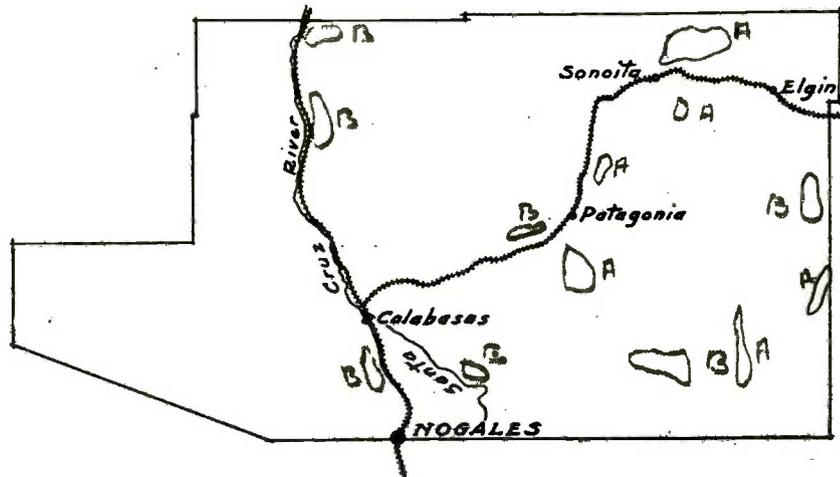


1--5-2

- A- Field Rats Interminated 1932
- B- Pocket Gopher Interminated 1932



Santa Cruz County, Ariz.

1-9-3-2

ANNUAL NARRATIVE REPORT

OF

JOSEPH P SEXTON JR

SANTA CRUZ COUNTY AGENT

ARRANGEMENT

OF

MATERIAL

- I COVER AND TITLE PAGE
- II STATUS OF COUNTY EXTENSION ORGANIZATION
- III EXPLANATORY REMARKS
- IV REPORTS OF PROJECTS
- V PROGRAM OF WORK

STATUS OF AGRICULTURAL EXTENSION ORGANIZATION

JANEA CRUZ COUNTY 1933

The extension work in this County even in the face of two bank failures, shortage of rainfall and low prices of livestock and agricultural products has made a fairly good showing.

The agent assisted a great many cooperators in planning a garden and furnished them with a planting schedule as well as offering many suggestions on varieties of vegetables to plant.

The agent distributed among the cooperators over 1000 tomatoe plants that he started in a cold frame early in the spring. These plants furnished many rural people with fresh tomatoes during the late summer and all the tomatoes they wanted for canning.

The Home Demonstration Agent has been of untold value this year in helping the women with canning problems. The women with the assistance of the Home Demonstration Agent have put up every kind of vegetable that was grown in their gardens as well as beef, pork and rabbits. This will supply a large part of their table this winter.

This is the first year that so many people have taken such an interest in garden growing and I am sure that these same people will continue and others will begin.

In connection with the soil moisture project the agent has been assisting the cooperators with improving their seed and recommending the use of pure seed so that they may have seed for sale instead of selling their crops for feed.

This year the agent secured pure hehari seed for eight cooperators, he also secured some pure spur fettirita for two cooperators and assisted five cooperators in getting first class corn seed.

The agent also worked with the Federal Seed Loan Representatives while they were in the County and offered a great many suggestions to the field representatives should they make loans in this County again.

The agent assisted a great number of cooperators in securing farming equipment and also furnished plans for building feed bunks, milking sheds, poultry houses, grain bins, silos and shutes for working cattle.

STATUS OF AGRICULTURAL EXTENSION ORGANIZATION

SANTA CRUZ COUNTY 1932

CONTINUED

Owing to the curtailment of capital many of the improvements that were planned were not made during the year however some of those who had the material on hand have made some very valuable improvements on their farms.

The agent rendered a great many cooperators services in regard to livestock diseases. The agent was called to the Ashburn ranch where during the night six hogs that were in the fattening pen had died. The agent made a postmortem examination and definitely decided that it was not hog cholera nor any other infectious disease but found the stomache very badly inflamed. Owing to the suddenness of the trouble the agent suspected poisoning so took the contents of the stomache, the stomache, liver, lungs, heart and spleen to Tucson where he and Professor Scott examined it again. It was not until after Professor Greene had analyzed the stomache contents that a decision was reached. He found it contained 3.5% salt. The agent revisited the ranch and found that the fattening pen had been built where a barn had burned down and that there had been a large amount of rock salt stored in it. The recent rains had dissolved the residue and the corn being fed on the ground had absorbed large amounts of salt and poisoned the hogs.

The agent was called to Mr Jones farm at Amado where a valuable milk cow had suddenly become violently ill. The agent diagnosed the case as milk fever and showed Mr Jones how to pump the udder up with a home made pump and teat tube. Very shortly after the treatment the cow got relief and the next day was back on feed again and came back to her production in a short time.

Mr Dalton had a streptococcus infection in his herd of forty two dairy cows and we found out that it would cost him two dollars a sample to get his milk tested to find out which cow it was. The agent made arrangements with Mr Rowe the Extension Dairy Specialist and Mr Cunningham of the Dairy Department at the University to test the samples. The agent assisted Mr Dalton in taking and labeling each sample and we took them to the Dairy Laboratory. We found that cow No 39 a big holstain that last year produced eight gallons a day was the one giving off the infected milk. He removed her from the milking herd and has had no more trouble. Mr Dalton says that this one service saved him almost enough to pay a years taxes.

STATUS OF AGRICULTURAL EXTENSION ORGANIZATION

SANTA CRUZ COUNTY 1932

CONTINUED

The agent spent a couple of days with a cooperater who wanted to plant some alfalfa. The agent gave him suggestions on leveling the land and building borders for irrigation, depth to plant, rate of seed to plant per acre, method of irrigating before planting as well as many other suggestions to consider when planting.

The agent assisted several other cooperaters with suggestions on the stage of maturity to cut johnson grass and also native grass for hay. He also offered suggestions to a few cooperaters on the stage of maturity to cut corn and grain sorghums for silage.

Many cooperaters were assisted during the year in combating insect pests on field crops as well as garden crops and orchards. The two most destructive pests are the Mexican bean beetle and the grasshoppers. The agent gave several demonstrations on mixing and apreading poison bran for grasshoppers control and also gave out a number of bulletins on Mexican bean beetle control. Some of the cooperaters used these control measures with success however many of them felt that their crop was of so little value due both to very little rainfall and also low prices that they didn't bother with any insect control measure.

During the year there were thirty four men and five women who voluntarily acted as leaders in extension work with the various projects. The Specialist from the University and the U.S. Department of Agriculture spent 38 days in the County and all of them rendered valuable services to the rural people and the agent also.

The agent spent 184 days on projects other than organization and spent 211 days in the field and 92 days in the office. A total of 389 farm visits were made during the year and there were 479 office calls on the agent during the year. There were 13 demonstration meetings with an attendance of 77 cooperaters besides 23 other meetings on projects with an attendance of 328 cooperaters.

ANNUAL REPORT

PROJECT NO.1.

SOIL MOISTURE STUDIES

SANTA CRUZ COUNTY 1932

The soil in the dry farm section of the County where this project is conducted had more moisture at the close of the 1931 growing season than it has had any year since the agent has been here.

The soil was in excellent condition for plowing during December and January however towards the last of January and during February the soil would freeze to a depth of from four to six inches every night. This held up the plowing to quite an extent and several of the cooperators who had planned to have their plowing completed by the middle of February didn't get through until late in March.

This past winter was the coldest since 1914 and there were killing frosts until the last of May. None of the early planted crops grew very well until the rains started in July.

During the year there were four months that we had no rainfall at all March, May, June and November were all dry and in all there was only 13.46 inches of rain for the year. This was just half of what it was last year and if it hadn't been for the fact that the soil was well soaked at the close of the growing season last year the crops would have been very poor this year.

The grain sorghum yield was only fair this year and the corn yield and bean yield was very light. This was due to the fact that there was only about 3 inches of rain during August and September, which is the time we need moisture to make crops here.

The agent and cooperators had planned during the early part of the year to build some terraces for the conservation of moisture and to also prevent soil erosion. The spring was so dry that it was though advisable not to stir the soil and more than necessary for as a general rule here the soil will dry out just as deep as it is worked during late March and April if there are no rains.

Mr. Putnam at Sonoita planted about six acres of corn and the same amount of Milo Maize during the early part of April. Mr. Benjamin also planted some spur fetereta about the same time. These crops due to early preparation of the soil held up in good shape and when the rains came in July grew out and were for enough developed that they yielded a good crop of grain. Other grain crops that were planted just before the summer rains produced a considerable fodder but very little grain.

ANNUAL REPORT

PROJECT NO.1.

SOIL MOISTURE STUDIES

SANTA CRUZ COUNTY 1932

CONTINUED

The acreage planted this year was a great deal more than last year and the prospects during the summer were very good for a high yield of grain corn and beans but many of the corn fields had no corn at all and the bean fields only yielded two or three sacks of beans to the acre.

The agent got some pure hegari seed for eight cooperators however only one field of this was developed enough to make first class seed.

The agent also assisted several other cooperators in securing first class seed corn and only one field of this turned out to be first class.

The spur feteritta that the agent got for Mr. Benjamin made an exceptionally good yield of both of grain and fodder and he has selected out some excellent heads for planting next year.

The agent assisted a number of cooperators in field selecting milo maize, hegari, feteritta and corn for planting next year. We selected the largest fullest mature heads from the thriftiest plants so that next year they will have that much more advantage to withstand adverse weather conditions.

ANNUAL REPORT -

PROJECT NO.2.

SEED CORN SELECTION

SANTA CRUZ COUNTY 1932

This project of seed corn selection is classed as a minor project however it is a very important one at least once a year. For the past several years the agent has assisted the framers in field selecting corn so that we might develop a strain that would with stand all adverse weather conditions and make a crop under all conditions.

This year was one of the most unfavorable we have had for some time for corn growing although the yellow corn we call "Santa Cruz County Yellow dent" yielded fairly well as was shown by the fact that one of our selections took first and sweepstakes at the State Fair.

The agent assisted G.C. Smith, C.O. Putnam, J.A. McCarty and Chas Davis in field selecting yellow corn. The agent also assisted Mr A.M. Benjamin, Mr. McCarty in field selecting some dry farm Mexican June Corn. In all of these field selections we made our selections with particular reference to straightness of rows, evenness of kernels, uniformity in size of cob, fullness to end of cob and maturity of grain as well as paying strict attention to thriftiness of plant and tightness of shuck over ear. Caution in this last item has been stressed as we have noted for the past three years that loose short covered ears are always injured decidedly by corn ear worms as well as crows.

Both of these strains of corn have proved very satisfactory for in our dry farm sections as they have made grain in years that have been too unfavorable for the maturity of other strains of corn.

ANNUAL REPORT

PROJECT NO. 3a.

ORCHARD CARE & MANAGEMENT

SANTA CRUZ COUNTY 1932

Most of the orchards here in this County are on a very small scale and consequently not on enough of a commercial bases to warrant the purchase of power machinery for insect and disease control.

The agent each year has many calls regarding insect pests of fruit trees but has made very little progress on the control of pests as no one has any spray equipment.

This County is subject to late freezes and the agent has advised every one whom he can get in touch with before they order their trees to get the very latest blooming varieties.

This past year there were killing frost up until the past of May and practically all of the fruit was killed. However in one or two protected spots there were a few peaches produced and a very few apples. Mr. Benjamin who has a few saved his fruit by building a smudge of green oak logs on the cold nights. No one in the County has smudge pots for the same reason that they have no sprays machinery.

Most of the work in this project consists of assisting the cooperators with their pruning and suggesting methods of cultivation, irrigation and assisting them in the selection of new varieties of trees.

This year the agent gave a pruning demonstration at Chas Hollars where he has about fifty trees. The agent also gave a pruning demonstration at J.A. Mc Carty's where he has about thirty apple and pear trees. This is the one orchard that produced apples this past year.

The agent assisted Mr. Simminton in pruning his orchard of about forty trees and also showed F. Hannan how to prune fruit trees and rose bushes.

The orchard at the Boyce ranch which is the largest in the County is being pruned this year according to suggestions offered by the County agent and by men whom the agent last year spent several days with giving them instructions in pruning.

ANNUAL REPORT

PROJECT NO.3a.

ORCHARD CARE & MANAGEMENT

SANTA CRUZ COUNTY 1932

CONTINUED

While the specialist Mr. Draper was here he and the agent gave pruning demonstrations at F.M. Daugherty's where there were some forty trees. We gave another demonstration at Chas Kennedy's where he had about thirty trees. We also gave a demonstration at Roy Blair's and O.J. Atkinson's where there were about thirty young trees at each place. At J. Hathaway's we gave a demonstration on shaping up old trees that hadn't been pruned for several years and also demonstrated pruning grape vines. At Judge Duffy's we demonstrated pruning trees and rose bushes.

At all of these places the cooperators were very much interested in the work and asked lots of questions. While giving these demonstrations we gave talks on what to do and what to do on both young and old trees. As we have considerable sun during the growing season here we have stressed the fact that fruit trees must be headed low to prevent sun scald. We also stressed the point of developing a well balanced set of scaffold limbs so that there would be no weak crotches.

As was mentioned before there was practically no fruit raised during this season however all of the trees made a very good growth and with a little pruning the coming spring will be in excellent condition to bear fruit this next year.

During the spring of 1932 there were probable five hundred new apple trees set out and a few pears and peaches. The agent had spoken to several of these people before they ordered and most of them made good selections as to varieties although many people have favorite varieties that they want to grow and order them regardless.

Quite a number of pecan trees have been planted along the Santa Cruz Valley during the past two years and while they haven't been in long enough to make any definite statement about them it was noted that many of the slower growing varieties that had a very slender trunk growth froze out during the late winter. As this past winter was the coldest since 1914 it was very unfortunate and in all probabilities these trees would have lived through an ordinary winter and made excellent trees.

ANNUAL REPORT

PROJECT NO.3a.

ORCHARD CARE & MANAGEMENT

CONTINUED

The agent is working with the cooperators who have apple and peach trees to get more of them to use a smudge of some kind to protect their trees from frost for if they can spend a few dollars to get trees they certainly can spend a few cents to protect them and get a little returns from them.

The agent besides the suggestions offered to the cooperators furnished many of them with bulletins and literature on pruning and general care.

The agent and specialist worked with twenty six different cooperators in this project during the year and most of them have used the suggestions of the extension service representatives.

ANNUAL REPORT

PROJECT NO. 6.

LETTUCE PRODUCTION

SANTA CRUZ COUNTY 1932

The 1931 fall lettuce crop was finished during the month of December and as the fall was very late and warm weather held out until up into October most of the lettuce planted during August went to seed stalks. There was about seventy acres of the early planting and only about three cars of number fives were cut from this. There were about twenty acres planted after the first of September and while there was some of it that went to seed stalks they was about twelve cars of very good quality lettuce cut from this yield. It was reported that the cuttings from the late planting brought a sufficient price to bring the whole project in the clear. These people who made these plantings had lost the greater part of their plantings for the past three seasons so they moved their operations to the Imperial Valley.

There was no lettuce planted in the County during the spring of 1932 however the agent kept in contact with the local growers and discussed planting dates and varieties as well as methods of planting with them all during the summer.

During late July and the early part of August three cooperators started preparing small acreages for fall lettuce plantings. Mr. Jones of Amado planted about six acres and then had to replant as the soil was too dry for it to come through on the first planting. The agent advised him to saturate his beds and chill his seed before planting which he did on the second planting he got an excellent germination and it was just sending out its fourth leaves when a horde of grasshoppers moved in and cleaned the field in two days.

Mr. Dould planted a half an acre of lettuce and it made an exceptionally good growth and was one of the most even stands ever grown in the County. This patch showed what proper leveling before planting would do.

Mr. Karnes of Tubac planted about twenty acres of fall lettuce and it got off to a very good start. There were a few patches where there were skips due to improper irrigation for the lack of proper leveling. The heads are developing very uniformly and while there are a few seed stalks he is going to cut a large per cent of the heads for market. From the general appearance of the field it will cut about 170 packed crates of number fives to the acre. At the close of the report year the harvest has not got under way however he has cut a few crates and the heads are firm of very good quality.

ANNUAL REPORT
PROJECT NO.6.
LETTUCE PRODUCTION
SANTA CRUZ COUNTY 1932
CONTINUED

There is no question in the minds of a few cooperators and the agent that fall lettuce planted the first ten days of September will produce a good quality of head here in this County.

One cooperator is going to experiment with spring lettuce by making plantings during late November and during December of course this is only an experiment and may turn out to be an advisable practice but here tofore our best spring lettuce has come from planting made during the last half of February.

ANNUAL REPORT

PROJECT NO. 9.

RODENT CONTROL

SANTA CRUZ COUNTY 1932

The interest in the project of rodent control varies with intensity of the losses from these rodent pests. This project is carried on in all parts of the County, on irrigated farms, dry farms, hay meadows and stock ranges.

This past year the agent and the U.S. Biological Survey representatives worked with twenty six different cooperators during the year. There was a great deal of interest taken this year in the control of field rats through out the dry farm area of the County. These rodents were destroying large areas of hay meadow land besides throwing up large mounds in the cultivated fields. The agent and Biological Survey representative gave several demonstrations in the placing of poison for the control of these pests and the results were very gratifying. In all there were three hundred and ninety five pounds of poison grain used and a total of 2,902 acres treated during the year. At Mr. Larimore's where we treated over two hundred acres of hay meadows we got a 100% control and he cut an exceptionally large crop of native hay from the area that was very badly infested with these pests.

At Mr. Jackson's where these field rats were ruining his fields he reported that this year he had corn growing ten feet high where the heaviest infestation had been.

Besides this field rat control work we did a great deal of work with the cooperators in controlling pocket gophers.

At Mrs A. Johnson's ranch at Canille we demonstrated poisoning gophers and she reported that the work was very successful as there was about 90% less activity in the field than there had been.

At Mr T. Heady's in the San Rafael we demonstrated both trapping and poisoning these pests. Both of these demonstrations proved very successful as Mr. Heady not only cleaned the gophers out of his orchard and field he also continued his operations to a quarter section of grazing land where these gophers has ggod start.

In addition to these cooperators that we gave field demonstrations to, the agent gave poison and full instructions for mixing and placing to F. U. Allen of Nogales, Dave Schaefer of Anado, C. E. Shankle of Tubac, Mr. Benjamin of Sonoita, Mrs Beaty of Elgin, Mr. Stearns of Riverside, Mr. McFarland of Matagonia.

ANNUAL REPORT
PROJECT NO.9.
RODENT CONTROL
SANTA CRUZ COUNTY 1932
CONTINUED

J.Hathaway of Canille and Mr.Henderson of Patagonia.

All of these cooperators report that their efforts in controlling rodent pests this year have been well paid for as in most every instance they have had almost 100% relief from the pest they were after.

ANNUAL REPORT

PROJECT NO.10a.

RANGE CATTLE PRODUCTION & MANAGEMENT

SANTA CRUZ COUNTY 1932

This project covers every phase of the range cattle industry and is conducted in every part of the County. During the year the agent spent forty four days on this project and contacted almost every cattleman in the County.

One phase of this project that held a great deal of interest during the early part of the year was some feeding experiments. This was the first time cattle feeding on an extensive scale had been conducted in the County and it included feeding calves, yearlings, aged steers and old cows.

Mr. Larimore at Sonoita with the assistance of the agent culled out about 100 head of old cows and put them in a feed lot. These cows were culled not only with the view of improving the looks of his herd with regard to color and type but also with respect to the condition of their mouth. We dehorned all of his cattle during the early winter and while we had them in the chute we looked in their mouth and marked all of those with broken mouths and culled them out. We found that many of the young cows that were in poor condition had bad mouths and many of the old cows still had a full mouth. These cows were put on feed for seventy days and were fed Kaffir and Corn Fodder that had been run through a hammer mill, native hay and cotten seed meal. These cows were fed an average of two pounds of cotten seed meal, two pounds of corn meal, twelve pounds of ground kaffir fodder with the heads and all the native hay they could eat. They made an average daily gain of a pound and a half the first thirty days and the last forty days they made a daily gain of two pounds. They were weighed into the feed lot at an average of 773 pounds and were weighed out at the end of seventy days at 907 pounds. Mr. Larimore had kept a record on the cost of raising his kaffir and corn, besides the cost of grinding the feed and also the labor of feeding. When these cows were sold they brought enough to pay all the costs besides netting him more than he could have sold them for when he put them in the lot. As these old cows made such a good showing in feeding them out there is no question but what feeding out a desirable type of feeder cattle would be profitable here.

Mr. Parker put about 350 head of steers and calves on feed in a feed lot near Silver Station. Some of these were Mexican steers and some were white face steers of pretty good quality and all were in fair condition when put into the lot.

ANNUAL REPORT

PROJECT NO.10a.

RANGE CATTLE PRODUCTION & MANAGEMENT

SANTA CRUZ COUNTY 1932

CONTINUED

Mr. Sykes and Mr. Woodell put about 500 head of Mexican steers on feed in a lot near Tubac and as these steers had just come off of a good range they were in good condition for that class of stock.

Both Mr. Parker's, Mr. Sykes and Mr. Woodell's feed lots were fed on hegari silage, cain hay and cotton seed meal.

Mr. Parkers steers were fed about forty five pounds of silage and nine pounds of meal a day and made very rapid gains although towards the later part of the sixty days period their hair looked dry and their eyes were getting dull from the efforts of the heavy cotton seed meal feeding. It was explained that the reason for feeding the meal so heavy was because they were running out of silage and they wanted to force as much gain as possible before they had to dispose of them. If these steers could have been fed for about a hundred days they would have made some very economical gains and would have net the feeders a good profit but they were forced to sell before they were finished.

The steers that Mr. Sykes and Woodell had on feed were fed an average of six pounds of cotten seed meal, six pounds of ground cain hay and thirty five pounds of silage daily. They made an average daily gain of almost three pounds for the first sixty days. These steers were making excellent gains but had to be disposed of before they were finished due shortage of roughage. Unfortunately when these cattle had to be put on the market the price was low and it is reported that these feeders lost a little money on their project.

The agent furnished feed lot equipment plans to Mr. Larimore and also assisted all of those feeding cattle with feeding problems as well as furnished feed rations to a number of other cooperators who were growing out bull calves and heifers.

During the year the agent worked with 43 different cooperators on the following subjects pretaining to range livestock production. Grazing capacity of different ranges, herd improvement through registered sires, herd improvement through selection of heifers and culling cows, wearning and feeding heifers, winter feeding bulls and old cows, dehorning calves with dehorning paint, dehorning cows with saws and clippers, construction of corrals, chute and other labor saving equipment, water development, range colting, seasonal grazing to build up pastures, puting up supplementary feed and marketing.

ANNUAL REPORT

PROJECT NO.10a.

RANGE CATTLE PRODUCTION & MANAGEMENT

SANTA CRUZ COUNTY 1932

CONTINUED

In addition to this kind of work the agent with the assistance of the extension specialist Mr. Pickerell held a three night livestock school and also held a demonstration in the selection of breeding stock. The livestock schools were very well attended and were very interesting as the talks were supplemented by well prepared charts and lantern slides. In addition to the demonstration on selecting breeding stock we had a pen of yearlings and also showed the points to look for in selecting feeders. In the three night meetings and the demonstration there was a total attendance of 100 cooperators.

The agent has discussed increasing the calf crop by winter feeding bulls, keeping cows in better condition in the spring by feeding a small amount of cotton seed meal and by feeding heifers at weaning time. As the calf crop is the interest on the amount invested it is necessary to get a high percent calf crop to cut the cost of production down.

The agent and Mr. McGinnies and Mr. Scott from the University of Arizona during the summer made a survey of the plant growth on the several limestone areas in the County where losses occur shortly after the first frost each fall. Many of these plants have been under suspicion for some time however to date no definite information has been obtained on their poison content.

While Mr. Scott and Mr. McGinnies were here we were called to Mr. Arther Lee's ranch where he had lost several steers that he had on pasture. This pasture was a piece of bottom land where there is an abundance of Johnson grass. He had irrigated this field and the Johnson had made a good growth however there were several large areas that showed signs of wilting and when we made field tests for Prussic Acid we found considerable evidence of it. We advised him to move his steers off the pasture which he did and his trouble ended so we felt quite certain that the wilted Johnson had caused the losses.

Professor Stanley of the Animal Husbandry Department spent a couple of days in the County and he and the agent made a survey of several places to see if we could locate a suitable place to conduct a mineral feeding project. Mr. Larimore had a pasture that could be divided and started to conduct the experiment and Mr. Larimore was quite willing to cooperate however at the present time he is financially unable to make the necessary improvements. This is an ideal location for such a project it is so representative of the cattle County of this State.

ANNUAL REPORT
PROJECT NO.10a.
RANGE CATTLE PRODUCTION & MANAGEMENT
SANTA CRUZ COUNTY 1932
CONTINUED

The cattle of this County at present are in very good condition however in discussing range and cattle conditions with the stockmen the fact is brought out that while there is considerable grass on the ranges it is very weak due to the fact that there was very little rain during the fall and the grass didn't mature properly.

The majority of the stockmen through out this County have culled out a great many of their old cows so this coming spring if it holds off as dry as it has this fall the young stock should be able to rustle through with out the need of much supplemental feeding.

ANNUAL REPORT

PROJECT NO.12.

DAIRY CATTLE FEEDING & MANAGEMENT

SANTA CRUZ COUNTY 1932

This project has until this year held considerable attention throught out the County however due to the low price of cream many of the cooperators in the dry farm section who shipped cream have turned their cows out to pasture with the calves. This has interferred a great deal with the herd improvement phase of our dairy project as many of them are disposing of their dairy cows for range cattle as the range calves bring so much more than dairy calves as veal in this County. None of these cooperators were producing market milk but some had made considerable progress towards getting cattle that produced considerable milk. Several had made this improvement through selection of their best producers and mating tham with good type dairy sires. Others have secured heifer calves from dairies in various places of this part of the State and grew them out using feed rations suggested by the extension service. Both of these methods of improvement were just getting well established when this change had to be made.

The agent has assisted many cooperators with dairy cattle management problems, one of the most important being care of producing cows. The agent on many occasions has been called to various cooperators' places to assist them in determining stock trouble and recommending treatment.

The agent assisted Mr. Dalton, Mr. Peterson, Mr. Foltz, Mr. Jones, Mr. Putnam and Mrs Sprung in treating cows with infected udders. In several of these cases the cows were in very bad condition however by the careful and continuous treatment recommended by the agent all of these cows with the exception of one returned to good production with out the loss of a quarter of the udder.

The agent during the year has assisted Mr. Dalton, Mr. Hamblin, Mr. Putnam, Mr. Morales, Mr. Bejarano, Mr. Bailey, Mr. Foltz, Mr. Jones, Mr. Peterson and Mr. Rickwalt in mixing and balacing grain feed rations to use with the type of roughage that they have on hand.

The agent and specialist have also helped most of these same men with culling their herds to improve their milk production with a lower cost of production.

The agent and specialist assisted Mr. Hamblin in securing a regestered jersey bull calf. Mr. Hamblin has made some very great improvement in his herd through selection and culling and by mating this bull to his herd he will soon have a herd of jersy's as good as there is in the State.

Several of the dairymen in this County plant barley during

ANNUAL REPORT

PROJECT NO.12.

DAIRY CATTLE FEEDING & MANAGEMENT

SANTA CRUZ COUNTY 1932

CONTINUED

the winter for spring pasture. This practice has given them a little benefit but this past year the agent has talked planting wheat early in the fall for pasture and many of them are trying it out. By putting wheat in early it can be pastured during the winter as well as in the spring and then to they can pasture it longer each day then they can barley and it don't give the milk ~~the~~ disagreeable taste.

During the early summer one of the dairymen who had been selling his products to the local distribution plant decided to retail his own milk and announced that he would cut the price of milk per quart down to where he would have a sale for all of his milk and that he intended getting more cows and double his out-put.

The agent called several meetings of the dairymen who were producing market milk and tried to develop an organization so as to maintain a standard price for Grade A raw milk all of the producers with the exception of this one were in favor of it and all the talking of the agent and the balance of the producers couldn't convince him it would be more profitable to maintain the price than to cut it.

Milk before this man started retailing was retailing at thirteen cents a quart for Grade A Holsten milk and fifteen cents for Grade A Jersey milk. The cut in price was made and now Grade A milk sells anywhere from five to ten cents a quart.

The agent furnished Mr. F. F. Putnam with plans and specifications for a milking barn and he built a six stanchion barn with concrete floor and feed trough.

In additions to this work the agent arranged for the cooperators to have their cows T. S. tested. As this was not a Federal cooperative test only those producing market milk had their cows tested.

The agent planned a schedule and had all arrangements made so there would be no time lost so Dr Hicks made a price of 50¢ per head for testing.

There were twenty five cooperators assisted in this work and the agent had the work arranged so that it only took two days to inject 469 head of cattle in two days. Every one was ready at the time the agent told them we would be there so we didn't miss our schedule over ten minutes all day. at this test everthing passed with a clean slate so we feel very proud of the dairys supplying the town with milk.

ANNUAL REPORT

PROJECT NO. 15.

POULTRY FEEDING & MANAGEMENT

SANTA CRUZ COUNTY 1932

This project deals with every phase of the poultry industry and as most of the flocks in this County are raised as a side line to other operations practically all of the work must be done through individual farm visits.

There were two poultry flocks in the County at the beginning of the year that were of commercial size however now there is only one.

Mr. Peterson the largest poultry producer here and the agent during the year called several meetings of the poultry producers for the purpose of improving market conditions as well as discussing general poultry problems and organizing a feed buying association.

During January 1932 the price of eggs dropped to 17 cents a dozen which was a low price never heard of around here before at that time of year.

The price of feed and other costs of producing eggs had not come down in proportion so the agent called a meeting of the poultrymen to discuss stabilizing egg prices and cutting production costs. At this meeting Professor Imbleton from the University of Arizona Poultry Department was here and gave us an excellent talk on marketing of poultry and eggs. At this meeting it was decided to get a seal and advertise Santa Cruz County fresh eggs. At this meeting a committee was appointed to see all of the local merchants and ask them not to make leaders of local eggs. The producers at this meeting also agreed to all hold their eggs to the Los Angeles price plus three cents which is what it costs to get them in here from the coast. The result of this meeting was quite beneficial as the merchants started paying 20¢ a dozen for eggs in cases and 22¢ in cartons which was an increase of three cents over what they had been paying for eggs in case lots.

While eggs were selling for around 17¢ a dozen many of the producers were going in the red as that price was about what it was costing most of them to produce a dozen eggs. Most of the producers were using a commercial mash and asked the agent what they could do to cut their feed costs. The agent got prices on feeds and calculated a mash formula from feeds available that would cost about \$1.75 a hundred. This was about .75 to \$1.00 a hundred less than they were paying for mash.

Mr. Peterson who at this time had a flock of about 3500 laying hens was producing his eggs for about 9¢ a dozen feed cost. He buys his feed in large quantities and mixes both his scratch

ANNUAL REPORT

PROJECT NO.15.

POULTRY FEEDING & MANAGEMENT

SANTA CRUZ COUNTY 1932

CONTINUED

and mash.

Mr. Peterson and the agent tried several times to get the producers together to form a feed buying association so that they all could get the advantage of buying in feed in large quantities but the association fell through for the lack of finances.

In addition to assisting the cooperators in cutting down on their cost of feed the agent recommended and assisted quite a few cooperators in cutting out a large number of brooder hens and also undesirable pullets that were running the production costs up very materially.

At this time the agent urged all of the poultrymen to keep an accurate record on feed costs and production so that we could more easily check to see what the losses were caused from.

In the spring of 1932 there were only about 60% of the baby chicks purchased that there were in the spring of 1931. Mr. Peterson who bought the same this year that he did last year raised them the first three months inside the house on a concrete floor in order to keep them from diseases and help prevent the development of coccidiosis. He reported that his chicks didn't look as though they had the vitality that last years chicks had and that his losses were running a little higher for the same periods of time. He had trouble during the early fall with his pullets as quite a number of them got a paralysis and postmortem examination revealed evidence of coccidiosis and also tape worms. As he had about therr thousand pullets we recommended a flock treatment of lye for the tape worms and also advised adding some alfalfa leaf mash to the mash to increase their vitality. In the late fall these pullets were very slow in coming into production and at the time of writing this project they were only producing about 15%. For the care, feed and opportunity that these pullets had they are for below the others Mr. Peterson has produced.

Two of the producers that last year purchased between two and three thousand baby chicks didn't buy any at all this year and a great many of the cooperators who usually get around 500 chicks each spring didn't get any either.

There were several lots of Austre White baby chicks purchased in the County this year and they were very hardy and all developed into big healthy pullets.

ANNUAL REPORT

PROJECT NO.15.

POULTRY FEEDING & MANAGEMENT

SANTA CRUZ COUNTY 1932

CONTINUED

Mr. Putnam who a year ago raised a hundred of these pullets kept a record on them and they have made an excellent record of production having averaged over a sixty five per cent production for their first year.

The agent has assisted a great many of the poultry cooperators with baby chicks feeding and brooding problems. This past year three of the cooperators who had small flocks of baby chicks and were using the extension service system of feeding reported that they lost less than 2 per cent.

The agent gave several demonstrations on the correct way to post a chicken and explained what conditions to look for in certain diseases.

The agent was called on three different occasions to cooperators farms to determine the trouble with the chickens and found it to be chicken pox. Very little loss was suffered except to the egg production as measures were used at the beginning of the outbreak which controlled the spread of the disease.

The cooperators were assisted in many other phases of poultry management especially with parasite control both internal and external. The agent also assisted several in correcting defects in their poultry houses that was the cause of much of the colds in the chickens.

The poultry industry in this County I believe is a little behind what it was at the same time last year as there are fewer pullets replacing the old hens and in general the pullets don't equal those produced last year.

The agent has noticed that in the fall when the old hens go into molt and drop in production many of the producers cut down on the mash. In every case that has come to the agents attention he has advised them to try and force the hens to eat more mash and also increase the alfalfa meal content so as to help the hen assimilate more mineral and protein and get back into production sooner.

ANNUAL REPORT

PROJECT NO.18.

COUNTY & STATE FAIRS

SANTA CRUZ COUNTY 1932

During January and February of this year the agent spent quite a little time with the cooperators selecting an exhibit to display at the Southern Arizona Fair in Tucson during the later part of February.

As we had made a very good showing at the State Fair in the fall with our display we put our exhibits away to use later. When the agent inspected it to see what would have to be replaced it was found that most everything had been damaged by rats so the agent had to revisit all the places and secure new exhibits.

With these exhibits we made a very good showing at the Southern Arizona Fair as we won six first places, six second places and twelve thirdplaces. These prizes of exhibitors from this County were as follows A.M.Benjamin 1st in White Beans, 1st in Sudan Grass, 2nd Mexican Cashaw, 3rd Crookneck Cashaw, 3rd Pie Pumpkin, 3rd Sibley Squash, 3rd White Corn, 3rd Pinto Beans and 3rd Sudan Grass.

F.M.Daugherty 1st Oat Hay, 2nd Alfalfa Dairy Hay, 2nd Alfalfa Milling hay.

H.J.Grant 3rd Mild Maize Heads,

C.E.Shankle 2nd Milo Maize Heads.

R.H.Ellis 1st Black Amber Cane Sheaf, 2nd Red Amber Cane Sheaf, 3rd Honey Drip Sorghum Seed.

T.Griffen took a 3rd place with his entry on Native Baled Hay.

Miss Virmond the Home Demonstration Agent made an excellent showing with her exhibits of canned foods and fancy work and in all it was quite a Fair for Santa Cruz County Exhibitors.

This year the agent and cooperators had to put on the County Fair here with out the assistance of the County or State.

The agent called a meeting the later part of July and it was decided that we would give a series of dances to finance the Fair with. These dances net us a little over a hundred and fifty dollars. We had a balance of almost a hundred dollars from last year.

The agent and Miss Virmond the Home Demonstration Agent revisited the premium list and it was mimeographed in the office. The agent took some posters and worked them over and put them up around town to advertise the Fair.

ANNUAL REPORT

PROJECT NO.18.

COUNTY & STATE FAIRS

SANTA CRUZ COUNTY 1932

CONTINUED

The agent and cooperators worked at the fair grounds several days before the fair and got everything ready. By these methods very little expense was had and after all bills were paid including a \$ 50.00 insurance premium we had a balance of about eighty dollars.

The exhibits at the fair this year were equal in quality to last years and there were more entries even though there was no premium money offered this year.

The cooperators who exhibited Farm Crops and Vegetables this year in the County Fair were A.M.Benjamin, Chas Davis, J.A.Mc Carty, G.G.Smith, Leo Rickwalt, J.H.Brooks, J.Lewis, C.C.Putnam, Frank Seibold, R.Stearns, C.Everheart, J.F.Jackson, Dorothy Sprung, Marie De La Osa, Mrs Nalley, Mrs Harrison and A.G.Valenzuela.

The Poultry Exhibitors were C.C.Putnam, Dave Valenzuela, James Wilson, James Sexton, Mrs C.A.Gardner, Dorothy Sprung, Stayton Brooks, Chas Davis, Edwin Gardner and Russell Sprung.

Miss Virmond, Mrs Blaboon, Mrs Larimore, Mrs Davis and some Patagonia High School Girls looked after the womens department of the Fair and it was an excellent display of Home Cooking, Canning, sewing.

The Rural Schools displayed some of their project work and for the time that they had to prepare it it was exceptionally good.

The agent and Miss Virmond arranged for a Baby Health Clinic and through the cooperation of the County Nurse and four local Doctors some eighty pre school age children were examined.

The agent arranged a short Rodeo sports program of Calf Roping, Steer Tying and a couple of Horse Races as well as a Polo Game.

The Fair was well attended and every one complimented the agent and cooperators on the splended Fair as many felt that due to a bad season and other conditions the fair wouldn't be a success.

The best exhibits from the County were sent up to the State Fair by the County agent.

ANNUAL REPORT

PROJECT NO.18.

COUNTY & STATE FAIRS

SANTA CRUZ COUNTY 1932

These exhibits were made an exceptionally good showing as Mr. Benjamin peck of Pinto Beans won 1st and sweepstakes, Mr G.G.Smith's ten ears of Yellow Corn won 1st and sweepstakes, Mr.Benjamin's Feteritta Heads won 1st place, Mr.J.A.Mc Carty's Hegari Heads won second place, Mr C.O.Putnam's peck of Milo Maize won 2nd prize and J.Lewis won 2nd prize with his entry of Cashow Squash.

The Domestic Science entries also placed very favorably at the State Fair so allin all it was a successful year for Santa Cruz County cooperators.