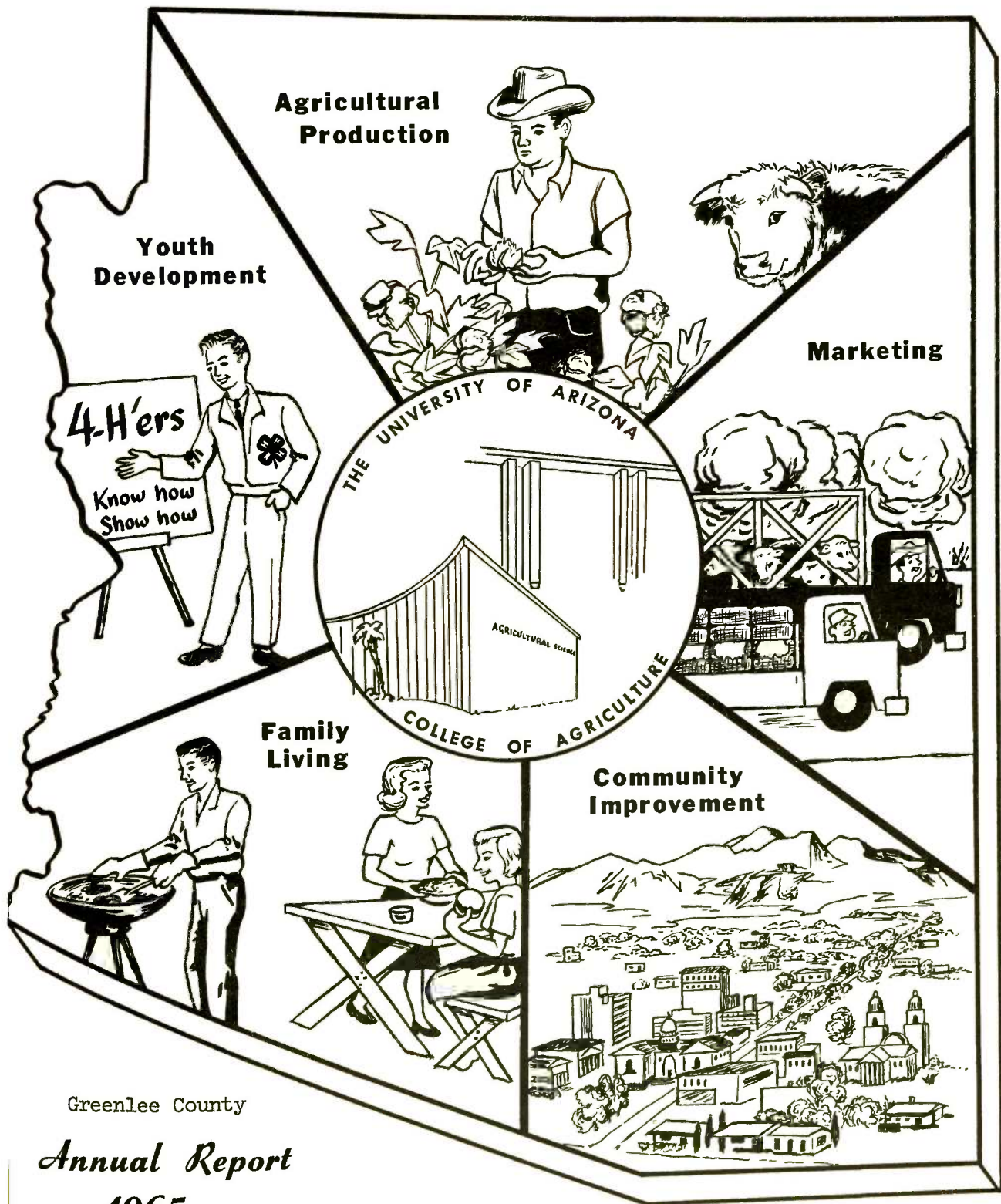


How the Cooperative

Extension Service

in Agriculture & Home Economics

Serves



Greenlee County

Annual Report
1965

ANNUAL
NARRATIVE REPORT

for

GREENLEE COUNTY

January 1, 1965

to

December 31, 1965

Ernest A. Foster, Agricultural Agent in Charge

Maxine L. Sager, Extension Home Economist

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Extension Organization Programming & Evaluation



"To administer the Extension Service in the most efficient and effective manner possible to ensure that its educational capabilities continue to be readily available to local groups in assisting them to search out and work on pockets of opportunity for raising individual, family and community well being."

I. EXTENSION ORGANIZATION, PROGRAMMING AND EVALUATION

A. Staff members and their major areas of emphasis

<u>Names</u>	<u>Titles</u>
Maxine L. Sager	Extension Home Economist
Ernest A. Foster	Agricultural Agent in Charge

<u>Major Areas of Emphasis</u>	
Extension Home Economist --	Overall Family Living (Home Economics) program. Subject matter in Family Living program. Assistance with overall 4-H Club programs and special programs in health, sanitation, welfare, economics, and marketing.
Agricultural Agent in Charge --	Overall responsibility for county program and all agricultural subject matter in adult and youth education programs. Joint assistance with youth and special programs, including community development and special interest areas.

B. Staff Changes During The Year

None

C. How The Extension Program Is Developed

The program is based on expressed needs and interests of the people in the county. The County Extension Board reviews the overall program and offers suggestions in certain problem areas. The County Homemakers Council, County 4-H Council, County Farm Bureau, County Cattle Growers Association, and the County Dairy Herd Improvement Association have represented the desires of their respective groups in the content of the program. Request by individuals and other commodity organizations also play a part in determining the program. University of Arizona publications "Facts, Trends, and Changes" and "Extension Education Ideas" are used by program planning groups for program suggestions. County background information is provided by the agents from latest survey studies.

D. Advisory Groups - Their Purpose and Membership

Greenlee County Agricultural Extension Board

The original Greenlee County Agricultural Extension Board was appointed by the County Board of Supervisors on July 1, 1964. Three replacements for expired terms of service were appointed on July 1, 1965.

Members, remaining terms of office, and groups represented by each are, at present:

M. Easton Frazier (Chairman)	1 year remaining	County 4-H Council
Mrs. Edna Cospers (Secretary)	2 years remaining	County Homemakers Council
Marvin Lunt	2 years remaining	County Farm Bureau
James Sanders	2 years remaining	County Cattle Growers
Mrs. Almeda Wilkins	1 year remaining	County Farm Bureau Aux.
Mr. Frank Willis	1 year remaining	County Cattle Growers
Mr. Fred J. Fritz	1 year remaining	Member at Large

This board serves as an advisory board regarding the County Extension program with responsibility for reviewing annual reports and programs of work and making recommendations thereon. The board also reviews and makes recommendations regarding the county portion of the Extension budget to the County Board of Supervisors.

Greenlee County 4-H Council

This group assists with county 4-H program planning, execution, evaluation, and training. They give advice and policy suggestions regarding family living and agricultural programs with 4-H clubs. The officers are:

President - Brooks Claridge, Duncan 4-H Club

Vice President - Roy Dozier, York 4-H Club

Secretary-Treasurer - Betty Dozier, York 4-H Club

Greenlee County Homemakers Council

This group elected by all the county Homemakers Club membership plays an important part in assisting with planning the family living phase of Homemakers and 4-H club programs and leader training for the county. Their main officers are:

President - Irene Mahan (1965)

Vice President - (Vacant)

Secretary - Betty Gaddy (1965)

Treasurer - Delorice Jones (1965)

E. Assistance of Individuals, Groups, Organizations and Agencies

Individual cooperators on demonstrations and field tests in cooperation with the Extension Service make a major contribution toward the success of the agricultural, 4-H, and Family Living programs. Cooperators in 1965 were Tom Garcia, Franklin - Chili variety tests; Ruby Sanders, York - Tomato variety tests; Mel Richins, and Howard Sexton, York - Cotton variety tests; Tom Pace, Franklin - Forage sorghum variety tests; Amos Nasson, Franklin and James Brooks, Blue - Alfalfa variety tests; Greenlee County Country Club, York - Bermuda variety tests; City of Duncan - Harvester Ant Control demonstrations; W. G. Goodner and Terry Tipton, Duncan - Biological webworm control tests; Barbara Attaway, Duncan - Commodity foods preparation demonstration; Cordelia Highwood, Duncan - Ceramics demonstration; Betty Gaddy, Clifton - Corsage demonstration; Romney Produce Company, Phoenix - Salad demonstration; Tandy Leather Company, Tucson - Crafts workshop demonstration.

The editor of Greenlee County's weekly newspaper, "The Copper Era", has been very cooperative in publicizing the extension program. Timely agricultural, homemaking, and 4-H information has been published throughout the year. Several individual homemakers and 4-H Clubs have regular news releases in "The Copper Era".

People representing practically every field of business, industry, agriculture, and profession have been ready and willing to assist with the 4-H Club program. Merchants, miners, farmers, teachers, bankers, nurses, and many others give continuing support. They offer special assistance in sponsoring awards as well as publicizing the program. Merchants, bankers, industrial, and utility organizations and commodity organizations in the various communities support the 4-H livestock sales and provide trophies. They also donate window space for displays to create awareness of the 4-H Club activities and special programs. Farmers and ranchers have provided livestock and facilities for conducting 4-H judging and training programs.

4-H Club leaders as a group provide the base for support of the entire 4-H Club program. The contribution of time and effort in their role as leaders plus parent support is the major determining factor in the success of the program.

Project leaders are a boost to the Homemakers program. The Homemaker program depends on interested, well informed leaders to carry information gained in training meetings to the club members. Greenlee County project leaders realize their importance and actively support this method of teaching.

State, Federal and local government agency assistance with the County Extension program has been extremely valuable. Relationships have been excellent and the various agencies working together on various programs have resulted in increased cooperation and understanding.

The Extension Service and the local USDA agencies work together on the County Defense Board, Agricultural Conservation, Rural Recreation, and other pertinent programs with Extension generally handling the information and education jobs.

Other agencies worked with during the year were the USDA Statistical Reporting Service, Arizona State Land Department, Arizona Commission of Agriculture and Horticulture, Fish and Wildlife Service, Agricultural Research Service Animal Disease Control Branch and Plant Pest Control, Bureau of Land Management, State Employment Service, County Humane Society, County Health Department, and Department of Public Welfare.

Representatives of the F.H.A., B.L.M., Veterans Administration, and the State Employment Service have scheduled regular meeting dates in the Extension office to contact people in the Duncan area who desire assistance. Requests for information regarding these programs are referred to the respective agencies concerned.

County school administrators, utility and service organizations, companies and churches have been very cooperative in offering building facilities for Extension meetings with youth and adults. The Phelps Dodge Corporation has provided meeting facilities for Extension activities in the Morenci area and the Duncan Rural Electric Coop. and the American Legion have furnished many of the facilities for meetings in the Duncan area.

The Greenlee County Fair Board has been very cooperative in supporting the county 4-H and Homemakers programs by supplying facilities for various events and activities.

Excellent working relationships exist between 4-H Club and the Future Farmers of America. Other organizations interested in and assisting with the Extension program have been the Greenlee County Cattle Growers and the Greenlee County Farm Bureau organizations.

F. 1965 EXTENSION EDUCATION PROGRAM BY COMMUNITIES

- An Overview -

Extension Program	Blue	Clifton	Duncan	Eagle	Franklin	Luntville	Morenci	Plantsite	York-Sheldon
<u>AGRICULTURAL PRODUCTION:</u>									
Cotton Variety Tests (2)									2
Insect Survey Tour (1)			1						
Bermuda Variety Test (1)									1
Alfalfa Variety Tests (2)	1				1				
Forage-Sorghum Variety Test (1)					1				
Pepper Variety Test (1)					1				
Tomato Variety Test (1)									1
Pasture Grass Variety Test (1)	1								
Webworm Control Tests (2)			2						
Puncture Vine Control Tests (5)		1	1		1	1			1
Harvester Ant Control Test (1)			1						
Systemic Insecticide Test (1) (Arborvitae)			1						
Fly Control Demonstrations (6)	2	1	1	2					
<u>AGRICULTURAL MARKETING:</u>									
Income Tax Short Course (2)			2						
<u>YOUTH DEVELOPMENT:</u>									
4-H Clubs		1	15				14		7
4-H Leadership-In-Depth--Training			2				2		2
<u>COMMUNITY IMPROVEMENT:</u>									
Pruning Demonstrations (16)	1	3	4	1	1	1	3	1	1

Extension Program	D U N C A N	Y S O H R E K L a D n O d N	C L I F T O N	EAST P L A N T SITE	M O R E N C I
<u>FAMILY LIVING:</u>					
Homemaker Clubs (5)	x	x	x	x	x
Homemaker officer and project leaders (training)	x	x	x	x	x
Savings for Family Investments and Emergencies	x	x	x	x	x
Family Communications between Children and Mothers (Training)		x		x	x
Family Communications between Husbands and Wives (Training)		x		x	x
Consumer Buying (Training)	x	x		x	x
Mending of Clothing (Training)	x	x	x	x	x
Tailoring Workshop (Spec. Interest)		x			
Craft Workshop (Spec. Interest)	x	x	x	x	x
Ways to Refinish Furniture (Spec. Interest)	x	x	x	x	x
Ways to Use and Prepare Commodity Foods (Special Meetings)	x				
Household Arts (Training--Special Interest)	x	x		x	x
Income Taxes (Special Interest)	x				
Careers of the Home Economics Profession (Spec. Meetings)	x				x
Educational Tour in Safford (Special Interest)					
(1) Gila Printing and Publishing Co.					
(2) Meat Packing Plant	x	x	x	x	x
More Efficient Home (Spec. Meeting)	x				
Demonstration of Salads in Season (Spec. Program)	County Council Meeting				
Demonstration of Flower Arranging and Corsage Making (Spec. Program)	County Council Meeting				
<u>COMMUNITY DEVELOPMENT & PUBLIC AFFAIRS:</u>					
Driver Training Clinic (Special Program)	x		x		

G. .Program Evaluation Projects

Several field demonstrations were evaluated. Refer to Agricultural Production Section.

"Adapted Varieties Increase Alfalfa Yield"
"Forage Sorghums Make Good Summer Pastures"
"Quality Cotton Makes Money"
"Tomato and Pepper varieties Retested"
"Harvester Ant Control Demonstration Successful"
"Webworm Disease Appears Successful"
"Single Systemic Treatment Control Arbor Vitae Aphids All Summer"

Extension Information



"To strive toward common goals, people must have a body of common knowledge and ideas. Extension Information helps disseminate knowledge and ideas among people that will help them make economic and social improvements."

II. EXTENSION INFORMATION

A. Methods Used and People Reached With Agricultural and Home Economics Information

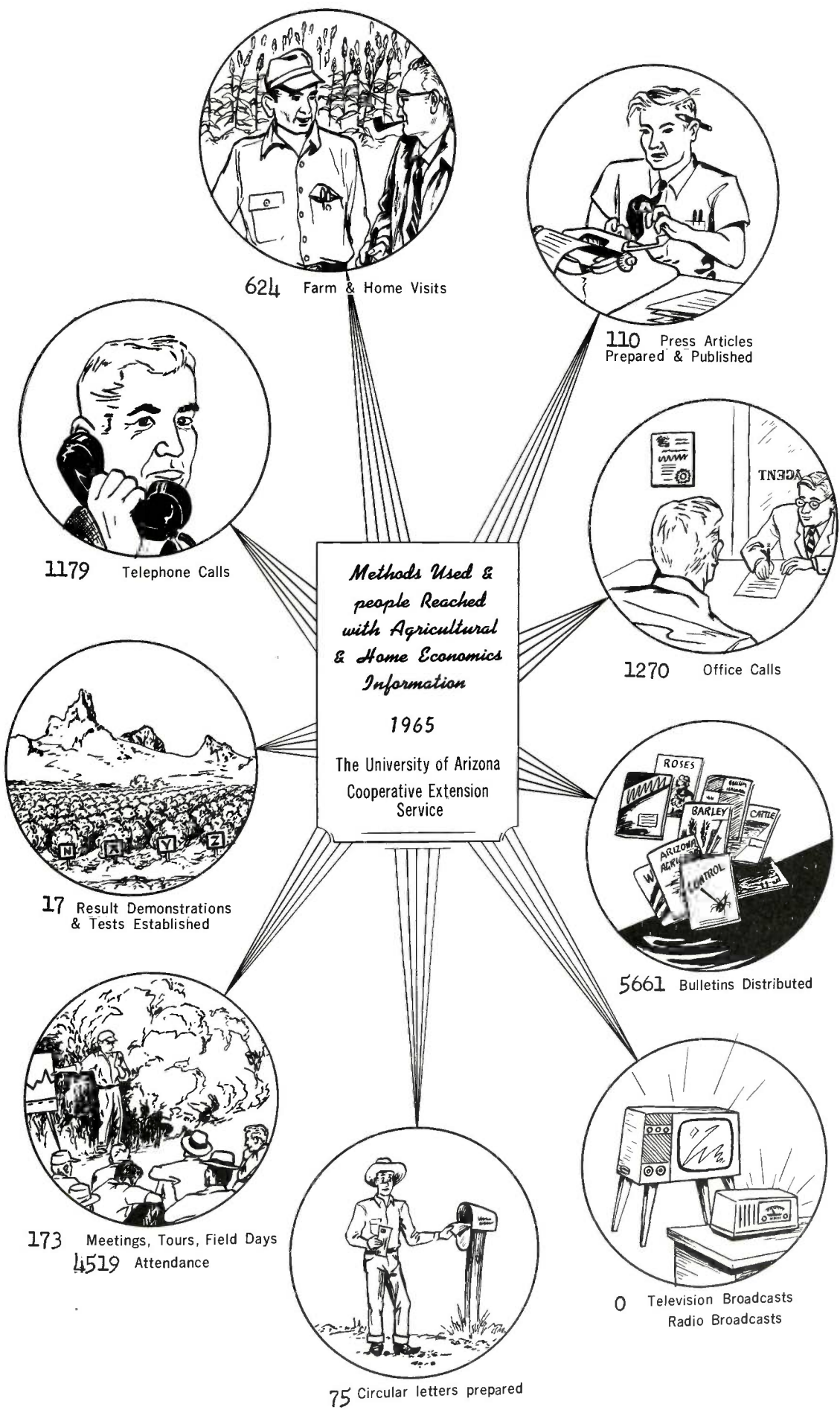
Many methods are used by Extension workers in supplying information to the people of Greenlee County as indicated in the diagram on the following page.

The results of research in Arizona, the results of research in other areas, and the results of research by the United States Department of Agriculture--together with practical experience in the local adaptation of such information--are made available through the county in the fields of Agriculture and Home Economics and to adults and to rural youth alike.

Results of agricultural and home economics research--and other information of value to the residents of Greenlee County--were presented in printed form through bulletins, circulars, and folders to the people of the county during 1965.

The 5,661 publications issued by the County Extension Office during the year covered subject matter information in the fields of agronomy, economics, irrigation, entomology, horticulture, soils, clothing, livestock, home management, 4-H work, and many more. They contained latest results of research and experience explained in an easily understandable manner for practical use.

Of the 5,661 publications issued in Greenlee County in the past year, 3,000 were in the area of agriculture; 2,061 in family living, and 600 covering 4-H Club work.



B. Special Extension Information Projects

County Newspaper Uses Agricultural and Family Living Information

"The Copper Era," Greenlee County's only newspaper and having the highest per capita circulation of any county newspaper in Arizona, receives regular and special agricultural, home economics, and 4-H news stories from the County Extension Office. About 110 such news items were published during the current year. These were supplemented by localized stories furnished to the county papers by local Homemakers and 4-H clubs.

Similar information is furnished to the people of the county through various other means, including circular letters, Homemakers news letters, personal contacts, telephone calls, office calls, meetings, tours, etc.

Both agents in the county maintain regular news column outlets in The Copper Era. This is an important media for releases of latest research information, reminders of various events and activities, and to call attention to other Extension information devices.

Both the columns and regular releases in the weekly newspaper offer an effective way to disseminate information among many people not normally reached by more direct methods. It also serves to acquaint people who do not participate in programs offered with the Cooperative Extension work.

Person To Person Does The Job

Meetings, bulletins, circular letters, and news items to the press are valuable teaching aids. However, these as well as personal letters cannot entirely replace the need for farm and home visits for effective teaching in many instances.

Home grounds improvement and pruning are two of the projects which require the greatest amount of follow-through, including farm and home visits. A large percent of the new residents in the county desire to landscape their home grounds or produce some fruit or vegetables for home use. The lack of understanding of agriculture under local conditions often results in misinterpretation of information supplied in printed form. Home visits are, however, time-consuming and this limits the extent to which they can be used.

Agricultural Production, Management, & Resource Use



"Efficient production of high quality products for the consumer, a good living for farm and ranch people and the wise use of farm and ranch resources. Resources used according to their capability and conserved so that future generations may also enjoy our heritage."

III. AGRICULTURAL PRODUCTION, MANAGEMENT, AND RESOURCE USE

A. Cotton

Quality Cotton Makes Money

The importance of quality cotton is exemplified by the fact that very little of the cotton in Greenlee County is placed on loan. Greenlee County grows only 1517 cotton, which consistently sells at a premium of about five or six cents per pound. Superior fiber strength and staple length are features that provide special demand for this variety for certain types of manufacture.

During the summer of 1965, demonstration plantings of five other potentially adapted varieties were tried by two grower-cooperators in the county. One grower planted alternating strips of 4447 (Hopicala) and 5909 in a field of 1517D for comparison. Another grower planted 1517C, 1517D, and 1517V for comparison.

Although facilities for weighing the lint from the various varieties were not available, observations and boll counts were made to compare production and other plant characteristics. Both Hopicala and 1517 showed promise of being good producers; however no comparison of fiber quality was made. 1517V was conspicuous by its resistance to verticillium wilt, but 5909 appeared to be less productive than any of the others. Fifteen-seventeen D showed more rankness of growth than the others and probably compared favorably in yield with 1517C.

Most observers felt that none of the trial varieties showed enough advantage over the conventional variety to warrant any change in the near future.

Late Spring Slows Cotton Growth

A light frost on the night of May 8 caused considerable damage to some cotton fields, fruit trees, and alfalfa crops in the Duncan valley. Several growers were forced to replant their cotton, and most of the fruit was lost.

On May 28, the agent and Henry Brubaker, cotton specialist with the University of Arizona, examined cotton fields in the Duncan valley to determine the effectiveness of Treflan weedicide control and Thimet insecticide treatment. The use of both materials could be readily observed by glancing at the plants. The cool spring temperatures and unfavorable growing weather had apparently caused the use of these materials to be quite observable.

B. Field Crops

New Bermuda Varieties on Trial

A Bermuda grass variety demonstration was established at the Greenlee Country Club on June 10. Plugs and sprigs of six different varieties or strains were planted in strips and watered. Observations will be made and recorded at intervals to determine their suitability for putting greens and fairways.

Use Weedicides with Caution

Two crop damage reports were investigated by the county agent during June in which weedicides were indicated to be the causative agents. One report from a vegetable grower, who complained of distorted leaves and stunted plants, was checked out, and it appeared that, though irrigation and soil management had been adequate, certain species had died out completely and others showed considerable damage. Potatoes had failed to germinate completely. Crop history showed that the entire field had been sprayed two years previously with "Trysben" to eliminate bindweed and had been fallowed the following year to eliminate bindweed seedlings by hoeing. It appeared that the herbicide residue carry-over was sufficient to damage crops two years following application.

Another report from the El Paso Pumping Station settlement near Duncan that mulberry trees were dying was checked, and it was found that the tree leaves were badly distorted or had been shed completely on a number of trees. It was also learned that "Trysben" had been applied to certain areas near the trees to kill weeds during early spring.

Insect Buildup in June

Moderate to severe infestations of aphids were found in barley fields in the Duncan area during April, and a number of fields were completely ruined. Heavy to moderate infestations of spotted alfalfa aphids, corn leaf aphids, brown wheat mites, and lygus bugs were found in alfalfa fields; most farmers harvested before the crop was mature to reduce the crop damage and insect buildup. Cotton plantings where systemics were used in the soil or on the seed were growing well during April, but several untreated plantings showed poor stands and stunted growth. Immediate spraying of untreated plantings where stands were adequate was recommended.

Plenty of Pests in July

On July 17, a local farmer brought in specimens of a weed taken from an alfalfa field near Duncan. He stated that the weed had choked out about twenty acres of alfalfa. The specimen was identified as knotweed, an annual, hardy weed that withstands trampling and drought. Two new selective weedicides will be tried on the alfalfa field next winter when the plants are dormant. On July 12, a farmer near Duncan complained of bugs taking his broccoli. A visit by the county agent determined the bugs to be Harlequin beetles, and a solution containing "Seven" was applied which destroyed the bugs within a very short time. Several calls from homemakers in Morenci were received by the agent during July regarding dodder infestations among ornamental plants and flower beds. The agent recommended burning the infested plants as well as the dodder and planting resistant varieties next year.

Adapted Varieties Increase Alfalfa Yield

The choice of a well-adapted alfalfa variety merits the attention of Greenlee County growers. Differences in yielding ability of as much as ten percent have been observed in variety demonstrations carried on in the county. Other important differences in winter hardiness and disease and insect resistance are worthy of note. All of these differences combined may mean the difference between profit and loss to the growers.

Two tests--one in the upper end of the Blue valley (elevation 7,600 feet) and the other in the Gila valley near Duncan (elevation 3,600 feet)--were established in 1963 and observations recorded for a two-year period. Actual production weights were not taken, but yield comparisons were made by counting bales or shocks of loose hay.

In the higher elevation on the Jack Brooks farm, Ranger was compared with Buffalo, Hardistan, New Mexico Common, 2961 A. G., Zia, Chilean, Lahontan, and Moapa. Although Buffalo, Hardistan, 2961 A. G., and Zia were very similar to Ranger, Ranger appeared to be the most winter-hardy of all and perhaps produced the most overall tonnage. Lahontan appeared to be hardy, started quicker in the spring, and responded quicker after cutting; however it produced a smaller plant than Ranger and thus a less overall production. Moapa started quickly in the spring, responded fast after cutting, but winterkilled badly.

In the lower elevation test on the Amos Nasson farm, Zia, African, Moapa, Sonora, Aphidor, and Ranger were compared with Lahontan. Although less difference was noticeable among varieties in this demonstration, Lahontan appeared to be as good a producer, or better, than the others, with Aphidor, African, and Ranger very close. Neither Sonora nor Moapa showed up as well as far as production was concerned. In this test, both Lahontan and Aphidor were the tallest plants and showed more branching.

Forage Sorghums Make Good Summer Pastures

Variety demonstrations continue to provide excellent and valuable information to Greenlee County farmers producing pastures. On-farm tests provide local proof what variety - or other good farm practice - is best in a given situation. One farmer in the county demonstrated the use of forage sorghums for summer pasture in the Duncan valley during 1965.

Strips of sweet sudan were planted alternately with Trudan (a hybrid sudan) and Sordan (sorghum-sudan cross) and grazing results observed using a small herd of beef cattle. The most significant observations revealed that the cattle seemed to prefer the sweet sudan over the other two varieties, or at least they would graze it off first. The Trudan made the fastest recovery after grazing and probably produced the most tonnage. The Sordan seemed to be the second choice of the cattle following sweet sudan, but recovery rate was a little slower than that of Trudan.

All three varieties provided excellent pasture when properly rotated and irrigated, and no prussic acid poisoning was experienced throughout the summer. The new forage sorghum varieties seem to have much potential value for summer pastures.

Harvester Ant Control Demonstration Successful

The harvester ant, differing from many of its relatives, is a strict vegetarian. It lives on desert plant material, which it cuts from growing plants and carries to its nest. It is especially fond of filaree, grass, and grass seeds and may sometimes inflict extensive damage to cattle ranges. It is a social worker like the honeybee. The workers dig the tunnels, gather the food, and carry the food to the queen and the young brood. Without the queen to perpetuate the species, the colony soon dies out since the queen is the only one that lays eggs. The toxins carrying a food-like attractant are placed near the entrance of the nest. To be successful, the workers must carry these particles to the queen and brood. When the queen and the larvae are destroyed and the workers complete their normal life cycle in a month or two, the colony becomes extinct.

On May 17, 1965, the agent, assisted by Extension Entomologist Leon Moore, baited twelve active harvester ant colonies in a two-acre tract south of the Duncan transformer. Six of the colonies were treated with various formulations of Mirex, Kepone, and Bayer 29493 using one tablespoon of the material for each colony. Each of the six were then replicated. Numbered stakes were placed beside each ant bed for later identification. Preliminary investigation revealed that the ants were actively defoliating alfilaria (filaree) plants, which were numerous in the area at that time.

One hour after application, observations were made revealing the following results:

Mirex 450 pelleted - Some bait still around entrance.
Mirex 450 pelleted with palm oil - All bait gone.
Mirex Pelleted 125 - Ants carrying last of bait into nest.
Mirex 150 - No reaction noticeable.
Bayer 29493 - All bait carried into nest.
Kepone pelleted - Ants carried bait away from nest.
Mirex 450 (Rep) - Some bait still around entrance.
Mirex 450 with palm oil (Rep) - Some dead harvester ants around entrance.
Mirex Pelleted 125 (Rep) - Ants carrying bait into nest.
Mirex 150 (Rep) - Ants carrying bait but not toward entrance.
Bayer 29493 - Ants carrying bait toward entrance.
Kepone Pelleted - Ants carrying bait to entrance.

Observations on August 1 revealed that all ant nests were abandoned except the two treated with Mirex Pelleted 450 with palm oil.

Observations on September 1 revealed no harvester ant activity in any of the treated beds, although some beds had been taken over by predator ants.

It appeared that all treatments were successful; however some produced quicker results than others. The Mirex with palm oil as an attractant apparently killed some of the worker ants before they carried it to the queen and the larvae. The Pelleted Kepone was apparently unattractive to the ants at first, but when other food sources became limited they probably took the bait. It appeared that the Mirex Pelleted 125 and the Bayer 29493 baits both brought about quick and effective results since these nests apparently had been abandoned for a longer period of time than the others.

The purpose of the demonstration was to determine which baits and formulations were the most effective and which ones brought about the quickest results.

Web Worm Disease Appears Successful

Fall webworms (*hyphantria cunea*), the fuzzy caterpillars which appear each summer among cottonwoods and other trees in Greenlee County, may be on their way out. These pests, which partially defoliate some of our ornamental trees and shrubs each summer and leave their ugly nests, are thought to be susceptible to a disease organism called *Bacillus thuringiensis*. Prompted by successful Forest Service research, Extension Entomologist Leon Moore and the agent sprayed two cottonwood trees in the Duncan area with a material made from infected worms on May 17, 1965, to observe results.

The first infestation of webworms occurred about the first of July but only a light infestation was found on the treated trees while the untreated trees showed extensive worm populations. Close examination indicated that the few nests on the treated trees contained immature, dead worms. On August 1, following the summer rains, one tree was re-sprayed with the same material (commonly called 25 W Biotrol). The second webworm infestation came about September 1 and was much heavier than the first one. Again several webs appeared on the treated trees, but the worms appeared to have died within the nests before completing maturity.

Although the purpose of the demonstration was to determine the effectiveness of the disease as a control - and it appeared to be at least partially successful - further demonstrations might reveal more practical timing of the applications with reference to emergence of the worms and climatic conditions.

Single Systemic Treatment Controls Arbor Vitae Aphids All Summer

Arbor Vitae, a common evergreen ornamental tree in the Duncan area, sometimes gains a poor reputation because it harbors aphids, which in turn attract flies, wasps, and other insects. Red spiders also follow the early spring aphid infestations.

On May 17, 1965, Extension Entomologist Leon Moore and the agent treated three Arbor Vitae trees in the town of Duncan with systemic materials to observe the results. One tree was treated with two tablespoons of granular U. C. 21149 ten percent systemic worked into the root area. Another tree received one tablespoon of the same material applied in the same manner. A third tree received two tablespoons of another systemic identified only as Union Carbide, lot number 5019-10, applied in the same manner as the other two. Observations made at ten-day intervals throughout the summer revealed no insect infestations of any consequence at any time on any of the treated trees. Untreated trees in the same area harbored heavy aphid populations during early spring and fall months but no red spider infestations.

The purpose of the demonstrations was to determine the effectiveness of the two new systemic materials and all three applications were very successful in controlling the aphids. Since red spider infestations did not appear on Arbor Vitae this summer, effectiveness of the material in controlling this pest was not revealed.

C. Vegetables

Tomatoe and Pepper Varieties Retested

New varieties of tomatoes and chili peppers show promise in Greenlee County. During 1965, two varieties of tomatoes with resistance to curley top and three varieties of chili peppers were tested on the Tom Garcia and James Sanders farms in the Duncan valley in cooperation with the University of Arizona Extension Service. Observations by agents and cooperators showed that the two tomato varieties were more resistant to curley top disease than the commonly grown Improved Pearson, but the Pearson was still the heaviest producer of marketable fruit. The new pepper varieties showed so much improvement over the old common Anaheim variety that they have been completely adopted already by nearly all commercial growers in the county.

Extension studies of tomato and pepper varieties have been made during the past few years in various parts of southern Greenlee County. Many varieties considered adaptable, including those above have been planted. Of the many varieties tried for commercial production, the Improved Pearson appears to still be the heavy producer, even though it is quite susceptible to curley top; is a late producer; and the fruit tends to have a hard core. Payette looks promising as an early producer, though the vines and fruit tend to be small and per-acre production is limited. The vines also lack shade coverage to protect the fruit from the sun. Of the many varieties of chili peppers tested during the past few years in Greenlee County, most commercial producers favor the pungent Sandia "A" since it is both the best seller and the highest producer. Most growers also produce a mild chili for the "gringo" trade. New Mexico 6-4 has been adopted for this variety, replacing NM 6-18 which was a popular, mild variety for a number of years but had a characteristic tip dimple that made peeling difficult.

Frequent watering and heavy fertilization have been found necessary for good chili production in Greenlee County, and, as with field grown tomatoes, plenty of room between hills is a necessity. Staking and training of vines has not been necessary in tomato production, and fertilizing may be more of a detriment than a benefit in tomato production in this area as it tends to retard maturation.

D. Livestock

County Screwworm Committee Named

On January 28, the agent contacted the County Farm Bureau, DHIA, and Cattle Growers officials regarding the screwworm program. They responded by appointing a county screwworm committee chairman and secretary-treasurer. Mr. Harvel Cosper, secretary of the Greenlee County Cattle Growers Association, was named chairman. Mr. Tom Pace, former president of the Greenlee County Farm Bureau and presently Vo-Ag teacher in the Duncan High School, was named secretary-treasurer. They, in turn, appointed local committee members to assist with the fund-raising program.

Screwworms on Way Out

Greenlee County Extension Service cooperated in the county Screwworm Eradication Program throughout 1965. All ranches and most farms were provided with the necessary materials and information so that a nearly complete check was made on screwworm cases throughout the year. Results of sterile fly drops in previous years have been so effective that nearly all farmers and ranchers are "sold" on the program and have contributed \$3,260 to assist with the program during this fiscal year.

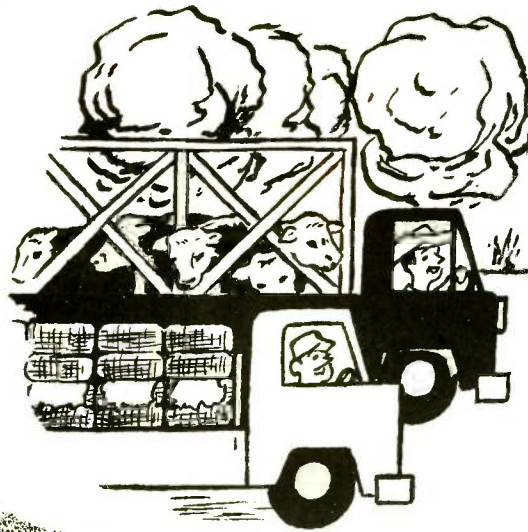
All the inspection spraying stations on the New Mexico border were closed in the fall of 1965, and on the ground "hot spot" services have been stopped to provide money for sterile fly production.

No Brucellosis in Greenlee County

One hundred percent of all beef herds and all dairy animals in Greenlee County were blood tested during 1965 and found to be brucellosis free. Testing during 1965 was part of an all-out effort to make Arizona a brucellosis-free state so that shipments of cattle could be made from this area to other areas without testing. This program may end future on-the-farm blood testing programs completely since future cattle testing is to be accomplished at packing plants.

Since Greenlee County has no practicing veterinarians, the county agent assisted with coordinating the testing between ranchers, farmers, and out-of-county veterinarians. A last minute rush was experienced in November as most farmers and ranchers tried to complete their testing before the end of the calendar year and at the time gathering was normally done. The agent assisted with the testing during this rush period where adequate help was not available.

Agricultural Marketing & Utilization



"To develop maximum efficiency in marketing,
distribution and utilization of agricultural products."

IV. AGRICULTURAL MARKETING AND UTILIZATION

Greenlee County Gin Joins in Micronaire Study

Greenlee County's one and only gin, the Duncan Valley Gin Company, volunteered to assist New Mexico State University specialists with a study to determine just what cultural factors influence micronaire readings. Micronaire or "mike" readings indicate fiber maturity and during the latter part of 1965 were made an official part of the government grading system.

Low mike cotton fibers are rather flat, thin-walled, and collapsed instead of round, firm, and thick-walled. Low mike cotton causes additional spinning problems.

So far, the study indicates that ginning does not affect micronaire readings. This is done by a combination of climatic conditions and cultural practices. The study suggests that the following factors might be conducive to low mike readings:

1. High nitrogen rates - too much, too late
2. Late irrigations
3. Verticillium wilt
4. Defoliation

Family Living



"Efficient use of family resources—time, money, energy and abilities—to provide food, clothing, and other family needs."

V. FAMILY LIVING

A. Homemaker Clubs and Their Activities

The Purpose and Functions of the Greenlee County Homemaker's Council

The county council officers--called the executive committee--with the presidents and secretaries of each club constitute the executive board for the Greenlee County Homemaker's Council planning committee. Cooperating groups are entitled to representation on the executive board with the right to vote.

All members of each existing homemaker club form the Greenlee County Homemakers Council, with each member having the right to vote on business transacted. Two yearly meetings are held to transact business, to promote extension programs, and to provide a special lesson for the day.

Officers of the council had been elected yearly through 1963. Beginning with 1964, election of officers alternate every two years with the president and secretary serving together and the vice-president and treasurer serving the same two years.

Starting in 1965, program planning is to take place between January and June of the current year for programs for the next calendar year, January through December.

The program outline for the year determines the subject matter project leaders within a homemaker club. Most subjects fall under the broad headings of clothing, foods and nutrition, home management, home furnishings, and family living. A project leader is responsible for presenting her particular subject to the members of her club and to give assistance to other groups within a community.

The Greenlee Council is a member of the Arizona Extension Homemakers Council. The Greenlee Council president and secretary are members of the Executive Board of the Arizona Extension Homemaker's Council. The same two members generally serve on the State Advisory Board, which plans the program for Town and Country Life Conference. Two State Council meetings are held yearly in Phoenix.

The extension home economist acts in a professional advisory capacity to the Greenlee Homemaker's Council. She enlists suggestions and help from subject matter specialists to develop programs for organized groups, individuals, 4-H home economics work, special interest groups, and information for mass media.

Membership Tally of Five Homemaker Clubs

Homemaker Clubs exist in Duncan, York-Sheldon, Clifton, East Plantsite, and Morenci. Active membership of 1965 took a slight drop over 1964.

1964 Membership	1965 Membership	
17	17	Duncan
27	16	York-Sheldon
21	6	Clifton
14	17	East Plantsite
20	15	Morenci
<hr/>	<hr/>	
99	71	Total

The Clifton club had the greatest drop in membership. The apparent reasons are working women and lack of leadership. The Clifton club talks of disbanding at the end of the 1965 club year. A fluctuation of membership was also created by retirement, death, and job transfer of husbands.

Officer and Project Leader Training

The Homemaker Club leaders got a head start for 1965 through an officer and project leader training meeting, January 15, from 9:30 a.m. to 3:00 p.m. at the Plantsite Club House. Miss Jean Stewart, state leader, assisted Maxine Sager with the meeting. Twenty-seven officers and leaders were present from a county total of fifty.

Executive Committee Makes Plans for Fall Council

Five county officers and the extension home economist met at the home of Delorice Jones in Stargo. Irene Mahan, president, was in charge of the meeting. Final plans and decisions were made for the fall council meeting to be held in Clifton on October 28. Revisions and additions were made for the homemaker program booklet for 1966 to be prepared in the County Extension Office by January.

Attractive Tasty Salads

Twenty-three Homemaker members and ten guests, including one local man from York, attended the Fall Homemakers Council meeting. Mr. William Romney, Vice-President of the Romney Produce Company, gave an excellent demonstration on salad making. He explained the nutritious content of certain vegetables and fruits. He showed various types of salad greens; then he proceeded to make salads.

At lunch, each person sampled the delicious salads. The council provided crackers and beverage.

A bakeless sale was successful as a money-raising project. A prize was offered to the club that gave one hundred percent of its membership. Three clubs gave one hundred percent, a dollar each per member.

New officers for a two-year term are: president - Virginia Tomerlin of Duncan, and Linnie Hoverrocker of York is the treasurer. Irene Mahan is filling the vacancy of vice-presidency for one year.

The group was informed about the program of activities for 1966 and of the available reading list for the religious class of the 1966 Town and Country Life Conference.

No one wanted to accept the responsibility of being president of the council. The nominating committee could not locate anyone. Nominations were made from the floor and candidates declined. Mrs. Tomerlin was then nominated. Since she has not been active in Homemakers for about twelve years, she didn't feel she should be president. However, since several had declined, she did accept the nomination.

Irene Mahan and Maxine Sager talked to the group about building the membership of homemakers. Mrs. Sager quoted Dr. George Hull on "Extension's Future Work" from the August minutes of the Arizona Homemakers Council Meeting.

Leadership Training

You Are The Judge

Do you ask yourself why you like a particular tablecloth, doily, or bath towel? Twenty-five interested women wanted to learn how to judge good and poor characteristics of household textiles.

Corinne Stinson conducted a combined meeting held in Safford for Graham and Greenlee County women. She had the women looking at color, shape, design, decorative or functional, and workmanship of many household items. These factors are to be considered when making or purchasing all household textiles.

Attendance from Greenlee County consisted of the Clothing Superintendent of the County Fair, one 4-H leader, and eight Homemaker Club members.

What Will You Buy?

Nine home management leaders attended a leader training meeting at the York Club House on September 3 from 9:30 a.m. to 12:30 p.m. Corinne Stinson and Maxine Sager jointly presented facts on consumer buying. The main emphasis was on appliances, food, and other merchandise found in the grocery store. The leaders received enough information for two club meetings.

Mirance Sales, a student at the University of Arizona from Brazil, informed the leaders about the food and nutrition habits of the people in her country. She said, "The rich people have the money but not the brains to know what to buy for a well-balanced diet."

Mending Made Easier

Family economy is always a factor on whether to mend or to buy new ones. Families of all income brackets can save by knowing how to mend. The usual complaint from the average homemaker is "I don't like to mend."

Two county meetings were held in an attempt to reach families other than homemaker club leaders. Seven women attended the leader training held at the LDS Church in Duncan conducted by Helen Church and Maxine Sager. Types of mending taught were levi patch, inset patch, machine darning, and reweaving a tear. The same information was extended by the extension home economist at the Stargo Club House, with four clothing leaders attending from East Plantsite, Morenci, and Clifton. Leaders expressed a new interest in mending from the information learned. No welfare families were reached at either session.

Understanding Yourself and Your Family

Communications, whether verbal, non-verbal, or written, are a way of life. Communications are the key to family harmony.

Family living project leaders had an opportunity to attend three training sessions to receive information on two topics: (1) Family Communications between Mother and Children and (2) Family Communications Between Husband and Wife. A total of twenty women received leader training on these two topics from Carol Doty and Maxine Sager.

An all-out effort was made to reach other organizations. Thirty organizations, including several churches, were contacted by letter. Representation from other organizations at the meetings included the Farm Bureau, Clifton LDS Church, and an interested woman who did not represent any organization.

Carol Doty provided records as a useful teaching tool. Leaders felt more secure as these records were used for lesson presentation.

B. Special Audience and Specific Interest Education

Young Homemaker Is Contest Winner

From the Duncan Tailoring Workshop, a young wife and mother, not a member of the local Homemaker Club, met the challenge of entering her gold wool suit in the "Make It With Wool Contest." Mrs. Mel (Beth) Richins of Duncan won first place in the district and chose to run for state competition. She became the second place winner in the adult division at the state competition in Phoenix, January 8.

Mrs. Richins entered the workshop with not too much sewing experience. She had never studied home economics in high school. Her sewing began after marriage. She has three young sons; the oldest one is eight.

The actual cost of this suit with matching blouse was \$24.90. A hand-tailored suit of this quality could easily be priced at \$175 to \$250 at retail cost.

Clothing Blue Ribbon Winner

Mrs. Harriett Wright of York took a blue ribbon on her wool suit at the 1965 Arizona State Fair. She accepted the invitation to participate in the Fashion Parade at the state fair.

Mrs. Wright is an experienced seamstress and does most of the sewing for herself and family of five. This was her first experience in making a tailored suit, which began in January at the York Tailoring Workshop. Mrs. Wright plans to enter competition in the regional "Make It With Wool Contest."

Since she placed first in the county and state fair competition with her suit, her husband has insisted that she make him a suit. She plans to begin with a sports jacket.

Eight More Women Complete Tailoring Course

The above stories are only two illustrations of self-achievements accomplished through the tailoring workshops. Women are most appreciative of their newly acquired skills. The January workshop, held in the York community, was the conclusion of a series of four workshops. The other three workshops were completed during the fall of 1964.

Seventeen women in the York-Sheldon area pre-registered. Eight women started and completed the course. Garments constructed were four wool suits with lined jackets and skirts; one dress with a lined jacket; one lined dress with a lined jacket; one blouse; and a lined skirt.

Dollars For You Or The Government?

For the third season, Dr. George Campbell conducted two income tax sessions held in Duncan on November 29 to inform people of the laws. This meeting date was established to give assistance to the farmers and the ranchers before their income tax returns fall due in January. The afternoon session was specifically for farmers and ranchers. The attendance fell from fourteen last fall to seven. Of the seven, four were new people who had not attended other income tax sessions.

The evening meeting was also conducted by Dr. George Campbell. Attendance fell from twenty-four last year to eight. Only one new person was in attendance. Personal deductions were discussed at this meeting.

Five hundred and twenty-two notices were mailed prior to this meeting to farmers, ranchers, homemakers, and others. Extension Notes of the Copper Era carried information for three consecutive weeks.

The evening session scheduled for the Clifton area on November 30 had to be cancelled. Cancellation notices were only sent to people in the Clifton-Morenci area. The Copper Era carried a special cancellation news release. Meeting to be rescheduled for February.

Seeing Is Believing

Each year the Greenlee County Homemaker's Council plans a county-wide activity which is not a part of their daily living routine.

Reading the weekly Copper Era and feeding meat to the family is a part of daily living. To better understand the processes behind the scene, a tour was made simultaneously of the Safford Meat Packing Plant and the Gila Printing and Publishing Company. Women were encouraged to bring their husbands. As a result, two men and twenty-one women participated in this tour on April 1, 1965.

Town and Country Life Conference

Nine women from Duncan to the Blue attended the 19th conference on the University of Arizona Campus. This is the most Greenlee County has ever had in attendance at any one conference. Three of these women attended for the first time. They were Shirley Johnson of Morenci, Mary Jane Arrington of Duncan, and Ruby Sanders of York.

Lula M. Brooks, who is a Cowbelle from the Blue community, assisted with registration on June 7, 1965.

A More Efficient Home

Since several members of the Duncan Woman's Club are employed outside the home, they requested that the extension home economist give them pointers on running a more efficient home. Small household items were used to illustrate efficiency of time, energy, and cost.

Interest and Creativity Combined

A one-day workshop held in Duncan, through the cooperation of the Tandy Leather Company of Tucson and the Agricultural Extension Service, provided twenty-six women with new ideas and skills. Mr. Lane, Manager of Tandy Leather, taught the primary principals of plastic embedding, mosaics, and copper enameling.

Forty-two women from Homemakers Clubs and 4-H Clubs pre-registered for this one-day event. Since space was a factor, invitations were not extended to other groups such as campfire girls, cub scouts, and churches. Free pre-registration was no help in fulfilling the anticipated attendance.

Careers in Home Economics

To better inform men, women, and youth about the home economics professions, the extension home economist spoke to the senior girls at the Duncan High School, women of the Spring Homemaker's Council meeting, and to the Duncan Rotary Club.

Twenty-six slides prepared by the American Home Economics Association were used to give a clearer picture of the many job opportunities in the field of home economics. Men of the Rotary Club were amazed at the opportunities. One Rotarian said, "This is the most informative club meeting we have had in a long time."

Informal contacts were made with the Duncan, Clifton, and Morenci home economics teachers and with the Morenci High School principal.

Series of Commodity Food Preparation in Duncan

Participants of these series were:

- (1) Women who receive commodity foods
- (2) Mother-daughter teams
- (3) Teenage girls. Some came from families who were on welfare; others wanted to learn as a means to serve their community better by assisting others to make wiser use of commodity foods.
- (4) A key leader from the Duncan Homemakers Club

Cooperation was sought through the County Welfare Department for recruitment of participants; however the contacts of those who participated were made by the extension home economist and Father Fredic Hall. A meeting was held with the teenage girls to decide what evening would be best to hold the cooking session.

The Duncan School system was most cooperative by permitting the Extension Service to use the home economics facilities. The kitchen units would accommodate about twelve to fourteen individuals. Seven of the sixteen individuals invited attended the first meeting on Friday, April 9. Six series were planned for Friday evening of each week from 7 p.m. to 10 p.m.

A team of two prepared one or more foods each session. A discussion was held on all dishes prepared, then participants sampled each one. Attendance per meeting ranged from six to eight. Because of activity conflicts near the end of school, only four of the six meetings were completed.

Dreaming of New Furniture--Budget Won't Stretch

Two meetings on Ways to Refinish Furniture gave people in both ends of the county an opportunity to attend. Corinne Stinson, home management and home furnishings specialist, presented pointers on new commercial finishes, first aid for nicked furniture, how to clean and revive an old finish, what's involved in doing a quality job of refinishing furniture, written instructions on painting and antiquing furniture, and new rulings by the Federal Trade Commission for labels on furniture.

Ten women attended the meeting in East Plantsite from 9:30 a.m. to 11:00 a. m. On the same day, nine women attended the one in the annex of the First Baptist Church in Duncan from 1:00 p.m. to 3:00 p.m.

Even though this meeting was open to everyone, Homemakers Clubs had representatives who brought back to the individual clubs some of the ideas and printed material from the lesson. One woman decided from the meeting that refinishing furniture was no woman's play. Budget or no budget, she purchased some new furniture instead of refinishing the old.

C. Other Family Living Events

Brazilian Visitors

Iracema DeSa and Mirance Sales were experienced Extension workers in Brazil. They are presently pursuing a Bachelor of Science Degree in Home Economics at the University of Arizona.

The Elvin Lunt family served as a host family to Miss DeSa and the W. E. Barney family for Miss Sales. These young women wanted the experience of living with a rural farm family to gain insight of the family pattern of an American home.

Miss Sales participated in the leader training meeting on consumer buying. This also provided her with an opportunity to observe Extension in action in this country.

Newsy Letters Help People to Better Understand Children

Forty more names became a part of the mailing list after three kindergarten teachers received sample copies of the pre-school letter to parents. One hundred and fifteen copies are mailed monthly from the County Extension Office.

Health and Sanitation

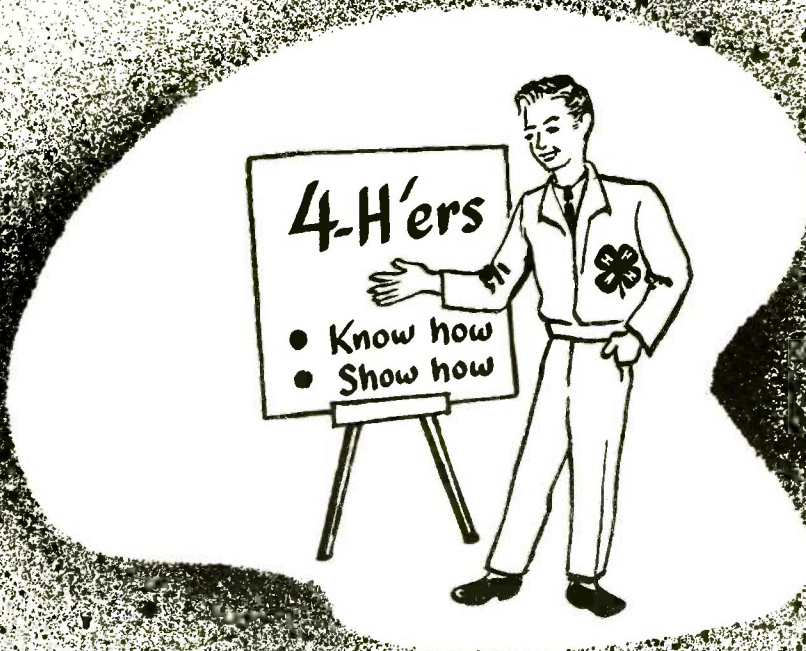
Homemakers are happy to see garbage cans covered in Morenci for sanitary reasons.

County Fair Exhibits

The York Homemaker Club exhibited various activities of their club year. Space is limited; therefore Homemaker Clubs exhibit by rotation per year.

Garments for the Physically Handicapped were an exhibit on display by the Agricultural Extension Service. Patterns are available on loan through the office in Duncan. Shortly after the fair, pattern requests were made for the wheel chair apron and the wheel chair bag with snaps.

Youth Development



"To provide opportunities for mental, physical, social and spiritual growth that will enable young people to, through their own initiative, effectively identify and solve the various problems affecting their welfare."

VI. YOUTH DEVELOPMENT (4-H CLUBS AND OTHER YOUTH)

A. 4-H Clubs and Their Programs

Organization

Clifton 4-H Organization

About two hundred and fifty boys and girls from the fourth grade through the eighth grade at the Laugharn Elementary School listened to an explanation of 4-H Club work by Greenlee County Extension Agents. The youngsters were informed that the program would depend upon whether or not adult leadership could be secured. The students were urged to help locate leaders.

To date, eighty Clifton boys and girls have registered for 4-H projects. Leaders have been recruited for three project groups: knitting, horse training, and archery.

The Clifton Kiwanis Club has elected to become a sponsoring agency for 4-H in Clifton. The Extension Home Economist outlined the objectives of 4-H; responsibilities of a sponsoring agency; the role of a 4-H leader; and other phases of 4-H team work at their December 2 dinner meeting.

4-H Enrollment Hits All-Time High

The 1964-65 4-H enrollment for Greenlee County hit an all-time high with 204 members. Membership per communities: Morenci 77, Duncan 72, York 41, and Clifton 14. Leadership also hit an all-time high with 48 men and women.

Leadership

4-H Girls Learn About Munsell Color System

A 4-H leader, her members, and a house guest were presented with a special program on the Munsell color system during June by the home economist. The two-day session provided much interest in individual coloring and colors for the home.

One member charted her father's personal coloring after the first lesson. After comparing the chart with some of his clothes, she found that some of his garment colors were identical to colors on his personal coloring chart. One younger member planned to add a touch of pink in an accessory, such as new lamps, after she charted her bedroom colors.

County Agent Helps With Leader Training

During January the county agent met with the Duncan Community 4-H Club members, leaders, and parents. Included in the program were several demonstrations, presented by various members, and films on citizenship and community development. Following the refreshments, a leader training session was held on club organization; duties of officers; and how to conduct a meeting. Over one hundred people were in attendance for the main part of the meeting. 4-H community meetings for Duncan members, leaders, and parents are held every other month.

The county agent also participated in a County 4-H Leaders Council meeting at York during April to assist with preliminary planning for the annual 4-H county camp. A three-day camping program was planned to be held at the County Fair Grounds during August. All leaders, junior leaders, and parents would be invited to participate in the camp program. Only tentative dates could be established for the camp since the mine shut-down dates for summer vacation had not yet been announced. The program planning was concluded with a leader training session on record keeping, reporting, and completions.

Training for Knitting Leaders

Graham and Greenlee counties held a joint in-service training session for key leaders at the County Extension Office in Safford on November 1. Mrs. Florence Bennett of York was the representative for Greenlee.

Darleen Kurtz, Extension Home Economist of Graham County, taught the lesson. Most emphasis was placed on Knitting I; however some points were reviewed on Knitting II.

Knitting project groups have been organized in Duncan, York, Clifton, and Morenci. A leader training meeting was held at the home of Florence Bennett on November 11, with Mrs. Bennett conducting the meeting.

Morenci 4-H Foods Leaders

On November 12, a 4-H foods leader meeting was held at the home of Mrs. Jo Lunt in Plantsite. Four of the six Morenci foods leaders attended. Purpose of the meeting was to acquaint them with their foods material and the general procedure to be used in conducting a 4-H project group.

Education Through Projects and Project Related Activity

4-H'ers Make Insect Survey

Accompanied by its leader, Mrs. D. R. Scott of Morenci, and the county agent, the Morenci 4-H Entomology Club gathered and studied crop insects in the Duncan valley on May 1.

The five boys, members of the club, surveyed alfalfa, barley, and cotton fields in the Duncan area. Each was provided with a net and a killing jar. After a little instruction on making sweeps and transferring the insects from net to jar, they went to work.

After a sizeable number of insects were gathered and a more sizeable lunch was served, the boys proceeded to identify their catch. Bulletins with pictures and other data were provided, and the identification and mounting procedures brought the end to an interesting and educational outing.

Events

4-H Day Camp Huge Success

After many planning sessions with adult and junior leaders, the County 4-H Day Camp became a reality on August 10, 11, and 12. Participation was excellent with an average daily attendance of seventy members. Thirty-five adult leaders and parents assisted with the various activities on the first day, sixteen on the second day, and thirty-seven on the third day. Workshops, demonstrations, and judging were emphasized and programmed in correlation with the State 4-H Roundup activities. An adult leader, Mrs. Barbara Attaway, acted as camp director with Junior Leader Irene Barney as her assistant. Another adult leader, Mrs. Betty Dozier, acted as secretary-treasurer. Registration took place each morning, and a charge of fifty cents per day per member or three days for one dollar was made to cover insurance fees, crafts and recreation materials. All activities were sponsored by various clubs, and junior leaders took charge of singing, recreation, the candle lighting ceremony, and assistance with judging contests. Camp activities took place from 9:00 a.m. to 3:30 p.m. during the first two days and from 9:30 a.m. until 8:00 p.m. on the third day, which included a candle lighting service and potluck dinner for the members and their parents. Members brought sack lunches each day for their noon meal.

Other highlights of the program featured mosaic tiling sponsored by adult leaders Mary Gardner and Alva Hill; a wildlife appreciation program by Ted Starnier, State Game and Fish Department; rope tying and splicing by Gordon Wilkerson; and rope making by

Barbara Attaway. Judging contests included horses, beef, eggs, horticulture, flowers, and clothing. Mr. Brooks Claridge, President of the County 4-H Council, not only assisted with the entire planning process but also assisted with each day's entire program. Special recognition is also due the Greenlee County Supervisors and the Greenlee County Fair Board, who made every possible contribution to make the event a huge success.

Morenci 4-H Club Fair

On June 24, 4-H'ers, leaders, and parents met at the Morenci Community Building to display project work in foods, crafts, clothing, geology, home management, and electricity. No ribbons were given. The purpose: to better acquaint the public with the activities of 4-H.

As exhibits were being organized, the home economist tried a new teaching approach. Personal conferences were held with individual girls to discuss their clothing project. First the girls were asked to evaluate their own construction; then the home economist made constructive criticism. There wasn't time to reach every girl.

After a potluck dinner, the public viewed the exhibits. A demonstration was given by Nancy Smith of Duncan. Each girl modeled her garment or garments. Paul Scott, the National 4-H Club winner, was unable to be present. In his absence, his father gave a summary of Paul's National 4-H trip to Washington, D. C.

Inquiry From Texas On Greenlee 4-H Day Camp

The Fort Bend County Leaders 4-H Council delegated Mrs. S. B. Beard of Guy, Texas, to make a study of day camps.

"Our county has held for several years a three-day camp for the top forty boys and girls, but circumstances this year brought about the day camp idea.

"I read your article in the April, 1965, issue of The National 4-H News and was very impressed with what you folks did. I would appreciate any help or advice you could give me, such as how to start, what to do, other than what you had in your article. Facilities pose no problem to us. A local 4-H family has a fishing resort with public accommodations for up to several hundred people.

"Any information you can give me will be greatly appreciated. I feel that a day camp is the answer to our problem."

4-H'ers Selected for Citizenship Day

Each individual community nominated a boy and a girl as candidates for 4-H Citizenship Day representatives. Members selected were: from Morenci--Cheryl Dunckhorst and Jimmy Brownell; from York--Luis Montoya and Irene Barney; and from Duncan--Nancy Smith and Bob Richins. From these names, the Extension office selected Nancy Smith and Luis Montoya to represent Greenlee County at the third 4-H Citizenship Day. Paul Scott, a Club Congress delegate and National Conference winner, was a special guest this year.

B. Other Youth Development Activities

Extension Helps With Annual FFA Field Day

On Saturday, February 27, the county agent spent the day arranging and conducting judging and identification contests in horticulture and field crops at the Annual FFA Field Day at Thatcher. FFA teams from southeastern Arizona counties participated in the various events. The agent set up twenty dry weed specimens for identification; twenty common seed specimens; and twenty live ornamental shrubs, trees, and vines for identification.

Judging ring classes were set up for potatoes, carrots, lettuce, apples, oranges, barley, grain sorghum, oat and alfalfa seed, as well as bales of alfalfa hay.

The agent has conducted this part of the program each year for the past eight or nine years.

Community Improvement & Public Affairs



"The development of Community, County and State to their fullest extent through the joint efforts of an informed people."

VII. COMMUNITY IMPROVEMENT AND PUBLIC AFFAIRS

Main Canal In Greenlee County Finally Lined

Seven miles of the main canal of the Valley Canal Company in Greenlee County have been improved and lined. Thirteen farmers in the Duncan valley pooled their resources to finance the \$60,000 project. About twenty-five families are served by this canal, which carries water to about one-fourth of the total farm land in the county, or 1,300 acres. The estimated seepage loss from the unlined canal, prior to the project, was eighty percent. Farms at the lower end of the canal were often handicapped by receiving only a very small head of issued water, which resulted in longer watering time requirements and increased man hours for irrigation labor.

For irrigation farmers like those in Greenlee County, water is indispensable. They can't afford to lose it. With unlined canals, much of the irrigation water is lost by seepage. Weed-choked dirt canals often soak up as much as sixty percent or more of the water paid for at the delivery gate. Concrete-lined canals save valuable water by preventing excessive seepage, and weeds can't grow in concrete-lined canals.

The Greenlee County ASC Committee and the ASC Office Manager at Duncan, with the assistance of the Soil Conservation Service, expended several months of hard work in planning and laying the ground work for the project. The county agent assisted with information, publicity, and contact jobs.

The Valley Canal, originated in 1885 by a group of farmers, diverts water from the Gila River in New Mexico and carries it to its termination point below Duncan on the Elmer Stevens farm.

Those who joined forces to make this proposal a reality are Eddie Edgar, Alvin Elmer, Elmer Stevens, Wilbur Lunt, Ruby Crofts, W. D. Childress, Stanley Coon, Wiley Boyd, Clessa Lunt, Marvin Lunt, Archie O'Dell, Bob Golding, and E. R. Johnson. The project benefits many other small farms and homes along its course by carrying water to nearly a hundred additional acres of fields, gardens, and yards.

County Agent Assists in Reaching Unemployed People

On January 15, the county agent was contacted by the Employment Security Commission office in Safford for assistance in reaching unemployed people in the Duncan area. They were to be asked to report to the county agent's office in Duncan each Wednesday forenoon for an interview with a labor representative in an effort to provide them with job opportunities.

The first two interviews on January 20 and 27 resulted in about twenty-five respondents on each date. Both Job Corps and Peace Corps opportunities were explained along with local and other employment situations.

EOA Action in Greenlee County

A special citizen's meeting was held at the Clifton Court House to hear Sims Troaw from the Governor's office. The various phases of the Economic Opportunity Act were explained and the procedure for receiving a federal grant.

A five-man committee was designated at this meeting to further promote a community action council for Greenlee County. This committee met with the County Board of Supervisors to explain some parts of the Economic Opportunity Act. No support was given by the Board of Supervisors to start a community action program.

Father Fredic Hall of the Duncan and Clifton Sacred Heart Parish was dedicated to the cause of this program. After the Board of Supervisors turned the committee down, Father Hall approached the Clifton City Council. Father Hall and Maxine Sager, Extension Home Economist, explained two phases of the Economic Opportunity Act to them. After hearing the facts, the Clifton Council voted to sponsor a Neighborhood Youth Corps in Clifton and a county developmental survey.

Jack Cornelius, with the USDA Rural Community Development Service from Albuquerque, visited Greenlee County for the purpose of reviewing community action on the EOA. Since Morenci and Duncan were not represented in the overall plan, he saw the need to expand the present action committee to include them. As people begin to understand and to see the need for future programs, the committee would be established to channel requests.

People from all over the county had been invited to attend public meetings on the explanation of the EOA. Through private consultations, leading citizens of Duncan were informed of the purpose and role of a community action committee and the various programs that could be initiated. A meeting held in May at the Clifton Court House for the primary purpose of forming a community action committee resulted in three men from Duncan, who were in attendance, being elected to a nine-member Board of Directors of the newly-formed Greenlee County Area Development Committee, Incorporated.

VIII. OUTLOOK AND RECOMMENDATIONS

During the summer of 1965, an interest survey was developed by the county agent of a sampling of urban and rural families in the county to determine certain areas in which they felt they had a need for Extension information. The survey was presented to twenty-five farm families, twenty-five ranch families, and fifty urban families at various meetings. Both men and women were included in the test and the final survey.

A frequency check on specific types of services and information requested by people in the county for the year 1964 was also made to determine the nature of their problems.

Comparison of the interest areas and the actual problem areas was made to determine the relation of agreement and concern. Correlation was noted in organization and development of youth and adult programs, large animal care, insect control, pruning, income taxes, backyard gardens, home landscaping, lawns and lawn care, backyard fruit growing, plant propagation, and soil and water problems.

It is the intent of the county Extension staff to give priority to most pressing problems of greatest importance to the greatest number. Local people are of great help in offering suggestions for program emphasis. This in turn gives assurance that the needs and interests of the people are being met.