

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

for

COCHISE COUNTY

Mr. Carmy G. Page
County Agricultural Agent

December 1, 1949

to

November 30, 1950

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

For

COCHISE COUNTY

Mr. Carmy G. Page
County Agricultural Agent

December 1, 1949

to

November 30, 1950

TABLE OF CONTENTS

	Page
III. Highlights	1
Specialist Assistance - Extension Service	2-5
Specialist Assistance - USDA and Others	5-7
IV. Changes in Extension Organization	8
V. Problems Determining Extension Program	9-10
Livestock	9
Dairy Cattle	9
Poultry	10
Crops	10
Horticulture	10
Rural Sociology	10
VI. Activities and Results	11-70
Organization and Miscellaneous	11-25
1. Organization	11-16
a. Administration	11
b. Program Planning	11-14
c. Organization of Stockmen and Farmers	14
County Farm Bureau	14
Cattle Growers Association	14
d. Community Programs	15-16
2. Information Program	16-21
A. Objective	16
B. Facilities and Utilization	16-17
1. Radio Stations	16
2. Weekly Newspapers	17
3. Daily Newspapers	17
4. Magazines	17
5. Visual Aids	17
C. Publicity for the Year	17-21
Radio Broadcasts	17-18
News Stories to Newspapers and Radio Stations	18-19
News Stories to Magazines	19
Visual Aids	19-21
Circular Letters	19-21
Movies	21
3. Miscellaneous	22-25
a. Veteran's Training	22
b. County Fair	22-24
c. Other Fairs	24
d. State Fair	24
e. Other Agencies	24-25
Turkish Trainees	25

	Page
Field Crops	26-36
Cereals	26-30
Forages	30
Cotton	30-35
Others	36
Horticulture - Vegetables	37-42
A. Plant Disease	37-38
B. Seed Improvement - Chili	38-39
C. Tomatoe Varieties	40
D. Miscellaneous Vegetable Production	40-42
Horticulture - Fruit Production	43-45
A. Pruning Trees and Vines	43-45
Horticulture - Home Beautification	45-47
Soils	48-49
Irrigation Practices	49-50
Weed Control	51-52
Agricultural Engineering ; ; ;	52-53
Animal Husbandry	54-60
Dairy (D.H.I.A.)	54-55
Beef Production (Control of External Parasites)	56
Miscellaneous Livestock Production	57-59
Range Management	59-60
Agricultural Economics	61-62
Farm Safety	62-63
Rodent Control	64
Insect Control	64-70
Cotton Insects	64-65
Fruit Insects	66
Grasshoppers	67-69
Miscellaneous Insects	69-70
4-H Club Work	70
VII. Outlook and Recommendations	71-73
Field Crops	71
Vegetable Production	71
Soils and Irrigation Practices	71
Poultry	72
Animal Husbandry	72
Beef	72
Dairy	72
Agricultural Economics	72-73
4-H Club Work	73
County Fair	73
Rodent Control	73
Insect Control	73
Appendix	74-82

III. HIGHLIGHTS

4-H Club Work

The success of the 4-H Program in most communities where the work was conducted was very encouraging. There was a general improvement in quality of club programs and community activities of clubs. The second County 4-H Officers Training School, Field Days, and the second County 4-H Achievement Day were important activities of the year.

Production of Agricultural Crops

The irrigated acreage in the county increased to an estimated 37,000 acres in 1950. Acreage allotments for cotton resulted in an abundance of feed crops grown in the County. Corn and grain sorghum yields were satisfactory. The freeze May 5th caused considerable loss of wheat, barley and vegetable crops. Dry, frost free, weather through most of September and October was of great benefit in satisfactory maturing of cotton and sorghum grains.

Range Livestock Production

Above normal rainfall in July and high prices received for cattle were highlights of the year in livestock production. Stands of grass improved on most ranges. Weights of calves were lighter on the average than in 1949, due to lack of rain in August and September on much of the range. Early contracts for calves were 24 to 25 cents with fall contracts from 29 to 31 cents, and some prices reported even higher on good quality light weight calves. Supplemental feeding on range and control of external parasites on cattle were practiced by more cattlemen in 1950 than in any previous year.

Garmy G. Page
Cochise County
1950

Specialists Assisting the Agent in the County and Date Contacted are as follows:

Agricultural Extension Service and University of Arizona

<u>Date</u>	<u>Specialist</u>	<u>Nature of Assistance</u>
December 1	Mrs. Ellen M. Kightlinger	Stop in office enroute to Safford for 4-H Recreation School
January 23, 24, 25	Mr. Harvey F. Tate	Give pruning demonstrations in Stewart, Sulphur Springs, Hereford, Warren, Elfrida and St. David communities
25, 26	Mr. Walter Armer	Discuss cattle feeding at meeting of Lions Club, Douglas, and at meeting of the Elfrida Improvement Association
27	Mr. W. R. Van Sant	Office call
28	Mr. Kenneth L. McKee	Assist with County 4-H Officers Training School and meeting of 4-H Club Council
28	Mrs. Ellen M. Kightlinger	" " "
28	Miss Mary Gail Bonsall	" " "
31	Miss Jean M. Stewart	Office call
February 1, 2, 3	Mr. W. R. Van Sant	Hold meetings on poultry and dairy production and work with D.H.I.A. in Pomerene and Elfrida communities
3, 10	Mr. Harvey F. Tate	Discuss chili seed improvement, cultural practices and diseases at meeting in McNeal
3	Prof. W. E. Bryan	" " "
3	Dr. R. B. Streets	" " "
7	Director Chas. U. Pickrell	Office conference
7, 29	Mr. Walter Armer	Walter Armer discussed livestock production to Veterans Training class
10	Mr. Howard R. Baker	Office Conference
23	Dean E. S. Hawkins	Office call

Garry G. Page
 Cochise County
 1950

Agricultural Extension Service and University of Arizona

<u>Date</u>	<u>Specialist</u>	<u>Nature of Assistance</u>
March 13, 15	Mr. Howard R. Baker	Office Conference on Program Planning
13	Mr. Kenneth L. McKee	" " "
13	Miss Jean M. Stewart	" " "
13 - 15	Mr. W. R. Van Sant	Talks on poultry and dairy production in Elfrida, Willcox and Pomerene
14, 21-24	Mr. James E. Middleton	Office call and farm visits on soils and irrigation practices
17	Mr. A. Mark Bliss	Assist with an agricultural survey of the Rodeo area
22	Mr. A. B. Ballantyne	Office Call
27, 28, 31	Mr. Joe McClelland	Office conference on methods of publicity, and farm visits
17	Mr. H. V. Smith	Assist with agricultural survey of the Rodeo area
May 3 - 6	Mr. James Middleton	Farm visits in regard to soils and irrigation
5, 6	Mr. W. R. Van Sant	Office calls
5, 6	Mr. Kenneth L. McKee	" "
9	Dr. J. N. Roney	" "
9	Mr. Howard R. Baker	Extension Program Planning meeting at McNeal
9	Miss Jean M. Stewart	" " "
11	Mr. Harvey F. Tate	Check chili crop at McNeal
11	Mr. W. E. Bryan	" " "
15, 16	Mr. A. B. Ballantyne	Discuss community problems at St. David and Pomerene

Carmy G. Page
 Cochise County
 1950

Agricultural Extension Service and University of Arizona

<u>Date</u>	<u>Specialist</u>	<u>Nature of Assistance</u>
June 1	Mr. Howard R. Baker	Office conference on County Extension Program Planning
16	Mr. Harvey F. Tate	Home visits to check for red spider on trees and shrubs, particularly in Willcox, and make recommendation for control
July 5, 6	Mr. Harvey F. Tate	Visit fruit orchards in County
August 2, 22	Mr. Harvey F. Tate	Office call and farm visits on chili plant selection
2	Dr. R. B. Streets	Office call regarding chili plant selection
4, 5, 18	Mr. Walter Armer	Plan Field Day on Range Management
12	Mr. James E. Middleton	Office call regarding soils and irrigation
21	Mr. V. H. Fisher	Check cause of sheep disease
21	Mr. Howard R. Baker	Office call
21	Mr. Charles Elwood	Office call regarding Agronomy
22	Prof. W. E. Bryan	Farm visits regarding chili plant selection and cotton production
28, 29	Dr. J. N. Roney	Farm visits on cotton & ether crop insects, and check grasshoppers
September 1, 21	Mr. Howard R. Baker	Tour of SCS Range Reseeding plots and office conference
1	Mr. Walter Armer	Tour of SCS Range Reseeding plots
1, 14, 15	Mr. James E. Middleton	" " " " and farm visits on soil and irrigation practices
6, 7, 25	Dr. R. B. Streets	Visit cotton and chili fields
13	Mr. Kenneth L. McKee	Office conference to plan 1951 4-H Program
13	Mrs. Ellen M. Kightlinger	" " "

Agricultural Extension Service and University of Arizona

<u>Date</u>	<u>Specialist</u>	<u>Nature of Assistance</u>
September 25	Mr. Harvey F. Tate	Farm visits to chili fields
25	Prof. W. E. Bryan	" " "
28	Mr. Bill Thomas	Office call on cotton varieties
October 5, 6, 12	Mr. Harvey F. Tate	Office calls enroute to Safford and Duncan, and judge at Cochise County Fair
5, 6, 12	Mr. W. R. Van Sant	" " "
5, 6, 12	Mr. Walter Armer	" " "
5, 6, 12	Mr. Charles Elwood	" " "
5, 6	Mr. Bill Thomas	Office call enroute to Safford and judge at Cochise County Fair
12	Mrs. Ellen M. Kightlinger	Office call enroute to Duncan
28	Director Chas. U. Pickrell	Speak at 4-H Achievement Day
28	Mr. Kenneth L. McKee	" "
November 15, 16	Dr. J. N. Roney	Farm visits on insect control
22	Mr. Harvey F. Tate	Landscaping plans for Cochise County Hospital grounds
22	Dr. R. B. Streets	" " "

USDA and Other Specialists

		<u>Department Represented</u>	<u>Nature of Visit</u>
December 1, 5	Mr. Geo. E. Freestone	(FHA)	Office calls
1	Mr. Robert Craig	(FHA)	" "
14	Mr. Karl Harris	(SCS)	Office call on soil management and crop production

USDA and Other Specialists

<u>Date</u>	<u>Specialist</u>	<u>Department Represented</u>	<u>Nature of Visit</u>
January 13	Mr. Geo. E. Freestone	(FHA)	Office call
13	Mr. Nelson Stevenson	(FHA)	" "
13, 18, 19	Mr. Al Swanson	(SCS)	Office calls
19	Mr. Walter Diehl	(SCS)	" "
25	Mr. Karl Harris	(SCS)	Talk on land development to Lions Club, Douglas
February 2	Mr. Al Swanson	(SCS)	Office call
23	Mr. Geo. E. Freestone	(FHA)	" "
March 7	Mr. F. E. Taber	(F & WLS)	Office call regarding rodent control
14	Mr. Geo. E. Freestone	(FHA)	Office call
May 3	Mr. F. E. Taber	(F & WLS)	Office call
15, 16	Mr. Karl Harris	(SCS)	Talk to Veterans classes in Elfrida and Willcox on Soil Structure and irrigation practices
15, 16	Mr. Joel Fletcher	(SCS)	" " "
15	Mr. Al Swanson	(SCS)	Office call
17	Mr. Walter Diehl	(SCS)	" "
19	Mr. Geo. Cavin	(BE)	Checking grasshopper infestation
19	Mr. Bill Kauffman	(BE)	Checking on cotton insects
19	Mr. W. A. Stevenson	(BE)	" " "
July 6	Mr. Harold E. Jacka		Regarding production of certified seed

USDA and Other Specialist

<u>Date</u>	<u>Specialist</u>	<u>Department Represented</u>	<u>Nature of Visit</u>
July 7, 21	Mr. Bill Kauffman	(BE)	Check for cotton insects
20	Mr. Al Swanson	(SCS)	Discuss tour of range management plots
20	Mr. Kenneth Ainslie	(St. ES)	Office call to discuss farm labor situation
21	Mr. Karl Harris	(SCS)	Office call
21	Mr. Kridel	(SCS)	" "
August 3, 10	Mr. McLain	(BE)	Office call on cotton boll worm
10	Mr. F.A.B. McKail		Discuss cotton crop
10	Mr. Hugh Butterworth		" " "
11	Mr. Bill Kauffman	(BE)	Check cotton insects
4, 17	Mr. Al Swanson	(SCS)	Plan for Range Management Tour
18	Mr. Geo. Cavin	(BE)	Grasshopper infestations and plan control
18	Mr. J.L.E. Lauderdale	(BE)	" " "
September 2	Mr. Geo. Cavin	(BE)	Regarding grasshopper control
29	Mr. Al Swanson	(SCS)	Office call
October 11	Mr. Nelson Stevenson	(FHA)	Discuss agricultural finance and farm planning
November 6	Mr. Walter Diehl	(SCS)	Secure information on agricultural acreages
9	Mr. Nelson Stevenson	(FHA)	Discuss labor situation
14	Mr. Ike Rogers	(F & WLS)	Farm visits to lay plans for rabbit control work

Carly G. Page
Cochise County
1950

IV. CHANGES IN EXTENSION ORGANIZATION

A. Personnel

Part time office help was employed as follows:

Mrs. Connie Massie - December 1 to 31, 1949	-	15 $\frac{1}{2}$ days
Mrs. Ruby Lou Ogden - February 14 to 24, 1950	-	5 "
" " " " - March 3 to 31, 1950	-	8 "
Mrs. Connie Massie - August 14 to 26, 1950	-	11 "
" " " " - October 20 to 28, 1950	-	4 $\frac{1}{2}$ "
" " " " - November 7 to 30, 1950	-	16 $\frac{1}{2}$ "
		<hr/>
Total		60 $\frac{1}{2}$ "

B. Program

There were no changes in organization due to emergency programs.

V. PROBLEMS DETERMINING EXTENSION PROGRAM

A. Organization

Livestock

Cochise County is primarily a livestock county. There are approximately 62,000 head of cattle in the county. This compares with 106,000 head in 1940. Cattle numbers increased slightly during the early war but the extreme drought of the last few years has greatly reduced cattle numbers. There is room for some improvement in the quality of beef cattle in the county.

The control of cattle lice and parasites is a major problem in the county. A spraying and dipping program initiated two years ago has spread fairly well through the county. However, it must be carried throughout the county and some emphasis must be placed on better application of the sprays. Poisonous plants have been a problem in certain areas and an improved program of control must be adopted. Mesquite control is needed as it is spreading rapidly on many ranges which were good grass ranges.

Goats and sheep are of no importance as range livestock. Approximately 1300 sheep are on farms in the county, 1100 of which were shipped in from Texas in the fall of 1949.

Practically all of the 4,003,840 acres of land in the county is given over to the range livestock industry. There are some 36,000 acres of irrigated land in the area, of which approximately 34,000 received all its water supply from pumping, with the remainder obtaining part of its water from small river diversions. The acreage of irrigated land has increased from approximately 12,000 acres in 1946 to 36,000 in 1950, with most of the increase in farming in the Elfrida, McNeal and Willcox districts. Estimated acreages of cultivated land by communities are as follows:

Elfrida-McNeal-Douglas (Whitewater Draw area)	16,000 A.
Willcox (including Stewart, Kansas & Cochise Communities) ;	15,000 A.
San Simon	1,200 A.
Bowie	120 A.
Hereford	2,000 A.
St. David	1,300 A.
Pomerene	700 A.
Cascabel	50 A.
Estimated Total	36,370 A.

Dairy Cattle

The number of dairy cows in the county is not large. There are 26 dairies which are doing a very satisfactory job of supplying the area with milk. Improved feeding methods and herd improvement are the most important problems in this regard. The Cochise County D.H.I.A., which was organized in 1948, included four herds with a total of 197 cows on test in February 1950.

Garry G. Page
Cochise County
1950

Poultry

Poultrymen are almost producing sufficient eggs and poultry meat for the area, with a surplus of egg production in the flush spring season. This may not be actual production in the area in excess of demand. Large amounts of eggs are shipped into the county each year from the midwest. This movement of eggs usually starts between January 1st and February 15th and causes a severe break in the market plus a slackening of demand for locally produced eggs. The problem here is to find a market for that heavy spring production. Sanitation is a major problem in the poultry industry and is being worked on by the Agent. Poultry feeding practices can be materially improved in the area.

Crops

Chief crops grown are alfalfa, corn, barley, cotton, chili peppers, beans, and some wheat. A major problem is the lack of organic matter in the soil. Water supplies are generally limited. Alkali and salt accumulation is a problem in certain areas, resulting in poor water penetration and low yields. Some work needs to be done on the proper use of fertilizers in the county. Plant diseases reduce yields of a variety of crops. Farmers generally fail to appreciate the value of exactness needed in following recommended control measures. Limited markets are the greatest handicap for profitable farm crop production. A change from mainly cash crops to a livestock economy on most farms appears to be the most likely possibility for relieving the stress in marketing crops. Limited financing is a major limiting factor in farming in the county. Generally the purchase price of farms has been high in comparison to the income that may be expected over a period of years.

Horticulture

There are some 350 acres of peaches, apples, grapes and other fruits in the county. Root rot has caused some difficulty but is not particularly widespread. No method of treatment has been developed. Woolly aphis are present in some orchards also bitter pit and red spider apparently affect the quality of apples in some orchards. General improvement in management and insect control are needed in most orchards.

Rural Sociology

Probably a major need in the field of rural sociology is improved farm homes. Many of the homes in certain areas are rather old and dilapidated with few modern conveniences. Health facilities are rather inadequate in this area and should receive greater attention. Too often houses are built which appear temporary. If improvement or additions are made to such houses, lack of planning is evident.

VI. ACTIVITIES AND RESULTS

A. Organization and Miscellaneous

1. Organization

(a) Administration

No general meetings on extension organization were attended by the Agent during the period of this report. The Annual Extension Conference was held November 15 to 18, 1949.

Assistance on administration of Extension Work was received by the Agent during county visits by Chas. U. Pickrell, Director, Agricultural Extension Service, on February 7 and October 28. Howard R. Baker, Assistant Director, worked with the Agent on administration and program planning February 10, March 13, May 9, June 1, August 21, and September 21.

The proposed budget for County Extension Work from the University of Arizona was received in May. The budget was increased \$250.00 from the previous year. The proposed budget was signed by R. H. Franklin, County Farm Bureau President, May 24, and was mailed to the County Board of Supervisors May 26. The approved budget was received from the office of the Board of Supervisors on August 24 and returned to the University for final action on that date.

(b) Program Planning

This was the first year that the Agent prepared a Plan of Work on most of the projects on which Extension Work was to be done. The program was not followed on every project outlined, however, it was a guide that proved of value in carrying out the program. Preparation of a plan at the first of the year and revisions that may be made from year to year should result in a program that may be followed more closely. Also, the program will improve as groups of farmers in the various communities assist with the planning.

The Agent completed the program plan for 1950 and mailed it to Howard R. Baker, Assistant Director, April 20th. Changes were to be considered and supplements made on the plan as suggestions were received from the field.

The assistance received and procedure for planning with assistance of farmers and stockmen was started March 13. A meeting was held on that date in the County Agent's Office to consider general information and preliminary work that needed consideration in planning a county program in Agricultural Extension Work. The meeting was attended by Howard R. Baker, Assistant Director, Miss Jean M. Stewart, State Leader of Home Demonstration Work, Kenneth L. McKee, State Leader 4-H Club Work, and Mrs. Mae Baldrige, H.D.A., and the Agent.

Carmy G. Page
Cochise County
1950

Background information regarding agriculture in the county was considered. It was decided that program planning would be started by committees, with first work in the Elfrida - McNeal district. From 4 to 5 farmers in each the Elfrida, McNeal, and Double Adobe areas were to be contacted regarding the work and invited to attend the first meeting. Suggestions on work which should be done by the Extension Service would be considered. If this group of farmers considered it advisable another meeting of all farmers would be held stating the suggestions received at the first meeting and for considering the steps which should be taken to get the program started on the phases of agriculture on which more information was most needed by stockmen and farmers.

In accordance with plans made at this meeting the Agent contacted R. H. Franklin, McNeal, County Farm Bureau President; Ed Downs, President Double Adobe Farm Bureau Local; and Dan Hooks, President Elfrida Farm Bureau Local, for suggestions on four or five men in their respective communities whom they would suggest inviting to the first program planning meeting. The Agent explained to each of the Farm Bureau presidents that it was understood by Extension Service personnel that this would not include everyone who might do good work in program planning, but that it was considered advisable to hold the number down at the first meeting in order to encourage more freedom of discussion of program needs by more individuals than could be expected if a large community meeting was held as the first step in getting information together for planning the extension program. The Agent stated that both farmers and their wives were expected to attend the meeting and that farmers recommended should represent workers in different types of agriculture in the community.

The Agent made farm visits to each of the farmers suggested during March and April, and discussed the purpose of the planned meeting.

Farmers requested to attend the meeting, communities represented and types of agriculture in which they are engaged are as follows:

Elfrida -

- Daniel T. Hooks - Dairy and general farming
- Joseph M. Peevey - Cotton and general farming
- John Saylor - Range beef production and general farming
- * Ernest Perkins - general farming
- * Ralph S. Statler - General farming
- M. D. Stephenson - General farming
- J. B. Seale - Range beef production, poultry, and general farming

Double Adobe -

- Ed M. Downs - Range beef production and general farming
- Don McBride - Vegetable production
- * H. G. McBride - Vegetable production
- * E. C. Hill, Jr. - Dairying
- Mrs. W. W. Harsha - Vegetables, poultry and rabbit production
- Frank Murphy - Vegetable production

- McNeal -
- * R. H. Franklin - Chili production and general farming
 - * Jesse Boone - Chili production and general farming
 - * W. J. Davis - Range beef production
 - Frank Deitchman - poultry production

* Attended the meeting

Garmy G. Page
Cochise County
1950

Mesdames Perkins, Statley, McBride, Franklin, Boone and Davis also were present and participated in the discussion at the meeting.

A brief summary of the meeting was as follows:

Mr. Howard R. Baker, Assistant Director, Agricultural Extension Service, discussed the purpose of the program planning meetings. In closing Mr. Baker stated that it was the hope of the Extension Service that the program planning will result in greater service to more farmers and ranchers.

Garmy G. Page, County Agent, briefly outlined background information on agricultural production in the county.

Miss Jean M. Stewart, State Leader of Home Demonstration Work, discussed the interest of the Extension Service in considering family living as the basis for program planning in Extension Work.

Mrs. Mae Baldrige, Home Demonstration Agent, summarized extension work which had been done and was being carried on at present in Boys' and Girls' 4-H Club Work, and in the various fields of work with homemakers' groups in the county.

Suggestions to be considered in the Extension Program and questions asked, or information requested from the community representatives were as follows:

- 1. Short season crops - (profitable).
- 2. Experiment on new crops for area.
- * 3. What are the chances for an experimental farm in this vicinity
- * 4. Determine types (corn) for on different soils (need more information on varieties of crops to plant on different soil types and planting dates).
- * 5. Fertilizers needed for various soils. Take more soil samples for analysis.
- * 6. What are the best green manure crops to be used for soil improvement.
- * 7. Value of Guar and Sesbania and others.
- 8. Marketing of all farm products.
- 9. Need more livestock on farm. A farm plan including livestock. Recommendations on feeding cattle - number to size of farm and feeds to grow.
- 10. Information on how to reduce corn smut and ear worm damage.
- * 11. Burweed eradication - economically.
- 12. Check with New Mexico on farm crop varieties to use.
- 13. Consolidation of 4-H Clubs in McNeal (meetings should be on Friday). Limit number of nights required.
- 14. How to hold interest of 4-H members and parents in 4-H project completions.
- 15. Schools and information on freezing foods and cooking frozen foods.
- 16. Consumer information on buying equipment. Name of publication listing all farm machinery.
- * 17. Recommendations for control of bermuda and Johnson grass, pepper weed, Russian thistle, Russian knapweed.
- 18. Removing weeds from roadways (community effort with County and State).
- 19. Building and equipment insurance and information (Educational program).

* Problems selected by community representatives which should be given first consideration.

14.

Garmy G. Page
Cochise County
1950

20. Information on possibilities for seed production of various crops.
21. Program on (clean up) Home Beautification (home and farm).
22. Type of trees and shrubbery for this altitude (for Home Beautification) for quick growth.

It was suggested at the meeting that the Agent summarize the meeting and send the report to all community representatives who attended, and also, those who were invited and could not attend. The recommendation was made that the community representatives be contacted later regarding whether another committee meeting should be held before a general meeting or whether a general meeting should be considered next.

Mr. Baker stated this method of program planning would be started in other communities later and it was hoped a county program could be worked out as a result of the meetings.

Problems suggested by farmers at the meeting on items to be included in the extension program plan were analyzed by Mr. Baker and the Agent in a conference at the County Office in Willcox, June 1st. Recommendations on procedure were made in a circular letter which was mailed on June 12 to all members of the Program Planning Committee. A copy of the letter is included in the appendix of this report.

(c) Organization of Farmers and Stockmen

County Farm Bureau

The County Farm Bureau membership was 105 at the beginning of 1950. Farm Bureau Locals were at Double Adobe, Elfrida, St. David and Willcox. No regular schedule of meetings is held by any of the groups. They have no definite program and occasionally call on the County Agent for assistance in arranging for a program.

Membership in the County organization dropped during the year. The Willcox local was practically inactive through most of the year. The Double Adobe local was replaced by a local at McNeal with Bryan Davis as President.

Cattle Growers Association

The Cochise-Graham County Cattle Growers Association is an organization of cattlemen in Cochise and Graham Counties. Membership is approximately 135. Much of the extension program with cattlemen is carried on through the organization.

15.

Garmy G. Page
Cochise County
1950

(d) Community Programs

A community meeting was held January 19, 1950 at the St. David Grade School to consider plans for construction work necessary to improve the canal system. This was follow-up work after requests in 1948-49 for assistance in a program which would result in more efficient use of farm land and irrigation water available. Representatives of Production and Marketing Administration, Soil Conservation Service, Farmers Home Administration, and the Agent stated contributions each agency could make toward the project.

A proposed plan for engineering work necessary to rework the canal system had been prepared by the Soil Conservation Service with cost estimates for doing the work. It was agreed that Farmers Home Administration funds could be made available for financing the project if it was voted on favorably by the land owners in the district.

Two elections were held during the summer on whether the district should work on the program as stated above. The second election was held as a result of the first one being declared illegal. The proposal was defeated. From all reports received, actual farmers were practically 100% for the planned improvements. Small land owners, working off their land for a living were apparently responsible for defeat of the proposal.

The following trip report was made by A. B. Ballantyne, Specialist in Rural Sociology, on meetings held at St. David and Pomerene, which the Agent did not attend.

The Specialist left Tucson at 3:00 p.m. on May 15, to address a meeting at Pomerene, Arizona, as arranged by Mr. Franklin East.

This was made in furtherance of the community program which was developed as a result of the community survey made in 1948. The discussion at the meeting was centered on jobs for rural youth. The same topic was discussed at both meetings.

The University film, "Aptitudes and Occupations", was shown to the group following the discussion. This emphasized the points made in the discussion. It is very important that the youth find the type of work in which they would be happiest and for which they would be the best adapted.

The meeting at Pomerene was specially called for the occasion. The one at St. David was an open night of the regular M.I.A. At both places the people seemed well pleased, asking for the Specialist to come back and discuss related topics.

The meeting at St. David was on the night of the 16th. Inquiry was made on the progress being made on the program to get a better water supply for St. David. The community has voted to vote for the program, but this has to be submitted to the landowners in a form of authorization to issue bonds. The date for that authorization vote had not yet been set. There appears to be no date in mind as yet. Discussion with some of the people showed that they are still reluctant to assume the indebtedness of approximately \$65,000. The water supply at St. David right now is very low.

Carry G. Page
Cochise County
1950

The Pomerene Domestic Water Users program is still stalled, waiting action on the part of the Board of Supervisors on their request for a franchise giving them a right to lay their lines on the county highway. For some unexplainable reason, the matters have not gotten along very well. Mr. East, president of the Domestic Water Users, says that they have been granted the appropriation requested, but it will probably not be available until after July 1.

In both communities there is enough work, mostly from the powder plant, so that the people are apparently getting along pretty well.

Return was made to Tucson on Wednesday morning, May 17.
2 meetings - attendance 91⁸

The request for a franchise for laying pipe lines along the County highway was later granted to the residents of Pomerene by the County Board of Supervisors. After the various legal matters were properly disposed of and the organization was ready to proceed with a loan from the Farmers Home Administration, war conditions had caused a raise in price of materials, etc. Farmers Home Administration officials made another check to see if the amount of the loan considered would be sufficient for completing the work. Latest reports received by the Agent indicated the plan would go through on the basis of the original amount considered for the loan.

2. Information Program

A. Objective

The objective of the county information program is to reach the farm people of this county with timely and authentic agricultural information that will help to develop and extend the agricultural extension program of this office. Major project work and latest information in soils, crops, and livestock was stressed. 4-H club publicity was timely with constant emphasis on activities.

B. Facilities and Utilization

1. Radio Stations

Regular weekly radio agricultural news was furnished in typed form to the two radio stations in the county from the Information Specialist's office, University of Arizona, Tucson. Special county meeting announcements and timely county information on agriculture was furnished by the county agent's office.

Station KAWT, Douglas, and Station KSUN, Bisbee.

Garry G. Page
Cochise County
1950

2. Weekly Newspapers

Arizona Range News, Willcox
San Pedro Valley News, Benson
Tombstone Epitaph, Tombstone

News stories were supplied to these weekly papers which serve this county.

3. Daily Newspapers

Bisbee Daily Review, Bisbee
Douglas Daily Dispatch, Douglas

New stories were supplied to these daily papers which serve this county.

4. Magazines

The Arizona Farmer, the Arizona Stockman, and the Arizona Cattlelog are the state magazines with coverage in this county. Special articles were prepared for the Arizona Farmer and the Arizona Cattlelog during the year on timely subjects.

5. Visual Aids

Visual aids - such as kodachrome slides, film strips, motion pictures, posters, exhibits, illustrated circular letters, photographs, window displays were used to effectively supply information on major project work to the farm people of the county.

C. Publicity for the Year

Radio Broadcasts over Station KAWT

- December 15 - Radio recording on "Recommendations on Cattle Grub and Lice Control" prepared for broadcast
- " 15 - Radio recording on "Fertilizing Lawns and Preparation of Holes for Planting Trees and Shrubs" was prepared
- " 28 - Broadcast "Housing Requirements for Satisfactory Baby Chick Production" by Agent
- " 28 - Broadcast "Highlights of Cochise County Ranching and Farming in 1949" by Agent

Garry G. Page
Cochise County
1950

Radio Broadcasts, cont.

- December 15 - Radio recording "Recommendations on hybrid corn Varieties Adapted to the Area"
- " 28 - Radio transcription on "Recommendations for Winter Work in Preparing Soil and Winter Irrigation"
- January - "Family Gardens"
"Poultry Production"
- February 13 - Radio Forum Program - County Agent Moderator "Cochise County Farm Production Problems"
- " 14 - Radio transcription prepared on "Vegetable Gardening"
- " 14 - " " " " "Feeding Poultry"
- March 14 - - Two Radio transcriptions prepared by Ralph Van Sant and the Agent on "Poultry and Dairy Production"
- " 28 - Radio transcription on "Control of Plant Diseases in Hotbeds"; most information regarding chili peppers
- April 19 - Radio transcription "News on County 4-H Club Program"
- October 4 - Radio Program at 12:30 p.m. - regarding exhibiting at County Fair

News Stories to Newspapers and Radio Stations

- January 17 - Announcement of Pruning demonstrations to be conducted by Harvey Tate
- " 18 - Announce organization meeting for Willcox 4-H Agriculture Club
- " 30 - Announcement of meeting for Chili Growers
- " 30 - Report on Second County 4-H Club Officers Training School and 4-H County Council meeting
- March 6 - To San Pedro Valley News announcing farmers meeting at Pomerene, March 15 on Dairying with Ralph Van Sant, Poultry and Dairy Specialist
- " 7 - To Arizona Range News announcing farmers meeting at Willcox, March 14 on Dairying with Ralph Van Sant, Poultry and Dairy Specialist
- " 7 - To Douglas Daily Dispatch announcing meeting of farmers at Elfrida, March 13 on Poultry Production with Ralph Van Sant, Poultry and Dairy Specialist
- June 15 - "Keep Available Good Oystershell for Hens Always"

Carmy G. Page
Cochise County
1950

News stories, continued

- July 17 - "3 of Every 4 Fires are Preventable"
- " 17 - "Avoid Fatal Shock by Grounding Pumps"
- " 21 - "Cotton Rust in Cochise County"
- " 24 - "Protect Family and Farm With Fire Prevention"
- " 24 - "Be Careful of Burns and Scalds in Kitchen"
- " 24 - "Summertime Safety Saves Your Childred From Serious Injury"
- " 24 - "Junior Leaders to Attend 4-H Leaders' Conference"
- " 31 - "Unsafe Ladders May Cause Fall and Injuries"
- " 31 - "Unproperly Cured Hay is Fire Menace to Farm"
- " 31 - "Care with Horses Prevents Accidents"

- August 1 - "4-H Camp at Mt. Lemmon"
- " 22 - "Range Reseeding Tour Scheduled for September 1st"

- September 13 - County Agent Urges Care in Harvesting Cotton
- " 18 - Announcement of Jornada Experimental Range - Annual Ranch Day
- " 19 - Report of Crop Yields in County
- " 23 - "4-H Agricultural Exhibits at County Fair"

- October 8 - Report on 4-H Club Calf Sale
- " 23 - Announcement of 4-H Achievement Day
- " 25 - "Second Cochise County 4-H Club Achievement Day"
- " 30 - "4-H Achievement Day" a report of program and awards presented

- November 13 - "Results of Judging Contests at State Fair"

News stories to Magazines

- January 5 - News Letter to Arizona Cattle Growers Association
- July 21 - "Cotton Rust in Cochise County" to Arizona Farmer
- August 22 - "Range Reseeding Tour Scheduled for September 1st" to Arizona Farmer, and Arizona Cattle Growers Ass'n.
- October 30 - "4-H Achievement Day and Awards" to Arizona Farmer

Visual Aids (Circular Letters)

- December 5 - 1164 copies of a circular letter on control of cattle grubs, lice and ticks mailed to farmers and stockmen
- " 6 - Reminder of 4-H Leader's training school to 2 leaders
- " 8 - Send memorandum on 4-H Leaders Tractor Maintenance Clinic to 3 leaders

Carmy G. Page
Cochise County
1950

Visual Aids (Circular Letters), cont.

- December 12 - Send Tags from cotton exhibited at State Fair to 4 farmers
- " 15 - Summary of corn variety test to 3 agriculture teachers
- " 22 - Re: calves available for 4-H club members to 2 leaders

- January 17 - Announce meeting of 4-H County Council to Council members (10)
- " 17 - " " " " " to 4-H leaders (44)
- " 11 - Send suggested outline for news stories to 4-H News Reporters
- " 11 - Schedule for 4-H Officer Training School to 4-H Club Leaders
- " 18 - Announce Pruning demonstrations with Harvey Tate -(1167)
- " 24 - Send secretary's book to Tractor Maintenance Clubs (3)
- " 28 - Announce poultry meetings with W. R. Van Sant (198)
- " 30 - Letter made by J. T. Stovall to cotton farmers (202)
- " 30 - Announce Chili Growers meeting (sent to other County Agents) (294)

- February 23 - Information to 4-H Club Leaders and Secretaries (56)
- " 24 - Information to 4-H Tractor Maintenance Club (84)

- April 3 - Announce 4-H Judging Days to 87 4-H members
- " 3 - Call for changes in 4-H enrollments to 32 4-H leaders
- " 6 - Send information on sweet potato plants to 3 farmers
- " 14 - Make change in date for program planning meeting (7)
- " 21 - Send material on Arizona Holstein Friesian Consignment Sale in Phoenix to 7 dairymen
- " 25 - Send out new bulletin on grasshopper control to 1197 farmers and ranchers
- " 27 - Send out new cotton insect control bulletin to 220 cotton farmers

- May 4 - Invitation to 4-H leaders to attend 4-H Roundup (36)
- " 4 - Announcement of 4-H Camp to 4-H members and leaders (214)
- " 5 - Announce Extension Program Planning meeting (18)
- " 5 - Send information on 4-H Roundup to members attending (43)
- " 19 - Instructions to 4-H team members (21)
- " 20 - " " " (4)
- " 26 - Information to 4-H members and leaders planning to attend 4-H Roundup (50)

- August 1 - To 4-H members planning to attend 4-H Camp (27)
- " 1 - Send news article
- " 22 - Announce Range Reseeding Tour to farmers and ranchers (1236)

Garry G. Page
Cochise County
1950

Visual Aids (Circular Letters), cont.

- September 13 - Send news article
 " 15 - ~~Clothing~~ of 4-H Club Year (81)
 " 18 - Send news article
 " 19 - Send News article
 " 20 - 4-H exhibits at County Fair to 31 members
 " 22 - Judging Teams at State Fair to 36 members
 " 22 - Standard Reports for 4-H Contests (39)
- October 3 - Requirements for exhibiting 4-H calves at Fair (16)
 " 9 - Send news article
 " 13 - Notify 4-H members of placings, points, etc. earned at
 County Fair (46)
 " 16 - Announce 4-H Club Leaders training meetings, 8 leaders
 " 20 - Announce 4-H Club Achievement Day to 236 members and
 Leaders
 " 23 - Send out news story to papers & radios
 " 23 - Invitation to 4-H Achievement Day to 44
 " 24 - To members of 4-H County Council on 4-H Achievement Day
 " 25 - Reminder to 4-H members about 4-H Achievement Day (231)
 " 25 - Send news story
 " 30 - " " "
- November 4 - 4-H Judging Teams for State Fair to six contestants
 " 13 - Send news story
 " 24 - Re: panel discussion on 4-H completions at Annual
 Extension Conference to 6 Extension Agents

Joe McClelland, Information Specialist, worked with the Agent March 27 and 28. Work on the 27 included office work with the Home Demonstration Agent in planning the county information program. The Editor of the Arizona Range News and Lee Bone of Radio Station KAWT, Douglas, were contacted regarding the information program. Mr. McClelland also took pictures on Home Demonstration Agent project work, and pictures of cold frames and hotbeds for chili production for publication to be prepared by Harvey F. Tate, Extension Horticulturist.

A total of 2530 agricultural bulletins, circulars, and blue prints were supplied in answering requests for information from farmers.

Visual Aids (Movies)

- February 16 - Farm Tractor Maintenance picture shown to 4-H Tractor Club
 and Veterans Training Class in Willcox
 -April 18 - Picture "Live Power Harvest" shown to McNeal 4-H Tractor
 Maintenance Club

Carry G. Page
Cochise County
1950

3. Miscellaneous

(a) Veterans Training

The Agent cooperated with Instructors of On-The Farm Training classes in Elfrida, Willcox and St. David by providing bulletins requested for classroom and individual use. Meetings of veterans classes attended by the Agent were:

- February 2 - Elfrida - W. R. Van Sant, Dairy and Poultry Specialist, talked on dairy production to Veterans class.
- " 7 - Willcox - Walter Armer, Extension Animal Husbandman, discussed livestock production.
- " 9 - Elfrida - " " " " "
- " 16 - Willcox - Show tractor maintenance pictures to 4-H Tractor Club and Veterans Training Class.
- " 20 - Elfrida - Agent discussed field crop recommendations for 1950
- May 15 - Elfrida - Karl Harris and Joel Fletcher of Soil Conservation Service discussed Soil Structure and Irrigation Practices
- " 16 - Willcox - " " " " "

(b) County Fair

The annual meeting of the Cochise County Fair Association was held at the Gadsden Hotel, Douglas, 12:15 p.m. on February 7. Fifteen members of the Association attended. Officers elected were: C. E. Van Demark, President; Tom Glenn, Vice-President; William T. Meredith, Treasurer; and William Borcharding, Secretary. Dates for the 1950 Fair were set for October 6, 7 and 8. Also, a motion was passed, giving the executive committee authority to hire a Fair Manager. E. C. Hill, Sr., past president of the Commission was later hired as fair manager.

Suggested changes in the County Fair premium list were prepared and mailed to Mr. Hill, March 10th.

Announcement was made by E. C. Hill that the County Agent and Home Demonstration Agent had been appointed as superintendents of 4-H Departments.

The Agent attended a meeting of the County Fair Board at Douglas, July 19. It was decided that an effort should be made to get a definite committment from the Airport committee regarding use of building at the Airport for a Fair

Carmy G. Page
Cochise County
1950

before making further plans. Also, the fair manager had failed to make a request for the amount of funds furnished by the county the past two years. Plans were made to contact the supervisors regarding the matter. Charles Fritts, Douglas, was selected as manager after the resignation of E. C. Hill.

Contacts with Charles Fritts, County Fair Manager, during August were as follows: Telephone calls, August 5 and 26th, and office conference in Douglas August 16th and 24th.

The Agent attended a meeting of the Board of Directors of the Cochise County Fair Association and County Fair Superintendents held at the Hotel Gadsden, Douglas, August 30th at 1:30 p.m. Suggestions of the various superintendents were accepted by Charles Fritts, Fair Manager. Printing of fair catalogues was completed and distribution was started on August 16th, mailing to rural route boxholders in the county. Catalogues were also available at the office of the Douglas Chamber of Commerce and the Agricultural Extension Office, Willcox.

A meeting of County Fair Superintendents was held at the Bisbee Douglas Airport, September 23rd, with an attendance of 20.

The County Fair was held at the Bisbee Douglas Airport, October 6, 7 and 8. It was necessary to move the Fair from the large hangar where it was held the past two years to three hangars at the north end of the grounds. Plenty of space was available, however, the distances between buildings required considerable walking for those wishing to see all exhibits.

The display of farm crops and vegetables compared favorably with the number of exhibits and quality of previous years. The number of poultry exhibits was less than in 1949.

Indications are that the greatest need for general improvement of the County Fair is to have a permanent location.

Judging was done in Agricultural Departments during the afternoon of October 6th by the following judges from the University of Arizona, Tucson:

- Harvey F. Tate, Extension Horticulturist, Fruit and Vegetables, and Floriculture
- W. R. Van Sant, Poultry and Dairy Specialist, Poultry, Rabbits, and Dairy Cattle
- Walter Armer, Extension Animal Husbandman, Beef, Swine, and Sheep
- Charles Ellwood, Extension Agronomist, Farm Crops
- William I. Thomas, Professor in Agronomy, Farm Crops

Carmy G. Page
Cochise County
1950

Chas. U. Pickrell, Director, Agricultural Extension Service, visited the Fair on October 7th. Joe McClelland, Information Specialist, attended October 7, and took some pictures in the various departments for use in future publicity and for reporting on the Fair.

(c) Other Fairs

The Agent judged livestock and agricultural exhibits at the San Pedro Valley Fair, St. David, September 30th.

(d) State Fair

The Agent encouraged exhibiting at the State Fair during field visits and office contacts. The Extension Office was used as a place for assembling exhibits from the Willcox District for transporting to the Fair. Charles Fritts, County Fair Manager, was appointed by the County Fair Commission to arrange for exhibits at the State Fair. A truck furnished by the R. E. A. was used for hauling exhibits to Phoenix. Mr. Fritts shipped the exhibits to Douglas from the State Fair.

Fifty-three ribbons were received on the 99 exhibits in the County Agricultural exhibit. (For 4-H exhibits - refer to 4-H Report).

(e) Other Agencies

Agricultural Extension Work with other U.S.D.A. agencies included the community project work as stated under (d) Community Programs, and the following meetings which will not be reported under other project work later in the report.

- February 20 - PMA community meeting to discuss 1950 PMA agricultural conservation program and acreage allotments, High School, San Simon at 1:00 p.m., attendance 33.
- " 21 - PMA community meeting to discuss 1950 PMA agricultural conservation program and acreage allotments, Veterans Building, Willcox, 7:30 p.m., attendance 74.
- " 22 - PMA community meeting to discuss 1950 PMA agricultural conservation program and acreage allotments, Grade School, St. David, 7:30 p.m., attendance 7. (meeting not carried through for complete discussion, due to small attendance.)
- " 24 - PMA community meeting to discuss 1950 PMA agricultural conservation program and acreage allotments, High School, Elfrida, 7:30 p.m., attendance 140.

Carmy G. Page
Cochise County
1950

The County Extension Office was used as a polling place for the Willcox S.C.S. district election on May 6th.

Miscellaneous meetings attended by the Agent and other work not listed under other projects was:

February 7 - Annual County R. E. A. meeting, Womans Club Building, Willcox, attendance 500.

Field Day - Safford Agricultural Experimental Station - The Agent attended the Safford Experiment Farm Field Day, Monday, May 1st. Travel was with Howard R. Baker, Assistant Director. The principal items observed at the farm were alfalfa hay production, information on alfalfa seed yields, Safflower production, small grains variety tests, commercial fertilizer on small grains, irrigated pasture grasses, flax variety tests, alkali control demonstration, soil cultural practices, green manure crops, and growth of small grains with only pump water for irrigation vs irrigation with river water.

Rotary club meetings each week.

Turkish Trainees

Discussion of the general County Extension Program and field work to acquaint them with the County Agriculture work was done with Turkish Trainees Emin Ali Yucer and Salahattin Ecikoglu, September 4 to 9.

Garry G. Page
Cochise County
1950

-VI. ACTIVITIES AND RESULTS

1. Field Crops - Cereals

(a) Problem

Many types of hybrid corn have been developed that are advertised as being adapted to the southwest. However, it has been found that only a few varieties may be expected to be well adapted to Cochise County conditions. Also, new varieties are being developed. The purpose of the tests are to determine which varieties should be recommended to farmers.

(b) History

Corn variety tests have been conducted for a period of over 12 years. Yields have varied considerably between different varieties. Also, yields from some of the newer hybrids indicate they may be more suitable than varieties recommended five or six years ago. Corn has not been a major crop in the county, however, it has been quite consistent in making satisfactory yields, and may become a more important crop as livestock numbers on farms increase.

(c) Work Plan

Project: - Corn, field tests

Who: - Cooperators: Gene Anderson farm and J. J. Meyer farm
the Agent and Agronomy Specialist

What and How: - Two test plots, Gene Anderson farm and J. J. Meyer farm
Publicity on radio and in press on results

When: - Plant between 1st and 10th of June
Harvest in November or December

Where: - (Community) - Sulphur Springs and Stewart Communities near
Willcox

Goals: - To determine highest yielding varieties of hybrid corn at this
altitude

(d) Results

Seed of the same varieties of corn tested in 1949 were received from Howard Cords, Assistant Agronomist, University of Arizona, when the Agent attended the Safford Field Day on May 1st. Also, a variety of a Northrup King Hybrid was received from Mr. Howard Baker on May 18th. The Agent contacted J. J. Meyer on May 29 regarding planting a test plot as he had indicated interest in conducting a test earlier in the year. Mr. Meyer stated he was no longer interested in a test for this year since the freeze of May 5th had delayed in some of his planned work.

Carmy G. Page
Cochise County
1950

The corn variety test was planted on the Gene and Geo. Anderson farm, Sulphur Springs Community, Willcox, June 2, 1950.

Three replications of each variety were planted with double row plantings of each for a total of 14 rows. The total area in each variety was 1/48 acres. Varieties planted were as follows:

- Funks Hybrids Nos. 788W, G-715, G-716 and G-711
- Northrup King Hybrids Nos. KY4 and KR6
- United Hybrids Nos. 72 and 7320
- Texas Hybrids Nos. 9W, 11W, 24, 8 and 12
- Mexican June was used as the open polinated check variety

The planting outline for the plot was as follows:

North

G-715	Texas 9W	G-716	United 72	KY4	788W	Texas 11W
United 7320	G-711	Texas 8	Mexican June	Texas 24	KR6	Texas 12
G-716	United 72	KY4	788W	Texas 11W	G-715	Texas 9W
Texas 8	Mexican June	Texas 24	KR6	Texas 12	United 7320	G-711
788W	Texas 11W	G-715	Texas 9W	G-716	United 72	KY4
KR6	Texas 12	United 7320	G-711	Texas 8	Mexican June	Texas 24

South

Carry G. Page
Cochise County
1950

The variety test was harvested November 20th by George and Gene Anderson, Jerry Carmen, Veterans Instructor, Wilcox, and the Agent. Yields were as follows:

Variety	Replications - N. to S.			Total Weight lbs.	Yield per A. at 70 lbs per bu.	Rank
	1st lbs.	2nd lbs.	3rd lbs.			
G-711	27.5	46.7	26.7	100.9	69.1	10
Texas 9W	31.3	44.3	27.7	103.3	70.8	8
G-716	35.2	39.3	30.4	104.9	71.9	6
United 72	38.7	46.4	30.3	115.4	79.1	4
KM ₄	31.7	36.8	22.0	90.5	62.0	13
788W	41.6	42.4	18.3	102.3	70.1	9
Texas 11W	37.8	45.3	26.0	109.1	74.8	5
United 7320	41.0	50.5	12.5	134.0	91.8	1
G-711	31.8	32.3	32.0	96.1	65.9	11
Texas 8	37.6	42.4	41.1	121.1	83.0	3
Mexican June	24.1	29.0	32.0	85.1	58.3	14
Texas 24	41.3	52.2	39.8	133.3	91.4	2
KR6	33.7	30.3	39.3	93.3	63.9	12
Texas 12	32.8	47.7	23.5	104.0	71.3	7

Two applications of ammonium nitrate were applied to the corn variety test. Total nitrogen 66 pounds. Eight hills were missing in one replication of 788W. Some smut showed up in several varieties, however, serious loss occurred only with Mexican June. Several ears indicated that Mexican June hadn't pollinated well. Much of the corn was down, due to severe wind. Some damage from rodents was evident on all down corn. Loss appeared most serious on one replication of Texas 12. The Northrup King varieties matured early and were being damaged by birds, therefore KM₄ was harvested September 25 and KR6 on September 22. The corn had been stored as picked from each replication. Rodents did considerable damage to corn in one sample from each of the varieties. This in addition to the fact that the corn was more dry than the other varieties when weighed may have caused these two varieties to rank lower than would have resulted if more comparable weights had been taken.

Carry G. Page
Cochise County
1950

The 1949 test was harvested after writing last year's annual report, therefore, the summary is included here.

On December 16, 1949 the Agent helped harvest the corn variety test on the C. E. Anderson farm, Willcox. Plantings of each variety were of equal length, and the entire test was harvested. Work was done by C. E. and Geo. Anderson, and the Agent. Following were the results:

Variety	Replications			Total Weight lbs.	Yield per A. at 70 lbs. per bu.	Rank
	1st lbs.	2nd lbs.	3rd lbs.			
Funks G-711	29.0	29.0	34.0	92.0	67.00	8th
Texas 24	32.5	32.5	32.5	97.5	68.95	6th
Texas 12	33.0	46.0	32.5	111.5	76.15	2nd
Texas 9W	34.0	42.0	33.5	109.5	75.29	3rd
Texas 8	33.5	32.0	33.0	98.5	67.54	5th
Mexican June	32.0	36.0	13.0	81.0	55.5	10th
Pioneer 302	27.5	41.0	25.0	93.5	64.11	7th
United 65	26.0	39.0	17.0	82.0	56.22	9th
United 7320	46.5	54.5	27.5	128.5	87.01	1st
United 72	40.0	45.5	19.5	105.0	72.0	4th

Cereals - Miscellaneous

A freeze May 5th seriously damaged all early wheat and barley. Wheat was headed out and blooming at the time of the freeze. Temperatures reported were from 18° to 23° throughout the Sulphur Spring Valley from the Stewart Community to McNeal. All wheat in the Stewart community was mowed and sold for bedding or turned under for green manure during the month. Farmers with largest wheat acreages were Leon Church, Howard Atwood, J. E. Beasley, and Henry Kuschel. Barley fields which were headed out were apparently damaged from 10% to 50% in areas where the freeze was most severe. Corn which was up was set back but stands were not completely destroyed. Some corn fields were damaged during the month by crows.

Carry G. Page
Cochise County
1950

Oats was not apparently damaged. The first oats harvested for hay was mowed on April 29th, and most other oats fields were mowed for hay during the month of May. Harvesting the crop for hay was not as a result of any damage from frost. Farmers generally expected greater returns from the sale of hay than would be realized from grain. The first oats cut was on the G. D. Heflin farm near Willcox and was sold for \$24.00 per ton. Some oats hay was contracted for sale in the field in May for \$23.00 per ton.

Seed for a sorghum variety test was received from Howard R. Baker, Assistant Director, on May 18th. Seed of the following varieties was received: Double Dwarf 38, Martin and Hegari. The Agent had requested this seed but did not secure a cooperator to plant the varieties during the month of May.

2. Field Crops - Forages

No definite plan of work was prepared on this project.

Some plantings of corn, hegari, sudan and similar crops were made in April. In a few fields the plantings were up by the middle of April. The freeze May 5th damaged most of the above crops. Those that did survive the freeze, or came up early in May made very poor growth due to the cool weather through the rest of the month.

3. Field Crops - Cotton

(a) Problem

Three field tests on cotton varieties were established in 1949. Two tests were harvested. These are the only tests from which information may be used in making recommendation on varieties. Three to five years results are necessary before worthwhile recommendations may be made. A variety that will produce satisfactory yields and mature earlier than varieties now being grown is badly needed.

(b) History

Cotton production was attempted for a few years in the 1920's and practically discontinued after 1925 until 1947. Acreages in 1945 were approximately 250 acres, 1947 - 2500 acres, 1948 - 2,500 acres, and 1949 - 13,500 acres.

Carry G. Fago
Cochise County
1950

The principal variety of cotton being grown in the county is New Mexico 1517. This is the variety grown at Deming, New Mexico, which has growing conditions more nearly like Sulphur Spring Valley than any other cotton growing area. However, a variety which will produce satisfactory yields of good quality cotton in less time than 1517 is needed. Apparently farmers cannot expect to plant cotton before April 15th to 20th in this area. Killing frosts occurred October 10, 1949, and November 4, 1948. This allows for a growing season of approximately 170 days. Also, average daily temperatures in the Sulphur Spring Valley may be a greater determining factor in yields of cotton than the 180 day growing season indicates.

The cotton acreage in the county for 1950 will be approximately 5,000 acres due to acreage allotments. The acreage is still an important item in the farming income in the county since no other cash crop is grown on as large an acreage.

(c) Work Plan

Projects: - Cotton, field tests

Who: - Cooperators, W. P. Cheek, the Agent, Agronomy Specialist

What and How: - One variety test on W. P. Cheek farm

When: - Plant April 20th
Harvest in October

Where(Community): - Elfrida

Goals: - To determine variety of cotton which may be recommended on the basis of yields in tests over a period of years, which will make the greatest profit for the farmer.

(d) Results

Cotton for variety test plantings was not received until May 1st. This was too late for getting the test planted by W. P. Cheek of Elfrida, cooperator on 1949 tests. A. L. Brunson of Willcox agreed to plant the test. The plantings were made in 10-row blocks. varieties from north to south were:

Arizona 33, Arizona 44, California Acala 4-42, and New Mexico 1517.

Planting was done on May 12th. According to the 1949 tests and probable market demand it seemed best to try only the above varieties and drop further trials on the other varieties. The test planting was observed by the Agent on May 29. A good stand of cotton was evident throughout the test.

Carry O. Fago
Cochise County
1950

The test was located in an area which received frequent rains during July and the first of August. When the plot was inspected, August 15, all varieties appeared about the same in height. The set of bolls appeared light on all varieties. Also little difference in varieties was observed September 5th.

Charles Ellwood, Extension Agronomist, and the Agent checked the variety test on October 19th. The varietal differences were quite evident at this time. Arizona 33 had definitely matured earliest, with 4-42 apparently second followed by Arizona 44, and 1517 the latest in maturing.

Harvesting of the plot had not been completed at this writing. Field information on the test will be reported in the 1951 report.

Cotton - Miscellaneous

Picking of the 1949 cotton crop was nearly completed in December 1949 except for snapping of bolls in some fields, which was continued in January. A large percent of the bolls damaged by the October 10, 1949 freeze were not picked.

Planting of the 1950 cotton crop was started on a few farms during the first week of April, however, most farmers started planting between the 15th and 20th. Planting was completed on most farms by May 1st.

A severe windstorm occurred May 4th, which did as much damage to cotton on some fields as did the freeze May 5th. Some fields were replanted. On other fields stands were thinned by the frost but enough was left to leave the planting. Cotton which came up immediately after the freeze, May 5th, grew better during the month than did the cotton which was up on May 5th but not killed by the freeze. Johnson grass and Russian Thistle infestations were severe in some fields and resulted in heavy expense of hand labor in cleaning the fields.

The freeze May 5th was very spotted. Some fields were damaged while others showed very slight or no damage. There seemed to be no rhyme or reason to the killing of plants. Time of irrigation, age of plants, etc. seemed to make little difference when different fields were compared. A heavy frost hit some areas in the Willcox Community on May 6th.

Loss of stands on some fields were caused from rabbits moving off of the dry rangeland into cotton in the Elfrida-McNeal area

Application for Classification and Market News Service forms were received from the PMA (Cotton Branch) Office, El Paso, Texas. These were filled out and signatures of R. H. Franklin, County Farm Bureau President; Ed Downs, President Double Adobe Farm Bureau; and Dan Hooks, Elfrida Farm Bureau President, were secured on the group application. This application was mailed to the El Paso Office on May 29. The application was made for an estimate of 4,900 acres of cotton of the adopted variety (1517) and 700 acres of other varieties. Total acreage 5600. The total allotted acreage for cotton in Cochise County is 5,821.9 acres.

Cary G. Page
Cochise County
1950

F. A. B. McKell and Hugh Butterworth of the Cotton Classing Office, El Paso, contacted the Agent August 10th regarding the varieties of cotton being grown in the County. Apparently the mixture of varieties grown in Cochise County is a condition that is also more or less true of much of the area in the El Paso Classing Office district. Varieties known to be planted in the county in addition to 1517, are Mesilla Valley, Santan, Arizona L., Delta Pine, North Star, Half and Half, and Paula, with Mesilla Valley being the only one other than 1517 being planted on a number of farms. The plantings of long staple (Ansak) were made in the Stewart District and one in the Elfrida area.

A heavy hail damaged crops on approximately 2000 acres in the Elfrida District on July 16. Most serious damage was done over an area within two miles of Elfrida. Frequent rains during the month resulted in a serious infestation of weeds in many fields. Around 50 to 60 acres of cotton was abandoned following the hail.

Prospects for a satisfactory yield of cotton did not appear good during August. Some fields had been damaged by Southwestern Rust and Angular leaf spot. The bottom set of bolls was poor even on plants not diseased. The plants had not made as rank growth as in 1948 or 1949. Delayed irrigation following rains caused considerable stress on cotton in some fields. Weather conditions for maturing the crop were excellent in September and October. Many farmers continued irrigating after the 15th of September. The percentage of the crop which was ready for picking September 30th, was less than in 1948 and 1949. The first bale of cotton ginned from the 1950 crop was from the A. L. Elevins farm, Elfrida. It was ginned September 19th.

Some light frosts occurred in parts of the Sulphur Spring Valley October 31. The first freezing weather occurred after the first week in November.

Labor for harvesting cotton was a major problem. Pickers preferred to move on into the lower valleys where yields were higher. Three machine pickers were used in the Stewart District after the middle of October. A number of farmers were estimating average yields of their cotton over one bale per acre. This compared with a average county yield of .56 bales per acre in 1949.

Cotton Diseased

No plan of work was prepared on cotton diseases as they had not appeared serious in previous years. Farmers had been encouraged to plant wilt tolerant cotton. Also, to practice crop rotation in order to avoid serious losses on root rot land. The latter appearing mostly in the McNeal area. The above diseases were of little importance in cotton production in the county in 1950.

Some farmers stated that Southwestern rust appeared in a number of cotton fields in the Elfrida district during the week beginning July 9th. First complaints regarding the infestation were received by the Agent on July 18th. Several fields in the area were inspected on that date. Some rust was found in

Carmy G. Page
Cochise County
1950

all fields inspected with severe infestations appearing only in spots of some fields. By the end of the month the spots in fields with the most serious infestations were from 60 to 70% defoliated. Some Angular Leaf Spot was observed by the Agent on the Oza Watts farm, Cochise, July 22nd. Mr. Watts reported a week later that this was causing considerable defoliation on part of his cotton. This field was checked again August 23. In several areas in the field all leaves and squares on the lower 12 inches of the plants had dropped.

Southwestern Rust was found in fields in the Kansas and Sulphur Springs districts, and in the Stewart area. However, no serious infestations were observed in these areas.

Dr. R. B. Streets, Plant Pathologist, University of Arizona, checked several cotton fields with the Agent August 2nd to observe losses from Southwestern Cotton Rust. Severe damage by defoliation as a result of the rust was observed in some fields both east and west of Elfrida. Most severe damage observed was on farms operated by Don Weems and W. M. Bouleware. The Agent observed similar damage on the M. D. Stevenson farm. Angular leaf spot was found in the cotton on the Kinzey and McCullar farm in the Sulphur Springs Community. This cotton was produced from mechanically defoliated seed.

Dr. R. B. Streets worked with the Agent in checking plant diseases again on September 6, 7 and 25. Although much of his time was spent checking diseases of vegetables the affects of rust and angular leaf spot on cotton was given some attention. The most difficult problem observed was angular leaf spot in cotton fields which had been planted with delinted seed.

Some Southwestern Rust on cotton was observed in the Stewart Community during the first week in September. Damage was very light from this late infestation and appeared only in limited areas.

The losses from Angular Leaf Spot were particularly evident in October, after picking was well started. Bolls affected with the disease failed to open properly and often the cotton in one or two locks in a boll could not be picked. The disease was quite general on the farms where it was found, but the losses were heavy in some spots and light or practically missing on other spots in the same field. Most severely infested fields observed were on the following farms, Oza Watts, Cochise; Kinzey and Rogers, Willcox (Sulphur Springs Community); Joe Dickson, Elfrida; and Jones Farm, McNeal. All but the Kinzey and Rogers cotton had been planted with acid delinted seed.

Rust Shows In Valley Cotton Farms

Southwestern rust has appeared in cotton fields throughout the Sulphur Springs valley, according to the county agent, Carmy O. Page of Willcox. The most severe infestations of the cotton rust are around Elfrida, however, but Mr. Page said he had not inspected a field either around Willcox or the Elfrida-McNeal area which doesn't show some rust.

Whether the disease will prove to be a general limiting factor in cotton yields cannot be determined at present. No control measures are effective after the infestation occurs.

The wild hosts of the disease are species of wild grasses. The occurrence of the rust on cotton appears to be dependent upon summer rains and periods of high humidity during which infection occurs.

Mr. Page said that cotton insects have not been a problem in cotton production so far this year. However, bollworms are beginning to build up in numbers and farmers should watch fields closely and apply insecticides if necessary. A 10-percent DDT and 60-percent 325 mesh conditional sulphur should be applied at the rate of 15 pounds per acre per application for control of cotton bollworm.

CARRY G. PAGE
COCHISE COUNTY
1950

4. Field Crops - Others

No definite plan of work on this project.

Alfalfa Seed Production

Maurice Bloodworth and David Ogden in the Stewart Community and W. C. Walters in the Sulphur Springs area produced alfalfa seed. This was the first experience of these farmers with the crop.

The alfalfa seed on the Bloodworth Farm was harvested and yield of 150 lbs. of recleaned seed per acre was reported. Alfalfa for seed production on the David Ogden Farm, Willcox, was dusted for Lygus August 13. The Agent had recommended that a DDT dust without sulfur be used. Application was by plane at the rate of approximately 20 pounds per acre. The alfalfa was just beginning to bloom on this date. Several hives of bees were moved into the field during the week following the dusting. This was done in order to determine whether the presence of bees in the field would increase seed production above that received from other fields in the area where no effort was made to concentrate bees. The yield was 250 pounds of recleaned seed.

More trials will be necessary before the value of this area for alfalfa seed can be determined.

Cary O. Page
Cochise County
1950

VI. ACTIVITIES AND RESULTS

2. Horticulture - Vegetables

A. Plant Diseases

(a) Problem

Chili is the most important vegetable grown in the county both in total acreage and value. Loss of plants from diseases, many of which may be controlled, is a major problem.

(b) History

Chili production became of major importance during the war period. Little attention is paid to treating seed, disinfecting soil or adding disease free soil to hotbeds, or rotating crops. In some instances chili is produced on the same soil for several years. The acreage of chili is mainly around Elfrida and McNeal.

(c) Work Plan

Project: - Vegetable - Plant Diseases

Who: - Agent, Horticulture Specialist, and Experiment Station personnel

What and How: - Meetings to discuss methods of disease control
Newspaper and radio publicity on disease control

When: - February through July

Where (Community):- Elfrida and McNeal

Goals: - To inform farmers regarding disease control recommendations and encourage practicing same

(d) Results

A meeting of chili growers was held at the McNeal School, Friday evening, February 3, with attendance of 77. The program for the meeting was as follows:

Plant Selection and Seed Improvement - W. E. Bryan, Prof. of Plant Breeding
Control of Chili Diseases in Hotbeds and in the Field - Dr. R. B. Street
Prof. of Plant Pathology
General Cultural Practices - Harvey F. Tate, Extension Horticulturist

Carry G. Page
Cochise County
1950

Harvey F. Tate, Extension Horticulturist, and R. B. Streets, Prof. of Plant Pathology, University of Arizona, worked with the Agent August 2nd, checking chili fields for disease. Western yellows (curly top) infestation was very light. In fact, few plants were found which showed this disease. Some ~~alternaria~~ leaf spot was found, however, it didn't appear to be of any economic importance. Chili was definitely later maturing than in 1943 and 1949, and the set of pods was light. R. H. Franklin, McNeal, reported some loss of pimiento peppers August 25th on the farm leased by Mr. Fell and supervised by Mr. Franklin. Some of the plants were sent to the Plant Pathology Department, University of Arizona. The cause of the loss was diagnosed as Fusarium Wilt.

Dr. R. B. Streets worked with the Agent checking diseases of chili September 6 and 7, and accompanied Prof. Bryan and Harvey F. Tate on Sept. 25 to check progress of chili diseases.

Fusarium wilt was the principal cause of loss observed in September, however, diseases were generally not a limiting factor in chili production. Yields were light, which was considered mainly due to late plantings and excessive rain in July. Most serious losses from Fusarium wilt were on pimiento peppers on the Bell Farm managed by R. H. Franklin and on chili owned by S. Rodriguez of Double Adobe. The most interesting observation on the S. Rodriguez farm was the severe loss from Fusarium wilt on chili peppers and practically no loss on the smaller type peppers growing in the same field. Other diseases observed during the month were Alternaria leaf spot and bacterial leaf spot with the latter doing some damage in a few fields.

Future work on this project should include general emphasis on good cultural practices in addition to care in setting plants. Greatest disease problems appeared to be where the high ridge method of cultivation had not been practiced to the fullest extent.

B. Seed Improvement (Chili)

(a) Problem

There is considerable variation in shape and size of chili pods produced.

(b) History

Few farmers have practiced saving seed from individual plant selections. Most of the seed purchased in past years has been shipped in from California producers. Many times it has been reported that seed was used from sweepings at dehydrators. Dr. W. E. Bryan and Harvey F. Tate, University of Arizona,

Carry O. Fago
Cochise County
1950

started work on improving chili by selecting seed from individual plant selections in 1946 and additional selections and plantings from seed saved have been made each year since.

(c) Work Plan

Project: - Chili Seed Improvement

Who: - Plant Breeders at U. of A., Extension Horticulturist, Agent and Cooperators

What and How: - Plant seed from plant selections and select from those plants as well as general selection in other fields

When: - February, April, July, August, September and October

Where (Community):- Elfrida and McNeal

Goals: - Interest farmers in general improvement of chili through use of seed from individual plant selections

(d) Results

Plants from plant selections which had been selected for plant improvement work by Harvey F. Tate, Extension Horticulturist, and E. E. Bryan, Plant Breeder, University of Arizona, were transplanted on the E. E. Franklin Farm, McNeal, on May 4 and practically all plants were lost in the freeze May 5. Plants produced from seed selected from the Luciano Ramirez field at Elfrida in 1949 were not transplanted from the hotbeds by Mr. Ramirez and were not damaged.

Mr. Tate and Prof. Bryan worked with the Agent August 22nd, making plant selections in the chili field belonging to Luciano Ramirez of Elfrida. Approximately 20 plants were staked which showed good pod types and production as well as early maturity. Later checking was planned to determine if the plants proved to be desirable to save seed from.

Prof. Bryan and Mr. Tate checked chili plant selection work again September 25th. Mr. Tate reported that pepper plants that had been marked on August 22nd at the Luciano Ramirez farm as possible sources of planting seed had been picked. The seed from work in previous years was lost as a result of the freeze May 5th. This necessitates starting from scratch on the improvement work planned. Some seed selection work was done on the McDaniels farm on the 25th.

Plant selection and seed improvement were discussed by Prof. Bryan in a meeting of chili growers on February 3rd. Other work in this project was done by discussing seed improvement with growers during farm visits.

Cary G. Page
Cochise County
1950

C. Tomato Varieties

(a) Problem

Pearson is the most important variety of tomatoes grown in the county. Although it is usually a heavy yielder, it is of rather poor quality, due to the hard center. A high yielding tomato with desirable quality is needed.

(b) History

A number of varieties of tomatoes are grown in addition to Pearson. Apparently there has been only a small amount of testing of varieties. Six varieties were planted in 1949 at the Lon McPride Farm, McNeal. Transplants as well as planting in place was done. Curly top (Western yellows) killed over 90% of the plants and the test was abandoned.

(c) Work Plan

Projects: - Tomato Variety Test

Who: - Agent, Horticulture Specialist and cooperater

What and How: - Planting of at least six varieties of tomatoes

When: - April planting - August and September harvesting

Where (Community): - McNeal

Goals: - To determine best variety of tomatoes for growing in Sulphur Spring Valley

(d) Results

The work planned was not accomplished.

D. Miscellaneous Vegetable Production

No definite work was planned on general vegetable production.

Some transplanting of chili peppers was done around April 15th, however, most transplanting was done after April 20th. Stands at the end of the month were generally very good on all transplants.

Carry G. Page
Cochise County
1950

Pimientos were transplanted on the Eicks Ranch leased by Mr. Bell of Phoenix and managed by R. H. Franklin, McNeal. Mr. Bell plans to can the **pimientos** at the Elfrida Cannery. The success of this venture will determine whether planting of a large acreage may be done in the future. Demand for canned **pimientos** is reported to be much greater than for canned chili.

The Agent checked some fields of chili in the Elfrida-McNeal area on May 3rd. Stands and general condition of plants was considered far above average. Plants were beginning to take hold and prospects were far ahead of 1949. Most setting of chili was completed at this time with approximately 1000 acres estimated already planted or to be planted.

The freeze May 5th destroyed practically 100% of the plants in fields where the freeze was most severe. Some growers had hopes of some of the plants sprouting out near the ground. This did not occur except on a very small percent of the plants. Also, plants that were not killed but injured by the frost made very little growth during the month. Some growers replanted in localities where the freeze was most severe. However, only limited replanting could be done due to the shortage of available plants. Plants reset where stands had been lost appeared stunted and of poor color by the last of the month. This apparently was due to the cool nights and probably more the result of lack of proper soil environment due to the packing of soil resulting from a number of irrigations trying to get the replants started, following a normal amount of irrigation which had been completed with the first setting previous to the freeze. Some loss of plants was due to damage from rabbits.

This freeze was a heavy loss to chili growers. The expense of setting a field, including hotted costs, later for setting, irrigation, etc. was reported to be approximately \$50.00 per acre. Resetting cost an additional \$30.00 per acre.

The Agent contacted R. H. Franklin, McNeal, on May 21st and after checking the acreage of a number of growers it was estimated that the total county acreage of chili in 1950 would be between 400 and 500 acres. Harvey F. Tate and Dr. W. E. Bryan worked with the Agent May 11, checking the condition of chili and farming practices being used with the crop.

Chili developed slowly up to the middle of July. By the end of the month, however, fields that had been kept clean were setting on a fair crop. Curly Top, which caused severe losses on peppers and tomatoes in 1949 was of no economic importance in 1950.

Harvesting of green chili was in full swing the last of August and first of September. Price was 3¢ per pound delivered to the the cannery. This was the prevailing price. This was about one-half cent per pound less than in 1949. Yields were generally light, and processors were hesitant about canning a large percent of chili available.

Carry G. Papp
Cochise County
1950

The Agent and Dr. R. E. Streets, Prof. of Plant Pathology, University of Arizona, visited the Mc Daniel Farm at McNeal, September 7th. Peppers grown on this farm were planted in place and fertilized heavily. The field was free of weeds, plants were one-third taller than average for the valley and the yield was estimated to be probably 40 to 50 percent above average for the valley this year. All indications were that good results were evident as a result of practicing best farming methods with the crop.

The harvest was very slow during the month of October due to poor demand for the crop. Some chili produced in New Mexico was processed in dehydrators in the county during the month. Comparison of prices with 1949 were reported to be about 8¢ per pound less on red wet chili. 1949 prices for red wet chili were 28¢ per pound, with 6¢ charged for drying. Drying prices remain the same for 1950. Most offers were 20¢ per pound. Late harvest will result in considerable shrinkage of the crop since the comparison is 6 to 1 between wet and ~~between wet and~~ dry chili. In other words 6 tons of green chili will produce approximately 1 ton of dry. The average yield of chili is estimated to be between 5 and 6 tons of green or between 3/4 and 1 ton of dry per acre.

Beans

The average yield of dry beans is estimated at 700 pounds per acre. The acreage of beans as measured by the County PMA Office was 621 acres.

Demonstrations In Pruning Scheduled For Next Week.

Harvey F. Tate, Extension Horticulturist, University of Arizona, Tucson, will conduct pruning demonstrations in Cochise County, according to the following schedule.

January 23—9:30 a. m., Rex Emrick ranch, Willcox. 2:00 p. m., George Anderson Ranch, Willcox (Sulphur Springs Community).

January 24—9:30 a. m., J. M. Stickel Ranch, Hereford (Palominas community). 1:30 p. m., Dr. Paul P. Zinn, 501 Bisbee Road, Warren.

January 25—9:30 a. m., Roy Dillman Ranch, Elfrida. 2:00 p. m., C. B. White (Paradise Ranch) St. David.

Pruning fruit trees will be given major emphasis at these demonstrations, however, general problems related to pruning and care of ornamental shrubs and trees will be discussed at the meetings, according to Carmy G. Page, County Agent. Everyone interested is invited to attend.

4. 4. 1

Cary O. Page
Cochise County
1950

VI. ACTIVITIES AND RESULTS

3. Horticulture - Fruit Production

A. Pruning Trees and Vines

(a) Problem

Improper pruning is one of the most common poor management practices in the county observed by the Agent.

(b) History

Pruning demonstrations have been conducted in the county for many years. However, it seems many small orchards do not show systematic pruning unless follow-up work of demonstrations is done each year. Plans are to conduct demonstrations in 1950 in the same communities as in 1949 and change communities the next two years.

(c) Work Plan

Project: - Pruning Fruit trees

Who: - Agent, Horticulture Specialist and cooperators

What and How: - Demonstrate pruning of apples, pears, peaches, plums and grapes in six communities
Publicity in radio and press regarding demonstrations

When: - January or February

Where (Community): - Stewart, Sulphur Springs, Elfrida, Hereford, Pisbee, and St. David

Goals: - Teach fruit growers how to prune fruit plants for increased production of quality fruit

(d) Results

Fruit tree and grape pruning demonstrations were conducted by Harvey F. Tate, Extension Horticulturist, January 23, 24 and 25. Places of demonstrations and attendance were as follows:

Cary G. Page
Cochise County
1950

- Jan. 23, 9:30 a.m. - Rox Emerick Ranch, Stewart Community - att. 19
- " 23, 2:00 p.m. - Geo. Anderson Farm, Sulphur Springs Com. - att. 19
- " 24, 9:30 a.m. - J. M. Stickle Farm, Palominas Com. Hereford - Att. 17
- " 24, 1:30 p.m. - Dr. Paul Zinn Home, Warren - att. 35
- " 25, 9:30 a.m. - Roy Dillman Farm, Elfrida - att. 50
- " 25, 2:00 p.m. - C. B. White Farm, St. David - att. 28

The Agent assisted with the demonstration on January 23rd but due to the request of Karl Harris, Irrigation Engineer, S.C.S., Phoenix, to assist him in checking possibilities for development of farm land in the Rodeo District January 24th and to attend a meeting in Douglas January 25th, the demonstrations January 24 and 25 were handled entirely by Mr. Tate.

Other

The freeze May 5th destroyed practically all of the fruit crop in the principal farming valleys in the county. The Grizzle orchard, Elfrida, was not injured. A heavy crop of fruit was produced from this orchard. The only other areas producing fruit were small orchards in some protected canyons in the mountain areas.

Harvey F. Tate, Extension Horticulturist, worked in the county July 5 and 6, checking fruit growing areas in the county while the Agent was on leave. Vegetable producing areas were also observed by Mr. Tate.

4. Horticulture - Home Beautification

(a) problem

Systematic planting of ornamental plants around farm homes is the exception rather than the rule.

(b) History

Home Beautification Demonstration homes started in 1948 are being continued. Work in this project has been conducted in various communities for many years, with considerable help being given on plantings around public buildings as well as individual homes.

Carmy O. Page
Cochise County
1950

(c) Work Plan

Project: - Home Beautification

Who: - Agent, Horticulture Specialist, and cooperators

What and How: - Continue work with Home Beautification Demonstration
Homes started in 1948
Publicity in radio and press on Home Beautification

When: - February, March, June and August

Where (Community): - Elfrida and McNeal

Goals: - To demonstrate advantages of following a definite plan in
beautifying the home grounds and to interest farmers generally
in home beautification work

(d) Results

Work on this project was mainly checking progress of plantings made in
previous years at the following homes: J. M. Glasscock, Elfrida;
O. E. McLaughlin, McNeal; and H. G. McEride, Double Adobe.

Other

The Agent attended a meeting of the Douglas Garden Club, March 8th and
spoke on "Care of Lawns, Trees, and Shrubs." The Attendance at the meeting
was 24.

P. P. Page, Chairman of the Board of Supervisors, requested that the Agent
secure assistance from the University in planning plantings for the grounds at
the County Hospital, Douglas. Harvey Tate, R. B. Streets, and the Agent checked
over the grounds on August 2nd. It was decided that a request should be made
for a drawing of the grounds, in order that a complete outline of suggested
plants could be made on a map. The Agent made this request to Mr. Page. A map
of the grounds was provided by the County Engineer and Messers Tate and Streets
returned to Douglas November 22 to prepare the planting plan.

Pruning Tips Are Given by Tree Expert

The value of an ornamental plant depends on its natural beauty of form and the attractiveness of its leaves, flowers or berries, Harvey F. Tate, horticulturist for the agricultural extension service at the University of Arizona, declared Wednesday. When it loses these, its usefulness ceases.

Plants must be kept in a healthy, vigorous condition, he said. This requires some cultural attention, for occasionally they must be fertilized and pruned. Now is the time to get your plantings ready for spring and to consider whether to prune your shade trees.

The purposes of pruning, he said, are to correct shape and faulty growth habits, to reduce the size of trees too large for the space they occupy, to reduce the danger of wind breakage, and to remove dead, diseased, or broken limbs and crowded, weak growth.

To remove limbs, cut as near parallel to the trunk or branch as possible, Mr. Tate advised. This leaves a wound which will heal quickly. To head back or shorten a limb, cut just above or out from a lateral branch. This will leave no stub exposed. To repair storm damage, cut off splintered stubs and smooth the surface of trunk wounds.

To protect pruning cuts, paint all cuts over one inch in diameter with a special tree paint or asphaltum roof paint. The material should be flexible and lasting. Pruning cuts should be allowed to dry before being painted.

If wounds tend to bleed before you paint them they should be treated with a fungicide, such as copper sulphate solution (one ounce to a gallon of water), Bordeaux paste, or mercuric chloride (one part in 1,000 of water), until bleeding stops. Then apply the paint.

Except for repairing wind damage, prune deciduous trees only when dormant. Trees are dormant when they have shed all their leaves, and when new buds show no sign of swelling.

If the wounds bleed, you have waited too long and the tree is no longer dormant. In this case, forget all further pruning for that season. Watch broadleafed evergreen trees. They grow intermittently, and should be pruned during a period when the tree isn't actively growing. The best time is usually in late December or January, or early February.

Broadleaf evergreen trees—among them eucalyptus, pepper, bottle tree, olive and palo verde—usually require little pruning other than corrective work to establish the general shape and removal of side branches to head the trees high enough to permit walking under

Floribunda Roses Winning Niche

Floribunda roses are becoming more popular every year with home owners in Arizona, Harvey F. Tate, horticulturist for the agricultural extension service at the University of Arizona, said Wednesday.

This group of roses blooms with a mass of flowers from early spring until fall or until buds and leaves are frost-killed. Other roses bloom once or twice a year and are through. These roses are excellent as a low, blooming hedge or planted under windows where a plant of two to three feet in height is needed, Mr. Tate said. In a hedge, use only one variety so that all plants will be the same height and the mass effect of the flowers more striking, he advised.

Of the commoner varieties of pink-flowered floribunda roses are Betty Prior, Kirsten Poulsen, permanent wave, crown of jewels, smiles and pinkie. Darker red varieties include the dark Donald Prior, the geranium colored floradora and red ripples. Goldlocks, which is yellow; Anochio, salmon color, and summer show, white, complete the list. For this section, new plants should be set out in January and February.

Carry G. Fago
Cochise County
1950

VI. ACTIVITIES AND RESULTS

4. Soils

(a) Problem

Poor soil structure is apparently the greatest soil factor limiting production of farm crops. Soils vary greatly from farm to farm and even on the same farm in many instances. Recommendations regarding fertilizers and soil amendments are difficult due to such variation.

(b) History

High cost of production and relatively low yields of farm crops have apparently limited farming practices to improve soil structure by an organized plan of increasing the organic matter in farm soils. Also, approximately two-thirds of the total cultivated acreage has been brought into production in the last four years. High costs of developing land for irrigated farming has made it necessary for most farmers to farm only cashcrops in order to reduce indebtedness on farms. Also, price of cotton, due to government supports, made this crop most popular in comparison with immediate returns that could be expected from soil conserving crops. Increasing the organic matter content of soils is the only practice which may be relied upon to improve crop yields as far as soils are concerned.

(c) Work Plan

Project: - Soils

Who: - Agent, Soils Specialist

What and How: - Encourage a planned cropping system for increasing organic content of soil
Circular letters, radio and press to be used for publicity on this project

When: - February, May, August and September

Where: - (Community) - All Communities

Goals: - Farmers to accept the practice of growing from one-fourth to one-third of the cultivated acreage in soil conserving crops

Cary G. Page
Cochise County
1950

(d) Results

Radio and press were used in publicity on the project as planned.

5. Irrigation Practice

(a) Problem

Efficient use of water is an item needing greater attention on most farms. Failure to follow methods of planning cropping systems to fit water supplies, storing water in the soil during winter months and changing direction of flow of water are items needing attention on this project. Also, practicing irrigation procedures which will eliminate run-off at end of irrigation runs is important.

(b) History

Many farms have been brought into production by farmers with limited financial backing. Long time planning could not be considered under such circumstances. Therefore, in many instances the irrigation practices followed was the one which could be put into practice with the least initial cost.

(c) Work Plan

Project: - Irrigation Practice

Who: - Agent and Irrigation Engineer

What and How: - Bulletins to farmers and Publicity regarding recommendations on irrigation practice by circular letters and in radio and press

When: - December, January, February and March

Where(Community): - All communities

Goals: - Farmers to consider benefits of improvement in irrigation practices on most farms

Carmy G. Page
Cochise County
1950

(d) Results

Information on this project was provided as planned.

Other

Karl Harris, S.C.S. Irrigation Specialist, and Joel Fletcher, S.C.S. soils research employe at the University of Arizona, worked with the Agent May 14 and 15. This work was planned as a result of a request to the Agent from Veterans On-The-Farm Training Instructors at Elfrida to have Mr. Harris speak to the class and others interested. Both Mr. Harris and Mr. Fletcher talked at the meeting of farmers at Elfrida May 14 and at Willcox May 15. Irrigation practices and the importance of good soil structure for profitable crop production were given major emphasis at both meetings. Mr. Fletcher also discussed some of the Range Reseeding practices being used in this area at the Willcox meeting. Total attendance at the meetings was 74.

Piping of soils along the Whitewater Draw between McNeal and Douglas, and irrigation practices in the Stewart area were studied by Mr. Harris and Mr. Fletcher, and the Agent May 15th. It was observed that piping is an important factor to consider on some lands in the Whitewater Draw.

James E. Middleton, Irrigation Specialist, University of Arizona, Tucson, worked with the Agent in providing information on this project in office visits and field work March 21 to 24, May 3 to 6, August 12, and September 14 and 15. Individual problems on irrigation practices were checked in each of the farming districts in the county. In making water penetration studies, it seemed that one of the greatest needs is for farmers to make a definite study of water penetration on their own farms and then to make the necessary changes in irrigation practices to make most efficient use of water. Other items on which information was received from Mr. Middleton were regarding maintenance of wells and pumping equipment, and water measuring devices.

Carry G. Page
Cochise County
1950

6. Weed Control

(a) Problem

Johnson grass is the most widely distributed weed on farms. Other noxious weeds which are more serious when present than Johnson grass, but not as widely distributed, are field bindweed, whorled milkweed, Russian knapweed, and white horse nettle.

(b) History

Test plots and demonstrations have been conducted on this project over a period of years, however, no continued program has been carried out in any one location. The desire for quick results in controlling noxious weeds is apparently hoped for by farmers, and there is little interest evident in persistently working on a long time plan for effective weed control. Work done by the Extension Agronomist and the Agent in 1949 did not indicate that 2, 4-D sprays were of value in controlling Russian Knapweed or whorled milkweed.

(c) Work Plan

Projects: - Weed Control (1) Johnson grass and (2) Other Noxious Weeds

Who: - County Agent

What and How: - Publicity on radio and in press on recommendations for clean cultivation in fields and keeping ditch banks clean by pasturing, etc.
Circular letter in May on control of Horse Nettle, Russian Knapweed, Whorled Milkweed, and Bindweed.

When: - Johnson grass - June through September
Other Noxious Weeds - May to September

Where (Community): - All communities

Goals: - To bring to the attention of farmers increase in costs of production and reduction of land values due to neglecting Johnson grass control.
Inform farmers of latest recommendations for control of most serious weeds.

Cary J. Page
Cochise County
1950

(d) Results

Only general information in answer to individual requests for assistance was provided on this project. Above normal rainfall in July, caused serious losses of crops from weeds on many farms and excessive labor costs for control on others. Cultivation for control of weeds previous to planting row crops and again when weeds first appeared after the crops were planted were practices which were especially important in controlling weeds.

7. Agricultural Engineering

No definite plan of work on this project.

Miscellaneous

On December 27th letters were written to W. R. Moore, Henry W. McKeen, and Joe Wootan, Willcox, on the method of measuring the water from a horizontal discharge pipe of a well and computing gallons per minute of water being pumped.

Costs of water per acre foot from a Douglas City well for irrigating range land and recommendations regarding same sent to F. F. Schmidt, Douglas on December 28th.

Farm building plans were provided for farmers in the following communities: Hereford - 2, Willcox - 4, Dos Cabezas - 1, Elfrida - 3. Plans for irrigation structures to W. R. Moore, Willcox, and information on preserving fence posts to Jack Crews, Pearce.

8. Poultry Production - Management

(a) Problem

Improvement in general management practices for efficient poultry production is the main problem on poultry production.

(b) History

Unfavorable relationship between feed and poultry prices caused a decline in the number of birds on farms during the war. Flocks have increased considerably since 1947. A number of inexperienced poultrymen have started in poultry production.

Carry O. Page
Cochise County
1950

(c) Work Plan

Projects - Poultry Management

Who: - Agent and Poultry Specialist

What and How: - Meetings to discuss poultry production.
Publicity in radio and press on recommendations for
efficient poultry production.

When: - January, February, March, April, June, September, and October

Where (Community): - All Communities

Goals: - Increase efficiency of poultry producers both farm flock and large
operators

(d) Results

The general program was carried out as planned. Publicity was prepared on timely topics by the Specialist for distribution in radio and press.

A radio recording was prepared by the Agent on December 28th for Station KAMT, Douglas on "Housing Requirements for Satisfactory Baby Chick Production," and recommendations for buying chicks only from hatcheries participating in the National Poultry Improvement Plan.

Ralph Van Sant, Poultry and Dairy Specialist, discussed poultry production at a meeting of farmers at Pomerene, Monday evening, February 1st. 30 attended the meeting.

Eleven field visits were made to farms and hatcheries in the county by Mr. Van Sant and the Agent, February 1, 2 and 3. Problems discussed at the meeting of poultry growers at Pomerene and also during field visits were Economics of Poultry Production, state and national; Outlook information; Housing; Disease Control; and General Management Problems.

Field visits and meetings with the assistance of Mr. Van Sant, were made March 13th to 15th. A meeting at Elfrida, March 13th was attended by 49, and 21 attended a meeting at Wilcox, March 14th. General Management, feeding recommendations and outlook information was presented by Mr. Van Sant at the meetings.

Cary O. Pogo
Cochise County
1950

VI. ACTIVITIES AND RESULTS

9. Animal Husbandry - Dairy (Dairy Herd Improvement Ass'n)

(a) Problem

Very few dairymen are practicing feeding of cows according to production. Also, without records of production a constructive culling and breeding program cannot be carried out.

(b) History

Dairying has been a minor enterprise in the county in the past, with the county producing only a fraction of the milk consumed locally, until immediately following the war. The first real surplus of milk occurred in the late spring and summer of 1949. The greater acreage of cultivated land in the county for feed production should place the dairymen in a more favorable position for profitable dairying over a period of years, however, efficiency in production will be necessary to compete with milk that may be shipped in from areas with lower costs of production. The Cochise County D.H.I.A. was organized in February 1943. Five herds with a total of approximately 200 cows are on test at the beginning of 1950.

(c) Work Plan

Projects: - D.H.I.A.

Who: - Agent, Dairy Specialist, and DHIA cooperators and tester

What and How: - Assist D.H.I.A. members in use of DHIA records for more efficient dairying and publicize work of the association to other dairymen.
Community meeting and publicity on press and radio on DHIA program.

When: - January, February and October

Where (Community): - Elfrida, McKeal, Bisbee, and Hereford

Goals: - 8 dairymen in county D.H.I.A. and making full use of records for efficient management of herds

(d) Results

The work on this project was handled as planned as far as Extension Service responsibility was concerned. The goals were not reached. In fact, the program was weaker at the close of the year than when the year's program was planned. Some criticism has been made of the testers procedure in

Cary O. Fago
Cochise County
1950

handling samples and preparing reports. Testers reports to the county office have been late nearly every month. Three herds with 147 cows were on test during the month of September.

Miscellaneous meetings and field work on dairying was as follows:

Ralph Van Sant, Poultry and Dairy Specialist, assisted the Agent in a meeting of farmers, including D.H.I.A. members at the Elfrida High School, February 2nd, and field visits at four dairy farms, February 2 and 3. Total attendance at the meeting was 45. At the meeting at Elfrida Mr. Van Sant discussed the Outlook for Dairying, Herd Improvement, Disease Control, and General Feeding and Management Recommendations.

Following the general meeting a meeting of the Cochise County D.H.I.A. and others interested was held. A total of seven attended the meeting. Results of the election of officers of the Association were:

- Angus Thompson - President, One-year term
- E. C. Hill, Jr. - Vice-President, three-year term
- Erent Mott - Secretary-Treasurer, two-year term

General business of the Association was discussed. Mr. Van Sant stated reasons for changes in the size of the news letter containing reports of the various county D.H.I.A. Associations in the state.

A meeting on Dairy Production at Pomerene, March 15th with attendance of 15 was held. Mr. Van Sant, Poultry and Dairy Specialist, discussed breeding, feeding and management recommendations, and outlook information at the meeting. Also, similar information was presented at the meeting in Willcox, March 14th.

Mr. Van Sant and the Agent visited four dairymen in the Elfrida - McNeal area on March 14th, and five in the Pomerene - St. David area on March 15th. Mr. Dawson, cow tester, was also contacted regarding the D.H.I.A. work on the 14th.

The Agent attended Holstein Dairy Herd Classification meetings at Sunset Dairy, Tucson, March 2nd and at the University of Arizona Farm on March 3rd.

The Willow Farms Dairy herd owned by E. C. Hill, Jr. was sold in July. The herd was shipped to the Phoenix area. Hugh Mayfield, Elfrida, dropped out of the County D.H.I.A. program in July, and J. M. Dawson started his herd on test in August. The Agent called at the farm of J. M. Dawson on August 25th and November 3rd regarding the testing program. Ralph Van Sant, Specialist in Poultry and Dairying, reminded Mr. Dawson of the need of sending reports on time in his letter to Mr. Dawson on September 12th, and again on November 15th.

Carry G. Page
Cochise County
1950

10. Animal Husbandry - Beef Production (Control of External Parasites)

(a) Problem

The principal problem in beef production which may be worked on by the Extension Service is Control of External parasites. With the low number of cattle on ranges and farms it is especially important to practice most efficient methods of beef production.

(b) History

Beef production is the most important Agricultural Enterprise in the county. Cattle numbers are estimated to be as low as at any time since the range was stocked. Previous to 1946 control of external parasites on cattle was generally practiced on most severely infested individual animals with little or no attempt to practice control measures on entire herds. Work of the Extension Service by demonstrations and general publicity the last four years has resulted in approximately 20% of the cattlemen practicing some control measures. Most of this had occurred in the past two or three years. Several ranchers have purchased power spray outfits. Custom spraying has not been of any importance.

(c) Work Plan

Project: - Control of External Parasites on beef cattle

Who: - Agent, Animal Husbandry Specialist, and Extension Entomologist

What and How: - Distribution of recommendations to cattlemen by meetings, circular letters, press and radio

When: - February, May, June, July, August, and November

Where (Community): - All communities

Goals: - All cattlemen practicing some organized work in control of lice, ticks, grubs, and flies on cattle on herds except on cattle on particularly mountainous range

(d) Results

Publicity on this project was carried on principally by news items prepared by Specialists and sent out to the newspapers and radio stations. Work by the Agent on the project is listed in the publicity summary. Evidence of increased acceptance of parasite control on cattle is the gradual increase in number of cattle spray outfits owned and operated by stockmen.

57

Cary G. Page
Cochise County
1950

11. Animal Husbandry - Miscellaneous Livestock Production

No definite work planned.

Work related to the Livestock Enterprise not reported previously:

There was considerable publicity in the Douglas Daily Dispatch during the month of January expressing the opinion of farmers and cattlemen on the possibilities in considering cattle feeding (finishing) as a major enterprise for the Sulphur Spring Valley. The Agent was requested to secure a representative from the University to speak on cattle feeding at a meeting of farmers and other interested persons, which was scheduled for January 25th at the Elfrida High School. Walter Armer, Extension Animal Husbandman, was secured to speak at the meeting. At a previous meeting two farmers had discussed two proposed plans for organizing a cooperative feeding enterprise.

125 farmers and ranchers attended the meeting. Mr. Armer presented information on the value of different feeds that are produced in the area which may be used in cattle feeding, and types of feeding which may prove most profitable. A word of caution was given on finishing cattle in this area. As stated by Mr. Armer, producers should consider the competition from other areas nearer the Los Angeles market which produce feed at lower cost and have less shrink and lower freight rates for shipping. The possibilities in producing feeders or stockers by utilizing farm-grown feeds and pasture during the fall and winter months and selling to feeders in California, Salt River Valley in Arizona, or selling to cattlemen wishing to buy cattle early in the spring for placing on range in Colorado or other areas north and east of Arizona, were offered for consideration. The latter method should allow for utilization of feeds produced locally in putting cheap gains on cattle, thus involving less risk than a feeding operation for production of finished cattle.

Harry Hooker, cattle feeder, Willcox, discussed his experience in cattle feeding and presented figures on costs of operation of his cattle finishing enterprise.

Mr. Armer worked with the Agent February 7 to 10. A meeting of farmers, including members of the On-The-Farm Training Class, at Willcox was held at the Willcox High School, Tuesday evening, February 7th with attendance of 37, and a similar meeting at the Elfrida High School, Thursday evening, February 9, with attendance of 44. Mr. Armer spoke at these meetings on general livestock production, feeding, management and control of external parasites. Production problems on both farm and range setups was discussed.

Most of the cattle on feed were marketed during February. The bulk of the fed cattle were sold as feeders for finishing elsewhere.

Most cattlemen reported an early calf crop, and fair feed conditions in March. Feed, however, did not compare with 1949. Some reports of cattle eating loco weed in the Turkey Creek area were received.

The Agent attended the annual meeting of the Cochise Graham Cattle Growers Association held at Tombstone on March 11th. Estimated attendance at the meeting was 150.

Curry G. Page
Cochise County
1950

Work of the Fish and Wildlife Service workers on the use of 1000 for control of coyotes throughout the county was completed during the week ending March 11th.

The condition of cattle on ranges remained good throughout the month of May. However, feed was cut shorter than expected due to the freeze May 5th, which killed back most all mesquite in the valleys on most ranges, especially throughout the Sulphur Spring Valley. Very little green grass remained on ranges. Evidence of this condition is the fact that rabbits have become a serious problem on many farms bordering rangeland. Damage has been reported at Willcox, Elfrida, McNeal, St. David and San Simon. Many cattlemen were feeding salt and meal during the month. Most spring sales and delivery of cattle was completed by May 20. Prices on calves and yearlings were reported from 22¢ to 25¢ per pound. A few fall contracts were made at 24¢ for heifer calves and 25¢ for steer calves early in the month. Buyers were reported to be offering to contract for 25¢ and 26¢ at the last of the month.

The first summer rains in the county were June 21st and 22nd. Rainfall in July was above normal in most areas in the county. The condition of ranges was generally very good by the last of the month.

Marketing of cattle was started about October 10th. Buyers as well as sellers were reported to be anxious to move cattle early. In several instances delivery was reported changed to earlier dates than the original contracts stated. Weights of calves were reported from 350 to around 450 pounds with some weighing more. Weight of cattle was lighter than anticipated in many instances. Lack of rain in August and September with drying up of grass early accounted for poor gains the last two months. Late contracts for calves were from 30¢ to 31¢ per pound with some reported selling as high as 32¢ for light weights.

The Agent was called upon for advice several times during the month of April on sheep management problems. Most of the problems were with weak lambs. Generally it is believed this was due to improper feeding of the ewes during pregnancy. Five farmers in the Stewart district had purchased sheep during the fall of 1949 and wintered the ewes on whatever feed was available, mainly hay which was badly weathered, ground hegarl (stalks and heads), and feed available from gleaning fields. Most serious losses, however, were in a flock owned by Dennis Dunaway, which was moved from New Mexico in March. Several ewes and lambs were lost. First losses of ewes were from pneumonia which developed from (shipping fever) hemorrhagic septicemia. Later losses were apparently due to mis-management, which apparently was from improper feeding and lack of exercise. The Agent contacted W. J. Pistor, Animal Pathologist, University of Arizona, Tucson, regarding recommendations. Dr. Pistor recommended a low energy diet for several days after arrival of the sheep and allow plenty of room for the sheep to exercise at will. Any unnecessary handling of the sheep was discouraged. Some losses continued through the month in this flock as it was kept confined.

Several cases of screw worms were reported on farm flocks in May. Shearing was a factor since some farmers were unable to hire shearers until the 1st of the month. If earlier shearing could have been done, considerable time could have been saved in treating the sheep for worms. In fact, much of the trouble could have been prevented if shearing had been completed in April.

37

Carey O. Page
Cochise County
1950

Dennis Dunaway, Willcox, reported that he was losing sheep in August. After the flock was checked by the Agent, Dr. Wm Pistor, Animal Pathologist, University of Arizona, Tucson, was contacted. Dr. Pistor authorized Dr. Fisher of the University of Arizona to work with the Agent, August 21st to check possible causes of loss in this flock. Findings were rather limited. After examination of one ewe which had died and another which was destroyed for examination it was decided that worm infestation could not have even been a contributing cause toward the loss of sheep or poor condition. Later laboratory examination of feces from other sheep indicated no important worm infestation. One of the sheep examined showed considerable damage had been done to the lungs as a result of a previous disease.

The sheep were feeding on alfalfa pasture only. Recommendations were made to feed some grain to the sheep in order to improve the general health of the flock, as indications were that the trouble with the sheep was nutritional. Losses stopped after some dry feed was fed in addition to the pasture.

12. Animal Husbandry - Range Management

No definite program planned on this project.

Walter Armer, Extension Animal Husbandman, and the Agent travelled with Al Swanson, District Conservationist, S.C.S., Douglas, on February 8th to inspect range reseeding work of the S.C.S. Mr. Swanson pointed out range reseeding tests established in 1949 on the following ranches: Mr. Bergman, Douglas; Mr. Sherman, Waco; Mr. Carlson, Bisbee; Joe Clinton, Hereford; and John Weik, Hereford; Lea Burnett, Elfrida; and Mr. Bartoch, Elfrida. The Lehman's Love Grass planting which was made on the Stearn's Ranch in 1939 was also inspected. Most of the plantings showed a desirable stand of Lehman's Love Grass and some plantings indicated that Willman's Love Grass appeared to be taking hold. Rabbits were damaging some plantings. The furrows made by the cutaway disc machine used in preparing the seed beds were generally filled nearly level full. No difference was shown between stands from plantings following the disc with or without a cultipacker. Mr. Swanson stated that plantings made in April and May in 1949 produced better stands than June plantings even though summer rains did not start until after June 15. The grass had been planted in 1939 in land that had been worked deep with a chisel. The grass had reseeded and filled in most of the area between the furrows. This land, however, has been grazed only during the winter according to reports. This method of management no doubt was of great importance in the success of this grass planting.

Other grass plantings were visited by Mr. Armer and the Agent at the Paul Riggs Ranch, Pearce; and permanent irrigated pasture mixes and individual border plantings on the Haynes Moore, Sr. farm at Willcox were visited with

Carry G. Page
Cochise County
1920

Walter Diehl, Conservationist, S.C.S. on February 9th. Stands of nearly all plantings on the Moore farm were very good and the results of this test, if carried on for several years, should be helpful in providing information that may be used in making recommendations on irrigated pastures in this area.

Mr. Swanson contacted the Agent July 20th regarding considering plans for a Field Day, for ranchers to observe range reseeding plots. It was decided that the matter should be considered further and possibly schedule a Field Day sometime during the last of August.

Messers Armer and Swanson, and the Agent visited range reseeding demonstration plots in the southern part of the county on August 14th in order to determine whether a tour of experimental plantings should be considered. It was ~~was~~ decided that a field day should be scheduled. Plans were for Mr. Swanson to check mileage between the following ranches: John Weik, Hereford; Sherman's, Naco; Ben Carlson, Bisbee Divide; John Saylor and Joe Fartosh, Elfrida; and Stearns Ranch near Pearce. All publicity for the tour was to be the responsibility of the Agent.

Mr. Armer also worked with the Agent in the office August 5th and 18th regarding the county program in Animal Husbandry and Range Management.

The range reseeding tour conducted by the Agricultural Extension Service in cooperation with the Soil Conservation Service was held September 1st with a total of 30 attending. The schedule of the tour is included in the Appendix of this report. The seeding in the brush land on the John Weik ranch and amount of cover of grass on the 10-year old Lehman Lovegrass planting on the Stearns Ranch seemed to be of greatest interest to those attending. However, the offset disc used for preparing the seedbed for planting also drew considerable attention. Information on plantings made at each stop, (costs, rates of seeding, etc.) were discussed by Al Swanson, District Conservationist, Douglas, and Darwin Anderson, S.C.S. Representative from the Albuquerque Office. Information on results of experiments on brush control were discussed by Walter Armer, Extension Animal Husbandman, University of Arizona, Tucson.

61.

Carey G. Page
Cochise County
1950

VI. ACTIVITIES AND RESULTS

13. Agricultural Economics

No program planned on this project.

Rodeo District

Karl Harris, Irrigation Engineer, Soil Conservation Service, Phoenix, visited the Rodeo area, December 13, and inspected the land being considered for farming. During the visit a statement was made regarding consideration of special crops for the area. This was interpreted by the press to be that Mr. Harris was recommending strawberries and other small fruits, sweet corn and vegetables for growing in the area.

The Agent inspected the area January 13th. Three wells have been drilled in the area on the Arizona side of the line on the Jack Eggert Ranch. Approximately 15,000 acres of land has been leased or purchased in the area for sale as farms by the Morris Brothers Drilling Co. of El Paso. One old well was deepened and tested 2350 g.p.m. and another new well which was drilled tested 2750 g.p.m. In pumping the higher rates the water was lifted approximately 180 feet. Water rises in the wells to approximately 90 feet but the drawdown is heavy when there is a large volume of water pumped, therefore, the pumps must be set at approximately 150 feet.

Mr. Harris requested that the Agent accompany him and Milo James, S.C.S. Soil Specialist, to visit the area on January 24th, and also, to a meeting of the Lions Club, Douglas, on January 25th where Mr. Harris had agreed to speak on points to consider in developing the area.

The Douglas Chamber of Commerce sent a request to the University for a study of the agricultural possibilities in the district. Vice Dean Hawkins referred the letter to the Agent which was received January 23rd, and the Agent contacted Glenn Pratt, Secretary of the Douglas Chamber of Commerce, while in Douglas, January 24. Other work scheduled during the month prevented the Agent requesting representatives from the University to make the survey in January.

In the discussion by Mr. Harris at the meeting of the Lions Club he discussed the items regarding water and soil resources, possible markets, financial backing of potential farmers, etc., which should be considered. The Agent stated that from his observation the agriculture problems to be encountered in the area would be similar to those in the Sulphur Spring Valley.

A. Mark Bliss, Superintendent of the Safford Experiment Station, Professor Edward V. Smith of the Soils Department, University of Arizona, and the Agent made a study of the Rodeo, New Mexico area, March 17. The purpose of the study was to consider the points which needed consideration in preparing a report on the possibilities in the area for development of irrigated farming. This was in following up on the request of the Douglas Chamber of Commerce

Cary G. Page
Cochise County
1950

Reports which were received from A. Mark Bliss, Experiment Station Superintendent, Safford, and Howard V. Smith of the Soils Department, University of Arizona, regarding the survey of the Rodeo area on March 17th were reviewed by the Agent and approved, and forwarded to Director Chas. U. Pickroll on May 18th. The report was approved by the Director and returned to the Agent. It was mailed to Jack Morrison, El Paso, Texas, on June 11th, since the area in question was mainly under lease to Mr. Morrison and his son. A statement was included in the letter to Mr. Morrison stating that he could refer the information on to the Douglas Chamber of Commerce if he desired to do so.

Other Work on the Project

Meetings

The Agent talked to the Kiwanis Club, Douglas, on "Agricultural Outlook for Whitewater Draw area", December 15, 1949.

Also, the "Outlook for Farming in Cochise County" was discussed at annual meetings of Farm Ownership clients of the Farmers Home Administration at McNeal, February 16, and at Willcox, February 23. Total attendance at the meetings was 51.

Miscellaneous

Numerous requests for information on farming in Cochise County were received throughout the year from prospective land buyers considering moving to this area. Many times the prospective farmers stated they were interested in farming here since the land was cheaper than where they were located. In most cases the inquiries were from men with limited capital.

14. Farm Safety

No definite program was planned on this project.

Safety was stressed in each of the three 4-H Tractor Maintenance Clubs organized during the year. Eight news stories were mailed to county newspapers and radio stations in July in observing Farm Safety Week.

OBSERVANCE OF FARM SAFETY WEEK

Care With Horses Prevents Accidents

Horses are responsible for more than their share of farm accidents, but don't blame the horse. The real fault lies with man and his carelessness, warns Carmy G. Page, County Agent.

Common cases causing accidents with horses are the beginners who do not show proper respect to the hind feet of the horse.

Old timers are also careless. They often delay replacing a worn cinch or a worn latigo. Because of these weak parts of his saddle, he often lands on the ground after he has roped a yearling.

Most accidents involving horses can be avoided by remembering these three cautions

1. Show respect for the horse's hind feet. Don't try to sneak up behind the horse, for even the gentlest horse may kick if he is startled.

2. Always be sure your equipment is in good condition. A broken cinch may lead to a broken rib or neck.

Make Your Pump Safe From Shock

Fatal or dangerous electrical shock from your electrical pump to you may be due to worn or faulty wiring. A. B. Ballantyne, rural sociologist for the Agricultural Extension Service at the University of Arizona cautions that this electrical shock can be avoided by properly grounding the pump.

Drive a copper or galvanized iron pipe or rod eight feet into firm moist ground. Attach a heavy copper wire from the pipe to the pump. It is important that all connections be of heavy copper wire so that it is capable of carrying a fairly large electrical load.

If the pump is belt driven, then to be safe both the pump and the motor need to be grounded.

With the proper ground attachments you have a guarantee that stray electricity will go into the ground rather than through the body of the first person who tries to operate the pump. As soon as there is an idle period for your pump, check or make the groundings and be safe for another year.

Carry O. Page
Cochise County
1950

15. Rodent Control

No program was planned on the project.

Rabbits did considerable damage to crops in the Elfrida, McNeal and Double Adobe communities during the winter and spring months. Rab'it drives were sponsored by the McNeal and Elfrida Farm Bureaus in February. The Rogers, Fish and Wildlife Service, Rodent Control Supervisor, Phoenix, checked the area and conducted a rabbit poisoning demonstration on the Keith Farm at Double Adobe. A few farmers did some poisoning. Usually sufficient prebaiting was not practiced or too much other food was available when the poisoning was attempted.

Mr. Rogers and the Agent contacted Dan Wooks, President, Whitewater Farm Bureau; Byron Davis, President, McNeal Farm Bureau; and R. H. Franklin, County Farm Bureau President, November 14th, 1950, regarding plans for rabbit control in 1951. Mr. Rogers stated that demonstrations would be arranged if farmers indicated definite interest in poisoning as a means of rabbit control. During each visit the need was stressed for community support of a control program with a majority of the farmers making a definite effort to control the rabbits on their own farms.

16. Insect Control - Cotton Insects

(a) Problem

Serious infestations of cotton insects have occurred in the Willcox, McNeal and Elfrida areas in 1948 and 1949.

(b) History

Light damage from cotton insects was reported in 1947. Meetings were scheduled by the Agent, and the Extension Entomologist discussed cotton insect control at the meetings with farmers in July of 1948 and 1949. Circulars with control recommendations were mailed to cotton farmers each year. Field counts of insects were made by the Bureau of Entomology workers and the Agent in 1948 and 1949, and reported to the Extension Entomologist, who sent reports by counties for the state to the press and radio stations.

Insect infestations on cotton have been more severe and have started earlier each of the last three years.

65.

Cary G. Page
Cochise County
1950

(c) Work Plan

Project: - Cotton Insect Control

Who: - Agent and Extension Entomologist

What and How: - Distribute recommendations on cotton insect control, circular letters; circulars.
Farmers meetings, and publicity in press and radio.

When: - April through September

Where (Community): - San Simon, Willcox, Elfrida, Medical and St. David

Goals: - All farmers to practice timely insect control measures when necessary.

(d) Results

220 copies of a circular letter including a folder on cotton insect control prepared by Dr. J. N. Roney, Extension Entomologist, was sent to cotton farmers April 27th. Weekly cotton insect reports were prepared by Dr. Roney during the growing season and released to the press and radio stations stating insect counts in the various areas and control recommendations.

Cotton insects did not build up enough during the month of July to recommend extensive dusting. However, bollworms were evident in a number of fields. Counts were considered sufficient for dusting in some fields by the last of the month. The earliest dusting observed or reported was done by Rogers and Kinzey in the Sulphur Springs Community on July 24th.

In August most fields in the Sulphur Spring Valley needed one or two dustings for control of bollworms. The Agent checked five fields in the San Simon Valley on August 20th. Control of bollworms with either a 5% or 10% DDT dust with Sulfur was recommended on the Raymond Crow and S. Y. Faucett farms. This was the first time in the last three years that control measures for cotton insects were recommended in that area.

J. N. Roney, Extension Entomologist, worked with the Agent on field work in checking cotton insect damage August 28 and 29, and November 15 and 16. Cotton Leaf Worms were found in sufficient numbers August 29th to recommend control measures on the Morley farm approximately 8 miles northwest of Douglas. Leaf worms were found in other fields but not in sufficient numbers to justify control.

Control measures for control of bollworms were satisfactory, when timely dusting with DDT and Sulfur was practiced.

Assistance on this project in checking cotton fields was received from Bill Koffman, fieldman, Bureau of Entomology, Tucson, who checked fields in the county each week through most of the growing season.

Carry O. Page
Cochise County
1950

17. Insect Control - Fruit Insects

(a) Problem

Quality of fruit produced in the county often fails to be marketed easily due to lowered quality resulting from insect injury.

(b) History

Planned insect control measures are seldom practiced by most fruit growers. Codling moth is the most serious pest. Others which are important are red spider and woolly aphis.

(c) Work Plan

Project: - Fruit Insect Control

Who: - Agent and Extension Entomologist

What and How: - Distribution of circular on insect control to fruit growers and publicity through press and radio

When: - February through May

Where (Community): - All Communities

Goals: - All commercial fruit growers practicing insect control measures whenever necessary

(d) Results

The program was conducted as planned. 56 copies of the folder "Control of Fruit Insects," by J. N. Roney, Extension Entomologist, were mailed to fruit growers on March 28th. A circular letter on dormant spray recommendations was sent to 38 growers, November 17th.

Individual requests for information on the project were supplied by the Agent throughout the year.

Carey G. Page
Cochise County
1950

18. Insect Control - Grasshoppers

(a) Problem

Grasshopper control around farmsteads and on rangeland may become a problem.

(b) History

The only serious widespread infestation of grasshoppers on ranges occurred in 1942, beginning in April. A few sections of range in Graham County, south of the Graham Mts. are natural breeding places for hoppers and relatively large hatches occur each year. However, the Mexican species of hopper which is a migratory type has been the only one expected to become serious from time to time. Several ranchers reported severe infestations of hoppers in August of 1948 and 1949 in spots on range and around ranch headquarters. Generally there was little interest among ranchers to prepare to spread bait themselves. The general desire was to have some federal agency do the work of controlling the hoppers. Bureau of Entomology workers and the state entomologist did some experimental work in Graham and Santa Cruz counties in trying to control the hoppers which were a type which ordinarily had not taken baits readily. Results of the experiments were reported to be that the hoppers were controlled. This work was done in September 1949.

(c) Work Plan

Project: - Grasshopper Control

Who: - Agent and Extension Entomologist

What and How: - Publicity on latest recommendations for control of insects. Distribution of bulletins from office, circular letters to all ranchers, and Publicity in press and radio on grasshopper control.

When: - April, May, July, August, and September

Where (Community):- All communities

Goals: - Interest farmers and ranchers in practicing timely methods of control of grasshoppers

Carry O. Page
Cochise County
1950

(d) Results

George Cavin, Bureau of Entomology worker, from Phoenix, contacted the Agent December 19th, regarding grasshopper egg count surveys and problems regarding bait supplies stored at Willcox. Mr. Cavin stated that egg counts made earlier in the fall indicated grasshopper infestation on ranges would probably be light in 1950.

One newspaper story was released from Phoenix regarding a possible severe infestation of grasshoppers in the Willcox area in April. This was not an Extension Service release. No heavy hatches of hoppers in the county were reported to the Agent. The district just south of the Graham Mountains in Graham County where moderate to heavy hatches of hoppers occur nearly every year did report a fairly heavy hatch in small areas. Grasshopper bait materials carried over from September 1949 were distributed by the Agent to farmers and ranchers desiring bait during April and May.

A circular letter by the Agent with control recommendations for grasshoppers by Dr. J. E. Roney were mailed to farmers and cattlemen in the county, April 25th.

A number of reports were received regarding grasshopper infestations throughout the month of August. Generally the greatest damage was being done around farmsteads and ranch headquarters, however, some damage was found around the edges of occasional alfalfa and vegetable fields. The last of the chlorodane bran bait left over from 1949 was removed from storage August 23rd. Following that date some Sodium Fluosilicate was distributed from the office to farmers who wished to mix their own bait. General recommendations by the Agent were to use chlorodane dust on ornamental plants and on weeds around gardens instead of baits. Good control was reported from the use of both the baits and dusts except on the large black winged hoppers. Control of these hoppers with most insecticides was generally reported as very poor except in cases where Benzene Hexachloride was used. Most of these black hoppers were around Cochise and Pearce.

Groundwork in securing supplies for spraying with Aldrin and oil by plane were made and final work in setting up for a control program were being made August 28th and 29th as a result of authorization by Governor Dan Garvey for the State Entomologist to use state emergency funds to be matched with federal funds. Representatives of the Denver office of the Bureau of Entomology arrived in Willcox August 30th.

Preparation for the grasshopper control program, of the Bureau of Entomology in cooperation with the State Department of Agriculture and Horticulture in Graham County and a small area on the Cochise County side of the line were completed August 31st and control started September 1st. The program was completed on September 7th. Control measures practiced were spraying with Aldrin and oil over most severe infested areas. Control was reported over 95% effective.

Carry G. Page
Cochise County
1950

Grasshoppers cause considerable damage around farmsteads and ranch headquarters during September. Greatest populations of hoppers was in the Pearce, Cochise and Stewart communities.

The measures for control of grasshoppers were generally successful, however, a greater saving could be made if farmers and ranchers would practice control measures as soon as hoppers begin to hatch.

Some damage from grasshoppers continued during the first fifteen days of October to plantings around farmsteads and ranch headquarters, however, there was not much effort made to control them.

The annual summary report of grasshopper control was mailed to J. H. Roney, Extension Entomologist, September 29th. Estimates were as follows: Acreage baited, including rebaiting - 6150; Acreage protected by baiting - 12,270; Losses caused by grasshoppers - \$2650.00; Saving resulting from control operations - \$850.00; a total of 113 sacks of prepared bait (bran and chlorodane, approximately 45 pounds per sack) and 27 1/2 pounds of sodium fluosilicate were distributed by the County Agent's Office.

19. Insect Control - Miscellaneous Insects (Farm crops, Vegetables, and Ornamental plants)

(a) Problem

Each year serious losses occur to vegetables due to failure of farmers to practice timely measures for controlling insects.

(b) History

Changes to recommendation of new insecticides may be partly responsible for failure to generally practice recommended controls. Also, the percentage of new residents in the county had been a factor the past few years. Newcomers apparently experience losses before recognizing changes in types of control that may be necessary for successful control of insects here.

(c) Work Plan

Project: - Miscellaneous Insect Control

Who: - Agent and Extension Entomologist

Garry O. Page
Cochise County
1950

What and How: - Publicity on latest recommendations for control of insects.
Distribution of bulletins from office and publicity in press and radio

When: - Throughout the year

Where (Community): - All communities

Goals: - Greater acceptance of latest recommendations for control of miscellaneous insects by all farmers and gardeners.

(d) Results

On December 26th a news story was prepared and mailed to five newspapers and two radio stations on burning weeds to control insects. (Information in story was from material prepared by J. W. Roney, Extension Entomologist).

Aphids and red spider injury to ornamental plants were severe during the month of April. In fact, red spider infestation was particularly general throughout the area and continued through May and the first of June. Control with dusting sulfur was effective in controlling the spiders when thorough dusting was done.

The tomato horn worm did considerable damage to chili during the first twenty days in August. Dusting with DDT was recommended when peppers were not to be marketed for canning. Most common control measures were hand picking.

A number of reports were received from the Bisbee area regarding bark beetle injury to evergreen trees. Dr. Roney was contacted and he recommended that the trees be sprayed with chlorodane for control of the beetles. This information was sent to individuals requesting the information.

Carrot beetles damaged some vegetables in the Willcox and Sulphur Springs Communities in August. Chlorodane dust was recommended for control by working it into the top soil.

Timely information on insect control was released from the State Office regarding recommendations of the Extension Entomologist to the press and radio.

20. 4-H Club Work

Refer to 4-H Annual Report.

Carey G. Page
Cochise County
1950

VII. OUTLOOK AND RECOMMENDATIONS

Field Crops

A change to a greater percentage of land in cotton in 1951 than in 1950 is expected since acreage allotments will not be placed on the crop. The need for working toward a more balanced type of farming should continue to be stressed. Further practice of growing only soil depleting crops may be expected to increase soil problems. Planning of farm crop production for producing feed to utilize with livestock on farms should continue to be stressed in the Extension Program.

Light soils which will require considerable expense for improving to a stage where satisfactory crop yields may be produced should be retired from cultivation. Further expansion of the cultivated acreage in the county should not be encouraged until a thorough study of underground water resources is completed.

Variety tests on cotton and corn should be continued in 1951 and establishing variety tests on small grains and grain sorghums should be done if cooperators are secured.

Vegetable Production

Chili production is expected to continue as the principal vegetable crop in the County in 1951, although returns from the crop were low in 1950. Limited acreages with best farming practices applied in production are necessary if satisfactory returns are to be received. The educational program on vegetable production should stress the importance of planting good seed that has been treated for diseases. Also, weed control with machinery should be practiced to the fullest extent practical, in order to cut labor costs.

Soil and Irrigation Practice

Recommended points needing emphasis in the Extension Program are, planning acreage for crop production on each farm in line with water supply, improvement in irrigation structures and land leveling; growing more legumes or green manure crops, winter storage of water in the soil, and desirable tillage practices to maintain or improve soil structure.

Many farmers irrigated cotton through September in 1949. The dry fall weather and late frost provided nearly ideal conditions for maturing the crop. Under average conditions September irrigation of cotton may cause serious losses.

Carry G. Page
Cochise County
1950

Poultry

Improvement of the farm flock should continue to be given greatest consideration on the project. Buying chicks from hatcheries participating in the National Poultry Improvement Plan should be encouraged. Advantages of feeding for profitable production, culling, and control of diseases and parasites should also be included in the educational program.

Animal Husbandry

Beef

The practice of controlling lice, ear ticks, grubs and flies on beef cattle is increasing, however, continued publicity on this practice should continue to be a part of the Extension Program. Also, attention to selecting only desirable type and quality of replacements for breeding herds should continue to be stressed. Pounds of beef produced instead of number of head on range needs continued consideration in the plans of cattlemen in re-stocking and managing their ranges.

Dairy

Participation of dairymen in the D.H.I.A. program appears to be the best means of conducting a constructive well-rounded educational program on the project. The Extension Program should, however, include recommendations on breeding, feeding, management, and marketing to all dairymen. Also, continued emphasis should be placed on equipping and managing dairies to provide for more sanitary operation.

Agricultural Economics

Efficiency in production of all agricultural products is of greatest importance to consider on this project. Considerable turnover in land ownership may be expected in 1951.

The program in Extension Work on this project should give greatest emphasis to keeping the agricultural interests informed on trends in markets and encourage increased efficiency in handling present farm land. Keeping records of cost of production is a project which should be of major benefit to farmers. Prospective farmers should be advised on points to consider in selecting a farm. Indications are that further expansion of the present

Carry G. Page
Cochise County
1950

cultivated acreage in the county may prove detrimental to the various farming communities. More information is needed on the available supply of underground water, especially in the principal farming districts.

4-H Club Work

See 4-H Club Annual Report.

County Fair

A permanent location for the County Fair is the most important item, which should be considered in 1951. Building space for exhibits has been excellent in the Airport buildings the past three years, however, the disadvantages in cost of preparing the buildings for the Fair each year when only temporary leases are permitted seems to outweigh advantages of this location. If a permanent location is agreed upon, improvements added each year could be made with less cost over a period of time than is possible at the Airport. Also, the need for entertainment features and space for various entertainment will be necessary if interest in the County Fair continues.

The fair dates in September as in previous years were superior to the first week in October as scheduled for 1950. The time did not seem to affect the quality of exhibits generally. The earlier dates are definitely advantageous from the standpoint of 4-H Work as the reports due October 1st can include a full record of the year's accomplishments.

Rodent Control

Planned community wide control of rabbits and gophers has not been practiced for many years. The Agent should encourage such activity. Demonstrations on rodent control should be arranged in communities where there is definite interest in the project.

Insect Control

Continued emphasis should be placed on the importance of timeliness in control of insects. This is especially important with grasshoppers as well as cotton insects. Grasshoppers have been increasing in numbers the past few years. If further increase occurs in 1951 widespread control measures may be necessary.

44

Cooperative Extension Work
in
Agriculture and Home Economics

University of Arizona	Agricultural Extension Service
College of Agriculture	Home Demonstration Work
U. S. Department of Agriculture	County Agent Work
And Cochise County Cooperating	

State of Arizona
Willcox
August 22, 1950

Dear Cooperator:

There is considerable interest in range reseeding as indicated by the number of requests for information on the subject received at this office. Definite information that may be considered in making recommendations is limited. However, a number of test plantings have been made in the county by the Soil Conservation Service which may be observed.

In order to show part of this experimental work, a tour has been scheduled in cooperation with Al Swanson, District Conservationist, S. C. S., Douglas, for September 1. The starting point for the tour will be at the John Weik ranch, Hereford, beginning at 1:00 P. M. The full schedule is given on the enclosed sheet which includes a location map.

Different types of grasses used, rates of seeding, methods of planting, costs, and machinery used will be discussed during the tour. Equipment used in reseeding will be on display at Carlson's and at the Bartosch and Saylor stops. Some discussion on shrub control will be made at the Weik ranch.

If you are interested in range reseeding I hope that you may attend the entire tour, starting at the John Weik ranch, Hereford, September 1, beginning at 1:00 P. M.

Very truly yours,

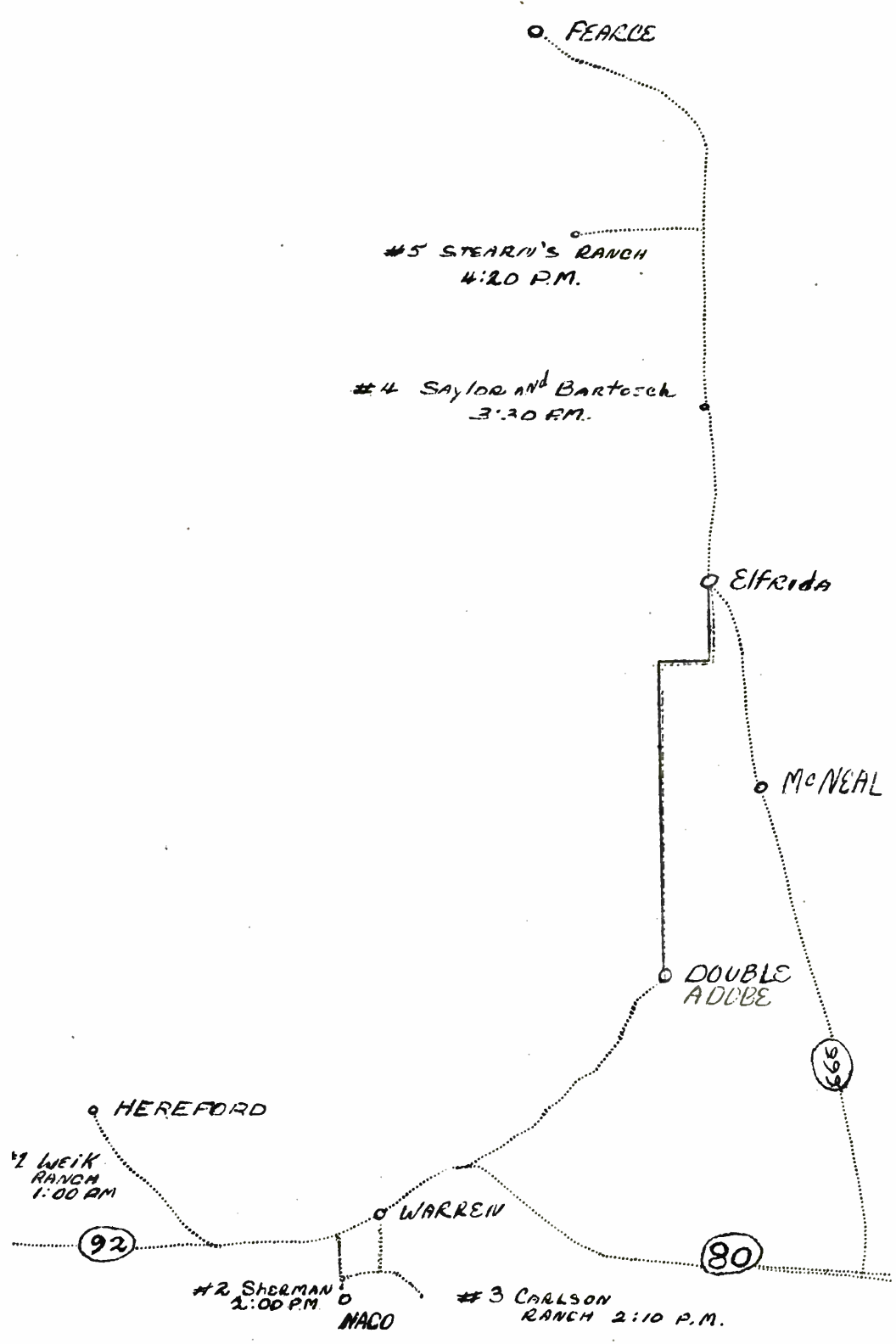
Carmy G. Page

Carmy G. Page
County Agricultural Agent
Willcox, Arizona

CGP/cmm
enclosure

LOCATION MAP

RANGE RESEEDING TOUR - SEPTEMBER 1.



Cooperative Extension Work
in
Agriculture and Home Economics
State of Arizona

University of Arizona
College of Agriculture
U. S. Department of Agriculture
And Cochise County Cooperating

Agricultural Extension Service
Home Demonstration Work
County Agent Work

Willcox
June 12, 1950

Dear Cooperator:

The following is a summary of the meeting on Extension Program Planning held at the McNical School Tuesday evening, May 9, 1950. This summary is being sent to representatives of the Elfrida, McNical and Double Adobe communities who attended the meeting, as well as those who were unable to attend. I trust that each of you will carefully review this summary.

In my summary I have analyzed each problem, making a brief statement of the situation and giving a suggested procedure. You may have a different suggestion on how to proceed. You may also have other problems which you think should be included.

Please study this and come to the next meeting with carefully thought out ideas on these problems and new problems to consider. The success of this program depends upon full cooperation of each of us.

PROBLEMS SUGGESTED BY THE COMMITTEE

Most Important Problems Needing Immediate Attention

A. Problems Extension Service can work on with farmers assistance:

1. Proper fertilizers for various crops and soil types
(Situation) Soil structure and irrigation practices often limit crop yields more than lack of plant food. Some commercial fertilizers have been used by farmers on vegetable crops. Very little commercial fertilizers have been used on other crops. Green manure should be a basic part of any program for increasing soil fertility.

Field tests in other areas indicate that alfalfa may respond to phosphorous applications, especially on medium or light soils. Other areas have shown response to nitrogen and phosphorous on cotton and grain crops. 50 to 60 pounds of available nitrogen and the same amount of phosphorous are considered average amounts to apply.

One field test on commercial fertilizers should be established for cotton, alfalfa, small grains, sorghum crops, and chili peppers. Farmer cooperators will be needed for these tests.

2. Weed Control Recommendations

Principal weeds to control are field bindweed, Johnson grass, bermuda grass, Russian knapweed, pepper weed, Russian thistle.

Some individual testing of 2-4D weed sprays has been done. Tests in other areas indicate TCA shows promise for controlling Johnson and Bermuda grasses. Present costs for the spray material are prohibitive for field scale use. Other weeds listed may be controlled with 2-4D if practiced for a period of years. Russian knapweed may not respond to control with 2-4D as readily as the other above plants. Soil sterilization may be necessary if cultivation and 2-4D applications are not effective. Guarding against introduction of weed seed in field seeds and feeds is important. Weed control at best is a never ending program. A well-planned program of cultivation is important.

Probably field weed control test demonstrations should be set up for Johnson grass, field bindweed, and Russian knapweed. When the field test plots are established the spraying program should be worked out for a period of several years if necessary. Farmer cooperators will be needed for these tests.

3. Burroweed Eradication

Burroweed (as well as mesquite) is a serious weed on some Cochise County ranges. No appreciable amount of work has been done in burroweed control. Some testing in other areas indicates that Burroweed may be controlled by mowing in May, June and July. Usually best results are obtained when mowing is done following a long dry period.

A burroweed control plot should probably be set up on at least one Cochise County range with mowing the weed at different intervals to determine proper control method.

4. Corn Varieties for Elfrida - McNeal Area

Recommendations on corn varieties from other areas in the state or other states cannot be expected to apply to Cochise County. A summary of corn variety tests from 1937 to 1949 in the Sulphur Spring Valley gives highest averages for a period of five or more years testing to Funks G-711, Texas 12, Texas 8, and Texas 9W. The test will be continued on the Geo. Anderson farm at Willcox in 1950. Field tests should be continued each year in order to test new and improved strains of hybrid seed corn.

B. Extension Service Responsibility (May be primarily a matter of sending out available information)

1. Determine best green manure crops for the area, including Sesbania and Guar. Every farm program should include a green manure crop in the rotation to maintain soil fertility. A green manure crop helps good soil structure, by loosening the soil, increases the water-holding capacity of the soil, and increases fertility.

Although no organized field test work has been done in the county on green manure crops, farmers have received good results from plowing under alfalfa, sweet clover, sour clover, and Austrian winter peas. In other similar areas sweet or sour clover, and alfalfa are excellent.

The recommendation for the Elfrida areas is sweet clover, sour clover or alfalfa. Sesbania has a very high water requirement and is no better than alfalfa or sweet clover.

If a test is desired one can be set up using sweet clover against a check area with no green manure crop (or sour clover or alfalfa).

C. Farmers Principal Responsibility with Extension Service Assistance

1. Possibility of establishing an experimental farm in Cochise County

Limited funds available and the small irrigated acreage will probably prevent the establishment of an experimental farm in Cochise County by the Agricultural Experiment Station of the University of Arizona.

Other Suggested Problems

A. Problems Extension Service can work on with farmers assistance

1. Consolidation of 4-H Clubs in McNair and increasing interest of 4-H Clubbers and parents in project work

Although the above were given as separate problems, the procedure will be the same in improving the 4-H Work in the community. Most successful 4-H Work results from continued interest of 4-H members, parents and leaders. The problem here is the result of allowing the 4-H Program to become burdensome to all concerned because of too many 4-H meetings each month.

The number of meetings for each club in the community may be reduced to one each month for the remainder of the club year. This may be worked out by the parents and 4-H leaders. A meeting of parents, 4-H leaders and club members, home demonstration agent and county agent should be called in October before clubs are re-organized. The number of clubs to be re-organized, number of projects per club member, number of meetings per month, and type and amount of recreation at club meetings should be agreed upon at the meeting. Also, responsibility of 4-H members, parents, leaders, and the Extension Service for successful 4-H Club Work should be outlined.

B. Extension can do this - may be only a matter of information

1. New Crops and short season crops for Cochise County

County Agent will keep in touch with Experiment Station test plantings of promising new crops which might be adapted to Cochise County.

2. Marketing Cochise County crops

An organized marketing program for Cochise County farm produce has not been established over a period of years. By an organized program is meant a graded product intended

to supply the needs of a nearby market. Nearby markets need to be found for the crop, or they should be fed to livestock. One alternative is to make a survey of nearby potential markets.

3. A livestock program for Cochise County farms

The advantages of a well-planned individual farm livestock program are many. Farm-grown feeds can be consumed by livestock, roughages which might otherwise go to waste are used, and the manure returned to the soil in a soil building program. A suggested individual farm livestock program is being worked out for the county.

4. Information on freezing foods and cooking frozen foods

Freezing School, McNeal, September 7, 1950.

Bulletins available from County Office:

- Home Freezing of Fruits and Vegetables, USDA AIS-48
- Freezing Meat and Poultry Products, USDA ATI-75
- Chicken in The Freezer, USDA AIS-74
- Turkey On The Table The Year Round, F.B. No. 2011
- Cooking Frozen Foods, Ex. Folder 48

5. Consumer Information on Buying Equipment

Farm machinery magazine entitled "Implement and Tractor" published bi-weekly by Implement Trade Journal Co.; 601 Graphic Arts Building, Kansas City 6, Missouri.

6. Educational program on building and equipment insurance

It may be possible to arrange for an insurance man to present a discussion of building and equipment insurance information.

7. Check with New Mexico on adapted crop varieties

Information will be secured from New Mexico Experiment Station.

8. Reduce corn smut and corn ear worm

Smut has always been a problem. No control recommendations may be made for corn smut. Seed treatment not effective because smut is soil borne. Recommendations for control of corn ear worm on corn. Use commercially prepared mineral oil containing 2% pyrethrum -- 12 to 14 drops in the tip of each ear four to six days after the silks begin to turn brown. Every silking ear must be treated. A 10% DDT dust may be used when the corn is injured in the bud stage. Recent work shows that certain DDT dusts applied with a puff-type duster may give good control of worms in the ears. These dusts have to be applied about 3 or 4 times at 2-day intervals.

C. Farmers Principal Responsibility with Extension Service Assistance

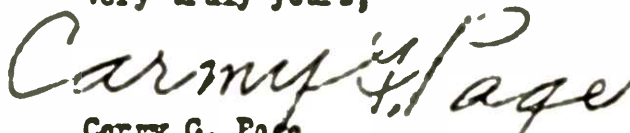
1. Home Beautification Program in Community

This is a program which should be thoroughly explained to and understood by all farmers in the county. With the backing of the community a committee should be named to plan the beautification program. This committee will be responsible for guiding the program. A list of adapted plants will be prepared by the Extension Service.

2. Cleaning Weeds from Roadways

This problem will require naming a community committee to plan the control of weeds along roadways. The committee should have the full support of the farmers in the community in carrying out the program.

Very truly yours,



Carry G. Page
County Agricultural Agent
Willcox, Arizona

CGP:BC

Cooperative Extension Work
in
Agriculture and Home Economics
State of Arizona

University of Arizona
College of Agriculture
U. S. Department of Agriculture
And Cochise County Cooperating

Agricultural Extension Service
Home Demonstration Work
County Agent Work

Willcox
April 25, 1950

Dear Cooperator:

I am enclosing a copy of Folder 62, "Grasshopper Control on Arizona Ranges." This has been prepared by Dr. J. N. Roney, Extension Entomologist, and contains the latest information on grasshopper control.



Now is the time to check for early hatches of grasshoppers that may be of economic importance. Spreading a few sacks of bait may give as much or more control of grasshoppers in their early stages of growth, than tons of bait will after the hoppers are mature. There are some slant-face hoppers hatching in some areas. These hoppers are of no economic importance.

Very truly yours,

Carmy G. Page

Carmy G. Page
County Agricultural Agent
Willcox, Arizona

CGP:BC

enc

Cooperative Extension Work
In
Agriculture and Home Economics
State of Arizona

University of Arizona
College of Agriculture
U. S. Department of Agriculture
And Cochise County Cooperating

Agricultural Extension Service
Home Demonstration Work
County Agent Work

Willcox
January 30, 1950

Dear Cooperators:

A meeting for all chili growers is scheduled for Friday, February 3rd, 7:30 p.m. at the McNeal School.

Topics to be discussed at the meeting by University of Arizona personnel are as follows:

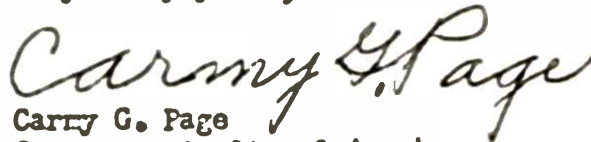
Plant Selection and Seed Improvement - W. E. Bryan, Professor of Plant Breeding

Control of Chili Diseases in Hotbeds and in the Field - Dr. R. E. Streets, Professor of Plant Pathology

General Cultural Practices - Harvey F. Tate, Extension Horticulturist

I hope you will attend this meeting if you plan chili pepper production this year or are in any way interested in the methods of producing the crop.

Very truly yours,



Carry G. Page
County Agricultural Agent
Willcox, Arizona

CGP:BC