

DESERT LABORATORY, TUCSON, ARIZ.,

MY DEAR SIR:

I enclose herewith a table showing the figures for the rate of evaporation at the several co-operative stations. These are the figures as actually sent in, and have not been corrected in accordance with the standardizations of the cups. It will be necessary at the close of the summer to recalibrate all the cups, and the readings will then be reduced to terms of the standard in accordance with the mean of the two standardizations which all the cups will get and the three which half of them will have had.

The cups sent to places where the rate was expected to be high, and a few others as well, were coated half way up, which is indicated by HC, others were coated at the base only and are indicated by BC; those not coated are marked NC.

A few of the readings appear to be too low as compared with those of companion cups or of adjacent stations. The most prolific source of error is in allowing air to enter the cup either by letting bubbles enter the tube at the time of pouring in water to refill, or by having no space to permit air to enter the jar at the edge of the cork stopper. In case of low readings it will be well to take out the rubber stopper and refill the cup. It is also advisable to gently wash the outside of the cup with distilled water when it is covered with dust, etc.

I am very truly yours,

FORREST SHREVE.

Evaporation readings for May and June, 1908, not reduced to standard.

			May	May	May	Jun	Jun	Jun	Jun	Jun
			11	18	25	1	8	15	22	29
Fredericton, N. B.	282	NC	...	218	272	36	167	208	150	230
	292	BC	...	188	212	28	164	176	140	200
Macdonald College, Que.,	330	BC	...	...	...	...	...	...	220	259
	331	BC	...	...	...	...	...	...	206	257
Orono, Maine	262	BC	...	...	...	57	182	176	238	...
	263	BC	...	...	...	67	200	191	246	...
Burlington, Vt	237	NC	...	...	...	197	348	261	242	275
	318	BC	...	...	...	183	248	200	221	251
Syracuse, N. Y.	268	BC	...	...	...	...	...	...	...	418
	269	BC	...	...	...	...	...	...	...	445
New York, N. Y. (Bronx Park)	291	NC	...	...	...	...	278	245	173	233
	305	BC	...	...	...	...	286	218	143	215
Easton, Md.	224	HC	63	158	82	133	125	177	158	202
	225	HC	57	155	83	132	115	177	151	201
West Raleigh, N. C.	210	HC	208	235	164	244	200	185	185	190
	211	HC	208	248	148	239	184	195	195	175
Pisgah Forest, N. C.	253	NC	...	...	...	...	65	85	...	...
	275	BC	...	...	...	...	55	80	...	...
Gainesville, Fla.	16	HC	190	223	230	215	100	185	...	...
	235	HC	260	255	275	280	147	240	...	...
Miami, Fla	202	HC	245	219	200	159	*137	128	108	123
	203	HC	247	215	206	155	139	139	116	130
Oxford, Ohio	285	NC	...	220	138	186	227	200	261	373
	295	BC	...	180	100	163	181	171	212	291
Knoxville, Tenn.	287	NC	...	221	118	...	110	...	...	...
	307	BC	...	172	100	...	77	...	...	...
Houghton, Mich.	272	BC	...	...	...	...	...	60	249	209
	273	BC	...	...	...	...	...	67	270	214
St. Helen, Mich.	264	BC	...	...	...	...	...	...	...	...
	265	BC	...	...	...	...	...	...	...	408
Grand Rapids, Mich.	283	NC	*...	...	255	174	385	209	235	300
	306	BC	*...	...	247	150	365	222	320	315
Charleston, Ill.	205	HC	...	160	...	176	198
	226	HC	...	152	...	180	205
Urbana, Ill.	238	NC	213	162	186	210
	319	BC	188	157	...	158

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*Read on the day following that indicated at the top of the column.

			May 11	May 18	May 25	Jun 1	Jun 8	Jun 15	Jun 22	Jun 29
St. Louis, Mo.	208	BC	76	143	140	127	105	160	203	212
	209	BC	74	138	136	124	102	150	200	210
Lincoln, Neb.	284	NC	...	...	*114	...	...	...	164	196
	304	BC	...	...	...	...	...	...	154	167
Stillwater, Okla.	206	HC	175	100	105	...	46	46	221	209
	207	HC	183	103	102	...	52	58	223	208
Cameron, La.	229	HC	...	...	255	290	270	200	260	175
	230	HC	...	...	235	275	260	190	252	165
Dickinson, N. D.	286	NC	*...	168	150	...	290	539	320	...
	296	BC	...	151	157	...	235	495	250	...
North Platte, Neb.	227	HC	...	...	286	150	160	82	78	...
	228	HC	...	...	234	158	186	150	182	...
Dalhart, Tex.	232	HC	...	...	490	542	*647	*465	...	620
	233	HC	...	...	518	541	600	433	690	595
Regina, Sask.	328	BC	...	...	...	...	...	...	128	247
	329	BC	...	...	...	...	...	...	132	256
Roger's Pass, B. C.	204	HC	...	...	...	...	...	*145	...	...
	234	HC	...	...	...	...	...	160	...	...
Bozeman, Mont.	277	NC	...	...	...	30	15	98	16	163
	279	BC	...	...	...	20	25	102	15	137
Salt Lake City, Utah.	266	BC	...	...	...	...	96	130	75	106
	267	BC	...	...	...	...	102	112	76	85
Reno, Nevada	303	BC	...	...	...	...	...	...	...*	1236
	290	NC	...	...	...	...	...	...	...	1488
Seattle, Wash.	258	NC	...	...	...	...	...	...	235	300
	289	NC	...	...	...	...	...	...	225	290
Eugene, Oregon	279	NC	...	67	99	172	145	230	...	*168
	299	BC	...	50	100	127	126	193	...	139
San Diego, Cal.	324	BC	...	...	...	...	...	...	247	265
	325	BC	...	...	...	...	...	...	220	235
Boulder, Col.	322	BC	...	...	...	...	...	135	365	350
	323	BC	...	...	...	...	...	210	375	380
Tucson, Ariz.		HC	...	301	390	415	445	575	590	705
	213	HC	...	...	453	490	...	...	...	...

*These readings were taken on some other day than that indicated at the top of the column. Those for Reno, Nev., are the total for two weeks.

CARNEGIE INSTITUTION OF WASHINGTON,
DESERT LABORATORY.

Tucson, Arizona, September 19, 1908.

Dear Sir:—

Following are the readings at the several evaporation stations for the months of July and August, which, as in the last report, are not reduced to standard but given as sent in. The letters HC, BC and NC refer as before to the coatings of the cups. An * indicates that the reading was taken on some other day than that indicated at the top of the column; † indicates the sum of two weeks' readings.

Very respectfully,
FORREST SHREVE.

STATION.		Jul.	Jul.	Jul.	Jul.	Aug.	Aug.	Aug.	Aug.	Aug.	Sept.
		6	13	20	27	3	10	17	24	31	7
Fredericton, N. B.	282 NC	220	...	...	...	...	...	...	122	126	64
	292 BC	200	248	150	118	200	110	80	100	124	64
Macdonald College, Que.	330 BC	230	...	...	...	...	...	...	...	113	...
	331 BC	225	*272	100	185	113	93	83	82	143	...
Orono, Maine,	262 BC	180	...	...	...	...	...	...	180	126	110
	263 BC	198	291	192	...	200	100	136	200	180	118
Burlington, Vt.	237 NC	295	...	...	...	...	...	...	...	...	...
	318 BC	260	537	244	191	292	184	196	298	290	369
Syracuse, N. Y.	268 BC	465	596	...	...	...	...	421	528	462	588
	269 BC	466	585	386	321	563	465	440	563	490	624
New York, N. Y. (Bronx Park)	291 NC	182	...	...	...	...	...	136	170	60	104
	305 BC	175	255	283	...	...	98	150	186	78	107
Easton, Md.	224 HC	282	300	...	...	...	...	*136	126	50	115
	225 HC	277	298	334	128	142	106	156	135	54	128
West Raliegh, N. C.	210 HC	145	...	...	...	...	...	125	50	15	...
	211 HC	135	198	216	190	74	109	112	48	13	...
Pisgah Forest, N. C.	253 NC	56	110	170	108	...	...	...	...	...	...
	275 BC	49	107	168	111	131	67	127	22	62	...
Gainesville, Fla.	16 HC	116	94	77	110	...	...	118	110	...	...
	235 HC	163	161	100	...	...	...	...	...	...	...
Miami, Fla.	202 HC	*179	137	...	...	...	...	* 85	81	78	150
	203 HC	179	142	209	151	140	...	119	100	101	189
Florence, Ala.	326 BC	120	*175	182	150	146	...	186	110	211	261
	327 BC	...	...	...	...	...	...	178	105	195	259
Oxford, Ohio,	285 NC	207	...	...	...	...	...	263	388	410	338
	295 BC	183	288	279	212	*395	183	299	336	361	400

STATION.			Jul. 6	Jul. 13	Jul. 20	Jul. 27	Aug. 3	Aug. 10	Aug. 17	Aug. 24	Aug. 31	Sept. 7
Knoxville, Tenn.	287	NC	...	...	...	210	...	...	...	...	...	...
	307	BC	...	...	...	195	200	85	198	...	...	...
Houghton, Mich.	272	BC	139	272	...	...	...	...	148	338	198	...
	273	BC	147	315	138	237	194	264	161	328	203	370
St. Helen, Mich.	264	BC	163	...	...	...	394	332	240	418	...	255
Grand Rapids, Mich.	283	NC	*184	...	...	...	...	...	122	215	275	286
	306	BC	*170	434	243	250	325	242	118	200	295	324
Charleston, Ill.	205	HC	132	...	...	...	...	...	...	...	...	...
	226	HC	128	165	155	155	...	...	...	...	...	...
Urbana, Ill.	238	NC	142	...	...	...	...	...	...	...	...	...
	319	BC	141	197	204	120	*276	217	...	...	...	...
Winnipeg, Man.	278	NC	290	381	...	...	...	...	...	233	79	206
	298	BC	240	332	134	200	285	206	138	255	85	226
Minneapolis (and Excelsior), Minn.	312	BC	*131	176	...	...	...	...	154	260	282	383
	313	BC	*140	190	226	233	286	230	156	271	289	374
St. Louis, Mo.	208	BC	156	...	...	...	...	126	192	187	202	224
	209	BC	150	181	140	146	240	150	196	203	220	244
Iowa City, Iowa.	274	BC	...	150	160	210	300	240	83	207	180	230
Lincoln, Neb.	284	NC	46	...	...	...	...	...	169	154	230	...
	304	BC	72	139	...	...	...	179	177	165	214	...
Stillwater, Okla.	206	HC	156	185	...	...	...	...	228	117	156	42
	207	HC	155	205	278	152	219	240	243	125	183	92
Cameron, La.	229	HC	125	97	...	...	...	...	110	78	139	...
	230	HC	120	100	278	...	...	...	125	72	115	...
Dickinson, N. D.	286	NC	*490	...	...	...	...	...	265	441	300	445
	296	BC	*399	483	296	340	347	...	181	276	262	280
North Platte, Neb.	227	HC	192	...	...	...	...	...	123	88	...	278
	228	HC	392	208	194	199	354	320	267	170	279	348
Dalhart, Tex.	232	HC	422	...	...	...	...	520	461	343	410	410
	233	HC	408	522	370	480	...	...	...	...	...	...
Regina, Sask.	328	BC	220	301	...	...	...	...	...	...	37	142
	329	BC	227	297	144	160	247	180	80	110	45	139

STATION.		Jul. 6	Jul. 13	Jul. 20	Jul. 27	Aug. 3	Aug. 10	Aug. 17	Aug. 24	Aug. 31	Sept. 7
Beanermouth, B. C.	204 HC	*312	*208	*175	*240	...	...	...	...	...	...
	234 HC	314	225	214	255	...	...	...	...	...	...
Bozeman, Mont.	277 NC	177	271	...	...	...	...	155	258	225	338
	297 BC	137	245	200	255	295	310	150	212	175	272
Salt Lake City, Utah.	266 BC	150	217	...	...	...	...	240	247	291	250
	267 BC	174	184	256	310	240	244	232	273	278	255
Reno, Nev.	303 BC	...	†1208	...	†1346	...	†1246	...	†1205	...	...
	290 NC	...	1212	...	1560	...	1412	...	1368	...	...
Seattle, Wash.	258 NC	320	345	...	...	...	...	...	160	*140	70
	289 NC	335	...	220	300	245	275	193	156	135	60
Eugene, Oregon.	279 NC	90	*387	332	...	...	...	246	252	160	194
	299 BC	126	306	293	360	355	406	...	...	...	...
San Diego, Cal.	324 BC	280	...	...	...	...	...	276	322	344	231
	325 BC	260	339	327	325	239	245	284	316	347	237
Boulder, Col.	323 BC	290	363	342	320	255	280	160	180	...	...
Tucson, Ariz.	212 HC	630	535	245	330	373	323	303	313	318	420