

ANNUAL REPORT

STATE: ARIZONA

COUNTY: YAVAPAI

REPORT OF CHAS. U. FICKLELL

COUNTY AGRICULTURAL AGENT

FROM DECEMBER 1, 1922 to May 15, 1923

## I STATUS OF COUNTY EXTENSION ORGANIZATION

The form, function, and general policies of the extension organization was taken up quite thoroughly in the agents report covering the period from Dec. 1, 1921 to Nov. 30, 1922.

## II PROGRAM OF WORK, GOALS ESTABLISHED, METHODS EMPLOYED AND RESULTS ACHIEVED.

(1) Factors considered and methods used in determining programs of work other than the factors discussed in report of Dec 1, 1921-Nov 30, 1922.

The available service of specialists has been a very important factor in arranging a program of several phases of the work. The agent has found that specialists were unable to spare as much time as could have been profitably used in projects in the following lines of work, Boys and Girls Club Work, Horticulture, Poultry, Rodent and Predatory Animals, therefore demonstrations in these branches of the work had to be limited

### (2) Project Activities and Results.

#### (a) Soils

As was stated in the report of last year no commercial fertilizers are used in the County but farmers are appreciating the value of barnyard and green manure more each year.

Several carloads of goat and sheep manure have been shipped out of the County during the past year to points in California, the Agent believes that this has its effect on some of the farmers in showing them what valuable fertilizer is produced right here at home.

Other than the taking better care of barnyard manure and the plowing under of green manure crops the work in soil improvement is fairly well covered in the lower portion of page 7 of the Statistical Report.

#### (b) Farm Crops

Four farmers who participated in the crop demonstrations last year are again taking part this year. Forty two farmers planted improved seed corn and twelve planted improved seed wheat, all of whom treated their seed for smut.

The Agent has three cooperators in growing demonstration plots of alfalfa, and has assisted and advised 12 others in securing improved alfalfa seed. Five farmers have been furnished with information regarding sweet clover, three in the growing of cowpeas, six in the growing of Sudan Grass and seven in the growing of hegari all of whom were assisted in securing improved seed.

Twelve farmers were given information and assisted in securing improved beans for planting. In two cases the agent advised owner regarding the restoration of pasture land, in one case the agent assisted the owner in securing a supply of blue stem seed from Colorado.

Owing to the fact that there is always a large demand for forage from the range sheep and cattle outfits and for dairying near the larger towns and that the cost of transportation on horticultural products is in many cases very high, farming operations in the county are confined largely to the growing of forage crops.

Climatic conditions also are a determining factor. There is considerable land located in the county that would be suitable for wheat growing if the annual rainfall, which would be sufficient if distributed so that there would be sufficient moisture during the late spring and early summer.

Corn for grain is not a sure crop here except in the irrigated sections as in many seasons growth does not start until the summer rains set in and this does not allow sufficient time for maturing before frost.

#### (c) HORTICULTURE

The agent has one result demonstration under way in the growing of Irish potatoes he has assisted 10 farmers in securing improved seed potatoes all of whom treated their seed according to directions furnished by the agent.

Next to livestock the agent has more demonstrations started in tree work than anything else, there are seven result demonstrations in pruning and six in walnut grafting at the locations of each of demonstrations method. Demonstrations were conducted in bark grafting, on walnuts, <sup>and</sup> whip and cleft grafting on deciduous trees, planting, heading and pruning.

The agent has furnished information as to varieties and where nursery stock could be secured to 25 farmers for securing apple, peach, apricots, and plum trees and grape vines, and increased interest in grape planting was very noticeable this past season.

#### (d) Livestock

The outstanding features of the work in this line have been better sires and increased calf crops. There are, however, several factors that greatly influence the calf crop such as range improvement, improved methods of cattle management both of which depend largely on the range being fenced.

The agent has three cooperators in this work, one who has been operating on a fenced range for a number of years and two more that are just now under way.

Some of the results brought out from data gathered so far are that it is possible to increase the carrying capacity of most of the ranges of Yavapai County at least 25%, and that the average calf crop can be increased 50%.

Although dairying is quite limited in the county those engaged in the industry displayed a good spirit of cooperation with this office. There are now 300 cows awaiting the arrival of a United States Bureau of <sup>Animal</sup> Industry representative for the purpose of administering the tuberculin test.

An association has been formed for the purpose of improving the quality of milk produced and determining better methods of marketing.

Next to Rodent control work it is believed that Poultry work interests the largest number of people in the county. There are eight cooperators in the Farm Flock Project and 18 additional flock owners have culled their flocks to the knowledge of the agent since the culling demonstration last summer. The feeding of laying mash is increasing, better houses are being built and there is an increase in those desiring purebred cockerels.

The greatest handicap to advancement in poultry in the county is the individual desire of every flock owner to have a breed different from that of his neighbor, this naturally does not give the stimulus to those who might produce high laying strains with in a few breeds.

Other than the work in tuberculosis control, work in vaccinating for blackleg has been pushed at all times, the agent has received and given attention to numerous inquiries regarding individual cases of lump jaw, loco, wirecuts etc.

Demonstrations in cattle tick eradication have been given and considerable information regarding the control of parasites on poultry has been given out.

Although not mentioned in the statistical report the agent has secured information for five different parties regarding beekeeping.

#### (e) RURAL ENGINEERING

The work in Rural engineering has consisted in furnishing information for the establishment of two water systems and ten farm buildings namely, two barns, four poultry houses, two silos, two milk houses.

Three orchard owners were assisted in the care and operation of spraying machines and two in securing stump pullers for clearing land

#### (f) RODENT AND PREDATORY ANIMAL CONTROL.

During the year the agent has furnished 140 different rural residents with poison bait and instructions for the control of Prairie dogs, pocket gophers, squirrels rats and ants.

In cooperation with the United States Biological Survey the Agent has established five demonstration plots in the control of Prairie dogs. It is planned to secure complete extermination of them in units that are naturally segregated and thereby encourage the cooperative work in larger areas.

In his travels over the county the agent gathers information regarding the destruction by Predatory *Animals* on cattle, sheep and goats. This information is immediately turned in to the Headquarters Biological Survey in Phoenix and a representative of this Bureau is placed on the job. Strychnine tablets from the Biological Survey are also distributed from this office

III PLANT DISEASES AND INSECT PEST CONTROL

Had the writer remained until the summer months a general plant disease survey of the county would have been conducted with the cooperation of the Department of Plant Pathology of the University of Arizona.

Already the agent has received most valuable assistance from the office of the State Entomologist in plant disease and insect pest control.

Control of codling moth in apples is the leading phase of this work,

#### (g) AGRICULTURAL ECONOMICS

##### Farm Management

Twelve farmers have made changes in the farming and livestock systems according to recommendations of the agent. Five cattle men were advised as to leases and contracts. Ten additional farmers and stockmen were started in keeping records of cost of production.

##### Marketing

The agent assisted in forming the Yavapai County Dairy Association and the Walnut Creek Cattle Growers Association which now makes six cooperative marketing associations in the county with a membership of ninety.

##### Miscellaneous

A service that has received considerable time during the year and which cannot be well taken up under any of the above mentioned headings and that is furnishing agricultural information concerning Yavapai County to prospective settlers. Seventy eight letters have been written on this subject. In many cases the agent has thought it best to discourage rather than encourage settlement, especially is this true in cases of establishing new homesteads with cattle raising as an object with limited capital and where dry farming was being considered with the use of livestock.

#### IV OUTLOOK AND RECOMMENDATIONS

The retiring agent recommends to the incoming agent that the present program be carried on through out the year laying special emphasis on Livestock, Rodent and Predatory Animal, Horticulture and Poultry Work.

The frequent use of the newly purchased motion picture machine whenever possible is also strongly recommended.



## SUMMARY

During the time of the present year December 1, 1922 to May 15, 1923 that the agent has been on duty in Yavapai County 104 days have been devoted to field work and 42 days to office work 363 farm visits have been made to 186 farms and 367 office calls have received attention

There are 20 communities in which the agent has worked in fifteen of which are there are leaders. There are forty eight community and county workers in the county. Twenty-one demonstrations meetings with a total attendance of 336, <sup>where held</sup> there being 545 members in the County Extension Organizations. Seven hundred and seventeen individual letters and 1420 copies of 10 circular letters have been written in the interest of the work. Thirteen articles for publication in local papers have been prepared during the year.

The agent has attended fourteen meetings in the interest of extension work outside of the county



1. Registered Polled Hereford Bulls  
Selected by Agent for Navapai County  
Cattle man.
3. Treating bull for ear ticks.

2. Apple tree before pruning.
4. Same tree after being pruned by  
Extension Horticulturist.

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