

A N N U A L
N A R R A T I V E - R E P O R T

for

GILA COUNTY

ARIZONA

December 1st, 1943 - November 30th, 1944

S. W. Armstrong

County Agricultural Agent

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SUMMARY OF ACTIVITIES AND ACCOMPLISHMENTS

GILA

1944

December 1, 1943 - November 30, 1944

The Agent spent 283 days on Extension Work in Gila County.

Traveled 7,148 miles by automobile to carry on Extension Work.

Made 272 farm and home visits, had 1,182 office calls, and 257 telephone calls.

Held 15 Method Demonstrations with an attendance of 188 people.

Held 28 Other Meetings with an attendance of 686 people.

Spent 36 days on Agricultural Conservation Work.

Spent 9 days on War Board work.

Held 14 Meetings on various Horticultural Subjects.

Maintained an active Cattle Growers' Association.

Held 10 Meetings on Nutrition Problems.

Completed 2 Hybrid Corn Variety Tests.

Completed Victory Garden Improvement Project.

Completed Seed Potato Improvement Project.

Spent 10 days on various Soil Problems.

ORGANIZATION

GILA

1944

The Gila County Cattle Growers' Association is still the most important organization sponsoring Agricultural Extension Work in Gila County. The Gila County Farm Bureau is sponsored by the Cattle Growers' Association and practically all members of the Farm Bureau are also members of the Cattle Growers' Association. ✓

Food production to help win the War has been the principal work of the Agricultural Agent in Gila County for the past year. The number of meetings and farm visits were cut to a minimum to save travel for the farmers and Agent and other extension methods were substituted. ✓

The Annual Extension Conference of all Agent's and Specialist's was held in Phoenix in January, 1944. Two meetings of the Northern County Agent's were attended during the year. Food production and the place of the Extension Service in the War effort were the principal subjects discussed at all of these meetings.

CROP PRODUCTION

GILA

1944

HYBRID CORN TESTS

Two cooperative hybrid corn test plots were planted in Gila County in 1944. Dr. R. L. Matlock, the Extension Agronomist, and Dr. J. Smith, of the Agronomy Department of the University of Arizona, spent May 15th and 16th in Gila County planting these two test plots. ✓

The first plot was on the William Wade farm that is located one-half mile West of Payson, and consisted of one-half acre planted to thirteen varieties of hybrid corn. This plot was frozen to the ground on June 17th. The plot was never harvested because of a severe drought in this area. No corn was grown and the test was a complete failure.

The second plot was planted on May 16th on the B. D. Randall farm that is located two miles North of Pine. This plot consisted of one-half acre and was planted to eleven varieties repeated four times each and to eight varieties planted once each. Twenty-two hills were planted in each replica. The Agent visited this plot on July 7th, July 27th, September 12th, October 3rd, and harvested the corn on October 13th. This corn was irrigated twice during the season. Dr. Matlock, Dr. Smith, and the Agent held a meeting in Pine on October 30th to discuss the results obtained in 1944.

The results obtained are as follows:

Minnesota 702 was the earliest variety planted and was mature by September 1st. The yield was forty-one bushels to the acre.)

Wisconsin 275 was mature by September 1st but yielded sixty-three bushels per acre.



Dr. Matlock planting Soy Beans.

HYBRID CORN TESTS

Minnesota 403 was mature on September 12th and proved to be one of the four best varieties. It yielded about ninety-three bushels per acre.

Wisconsin 608 was mature on October 3rd and was one of the four best varieties. It yielded ninety-two bushels per acre.

Ohio M-15 was mature on October 3rd and was one of the four best varieties. It yielded eighty-nine bushels per acre.

Wisconsin 695 was not mature on October 3rd but was mature on October 13th. This corn was the best variety planted. It yielded approximately one hundred bushels per acre. This corn may require too long a season for the Pine District but it is such an outstanding variety it should be tested again next year.

All of the other varieties planted were mature by October 3rd and all yielded from forty bushels to sixty-five bushels per acre. A complete record of all data and yields has been compiled and final results follow.

Corn Yield Test - Pine

Gila County, 1944

Bert Randall Farm

<u>Variety</u>	<u>Yield Per Acre</u> *		<u>Remarks</u>
	<u>Lbs.</u>	<u>Bu.</u> "	
Minn. 800	4956	69	15% Moisture; good quality but 35% Nubbins.
Minn. 702	2942	41	14% Moisture; good sound ears.
Minn. 500	5086	71	18% Moisture; Fair size but ill-shaped ears; 15% Nubbins.
Minn. 602	6517	91	18% Moisture; Sound, good quality ears.



Planting Hybrid Corn at the Wade Farm.



Smith and Matlock planting Hybrid Corn
at the Randall Test Plot.

HYBRID CORN TESTSCorn Yield Test - PineGila County, 1944Bert Randall Farm

<u>Variety</u>	<u>Yield Per Acre</u> *		<u>Remarks</u>
	<u>Lbs.</u>	<u>Bu.</u> "	
Minn. 403	6630	92	18-20% Moisture; Good sound corn; 10-15% Nubbins.
Wis. 355	3413	47	16-17% Moisture; Good sound corn; many small ears (40-50% Nubbins).
Wis. 531	4752	66	17-18% Moisture.
Wis. 608	6451	90	18-20% Moisture; Good sound corn; ears good size; Few nubbins.
Wis. 695	7168	100	22% Moisture; Large ears; few nubbins (5-7%)
Wis. 275	4516	63	15% Moisture; Sound corn but 40% Nubbins.
Ohio M-15	6390	89	18-20% Moisture; Sound corn, good ear size; 10% Nubbins.

Ohio M-15 and Wis. 608 had best ear size, percentage of sound corn and general desirability. Wis. 695 had more ill-shaped ears and corn was too spongy. Probably too late for this area.

* 4 Replications

" 72 Lbs./Bushel

These tests will be repeated next year and the four better varieties will be planted in acre blocks next year.



Hybrid Corn Test Plot
on Randall Farm July 7, 1944.

POTATOES

Fourteen sacks of Pontiac and twenty sacks of Khatadin seed potatoes were purchased by Mr. F. C. Randall, of Pine, to plant for seed stock for the Pine - Payson Area. The old seed stocks in this area had become diseased and had ceased to yield good crops. The Agent and Mr. Randall made a trip to Flagstaff in April to purchase this foundation pure seed. The Khatadin potatoes have proven to be very successful in the Pine Area. The Pontiac potatoes have never been tried in this area but gave excellent results at Flagstaff.

This new seed stock yielded very well and will all be saved for seed for next year.

DECIDUOUS FRUIT

The Codling Moth control demonstrations have been continued at Pine and Gisela. A total crop failure at Pine should cut the number of worms down to a minimum for next year. Fair worm control was had at Gisela. These orchardists do not clean up their orchards good enough in the Fall and Winter and there is considerable carry over each year.

Pruning demonstrations were held at Pine, Payson, Tonto Basin, Globe, Inspiration, and Young. Mr. H. F. Tate, Extension Horticulturist, assisted with these demonstrations. Dr. J. N. Roney and Mr. Tate spent two days in the County in April assisting the Agent with disease and insect control work of orchards.

Mr. William G. Hoyman, of the United States Department of Agriculture, made a plant disease survey of Gila County in July. Pear Blister Mite was found at the Collins Farm at Tonto Basin, and Root Rot was found near Payson at 5,000 feet elevation. No other new diseases or unusual situations were found.

HOME OR VICTORY GARDENS

Reported under Nutrition.



Improper pruning of young Peach trees.



Pear Trees
showing results of too close planting.

HAY AND PASTURE

The Hay and Pasture test plot that was established at the Anderson Ranch last year died out this Summer. A very severe drought this year was the cause of this failure. All corn and other crops planted in this vicinity failed to mature this year.

Mr. Alf DeVore, of Cherry Creek, is preparing ground to plant a five acre field to Pasture Mixture No. 2. Dr. R. L. Matlock, the Extension Agronomist, advised Mr. DeVore to use Mix No. 2 as free irrigation water is available and the altitude is only 2,800 feet above sea level.

LIVESTOCK PRODUCTION

GILA

1944

BEEF CATTLE

All Agricultural Extension Work carried on in Beef Cattle is divided into two projects. All marketing and organization work is carried under a project called Cattle Growers' Association and all other Beef Cattle work is included in a Beef Cattle Improvement Project.

Cattle Growers' Association

Marketing assistance ^{was} is given to the cattlemen of the County by maintaining a Cattle Listing Service and contacting buyers by sending these cattle listings to over 250 buyers twice a year. ~~The time spent on this phase of the work is included under marketing in the Statistical Report.~~ ✓

A meeting of the Gila County Cattle Growers' Association was held in the Agent's Office in January. Election of Officers was the principal business transacted. The officers elected are as follows: Don Anderson, President; Roy Tucker, Vice-President; Earl E. Horrell, Secretary; and Gordon McFadden, Treasurer.

A steak fry and business meeting of the Cattle Growers' Association was held at Rose Creek on June 24th. Director C. U. Pickrell, J. N. Roney, Extension Entomologist, H. R. Baker, Extension Economist, and Frank Armer, Livestock Specialist, attended this meeting and gave short talks on pertinent subjects. Approximately 150 people attended this meeting.

Beef Cattle Improvement

A number of cattlemen were assisted with selection of heifers and purchasing registered hereford bulls for herd ✓



A well designed back yard poultry plant.

Beef Cattle Improvement

improvement. All herd improvement work is included in this project. ✓

A large number of cattlemen were assisted with various disease problems of hereford cattle. Lumpy Jaw or Actinomycosis is the most common disease found in Gila County that requires specific treatment. ✓

A total of 143 office calls, 51 farm visits, 41 telephone calls relating to various problems of beef cattle production were handled by the Agent, and 27 days were spent on this project.

DAIRY CATTLE

Dairy cattle production in Gila County is limited to several commercial dairies in the Globe - Miami vicinity that furnish market milk to these towns. The only other dairy cattle in the County are limited to farmers and other families that have a home milk cow. ✓

Assistance in disease control and proper feeding methods is practically the only work done with dairy cattle. As there is no Veterinarian in the County, the Agent is called on quite often to give advise on care of sick or injured animals.

HOGS

Hog production in Gila County is limited to the number of hogs that can be fed on garbage from the cities in the County and to hogs produced on farms for home use.

Assistance was given to several hog producers in the Globe - Miami Area. An outbreak of Hog Cholera occurred in this area in February, 1944. The Agent diagnosed this disease and assisted the producers with vaccination and control of the disease.

HORSES

One Bot control demonstration was held at Roosevelt. As there is no Veterinarian in Gila County, the Agent was called on a number of times to give information on how to doctor wounds and treat horses for various ailments.

There were no cases of Equine Encephalomyelitis reported this year but several cattlemen vaccinated their horses again this year.

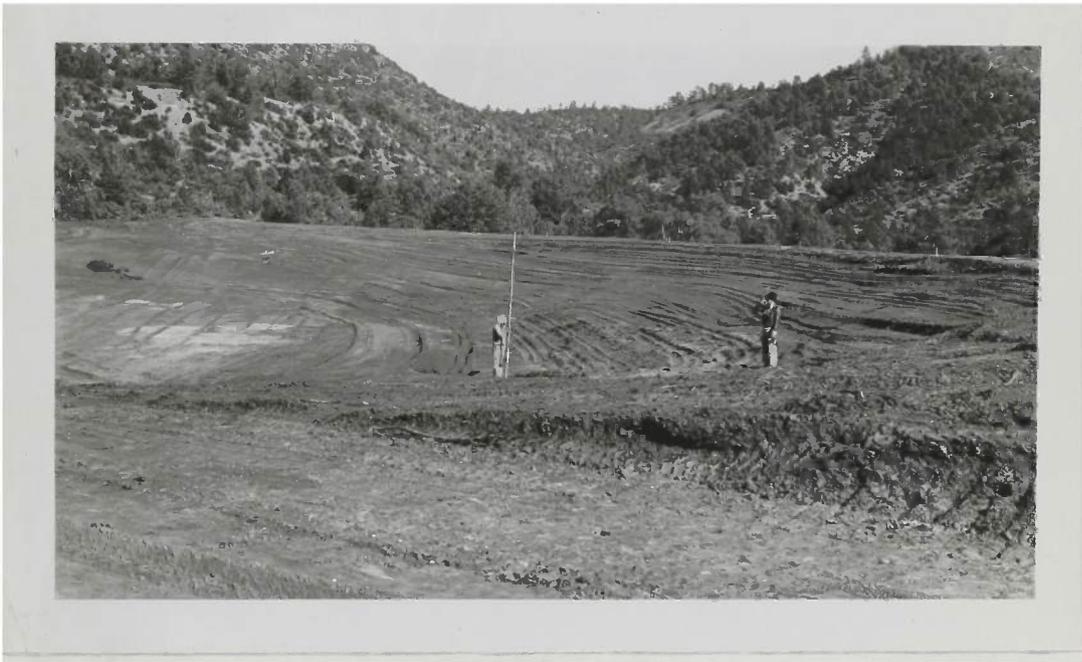
POULTRY

Poultry production in Gila County is very limited as practically all of the feed must be transported in and the poultry products transported to Phoenix. Transportation problems hold the numbers of chickens down to supplying local demands. At least one hundred back yard and semi-commercial flocks were started in the County in 1943 but most of these amateur poultrymen have already dropped out of the picture.

Several days were spent by the Agent assisting the poultrymen that have remained in the business with various problems. Low protein feeds and insects and disease problems were found to be causing most of the trouble.

One caponizing demonstration was held at Inspiration.

Assistance with disease and food problems was given to Mr. William Cohea, of Young. He had 2,100 turkeys this year.



Surveying an earthen reservoir for proper slopes.

CONSERVATION OF NATURAL RESOURCES

GILA

1944

SOIL MANAGEMENT

Mr. E. S. Turville, the Acting Soils Specialist of the Extension Service, spent two days in Gila County in September making a survey of the needs and possibilities of soil conservation and erosion control projects for Gila County. He found that farms are very scattered and large acreages of federal lands surround most farms so it will be very hard to get enough acreage in one area to do much conservation work.

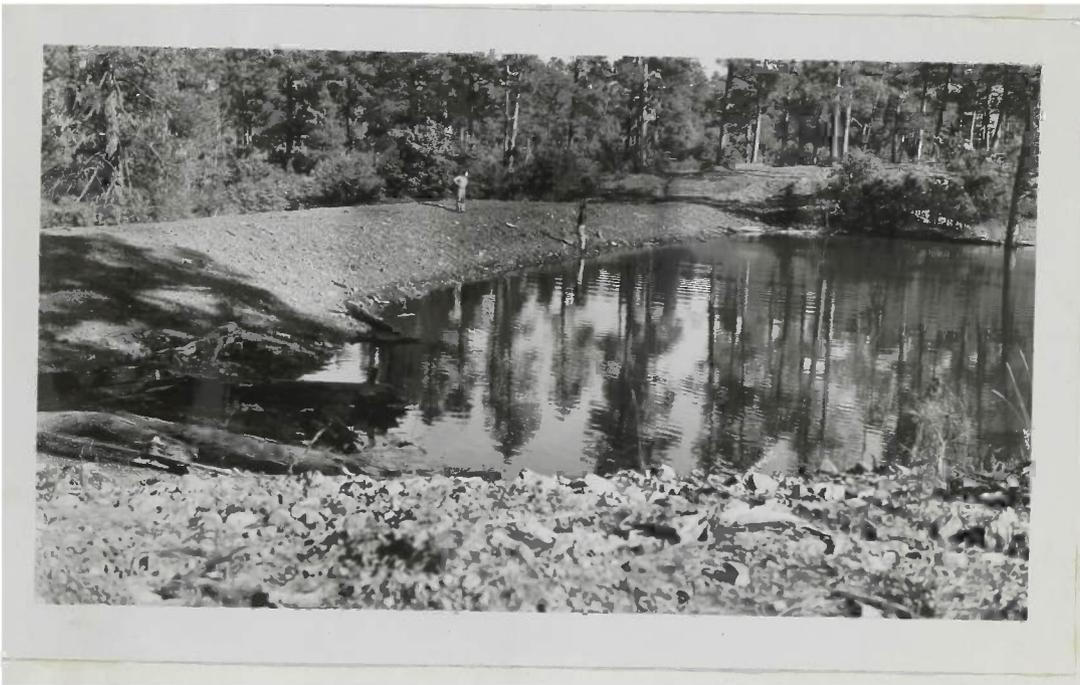
The Agent spent four days in Northern Arizona on a soils inspection tour. Five Agent's and several Specialist's made this tour. On the last night of the tour, Representatives of the Agricultural Chemistry Department of the University of Arizona discussed soil sampling and interpreting laboratory reports.

Several earthen reservoirs were staked out by the Agent for various cattle ranches. These reservoirs are to be used for storing water for livestock and to check erosion in the valleys below the dams.

WILDLIFE CONSERVATION

A survey of a number of large earthen reservoirs was made by the Agent and Mr. Chamberlain, of the U. S. Fish and Wildlife Service, to determine the possibility of planting bass and blue gills in these reservoirs to produce food.

A total of nine reservoirs were stocked with fish furnished by the Federal Hatchery in New Mexico.



A new earthen reservoir after the first rain.

FARM MANAGEMENT

GILA

1944

AGRICULTURAL CONSERVATION

All Agricultural Conservation work in Gila County, including work done as Secretary of the Gila County Agricultural Conservation Association, is included in this one project. Fifteen earthen reservoirs were constructed this year under the A.A.A. Program. Only about ten farms and ranches will draw payment for conservation practices this year. A total of \$50,000.00 was allotted to Gila County this year but only about \$40,000.00 will be earned by farmers and cattlemen. Most of this money will be earned by building earthen reservoirs.

FARM CREDIT

The only work done on this project was to assist several farmers to contact the Farm Security Supervisor or the Emergency Crop and Feed Loan Supervisor. Several conferences were held with these supervisor's to assist them with loan problems.



Leveling a field for a large home garden.

NUTRITION AND HEALTH

GIIA

1944

HOME PRODUCTION OF FOODS

The Victory Garden Project has been included in the Home Production of Food Project this year. A drive to have better quality victory gardens was started in February. Meetings were held in all of the rural areas where Mr. H. F. Tate, the Extension Horticulturist, discussed various problems related to growing better victory gardens. Mr. Tate and Dr. J. N. Roney, the Extension Entomologist, did follow up work on this project in April. About the same number of victory gardens were grown as was grown last year but the quality of the gardens was better. ✓

The result demonstration on the control of vegetable diseases was continued for the fourth year on the Randall Farm at Pine. Most of the disease problems of this area have been solved and better home gardens were found this year.

FOOD PRESERVATION AND STORAGE

On March 29, 1944, a County Nutrition Committee was formed. Mrs. T. T. Parker was elected Chairman. The Agricultural Agent is a member of this committee. Several meetings of this committee were held in the Agent's Office during the course of the year.

Large quantities of vegetables were canned this year but due to late freezes that killed the fruit crop, very little fruit was canned this year.

A series of meetings called Pressure Cooker Clinics were arranged for Mrs. Jessie Obert, the Emergency



Tomato plants in the Randall Variety Test Plot.



Pontiac Potatoes at the
Randall Garden Variety Test Plot.

FOOD PRESERVATION AND STORAGE

Food Assistant for Northern Arizona.

A second series of meetings by Mrs. Jessie Obert were held in Gila County in July. These meetings were to discuss canning and dehydration. Her report follows.

June 5 to June 10, and July 19 to July 22, 1944

The Emergency Assistant in Food Preservation spent one week in June and one in July in Gila County.

NUTRITION

Sub-Project A.

Phase 2 - Canning

Pressure cooker clinics were held in four rural communities and in Globe. Seventy-four gauges were checked, fifteen replacements were recommended, forty-three gauges needed correction, while sixteen were in good order. Only thirteen of the seventy-two safety valves checked were in proper working order. This work seems to be of especial value, as many of the cookers were in an unsafe condition.

A demonstration on canning and drying vegetables was held in three rural communities with total attendance of thirty-three. Much interest was displayed by the women in the procedure for exhausting the pressure cooker as very few of them had been doing this correctly.

Phase 3 - Dehydration

See Phase 2

The women were all much impressed with the dehydrated vegetables which were prepared for them to taste.

OTHER HEALTH AND SAFETY WORK

A fire prevention campaign was carried on during the year. Only one serious fire occurred in 1944. A farm residence was a complete loss. The cause of this fire was a defective floor furnace.

OTHER HEALTH AND SAFETY WORK

An accident prevention campaign was carried on during the year. Mr. A. B. Ballantyne, the Extension Specialist, was in charge of this work. Bulletins and check sheets were sent to all farmers and follow up sheets to check accidents were collected at a later date. The campaign was well received and accidents were held to a minimum in Gila County. No one was killed on a farm in Gila County in 1944.

U.S.D.A. WAR BOARD

GILA

1944

The U.S.D.A. War Board activities only took up nine days of the Agent's time in 1944. Most of this work consisted of investigations for the U.S.D.A. War Board to give to the Selective Service Board and making reports for recommendations for deferment and for members of the Armed Forces to get releases to return to their farms and ranches. The Agent is Secretary of the U.S.D.A. War Board and some time spent on secretarial work is necessary.



4-H CLUBS

GILA

1944

A meeting with the boys and girls of the Tonto Basin School was held at the Tonto Basin School House by Mr. Kenneth McKee, 4-H Club Specialist of the Extension Service. The purpose of this meeting was to educate the children on the value of club work in rural areas. Plans were made to organize a 4-H Club in that community but to date no enrollments or records have been received by the Agent. Another meeting was held on the same night and at the same place by Mr. McKee to show pictures of club work to the adults of Tonto Basin. After the pictures were shown, Mr. McKee gave a short talk on club work. Several parents of children eligible for club work were interested in organizing a 4-H Club.

MISCELLANEOUS

GILA

1944

GENERAL FEEDER INSECTS

No grasshopper damage occurred in Gila County except on the San Carlos Indian Reservation. About 150 tons of poison bait was spread by hand by Indian labor.

OTHER WORK

The Agent spent one day at Thatcher, Graham County, judging livestock at the 4-H Future Farmer's Fair that was held on April 15th.

The Farm Labor Program in Gila County is of minor importance. No requests for farm labor were received by this office. Several laborers from other states asked for work and were sent to Pinal and Maricopa Counties where labor shortages existed.

One day was spent at the Bixby Ranch surveying a pipe line over a hill to furnish water for cattle.

A number of office calls and farm visits too varied to itemize were handled by the Agent throughout the year.