

Subject

To

From 1940

M Menke

No.

IEIKO COJ

ANNUAL REPORT

MARK W. MENKE

1940

AC 0089/1/65

"GRIP"

"Reg. U. S. Pat. Off."

INDIVIDUAL FILE
FAVORITE SERIES



"Made in U. S. A."

A N N U A L N A R R A T I V E

R E P O R T

1 9 4 0

Statement of Agricultural Extension activities in Elko County, Nevada, with the assistance and efforts of representatives of the U.S. Department of Agriculture, University of Nevada and Elko County Farm Bureau cooperating.

BY

MARK W. MENKE, COUNTY EXTENSION AGENT

FOR THE PERIOD FROM

NOVEMBER 1, 1939 TO OCTOBER 31, 1940

ELKO, NEVADA

III. TABLE OF CONTENTS

| | | |
|------|--|-------|
| I. | COVER..... | 1 |
| II. | TITLE PAGE..... | 2 |
| III. | TABLE OF CONTENTS..... | 3-4 |
| IV. | CHANGES IN COUNTY EXTENSION ORGANIZATION DURING THE YEAR TO IMPROVE REGULAR PROCEDURES OR TO MEET EMERGENCIES | 5 |
| V. | STATUS OF FARM BUREAU ORGANIZATION..... | 6-7 |
| | 1. Form of Organization - Distinctive Features..... | 6 |
| | 2. Function of Members, Officers and Committees in Developing Program of Work..... | 6-7 |
| | 3. General Policies Including Relationships with other Organizations..... | 7 |
| VI. | COUNTY PROGRAM OF WORK, PROJECT ACTIVITIES AND RESULTS ACHIEVED..... | 8-9 |
| | 1. Factors Determining Program | 8 |
| | 2. Influence of State and National Agricultural Agencies operating in County upon Extension Program..... | 8 |
| | 3. Methods used in:..... | 8-9 |
| | (a) Development of projects..... | 8 |
| | (b) Development of Farm Bureau departments participating in Extension Work..... | 8 |
| | (c) Development of Demonstrations..... | 9 |
| | (d) Development of Project leaders..... | 9 |
| | 5. Poultry..... | 11 |
| | (b) Culling and feeding..... | 11 |
| | (c) Diseases..... | 11 |
| | 6. Agronomy..... | 12-14 |
| | (b,c,d) Cereals Smut Control..... | 12 |
| | (f) Alfalfa..... | 12 |
| | (1) Variety tests..... | 12 |
| | (3) Weevil Control..... | 12 |
| | (6) Cutworms and diseases..... | 12 |
| | (o) Meadows..... | 13-14 |
| | (1) Improvement..... | 13-14 |
| | 7. Agricultural Economics..... | 15-21 |
| | (a) Marketing..... | 15 |
| | (15,16) Use of Current market information in buying seed..... | 15 |
| | (b) Credit..... | 15 |

III TABLE OF CONTENTS (Cont'd)

| | |
|--|-------|
| (i) Economic Planning, Land Use Planning..... | 15-18 |
| (k) Agricultural Adjustment..... | 19-21 |
| (1) Soil Conservation and domestic allotment Act..... | 19-21 |
| 8. Animal Husbandry..... | 22-23 |
| (a) Beef Cattle..... | 22-23 |
| (1) Range Improvement and Management..... | 22-23 |
| 9. Club Work..... | 24 |
| (a) Agricultural..... | 24 |
| 10. Community Activities..... | 25-26 |
| (a) Farm Bureau Cooperation..... | 25 |
| (d) Fairs and Exhibits..... | 26 |
| 11. Horticulture..... | 27-30 |
| (b) Family Orchard Improvement..... | 27 |
| (c) Control of diseases and insect pests..... | 27-28 |
| (1) Chlorosis..... | 27-28 |
| (d) Beautification of Homes and Public Grounds..... | 28-30 |
| 12. Control of Rodents and other pests..... | 31-32 |
| (a) Squirrels..... | 31 |
| (b) Rabbits..... | 31 |
| (c) Magpies..... | 31 |
| (d) Gophers..... | 31 |
| (e) Grasshoppers and Miscellaneous..... | 31-32 |
| 14. Soils..... | 33 |
| (c) Commercial fertilizers..... | 33 |
| (1) Phosphates..... | 33 |
| (e) Soil Conservation Work..... | 33 |
| 15. Publications..... | 34-35 |
| (a) Agricultural News Writing..... | 34 |
| (b) Bulletins..... | 34 |
| 18. Forestry..... | 36-37 |
| (c) Distribution of trees..... | 36-37 |
| 19. Character and Scope of Office and Field Service..... | 38 |
| 20. Analysis and Interpretation of tabular summary..... | 39 |
| VII OUTLOOK AND RECOMMENDATIONS..... | 40 |
| VIII SUMMARY OF ACTIVITIES AND ACCOMPLISHMENTS..... | 41 |

CHART

| | |
|--|----|
| Elko County Communities Covered by Major Projects..... | 10 |
|--|----|

IV CHANGES IN COUNTY EXTENSION ORGANIZATION DURING THE YEAR TO IMPROVE
REGULAR PROCEDURES OR TO MEET EMERGENCIES

Few changes in policy have occurred during 1940 to meet changed conditions due to the fact that the conditions have not changed during the past two years. The prices of beef, sheep and wool have been comparatively stable, and the climatic and other conditions have been about normal.

The one biggest change may be the Land Use Planning project which offers some good possibilities if it is continued long enough to secure results. Some constructive work can be done by this method.

The Triple A program has caused a considerable change in general extension plans and several former projects such as variety tests, range improvement, pasture improvement and weed control, now revolve around Triple A practices. This additional work has supplemented some projects but the administrative phases of Triple A have caused a decrease in work done on several other projects.

During the days of the Federal Farm Board ranchers were not so directly touched by policies of the Federal government. The old corn-hog and wheat reduction programs introduced a new policy into agriculture, that of making direct payments to farmers for compliance with quotas or allotments. This policy met with violent opposition from various sources and in particular against processing taxes. The program has gradually been accepted until it is more or less taken for granted now.

The nature of the "New Deal" programs has been such that more office work has been necessary and less field work has been done as a result. The field work is even more necessary than before since many ranchers have become interested in new practices which require advice on the ground for good results. The people are more aware of the need for conservation of natural agricultural resources than at any time in the past. They are also becoming more aware that they cannot remain "rugged individualists" and compete in modern complex living. Tariffs, embargoes, trade treaties, labor unions and industrial conditions are affecting them and they are fast realizing and admitting these facts into their thinking and planning.

The one greatest defect of the New Deal farm policies has been to cause a lowering of individual responsibility and a greater tendency to place responsibility for everything on to some government agency or bureau. People try to borrow money with less thought for paying it back, are more reluctant to pay debts, use emergency agencies with less cause than in the past. The huge spending and lending programs of the government have caused a lowering of the value previously placed upon thrift and endeavor. The psychology of this way of thinking seems to have left many people without a sense of proper relationship between credit and thrift, relief and work, etc.

V. STATUS OF FARM BUREAU ORGANIZATION

1. Form of Organization - Distinctive Features

The Farm Bureau organization is an association of farmers, stockmen, and homemakers organized to cooperate with the Nevada Extension Service in formulating and carrying out agricultural policies. The organization is composed of individual farm families as the unit of membership with community, county, and state groups uniting in a national organization.

The Elko County Farm Bureau consists of six organized community centers: Ruby Valley, Elko, Lee, Lamaille, Starr Valley and Metropolis, with a director from each center on the County Board. Additional directors representing commodity groups are provided for. The Board of Directors are responsible for the policies of the organization. They work in cooperation with the Extension Service in employing extension and home demonstration agents to carry on the program of work throughout the county.

The County Extension Agent's work in cooperation with the Farm Bureau organization officials covers demonstrational and educational problems affecting livestock, horticulture, rodent and insect control farm management, marketing, range improvement, boys and girls club work, home beautification, credit, crop production control and soil conservation under A.A.A., and various emergency and relief measures and Land Use Planning.

An annual meeting is held each year at which time the budget is adopted and a program of work is outlined. New directors are elected for the coming year. (Officers for the 1939-40 year were S.V. Smiley, President; W.J. Helth, Vice President and Livestock Department Director; Mrs. George Ogilvie, Secretary-Treasurer; Mrs. Arthur Drown, Home Department; Mrs. C.H. Reinken, Van R. Savage and E.C. Murphy Jr., directors.)

Community center meetings are held whenever business or social programs are desirable.

2. Function of Members, Officers and Committees in Developing Program of Work.

The committee and commodity group methods of developing the program of work are most efficient in all sections where great distances and small numbers of ranches is the rule. This is true of the entire County of Elko. There are only 300 bone-fide farms in the county plus 135 which are operated by Indians and similar types with whom extension work can not be conducted except in occasional cases. The average size of Elko County irrigated ranches is 2,885 acres and there are 6,537 miles of county road in Elko County. The County is 17,059 square miles in extent, contains 10,917,760 acres and has an average population of only six-tenths person per square mile.

Under such conditions, small groups and committees working in cooperation with extension agents offer the most effective means of developing and carrying on a program of work. The recommendations of these committees

V. STATUS OF FARM BUREAU ORGANIZATION

2. Function of Members, Officers and Committees in Developing Program of Work (Cont'd)

and commodity groups are considered by the County Board and are acted upon according to their merits.

3. General Policies including Relationships with Other Organizations.

The County Extension Organization cooperates with all civic bodies and state and local associations on projects of interest to the residents of the County or of importance to their welfare. The College of Agriculture, the United States Department of Agriculture, the Nevada Experiment Station, Elko County Fair Board, Elko Chamber of Commerce, the local press and other projects.

The Elko City Council, Park Commission, Rotary Club Twentieth Century Club and Elko Garden Club have cooperated with the Extension Agent in several city improvement projects, especially in regard to recreation and beautification projects.

VI. COUNTY PROGRAM OF WORK, PROJECT ACTIVITIES AND RESULTS ACHIEVED.

1,2 Factors Determining Program

The needs of individuals, families, communities and commodity groups in agricultural pursuit are the basic factors in determining the program of work. The Extension Program is divided into three broad groups with the Home Demonstration Agent, Livestock Specialist and County Agent dividing the work along project lines with some overlapping and on a cooperative basis.

The Agent does considerable work with non-agricultural groups as well, chiefly in connection with home beautification, landscape of public grounds and control of insect pests and diseases of shade trees, ornamental plants and flower and vegetable gardens.

Much of the additional work of the Agricultural Adjustment Administration Farm Security Administration, County Planning and other federal agencies has been centered in the Extension Office and has greatly increased the work necessary. Although some additional help has been employed by the Triple A funds, the Extension Office has proven effective in handling new agricultural activities with little or no cost to the federal government.

Because of the high mountain ranges which frequently parallel each other with few roads crossing them it is necessary to do much more traveling than would otherwise be necessary to reach ranchers in adjoining valleys. Approximately one thousand miles per month must be traveled. The Agent was confined to the office most of the time due to the rush of office work occasioned by the soil conservation and field work was greatly curtailed.

2. Methods Used in:

(a) Development of Projects

Projects are developed when the calls for information and assistance received upon certain lines of work are sufficient to warrant the subject being set up as a project. Other projects are developed as it appears that there is a definite need for work along some lines even though ranchers and stockmen may not realize the need.

(b) Development of Farm Bureau Departments participating in Extension Work.

Departments are started when a commodity or other group wishes to develop its special line of work and have a representative on the county Farm Bureau Board. This group must organize, elect officers and select a representative to act on the County Board. At present there is a Home and Community Department and a Livestock Department.

VI. COUNTY PROGRAM OF WORK, PROJECT ACTIVITIES AND RESULTS ACHIEVED. (Cont'd)

3. Methods Used in:

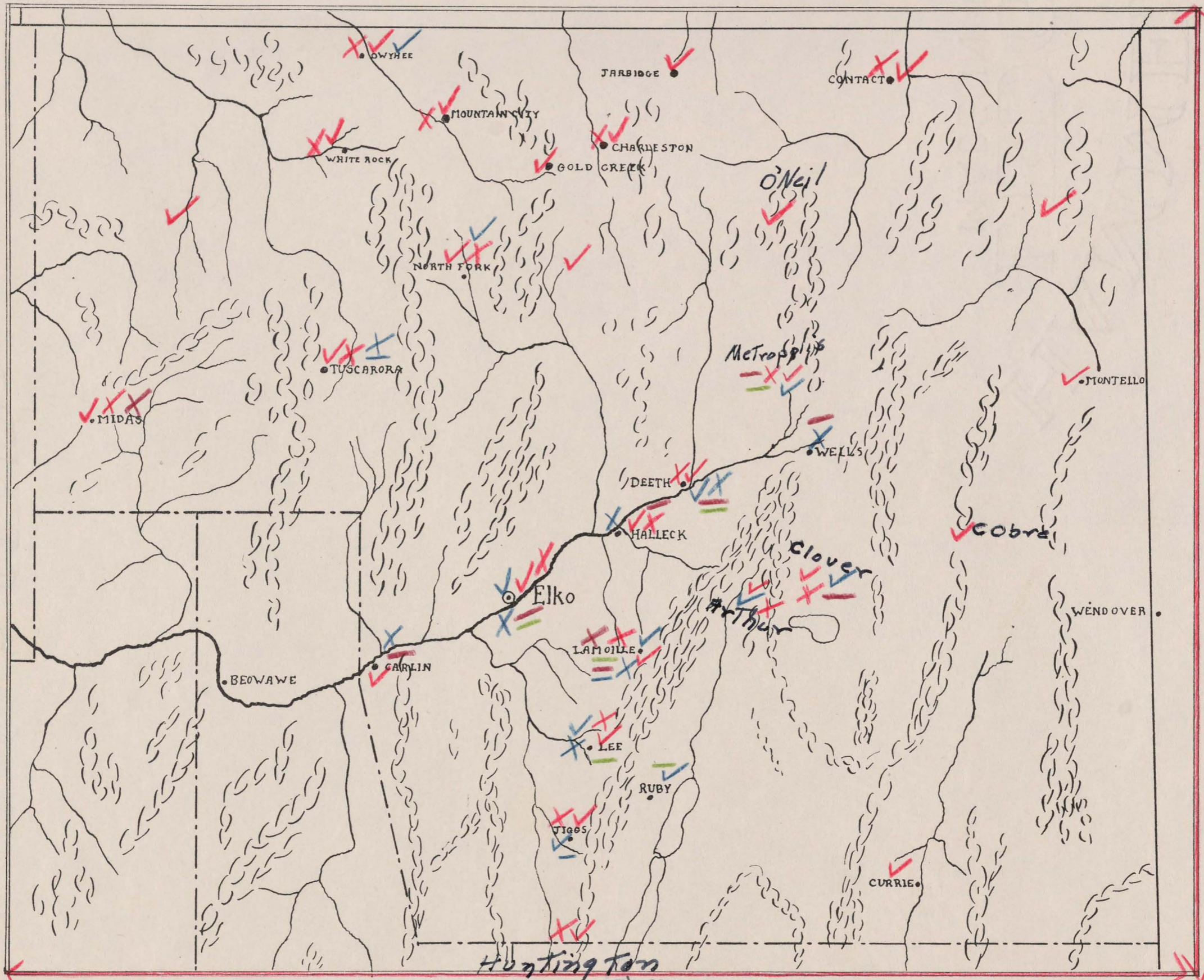
(c) Developement of Demonstrations

Demonstration work has been developed by the Agent by working with families or small groups of individuals in showing correct practices and methods. This usually is done by culling a flock of poultry, pruning a fruit tree, shaping a shade tree, etc., with the family or group observing and then following the practice as demonstrated.

Very effective demonstration work has been done by having groups of six to twenty farmers present during mixing and spreading operations for control of grasshoppers with poisoned bran and control of jackrabbits with poisoned alfalfa leaves. Ranchers readily observed these practices and within a few days entire communities were readily controlling these pests. Farmers grasp ideas readily where they can see a practice carried out, whereas, merely reading about or listening to a talk on the same subject often fails to make a lasting impression.

(d) Developement of Project Leaders

Developement of men project leaders has been difficult. More success has been attained in organization work than in any other field and several outstanding leaders have been developed. Unfortunately, when these leaders have been developed they have often been offered more attractive positions in other fields and have moved away. There is a decided lack of local project leaders in most communities and more effort must be expended in developing future leadership. The chief purpose of Extension work is being changed by forcing so many new activities upon extension workers without provision for adequate trained leaders to assist. Time for training of leaders has been practically eliminated.



129
Miles

154 Miles

Page 10

| | | | |
|------------------|---|---|---|
| Farm Crops | + | Elko County Communities covered by major projects | |
| Fairs & Exhibits | ✓ | Triple A. Landscapes | + |
| | | Insect Pest and Disease Control | — |
| | | Farm Bureau Cooperation | — |
| | | Land Use | — |
| | | 4-H Clubs | + |

5. Poultry

(b) Culling and feeding

Four farm flocks were culled for egg production and 1/3 of the birds were removed as poor layers. Many ranchers have learned to do their own culling. Twenty bulletins were distributed on poultry care.

The Agent acted as superintendant of the poultry department of the Elko County Fair.

(c) Diseases

Five flocks were inspected for poultry diseases and one bird was sent to the University of Nevada Veterinary Department for examination. Avian tuberculosis was found to be the trouble in most cases. The roup and poor housing also contributed to lower egg production and health.

6. Agronomy

(b.c.d.) Cereals, Smut Control

Formulas for control of covered smut or bunt of grain have been supplied to several ranchers. Copper sulphate and formaldehyde are still used by most ranchers but a few are using copper carbonate and prepared formulas such as Ceresan.

Seed Wheat containing loose smut was bought by Clover Valley ranches from Idaho as certified seed. The crop had 12 percent smut in the field. Investigation showed that Idaho will certify wheat with 2 per cent loose smut which seems to be a very poor certification policy. It was recommended that this wheat not be used as future seed.

(f) Alfalfa

(1) Variety tests

No new developments have been found in regard to alfalfa varieties this year. Few new plantings of alfalfa have been made here as ranchers are shifting to grasses and clover in preference to alfalfa. Twenty acre plots of Grimm and Ladak alfalfa on the Blue Creek ranch are a year old now, producing two good cuttings and some pasture but to date show no difference in production.

(3) Weevil Control and other pests

Alfalfa weevil was serious on first crop hay but was partly controlled by early cutting and cultural practices. One rancher dusted a few acres with calcium arsenate with good results.

The Mormon Cricket infestation is gradually decreasing in many areas of Elko County. This insect was handled by the U.S. Bureau of Entomology and State Department of Agriculture. W.B. Mabee was in charge of the Elko area.

(6) Cutworms and diseases

Cutworms were found in two alfalfa fields in the Lamoille area in sufficient numbers to do some damage. The damage was not general however and control measures are not necessary.

The weather was favorable for the development of alfalfa leaf spot and stem rust and these diseases seriously injured first crop alfalfa growth in the early spring.

Dr. O.F. Smith of the U.S. Bureau of Plant Industry spend one day in Lamoille area with the Agent examining alfalfa stands for bacterial wilt. No wilt was found in the old alfalfa stands on bench lands but it was readily found in young stands on lower irrigated land. The greatest injury to alfalfa crowns was due to mechanical injury by implements, livestock grazing and secondary rots and diseases.

6. Agronomy

(o) Meadows

(1) Improvement

Meadow improvement has consisted of some renovation work and much re-seeding of new or improved varieties of grasses and clovers. Among the most used are:

White Dutch Clover, an excellent pasture clover where late water is available but not much used here because of its low growth and high price of seed.

Alsike Clover, an excellent pasture clover for thickening hay meadows and for planting in mixtures of tame grasses for hay or pasture. It is the most used clover in this area but requires moist ground.

Red Clover, is becoming more popular in mixed hay planting and is replacing alfalfa on many ranches. It is the best hay clover for medium moist to dry hay lands. It will not thrive in as much moisture as alsike will. It is also difficult to cure without discoloration and is frequently attacked by powdery mildew, but in spite of this its use is growing here.

Sweet Clover, both the yellow and white sweet clover are used here mostly on areas with some alkali. They are very good for green manure or in pasture mixtures with grasses. The yellow variety is finer stemmed and better for pasture.

Strawberry Clover, has been tried in a limited way and thrives on alkali land but its growth is not tall enough for hay meadows and its use here will be limited to wet pastures with an alkali problem.

Meadow Fescue, is an excellent hay grass and makes a very good pasture. It thrives on well-irrigated land and is gaining in use throughout the county.

Kentucky Blue grass, is not planted here as it comes in naturally in land that is moist enough. It is common throughout the county.

Orchard grass, is widely used and is well adapted to this area. It is especially good on land which has water until midsummer as it will stand considerable drying during late summer without dying. It is an excellent pasture grass in mixtures. Its chief disadvantage is in its ability to mature too early and it often becomes dry and unpalatable before other grasses or clover in a mixed planting are ready to cut for hay. For this reason it is not liked by some ranchers. Where water is available, meadow fescue is of better quality.

6. Agronomy

(o) Meadows

(1) Improvement (Cont'd)

Smooth Brome grass has a distinct place on Elko ranches. It is especially good on land which becomes dry in late summer. It is palatable and makes good growth on well irrigated lands and a fair growth on dry lands after it is established. It becomes root bound after a few years and yields decline. It should then be ploughed or disced up.

Timothy is an excellent hay grass and one of the best for this area on soil with enough moisture for good growth. It soon dies out on dry land or in dry seasons but will produce good crops on fairly moist land. Mixed with alsike clover it makes excellent quality hay.

Redtop is also a good grass for pasture or hay in places which stay moist. It will stand heavy use but becomes somewhat unpalatable if allowed to become mature. It is of good quality when used in mixture with other grasses and clovers especially timothy and alsike clover. It is well adapted to moist situations in Elko County.

The use of new machinery in an experimental way to smooth meadows is of much interest in this area because many meadows are becoming so rough that it is almost impossible to cut over them.

Mr. Domingo Arrascada of Jiggs and Stanford Weathers of Starr Valley are using new implements to try and smooth the meadows and these may be of considerable importance in this area if successful.

7. Agricultural Economics

(a) Marketing and Buying

The Agent has advised over a hundred ranchers in regard to market prices of farm seeds, crop seed forecasts and similar matters. By insisting on securing good seed for Triple A seedings the quality of seeds purchased has been raised. The average savings to ranchers on purchases of crop seeds has been from two to eight cents per pound of seed bought by a knowledge of market conditions as compared to purchase of seeds without a knowledge of market conditions. Following are sample quotations for seed of equal quality from two different seed houses in the same town:

| <u>Kind of seed</u> | <u>Price of seed per pound</u> | |
|---------------------|--------------------------------|-----------------|
| | <u>Dealer A</u> | <u>Dealer B</u> |
| Crested wheat grass | 18 | 13 |
| Red Clover | 19 | 16 |
| Orchard Grass | 27 | 28 |
| Meadow Fescue | 21 | 18 |
| Canary Grass | 30 | 65 |
| Timothy | 10 $\frac{1}{2}$ | 9 |

It can easily be seen that by ordering from different seed houses that a great saving can be made in the price of seeds. In excess of 27,000 pounds of seed were used in the 1939 Triple A seeding program.

Six livestock buyers were assisted in locating cattle and horses for sale during Mr. Wilson's absence.

(b) Credit

Seven clients of the Farm Security Administration have been assisted in securing information and credit in financing their operations during the year.

(d) Farm Management

(1) Economic Planning, Land Use Planning

The first conference in connection with Land Use Planning was held at the Humboldt Hotel on January 30, 1940, at which time V.E. Scott, Cruz Venstrom, Mark Menke and J.W. Wilson, agreed on material to be presented to ranchers in Elko County, and also on tentative dates in March for preliminary meetings.

The material consisted largely of data in connection with the Range Economic Survey and study of Grazing District #1. This material was not ready in March but in the later part of April. Cruz Venstrom and Mark Menke held a committee meeting in the Tuscarora district. Land Use

7. Agricultural Economics

(d) Farm Management

(i) Economic Planning, Land Use Planning (cont'd)

Planning was explained to the committee and problems of that particular area were mentioned. Most prominent of the problems was the lack of spring range, also the over grazing of this range due to sheep being held at the edge of the Forest Reserve pending entry June 1st.

In June 1940, County Agent Wilson and Cruz Venstrom, representing the BAE, held Land Use Planning meetings at North Fork, Charleston, Starr Valley and Lamaille. The meetings at Charleston and North Fork were strictly Land Use Planning meetings, at which time committees were appointed for the study of local and county wide problems. The committee meetings at Starr Valley and Lamaille were held in connection with Farm Bureau meetings. Committees were also appointed although less details were discussed at this time. Probably 75% of the ranchers were in attendance at all of these meetings which included an average of about 12 ranchers at each place.

The general pattern for needed change seemed to be that all communities stressed the problem of shortage of spring range. Because of the fact that ranchers were unable to attend any meetings until after haying, future meetings were postponed until October.

The month, beginning October 7th, Land Use Planning meetings started in earnest and ten meetings have been held during the past month. This included meetings with previously appointed committees in some districts, while in other districts the meetings included all ranchers in a community who were able to attend, at which time committees were appointed.

The Tuscarora community appointed their committee and pointed out that there was a possibility that additional range for Independence Valley cattle might be secured on the Owyhee Desert, and an investigation of these possibilities has been asked.

The Starr Valley committee outlined an area about 20 miles wide and 30 miles long to see if the range lands therein would not make a feasible summer range for their cattle. A study of all of this area including the ranch land between Mary's River and the North Fork and south to the summit of the Ruby Mountains is being made to determine the ranch and range resources. This study will include hay produced, land irrigated, and range feed available. The data will later be presented to the committee for analysis.

7. Agricultural Economics

(d) Farm Management

(i) Economic Planning, Land Use Planning (cond'd)

The Farm Bureau or committee meetings held in October included those at Charleston, Rowland, Starr Valley, Lamoille (2) Jiggs, Ruby Valley (2), Lee, and Tuscarora. Also included in the program was a get together of all educational and action agencies to learn about the results of the various community county planning meetings, and to give the Grazing Service and Forest Service in particular a chance to learn the desires of the ranchers throughout the county.

County Agent Wilson took Eddie Murphy, Wesley Helth, directors of the Farm Bureau, and Russell Weeks, to the Desert range experiment station near Milford, Utah, for two days in inspection of managed grazing areas, where the demonstrations showed an increase of feed 2.4 times over that of unmanaged areas within a period of six or seven years.

As a part of our study of Land Use Planning, we have secured the assistance of the Soil Conservation Service to help make an intensive study of seven farms in Elko County. These farms are owned by Gordon Griswold of Lamoille; William Kane, Oscar Goodale and Smiley Brothers of Deeth; Russell Wells and Richard Ralph of Clover Valley; E. Neff of Ruby Valley. Plans have been prepared for a cropping system for different types of soil, and new irrigation systems surveyed for all but the Neff and Smiley farms. Surveys on the Neff ranch may yet be made this fall. A large amount of recommended seed has already been purchased by a number of cooperators.

Ray S. Carberry and Mr. Abbott of the Soil Conservation Service are helping direct the individual ranch planning program.

Principal work accomplished to date has been:

1. (a) Securing the promise of the state highway department to make a feeder road survey on the west side of Ruby Valley by spring, and
(b) Securing the promise of the C.C.C. camp at Cave Creek to pick out portions of the above road through Ruby Valley and work on these re-routed portions this winter, and
2. The reconstruction of a community telephone line for Charleston from Charleston to North Fork.
3. The promise of Lee Perry, District Grazier, to start soil erosion control work on the Lamoille range and to develop reservoirs and wells in the area so as to provide for a better distribution of livestock during the spring grazing season.

Full and complete minutes have been mimeographed of each meeting and have been sent to the Land Use Planning Community Chairman, to V.E. Scott and to various agents interested in the problems of any particular meeting.

The Land Use committees are as follows; Lee;- A.J. Dewar Chairman;

7. Agricultural Economics

(d) Farm Management

(i) Economic Planning, Land Use Planning (con't)

William Kane and Q.D. Boyd; Ruby Valley:- George Smith, Chairman; Robert Duval Alfred Smith, Leonard Wines and Jim Wright, committeemen; Rowland:- Verland Stowell, Chairman, Jack Scott and Ray Rizzi, committeemen; Charleston:- Horace Shively, Chairman and Max Prunty committeeman; Lamaille:- Howard Brennon, Chairman, C.R. Barrigar, John Patterson, Committeemen; Tuscarora:- D.B. Williams, Chairman; Ben Trembath, 1st Vice-Chairman; Stanley Ellison, 2nd Vice-Chairman, Joe Griffith Secretary; Jiggs:- Ross Young, Chairman.

Goals

1. Have Land Use committee show problems on maps in 2 communities.
2. Map areas as to present grazing of stock on $\frac{1}{4}$ in. to mile grazing map of District #1, by visiting Forest Service, Division of Grazing and ranchers.
3. Map showing over grazed areas. (Note- this map may be available from Soil Conservation Service.)
4. Discuss program in each organized community.

Completions

1. Maps presented and problems discussed in 9 communities.
2. This map has been used to show under utilized grazing areas and to encircle range areas set apart for study of resources and feed that might be tied to hay growing communities.
3. This approach was made as mentioned in note.
4. Program discussed and committees appointed, with some work accomplished in most communities.

7. Agricultural Economics

(d) Farm Management

(k) Agricultural Adjustment

(1) Soil Conservation and Domestic Allotment Act

The annual county convention of the Elko A.C.A. was held on November 3, 1939 at Elko at which the following county committee was elected: A.J. Dewar, Lee, chairman; S.V. Smiley, Deeth, Vice chairman; C.H. Reinken, Lamaille, regular member and E.C. Murphy Jr., Arthur and Max Uhlig, Metropolis, alternates.

Mr. Ed Dodd and several members of the State and County committee met for a few minutes to discuss the Triple A program on that date.

The Agent attended a State committee meeting in Reno in January on the range program. A regional triple A committee meeting was held in Ely in February to discuss triple A Practices.

Early in March a county wide educational program was started to inform all ranchers of the triple A practices and to secure full cooperation. Circular letters, news articles, meeting and personal visits were used to the fullest extent. Practically all ranchers in the county were contacted and 278 out of 338 signed farm plans. More widespread cooperation was secured than at any time in the past and more conservation practices are being followed this year than since the program was started.

The administrative work in connection with the triple A program has been handled by the Agent with 79 days spent on Triple A and full time by one supervisor and one Administrative assistant. Part time was also spent on Triple A work by a stenographer mostly for personal letters and a few weeks time of an additional supervisor was required in the spring for measuring wheat and in the fall for securing compliance.

The County A.C.A. chairman and secretary attended a meeting at Reno in May for discussion of a docket for 1941.

Twelve meetings were held during the year by county committeemen, seven of which were in the county and five of which were called as regional or state meetings.

The county program has been administered with an absolute minimum of expense and supervision in order to make proper contacts with ranchers and inspect practices sufficiently to be sure of proper workmanship.

A comparison of the program since 1936 follows:

7. Agricultural Economics

(d) Farm Management

(k) Agricultural Adjustment

(1) Soil Conservation and Domestic Allotment Act (Cont'd)

| Year | Work sheets | Cooperators | | Net Payments | | Total |
|------|-------------|-------------|-------|--------------|--------|----------|
| | | Crop | Range | Crop | Range | |
| 1936 | 312 | 75 | 8 | \$16845 | \$ 768 | 17613 |
| 1937 | 316 | 147 | 41 | 12090 | 13910 | 26000 |
| 1938 | 318 | 123 | 55 | 6794 | 22226 | 29020 |
| 1939 | 338 | 188 | 58 | 14294 | 29801 | 44095 |
| 1940 | 397 | | 310* | 10000 | 40000 | 50000 ** |

* Both programs combined in 1940

** Estimate program not complete

The most beneficial Range practices for this area have been the following in the 1939 program:

| | | | | |
|-------------------------------|--------------------------|----|----|----------|
| Reseeding by deferred grazing | 182,184 acres | by | 38 | ranchers |
| Artificial reseeding | 12,498 lbs. | " | 21 | " |
| Spreader dams | 349; 17,270 cu yds. | " | 20 | " |
| Earthen Tanks stock water | 28; 24,897 " | " | 6 | " |
| Wells | " " 23; 4,102 linear ft. | " | 10 | " |
| Springs | " " 27; 8,141 cubic " | " | 8 | " |
| Spreader terraces | 69,611 linear ft. | " | 12 | " |

In the crop program the following practices have been most used:

| | | | | |
|-----------------------------|-------------|----|----|----------|
| Seeding grasses and legumes | 2,685 lbs. | by | 60 | ranchers |
| Seeding alfalfa | 1,323 acres | " | 74 | " |
| Renovating alfalfa | 3,404 " | " | 59 | " |
| Seeding timothy and redtop | 162 " | " | 4 | " |
| Green manure | 93 " | " | 5 | " |
| Constructing ditches | 49,500 feet | " | 3 | " |
| Constructing reservoirs | 2,943 yards | " | 14 | " |

For 1940 it is estimated that constructing concrete dams for control of irrigation water and fencing for deferred grazing will be the two most popular new practices and much of this work is being done but exact figures on the amount are not now available until all compliance can be secured.

The ranchers are coming in to the Extension office regularly for information on seeding mixtures, rates of seeding, ground preparation and source of seed and it has been possible to recommend mixtures of better quality for hay and pasture than has been used by many ranchers in the past. Seedings of timothy and redtop alone have greatly decreased in favor of clovers, wheat grasses, meadow fescue and brome grasses in mixtures. The

7. Agricultural Economics

(d) Farm Management

(k) Agricultural Adjustment

(1) Soil Conservation and Domestic Allotment Act (Cont'd)

quality of hay and pasture is being improved in this manner.

Seedings of alfalfa are decreasing due to alfalfa diseases, weevil, cutworm attacks, frost injury and water shortages in July and August. Many ranchers are thickening alfalfa stands with grass and clover mixtures rather than seeding new stands of alfalfa.

The Triple A project has been the one requiring the most time and in which the most ranchers have shown direct interest. Seventy-nine days or 30.8 percent of the Agent's working time has been devoted to this project. 94 farm visits were made and 338 office calls were received in relation to Triple A work. Twelve meetings were held for administrative purposes and twelve news stories were published. Fifteen circular letters were sent out.

8. Animal Husbandry

(a) Beef Cattle

(1) Range Improvement and Management

Range Improvement work has been reported in detail under the Triple A program because most of the practices done are in that program. The following will give some idea of the extent of this work. During 1939 182,184 acres of range land were deferred for 120 days or longer, considerable areas were also deferred for a shorter period, 12,498 pounds of mixed grasses and clovers were seeded on mountain meadow land. The seeds used were chiefly of the following kinds, alsike clover, meadow fescue, timothy, brome grass, orchard grass, red top, crested wheat grass and yellow biennial sweet clover.

Erosion Control work consisted of construction of 349 spreader dams averaging five cubic yards each of brush, rock and earth and 69,611 linear feet of spreader terraces.

Stock water improvements on range land consisted of 28 earthen tanks, 23 wells and 27 spring developments.

In 1940 much the same program of range land development is being done but results cannot be tabulated until January of 1941.

Much range fence is being built as a supplemental practice for controlled grazing in 1940.

Some rotation grazing is developing as more fenced areas become available.

Crested Wheat grass has given good results even without irrigation on good land where a well prepared seedbed was secured. However, it must be kept free from livestock grazing the first summer and should not be grazed until the fall of the second summer if a good stand is to be established. It is so palatable to livestock that they will destroy the stand if it is not thoroughly established before being grazed. It has not succeeded where sown on range land without soil preparation. On well irrigated lands there are many grasses which will produce more forage however, under conditions in Elko County it seldom attains a height of over two feet and on dry land about eighteen inches is average. It is an excellent seeder and if allowed to mature will produce seed even in quite dry years.

Any of the grasses or clovers need good seedbed preparation, well firmed down and finely pulverized for good results.

The Agent has answered five calls from local cattlemen and the local veterinarian to check on livestock losses which were apparently not caused by disease. In four of these cases the loss was determined to be from eating water hemlock (cicuta), and one case from bloat.

8. Animal Husbandry

(a) Beef Cattle

(1) Range Improvement and Management (Cont'd)

Elimination of the hemlock roots by digging was recommended to the stockmen involved. In two cases much of the plant was dug out but this is a vast job in an area where there are thousands of acres of hemlock infested swamp and streams. However, the Agent is convinced that much of what stockmen call "normal death loss" is due to this one cause and that by persistent work this death loss can be lowered.

9. Club Work

(a) Agriculture

During the spring of 1940 it was decided to discontinue the 4-H clubs in Elko and Wells due to over organization of these towns and difficulty in finding suitable project for 4-H club members. As a result a lower enrollment resulted but all members enrolled were in rural areas. Two local leaders, Mrs. John Patterson and Mrs. Lloyd Blume of Lamaille assisted and held meetings every other week with the Agent holding a meeting every other week. Thirteen club members were enrolled of which two moved away and the other eleven completed projects. Nine of the members attended State 4-H club camp at Lake Tahoe. This group placed high in the plant identification contest, stunt contest and health contest.

While the enrollment was low the quality of the work and leadership by local leaders was above average. The funds to take the members to club camp were all raised by the leaders and members by food sales, shows, etc. The group won first place for best stunt at the Annual Elko County Farm Bureau picnic in Lamaille.

The 4-H camp at Lake Tahoe was enjoyed by all and the members all wish to return again next year.

The 4-H club garden and landscape bulletin consisting of 91 pages of information and 54 illustrations has finally been printed and distributed for next years club work.

10. Community Activities

(a) Farm Bureau Cooperation

Six community center meetings were held during the past year in the following community centers- Starr Valley, Ruby Valley and Lamoille.

The officers for the community centers for 1940, and until new elections are held in 1941 are:

Lamoille:

C.H. Reinken, Chairman
C.R. Barigar, Vice-Chairman
L.R. Pearce, Secretary-Treasurer

Starr Valley:

Wesley Helth, Chairman
Lyle Beeney, Vice-Chairman
Orville Smiley, Secretary-Treas.

Lee:

A.J. Dewar, Chairman
George Ogilvie, Vice-Chairman
Mary Drown, Secretary-Treasurer

Metropolis:

Van R. Savage, Chairman
Burt Holbrook, Vice-Chairman
Max Uhlig, Secretary-Treasurer

Ruby Valley:

Alwin Smith, Chairman
Mrs. James Wright, Vice-Chairman
Mrs. Anna Wines, Secretary-Treas.
E.C. Murphy, Jr., Director
I.E. Wines, Director
Alma Short, Director

The county directors met 7 times and have had one regional meeting in Elko with directors or representatives from Burkea, Humboldt and White Pine present.

There are 98 active members at this writing.

The annual state Farm Bureau meeting was held in Winnemucca the last of January and February 1st. Delegates from Elko were S.V. Smiley, President; George Ogilvie, Eva Ogilvie, Wesley Helth, Eddie Murphy, Mrs. Eugene Drown, Mrs. A. Drown. Other ranchers were William Wright, C.A. Sewell and C.A. Brennen.

Goals

1. Aid in putting each local organization on a strong self-sustaining basis, Elko, Lee, Lamoille, Ruby Valley, Starr Valley, Metropolis.
2. Written program of work adopted by each center.

Completions

1. A sound picture machine recently purchased to aid in this purpose. The machine has been used three times and much larger attendance with better meetings has resulted.
2. This has been done by the Homemakers and in part by the Centers. Lamoille, Starr and Ruby are equal or better than last year in organization. The purchase of Indian lands in Lee has helped to weaken the organization there. Metropolis needs reorganizing since the Chairman moved away.

10. Community Activities

(d) Fairs and Exhibits

The Agent acted as superintendant of the Farm Crops. Fruit and Garden exhibits and the Poultry and Rabbit display at the Elko County Fair and assisted in securing entries in these departments. The planting and care of the trees and shrubs at the Fair grounds has also been supervised by the Agent.

An exhibit was also prepared for the state Fair at Fallon and third prize for the County was won there. The prize money of 135 dollars was used as follows:

| | |
|--|------------------------|
| For 5% discount for exhibitors fee | \$ 6.75 |
| For lumber, nails etc for exhibit | 14.00 |
| For electrical fixtures for exhibit | 4.15 |
| For carpenter labor | 4.00 |
| For photograph enlargements | 12.15 |
| For crepe paper, thumb tacks, wire, paint, brushes | 6.12 |
| For burlap | 2.98 |
| For ribbons for exhibits and holders | 4.00 |
| For labor preparing exhibits, taking exhibits to judges, watching and replacing exhibits. | 27.00 |
| | <hr/> |
| | total expense \$ 81.15 |
| Deposit to 4-H club account | 62.85 |
| | <hr/> |
| | \$144.00 |
| | |
| Prize money | \$135.00 |
| Resale of burlap and lumber | 9.00 |
| | <hr/> |
| | \$144.00 |

This shows a profit of \$62.85 but there were additional expenses of \$35.00 charged to Extension Service and in addition 9 days time of the Agent at a busy season and several days time of the office secretary. The expense and time taken for this exhibit is not justified by the results and it is recommended that some other agency make this exhibit, in the future for Elko County.

Total time devoted to Fairs and Exhibits was 16 days of which nine was for the State Fair. Five news stories were published, five meetings were attended, fifteen farm visits made and twenty-nine office calls were received.

11. Horticulture

(b) Family Orchard Improvement

Fireblight in orchards was severe and several orchards were pruned heavily to aid in checking the blight.

A demonstration on tree pruning was given at the 71 ranch and a tree pruner was trained for completing the pruning of a windbreak.

A method demonstration on grafting of apple varieties was given and several trees were top worked to better varieties.

Seven method demonstrations were given on pruning apple trees in old neglected orchards. Eighteen office calls were received and twenty farm visits were made on this project. Four news stories were published.

(c) Control of diseases and insect pests

(1) Chlorosis

The increasing amount of chlorosis in ornamental trees, shrubs and plants in the more alkaline sections of Elko County has been the cause of considerable concern from home owners. Accordingly the Agent purchased 200 pounds of mixed sulphur and iron sulphate for trial use in Wells and Elko.

Iron sulphate used in trenches around three willow trees in Wells at the rate of 15 pounds per tree, for trees 10 inches in diameter gave excellent results in curing the chlorosis for the rest of the summer. The trees will be watched in the future for more permanent results. Similar good results in curing chlorosis in roses, shasta daisies and other shrubs and perennials has been secured by the application of iron sulphate directly on the roots by the trench method amounts used varied from 1 ounce on small perennial plants to 3 pounds on rose bushes. In about one half the cases the yellow leaves started to turn green within three days and were bright green in two weeks time. In cases where any improvements was noted the cure seemed to be complete after two applications were made. In the other half of the cases no results were secured even with three applications. The cause of this different reaction is not known but seems to depend upon the kind of plant, the stage to which the chlorosis has advanced, and the amount of alkali in the soil.

Further experiments with a mixture of sulphur and aluminum sulphate have been made but to date results are not conclusive. Due to the relatively slow action of sulphur these tests will be watched closely in the future.

Beneficial results have been observed by the use of 2 pounds of aluminum sulphate around shrubs suffering from brown alkali. Japan quince and prunis triloba were completely defoliated by brown alkali.

11. Horticulture

(c) Control of diseases and insect pests

(1) Chlorosis (Cont'd)

killing the leaves. These made new healthy growth after receiving 2, one pound applications at intervals of 2 weeks.

Applications of equal parts iron sulphate, aluminum sulphate, and sulphur have also shown some marked results in curing chlorosis of shrubs.

Further study and work will be continued on chlorosis next year with these chemicals because this is a problem of major importance to home gardeners along the entire Humboldt River and in many other parts of Nevada where chlorosis prevents the proper growth of many varieties of plants.

The Agent has noted especially the following species which are seriously hindered in growth or killed by chlorosis: barberry, cydonia, snowball, roses, spirea, black locust, apple, willow, clarkia, shasta daisy, columbine, petunia, pansies.

The following species are quite resistant to injury by chlorosis: honey locust, tamarix, plum, Russian olive, caragana, lilac, snowberry, coralberry, junipers, pines, spruce, privet, silver lace vine, cotoneaster, flax, violet, cornflower, annual larkspur, snapdragon, hardy aster, chrysanthemum, calendula, amaranthus, cosmos.

(d) Beautification of Home and Public Grounds

Complete landscape plans were made for the home of Roy Perrson in Winnemucca and for Gene Echegon, C.W. Paul, A.D. Tabor and Ralph Michelson. Information on planting, selection and care and arrangement of plant materials were supplied to 81 home owners. Fifty-three homes were visited in connection with landscape or yard improvement questions.

A home gardeners handbook was published during the year. It is for beginners and treated most subjects very briefly.

The plantings at the Elko County Fair Grounds were completed this spring. These include several hundred trees, and shrubs and vines to provide shade, windbreaks and landscape effect on the grounds. This has been a six year planting project and is now becoming quite effective. Replacement on plants that die and occasional pruning should be all that will be required in the way of supervision in the future at the fair grounds.

The Agent attended several meetings of the Elko Garden Club and gave talks on pruning trees and shrubs, planting bulbs and Mendels Laws illustrated with the heridiscopes. A tour was also taken to Kittridge Canyon to assist club members in identification of native wild plants.

11. Horticulture**(d) Beautification of Home and Public Grounds**

In April the Agent made a trip to Salt Lake and Ogden to visit seed houses and nurserymen to determine what nursery stock should be best adapted to this area.

It was found that claims of most nurserymen that their plants were "Northern Grown", "High Altitude" or "Mountain Grown" were frequently false as they purchased in carload lots from whatever source offered the best price. One nurseryman stated that his evergreens were grown near Los Angeles and that they were larger and just as hardy as Northern Grown stock. While most of the premises were clean, the Agent observed European bind weed and Chick weed growing on some of the grounds and being shipped out with nursery stock. As a result of the trip the Agent has been forced to conclude that in many cases there is no advantage in purchasing nursery stock from dealers in similar climates as few of them raise their own stock in sufficient quantity for their trade and ship it in from many parts of the nation.

FRIDAY, NOVEMBER 29, 1940—ELKO INDEPENDENT

Manual Prepared By Menke Ready For Gardeners

A recent publication of the Extension Service of the University of Nevada is "The Nevada Home Gardener's Handbook" by Mark W. Menke, extension agent headquartered in Elko.

Sub-title of the publication is "A Manual for Beginners in Gardening." When Menke last spring submitted copy for a new 4-H gardening manual to the extension service editor, A. H. Higginbotham, that official was so impressed with the high quality of the manuscript that he suggested that it be published, with slight revisions, as a manual of elementary gardening. After removal of references to 4-H work, the book was published under its new title.

The 4-H manual will be used in 4-H gardening clubs throughout the state, and "The Nevada Home Gardener's Handbook" will be available without charge to would-be gardeners without charge to would-be gardeners applying to their local Farm Bureau offices.

A study of tulips growing in a garden, made by Thomas Buckman, jr., adorns the cover of the new handbook. The cover decoration is a reproduction of a print which recently won recognition in a national contest for amateur photographers.

Half a dozen copies of the new gardening manual were displayed at a meeting of the Elko Garden club recently, and members quickly appropriated them, clamoring for more. Menke is "guide, philosopher and friend" to the Garden club, at which he is frequently a speaker and more frequently a consultant.

12. Control of Rodents and other pests

(a,d) Squirrel and Gopher control

In April the Agent in cooperation with Mr. Clyde Madsen of the Fish and Wild Life Service held meetings in Starr Valley and South Fork and interviewed CCC Camp officials at Twin Bridge's Camp and Warm Springs Camp in regard to rodent control work. As a result work crews were started at both camps for control of squirrels and gophers in South Fork, Starr Valley and Clover Valley. A committee of the following Starr Valley Ranchers assisted in securing the gopher poisoning crew: L.B. Meaney; W.N. Helth; S.V. Smiley; Oscar Goodale; and Douglas Peterson.

(b) Rabbits

Jack rabbits are becoming numerous again and demonstrations on poisoning have been conducted at Metropolis, Manuel Urresti's ranch and at the Bilbao Ranch near Bullion.

On the Manuel Urresti ranch 1800 jackrabbits, numerous squirrels and a wildcat were caught in 16 days in coyote traps set along a wire fence. The rabbits were then poisoned because they were too numerous to trap.

Rodent control work required $10\frac{1}{2}$ days time, 67 office calls were received, 21 ranch visits made, three news stories were published, five circular letters prepared, four method demonstrations given. Much of this work is now handled by Clyde Madsen and the CCC camps.

(c) Magpies

Stricknine has been supplied to three ranchers for control of magpies and plans for a large magpie trap has also been supplied to two ranchers. These birds have generally been beneficial during the past two years, living on insect pests during the summer and on Wild fruit and crickets during the mild winters. With heavy snowfall they will rapidly become a threat to livestock when their natural food is covered by snow.

(e) Grasshoppers and Miscellaneous

The Agent attended a State grasshopper Control meeting at Reno on March 8 and 9. The cooperative plan for control by the U.S. Bureau of Entomology State Department of Agriculture and Extension Service was discussed and approved; Extension entomologist Jones of Colorado was present at the meeting.

No grasshopper problem was present in Elko County during 1940 and it was not necessary to do any work on grasshopper control.

12. Control of Rodents and other pests

(e) Grasshoppers and Miscellaneous (Cont'd)

The ever present insects of various kinds have been even more numerous this year than usual. Advice on control of the following pests has been given to many gardeners and home owners: red spider or mite, ants, Indian meal moth, grain moth, aphids, codling moth, webworks, cutworms, wireworms, sodworms, leaf hoppers, leaf miners, box elder leaf rollers, lygus bugs, thrips and some others.

Mildew of red clover and various ornamentals was more severe this year than for sometime. Considerable damage was done to Red clover, roses, and to chinese tea vine.

14 Soils

(c) Commercial Fertilizers

(1) Phosphates

Three ranchers purchased 2500 pounds of treble superphosphate for experimental use on grains and new seedings of grasses. These plots were watched during the summer but in no case was there enough difference in the fertilized plots and unfertilized to be noticeable to the eye. The plots will be watched again next year. In a small trial on corn, the unfertilized ehcek plots grew taller and matured earlier than the fertilized plots.

(e) Soil Conservation Work

The Agent worked for three days in cooperation with S.C.S. crews in mapping and planning a five year plan for five ranchers in this county. These are to be S.C.S. demonstration farm plans and the work was started on two farms this year. The others will start next spring. Mr. DeWitt Abbot did most of the work with the Agent.

Other soil conservation work in erosion control was done under the Triple A program and is reported there. This work consisted of construction of 349 spreader dams, 69611 feet of spreader terraces and 49,500 feet of ditching.

15 Publications

(a) Agricultural News Writing

During 1940 the Agent has written the following news stories for the local and state wide news service.

| | |
|--|-----------|
| Triple A Program | 12 |
| 4-H Club Work | 12 |
| Beautification of Homes & Public Grounds | 10 |
| Fairs and Exhibits | 5 |
| Land Use Planning | 5 |
| Insect, Pest and Disease Control | 4 |
| Farm Bureau Cooperation | 4 |
| Farm Crops | 4 |
| Horticulture | 4 |
| Rodent Control | 3 |
| Miscellaneous | 4 |
| Total | <u>67</u> |

(b) Bulletins

Two bulletins were written and published during the year, one a "4-H Club Beginners Handbook" of 83 pages, and one a "Home Gardeners Handbook" of 80 pages. Each book is illustrated with 53 pictures explaining the text. A copy of the 4-H bulletin is attached to this report.

Ranchers Warned To Differentiate In Buying Clover

Ranchers of Elko county were cautioned today that in all future purchases of red clover seed to pay particular attention to the kind of red clover which is supplied to them.

Mark W. Menke, county extension agent, states that there are two distinct kinds of red clover, both sold under that name. These two kinds of clover are classified as follows:

1. *Trifolium Pratense*. This is a biennial. That is, it lives only two years. This is the type which most seed houses sell under the names of "red clover," "medium red clover," and "red June clover."

2. Mammoth red clover. This clover is a perennial which is known to the seed trade as "*trifolium pratense perenne*." This clover lives for three years or longer and makes a much taller growth than medium red clover.

Menke points out that in purchasing red clover there is absolutely no way of telling the seeds apart. The only way to purchase the mammoth red clover is to have a grower's affidavit that it is mammoth and not medium red clover.

The difference in the price of the two clovers varies from about one to five cents per pound and Menke advises ranchers to use mammoth clover in permanent hay meadow mixtures.

The plants resemble each other but the medium clover blossoms earlier and the stems of the medium are hollow, while those of the mammoth are solid.

At the present time red clover is being used to a much larger extent than formerly as a substitute for alfalfa because of recent poor alfalfa crops due to the inroads of the alfalfa weevil, bacterial wilt, leaf spot disease, late spring frosts and, in some places cutworms.

AAA COMMITTEE To Map Program

A discussion of the 1941 Triple A program will be held at a meeting of the county committee starting at 9:30 Wednesday, Dec. 4, it was announced today. The program is expected to be similar to that which has been in effect during the past year. The discussions will be held in the offices of the Elko county extension agent.

The committee will also consider a number of practices and determine whether they will be approved for payments.

Officers of the committee, re-elected at the recent county convention, include: A. J. Dewar, C. H. Reinken, S. V. Smiley, E. C. Murphy, Jr., and Max Uhlig.

During the past there has been a considerable increase in the use of practices which tend to check erosion and to make for more efficient use of irrigation waters. Practices which have been carried out include construction of concrete headgates, rock rip-rap and brush and rock dams. These practices have been done on more than 150 ranches in the county.

While erosion is not considered a serious problem in this area, nevertheless there are very few ranches in the county which do not have creek beds and ditch bottoms cut down to a point where the water table in the crop fields is lowered.

The two newspaper clippings are typical examples of the type of articles carried in the press. This is one of the best methods of getting information to ranchers in a form which will be read.

18 Forestry

(c) Distribution of trees

Order blanks for forest trees were supplied to ten ranchers and demonstration windbreak trees were provided for the Wells School Project, for Walter and George Glaser and Stanley Ellison. A report on forest nursery trees was compiled from a questionnaire prepared by the Agent. It shows the following conclusions:

Evergreen trees- generally too slow growing and not given enough care by ranchers to establish them.

Ash trees- generally too slow growing in high altitudes. Good in Western Nevada.

Black Walnut- was favorably received in southern and western Nevada.

Chinese Elm- was the most popular over the entire state but was criticized for its habit of breaking under snow, and of growing too late in the fall with winterkilling. Proper pruning and irrigating will greatly correct this condition, however.

Russian Olive- was good on many sites except at above 6000 feet. It did fairly well on many different types of soil.

Honey locust- well liked but slow to start growth.

Golden Willow- has good growth where plenty of fresh water is available.

Black locust- was good for all areas except northeastern Nevada where it winterkilled frequently. It is not suitable in Alkaline soils as it rapidly dies of chlorosis.

Siberian Pea shrub- has proven hardy in Cold Alkaline areas up to 5000 feet in eastern Nevada.

Catalpa- was not used in Nevada and no reports on it were received.

Tabulations by the Southern Pacific railroad of trees planted since 1937 mostly on unfavorable soils and poor sites follow:

| | |
|--------------------|-----------|
| 389 Russian Olives | 55% alive |
| 272 Black locusts | 33% " |
| 374 Siberian Elms | 36% " |
| 190 Honey locusts | 46% " |

The following conclusions are offered by the Agent in regard to tree growth in Nevada as a result of ten years observation:

18 Forestry

(c) Distribution of trees (Cont'd)

1. No zones or elevations can be selected as suitable to any variety of tree. The variation in soil, moisture, temperature, elevation and alkalie will make a greater difference in tree growth within a few miles than will 300 miles of longitude. On the same farm in a protected spot on good soil trees as tender as peach may grow and within a few hundred feet the conditions are such that even the Russian Olive winterkills.

2. Ranchers do not give sufficient care to forest tree plantings. Few of the plantings are cultivated, properly irrigated, pruned, protected from grazing livestock or rodents or given any attention after planting. Where proper care is given the results are porportionally better.

3. There are some areas in eastern Nevada where trees do not thrive regardless of the care given them. No tree has yet been found which is dependable in these areas. The chief problems are short frost-free period, often less than 75 days; high water table with alkalie; long cold winters, frequently 25 degrees below zero; and poor soil. Under such conditions good tree growth cannot be expected. It is frequently people in these areas who are most desirous of growing trees, who give them the best care and who have the poorest results.

19. Character and Scope of Office and Field Service

Office work, which was greatly increased when the Triple A programs started without office assistance, has gradually decreased allowing more time for field work in the past two years. Many more office and phone calls are received at the Extension Office due to the desire of stockmen to be informed on the programs and other agricultural problems. The Agent has been able to devote more time to field work since an office assistant has been provided as is shown in the following table. A twenty-one percent increase has occurred in field work in the past two years over the low point of 1936.

| <u>Year</u> | <u>Days in Field</u> | <u>Days in Office</u> | <u>Percentage in field</u> | <u>Percentage in office</u> |
|-------------|----------------------|-----------------------|----------------------------|-----------------------------|
| 1935 | 154 | 133 | 60.0 | 40.0 |
| 1936 | 77 | 214 | 26.6 | 73.4 |
| 1937 | 75 | 197 | 31.1 | 68.9 |
| 1938 | 88 $\frac{1}{2}$ | 158 $\frac{1}{2}$ | 35.9 | 64.1 |
| 1939 | 109 $\frac{1}{2}$ | 165 | 39.9 | 60.1 |
| 1940 | 118 | 138 $\frac{1}{2}$ | 47.9 | 52.1 |

The balance of office and field work is coming nearer to what it was before the old extension program was upset by the emergencies of the 1936 Triple A programs. These programs have resulted in a definite and probably a long time shift toward more office work because ranchers are learning to call at the Extension office instead of waiting for the Agent to visit them.

The following summary presents a view of the office and field work during 1940:

| | | | |
|---------------------------|-------|-----------------------|------|
| office calls | 872 | Farm and Home visits | 462 |
| Telephone calls | 391 | Method demonstrations | 33 |
| Individual letters | 646 | Attendance | 543 |
| Circular letters prepared | 34 | Other Meetings | 64 |
| News stories published | 67 | Attendance | 9739 |
| Bulletins distributed | 209 | | |
| Miles traveled | 11255 | | |

Field work is composed of visits to ranchers or to homes on ranches and in the towns throughout Elko County.

Some work is also done in nearby countries especially northern Eureka from which ranchers naturally come to Elko as the nearest town. Occasionally work is also done by the Agent on landscape and insect pest and disease control projects in counties over the state.

20. Analysis and Interpretation of Tabular Summary (statistical report)

| | |
|--|------|
| Days in Office..... | 138½ |
| Days in Field..... | 118 |
| Days sick leave..... | 4½ |
| Days devoted to AAA..... | 79 |
| Number of Farm and Home Visits Made..... | 462 |
| Number of different Farms visited..... | 232 |
| Number of telephone calls made..... | 391 |
| Number of office calls received..... | 872 |
| Number of News Stories Published..... | 67 |
| Number of Individual letters written..... | 646 |
| Number of Circular letters prepared..... | 34 |
| Number of Bulletins Distributed..... | 209 |
| Number of Method Demonstrations Given..... | 33 |
| Attendance at Demonstrations given..... | 543 |
| Achievement days held..... | 1 |
| Attendance at Achievement Days..... | 60 |
| Farm Bureau Meetings held..... | 13 |
| Attendance at Farm Bureau meetings..... | 336 |
| Other Meetings of Extension Nature..... | 58 |
| Attendance at other meetings..... | 9352 |

The above chart gives a picture of the Agents Extension Activities during the 1940 report year. Travel of 11,255 miles was required in conducting the above Extension work.

VII. OUTLOOK AND RECOMMENDATIONS FOR 1941

The following work should be continued in 1941:

1. Insect pest control is a problem that always requires attention.
2. Agricultural 4-H Club work should have more attention.
3. Farm Bureau Cooperation is in urgent need of more time for training leadership.
4. Home beautification is a permanent project which needs attention every year.
5. Soil Conservation, both crops and range land programs, will require a considerable amount of time. This project has become one of importance in teaching agronomy, introducing new crop varieties and in stressing good range management.
6. Poultry production needs attention every year.
7. Land Use Planning work will need much attention in 1941
8. Control of rodents needs attention constantly. With rabbits, squirrels, gophers, chipmunks and mice to fight there are always rodent projects to work on. Taylor Grazing CCC camps expect to do much toward controlling rodents and can be counted on to cooperate in these projects.
9. A magpie control program may be needed to save game birds and small livestock.
10. Variety tests on pasture, crop and range land should be continued to find new adapted seed varieties. More work should be done on seedbed preparation.
11. A program for better preparation and curing of hay should be started to include cultural, cutting, curing and stacking methods of approved type.
12. Unforeseen work will undoubtedly develop during the next year. It always has in the past.
13. The practices performed by ranchers under the Triple A program should be studied to determine their permanent value as projects for continued work.

VIII SUMMARY OF ACTIVITIES AND ACCOMPLISHMENTS

1. Land Use Planning has been started throughout Elko County
2. Agricultural Conservation Programs will have a total of three hundred cooperators or thereabouts. The total grants will be the largest in Elko County since the program started and should be over \$50,000.
3. A display of exhibits from Elko County at the Nevada State Fair won third prize for best county exhibit of resources at the Fair.
4. Home beautification work was conducted in Elko, Wells, Carlin, Halleck, Beowawe and in other points. Landscaping of public grounds was done in Elko and Wells. A home gardeners bulletin was also published.
5. Insect pests and disease control work was conducted in Elko, Wells, Carlin, Beowawe, Winnemucca and in most of the rural communities of Elko County. Alfalfa weevil control was of much interest this year. Cultural and chemical dusting methods were used as well as proper time of cutting the first crop.
6. Rodent Control work in cooperation with the Biological Survey and CCC Camps has been conducted in Ruby Valley, Clover Valley, Starr Valley, Metropolis, Lee, Lamaille, and Gullion.
7. The Elko County Fair poultry, rabbit, and farm crops sections were supervised by the Agent.
8. Extension work by the Agent has been done in every community in Elko County and every ranch has been contacted including about 140 Indian ranches. The primary work was on Triple A but other projects are following.
9. Completions of 4-H club enrollments were 84% in 1940. A 4-H club garden manual was published.
10. Extensive plantings of several grasses, clovers and alfalfas made under the Triple A program have made excellent trial plots on a large scale for future studies of varieties under widely varying practical conditions. Results already show that with better care both the quantity and quality of forage crops can be greatly improved.