

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

ROY B. JETER
COUNTY AGRICULTURAL AGENT

GREENLEE COUNTY
ARIZONA

From December 1, 1953 to November 30, 1954

TABLE OF CONTENT

	Page
SUMMARY	1
I. SITUATION	3
II. ORGANIZATION	8
III. PROGRAM PLANNING	10
IV. INFORMATION PROGRAM	11
V. PROJECTS	
1. Agronomy	
A. Cotton	15
B. Corn	18
C. Irrigated Pastures	20
D. Alfalfa Production	21
2. Horticulture	
A. Onions	24
B. Tomatoes	25
C. Landscaping & Home Beautification	26
D. Home Orchard Management	27
3. Livestock	
A. Beef Cattle	28
B. Sheep	31
C. Swine Production	32
D. Range Management	34
4. Dairy	
A. Disease Control	35
5. Poultry	37
6. Irrigation	
A. Maintenance of Ditches	40
7. Engineering	42
8. Entomology	
A. Cotton Insect Control	43
B. External Parasite Control	43
C. Household Insects	43
9. Soils	45
10. Rural Sociology	
A. Farm Safety	46
11. Agricultural Economics	
A. Commodity Prices	47
VI. OUTLOOK AND RECOMMENDATIONS	48

SUMMARY

Extension Aims:

The program of the county extension agent in Greenlee County during 1954 was determined by the requests and obvious needs of the rural farm people. Plans were made with the help of local commodity groups and by consulting with the state extension staff.

The goal of the county agricultural agent is to keep farmers and ranchers informed on proven farming and ranching practices, thus aiding them to do a better job. The county agricultural agent is responsible to keep up to date on new findings by the agricultural research and pass such information on to the farmers. He is also responsible to help solve farm problems as they may arise in his county.

Cotton Fertilizer Tests

It has now been proven once and for all that commercial fertilizer is not practical to use under cotton. Four test demonstrations using nitrogen and phosphorus gave results in only one demonstration. The lone response was on light sandy soil. Here, it was not great enough to warrant an all-out fertilizer campaign.

Cotton Insect Control

1954 was one of the worst years in history for harmful insects. Prompt planning and application of insecticides cut losses to a minimum.

Cotton Diseases

Verticillium wilt, Texas root rot, and boll rot were all present in 1954. An ideal season for cotton growth reduced the damage inflicted to the cotton crop. Losses from disease were in no case severe. A verticillium control demonstration using cultural practices was established on the Clyde Wilkin's farm near Franklin. No visible control was accomplished.

Cotton Production

Cotton acreage was reduced to 2,110 acres in Greenlee County in 1954. It has again been reduced to 1,711 acres for 1955. Yields this year were above average with most growers harvesting two bales per acre or more.

New Mexico 1517 C is the lone variety produced in Greenlee County. The 1517 C Pure Seed Association produces the seed for local farmers.

SUMMARY (Cont.)

Alfalfa Phosphate Tests

Three field demonstrations again proved that phosphate is effective on alfalfa on most Greenlee County soils. Seventy-five pounds of P₂O₅ per acre increased yields as much as 40%.

Forage Crop Production

Forage crops acreage was increased in 1954. This came about due to reduction in cotton acreage. Most corns and sorghum grains were cut for silage. About 25% was sold to commercial feeders.

Livestock Feeding

Livestock feeding has been increased in Greenlee County. "Green-chop" feeding was introduced to the county in 1954. Approximately 700 head of cattle were fed out in 1954. Approximately 1,200 will be fed in 1955. Most fat cattle are marketed through Safford Packing Company, Safford, Arizona.

Information Program

Radio, weekly newspaper, field contacts, office calls, phone calls, circular letters, bulletins, and public talks have all been used effectively to conduct the county extension program. Thirty-two radio talks and ten public talks to groups were given during the year. 129 news releases were sent from this office and 1,300 bulletins distributed. Approximately 1,551 office calls, 1,050 field calls, and 735 telephone calls were made during 1954.

County Fair Improvement

The county agent met with the fair superintendents and county fair commission to plan the improvements to be made on county fair facilities. The barns were rearranged, additions made for range cattle and swine exhibits, exhibit racks in exhibit building remodeled, exhibit building painted inside, the exhibit area and sports ground divided by a fence, and a new parking lot built.

I. SITUATION

General County Information

In order to better understand the people and problems of Greenlee County one needs to know something of its background and present situation. It is a long, narrow county, lying in southeast Arizona next to New Mexico. The extreme southern portion is favorable for agriculture because the Gila River flows through that section. There is about 500 acres of irrigated land along this river. Irrigation systems for the watering of crops thread through all the farming area. Cotton and vegetable truck are the main crops. Phelps Dodge Corporation has the second largest open pit copper mine in the world located in Morenci. Naturally the population of towns in this area is made up predominantly of miners. However, many town⁷ families have cattle raising interests as well. The northern portion of Greenlee County is mountainous and suited only for cattle grazing. Some fruit is raised in one high valley. The Apache Indian Reservation covers much of this northern country. Whites, Mexican, and Italians make up the population.

Eight of the ten communities in the county are fairly close together, being within a radius of thirty miles. Four of these communities are in the farming section; four are mining towns. The other two communities are isolated in the mountains of cattle raising country, one about 85 miles from the county seat, the other well over 150 miles distant. This last settlement is closer to Apache County and New Mexico towns which provide outlets.

Entirely rural in its atmosphere, Greenlee County has no large trading center. Highways connect its communities with New Mexico towns and Safford in Graham County, the largest trading center in this part of the state. Clifton is the county seat while Duncan houses the office of the extension service. U. S. Highway # 70, a main east-west route, passes through Duncan.

I. SITUATION (Cont.)

Poultry

Poultry production has not changed too much in recent years. Greenlee County offers a market that is independent from outside trends. This is due to the heavy industrial population in the Morenci-Clifton area. The Phelps Dodge mine works purchase approximately 90% of all poultry products produced in Greenlee County.

The personal preference for farm fresh eggs and fryers is the stabilizing factor for our local market. Limitation of the local demand is the controlling factor in poultry production.

The greatest need for Greenlee County's poultry industry is an organized marketing system to replace the direct competition between poultrymen.

Dairy

Dairying in Greenlee County is still faced with a major marketing problem. The local markets do not provide for an expanded industry. If it were not for outside competition in the sale of dairy products in this county, the local industry could expand on the strength of the local demands.

At present there are three producers and one processing plant. Two of the producers are combining operations as of now.

Conditions are ideal for dairy production in this county, but it can not be encouraged until a satisfactory market is established.

Fertilizers

Use of commercial fertilizers has been a subject of discussion for several years in Greenlee County. The records show that county extension agents have worked with farmers on this project for a number of years. To date the only fertilizer program that has paid dividends is the use of phosphates on alfalfa. Nitrogen has given insignificant response in every field trial. The use of phosphates on alfalfa has become a general farm practice among Greenlee County's farmers.

I. SITUATION (Cont.)

Feed Crops

Feed crops are becoming more important in the farmers cropping program. The increased interest started when cotton allotments were established. In three years this county's cotton acreage has been reduced by two-thirds. That controlled acreage has gone into feed grain and alfalfa.

As a cash crop, grains and hay have given a fair return of profit to the farmer. Of more value has been the soil improvement through the rotation program.

Local farmers are now establishing feed production as a stable part of a farm rotational program. More of the feed is being used on the farm, thus playing a major roll in soil rebuilding program.

The principal grains being produced are:

- | | |
|----------------|-----------|
| a. Hegari | d. Barley |
| b. Dwarf maize | e. Oats |
| c. Hybrid corn | |

Hay production is limited to alfalfa and oats.

Cotton

Cotton production is still the number one cash crop in Greenlee County. However, this position is not insured for the future due to many reasons. First, the climate of this high altitude places this county in the marginal production class among the cotton growing counties of Arizona. Next, the disease problem is rapidly building up. Verticillium wilt and Texas root rot is taking a heavy toll of cotton each year. The interest in a balanced farming program where feed and cattle feeding play a major roll may greatly influence cotton acreage in the future, disregarding government acreage regulations. Government acreage allotments is the major restricting factor influencing production in the present and immediate future.

Cotton produces well in Greenlee County during the years that have warm early spring and late frost-free falls. The natural climatic pattern for this area subjects the cotton farmer to severe crop reductions approximately one year out of every three.

I. SITUATION (Cont.)

This year, 1954, has been an exceptionally favorable cotton year. Yields will average 1 1/2 bales per acre throughout the valley. New Mexico 1517 C is still the only satisfactory variety for this locality.

Livestock

The livestock position in this county took a turn for the better during 1954. Drought had played a disastrous roll until rains came starting in July and lasting through early October. Most ranchers had reduced their herds by 30% going into the spring of 1954. Supplemental feeding was being practiced in every part of the county. This situation changed when the rains came. Almost every rancher is now increasing the commercial herd. Most cattle ranchers are in fairly sound economic condition at present.

Range improvement is a necessity in this part of Arizona. Overgrazing during the drought years left many parts of the range nude of forage plants, even after the summer rains. Juniper is invading much of the range that has been overgrazed.

Poisonous plants have invaded the range area along the Blue River. This situation requires some fast planning and effective action. Last year approximately 150 head of Hereford cattle died from toxic plants.

Sheep

Sheep production is an excellent possibility on farms in Duncan Valley. At present there are about 450 ewes on farms throughout the valley. It has been discovered that sheep and alfalfa make a most satisfactory combination on the smaller farms.

Suffolk and Suffolk-Rambouillet crosses are the predominant breeds in Greenlee County. At present there are eight farmers running farm flocks of sheep. The number probably will double now that adequate grain feeds and alfalfa are available.

Swine

Like sheep, swine promises to be a coming thing in Greenlee County. Hogs make excellent growth on alfalfa pasture. With additional land going to alfalfa and more feed grains being produced, many farmers are turning to hogs for additional cash income.

I. SITUATION (Cont.)

Marketing has never been a problem in this locality. Most hogs are marketed through the Safford and Globe packing companies.

Duroc Jersey is the principal breed of hogs in this locality. This breed makes more efficient use of pasture and appears to have a very rapid rate of maturity.

At present fourteen farmers have approximately 700 head of hogs on hand.

Horticulture

Vegetable and fruit production is of minor importance to Greenlee County's agriculture. All products are sold through local markets, most being sold direct from the farms.

There were approximately 200 acres of vegetables and melons produced in 1954. One grower produced 100 acres of the total.

The principal vegetables produced in Duncan Valley include chili, sweet corn, cucumbers, tomatoes, peas, and beans.

It is unlikely that vegetable production will increase due to lack of processing facilities.

Part-Time Farming

Part-time farming plays an important roll in Greenlee County. The Phelps-Dodge mine employess approximately 2800 men. Many of the mine workers live on small acreages in the agricultural valley. Most of these people have chosen their out-of-town location so part-time farming can be practiced. Their acreages range from two to twenty-five acres. Many requests for assistance come from this group of part-time operators. It is living proof that one person can not efficiently manage two jobs.

II. ORGANIZATION

Extension Organization

The office of the Agricultural Extension Service is located in Duncan, Arizona. Duncan is the trading center of the farm population of the county and is also easily reached by the ranchers. The office is staffed by a full time county agricultural agent, a home demonstration agent who is assigned to both Graham and Greenlee Counties, and a full time secretary. This office serves as a meeting place for every farm organization in the county and also serves as headquarters for the U. S. Employment Service, Social Security, and Farmers Home Administration offices. All of the extension work in the county is carried on from this office.

The county extension office was given a badly needed remodeling early in 1954. New lighting, bulletin rack, bulletin boards, and cabinets were installed. A 30' x 30' meeting room was added to the county extension office. Here-to-fore, all extension meetings had to be conducted in the local school. These major improvements have made a great difference in the comfort and efficiency of the county extension office. All farm group meetings are now conducted in the county extension meeting room. Two of the local 4-H clubs also make use of the meeting room.

Farm and Ranch Groups

Greenlee County farmers are not as well organized as the cattle growers. The only farm organization in the county is the Duncan Pure Seed Association. The cattlemen have a very active organization. Their members know the value of organization.

Greenlee County Cattlemens' Association

The Greenlee County Cattlemens' Association consists of some forty or fifty members. They elect officers, hold directors meetings, and have an annual meeting and barbeque. They have many committees. The most outstanding committee group is the forest advisory group. They work closely with the Forest Service on problems concerning ranches on the forest. The agent has met and discussed an educational program with the Cattlemens' Association President, Mr. Jack Lunt.

The "Cowbelles" are the women members of the Cattlemens' Association. They have a very active and worthwhile organization. Their organization meets every month, usually at a member's ranch home. The "Arizona Boys' Ranch" has been one of the projects of the "Cowbelles".

II. ORGANIZATION (Cont.)

Duncan Valley Pure Seed Association

The Duncan Valley Pure Seed Association is the only organization in the county representing farmers. The association was organized to provide an organization for the handling of pure cotton seed and improving the quality of cotton produced in the county. It allows the local farmers to purchase good seed at home and at a reasonable price. A storage house was purchased in 1948, and growers who participate in the pure seed program store their seed there. This association handles the growing and sale of the seed. Growers must conform to the growing regulations set up by the New Mexico Crop Improvement Association to be eligible to save pure seed. The Duncan association belongs to the New Mexico Crop Improvement Association because the type of cotton raised in this area is not raised in the rest of Arizona. Therefore, the market for pure seed is in New Mexico. This year the group raised 2600 pounds of seed that will be sold for \$145.00 / ton.

Greenlee County Fair Commission

The Greenlee County Fair Commission consists of five men and one woman. They are appointed by the County Board of Supervisors. They meet at such times as deemed necessary by the chairman to promote the business of the fair. The agent has met with this commission at each meeting in an advisory capacity during the 1954 year.

Other Groups

The Soil Conservation Service and the Agricultural Stabilization and Conservation maintain a combined office in Duncan for Greenlee County.

A representative of the Farmers Home Administration is in the county once each week. The county extension office is headquarters in the county for this agency.

The extension service cooperates to the fullest extent with these agencies to help further the general agricultural program in the county. All agencies working together can be of the greatest benefit to the farmers with less conflict in programs.

III. PROGRAM PLANNING

Program planning for 1954 in Greenlee County was done with the combined effort of agent and the state extension specialists.

The agent first contacted the key farmers in the county communities to sound out their problems. The other county agricultural groups and 4-H leaders in the county were also contacted. After county contacts had been made, the agent was called into the state office for a discussion with the state staff. Each state specialist was consulted on his field of work and how to work with the agent in Greenlee County.

Work plans this year placed emphasis on field demonstration work. Considerable time and planning was given to making the county's 4-H program more effective. County sanitation and health was included in the extension program plans.

The agent met with Dr. W. W. Harkins, USDA Livestock Disease Eradication Director, and planned an intensified Brucellosis testing program for Greenlee County. The agent served as the contact between farmers and the veterinarian doing the testing work. The cattle testing program was scheduled by communities and the dates designated for the veterinarian to do the work.

Plans for a community fly spray program was planned jointly with the Duncan City Council. This program was carried out in July during the worst part of the fly season.

The agent cooperated with a service club committee to plan and recommend the inspection by the State Health Department of local food handling establishments.

A continuation of the water testing program was included in this year's plan of work; however, few people made use of this service.

All future program plans will be made with the farmer and community interest in mind. A county-wide farmers advisory group is being considered as a more effective means of county program planning.

IV. INFORMATION PROGRAM

One of the primary purposes of the Agricultural Extension Service is to furnish agricultural information to farmers and ranchers. This object was accomplished in Greenlee County by using every means available to the extension service.

Newspapers

The "Copper Era" is Greenlee County's only newspaper. It is published in Clifton, Arizona once a week, coming out each Thursday. The editor of this county weekly has been most cooperative with the agent in publishing extension service news.

The agent has written a weekly column for the "Copper Era" plus other timely news articles concerning Greenlee County's agriculture. This has been most beneficial due to the wide circulation of the weekly paper among the farm families.

The agent always includes a schedule of future meetings, etc. in each week's column.

During 1954 the agent has released to the "Copper Era" 129 special news releases. The editor has given the county extension program eight special write-ups.

Radio

KCLF Radio Station in Clifton is the only station located in Greenlee County. The county agricultural agent made regular weekly broadcasts each Wednesday until September 1. At that time the radio station was sold. The extension program was suspended until January 1, 1955. Arrangements have been made to continue the regular broadcast starting the first of the new year.

The use of radio proved very satisfactory in reaching the farmers and ranchers in the county. The central location of the station made it popular throughout the county. A total of 36 radio broadcasts were made during 1954.

Circular Letters

Circular letters were used to a good advantage during 1954. A total of 43 circular letters were mailed to farmers during 1954. These letters were of considerable value in stimulating mass action during the course of the crop year. An example was the recommendations sent to cotton farmers to control the cotton insect infestation. An effort has been made to keep such letters short and to the point so farmers

IV. INFORMATION PROGRAM (Cont.)

will be more inclined to read them.

Circular letters were also used to emphasize particular campaigns such as "Farm Safety" and Fire Prevention Week.

4-H in Greenlee County has received considerable publicity through the use of circular letters. Leaders and junior leaders have been kept up to date on the 4-H program by letters.

This office has made an effort to make all circular letters attractive with illustrative drawings for eye appeal. Colored paper is used for most farm letters.

Personal Correspondence

A considerable number of letters come to the county agent requesting specific information. These letters usually come from outlying parts of the county. Prompt attention is given to such letters. The desired information is given when possible. A field visit is made to the farmer concerned at the earliest possible convenience when the problem warrants it.

Circular Distribution

1,300 bulletins and circulars were distributed to farmers, ranchers, and 4-H members in Greenlee County during the year. All bulletins are on display in the county agent's office. Over 125 bulletins make up this educational display.

Bulletins with attractive colored covers take the eye of most observers. The extension service has made considerable progress in the improvement of their written material in the past few years.

Visual Aids

Slides

Colored slides have been used to illustrate better farm practices on numerous occasions during 1954. Slide or film strips were used in 15 separate group meetings with a total audience of approximately 175 people attending. Slides and film strips have also been used to train 4-H judging teams. The county agent has started making a series of color slides on 4-H and farm demonstrations in the county.

Movies

Excellent use has been made of educational films during 1954. Early this year the University placed a new 16 mm RCA sound projector and a 35 mm slide camera in the county

IV. INFORMATION PROGRAM (Cont.)

agent's office. A total of 10 educational films has been used in group meetings this year. The films were always used to emphasize subject matter discussed and not used alone. Movies were always previewed before showing to a group. Movies were obtained from the University Visual Aids and from commercial sources.

Black and White Pictures

Pictures play an important roll in telling a farm story. The agent has made use of pictures where practical. The "Copper Era" weekly has been most cooperative in using pictures to supplement agricultural news releases.

The county office owns a camera, but at present it is in need of repair. A flash attachment would be very beneficial in taking news pictures.

Good news pictures are perhaps the most effective educational means to get the story of good farm practices told to the readers.

Bulletin Board

A new bulletin board was installed when the County Extension Office was remodeled last winter. It is seven feet long with a divider in the middle. One section is used exclusively for 4-H promotional work; the other side is used for general farm information.

The agent is convinced that a bulletin board can be used as a valuable educational instrument. The effectiveness, of course, depends on the frequency of farmer office calls. Also, care should be exercised to keep current material displayed.

Field Visits

Field visits, perhaps, is the most valuable information tool in Greenlee County. Through tradition, local farmers have grown to expect more from field calls than from any other form of contact with their county agent.

Office and Telephone Calls

Farmers in this county make more use of phone calls than office calls. This can be attributed to most farmers being too busy to take off for office calls. Office visits are made when there is specific material or advice they wish to get from the county agent.

IV. INFORMATION PROGRAM (Cont.)

Information Program's Importance in County

Getting agricultural information to the rural family is the most important role of extension work. Every method of teaching must be employed because every one will learn or act because of some different influence of a teaching device.

V. PROJECTS

1. Agronomy

A. Cotton

1. Cotton Production

Cotton acreage was reduced to 2,110 acres for Greenlee County in 1954. This placed severe stress on farmers for cash crop since they had grown 3,600 acres of cotton only two years before. Farmers were eager to make the greatest production on their limited allotment. Cotton land was selected very carefully, only the best land being planted to cotton. Most farmers chose land that has been in alfalfa within the past two years. Land was selected that had an advantage in irrigation. Careful planning paid off as this has been the most productive crop per acre in the history of the county. It has averaged two bales per acre throughout the cotton growing area.

The only variety grown in Greenlee County is New Mexico 1517 C, an upland short-stapled cotton.

2. Cotton Insect Control

1954 was one of the worst years in history for cotton insects. The entire cotton area was infested with all the major cotton insects common to Arizona. The insects moved into the county in May and continued until mid-August.

The county agent made daily checks for insect infestation and damage in cotton growing communities. Checks were made according to the recommendations of Dr. J. N. Roney, State Extension Entomologist.

Circular letters were sent out to all cotton growers giving the necessary information for insect control. A copy of Extension Circular No. 179, "Cotton Insect Control", was given to all growers. A weekly radio broadcast was made each Wednesday over KCLF, Clifton after having checked the cotton fields on Monday and Tuesday. This farmer service was well received.

Dr. J. N. Roney, State Extension Entomologist, visited Greenlee County twice to check on the insect control program. The weekly insect reports sent from Dr. Roney's office were of great help in formulating dust and spray program.

About 50% of the local cotton farmers used airplane applications; the remainder used ground rigs. Cost ran on an average of about \$2.75 per acre. Most farmers were compelled to use two applications of insecticides during the season. Losses due to insects were held to a minimum due to prompt and efficient application of approved insecticides. Losses were estimated to be 2%.

V. 1. A. (Cont.)

Two insect control meetings were held during the season. Dr. J. N. Roney attended the first meeting held in January. The 1954 control recommendations were reviewed. The county agent conducted an insect meeting in July to discuss the control problems current to the existing situation. Cotton insect control films were shown. Both meetings were well attended.

3. Cotton Disease

Diseases accounted for approximately 1% loss to cotton growers. Verticillium wilt was particularly severe on some of the heavy soils. Late infestation saved farmers considerable loss from this disease. Texas root rot showed up in many fields with light soil. Damage from this disease was not so severe as last year. Some boll rot, although of a minor nature, appeared in heavy cotton. This was caused by the mid-summer rains that raised the humidity, thus setting up an ideal condition for fungus disease.

Dr. Ivan Shields, State Extension Plant Pathologist, visited Greenlee County twice during the growing season to make field checks on the disease problems. Dr. Shield's weekly disease letters to the county agent has been most helpful in recognizing and making recommendations to farmers.

Demonstration control plots to combat verticillium wilt were established on the Clyde Wilkin's farm at Franklin. The two acre test plot consisted of five replications using high seed beds and alternate irrigation. This is a practice developed in New Mexico where verticillium is severe. A close study of this demonstration test showed no significant difference in prevalence of diseased plants or final yield.

4. Cotton Fertilizer Trials

Four fertilizer tests were established in Greenlee County in 1954. The tests were located on the following farms: (a) Mr. Ira Crofts, Franklin; (b) Mr. Eddie Edgar, Franklin; (c) Mr. Arch O'Dell, Sheldon; and (d) Mr. Morgan Baber, Three-Way.

The test included two acre plots with five replications in each plot. Total of eight acres were in the whole demonstrations. One demonstration was lost due to poor cooperation on the part of the farmer. This left three demonstrations on which detailed weights were obtained.

Each two acre plots received the following applications of commercial fertilizer: Replication (a) check (no fertilizer); (b) 25 pounds of nitrogen; (c) 50 pounds of nitrogen; (d) 100 pounds of nitrogen; and (e) 50 pounds of nitrogen and

V. 1. A. (Cont.)

50 pounds of P_2O_5 . The nitrogen carrier in all cases was ammonium nitrate. The phosphate carrier was treble-superphosphate.

All tests were closely observed during the growing season. Accurate weights were taken on three plots. The only test showing results occurred on the Morgan Baber farm near Three-Way. That farm was light sandy soil and showed a definite fertilizer response. Yields were increased as much as 25% over check plots. Increased yield ran from 5% to 25%. Fifty pounds of nitrogen plus fifty pounds of P_2O_5 gave the maximum response. This application showed one outstanding feature; that was early maturity and large, fluffy bolls.

On all other demonstration plots observed and weighed, there was no correlation between the various fertilizer levels.

Conclusion: It appears that a combination of nitrogen and phosphate would pay off on light, sandy soil. In the case of heavy soils, commercial fertilizer has no place with cotton.

5. Cotton Harvesting

Cotton harvest started two weeks earlier in 1954 than in 1953. The harvest began on September 20th. Yields have been up by 30% over 1953. Most cotton was picked with hand labor at a rate of \$3.00/cwt. Labor was plentiful until mid-November. Lower temperatures discourage hand pickers.

Mechanical pickers were used on approximately 15% of the county's cotton acreage. Mechanical picking is meeting opposition from buyers. Grades are lowered on machine harvested cotton.

The county agent sent out to all farmers a circular letter at the beginning of the season giving tips on better harvesting procedure. Sample displays showing the results of good harvesting and poor harvesting were made by the agent. One display was placed in the County Extension Office and two others were placed in offices of the local gin.

6. Pure Seed Association

Greenlee County Pure seed producers are members of the New Mexico Crop Improvement Association. Six local growers are producing 1517 C pure seed. This year 2,600 pounds of seed was grown for the 1955 planting.

The Pure Seed Association has been very beneficial to local growers in providing good seed for planting. The agent is cooperating and encouraging this program. More farmers are being made conscious of the importance of planting pure seed.

V. PROJECTS

1. Agronomy

B. Corn

1. General Production

Corn has in the past been of secondary importance to Greenlee County farmers. The principal reason for this being poorly adapted varieties and the high cost of irrigation. The variety problem has been overcome. New adapted hybrids were introduced into this county in 1953, and all have been very well accepted. County extension tests proved Texas 28 is one of the outstanding grain varieties for this area. This year the corn acreage almost doubled, and most of it was Texas 28. At present there is about 400 acres being grown for grain purposes.

Feeding livestock is becoming more popular and profitable in Greenlee County. This is going to greatly influence the corn production in the future.

The only major problems remaining is high irrigation cost and corn ear worm control. The latter is not a problem but a practice to be adapted by farmers. There is little hope that irrigation cost can be changed.



**The First Application Of Liquid NH₃
Fertilizer To Greenlee County's
Grain Crops.**

V. PROJECTS

1. Agronomy

C. Irrigated Pastures

1. General

Irrigated pastures have not made too much progress in this county. The principal reason has been an absence of good pasture mixtures. A peculiarity of the local soils inhibits the establishing of good balanced mixtures. Most soils suitable for pastures does not respond too well to commercial phosphates and nitrogen. As yet no satisfactory means of keeping a mixture has been devised. In most cases either the grass or the legume will become predominant after the first year.

Some progress has been made in pasture management so far as rotational grazing is concerned. Nine different farmers have purchased electric fences this year so rotation can be practiced. This practice permits rapid recovery of pasture plants and ease of irrigation.

The principal pasture mixtures being used includes certain clovers and fescue grass. Many farmers use straight alfalfa. This presents the problem of bloat which to date has not been overcome. As for value of feed and adaptation to this area, alfalfa can not be surpassed. Sudan grass is widely used as an annual pasture.

Winter pasture primarily consists of barley and oats. This has been a very profitable practice in recent years since range feed became short.

More study and planning is being done to try and improve on permanent types of pasture. More interest is being shown among farmers.

V. PROJECTS

1. Agronomy

D. Alfalfa Production

1. Alfalfa Fertilizer Tests

Alfalfa in recent years showed a decline in production in Greenlee County. Commercial fertilizer tests were started in 1947 with the cooperation of local farmers. In 1954 similar tests were conducted by the county agent and Mr. Howard Ray, State Extension Soils Scientist. Phosphate tests were established on farms belonging to Mr. Glen Francem, Duncan and Mr. Easton Frazier, York. Applications of 75 pounds of P₂O₅ were applied to six different demonstration plots. Comparative yields were taken at each cutting. Although the total data was off-set by August floods, a fair conclusion was made. In every test the yield of phosphated alfalfa was from 5% to 10% higher than the non-phosphated checks. This was over a period of five cuttings.

Similar field tests conducted by local farmers showed a substantial advantage in using phosphates. Approximately 80% of the county's farmers used phosphate during 1954.

2. Green-Chop Alfalfa

Green-chop is a new practice in this county. Two new choppers were purchased this year by local feeders. The alfalfa is cut in the field and hauled directly to the feeding corrals. This operation was carried on from April to October. Gains of 2 pounds per day were recorded on Hereford steers fed in this way.

The program is expected to expand in 1955 as more cattle are to be fed in the county during the coming year.

3. Alfalfa For Hay

The hay acreage was increased approximately 30% in 1954. All hay produced was sold or fed or will be fed locally. Prices started at \$21.00/ ton and is now selling for \$31.00 at the farm.

Most hay is still baled but more interest is being shown in windrow chopping.

4. Alfalfa Varieties

Arizona common is still the best adapted variety for Greenlee County. Field trials were planted this year using Northop King's "Blend" and "African", neither of which was a success. The Arizona Common showed more winter hardiness, quicker recovery after cutting, and greater production than either of the test varieties.

V. 1. D. (Cont.)

5. Alfalfa In Rotation

Greenlee County farmers have become convinced after several years of field trials that alfalfa has an important place in the rotational program. Crops, particularly cotton, have shown great response following alfalfa where commercial fertilizer had no effect.

Alfalfa normally is left in rotation three years. It supplies the much needed organic matter, aeration, and soil tilth - all very essential in Greenlee County's tight, adobe soil.



11-48-0 "Ammo-Phos", 200#/acre Gave
50% Increase in Alfalfa Yield on
Gene O'Dell Farm at Franklin

V. PROJECTS

2. Horticulture

A. Onions

1. Onion Disease

Pink root rot has now become a severe problem with Greenlee County's onion growers. The disease showed up in 1950 on Heaton Lunt's farm near Duncan. Onions had been produced on the farm 25 years before the first outbreak of pink root rot. It has now become so severe that the future of onion production in this county is in question.

This year's crop was reduced by 40%; pink root rot accounted for most of the loss.

The agent contacted Dr. Ivan Shields, State Extension Plant Pathologist, regarding the severity of the problem. Dr. Shields located a source of resistant seed and forwarded this information to Mr. Lunt and the other local onion growers. To date no effort has been made on the part of the growers to obtain trial supplies of the resistant seed. The agent will again try in 1955 to get local growers to purchase resistant onion seed.

A plant disease meeting was held in January. Pink root rot was discussed with the onion growers by Dr. Shields.

2. Onion Insects

The only insects harmful to the onion crop in 1954 was thrips. The agent discovered the infestation and warned growers of impending damage. Control recommendations were released to all growers. Only one grower sprayed, and that was done too late to be of significant value. Results: Severe thrip damage to the entire onion crop.

U. S. D. A. Leaflet No. 372, "The Onion Thrip, How To Control It", was given to all local onion growers early in the season.

3. General Onion Production

Onion acreage has been slowly diminishing in Greenlee County since 1950. The acreage was down to approximately 160 acres in 1954. The disease problem has been greatly responsible for this decline. Grano and Early Whites are the principal varieties grown in this county.

Onion market in 1954 was slightly higher than 1953. Top price was \$2.00 a sack; closing price was \$1.25. Yield was 60% of normal in 1954.

Outlook; Steady decline in acreage unless way is found to successfully combat pink root rot disease.

V. PROJECTS

2. Horticulture

B. Tomatoes

1. General Production

Greenlee County is a marginal area for tomato production. Early falls are usually costly through frost damage.

There is less than twenty acres of tomatoes grown in Greenlee County for commercial purposes. All are sold locally through farm stands. The principal varieties grown are Person and Marglobe.

Disease and insect damage has been insignificant in the tomato crop.

V. PROJECTS

2. Horticulture

C. Landscaping and Home Beautification

1. Landscaping

The agent was called upon by the Clifton school superintendent to assist in planning the landscape for the new grade school. Upon discovering the school was located on several acres of mine smelter tailings, the agent called for help from Mr. Farvey Tate, State Extension Horticulturist. Mr. Tate visited the school with the agent and conferred with the school superintendent, Mr. John Schlotfeld.

Mr. Tate made a close study of the school grounds with the agent. A complete set of recommendations were drawn up by Mr. Tate and forwarded to Mr. Schlotfeld. Those plans, generally, are being carried out.

2. General Home Beautification Problems.

The agent assisted approximately 50 home owners with specific home ground beautification problems. This work consisted of transplanting, pruning of roses and shrubs, insect and disease control, and selecting home ground planting. Two rose pruning demonstrations were conducted by the agent last February.

V. PROJECTS

2. Horticulture

D. Home Orchard Management

1. Training of Young Fruit Trees

Three demonstrations were held during February and March to show how and demonstrate the proper shaping of young fruit trees. Home orchardists were assisted with specific pruning problems.

Two orchards were selected for result pruning demonstrations. One is located at Cherry Lodge, the other at the Lawrence Romney home in Duncan. These demonstrations are to be carried over a three year period.

2. Insect and Disease Control

The county agent released a number of news articles through the "Copper Era" weekly and KCLF Radio on this subject. A number of field calls were made to assist home orchardists with specific pest problems. A copy of Extension Circular No. 148, "Fruit Insect Control Hints", was given to all home orchardists in Greenlee County.

3. General Orchard Management

General orchard care has received considerable attention during 1954. The agent devoted two radio programs and a number of news articles to the subject.

Fertilizer programs have been stressed. Poor tree growth has been a major problem. Home owners have been reminded of winter management practices to prevent freezing. Three home owners were assisted in selecting orchard sites and adapted varieties for their particular need.

Home orchards are on the increase in Greenlee County. One orchard has reached the size that it can be considered a commercial orchard. It is on Eagle Creek, belonging to Mr. Tom Greenwade.

Mr. Harvey Tate, State Extension Horticulturist, spent two days in Greenlee County visiting home orchardists with the agent. Tentative plans were made for some orchard demonstrations in 1955.

V. PROJECTS

3. Livestock

A. Beef Cattle

1. Feeder Cattle Market and Sales

Markets have greatly improved during 1954. The reason for this upswing was the summer break in the drought. Prices started to improve after July rains began and continued on through the fall.

Most ranchers averaged 18¢ for fall contracted calves. This compared to 14¢ last fall. Weights and conditions were greatly improved over 1953. Spring calves averaged 475 during late October sales. They were all in excellent condition.

There is no certain market channel for Greenlee County's cattle. Most ranchers have steady buyers, many from out of state. This year, however, a fair percentage of the range cattle have been marketed through Safford Packing Company, Safford, Arizona.

2. Livestock Disease

Disease has been a minor problem in Greenlee County. The only problem in 1954 was Hemorrhagic Septicemia (Shipping Fever). A large number of cases occurred during early summer when cattle were moved back to range land after being held in low elevation feeding areas. Most ranchers were able to cope with this problem with modern drugs.

3. Poisonous Plants

This was one of the worst years for poisonous plants. Losses occurred throughout the county but was especially bad along the lower Blue River north of Clifton.

Like 1949, heavy summer rains brought on lush weed growth. Heavy losses were reported from Stacey brothers ranch on Lower Blue. Losses were also incurred on the Slaughter, Fritz, Blair, and Ellrage ranches, all north of Clifton.

Poisoning began early in September and continued for a period of about three weeks. In all cases death occurred within minutes after cattle fed on weeds identified as "Golden Eye".

Cattle ranchers requested that the county agent appeal to the University of Arizona for help in determining the nature of the poisoning. Mr. Howard R. Baker, Assistant Director of the Extension Service, was contacted by the county agent and the problem explained. It was learned that the University will send W. J. Pistor, University of Arizona Veterinarian, to the infested range to make a

V. 3. A. (Cont.)

study of the situation. The study will be made in 1955 since the poison season is now passed.

Some trouble was encountered in the farming areas with Prussic Acid poisoning. A number of farmers pastured Sudan grass with beef cattle. Poor management resulted in Prussic acid formation. The grass was pastured too early or permitted to be stunted.

The agent contacted all farmers known to have Sudan grass. The danger and management practices were discussed in detail. News releases were made through press and radio noting sound management practices. The agent assisted several farmers in treating poisoned cattle. The local druggist stocked sodium thiosulfate for farmers to treat their own cattle. In no case was it necessary for a veterinarian to be brought into the county to treat effected cattle.

4. External Parasite Control

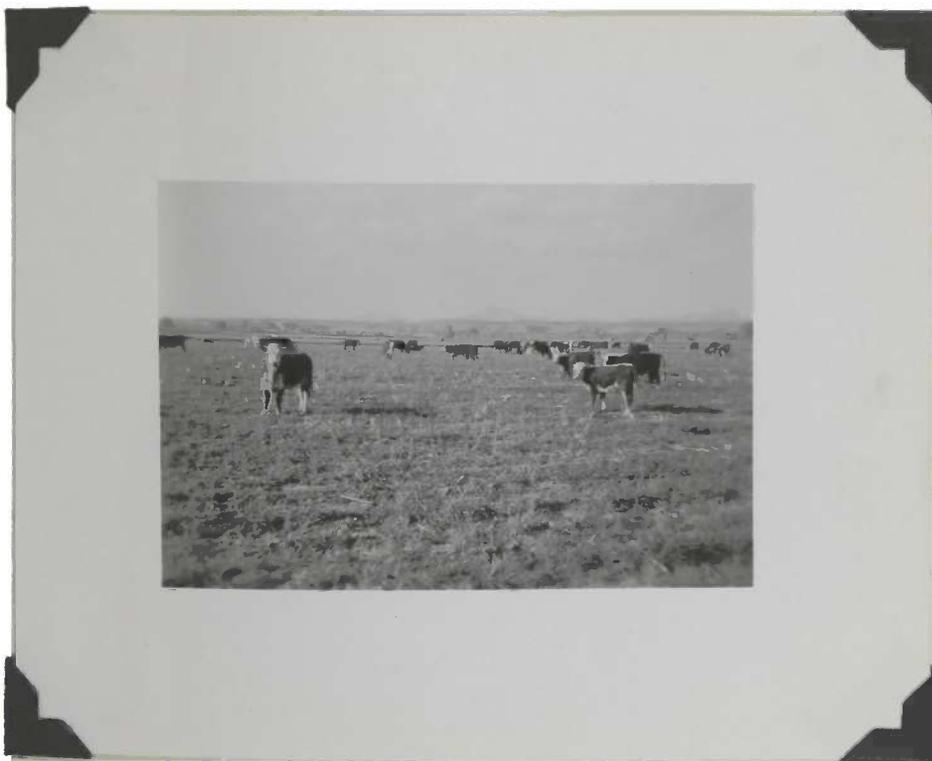
Approximately 90% of the county's cattlemen sprayed for the external parasites during 1954. Six new sprayers were purchased by local cattlemen during the current year.

Screw worms were more severe this year than most ranchers could remember. The heavy summer rains and hot days set up conditions for the heavy infestation. Every known treatment was used but still severe damage was reported. The best results were achieved with the use of a Lindane atomizer followed with a protective smear.

Stock flies were extremely bad in the farming area. Most farmers got fair control with malathion sprays. The agent established three fly control demonstrations in the York, Luntville, and Duncan areas. The extremely wet summer made complete control almost impossible. Most farmers did make a desperate effort to control flies around their barns and corrals.

5. Supplemental Range Feeding

Drought conditions were severe in Greenlee County until the summer rains began in July. Until that date 95% of the county's cattlemen were supplementing range feed. Many were having to haul water also. Salt and meal was predominantly used as a supplement. Some chose to use range pellets, a high energy and vitamin fortified feed. All forms of range supplement has ceased since early in July. There remains ample feed to last through the winter.



Beef Production On Alfalfa
Grass Pasture. Located On
Mary Lunt & Sons' Farm

V. PROJECTS

3. Livestock

B. Sheep

1. General

Sheep production has been on the increase in Greenlee County in the past five years. The extension service has been responsible for promoting sheep production in this county. The farmers developing farm flocks are still enthusiastic in spite of a temporary slump in lamb prices.

The county agent has met with owners of farm flocks to discuss management programs. Farmers have been encouraged to plan the program to make use of farm roughage feeds and alfalfa pasture. A uniform production program is anticipated in the coming year.

The agent has assisted two sheepmen with internal parasite control.

V. PROJECTS

3. Livestock

C. Swine Production

1. Market

The hog market has not been too favorable during 1954 compared with previous years. Spring prices were good, some fat market barrows bringing 22¢. Late summer and fall has brought a sharp price drop.

The weaner pig demand and price has been strong all year. Most fat hogs are sold through Safford Packing Company, Safford, Arizona

2. Internal Parasite Control

Perhaps there is no other one factor that will deny a farmer profits quicker than to be guilty of feeding wormy pigs. The county agent has promoted the practice of worming pigs before placing them on a fattening ration. Treatment has been recommended at 10 to 12 weeks of age. Sodium flouride has been recommended at a rate of 1 pound to 100 pounds of ground grain. Excellent results have been achieved.

There were three pig worming demonstrations established during the year. These demonstrations were well received by the farmers concerned but poorly attended by their neighbors.

3. Swine Feeding Program

More farmers are starting to use pasture in growing out pigs. This practice with a very small amount of grain has produced some excellent feeder pigs. Pigs grown on alfalfa pasture have been placed on grain rations for 30 to 45 days prior to market. Excessively fat hogs are no longer in demand at the markets.

Farmers are being encouraged by the county agent to go to a pasture program, thus cutting feed costs. At present there are two commercial hog feeders in Greenlee County. Both are feeding garbage under the regular inspection of the Bureau of Animal Disease Eradication. One is located at Clifton, the other at Morenci. Approximately 200 head of hogs are being fed at the two locations.

4. General Swine Production

Swine production is on the increase in Greenlee County. Reduction in cash crops, particularly cotton, has caused local farmers to turn to other means of income. A hog-alfalfa program promises a reasonable profit to local farmers.

V. 3. C. (Cont.)

There have been two purebred Duroc boars purchased in recent months by local farmers. Both were purchased in New Mexico.

Swine producers have been kept posted on the outlook for the future. Based on U. S. D. A. predictions, farmers have been encouraged to breed for spring litter, hoping to catch the rising fall prices in 1955.



Mr. Heaton Lunt, Local Farmer,
Inspects Automatic Hog Waterer
And "Wallow" Pool.

V. PROJECTS

3. Livestock

D. Range Management

Range management is yet in its infancy in Greenlee County. The only work done to date is the creation of new water tanks and water diversion dams in the southern part of the county. Some ranchers are becoming more conscious of overgrazing. The county agent has visited all cattle ranchers in the county during the year. The subject of range management has been discussed at every opportunity. Most ranchers feel that the cost of approved controlled practices for Juniper and noxious weeds are too expensive. Therefore, very little is being done.

V. PROJECTS

4. Dairy

A. Disease Control

1. Brucellosis Control Program

The county agent called a meeting with Dr. W. W. Harkins, Bureau of Animal Disease, to discuss a more effective Brucellosis control program. It was agreed that the county agent would serve as the coordinator between the farmers and the testing veterinarian. All owners of dairy cattle were contacted and a testing schedule drawn up. The program went into action in March after considerable publicity over the radio and in the press. By October 30th, upward of 95% of the county's dairy cattle had been tested for Brucellosis and T. B.

The use of raw milk is being discouraged, especially if the cattle were not tested.

This program is to be continued.

2. Milk Fever Control

This has always been a major problem among farmers who keep family cows. Generally speaking, it is a management problem. Heavy producers left on green pasture until they calve invariably come down with milk fever, which is a sudden decline of the calcium content in the cow's system.

The county agent has provided almost all farmers owning milk cows with the "Milk Fever" leaflet written by Dr. W. J. Pistor, University of Arizona Veterinarian. Numerous news articles and radio releases have served to remind farmers of proper management of milk fever cases. The agent has on numerous occasions helped farmers administer treatment with calcium gluconate solution. There is some evidence that the educational program is having some effect. The incidence of milk fever cases has sharply declined in recent months.

3. General Dairy Production

Dairy production is yet limited by a restricted market. Dairymen are making the most of efficient production. Lunt Brothers have built a new \$20,000.00 milking parlor and feeding corrals. It is believed to be as nice as any similar setup in Arizona. By use of this new six-cow milking parlor, one man is now able to milk 100 cows in two hours. In the old system it took three men approximately 3½ hours.

V. 4. A. (Cont.)

Sanitation is no small item in the modern milk parlor. The milk is never exposed to the air from cow to processing plant. The state health inspector has found the bacteria count to be extremely low in this dairy.

All local dairymen have culled their herds heavily during the past year. More improved replacements have been brought into local herds. Mr. Easton Frazier, local purebred Guernsey breeder, has purchased seven additional registered cows in 1954. He has also sold some of the lighter producers. Mr. Frazier, like the Lunt Brothers, has established a new modern refrigerated cooling system.

All local dairymen have gone on improved feeding programs, using more home grown silage and improved quality hay.

It can be said that a poor market is being off-set by improved dairying practices. For each dollar gross income, a greater share is remaining with our dairymen as net profit.

V. PROJECTS

5. Poultry

1. Laying Flocks

The position of Greenlee County's poultrymen is good due to the heavy demand for eggs. Profit has been extremely small during 1954. The principal reason has been inter-grower competition of under selling each other and generally poor management practices. Our poultry producers refuse to cull properly or to purchase Arizona produced chicks. Consequently, most laying flocks rarely average above 60% lay due to the large number of boarders kept in the flock.

The county agent conducted a winter meeting with the local poultrymen to discuss the problems pertinent to efficient production. Few have adopted the practices recommended by Mr. Ralph Van Sant, State Extension Poultry Specialist.

Two culling demonstrations were conducted during the year by the county agent. Neither was well attended.

One demonstration was conducted to show poultrymen how to vaccinate for fowl pox.

At present egg production does not look too promising in Greenlee County. The greatest need at present is for a natural grower-leader among the producers. The individualist attitude among growers has with-held progress from what could be a flourishing agricultural enterprise. At present less than six growers are doing a satisfactory job.

2. Turkey Production

Turkey production has been of minor importance in Greenlee County. There have never been large commercial flocks. Many farmers have kept a few birds to sell during the holiday seasons.

It has been discovered that turkeys make excellent growth on alfalfa pasture. A few farmers are beginning to try this practice. It may well prove the beginning of increased turkey production in Greenlee County on a commercial scale. Any future operations would be restricted to the size of the market created by the mining population of the surrounding towns.

3. Poultry Disease and Parasite Control

The principal diseases in local poultry flocks have been respiratory diseases and coccidiosis. Some range paralysis has been observed in young birds.

V. 5. (Cont.)

The county agent has made numerous field calls to observe and aid in correcting these conditions. Poultrymen have been advised on the use of sulphur drugs and antibiotics in combating disease. Heavy culling has also been advised.

Worms and blue bugs have been the principal parasites among poultry. All local poultrymen have been provided with a copy of Extension Circular No. 112, "Prevent and Control Poultry Diseases and Parasites", by Dr. W. J. Pistor.

4. Poultry Housing

This is one of the most needed improvements among our poultrymen. Most respiratory diseases have been promoted by poor, drafty houses. Modern poultry plans have been made available by the University. The county agent has ordered a number of housing plans for farmers planning to go into production.



Mr. and Mrs. Ernest Campbell
View Their Flock Of White
Leghorn Layers

V. PROJECTS

6. Irrigation

A. Maintenance of Ditches

1. Rodent Control

This remains a serious problem on most irrigation canals. Most farmers have done a fair job of controlling rodents during 1954. This is the results of past years demonstrations on control methods. The most common and most effective control has been by use of poison baits. Constant patrol of canals has aided in maintenance cost. In this way early damage is discovered in time to make repairs.

2. Weed Control

To date not much has been done to control weeds on ditch banks. The county agent established three weed control demonstrations in the Franklin community during 1954. Amine 2,4-D was used on field bindweed. The demonstrations were very successful and created considerable interest among local farmers. There is a good possibility that canal companies will spray the canals in 1955.

3. Concrete Ditch Lining

This practice is increasing each year. Approximately 12 miles of irrigation canal was lined with concrete during 1954. Lining ditches gives perfect control of rodents and weeds and prevents loss of water. The initial cost is quite high (approximately \$2.00 per foot), but the ditch maintenance cost is cut to almost zero.



Mr. Robert Golding Demonstrates
Roadside Weed Control

V. PROJECTS

7. Engineering

All engineering work has been handled through the local Soil Conservation Office. It has consisted primarily of land levelling on crop lands and developing water storage tanks on ranches. There remains a considerable amount of this type of work to be done. The high cost of irrigation water is being felt more each year on farms where uneven land or steep lands increase water loss through improper irrigation. The county agent is cooperating with this program and encouraging more farmers to level their farm land.

V. PROJECTS

8. Entomology

A. Cotton Insect Control

(Refer to Cotton)

B. External Parasite Control

(Refer to Livestock and Poultry)

C. Household Insects

1. Demonstration On Control Methods

Dr. J. N. Roney, State Extension Entomologist, cooperated with the County Home Demonstration Agent, Miss Virginia Twitty, in conducting three demonstrations. Two were held in the York community and one in the Duncan community. A detailed report of this work may be found in Miss Twitty's annual report.

2. Fly Control

The county agent cooperated with the Duncan City Council in carrying out a local fly control program. Dr. J. N. Roney, State Extension Entomologist, was invited to Rotary to speak on the subject. After the meeting he and the agent met with the city council to plan the control program. The local fire department cooperated in applying the malathion spray with the fire truck.

Before actual spraying was done, a ten day clean-up campaign was put into action. Two radio broadcasts were devoted to the program, and a news article was run in the "Copper Era" weekly. The County Extension Office and local 4-H Clubs cooperated in writing and distributing circular letters to every home in the Duncan community telling what to do to make the fly control program more effective.

The spray program was put into effect early in July. It was not as effective as had been anticipated. Numerous heavy summer rains followed shortly after the spray was applied. Certain garbage disposal ordinances were never enforced, so the fly population built up again very rapidly. It did serve to give temporary relief from the flies and perhaps made more people conscious of the serious threat to human health.



Fly Control Demonstration At County
Fair Grounds. Malathion Gave
Excellent Results.

V. PROJECTS

9. Soils

1. Soil Surveys and Maps

U. S. D. A. maps showing the latest soil surveys were placed in the hands of all Greenlee County farmers. Farmers have been encouraged to learn the land classification of the soil they farm. It is believed that over-all farming plans can be aided greatly by farm plans being made according to land capability.

2. Soil Testing

Soil testing has received considerable attention during 1954. Many farmers have requested that tests be made to determine phosphate and salt contents. However, in many cases soil tests have not proven of great benefit in actual farm practices. An example being the soils that showed a definite shortage of phosphates yet no response was visible to phosphate applied. Other fields showing high phosphate content have responded to commercial phosphates. The reason for this erratic condition is not known at present.

3. Soil Conditioning By Use of Crops

The most needed improvement is Greenlee County soils "tilth". The over-cropping system, particularly cotton, has caused most of the adobe soil to become hard and difficult to work. A program of crop rotation was started through necessity in recent years, and results are astounding. Soil kept in alfalfa three years, followed one year with grain sorghums, is responsible for correcting a soil condition believed by some farmers to be irreparable. The alfalfa roots open up the soil to a depth of several feet. When it is plowed up a tremendous amount of organic material is left in the soil to decay. This is the source of lasting plant food and water holding capacity. The grain crop that follows has shallow roots, thus the top layer of soil is thoroughly perforated with fine roots left to turn into plant food in due time.

Soils that have received this treatment have been returned to full production in four short years without the benefit of any form of outside fertilizer.

This rotational program is now being used by 80% of the county's farmers, with a 100% expected in the near future.

V. PROJECTS

10. Rural Sociology

A. Farm Safety

1. Farm Safety Program

Farm safety is a farm practice that is very often overlooked. During Rural Farm Safety Week posters were displayed to remind farmers of the need for their cooperation. The local 4-H Club cooperated in preparing a circular letter pointing the way to safer farming practices. The letters were mailed to all farmers in the county.

The county agent devoted a part of two radio broadcasts to farm safety week. Special news releases were made through the Copper Era, weekly news paper. Safety films were shown to local groups.

2. Fire Prevention Program

Throughout the year the county agent has stressed fire prevention around the farm. A film stressing safe handling of petroleum products was shown to local 4-H clubs.

National Fire Prevention Week was observed by putting up timely posters, releasing special news items to KCLF, Clifton radio station, and the Copper Era weekly.

V. PROJECTS

11. Agricultural Economics

A. Commodity Prices

The extension service has been without the services of an economist since early in the year. A meeting of farmers was conducted last January for the benefit of farmers making plans for the coming crop year. Mr. Thomas M. Stubblefield, then State Extension Economist, spoke to the group on outlook for 1954. Mr. Stubblefield also released a number of news articles on the economic situation. The Copper Era weekly made good use of this material and published it for the farmer's benefit.

The county agent has attempted to keep up to date on farm outlook information and pass it along to the farmers. It appears that more farmers are making use of such information in making farm plans.

Farm commodities have been fairly stable in price and demand all year. Livestock came up in early summer and held steady throughout the fall.

The County Extension Service keeps the current market reports posted on the bulletin board as they arrive in this office.

VI. OUTLOOK AND RECOMMENDATIONS

National Outlook

1955 appears to be a fairly stable year for farmers. There still exists over-production, or perhaps a better term would be poor distribution, throughout the nation. High operational costs are expected to continue. Adequate supply of farm labor is expected in 1955.

Cotton In Greenlee County

Cotton acreage has been reduced again in Greenlee County for 1955. The acreage has been reduced from 2,110 to 1,711 acres. This means a change in plans for many farmers who had hoped for more acreage in 1955. No satisfactory cash crop replacement was found in 1954. Income was sharply reduced from previous years. An above-the-average season for cotton off-set some of the lost acreage. Farmers do not expect the same thing to happen in 1955. Most cotton farmers are planning to plant grains and hay. If conditions should remain stable through 1955, many will sell their feed through livestock. Recommendations are being made with this in mind.

Livestock Production

If rains come again in 1955 as they did during 1954, most ranchers are in a sound position. Drought conditions are the determining factor in cattle production in Greenlee County. At present the future looks good for the local cattlemen. They are being advised to cull heavy and not over-stock ranges.

More local feed lot operations are being encouraged. A number of farmers have expressed an interest in this type of operation for 1955. Farmers are being advised to avoid expensive feeding facilities. Most feed lots will be of a temporary type until cotton restrictions are lifted.

Swine and Sheep

Production of swine and sheep appears to be a sound farm enterprise during the coming year. Both are capable of making excellent use of alfalfa, thus cutting feed cost. The market outlook is sound for the last half of 1955. At that time grain feeds would be plentiful. An excellent market exists through the Safford Packing Company in Safford, Arizona.

Farmers are being advised to turn to production of these livestock as a cash crop replacement.

Dairy and Poultry

The future for these agricultural enterprises is very risky. Over-production and inadequate market is yet a problem. The precautions for both run parallel; restrict expansion cull heavy, and operate more efficiently to reduce cost of production. Little expansion is expected in Greenlee County.

VI. OUTLOOK AND RECOMMENDATIONS (Cont.)

Greenlee County Fair

A good county fair is important to the agricultural progress of a county. Farmers, ranchers, 4-H members, and homemakers look forward to the time of the fair each year to display their exhibits. No one likes to exhibit anything they can not be proud of. This fact will improve the quality of livestock and other agricultural commodities grown on the farm.

The Greenlee County Fair is something the people of the county can be proud of. It has been rated by extension people, judges, and people who observe all the fairs in the state as one of the best for its size in the state. The 1954 county fair was the largest to date.

This year additions were added to the swine exhibit pens. Barns and exhibit buildings were remodeled for more effective use. The sports grounds were fenced off from the fair exhibit area. The exhibit building was painted inside. All this greatly improved the fair.

The agent met with the fair superintendents soon after the 1953 fair to draw plans for desired changes in fair facilities. The fair commission was presented the plans by the department superintendents. The work was completed in time for the 1954 fair.

The 4-H boys and girls exhibited at the fair almost 100%. The county interest is high with excellent support for all communities. Entries came from extreme north end of the county this year.

Mr. and Mrs. M. E. Frazier were in charge of the arrangements of Greenlee County's booth at the Arizona State Fair. Much of the county exhibits went into the booth. It was awarded third place in quality and completeness. Greenlee County received the State Fair trophy for having the outstanding and most exhibits. This was the first time this award has been won by our county.



**Modern, Convenient Swine Pens Built
At County Fair Grounds For Use in
1954**