ANNUAL NARRATIVE REPORT

OF

NAVAJO COUNTY

December 1, 1939 – November 30, 1940
## INDEX

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>1</td>
</tr>
<tr>
<td>Map of Navajo Co., Arizona</td>
<td>2</td>
</tr>
<tr>
<td>Summary of Statistical Report</td>
<td>3</td>
</tr>
<tr>
<td>Supplemental Sheets for Statistical Report</td>
<td>3a</td>
</tr>
<tr>
<td></td>
<td>3b</td>
</tr>
<tr>
<td>Summary of Narrative Report</td>
<td>4</td>
</tr>
<tr>
<td>Poultry, Dairy, Horticulture</td>
<td>5</td>
</tr>
<tr>
<td>Horticulture, 4-H, Field Crops</td>
<td>6</td>
</tr>
<tr>
<td>Pictures for Field Crops</td>
<td>7</td>
</tr>
<tr>
<td>Pictures for Field Crops</td>
<td>8</td>
</tr>
<tr>
<td>Livestock, Irrigation</td>
<td>10</td>
</tr>
<tr>
<td>Pictures for Irrigation</td>
<td>11</td>
</tr>
<tr>
<td>A.C.A., C.L.U.P., County Fair</td>
<td>12</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>13</td>
</tr>
</tbody>
</table>
The following Annual Narrative Report is the summarization of work accomplished for 1940.

Under the project headings and in this summarization no special mention is made of the help given by the specialists of the Extension Service. In all cases subject matter specialists have, in every way, cooperated with the program as outlined and have given valuable assistance to the ranchers and farmers in Navajo County, and to the Agent of the County in working out the programs that have been carried on during the year.

The Agent also wishes to include, in all projects where applicable, his expression of appreciation for the assistance rendered the County Agricultural Program by the Experiment Station of the University of Arizona, The Biological Survey, the Forest Service, the Soil Conservation Service, the Farm Security Administration, the Agricultural Adjustment Administration, the Farm Credit Administration, and the Works Progress Administration. All of these agencies have, at one time or another, given good service to the local farmers and ranchers of the County, and have helped the County Extension Program.

John McLernon
Navajo County
1940
List of communities by number:

1. Holbrook
2. Joseph City
3. Winslow
4. Woodruff
5. Snowflake
6. Pinedale
7. Clay Springs
8. Aripina
9. Heber
10. Linden
11. Showlow
12. Lakeside
13. Taylor
14. Shumway

John McLernon
Navajo County
1940
SUMMARY OF STATISTICAL REPORT
NAVAJO COUNTY
1940

Of a total of 321 days of official work, 177 days were devoted to office work and 144 days to field work.

312 farm calls involved 180 different farms.

1149 letters were written and 20 circular letters were prepared.

A total of 50 meetings was attended by the Agent at which the estimated attendance was 1725. Of this number 28 were night meetings which would increase the actual time spent by approximately 12 days.

This office distributed a total of 366 bulletins. Approximately 60% of these bulletins pertained to production methods; the remainder pertaining to action programs.

Of 1449 office calls, 226 office calls by representatives of State or Federal Agricultural Agencies are included, involving 57 different representatives. Their names are listed on the following sheet. The average length of the calls of these representatives was three hours. This breakdown is not made in criticism of the agencies represented or the individuals because all made a real contribution to the County program, rather it is made to indicate the amount of time required to co-ordinate the various endeavors.

John McLernon
County Agricultural Agent
Navajo County
1940
LIST OF REPRESENTATIVES OF FEDERAL AGENCIES
AS INDICATED IN STATISTICAL SUMMARY

Jack Jamison
Al Wichtrich
Carl Teeter
W. H. Cloud
Ted Moeller
Don Metcalfe
Del Shockley
Bob Birockett
John Deming
Ches. Jennings
Frank Armer
Mr. Cox
Bob Harding
Al Kinnison
Dave Rogers
F. E. Webb
Mr. Moyer
Wayne Wright
G. B. Lassen
Wesley Schlotzhauer
Mr. Moore
Louis Grosse
Mr. Schenck
Dale Shockley
Pearl Pace Edgar
Arthur Snyder
William Beverly
Ford Gano
Mr. Black
Ted Hendrixson
Mr. Heaton
Mr. Perkins
W. Freeman
Ralph McGill
Pete Kiernan
Wm. Danley
L. N. George
Mr. Bunger
Jas. Waldron
James Shelley
Isaac Rogers
Geo. Tatum
Dr. Black
Fred Campbell
Dr. Smith
Dr. Cole
Dr. T. E. Jones
F. O. Hagee
D. J. Richeson
Mr. Nicholson
Mr. Herlet

A.A.A.
A.A.A.
A.A.A.
A.A.A.
A.A.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.A.
F.S.S.
F.S.S.
F.S.S.
F.S.S.
F.S.S.
State Voc. Ed.
Forest Service
State Voc. Ed.
C.L.U.P.
F.S.A.
Bur. of Reclamation
Bur. of Reclamation
A.A.A.
F.S.A.
A.A.A.
S.C.S.
State Voc. Agri.
Bur. of Reclamation
F.S.A.
F.S.A.
Biological Survey
A.A.A.
F.S.A.
F.S.A.
Bur. of An. Industry
Bur. of An. Industry
State Veterinarian
Bur. of Reclamation
F.S.C.C.
Indian Ext.
S.C.S.
<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Deal</td>
<td>S.C.S.</td>
</tr>
<tr>
<td>William Williams</td>
<td>A.A.A.</td>
</tr>
<tr>
<td>Mr. Phillips</td>
<td>U.S.D.A.</td>
</tr>
<tr>
<td>Mr. Bear</td>
<td>S.C.S.</td>
</tr>
<tr>
<td>Mr. Cowen</td>
<td>F.S.A.</td>
</tr>
<tr>
<td>F. P. Mathews</td>
<td>S.C.S.</td>
</tr>
<tr>
<td>Mr. Simons</td>
<td>Bur. of Reclamation</td>
</tr>
<tr>
<td>L. N. Windsor</td>
<td>Bur. of Agri. Engr.</td>
</tr>
</tbody>
</table>
The Irrigation Project received the greatest attention in this year's program. The work in connection with the Joseph City Irrigation Company was immediately necessitated due to the advisability of furnishing factual information to this community to aid them in any future development of Artesian Irrigation. Cooperation with the Water Facilities Administration in the Woodruff and Showlow projects seemed at the beginning of the year to be immediately necessary.

Cooperation with the Bureau of Reclamation in regard to a possible reclamation project of County-wide proportions was also undertaken. These projects in addition to some new land coming into cultivation with the development of Artesian Wells made the Irrigation field important to the Program.

The Livestock project was supplemented, in its educational projects, by the Agricultural Conservation Program, and the educational features of the Extension program were necessary to supplement their program.

The establishment of a local butchering plant increased the interest in and the necessity for livestock educational information especially in the field of "pen feeding".

The projects of Poultry, Dairy, and Horticulture consisted primarily of the continuation of projects already started and in combating the natural tendencies for over-expansion.

The Field Crop project received especial attention due to the fact that operators became interested in hay silage. A result demonstration in this field combined with an exceptional rainy harvest season will undoubtedly do much to create a demand for this type of feed.

The County Fair Project continued along similar lines to last year. The County Fair exhibits and Recreational features were successful in spite of bad weather.

County Land Use Planning was added as a project to this year's program and has gone through the preliminary stages into the intensive stages. The work on the project should be completed in the first half of 1941.

As brought out in this report, the Federal Government through its many agencies working with the farmers and ranchers received much time to coordinate all phases with the Extension Program.

John McLernon
County Agricultural Agent
Navajo County
1940
POULTRY

The hatching program in the County still consists of only one operator who increased his hatching flock this year by approximately 200 birds, bringing the total number of hens used in hatching to 700. Assistance was again given this year in working out the blood testing program. One operator against the advise of the Poultry Specialist and the Agent shipped in cockrells for the purpose of selling hatching eggs to a Commercial Hatchery in the Salt River Valley. He has experienced very heavy loses from chicken pox and roap during the last 4½ months. His total loss has amounted to approximately 30%. Last year this operator had a total loss from the time of receiving baby chicks to the end of the laying year of less than 16%.

Assistance was given the Joseph City Poultry Association in working out feed problems resulting from faulty ingredients; also in working out a Marketing program to supplement their regular markets during the months of March, April and May. This year eggs were shipped by the Association as far East as Gallup and as far North as Fredonia.

Two poultry houses were built this year following the recommendation of the Specialist and the Agent.

DAIRY

This office assisted the Dairymens Association in securing the services of Dr. T. B. Jones for their annual T.B. Testing program. All of the organization and schedule work was done through this office. A total of 560 cattle was tested with no reactors. The Federal Bureau of Animal Industry started a Bangs Testing program but for some reason did not continue the program to include more than approximately 1/5 of the dairy cattle in the County. They have given assurance that they will return to completely test the County.

Two commercial dairies were assisted in securing registered sires and one in securing pasturizing and milking equipment.

The Dairy Association did not have any formal meetings this year however the Association did accomplish much good for their members through the testing programs and in an educational program within the County for "feed production".

HORTICULTURE

The County-wide Yard Improvement program ended its fourth year with four communities actively participating. Very definite results of this program are evidenced in the increased sightliness of the communities that have participated, particularly Holbrook, Snowflake, Lakeside, and Joseph City.

The Horticultural Specialist gave valuable assistance in working out County Land Use Planning data for this field inasmuch as most operators do not realize the importance of this crop. The Specialist and Agent made a complete survey of the number of trees in the communities of Shumway, Showlow and Lakeside. This material will be available to the C.L.U.P. groups when they have become fully organized. Tabulations follow:

John McLernon
Naco to County 1940.
Adjacent to Lakeside

147 Old Apple Trees
656 New Apple Trees
332 Stone Fruits
1135

In Lakeside

743 Old Apple Trees
121 New Apple Trees
86 Stone Fruits
950

In Showlow

575 Old Apple Trees
150 New Apple Trees
45 Stone Fruits
770

In Shumway

750 Old Apple Trees
120 New Apple Trees
115 Stone Fruits
985

33% of these trees are in bad condition; 28% are in fair condition; and the remainder are in good commercial shape.

The Community Spray Program in Lakeside was almost discontinued due to freezes which ruined approximately 50% of the blossoms. The program was stopped after it had been started. The equipment was used however for custom work in Showlow and Shumway. The operators in the Cooperative Association are not satisfied with this program and the endeavor will probably be discontinued next year.

The program of thinning and grading was started and met with success in the Shumway area. It was abandoned in the rest of the County due to the fact that apples were bought at the farms as fast as they could be picked.

4-H CLUB

Two boys 4-H Clubs were formed in the County. A total of 18 enrolled; six in Woodruff in a Handicraft Club and 12 in Joseph City in a combination club. All 18 boys completed and will continue next year providing a leadership is available.

FIELD CROPS

The establishment of a result demonstration for processing green alfalfa hay with molasses has proven to operators that such a program is feasible. Fourteen tons of hay were processed this year with very good results. Ben J. Rencher, the cooperator, had no trouble in putting up the silage or in getting the stock to utilize it.

John McLernon
Navajo County 1940
Fertilizer demonstrations consisting of the use of 44% phosphate, calcium nitrate, ammonium phosphate, ammonium sulphate and complete fertilizer were established at Joseph City. To date only the ammonium phosphate and the 44% phosphate have shown results and these fertilizers only on corn. At the end of the growing season there were no appreciable results on alfalfa. This failure of response could be due to the quality of water used in irrigation which is very muddy. After good Fall rains some response could be seen but not enough to record. The demonstration will be continued next year during the cutting season.

Four operators used sweet clover as land conditioner with very good results on new land of comparatively high soluble salt content, the analysis going as high as 3000 PPM Total.

A foundation seed oat demonstration was established at the farm of E. Thomas, Jr. The results of this demonstration are not yet available as the operator has been unable to secure adequate thrashing equipment and the oats are still in the stack.

Hail damage and rizoctonia disease of beans resulted in serious losses to operators in Snowflake, Taylor and Showlow district. The late rains further reduced bean crops making it impossible to thrash beans, many of which sprouted in the piles.

Hail damaged corn field at Taylor, August 25, 1940.
Hail and flood damaged cucumber field, Taylor, August 25, 1940.

Hail damaged pear tree Taylor, Arizona, August 25, 1940.
LIVESTOCK

This office continued to work with the Northern Arizona Cattlemens Association in their Association program. This Association again this year conducted the Livestock Show and Rodeo in conjunction with the Navajo County Fair.

The Porter range East of Snowflake was sold this year and the following operators were given assistance in securing parts of this range: A. Levine, W. C. Baldwin, John Hunt, Leo Webb, Glenn Pace and L. Barr Turley. The Farm Security Administration financed two of these operators and are working on a program to finance two others.

Range seed plots were established at the ranches of A. H. Randell, A. T. Hutcherson, Fred Turley, W. J. Wyrick and A. Levine. No results were obtained until late Fall rains. On the last inspection all plots were showing good germination. Another year will be required to determine actual results.

One water spreading program on the Wetzler and Spurlock Range has been most successful. A dam of 2500 cubic yards has turned water out of a wash and is irrigating approximately 1800 acres. This year this area has been well watered at least four times.

Three operators have incorporated in their program the use of bone meal as a mineral supplement. The total number of operators now using this as regular practice is six.

IRRIGATION

With the cooperation of the Specialist and Del Shockley, S.C.S. engineer, a pump test was made for the Joseph City Irrigation Company of Artesian wells located three miles southwest of Holbrook. Four and 7/10 second feet of water were developed with the pump and continued for 24 hours with a maximum draw down of 21 feet. The data compiled during the testing appears in the Specialist's report and was presented to the patrons of the Joseph City Irrigation Company for their information and guidance in the further development of this program. To date no additional work has been done by them except for the drilling of another new 10" well, 250 yards from the existing wells.

John McLernon
County Agricultural Agent
Navajo County
1940
The Water Facilities Board from Washington, D. C. approved for immediate operation the Woodruff Water Facilities Project in February. To date no action has been taken by the Water Facilities Administration indicating that they expect to start work on the project in the near future.

The Water Facilities Administration worked the first half of the year on a proposed project at Showlow and this office has been informed that this project is ready for work pending the approval of the State Water Commissioner.

The irrigation Specialist and Dr. McGeorge of the Experiment Station and the Agent made a preliminary soil investigation of a proposed Bureau of Reclamation Irrigation project in the vicinity of Winslow and Joseph City. A full report of the investigation will be included in the Specialist's report, also the establishing of test plots of clover and sudan. Results will be in a subsequent report.

The Agent was sent by the town of Holbrook to a Reclamation Association Convention at Great Falls, Montana in company with a representative sent by the County Board of Supervisors and a representative sent by the town of Winslow. The delegates made reports to various organizations upon their return.

Four individual operators were given assistance in laying out small irrigation projects to utilize pump and Artesian water in the vicinity of Holbrook.

One operator was assisted in cooperation with the County Road Department in repairing flood damage caused by highway concentration of water.
Joseph City Artesian well pump test. Well developing app. 2000 gal. per min.

Showing Tractor Hook-up to 10 inch centrifugal pump.
The 1940 Agricultural Conservation Program was carried out in cooperation with the Extension Program. The Extension Agent acted as Secretary of the County Committee. The number of farmers participating in the program increased by 25 farms over last year. This increase was due primarily to the liberality of the regulations in regard to practices which could be carried out for Compliance. The number of Range Compliance will be approximately the same this year. This project in the Extension Program has helped to enlarge the Extension Educational program in production methods especially in the matter of fertilizers, rotation, and building up of pastures.

The County Land Use Planning Program was initiated in the County in April and organization meetings were held in Pinedale, Joseph City, Snowflake, Woodruff and Linden. Due to the fact that additional help to secure factual data was not available, the program was allowed to slow down until Mr. Robert Moody was sent to the County to help with this work in October. Since his arrival, the factual information for the communities of Woodruff, Joseph City, Winslow and Holbrook has been completed and the information for Showlow and Lakeside is nearing completion. It is anticipated that the information for the entire County will be complete about February 1. Committee meetings and further organization meetings will not be held until after the completion of the Survey.

The 1940 County Fair and Livestock Show was again, this year, a cooperative endeavor of the County Board of Supervisors, the Fair Commission and the Northern Arizona Cattlemens Association. Rain cut down the attendance of the Fair considerably on Saturday and Sunday; however the Show continued to carry itself financially and farmers and ranchers apparently like the idea of continuing the project. The estimated attendance was 2750 persons.

In addition to the Annual Conference at Tucson, an Agents' Conference at Flagstaff and an A. A. A. Conference at Prescott were attended by the Agent.

The Farm Security Administration brought in two new supervisors to the County this year which has increased to some extent the amount of time given to their program.

John McLernon
County Agricultural Agent
Navajo County
1940
A Farm Auction Sale was tried in this County in the Spring with very mediocre results. There was very little stuff brought for sale but interest was shown by the large attendance of folks who came to see what such a sale was like. A similar project will not be attempted by this office next year. There will, however, be at least one private auction sale resulting from the experience of this endeavor.

In conjunction with the Building Program of the County Fair Commission, the buildings at the Fair Grounds were improved and one building is now nearly completed for community activities.

The Army Flood Control officials were given assistance in securing information and data in regard to this County's irrigation set-up. A meeting at Holbrook by the Flood Control Board indicated that some work will be done on the Little Colorado River by that organization.

# # # #

John McLernon
County Agricultural Agent
Navajo County
1940