

ANNUAL REPORT

of

K. K. Hennes

County Agricultural Agent

Pinal County

Arizona

For Year Ending November 30, 1935

A N N U A L R E P O R T

O F

K. K. HENNESS

COUNTY AGRICULTURAL AGENT

PINAL COUNTY

ARIZONA

FOR YEAR ENDING NOVEMBER 30, 1935

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III. The Agricultural Situation in Pinal County

Upland cotton is the main crop in Pinal County, with alfalfa taking second place, followed by Pima cotton, of which there were practically 8,000 acres in 1935.

Growing conditions for cotton were again favorable. Losses from insects were light, and cotton set on well, with the result that acre yields are again high. Present indications are that the 1935 crop will be around 17,000 bales of short cotton, and 3,000 bales of Pima. With present prices of cotton netting around 13 cents a pound, including premiums, the average cotton grower is showing a profit. An increased allotment of tax-exemption certificates has been of material aid in this respect, growers receiving the same treatment this year as do those in the other counties of the State.

The first and second cutting alfalfa hay went out of the county to drouth areas at a price range of from \$10 to \$12 per ton, f. o. b. cars. As a result hay prices locally have held up fairly firmly thruout the year, with no indication of a surplus to be stored. The fall crop is now bringing \$10 per ton. With Pima cotton now bringing 25 cents, there is considerable demand for lands that have been in alfalfa for Pima cotton planting, and this should reduce the production of hay in 1936. More cattle are being fed than last year, and some 10,000 head of sheep are in the county for winter feeding and lambing. This should reduce the amount of 1st and 2nd cutting hay next spring.

Disease has practically wiped out the lettuce industry at Eloy, the only lettuce being grown there this year being on new lands not previously in crop production. The pea crop was light, but was marketed at satisfactory prices.

There is a more active interest in poultry and egg production, particularly among clients of the Rural Resettlement Administration. Grain prices are low in comparison to prices of eggs and poultry, and a good profit is being made on poultry operations. There has been some expansion in turkey production, but on account of many growers selling eggs and poultz early and keeping stock from later hatches the Thanksgiving marketing will be small.

The dairying industry has gone behind during the past year, and present production is mainly for market milk. Higher prices of cattle has led to the sale for slaughter of a good number of dairy stock.

In summing up the present situation, farmers as a rule are better off than last year. Much property was advertised for tax sale in November, and a good number of farmers paid up taxes which had been delinquent for as long as five years. A number of parcels of land having water-rights but being of poor quality have been sold, and the

water rights thus acquired have been transferred to better lands lying adjacent to the Project. Water assessments will be approximately the same as last year, as will power under the various electrical districts.

IV. Status of County Extension Organization

1. Form of Organization - Changes and Development

Work in Pinal County is being carried on largely thru the Pinal County Farm Bureau. There is one active local bureau in the County, and five districts maintain representation in the County Farm Bureau. The County Farm Bureau is composed of two delegates from each of the five districts, which constitutes the Board of Directors, and which carry on the business of the County Farm Bureau.

Some work towards building up the membership of the Farm Bureau was done during the year, and an active membership drive is now being made.

The Board of Directors and Secretary of the Pinal County Farm Bureau have furnished the Agent fine cooperation, as have the Board of Directors and Secretary of Pinal County Electrical Districts Nos. 2 and 4, the Board of Directors and Secretary of the San Carlos Irrigation and Drainage District, and the various civic clubs and chambers of commerce.

2. Function of Local People, Committees and Project Leaders in Developing the Program of Work.

Practically all work carried on by the Pinal County Farm Bureau and the local bureaus is thru committees. Committees are appointed to work on various subjects of interest, the County Agent acting as Secretary of the various committees. This method gives good results. Project leaders assist in putting over the various projects.

3. General Policies

The relationship between the County Agricultural Agent's office and that of the County and local Farm Bureaus has been most cordial. The Farm Bureau expects to and does work with the Agent in anything which may be helpful to the agriculture of the County, and during the past year results have been gratifying.

V. Program of Work, Goals Established, Methods Employed, and Results Achieved.

1. Factors Considered and Methods Used in Determining Program of Work.

Extension Projects upon which work is to be done are outlined as the need for same develops. From time to time various Projects are completed, or discontinued, and carried on as Miscellaneous Work. During 1934 work was carried on under the following Projects:

- II. Improved Cotton Irrigation
- III. Improved Conditions on Tight Lands
- V. Seed Improvement
- VI. Boys' and Girls' Club Work
- VII. Rodent Control
- VIII. Better Sires
- X. Land Levelling and Preparation
- XII. Agricultural Survey of Pinal County
- XIV. Poultry Feeding and Management
- XV. Plant Disease and Insect Control

Other work not covered by these Projects has been handled as Miscellaneous Work as the problems arose, and at such times as the Agent or local organization deemed desirable.

Marketing problems are handled as Miscellaneous Work.

The cotton, wheat and corn-hog adjustment programs of the Agricultural Adjustment Administration have required a large portion of the Agent's time during the year. Some work was done in completing the cattle and sheep and goat purchases in the early part of the year. Work has been done on all the above Projects. Of interest is the fact that on account of so many office calls by farmers with reference to their Adjustment contracts we are able to accomplish as much or more along extension lines as in the past. This is of course due to being able to contact more people and discuss with them various problems relative to their farming operations while they are in the office with reference to their adjustment contracts.

2. Project Activities and Results

(a) Cereals

Work in cereals has consisted mainly in the encouragement of the use of good seed, particularly with hegarí and milo maize. Foundation seed was secured from the Mesa Farm of the Agricultural Experiment Station for use in plantings here in order to increase the supply of locally grown pure seed.

Reported elsewhere is work of this office with reference to the corn and wheat adjustment programs.

(b) Legumes

Two plantings of pure Chilean alfalfa seed were made this year, on the farms of S. P. Soule at Randolph and Dr. C. K. Haber of Casa Grande.

A circular letter was mailed to 70 alfalfa growers, asking that they list their pasture if they had same for sale. Some 2500 acres were listed, and thru arrangements made with Jerrie W. Lee, Secretary of the Arizona Wool Growers Association, sheep were secured for winter pasturing on Pinal County lands. 4500 head are now on pasture, and are assisting in providing a market for local pasturage. This work was handled thru the Alfalfa Marketing Committee of the Casa Grande Farm Bureau, and the feeding of sheep was encouraged as the sheep will stay here on pasturage until May 15, approximately, thus disposing thru pasturage of a considerable amount of alfalfa which might otherwise be cut for hay.

Heavy winter irrigation of alfalfa was urged last spring by the Agent, at a time when seasonal rains were heavy and the canals were full of free water. Growers who wet their lands thoroughly at this time were able to produce more and better hay thruout the season.

(c) Cotton

A supply of pure seed grown by the Storey Brothers of Casa Grande furnished excellent planting seed for a number of growers. Two 1935 pure seed plantings were made, one by the Storey Brothers, and one by the Western Cotton Products Company at Eloy. Of this seed there will be available some 60 tons for planting next year, all of which has been certified by the Arizona Crop Improvement Association, with Mr. C. J. King of the Sacaton Station cooperating.

No variety tests were conducted this year. Twenty-one days of the Agent's time was spent with cotton growers in pure seed work, and in problems of seed-bed preparation, irrigation methods, and cultivation.

It is now becoming general farm practice to water heavily before irrigating, and then to hold off water until the cotton plants have established a good root system. Improved cotton irrigation practice has received considerable attention this year, and in general the cotton growers of the county are doing a better job of farming. records of this office show that 30 farmers used better seed this year, and 19 improved their irrigation methods upon suggestions of the Agent.

Sixteen cotton farmers were advised relative to the preparation of leases. We estimate that 45 are keeping records thru encouragement from this office.

(d) Home Gardens and Landscape Gardening

4-H Club did work on both home gardens and landscape gardening. They held a flower show and vegetable exhibit, showing their produce at the County 4-H Club Fair.

The Agent made twenty farm visits with respect to home gardens, market gardening and landscape gardening, and 39 farmers called at the office for information on these subjects.

(e) Market Garden and Truck Crops

The acreage of truck crops in the County decreased this year, as did production. Disease has practically ruined the lettuce business in the Eloy section, and the 300 acres being grown this year was on new land not previously in crop production. Poor seed contributed to the short pea crop. No vegetables of consequence are being grown in other sections of the County.

(f) Fruits

Two farmers adopted better pruning methods, two adopted better orchard irrigation methods, and five growers of pecans used zinc-sulphate in the control of die-back in young pecan trees. Specialists from the University visited Araivaipa Canyon and discussed various problems in fruit growing and orchard management with growers there.

An inspection of the several cooperative date plantings was made by the Agent. One planting, on heavy tight soil commonly known as "slick" land is doing well and offers considerable promise. Three farmers planted offshoots grown on palms in these cooperative plantings.

(g) Rodent and Insect Control

Records covering the number of farmers securing strychnine from the office of the County Agent for use in controlling rabbits and ground squirrels are not available at the date of the writing of this report, but may be found in the statistical report. Records show that 54 farmers called for poison at this office, and sixteen farm visits on the problem of rodent control were made by the Agent.

Gopher control work continued, under the direction of the representative of the U. S. Biological Survey, in the lands of the San Carlos Project and Electrical District No. 2, this party treating canals, laterals, and private lands.

Two trappers were secured for help in controlling losses of livestock and poultry by coyotes.

Spring rains which made good feed on the desert delayed customary losses from rabbits in cotton and alfalfa fields, though losses were severe late in the spring. The Agent distributed poison at cost, securing same from the Maricopa County Farm Bureau in Phoenix.

A shipment of 200 sacks of bran and sodium arsenite to mix same was received from the government, and stored at Eloy pending damage from grasshoppers. Few grasshoppers appeared and consequently none was used at Eloy. A small outbreak in the Coolidge section in alfalfa fields was brought under control. This bran is stored for use next spring or fall should an infestation of grasshoppers occur.

Lettuce growers of the Eloy section dusted for control of looper worms and beet web worms, but the infestation was light, the poison being used largely as a preventative rather than for control of an infestation. Cotton was practically free from insect damage, leafworm appearing in a few scattered fields in the county.

Twenty-two farm visits were made with reference to insect control, and forty-eight farmers called at the office for information. Many of the latter were growing small home gardens or ornamental plantings.

Damage to cotton and alfalfa fields from root rot were larger this year than last. A method demonstration was started by C. K. King of the Sacaton Station and the Agent on the farm of E. W. McFarland in the Coolidge section, this demonstration to show the method of control of root rot with heavy applications of barnyard manure.

(h) Agricultural Engineering and Soil Reclamation

Five and one-half days were spent by the Agent on Agricultural Engineering problems, and work was done in three communities. Thirty-two farmers used the office levels in continuing work in levelling outlined by the Agent. Three method demonstrations were given by the Agent, with 14 farmers present.

Work in previous years by this office has made a large number of our farmers conscious of the value of levelling in crop production, and many of those farmers with whom we worked are now, year by year, continuing work outlined by the Agent.

Work was continued on the demonstration area of "tight" land on the H. B. Holt ranch. Doy S. Stiles, who has leased the balance of the farm, took care of this planting. Eight farmers visited the demonstration during the year in company of the Agent.

(i) Poultry

Work with poultry was done in five communities. Specialist Rowe visited the county twice during the year, visiting a majority of the poultrymen and discussing with them problems of management and feeding. The Agent spent $7\frac{1}{2}$ days on this work, making 20 farm visits during the year. Thirty-four farmers called at the office for information relative to their poultry operations.

One outbreak of pox in turkeys was brought under control, the flock being vaccinated.

v

(j) Dairy

Very little work was done with dairy cattle this year. Seventeen farm visits were made, and twenty-three office calls made by dairymen. Most of these were in the interest of securing information relative to marketing surplus dairy stock and disease control.

(k) Livestock

Work of cattle buying was continued during the early part of the year, and problems of livestock management were discussed with producers when these visits were made.

Four cattle feeders were assisted in securing finances for the purchase of feeder cattle. The Agent made a number of farm visits discussing methods of feeding cattle, both in pens and on pasture. Two feedlot plans were drawn up by the Agent for the use of farmers planning on pen feeding cattle.

The Agent and Specialist Pickrell visited the W. W. Huggett ranch in the eastern part of the County and selected a pen of calves for exhibition at the Tucson Livestock Show.

(l) Farm Management

We estimate that 45 farmers are keeping records of production. A total of fifty-five farmers were assisted in securing credit for carrying on their operations during the year, four of which are previously reported under Livestock.

The Agent handled crop production loan applications again, and a final check-up by R. D. Pike of the Crop Production Loan Office shows that the percentage of collections for that year was 100.

Assistance was furnished the local director and inspector of the Arizona Farmers Production Credit Association.

Hundreds of copies of various publications relative to the adjustment program were mailed to growers of the county.

(m) Marketing

The Agent has assisted local growers to find a market for their pasturage, and has placed twenty-four men in touch with livestockmen wishing to purchase feed. Hay growers have been encouraged to put up better hay, the Agent visiting them and outlining best methods of preparing hay of high quality. Vegetable and fruit growers are receiving regular daily quotations from the Bureau of Agricultural Economics, and a list of cattle feeders was made up and sent to the Los Angeles office of the Livestock Market News Reporting Service. They are now receiving daily reports on cattle marketings. Turkey growers are being encouraged to market thru the Turkey Growers Association.

(n) Community Activities

No fair was held in the County this year, other than the 4-H Club Fair at Florence, and no collection of exhibits was made as in former years.

This office cooperated in outlining a project for the E. C. W. in the control of flood water in the vicinity of Eloy, with the result that a C. C. Camp has been located there, and work has started. Cooperation of the San Carlos Irrigation and Drainage District, the County Board of Supervisors, and farmers and cattlemen in the area affected has been secured. This Project should result in eliminating flood damage to farms in the Eloy section, to the Railroad, and to the highways and canal system. It should also, by spreading flood water, increase the carrying capacity of range lands lying south of the cultivated area of the County.

The Agent has served as a member of the County Debt Adjustment Committee, and is serving as an advisory member of the Committee on Rural Resettlement.

(o) Miscellaneous

Slightly more club work was done during the year than last. A complete report of the enrollment and completions in the various clubs may be found in the statistical report.

A club fair was held, the second Annual Pinal County 4-H Club Fair, with 500 people attending. Produce from the garden clubs was exhibited, work from the sewing and handicraft clubs, and livestock and poultry from livestock clubs. A contribution of \$50 was secured from the County Board of Supervisors for premiums for exhibitors. A large delegation later attended the 4-H Club Conference in Tucson, twenty-eight club members attending.

Two club leaders meetings were held during the year, and plans for the 4-H Club Fair and work for the 1935 fall season outlined.

The Agent was appointed a member of a committee of three from Pinal County to go to Washington in an endeavor to receive for the cotton producers of this county the same consideration which was given the producers of other counties of the State. The matter was presented to the officials of the Cotton Section, and finally to Secretary Wallace. The regulations were so modified that in 1935 our producers received the same treatment given those of the other counties, which is all the local growers asked for. A delay of one year in getting this consideration, however, resulted in severely penalizing the cotton growers of this county.

The period of January 21 to 24 was spent in Tucson at Annual Conference.

The Agent arranged for numerous speakers for Farm Bureau meetings, and assisted the program committees in their work.

On July 18 and 19 the Agent attended an extension conference in Prescott, at which general problems of agricultural extension work and rural rehabilitation were discussed. Annual Leave was taken from August 20 to 31, inclusive.

During the late summer the entire office filing system was gone over and put in order. This should result in greater efficiency.

A conference was attended in Tucson on September 5 for the purpose of outlining projects under the C. W. A.

Various problems in connection with governmental activities including C. W. A. projects, rural electrification, etc, have come up during the past year, and the Agent has worked with various parties interested.

VI. Emergency Work - Agricultural Adjustment Administration

Cattle: Two hundred and twenty-four head of cattle were purchased after November 31, 1934. This made a total of 5,121 head of cattle purchased during the program, 848 of which were condemned.

Sheep and Goats: Six hundred and thirteen head of goats were purchased in the early part of this year.

Corn-Hog: Compliance on the Corn-Hog contracts of Pinal County was handled thru this office, and checks distributed. The sign-up of new contracts was also conducted, six farmers continuing with their contracts. Only one of those dropping their contracts produced as much as 25 percent of their base during the year.

Wheat: Three wheat acreage reduction contracts were signed, this being but a small proportion of the wheat acreage of the County, but representing practically 100 percent of the acreage eligible for contract.

Cotton: The Agent spent several days in Tucson with various officials of the Cotton Section and State Allotment Board studying the cotton program. During April the Agent and Committeemen completed the signing of new contracts and contract supplements, and forwarded same to the State Board. Compliance forms were filled out during the summer, all fields being measured, including those not under contract. Bankhead Applications were taken during the later summer, and certificates have all been issued with the exception of one small lot which the owner refuses to sign for, contending that she is due an additional amount. Numerous meetings of the community and county committees were held during the year. At the date of the writing of this report a majority of the first and second rental checks due contracting producers have been delivered. Forms C. A. P. 1 covering all sales of cotton up to approximately November 15 have been filed in this office, pending word from Washington.

A summary shows that there are 20,404 acres of upland cotton in the county this year, and 7,620 acres of Pima, with 9,527 acres being rented to the Secretary of Agriculture.

VII. Outlook and Recommendations for Coming Year

A study of the agriculture of Pinal County furnishes the following picture:

a. Prices of upland cotton are at a level which will encourage further plantings. Adjustments need to be made in the allotment bases so that a more equitable allocation of tax-exemption certificates may be made. Without such an adjustment, there will be many farmers who have low averages on their farms who will farm what they can receive tax-exemption certificates for, and will farm the balance of their cotton acreage in Pima cotton. Such could be avoided if an adjustment could be made which would be more nearly representative of present productiveness of the various farms. With such an increased acreage of Pima cotton, it is of course problematical what the price received for this staple may be. Present high prices of Pima cotton as compared with last year (it is now selling at 25 cents per pound) will further stimulate the planting of this crop.

b. The alfalfa acreage is now at a point where there is being produced more hay than the market will take at a fair price. Further plantings of Pima cotton on lands now in alfalfa should remove from production some of this hay land. The feeding of cattle and sheep should be encouraged, in order that less hay may be produced for export sale.

c. Producers of feed crops such as hegari and milo are marketing them at prices slightly over 50 percent of that of a year ago. Large plantings of such summer grain crops in the southwestern cotton states have removed that market, and the local market must take what is produced here. Higher prices of cattle, however, have resulted in considerable amounts of hegari and milo being purchased for feeding. In the adjustment program means should be taken to prevent the producer of basic commodities from producing non-basic commodities on his rented ground to compete with those produced by farmers who are receiving no rent or parity checks, but are dependent upon their non-basic crops for their operating expense.

d. The vegetable industry of the county has received a severe set-back. Disease in lettuce prevents the growing of this crop on any but new lands not having been in this crop before. The acreage of peas has expanded but crops were light this year.

e. Poultry producers have a good market, and feed grains are cheap in proportion. The poultry business is expanding in the county.

f. Cattle prices are considerably higher than a year ago, and the rangeman has benefitted greatly. Cattle feeders, however, have found it very hard to market their fat cattle at a price sufficiently above the feeder price to show a profit.

g. While no great amount of water is available for irrigation in 1936, with the pumps which can supplement gravity water crops are safe for next year, particularly if there are spring or summer rains. Power rates are being held down to a satisfactory level.

h. Demands upon this office have been greater than last year, notwithstanding the discontinuance of the livestock buying program. Extension work has been more effective during this year, and more work has been done. Work in cotton adjustment has required a large portion of the Agent's time, and very little trouble has been had in the administration of the program. It is believed that this lack of trouble is due to careful preparation of the contracts upon which the Bankhead is based, and to the sincere efforts of the various committeemen who have labored to make the program a success.

With these considerations in mind, it is apparent that the larger efforts of this office should be centered upon the following program:

a. Efforts should be made to the end that producers of cotton in the county may be treated more equitably in the adjustment program.

b. The most efficient use of irrigation water should be encouraged, in order to conserve and make best use of the supply available. Work should be done on improved irrigation methods and irrigation equipment.

c. Further alfalfa plantings should be made, but with this increased acreage should come livestock feeding, as the present market for alfalfa can be easily glutted.

d. Most farmers of the county are now glad to cooperate in any effort for the general good. A strong farm bureau should be built up, in order that work may be more effectively done.

e. Club work should be strengthened. Arrangements should be made for the employment of a part time club leader, or to pay the expenses of a club leader to supervise various clubs. At the present time the Agent does not have the time to give this work the attention it merits.

f. With the present tendency to increase the poultry production of the county, it is desirable to spend considerable time with these men in their feeding and managerial problems. Attention may well be paid to the marketing of eggs as this business develops.

g. Those practices which make for lower production costs should be encouraged. Good seed and seed stock and cultural methods which enable the grower to produce a higher quality article are necessary.