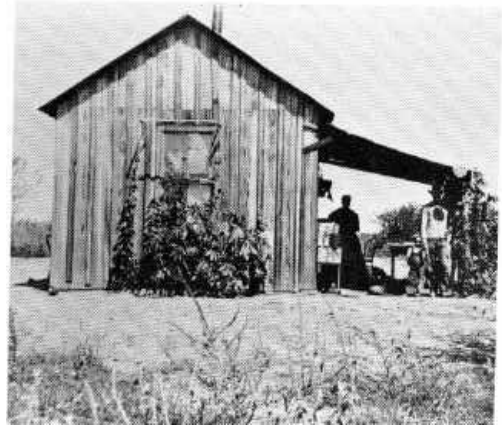


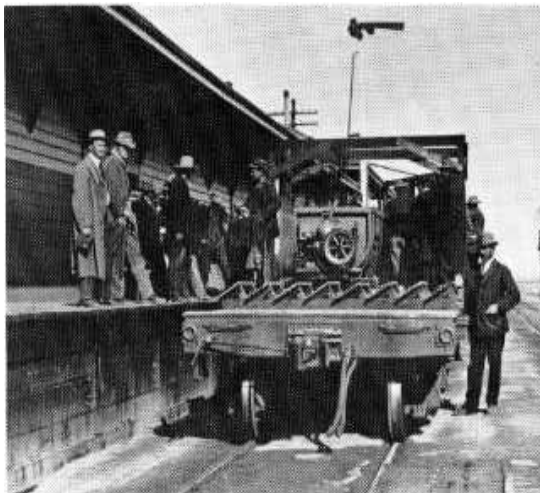


Sorghum, squash, pumpkins, other crops for dry farming in the Sulphur Springs Valley, 1908



Typical Sulphur Springs Valley home, 1908

The first Cochise County Extension Agents were hired in 1914-15.



AAES Demonstration Train at Willcox, December 1914

The Agricultural Demonstration Train was an extension effort that preceded the formal organization of the Ag Extension Service. The train traveled about 2,000 miles within the state each year, from November to December. Generally there were about 30 stops, and at each stop lectures and demonstrations were given.

Farmers' and Housekeepers' Week was an additional extension effort of the college. On the final day participants sometimes were treated to an ostrich banquet.

Most of the on-farm demonstrations in 1914 concerning corn were conducted in Cochise, Graham, Greenlee, Navajo, Apache and Coconino counties.

County agents believe that low levels of organic matter in soils contributed greatly to low crop yields. The agricultural agent in Cochise County noted that the calvary posts near the Mexican border produced much manure and that it was burned daily. In 1916 he encouraged farmers to use this and other manure on their lands.



Chopping yucca for livestock feed, Cochise County, 1918

The 1916 Extension program in Cochise County also emphasized the need to pump irrigation water efficiently. The agent determined that the cost of pumping water in Sulphur Springs Valley ranged from a \$1.25 to \$3 per acre-foot, the differences being mostly due to differences in pumping plant efficiency.

Arizona produced less than 20% of the food consumed by its population in 1917. Several steps were taken during World War I to turn that situation around. One Cochise County 4-H youth sold \$125 worth of vegetables in 1917 from a fraction of an acre. That same year a farmer in Cochise County netted \$228 from 175 hens.

In 1919, after a series of Extension on-farm demonstrations, Oak Creek in Coconino County and Paradise in Cochise County were identified as excellent for production of fruit.

Agricultural Agent C.R. Adamson said in 1919 that he and farm improvement association members in Cochise County were convinced that orcharding would form the basis of permanent agriculture there. The production of English walnuts also was suggested for Cochise County. In these early years the Extension horticulture program emphasized improved methods of planting and pruning orchards and the use of cover crops. In 1915 demonstrations of these products were in Clarkdale, Tucson, Sonoita and Portal. By 1919 the orchard demonstrations included spraying to control insects and fruit-drying.

Ten carloads of registered Hereford bulls were introduced to Cochise County in 1919 to improve range cattle there.

The first home demonstration clubs in Arizona were organized in Cochise County in 1921. The Sulphur Springs Home Demonstration Club was organized in the Kansas Settlement with Mrs. Margaret Anderson and Mrs. Mamie Kimsey among the charter members. The second club, the Mountain View Neighborhood Club, did not survive.

Agricultural agents in Cochise, Graham, Greenlee, Yavapai, Navajo and Apache counties emphasized farm recordkeeping in their plans of work for 1922.

A detailed survey of Pinal County agriculture was completed in 1921 that showed about 65 percent of the irrigated acreage was used for cotton that year. Cotton also was the major crop in Maricopa, Yuma and Pima counties by the early 1920s and was on the road to becoming a major crop in Graham, Greenlee and Cochise counties. In 1924 Cochise County growers produced more than 500 acres of cotton, and that same year they shipped their first carload lot of cotton from the county.

Agricultural Agent Russel Coglon conducted on-farm demonstrations in Cochise County during 1924 to evaluate the adaptation of sugarbeets there. It was shown that they could be grown, but had disease and insect problems.



Harvey Tate, Extension horticulturist, demonstrates tree training to a group near Benson, 1936

In 1925 the Regents granted permission to sell the Extension Service Cochise Dry Farm. On November 21, the Regents accepted an offer of \$2,600 cash for the farm, thus closing out part of the history of Extension dry-farming research.

After periods of unfavorable weather during the 1920s, the beginning of the depression forced most of Arizona's dry-land farmers out of operation, thus ending much of the Extension agronomists' efforts to help sustain these farmers through research. Most of the affected farmers were in Cochise, Coconino, and Navajo counties. The Prescott Dry Farm was also sold, ending two years of goat-raising studies.

At the higher elevations in Graham, Cochise and Greenlee counties demonstrations using New Mexico Acala cottons were conducted by Extension agents. These high quality lint varieties were well suited to cultivation at elevations of 3,000 to 4,000 feet, and a premium was received for lint produced.



A water intake study was conducted on the Chiricahua Ranches Company ranges near Sonoita. The person responsible for collecting the data was Ernie Hussman, who in 1938 became superintendent of the University Farms.

In the early 1870's, drovers began restocking Arizona's ranges. The most noted was Colonel Hooker, who brought two drafts of cattle over Apache Pass and settled in the Sulphur Springs Valley. (This pass was the gateway to the Chiricahua Apache Nation. Apache warriors attacking at the pass cost the Butterfield Line more stages, men and horses than were lost during all of the other portions of the trip from Missouri to San Francisco).

During the period around 1947, Bart Cardon studied how woody, high-fiber parts of plants were utilized by ruminant animals. Chiricahua Ranches Company of Sonoita generously offered its purebred herd and maintenance facilities for use in the experimental program. This work showed that calves differed in their ability to gain weight quickly.

A. Molenaar, Rural Electrification Association irrigation specialist, and Cochise County farmer discuss costs of irrigating with electricity, 1941

Extension agents conducted demonstrations using dried citrus pulp and grapefruit and cantaloupe silage, and other products as cattle fattening rations.

Around 1950 Bart Cardon suggested investigating the role of *Leptospira* organisms as a cause of the disease hemoglobin uria of Arizona cattle that cowboys called 'redwater' because the urine of affected animals became red for a time before recovery or death. He and W.J. Pistor obtained one of the first National Institutes of Health research grants ever awarded to the College of Agriculture to support the work. Serums of many thousand cattle were tested for leptospiral antibodies and a number of redwater outbreaks were investigated. *Leptospira pomona* was recovered from one episode on a ranch in western Cochise County. A significant number of cattle were found to have antibodies to the organism indicating prior exposure with recovery. Commercial vaccines came into use during the 1950s, and one doesn't hear of redwater much anymore.

According to Extension reports, the predominant variety of short-staple cotton in Arizona during the 1950s was Arizona 44, an Acala variety. Cochise, Graham and Greenlee County growers, however, used Acala 1517, a variety developed by New Mexico State University and the USDA.



Charles Kimzey commenting on the Cotton Fertilizer Test on his farm, Field Day — September 15, 1953

A disorder of cotton called 'hollow-boll' or 'crazy-top' was observed in Arizona during the late 1950s. Extension agents suggested cultural practices that increased water penetration and water-holding capacities of the soil. Generally, crazy-top was described as physiological disorder of cotton and was attributed to inadequate soil aeration and moisture. Where organic-matter management was practiced, the disease was negligible. And rust was a problem, particularly in Cochise County, but timely application of fungicide was an effective control.

In 1960, Cochise Agent Carmy Page said this year, "The continued decline in the water table with increased cost for pumping requires more efficient means of handling the water supply for profitable farming."

In 1962, two new home agent positions were established in

Cochise and Gila counties. It was the first time funds had been appropriated for a home agent in Gila County.

Agricultural Day was launched in Cochise County in 1978. That year it featured corn production. In later years other topics of importance to people of the area received attention. This annual meeting draws 300 to 400 people each year.

By 1979 more than half of Arizona's lettuce crop was grown in Yuma County. Maricopa, Pinal, Cochise and Pima counties also produced significant amounts of lettuce.

The average number of hogs and pigs on all farms in Arizona from 1975 to 1979 was 7,137,000. This was more than double the number during the preceding five years. Numbers of hogs and pigs fluctuated greatly. For example, in 1978 there were 10,296,000 head while in 1976 only 4,752,000 populated Arizona. About two-thirds of Arizona's hogs and pigs were reported to be in Navajo, Cochise and Graham counties in 1979.

Southwestern rust has been an erratic disease problem for Arizona cotton producers since its appearance in 1922. Severe disease outbreaks in southeastern Arizona cause yield reductions of 50 to 75%. Extension Agent Deborah Young and Meteorology Specialist Paul Brown studied this disease in 1988. They found that the following weather conditions were required for the disease: 16 hours of wet canopy and high humidity with temperatures between 65 and 76 degrees F.

Extension Agent Kim McReynolds worked with several state and federal agencies to increase understanding about the impacts of noxious weeds on the environment. This program led to the control of the Russian knapweed along roads by the Arizona Department of Transportation. By fall 1998, only two individual plants could be located where populations had previously been mapped along roads (approximately 45 populations).

Codling moths continue to be a pest of apple orchards throughout Arizona. The Arizona Department of Agriculture and Extension Agent Rob Call monitored 43 traps in the Willcox area to determine whether abatement executions would be necessary. In 1999, growers enjoyed a relatively pest-free growing season.



Extension Agent Douglas T. Dunn lists suggestions for coping from an audience in Clifton, site of mining unemployment, during a stress workshop, 1982