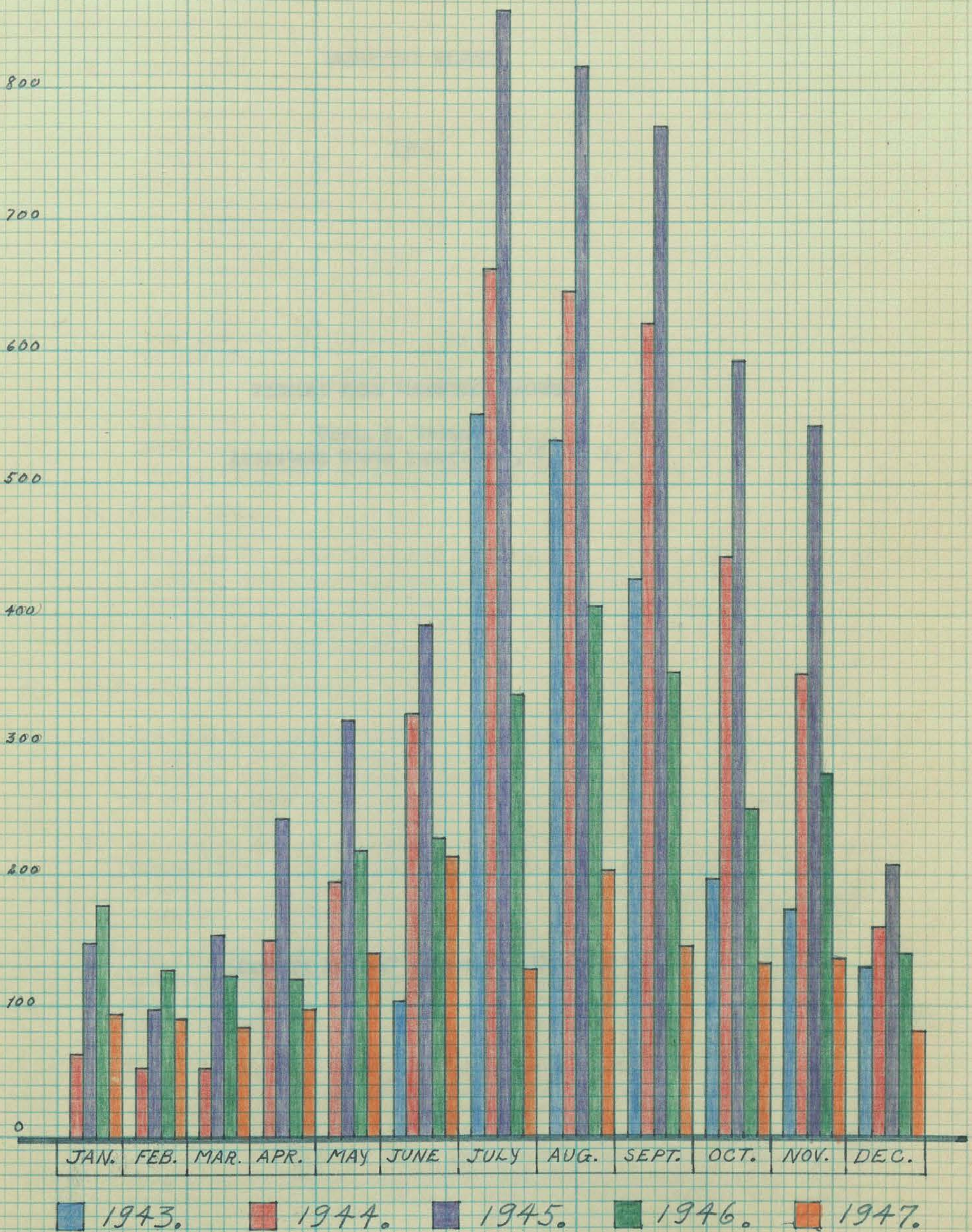
SEASONAL WORKERS YEAR-ROUND WORKERS.

FARMER REQUESTS FOR WORKERS COMPARED
With EXTENSION PLACEMENTS.
1947.



- No. of FARMERS REQUESTING WORKERS.
- No. of SEASONAL WORKERS ORDERED BY FARMERS.
- No. of SEASONAL WORKERS PLACED BY EXTENSION SERVICE.
- No. of YEAR-ROUND WORKERS ORDERED BY FARMERS.
- No. of YEAR-ROUND WORKERS PLACED BY EXTENSION SERVICE.

900 MEXICAN NATIONALS EMPLOYED BY MONTHS 1943-1947.



NARRATIVE REPORT

1947

VICTORY FARM VOLUNTEER PROGRAM

Edwin F. Whitehead
Assistant State Supervisor, V. F. V.

January 1, 1947 - December 31, 1947

Victory Farm Volunteer Program 1947

I. ORGANIZATION - State and County Farm Labor Committees.

A. STATE LEVEL

A committee of five members, representing all the important agricultural communities of the state, and being farm operators, served in an advisory capacity.

The members names and addresses are:

Fred Dressler - Minden, Nevada
William B. Wright - Chairman - Deeth, Nevada
Edward A. Settelmeyer - Secretary - Reno, Nevada
Norman Annett - Wellington, Nevada
Edwin C. Marshall - Logandale, Nevada

These men made up the membership of the State Farm Labor Committee also and were appointed by the Extension Director at the beginning of the program in 1943. Their advice and suggestions proved invaluable in formulating the program on a statewide basis.

As in the past years of the program, an Assistant State Farm Labor Supervisor, in Charge of Victory Farm Volunteers, was employed during the summer harvest months of June, July and August.

B. COUNTY LEVEL

Problems of the county level were handled by Advisory Committees of three to seven members, who also served as members of the County Farm Labor Committees. They worked closely with the Farm Labor Assistants and County or District Extension Agents in all problems dealing with the Volunteer program.

II. RECRUITMENT AND SELECTION:

- A. The need for youth workers in the weeding of onions during the months of May and June has been urgent the past seasons. This need had been increased due to increased acreages and the required hand labor method of weeding that can be expertly done by youths if supervised.
- B. Recruiting for onion weeders was done by two methods generally: the farmer contacting the school heads and placing his request for weeders and the other by contacting the Extension Agent who in turn contacted the schools.

The selection of these workers was generally done by the schools and their selections in most cases proved satisfactory. Many girls were selected for this type of work and proved in most cases to be more serious about the job than the young boys.

Selection of workers for the hay harvest during the summer months of June, July and August was made on the size, age and experience of the Volunteer. Most of the hay harvested in Western Nevada is baled and this work can be expertly done by youths. In many instances the farmers preferred young boys to the older workers. They claimed they could be trained more easily and worked faster than the older men.

Bale buckers were selected on size and age because of the heavier type of work involved in this operation.

Several farmers selected smaller youths to help in the kitchens of larger ranches. These boys were considered too small for field work and were useful in preparing the vegetables and helping with the dishes.

III. TRAINING

Training for specific jobs such as onion weeding and use of power equipment, tractors, mowers, rakes, etc. was handled directly by the farmers on the job in the field.

Youths were taken to the onion fields by the farmers and were given instructions by the County Agents and the farmers.

The increased use of power equipment for haying operations has necessitated the use of more skilled workers. Youths with tractor driving ability have been in demand and many of the farmers were willing to spend their time instructing the boys in the proper operations.

Vocational agricultural instructors throughout the state have offered courses in use of power equipment, these courses were made possible through the co-operation of the State Department of Education and the County Agents. These courses were part of the regular vocational agricultural curriculum and were limited mainly to the youths attending the local schools.

IV. PLACEMENT:

- A. During the 1947 harvest season there seemed to be a broader view on the part of the farmer toward using youth labor. This seemed unusual because of the greater supply of adult labor available since the end of the war.

The older youths being very adept at handling power equipment and being more interested in this power machinery has accounted for the increased desire by farmers in their use.

- B. Farmer requests for youth workers was handled through the local Farm Labor Offices. The farmer would specify his labor requirements and the local Farm Labor Ass't would attempt to fill his request.

In most cases there was little or no trouble in matching farmer and youth as to conditions. In only one case where a farmer requested youth labor was there difficulty in meeting his needs, but this was always the case with adult labor, also.

- C. Work agreements between youths and farmers were worked out between the two parties. During haying, the youths doing what was considered a man's job were paid the prevailing wage.

Working hours averaged 9 hours per day and the average wage including board and room was between \$4 and \$5, this varied according to the counties. Eastern and Central Nevada counties generally paying 50¢ to \$1 more per day.

V. TRANSPORTATION:

- A. With the exception of the weeding operations of May and June practically all the youths employed were on a "live in" basis. This required the services of the several bus companies in the state. Most of youths transported to Douglas County in Western Nevada were on the Virginia & Truckee Bus Co. other transportation companies that have co-operated fully throughout the program are: Greyhound; Las Vegas, Tonopah & Reno Bus Co., Hiskey States and Burlington.

The excellent co-operation of these companies played an important part in the farm labor program's success throughout the war years when priorities were required to travel.

Youths transported to farms in Nevada travelled longer distances than those of other states because of the labor supply centers of Reno and Las Vegas being located generally many miles from the farming centers of Nevada.

Transportation was furnished the youths on day hauls by the farmers using the youths. The method of transporting was usually farmer owned trucks or their family cars. There were no cases of accidents reported throughout the entire program due to transporting the youths.

- B. Farm Labor Assistants or County Agents always met the buses at the destination to which the youths were being assigned. The youths were then picked up by the farmer or taken by the Farm Labor Ass't to the farm.

VI. SUPERVISION:

- A. "Day haul" youths were always under the supervision of the farmer or some responsible member of the farm family while working in the fields. These youths generally reported excellent treatment and very few cases of unsatisfactory work on treatment was reported by either of the parties. During the 1947 season, the farmers reported better workers and were more satisfied with youth labor than in any previous year of the program.

- B. "Live-ins" in Nevada generally meant the youths were many miles from home and generally were accepted as a part of the family.

On the larger farms, while they were more on their own, they were under the "thumbs" of the farm foreman. The farmers were asked to "keep an eye" on them as much as possible.

The State Supervisor of Victory Farm Volunteers tried to visit all farms using youths in Western Nevada while the County Agents and Farm Labor Ass'ts in other parts of the state checked on the youths in their area.

Cases of dissatisfaction were settled more satisfactorily by these close contacts.

VII. SAFETY AND INSURANCE:

- A. Safety was stressed before and during the employment because of the hazardous nature of farm work. Farmers were careful in job selection,

knowing the capabilities of youths and also their enthusiasm to sometimes overdo their capacities.

- B. The Nevada Industrial Insurance Commission under Nevada Law insures all workers. The youths of Nevada were covered by this Insurance.
- C. There were no major accidents to youths reported, but quite a noticeable increase in minor ones. This was probably due to the use of power machines during the harvest season. In all accident cases the youths were treated immediately by physicians located in the area. Any loss of wages was made up by compensation, usually amounting to about two-thirds (2/3's) of the regular wage. All medical costs were paid by the Industrial Commission or the local farmer hiring the youths, depending on the case.

VIII. EVALUATION:

- A. The principal crops of Nevada that the youths helped produce are:
 - 1. Onions - principally in Washoe, Lyon and Pershing Counties; requiring the employment of probably 200 or more weeders during the months of May and June.
 - 2. Hay and Grain - General in all counties of Northern, Central and Western Nevada. These crops required the employment of the greatest number of youth workers and extended through the vacation months of June, July and August.
 - 3. Dairy - Many high school youths are employed full time during the summer months and part time during the school months working on local dairy farms. Bottling and delivery of the milk is the job most youths in this field are required to do.
- B. This fifth year of the program of youth farm labor has definitely assured the youth of Nevada a fixed place as an important part of the farm labor supply of the future. Many farmers definitely request the use of youth of high school age, on the farms. This is the result of the increased use of tractors and other forms of power driven equipment that the younger boys are very adept at handling. Another reason has been the lack of dependable men to stay on the job when the farmer really needs them.

While it is impossible to state exactly, the units of work accomplished or the values of the crops harvested by the youths; it is safe to say approximately a fourth of the summer harvest work is accomplished by youth workers. The values of these crops are the principal incomes of the farmers of Nevada; hay and grains, that are fed to the live-stock are the backbone of Nevada's agricultural structure, hence the youth have played an important peace-time part in this picture in Nevada.

IX. CONCLUSION - "Looking Ahead"

The opportunities for employment of youth in agriculture in 1948 are very good. The five years of this program have created a desire for many to continue in this work and a more desirable attitude on the part of farmers toward youth labor in Nevada.

The youth during these years have definitely proven their abilities to do farm work and handle farm machines efficiently and safely.

Vocational education curriculums have and are being geared along the lines of making the youth of today the farmer of tomorrow.

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION

CECIL W. CREEL

DIRECTOR

Annual Report of Extension Work in
Soil Conservation

For the Period
November 1, 1946 to October 31, 1947

Otto R. Schulz
Extension Soil Conservationist

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COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
 UNIVERSITY OF NEVADA AGRICULTURAL EXTENSION DIVISION
 AND UNITED STATES DEPARTMENT OF AGRICULTURE
 COOPERATING

- I. NAME OF PROJECT III Extension Work in Soil Conservation
- II. PERIOD COVERED November 1, 1946 to October 31, 1947

INTRODUCTION:

In accordance with a Memorandum of Understanding formulated between the Agricultural Extension Service and the Soil Conservation Service, an Extension Soil Conservationist was appointed on July 1, 1937. This Memorandum of Understanding provides for educational work through the State Extension Service in furtherance of soil conservation, on such areas and to such extent as may be mutually agreed upon by the state director of Extension and the state coordinator of the Soil Conservation Service; and, the encouragement of legally constituted soil conservation associations or districts so constituted by law to provide for general, effective, and permanent erosion control. It further provides through the office of the state coordinator for furthering unity for purpose among state agencies in all development of plans, cooperative arrangements, soil conservation legislation, and policies of soil conservation, to the end that a coordinated soil conservation program for the state may be effected.

The Soil Conservation Program, as formulated by the State Soil Conservation Advisory Committee and approved by the Soil Conservation Service, provides for project demonstration areas, CCC camps, soil conservation associations or districts, and general land-use and soil conservation practices to be followed in the development of the work in the state. The object of this program is to bring about a realization of the seriousness of losses due to erosion and to demonstrate the various practical measures of erosion control and practices for conserving soil and moisture through proper land utilization.

ORGANIZATION:

The Soil Conservation Service in this state functions under the supervision of J. H. Christ, Regional Conservator of Region Number 7, which includes the states of California, Nevada, Oregon, Washington, Idaho, and Alaska and Hawaii, with the Regional office located at Portland, Oregon. The administration of all soil conservation service activities in Nevada centers in the state office located in Reno, with Mr. George Hardman as State Conservationist.

Within the state, the activities are centered in five district offices located at Yerington, Ely, Caliente and Elko, out of which supplemental technical services are supplied through the work units.

The major activities of the service were carried on through the twelve organization soil conservation districts located in Lyon, Douglas, White Pine, Lincoln, Clark, and Elko counties. During the year, one additional district has been petitioned for in Elko County and is now in the process of organization.

In other areas of the state, the activities center around off-area demonstration farms, under cooperative arrangements between the Soil Conservation Service, and the Nevada Agricultural Extension Division of the University of Nevada.

OBJECTIVES:

The duties of the Extension Soil Conservationist, as outlined in the Plan of Work approved by the Extension Service and the Soil Conservation Service, are as follows:

1. It shall be the duty of this specialist to coordinate the activities of the Soil Conservation Service and the Agricultural Extension Service in the educational phases of the State Soil Conservation program.
2. The state soil conservationist, working through special agents or directly with county agents, will:
 - a. Assist county agents in:
 - (1) Conducting soil conservation demonstrations with individual farmers.
 - (2) Selecting soil conservation committees.
 - (3) Organizing soil conservation associations.
 - (4) Developing county or association soil conservation programs based on the State Soil Conservation Program.
 - b. Prepare subject matter information for 4-H Club members and vocational classes.
 - c. Set up exhibits for use at state and county fairs and such occasions in cooperation with the regional information office and state extension editor.
 - d. Conduct farm tours in cooperation with county agents for inspection of soil conservation demonstrations.
 - e. Address farmers meetings and other groups on need for the appropriate measures of erosion control and practices for conserving soil and moisture.

- f. Secure services of subject-matter specialists of the Extension Service, Soil Conservation Service, and Experiment Station for assistance in the program as need arises.
 - g. Distribute information through method demonstrations, the press, film strips, and radio, in cooperation with the regional information office and state extension editor.
3. The state soil conservationist, working through the county extension agents, the Soil Conservation Service, or directly with the parties concerned, will:
- a. Inform the state extension workers of the provisions of the State Soil Conservation Districts Law.
 - b. Conduct educational programs on provisions of the Act in areas selected by the State Soil Conservation Committee in which the first educational work should be started.
 - c. Assist the State Soil Conservation Committee in determining the need, economic advisability, and the correct size for administrative purposes of proposed districts, assist in preparing boundaries and legal descriptions of districts selection of supervisors, and otherwise assist in organizing districts.
 - d. Cooperate with the state coordinator and the district supervisors in formulating plans of operations for legally organized districts.
 - e. Assist in informing people of the districts of the plans formulated for the districts.

GOALS:

The specific goals as submitted in the Plan of Work for the year are as follows:

1. The State Soil Conservationist assists the State Soil Conservation Committee in the organization of Soil Conservation Districts, under the State Soil Conservation Districts law.
2. Encourage and assist county agents and farmers to establish 10 additional off-area individual farm plans in cooperation with the Soil Conservation Service.
3. Cooperate with Nevada Experiment Station in conducting tests to determine the possibilities of use of commercial fertilizers in the Soil Conservation Farm Planning Program in Nevada.

4. Cooperate with the FMA by attending meetings of the State Technical Committee and formulating and encouraging the use of practices that will promote the conservation program in Nevada.
5. Stress the importance of using latest irrigation methods and practices to secure maximum benefits from use of irrigation water.
6. Meet with county agents, SCS Technicians and district supervisors to develop and forward the Soil Conservation Program.

METHODS AND ACCOMPLISHMENTS:

Soil Conservation programs have been stressed throughout the state and many conservation measures have been effectively carried out by farmers cooperating with federal agencies. Of the vast area of federal owned lands within the state, a major portion is now included either within national forests and administered by the Forest Service or is in grazing districts and administered by the Grazing Service.

On the privately owned lands, the Agricultural Adjustment Administration, the Soil Conservation Service, the Extension Service and other federal and state agencies are cooperating with farmers in promoting soil and water conservation practices and programs.

During the past year the work of the Soil Conservation Service has continued to extend from demonstration projects and areas within the districts to all sections of the state by conducting additional off-area demonstration farms in cooperation with the Nevada Extension Service. However, the most intensive work of the Soil Conservation Service was carried on in the areas included within the twelve organized soil conservation districts.

The accomplishments on the specific goals as set out in the program of work for this year, are as follows:

1. District Organization.

Ruby Soil Conservation District

Petition was received by the State Committee for the Creation of the Ruby Valley Soil Conservation District and a hearing was held on July 16, 1947. The State Committee considered the results of the hearing and set August 22, 1947 as date for the referendum. Seventeen votes were cast in favor of the district and none opposing so the State Committee determined the district practicable and feasible on September 27, 1947. Mr. Emerson Neff and Mr. Russell Weeks were appointed supervisors to proceed with the organization of the District.

The material has been prepared for the request of the Certificate of Organization and it should soon be issued.

Additional territory has been added to several of the previously organized districts by petition of the individuals desiring to be included within the districts.

Educational activities were carried on in these areas by the County Extension Agents through use of off-area demonstration farms, farm center meetings, personal visits etc. George Hardman, State Conservationist and other soil conservation service personnel also actively participated in forwarding and explaining the organization procedure of these districts.

2. Off-Area Farm Plans:

Owing to the curtailment of funds by the Soil Conservation Service for technicians in charge of planning off-area demonstration farms, this program was not stressed during the year. One application presented was turned down for the above reason. Therefore, no demonstrations were conducted during the year.

The following table gives the statistical data on the number of plans requested and completed to date. This summary is analyzed by counties and shows the demonstrations are located in all the important agricultural counties of the state. These off-area demonstration farms have been a main factor in the increased interest in soil conservation districts according to reports from county extension agents. As new districts are organized in areas where the off-area plans are located, they are transferred to district plans.

Total of Farm Plans As Of
November 1, 1947

<u>County</u>	<u>Requested</u>	<u>Acreage</u>	<u>Completed</u>	<u>Acreage</u>
Churchill	14	2202	14	2202
Clark	15	2107	15	2107
Elko	15	194249	12	23845
Esmeralda	5	4740	3	4460
Eureka	3	5640	3	5640
Humboldt	10	58133	10	58133
Lyon	7	7840	6	6840
Nye	5	14845	4	3110
Ormsby	4	2962	4	2962
Pershing	1	3000	1	3000
Washoe	20	10473	18	8853
TOTAL	99	306193	90	121152

3. Fertilizer Tests:

The cooperative field test program with the Soils Department of the Nevada Experiment Station were considerably expanded during the year. The writer assisted Mr. V. E. Spencer, Head of the Soils Department, with two experimental test plots in Douglas County. One of these plots was situated on the John Fell Farm for the purpose of determining the effectiveness of commercial fertilizers and soil treatment on the productivity of this type of land. The crop grown was winter wheat and the results were very striking, with the production varying from 700 lbs. of grain on the non treated plot to 2600 lbs. on the plot giving the greatest response to treatment. The area was also seeded to sweet clover which will be plowed under for a green manure crop during the coming year.

Before harvesting, a field tour was conducted in cooperation with Lee Hansen, County Extension Agent, and a large gathering of farmers were present to view the results of the various treatments. It is hoped that this plot will provide information on the most economical soil treatments to improve and maintain the productivity of this type of soil.

The other plot established was on the Jean Aldax Farm in Douglas County. In this area there is estimated to be about 3000 acres of land on which it has practically become impossible to get a new stand of alfalfa. At one time this area was well suited to alfalfa production and high producing stands were abundant, but during recent years production has declined and new plantings die when the plants get about 3" to 6" high. Many of the farmers have tried other crops but have not found one that is as profitable for their type of farming as alfalfa.

Various suggestions have been made and tried by the individual farmers but nothing has been found to meet the problem. Therefore, a test plot was established to determine the effectiveness of soil amendments and treatments which may prove effective for this area. Seventeen different treatments were applied and alfalfa seeded. Observations made during the year show that some of the plots look promising while heavy losses occurred in others, but no conclusion can be reached until next year when the stands should be established.

A test of various types of commercial fertilizer, with potatoes, was conducted in cooperation with Louie Gardella, County Agent, on the Tognelli Farm in Lyon County. Some increase was noted in the different analysis of fertilizers used but the increase was not sufficient to base any recommendations on without further test, therefore, this program will be continued and probably expanded next year.

State-wide news stories were prepared by the writer and distributed through the Extension News Service emphasizing to farmers the need of securing fertilizer early and suggestions on proper storage of fertilizer on the farm. The proper use of fertilizer in areas where results are known and types of crops responding to fertilizer treatments were also stressed.

Several conferences have been held with County Extension Agents, and representatives of the Experiment Station on further expanding experimental work with commercial fertilizers on Nevada soils and it seems very promising that this program will receive considerable more emphasis next year.

The use of DD as a soil treatment for the control of nematode on potatoes was again tested by several farmers cooperating with County Agents in Lyon and Washoe counties, assistance was given in checking results on some of these tests and indications are that this treatment may be effective in reducing nematode infestation when properly applied.

4. PMA Cooperation:

Meetings of the State Technical Committee of the Production and Marketing Administration were attended, at which the different practices of the program were discussed and suggestions made for changes, and consideration given to new practices to be added to the program.

The conservation practices of this program have been of assistance to farmers in meeting the expense of carrying out the work. Such practices as land leveling and construction of power irrigation structures have been emphasized to the greatest extent.

5. Irrigation Practices:

The importance of irrigation practices were stressed during the year through the regular extension programs, Soil Conservation Service farm plans, and the PMA program. Payments made by the PMA for such practices as construction of check dams and drops, and reorganization of farm irrigation systems and land leveling, assisted the farmer in carrying out these improvement programs, which materially assisted in forwarding the program. In organized soil conservation districts, loan of equipment has been made available to assist farmers in leveling land in accordance with a complete farm plan. Engineering assistance provided by the Soil Conservation Service has assisted farmers in organized districts in carrying out this program.

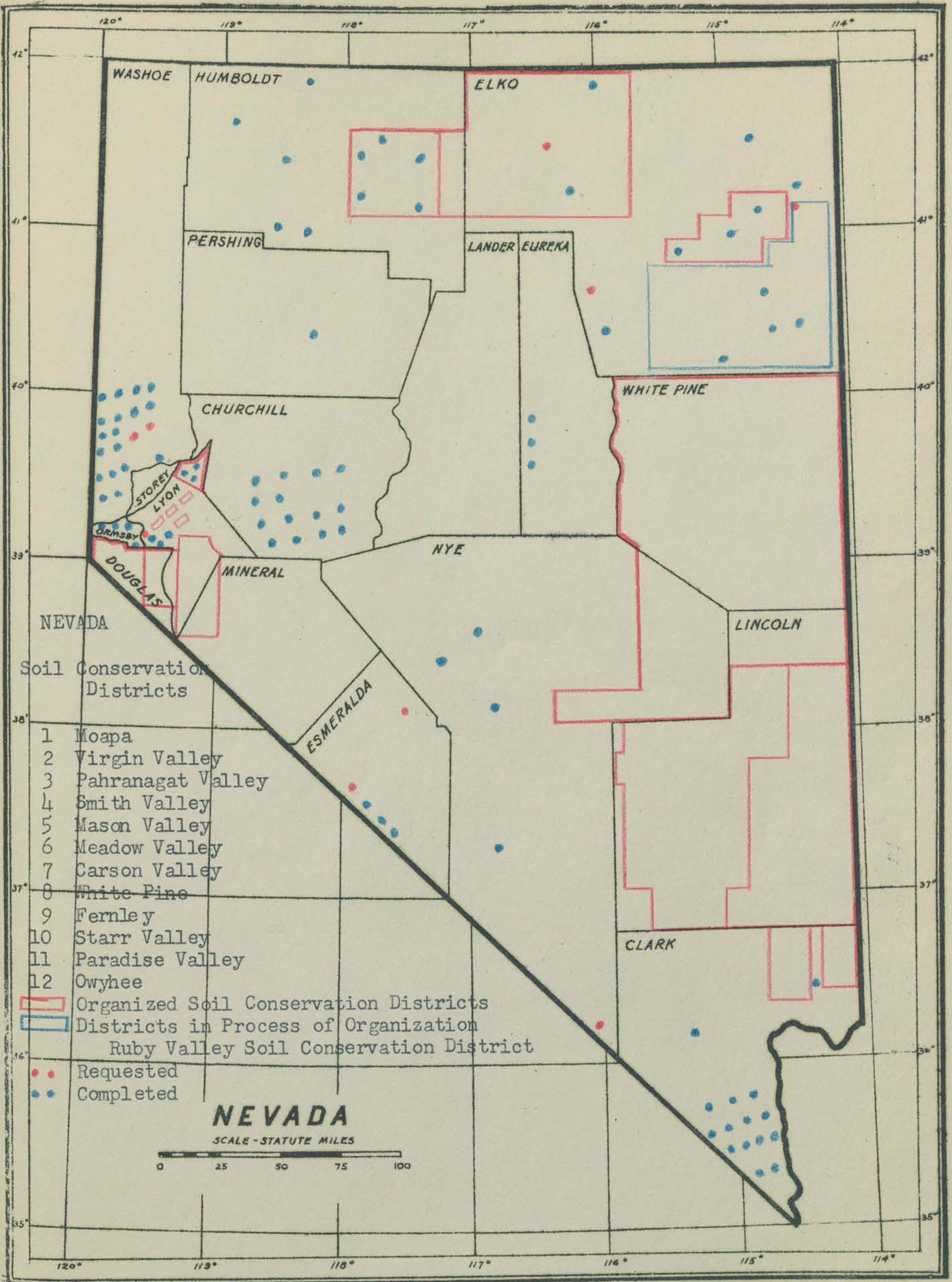
Many contractors had heavy equipment which was idle due to curtailment of construction projects, and therefore they sought contracts on land leveling which materially increased the acreage of land leveled. This practice is of great importance to soil and water conservation and increased crop yields and the large acreage leveled the past year is most encouraging.

6. Meetings With County Agents, SCS Technicians etc.

Several conferences were held with County Extension Agents and Soil Conservation Service Technicians at which time various phases of soil and water conservation practices were discussed also agency relationships and methods of improving programs. Meetings

of the State Soil Conservation Committee were attended and many conferences held with George Hardman, State Conservationist at which various phases of the conservation program were discussed.

Mr. E. C. Hellinger, Extension Soil Conservation Service Conservationist from Washington discussed the soil conservation program at meetings with county extension agents and soil conservation service technicians. He also was taken on a tour of various projects to see the program in operation on the land. His suggestions on methods of forwarding the program were well received.



Soil Conservation Districts

- 1 Moapa
- 2 Virgin Valley
- 3 Pahrangat Valley
- 4 Smith Valley
- 5 Mason Valley
- 6 Meadow Valley
- 7 Carson Valley
- 8 White Pine
- 9 Fernley
- 10 Starr Valley
- 11 Paradise Valley
- 12 Owyhee

Organized Soil Conservation Districts
 Districts in Process of Organization
•• Requested
•• Completed
• Ruby Valley Soil Conservation District

NEVADA

SCALE - STATUTE MILES
 0 25 50 75 100

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AGRICULTURAL EXTENSION DIVISION

CECIL W. CREEL

DIRECTOR

ANNUAL REPORT OF EXTENSION WORK IN AGRICULTURAL ECONOMICS

(Project No. 6)

for

1 9 4 7

Verner E. Scott

Extension Agricultural Economist

ANNUAL REPORT OF EXTENSION AGRICULTURAL ECONOMIST

V. E. SCOTT

1 2 4 7

General Information and Relationship to Resident Teaching

In the 1947 plan of work, it was planned that one half time be devoted to Extension work. Changes in Resident Teaching requirements at the beginning of the fiscal year changed the amount of time to be devoted to Extension.

On July first V. E. Scott was made Director of Residence Teaching and Professor of Dairy and Poultry Husbandry, thereby reducing the time available for Extension work from one-half to ten percent.

It was evident that the work planned could not be carried out in its entirety.

Since no arrangements had been made to secure a farm management specialist who would continue the farm-account sub-project, it was thought advisable to devote the time available, to finishing this sub-project. With this in mind, farm account cooperators were informed that farm visits would be discontinued, but that all books sent to the state office would be audited and the usual assistance given with respect to income tax returns during the remainder of 1947 and including the months of January, February and March, 1948. The sub-project ceasing on June 30, 1948.

- PROJECT VI Extension Work in Agricultural Economics
- SUB-PROJECTS A - Marketing
- B - Credit
- C - Agricultural Outlook
- D - Farm Management
- I - Agricultural Planning and Miscellaneous Extension Work.

I. Names of Specialists and Division of Work

A. Names - L. E. Cline, full time

 V. E. Scott, part time

 E. E. Wittwer, part time

B. Division of Work - L. E. Cline was responsible for sub-projects A,B,C; V. E. Scott and E. E. Wittwer were responsible for sub-projects D and I. In addition, V. E. Scott has been responsible for Extension work in Dairy and Poultry Husbandry.

Each specialist has written a separate report.

II. Activities

The principal activities in sub-projects D, Farm Management, were (1) Servicing and analyzing farm account books (2) assisting individuals and informing the farming public on problems associated with income tax, (3) analysis of 1946 farm records (4) assisting vocational teachers.

The principal activities in sub-project I, Agricultural Planning and Miscellaneous Extension work, were advising dairymen on building milking barns, promoting the National Dairy programs, promotion of improved practices in egg production.

Sub-project D - County Extension Agents and Extension supervisors have been kept informed on the work done in farm accounts

but the details of auditing and discussion of problems arising out of the accounts have been carried out directly with farmers.

Procedure - In November, December and January, farm account books were audited and income tax estimates made. In January, February, and March, farmers were assisted with income tax forms 1040F, 1065, 1040 and special forms needed by individual farmers.

During the summer months the 1946 farm accounts were tabulated in preparation of a farm management bulletin. This bulletin will be finished during the spring months of 1948.

During 1947 the procedure was drastically changed. Up to that time, field personnel had made it a practice to visit each cooperator at least three times during the year, at which time books were brought up to date, acreage and yields were obtained, animal counts were made, birth, death and disposal data were checked; in fact, the teaching of better farm management was accomplished through these visits. In the early part of 1947 it became evident that the practice of visiting farms must be discontinued. Notices were sent out advising cooperators that no visits would be made and that the farm account books would be assembled at the state office for auditing.

The result of this change in procedure was (1) a 50 percent reduction in completed farm accounts; (2) a great reduction in records of farm management factors; (3) the accuracy of financial records could not be checked with physical factors, hence the practice of making cash balances, feed balances and livestock balances was of little value.

Aid to Vocational Teachers - Vocational teachers have been supplied with farm account books and assistance given on their use for Veteran Training.

Numerical Goals

	Goal	Accomplished	
		Books Given Out	Audited in this Office
1. Number of accounts to be encouraged	100	130	37
2. Number of farm people to be contacted	300	280	

Sub-project I - Agricultural Planning and Miscellaneous Extension Work

III. Activities

The principal activities in sub-project I have been (1) assisting with dairy farm plans, (2) meeting with vocational trainers and dairy groups (3) judging at fairs (4) news writing, economics, dairy and poultry.

The personnel of County Planning Committees has been retained as advisors to the county Extension agents. No meetings have been called at which the planning specialist was in attendance.

Sub-project phase - Dairy Herd Improvement Association

Dairy Herd Improvement has been carried on through Extension agents and D.H.I.A. supervisors in three counties. Three associations have been in operation. One thousand cows have been on test in thirty three herds. The Carson Valley Dairy Herd Improvement Association has been outstanding in its accomplishments. In 1946 with 433 cows, the average production was 9400.4 lbs. of milk, and 345.5 lbs. fat. In 1947 with 501 cows in 15 herds, the average

production was 9574.4 lbs. of milk and 399.6 lbs. of fat. This association has the advantage of an enthusiastic supervisor who has been with the association six years. A consistent culling program has been followed. In 1946, 55 cows were sold and in 1947, 108 were sold, primarily on account of low production. In 1946, the lowest producing herd produced 234.7 lbs. and the highest, 436.5 lbs. of fat. In 1937, the lowest herd produced 273.0 lbs. and the highest 500.7 lbs. fat.

Numerical Goals

	Goals	Accomplished
1. Meeting with agents and leaders	4	3
2. No. agents assisted	3	2
3. No. of adults to take part in major phase of program	36	37
4. No. of adults to participate through meetings and individual contact	200	90
5. No. herds to be enrolled	36	37
6. No. cows to be tested	1000	1000

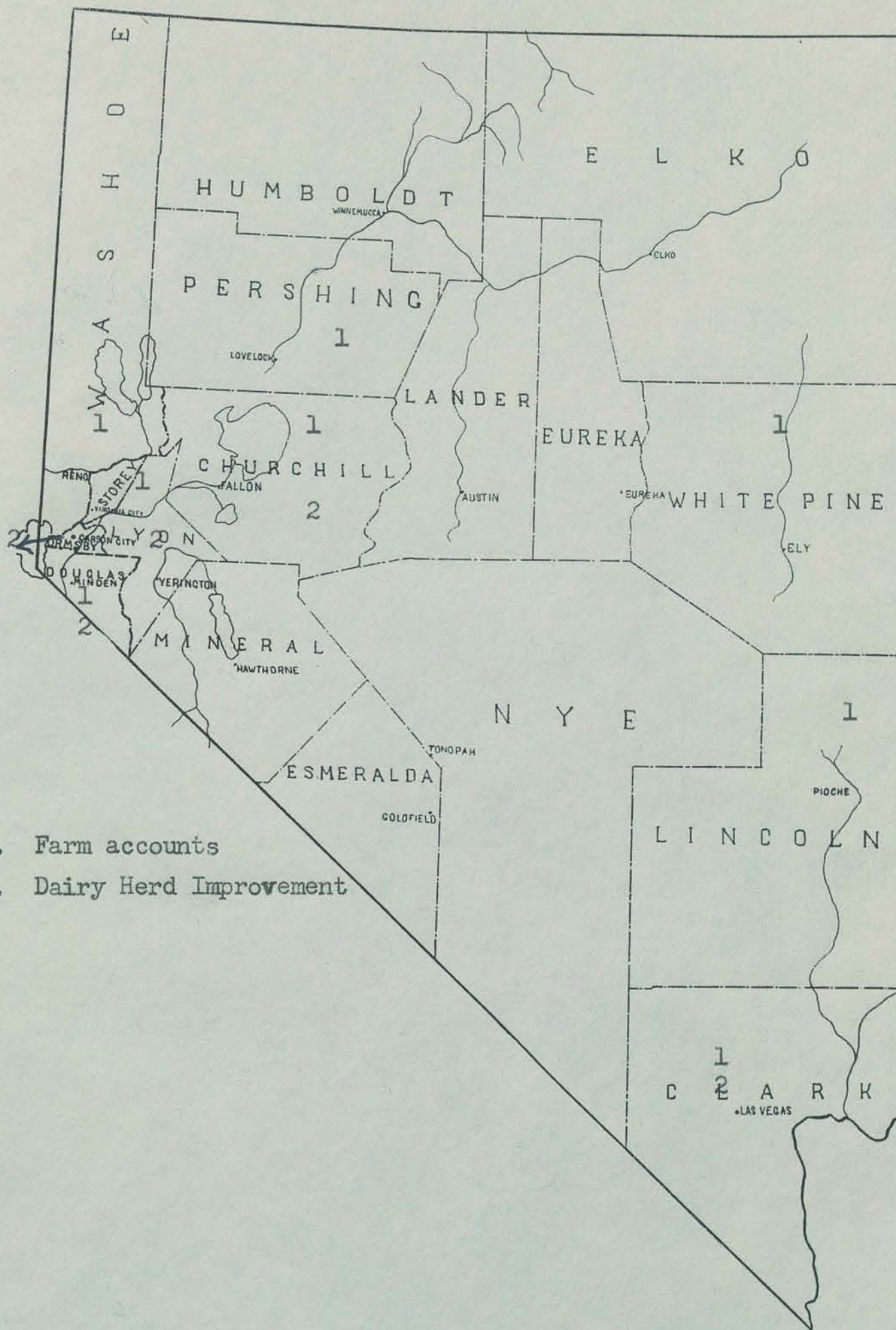
Statistical Report

No. farm visits	92
Miles travelled	5,200
Days in field	42
Days in office	70
Extension Agents visited	12
Farm Bureau meetings attended	3
No. meetings other than Farm Bureau	4
Attendance	80
News articles	11
Days spent at Farm Accounts	80
Days spent at Dairy sub-project	15
Days spent at miscellaneous Extension work	12
Days spent at fairs and contests	5

SUB-PROJECT PHASE D - Farm Accounts

I - Planning and Miscellaneous;

including dairy and poultry husbandry



- 1. Farm accounts
- 2. Dairy Herd Improvement

UNIVERSITY OF NEVADA
AGRICULTURAL EXTENSION DIVISION
CECIL W. CREEL
DIRECTOR

ANNUAL REPORT OF EXTENSION WORK IN AGRICULTURAL ECONOMICS

(Project No. 6)

for

1947

Eldon E. Wittwer
Extension Agricultural Economist

ANNUAL REPORT OF EXTENSION AGRICULTURAL ECONOMIST

July 1, to November 1, 1947

Eldon E. Wittwer

I began work with the Extension Service on July 1, 1947, with the understanding that I would devote full time to Extension work for two months during the summer and 16% of my time to Extension work during the nine months of the school year; 84% of my time during the school year was to be given to resident instruction.

According to our plan of work for the year 1947, I was to divide my time between two projects; namely 1. General Farm Accounts; 2. Economic Information. These projects were to be carried on in cooperation with Professor V. E. Scott.

During the months of July and August, considerable time was devoted to analyzing and summarizing farm accounts. These accounts cover a period of years and it was hoped that facts and figures could be worked up that would be very helpful to farm operators in Nevada, and in other states with similar types of farming to those found in Nevada. Considerable progress was made in working up this information, but we found that to get the material analyzed and ready for publication would require far more time than either Mr. Scott or I had available to devote to this project during the college year when we were both on part-time Extension work and part-time resident teaching.

It was therefore, decided that Mr. Scott would continue to work on the General Farm Accounts project in order to make available to farmers, such information as could be obtained from an analysis of last years accounts. The more detailed analysis we hope to continue next summer if time will permit.

Since the latter part of August I have given most of my Extension Service time to the Economic Information Project.

During the month of August visits were made to eight counties for the purpose of discussing with County Agricultural Agents and leading farmers their problems in the fields of Agricultural Economics and Farm Management. It was learned the problem of major interest in Pershing, Humboldt, Elko and White Pine Counties was in connection with the marketing of livestock. Livestock producers were particularly interested in marketing costs, margins, and the different methods of marketing livestock. It is believed that a very worthwhile project can be developed in this field, along with the work that may be done under the Hope-Flannagan Act. This project is now being studied and it is hoped that a worthwhile livestock marketing project will be developed.

In Churchill, Lyon, Douglas and Washoe Counties there was considerable interest in milk production and marketing. This is a field in which there is a real need for further studies and in which a very worthwhile project could be developed.

In the farm management field there is a real need for more extensive work in teaching farmers how to keep and interpret farm accounts. Not only do farmers need to be taught how to keep accounts but they also need to be taught how to use them as a means to better farm management practices. The farm accounting work that has been done in Nevada, under the General Farm Accounts Project that has been carried on for several years, has been very helpful, particularly to the farmers who have been participating in the project. There is real need however, for the information that is buried up in these accounting records, to be worked up, analyzed and

made available to Extension Agents and farmers throughout the state. This we aim to do if sufficient time and assistance can be obtained to carry this project through to completion.

Another phase of Farm and Ranch Management, in which there is considerable interest and need for further Extension education work, is in connection with farm tenure. Farm rental and partnership arrangements, father and son farm business agreements, and farm ownership and transfer problems, all need further study.

County Agricultural Agents and farmers throughout the state were very much interested in economic trends and in production and price outlook information. Our Economic Information Project will therefore be continued.

With the opening of the University in September, 84 percent of my time had to be devoted to resident instruction, leaving only 16 percent for Extension work.

From September 1, to November 1, 1947, my Extension work has been very largely on the Economic Information Project, and in answering letters from County Agents and farmers, on economic problems. During this time I prepared two Economic and price outlook reports which were mimeographed and sent to all County Agricultural Agents in the state, vocational agricultural instructors and many farmers throughout the state.

Three meetings were held with farm groups for the purpose of discussing economic trends and production and price outlook.

One meeting was held with vocational agriculture teachers in which the general and agricultural situation and outlook was discussed.

Two requests were received from farmers for aid in preparing a "Father and Son Farm Business Agreement." A sample agreement was prepared by the writer and mimeographed copies prepared for future use, as well as for use in answering the inquiries that had already been received.

Two meetings of the State Committee for Agricultural Conservation were attended in which the writer served as economic advisor.

Letters received from farmers, county agents and other sources asking for various types of information in the fields of Agricultural Economics, marketing, Farm Management, and other related subjects were answered.

Some time was also devoted to collecting data on Nevada farm prices, production of various farm crops, livestock and livestock products, farm income and other economic information pertaining to Nevada Agriculture. This information has been used and is now being used by our Extension news service as a basis for articles published in newspapers throughout the state.