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A N N U A L

R E P O R T

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C O U N T Y A G E N T

Santa Cruz County

ARIZONA

December 1, 1928- November 30, 1929

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STATUS OF COUNTY EXTENSION ORGANIZATION

During the past year, the agent has moved his office twice. It became necessary to move from the Chamber of Commerce in order that they have sufficient space for their extra duties. The temporary quarters in the Wise building were very unsatisfactory being on the second floor and exceedingly small also so the agent moved in with the Crenshaw Agency.

At the Annual meeting of the County Farm Bureau last spring, Mr. A. M. Benjamin was re-elected President. Mr. H. B. Riggs elected Vice-President, and Mr. D. C. Peterson elected Secretary. At this meeting the Home Demonstration Agent and County Agent both gave their annual reports and programs of work. The agent had arranged for a moving picture machine and showed 5 reels of motion pictures at the meeting.

During the year, the agent held 18 meetings of method and result demonstrations, 5 Extension schools and 12 other meetings pertaining to extension work with a total attendance of 410. A great number of bulletins have been distributed from the agent's office showing that more of the cooperators are coming to the agent's office for assistance.

The agent made a total of 487 farm visits during the year and spent 101 days in the office and 204 in the field.

The South half of the Baca Float which consists of approximately 2500 Acres of irrigable land that has been laying idle for many years has recently been sold and the new owners have already done a great deal of work in preparation for cultivation the coming year.

Several of the projects have been dropped during the year and in the rewriting of the projects for the coming year several of them were combined due to the relationship to one another.

EXPLANATORY REMARKS

Due to the moving of several of the cooperators and also to uncontrollable circumstances several of the leaders of the projects have had to withdraw and as a consequence the demonstrations have been dropped.

At the first of the year the prospects seemed exceedingly bright for all phases of agriculture, however at the end of the year many of the expectations were unfulfilled. The fruit crop this year was very good. The grain crops in the dry farm area such as Hegeria Milo Kaffir and also Corn was quite a bit shorter than they were expected due to unfavorable weather in the late summer. In most parts of the County the cattle ranges are better than they have been in many years however there are locality's which are not as good as last year.

ANNUAL NARRATIVE REPORT
1929 Santa Cruz

SOIL MOISTURE STUDIES

The agent during December and January made soil moisture penetration tests at C. O. Putnam's, Sonoita; Ferris Brothers, Rain Valley; Roy Blair's, Canille; J. J. Sullivan's and E. L. Kinsley's in the San Rafael.

The moisture penetrations at Putnam's varied from 16" in a red clay soil to 32" in a sandy silt soil. At Ferris' it varied from 16" in a red clay soil to 22" in black sandy loam. At Blair's it varied from 18" in a red clay soil to 34" in a sandy soil. At Kinsley's it varied from 15" in a black clay soil to 26" in a sandy soil. In soils that had been worked the previous year, the penetration was about 4" deeper than where it had not been farmed. At Ferris Brothers ranch it was noted that the penetration was 4" deeper in soil that had been plowed before the snow fall than in soil plowed afterwards.

During April, the agent visited these farms again and found that the moisture had penetrated to a depth on the average of 34" in the lighter soils and 29" in the heavier soils.

During June, the agent visited the farms again and the conditions of the crops were noted. Crops on early plowed land were growing nicely and appeared to be able to hold out until the rainy season should start in early July. Crops on land that had only been disked were badly withered and looked as though they would not survive.

Rains did not come until August and the crops all suffered a great deal and very little grain or fodder either was produced.

Mr. Putnam didn't plant his field at all and at Ferris Brothers where the plowing was all completed by early in January made the best showing and suffered least showing that more moisture can be stored and crops maintained by early preparation of the land.

SEED CORN SELECTION

On account of practically all of the corn that was planted this past year had to be secured from outside sources, there was no work done on the project and it was dropped. In the Fall of 1928 the corn we were working with was inferior to what we had started with due to being immature when frost hit it.

ORCHARD PRUNING

A new project called Orchard Care and Management has been started and the projects of Orchard Pruning and Orchard Planting will be reported under that project from now on as well as the other phases of orchard work.

Pruning demonstrations were planned and carried out in

ORCHARD PRUNING, Continued

Nogales, Patagonia, Canille and the San Rafael by the Agent and Horticulture specialist from the University of Arizona. At these demonstrations pruning of Peach, Pear, Plum, Apple, Apricot, Quince and Cherry trees as well as grapes, berry bushes and roses was shown. Besides these regular scheduled demonstrations, the agent gave 5 other demonstrations in pruning fruit trees. As a result of these demonstrations probably 800 trees were pruned more or less according to the methods demonstrated.

As the Spring was late and cold, pruning this year was continued much later than usual. The trees blossomed considerably later and there was a good production of Peaches, Plums and Apples.

Two orchards that were taken over during last year were pruned and shaped up for the first time in many years. Only the most brushy part of the trees were cut out in order not to force too many water sprouts, however there were lots of them anyway and most of them were cut back early so as to stop their growth. These trees were in such a condition that the agent advised using eight pruning measures over a period of three or four years to get them back to shape.

At the Patagonia demonstration the high school boys farm shop class attended and quite a few of the boys shaped up their trees at home after the demonstration.

ORCHARD PLANTING

While the agent and specialist were holding the pruning demonstrations, we discussed selecting orchard sites, selecting varieties for this elevation as well as planting, pruning and training young trees. Many of the old trees especially Peach trees are high headed and as a result are badly sun scalded on the South-West side so we are careful and are trying to get all the new trees planted and trained with a low head. There were very few new trees planted this past year but the trees planted when this project was started were pruned and shaped up so as to develop into this desirable type of tree.

WALNUT GRAFTING

This project met with such disastrous results in 1928 that we were a little skeptical about doing more grafting this past Spring. Then as the Spring was so cold and late and we were unable to get the scion wood that we wanted no work was done on the project except that the agent advised several co-operators where they might secure young black walnut trees for transplanting.

LETTUCE PRODUCTION

A small acreage of Spring lettuce was produced at Lee Joe's place this year with very good results. About 60% of the crop was marketed and about equal parts of the balance of the crop was either seed heads or late maturing and slimed. He was the only one who tried lettuce at all this year as the others who had intended planting moved and were not ready when planting time came.

Lee Joe planted about 5 Acres of Fall lettuce and it germinated and was coming along nicely when the grasshoppers started

LETTUCE PRODUCTION, Continued

in on it. Arrangements were made to get a flock of about 200 turkeys to clean up the grasshoppers but he waited a little too long and the grasshoppers had cleaned out the lettuce before he got rid of them.

He has prepared about 15 Acres for Spring lettuce and has planted about 3 Acres already. He intends to plant about this much every two weeks until the middle of Febuary. The agent has discussed Spring planting with two other cooperators and it is the agents intentions to have 5 cooperators thoroughly try one Acre of lettuce.

LETTUCE HARVESTING AND PACKING

As the lettuce that was marketed this year was sold locally none was regularly graded and packed, however we are going to maintain this project as lettuce seems to be out best prospect for developing the agricultural part of the county.

POTATOE DATE OF PLANTING TESTS

Two almost entire failures in succession in growing potatoes here has practically put an end to potatoe planting here. There was one field of potatoes this year that come up voluntarily from those that were not harvested last year but the field was irregular and not taken care of so there were no returns from it. This project has been discontinued for 1930.

RODENT CONTROL

This project in one of the most valuable to the cooperators that the extension service has to offer. The agent and the United States Biological Survey representative visit many of the farmers and furnish gopher traps, poison grain and give method demonstrations in the use of both. Many cooperators profit by these demonstrations and get relief from these animal pests for a while, but then drop the control measures and it is only a short time until the infestation is back where it was when they started.

During the year, the agent spent 9 days on this project and worked with 11 cooperators who used the control measures or gophers, squirrels, Jack Rabbits, rats, and grasshoppers. The agent also spent ~~two~~ two days placing poisoned baits for rats and squirrels at the local municipal air field. The field had numerous mounds, holes and runways all over it and while the application of poison was not a 100% kill it reduced the number to where only an occasional working is noticed and this is again treated.

RANGE HERD IMPROVMENT

At this project and also Ranch Improvment are features of Range Cattle Production and Management this project has been created and will include these projects for 1930.

The agent during the year assisted six cattle men in obtaining and selecting some very good young calves very materially. The agent also gave a dehorning demonstration and assisted a cooperator

RANGE HERD IMPROVEMENT, Continued

in castrating calves with the buzzard pinchers. These are especially good for young calves and are also good on older calves but the more age the more apt there is to be a swelling and stiffness for a short while.

The agent discussed fencing to regulate grazing, putting up native hay, selecting and culling heifers and also marketing with quite a number of cattle men. Much improvement has been noted along these lines more especially in the quality of calves as well as in the increase in the percent of the calf crop. The increase in calf crop has been due largely to the increase in the number of bulls to cows and also to development of water and fencing. In most cases where a high percent of calf crop is obtained, the bulls have been fed in the Spring and are in good shape when turned out on the range.

RANCH IMPROVEMENT

There has been very little labor saving equipment built on the cattle ranches this year although there has been so much discussion on canals, chutes, silo's and other equipment that they are likely to be built most any time. Two of the cattle men are considering very seriously of constructing silo's and if the coming season is favorable for crop production they will have them for next Fall.

DAIRY CATTLE FEEDING AND MANAGEMENT

For 1930, the projects of Breeding and Selection for Milk Production and Eradication of T. B. Dairy Cows will be combined with this project.

During the past year a great deal of work was done with the dairymen and a number of very good improvements resulted. Early in the year the Extension Specialist and the agent held some method demonstrations and also some Dairy Schools at Riverside, Patagonia and Sonoita. At the demonstrations, the Specialist showed how to judge a dairy cow by the recognized characteristics of the breed. At the schools topics of equipment, housing, feeding, breeding and management were discussed. As a direct result of these schools many improvements resulted. One silo was built. Five are producing and using silage, two put up hay for winter use and a total of 10 are now feeding a mixed grain ration. Two barns have been reconstructed and several milk rooms have been remodeled and the sanitary conditions in general are much improved. Many other suggestions of the agent and specialist have been used by the dairymen and much more improvement is expected in the near future.

BREEDING AND SELECTION FOR MILK PRODUCTION

Most of the improvement that has been shown in the way of higher production has not been from breeding up, but by culling out and obtaining new cows. Several of the cooperators had planned to purchase new bulls this year but were unable to get what they wanted or would fit into their herds.

BREEDING AND SELECTION FOR MILK PRODUCTION, Cont'd

Through improving their methods of feeding, they have come to realize that they must have cows with the ability to produce so they will respond to the feed.

The agent has discussed the plans of a cow testing association with several of the darymen and they seem to be quite in favor of it and we are planning to get an association started in the very near future.

ERRADICATION OF T.B. DARY COWS

The agent made arrangements with the Federal Veterinary who is in charge of T.B. eradication in Arizona, to give Santa Cruz County a final clean up test as only the cows in dairies producing retail milk were tested last year. The agent sent out about one hundred and fifty notices and gave considerable advertising to the papers regarding the time of the test.

The agent arranged an itinerary and when Shidler came down we started work immediately. We visited a few over a hundred farms and tested cattle at 79 places. The work was so arranged that we injected and read at these places a total of 1004 cows in 12 days. Only 2 reactors were found and these were disposed of immediately; one of these were posted and found to be badly infected in the lungs, liver and small intestines and also a small infection in the glands of the neck.

POULTRY FEEDING AND MANAGEMENT

As the projects of Feeding and Brooding baby chicks and Selection of Breeding Flocks are phases of Poultry Management they will be combined with this project for 1930.

At the first part of the year the agent and Specialist held some poultry demonstrations and schools at Patagonia, Sonoita, Vaughn and San Rafael. At the demonstrations, the Specialist showed how and described selecting birds according to the desired type and also according to standard shape and color. At the Poultry schools the topics of Selection of Breeding flocks, housing equipment, brooding and feeding baby chicks, feeding laying hens, developing pullets and general managing of poultry flocks were discussed. As a result of these demonstrations and poultry schools, four poultrymen are feeding better rations, three new poultry houses have been constructed and a general improvement has been noticed in the looks of the poultry flocks.

The agent visited the poultry cooperators many times and assisted in correcting their methods of management. Most of the difficulty when the agent would be called to a place, could be checked to insufficient green feed, irregular applications of salts or improper Housing. The agent also did a lot to correct and improve their system and methods of feeding baby chicks and growing puttlets.

FEEDING AND BROODING BABY CHICKS

Quite a great deal of trouble was experienced the past year in raising baby chicks. The agent and the cooperators studied the situation from every angle and while the Spring was a little colder than the year previously it was not considered the source of trouble. As the brooders and feeding rations were the same as last year and about 50% of the chicks made normal growth, it was concluded that the chicks were just naturally lacking in vitality. The under developed ones were segregated from the normal ones and even after several weeks they failed to respond to special treatment.

SELECTION OF POULTRY BREEDING FLOCKS

The agent and specialist gave numerous demonstrations in the selection of Poultry breeding flocks and as a result of these demonstrations, there is a larger percent of better pullets in the flocks. The flocks are more uniform in color and size and also conform more closely to the standard. The egg production has increased slightly but not in proportion to the other improvements.

COUNTY AND STATE FAIRS

The agent assisted the County Fair officials preparing for the annual County Fair by sending out notices for 12 meetings, securing premium ribbons, securing judges, compiled to arranged for the printing of a program and premium list and assisted in repairing the building and took charge of the exhibits when they arrived at the Fair grounds.

The agent also spent several days at Phoenix assisting with the Extension Exhibit at the State Fair.

The County didn't have an exhibit at the State Fair.