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ANNUAL REPORT

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of
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Dec. 1, 1944 -- September 11, 1945

1. SUMMARY OF WORK:

A. Statistical Summary:

Days in field:	101
Days in office;	97
Visits with County Agents:	27
Visits in Counties without agents:	2
Demonstration meetings:	3
Attendance:	27
Meetings relative to projects:	6
Attendance:	54
Other meetings:	7
Attendance:	640
Letters written:	114
Pictures taken:	42

Field days devoted to various projects by counties:

<u>Apache County</u>	<u>No. Days</u>
Livestock Improvement	6
USDA Program Education	2
<u>Cochise County</u>	
Livestock Improvement	3
Range Improvement	2
<u>Gila County</u>	
Range Improvement	1
USDA Program Education	1

<u>Graham County</u>	<u>No. Days</u>
Livestock Improvement	3
<u>Greenlee County</u>	
Miscellaneous	17
<u>Maricopa County</u>	
Livestock Improvement	12
Range Improvement	1
<u>Mohave County</u>	
USDA Program Education	1
Miscellaneous	5
<u>Navajo County</u>	
USDA Program Education	3
<u>Pima County</u>	
Livestock Improvement	3
Range Improvement	1
<u>Yavapai County</u>	
Range Improvement	5
USDA Program Education	1
<u>State Wide in Scope</u>	
Livestock Improvement	18
Range Improvement	13
USDA Program Education	13
Miscellaneous	30

B. Narrative Summary:

The greatest amount of time was devoted to projects dealing with livestock improvement. These projects were somewhat varied in that they dealt with all matters which effected improvement whether it be feeding, prevention of disease, or improvement of type. Just about equal stress was given to each of these phases.

Herefords have long been the predominate breed of beef cattle in this state. Interest in other breeds has grown in the past couple of years and those interested have solicited assistance through county agents and club leaders. Breeds favored are the Shorthorn, Angus and Brahman in particular, but some operators are using Africana and Santa Gertrudes bulls.

Range Improvement work has consisted mainly of plant eradication studies, and a considerable amount of private talking with range operators on conservative range practices. Also under this heading was the work done in Goat Ranges in Yavapai County.

U.S.D.A. program education projects were such department wide projects as fat salvage, food production meetings, and other nation wide programs which were discussed at various meetings.

Greenlee County agent work, a report on Mohave county and meeting with a predatory animal control group were among items considered miscellaneous.

II. PROJECTS

Projects were not materially changed. They were classified under the following sub-headings:

- A. Livestock Improvement
- B. Range Improvement
- C. U.S.D.A. Program Education
- D. Miscellaneous

III. MAJOR ACTIVITIES

A. Livestock Improvement

1. Type Improvement. Emphasis under this particular heading has been placed on selection. Many visits to purebred cattle ranches were made to see and discuss high type breeding animals. Assistance was given to the Tucson Livestock Show both in Hereford and Horse classes and to County 4-H Club gatherings in Maricopa, Pima, and Graham Counties. At each of these shows excellent type animals were exhibited, not only some of the best Herefords and Quarter Horses in the country at the Tucson Show, but also excellent hogs, sheep, and Arizona raised cattle at the club gatherings.

Commercial cattlemen have become quite interested in breeds other than Hereford cattle, especially since Hereford bulls sold so high at Denver. Several small Angus herds have been established some Shorthorn bulls have gone to range herds. The practice of taking Angus and Shorthorn bulls to white faced range herds has been discouraged unless the plan of the operator is to sell all the offspring. The reason for this attitude is not that either of these breeds is inferior to the Hereford, but rather that the color markings of animals after the first cross will so closely resemble the Mexican type which comes through Arizona in such great numbers. Buyers will take advantage of these color markings to class them as "Mexicos" regardless of conformation and breeding records. Those who care to venture into one of the other breeds have been encouraged to make a complete change-over.

Some ranchers in desert areas are using Brahman, Africana, and Santa Gertrudes bulls on more or less of a trial basis.

Though some of their reports are very enthusiastic, it is doubtful if their trials have been carried on long enough to definitely show advantages or disadvantages. Among obvious disadvantages is the color marking mentioned above.

2. Feeding. Many inquiries have been answered on feeding and feed lot equipment. A circular was prepared on the subject with Mr. E. B. Stanley and Dr. W. J. Pistor, which it is hoped will be released by October.

Considerable individual attention has been given to feeding problems of 4-H Club members. Not only the members but the leaders as well have surprisingly little knowledge of correct feeding practices. Group discussions were held but they served primarily to stimulate interest in individual problems.

Permanent pastures and their place in feeding and care of livestock is attracting interest especially in Graham, Cochise and Yavapai Counties. Dr. R. L. Matlock has conducted field tests with various mixtures throughout the state which are included in his report.

These pastures will carry cattle in varying numbers depending on whether they are carried for maintenance or for fattening or production of some other sort--calves or milk. Possible disadvantages that should be kept in mind are: the frequency and amount of water required, the possibility of diseases and parasites after several consecutive seasons of pasture, and bloat which is blamed on to some mixtures.

3. Diseases and Parasites. To the adult and club member interested in livestock alike this problem of disease and parasites is by far the greatest concern. In addition to about 38 letters dealing with this problem, 5 demonstrations were held, and innumerable questions answered at each meeting attended or ranch visited. Three of the demonstrations were to teach proper technique for removal of cancerous tissue and were conducted with Dr. Pistor, one dealt with drenching cattle for stomach worms also conducted with Dr. Pistor and one was dipping of goats for lice with Dr. J. N. Roney, Extension Entomologist. The statistical data on the latter will be reported by Dr. Roney. Rotenone and sulphur were used on most of the goats but a small bunch were run thru a solution of DDT as a trial.

Internal parasites and other problems of sheepmen which had previously been discussed at general meetings were considered individually with little success. It seems sheepmen have a superstition against submitting their bands for a demonstration. Rumor would have it that certain bands were losing lambs or having other troubles. A call at the particular bands mentioned to get data or an ailing sheep to take to the laboratory would be met with a denial of any trouble whatever. Likewise at the office of the Secretary of the State Wool Growers Association through the winter it was stated that no troubles had been reported; yet at the annual meeting in July there were reports of many troubles which checked quite closely with rumors heard during the winter.

Many requests have been answered concerning poisonous weeds. The main cause of trouble this year was burweed and jimmy-weed, but loco larkspur, poison hemlock, and either tansy-mustard or Corydalis also attracted attention. About 4 trips to investigate areas were made and about 8 letters were answered on this subject, not to mention numerous questions at meetings. Counties most concerned were Apache, Graham, Cochise, Maricopa, Pinal and Gila.

B. Range Improvement

1. Management Practices. Most time was devoted to discussions of individual problems and suggested improvement. There is a great desire among permittees on National Forests for understanding of range techniques so that they can properly talk with forest officials. Assistance was given wherever possible without interfering in the responsibilities of another Government Agency.

Data on the goat range studies being conducted in Yavapai County was collected in April this year. Compilation of this data is not yet complete, but there was little change. Rainfall records disclosed that most of the rains fell too far before the growing season or after it so that in spite of a higher annual rainfall there was little growth of vegetation. This study is being conducted with the Forest Service, Soil Conservation Service and Arizona Mohair Growers Association.

2. Eradication of Noxious Plants. Work was continued with the Forest Service on the project of so called "cedar" control (Juniperous Monosperma and J. utahensis) in Yavapai County. Results of previous tests are essentially the same as reported previously. Results of this year's tests which included the use of Weedone and of Amonium Sulphate treatments in addition to repetition of some of the previous treatments cannot yet be determined.

The Soil Conservation Service research workers in Southern Arizona have had good results in eradicating burroweed if the mowing immediately precedes at least three weeks without rainfall. Their observations also indicate that condition favorable to growth of burroweed, including seedlings, is wet weather in the fall, particularly November. These tests have not actually been participated in but have been followed closely.

In Cochise County the Schillings Brothers, who have several sections of ranch land, have succeeded in grubbing burroweed. Whether this practice can be carried out as successfully in a rougher terrain is a question.

Some work was carried on with Dr. R. L. Matlock on weed eradication in pastures. Complete results cannot yet be determined, but Weedone and related materials shows very definite promise against broad leaf weeds. It has special benefits to grass lawns in that it does not affect grasses in normal dosage. These indications are somewhat negative for pasture, however, as it kills clovers, and other pasture legumes.

3. Range Reseeding. No specific project has been carried on under this heading but many inquiries have been answered. There was considerable interest shown in response to an S.C.S. article praising the use of Lehmann's lovegrass (Eragrostis lehmanniana) in reseeded. Small quantities were secured for two ranchers and instructions for planting were given. Results have been good if planted in a well prepared firm seed bed, during or immediately before summer rains, with protection from rodents and livestock the first year.

On the whole range reseeded as the average rancher is equipped and located cannot be encouraged. Seed bed, protection, and moisture requirements are too exacting except in the case of certain native species and with these the viability of the seed is very low.

C. U.S.D.A. Program Education

At meetings of livestock organizations and club workers programs of nation and department-wide interest were discussed. Two other specialists were accompanied on a tour to several communities in Apache and Navajo Counties to discuss the food production program. Most success was had at these meetings when farmer participation in the discussions could be stimulated.

A trip was made into Yavapai and Mohave Counties to encourage greater rural participation in the Fat Salvage Program. Organization of collecting agents and assurance for proper disposal seemed to have been the reason for the apparent lack of interest. Although amounts of fats considered waste fats by rural people differed some from estimates by city authorities of amounts of waste fats expected.

Two State AAA meetings were attended. Both of these dealt specifically with the program for 1945. One was a State Committee Meeting and the other was a meeting of the State Committee with all county committees. The latter was attended by National and Western region officials. Noticeable in the discussions by these men was the trend of the AAA to "service" for the farmer, especially the small farmer, as opposed to "conservation" in previous years.

D. Miscellaneous

A great deal of time was spent in Greenlee County where there is no county agent. In performance of duties here no special programs were developed but assistance was given to existing programs and to general farm and ranch problems. One of the main problems, farm labor, was considered at nearly every visit. A P.W. Camp established near Duncan has been of untold value to the community.

Also, of more general nature than straight animal husbandry was a trip to Greenlee, Graham and Cochise Counties with Director Pickrell. The regular county agent problems were brought to the front on this trip rather than just livestock problems.

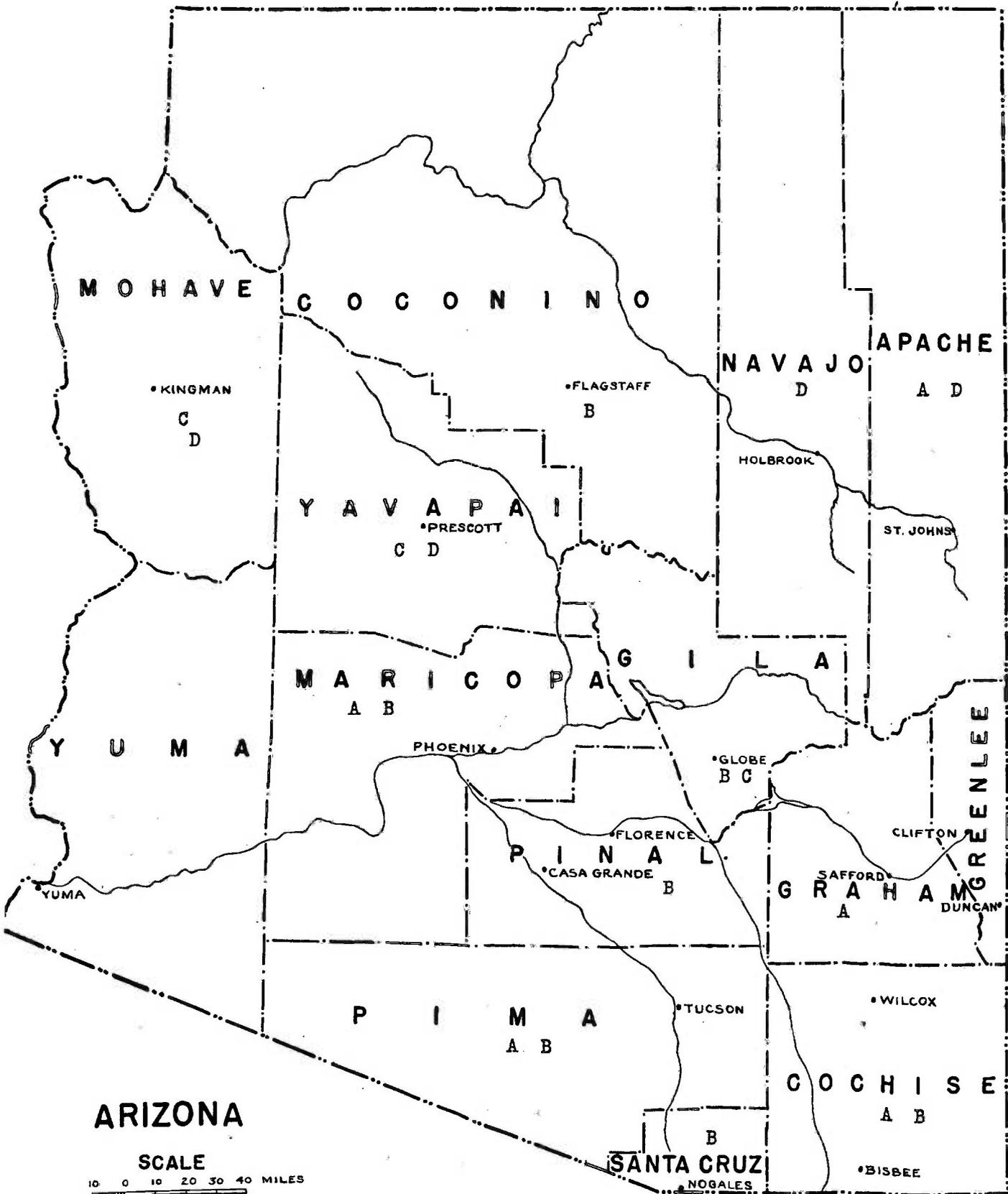
Another trip which had educational benefits was one to Denver in January to meet with Club leaders in livestock projects. While there the National Western was attended for 4 days. The benefits of such a trip cannot be measured in words. Most noticeable of club projects was the excellence of the hog classes in which entries were restricted to club members. Club cattle classes were also good and of course the best Herefords of the nation were shown as were the best Quarter Horses and Palominos.

A general survey of Mohave County was made in consideration for the need of an Extension Service office in that county. There are some disadvantages to establishing an office in the county at this time, but when war time problems ease up an office could be justified. This county supports a good many more cattle and sheep than are shown on census reports and also has a greater acreage of cultivated land. Some very good work could be carried out by both men and women agents.

IV. OUTLOOK

Even with the termination of the war in Europe and the very favorable trend of the war in Asia, prospects for the cattle market should be good for at least two years.

The most important problem of all people, agricultural, industrial, professional and all others, is going to be that of adjustment to changing conditions. Certainly reciprocal trade agreements which will effect livestock people in particular, are going to have to be reckoned with. The prosperous and even the survivor may be those who are able to face these problems and make necessary adjustments to meet them.



- A - Livestock Improvement
- B - Range Improvement
- C - U.S.D.A. Program Education
- D - Miscellaneous

State wide activities included all projects A, B, C, and D.