

ANNUAL
NARRATIVE REPORT
ASSISTANT COUNTY AGRICULTURAL AGENT

ROBERT J. MOODY

PIMA COUNTY, ARIZONA

December 1, 1943 to July 1, 1944.

F O R E W O R D

ASSISTANT COUNTY AGRICULTURAL AGENT

The following is a description of the projects handled by Robert J. Moody, Assistant County Agricultural Agent, during the period from December 1, 1943 to July 1, 1944.

AGRICULTURAL 4-H CLUB WORK:

The Assistant Agent is in charge of all agricultural 4-H work in the county, and in doing this work advises leaders, attends club meetings, works out a schedule of work for each year, helps in putting on county wide Achievement Days and 4-H sales, and so far as possible inspects 4-H projects.

IRRIGATION PRACTICE:

Recommendations are made for irrigation practice as requested by farmers in the county. These include recommended fall of water, proper irrigation structures, and other irrigation problems.

VEGETABLE GROWING:

The Assistant Agent works with the County Agent in conducting the Victory Garden program, and works with commercial growers in making recommendations on seed varieties, fertilization, irrigation and marketing practices.

RADIO:

The County Agent and the Assistant Agent with some help from agricultural people of the county, and other agricultural agencies conduct a weekly radio broadcast of topics of agricultural interest over Station KTUC in Tucson.

DAIRY:

The Assistant Agent works with dairymen in the county in dairy herd testing and in furnishing educational material in a monthly news letter.

AGRICULTURAL 4-H CLUB WORK

Agricultural 4-H work in the county is planned out a year ahead of time, and a schedule is followed so far as possible. This gives club members and leaders an opportunity to plan their projects from the time they start them until they market them. At the present time club members are urged to start their projects so that the best parts of their projects will be available for show and sale at the 4-H Victory Market Day, held in April.

During the past year the schedule given below was followed so far as possible in conducting 4-H Club work.

1944-1945 Proposed Program and Plan of Work

September 15-30:

Contacting all club leaders by letter.
Organizing Clubs.
Planning Projects with 4-H Club members.

October 1-15:

All projects to be started.
Outlining of practical projects to show club members how to make their projects a business proposition.
Instruction in Fall Vegetable Gardening.

October 15-31:

Instructions to club members according to the projects they are carrying to make sure they get started right.

November:

Instruction in the selection and judging of poultry and rabbits, and in the operation of a practical poultry or rabbit project by club members.
a. Call on Norman B. Cobb for help in both of these fields for night meetings.

December:

Instruction in the selection and judging of beef cattle, and the operation of practical beef cattle projects by club members.

January:

Instruction in the selection and judging of hogs and sheep, and the operation of practical projects by club members.

February:

Instruction in the selection and judging of dairy cattle, and the operation of practical dairy projects by club members.
Selection and grading of winter vegetables for Sale and Show.
Culture of Spring and Summer Vegetables.

March:

Instruction in the use of the Field Level, and in the proper methods of preparing the fields for irrigation, and of proper irrigation practices.

Late March or Early April:

Preparation and holding the Annual 4-H Victory Market Day, where club members from Pima, Pinal, and Cochise Counties will exhibit and sell their livestock and produce.

Agricultural 4-H club work continued

April:

Instruction in the culture of important field crops, and the values of some of these crops.

May:

Completion of Records, Achievement Days, Award of Pins and other honors.

June, July, and August:

Summer projects; one meeting held by each club. Once during the summer try to get County Club members together for a special meeting, with entertainment, etc., to hold interest. Summer 4-H Camp for Pima and Pinal County Club members in July.

In addition to following out this schedule the Assistant Agent carried on the following work with 4-H Club members in connection with their projects:

1. Special instruction is given to individual clubs and to club members in the particular project they are carrying, and especially to Lone Club Members who carry on their projects with no other leader than the Extension Agent.
2. As often as possible the Assistant Agent inspects and criticizes individual projects.
3. Several times a year demonstrations are given in the various projects.
4. All club members are urged to concentrate on food projects and to raise good quality produce and livestock.
5. Club members are required to keep written records on their projects, and to turn these records in during April of each year at the time of the 4-H Victory Market Day. Certificates and pins are given to club members completing their work. A file of these completions is kept in the County Extension Office.
6. Most local, state, and national 4-H Contests are completed in the fall. Club members are urged to participate in these contests and in others when they are announced.

4-H Club Leaders:

Pima County continued to be fortunate in the past year in having good 4-H Club leaders in all clubs in the county. These local leaders carry most of the responsibility of the success and continuation of 4-H Club work in each community.

Following is a list of these leaders and the clubs in which they worked:

- Ajo-----Earl Nielsen
- Continental-----William Hand
- Sahuarita-----O. W. Dishaw
- Emery Park-----John F. Dayton
- Catalina-----John Stranathan
- Amphitheatre-----C. B. Brown
- Jaynes Station-----Mrs. J. A. Shumaker
- Flowing Wells-----Mrs. R. B. Zinn
- Marana Senior Boys-----William Stamps
- Marana Junior Boys-----William Mathews

4-H Club Leaders, continued

Two of these leaders were selected by the Arizona Bankers' Association to receive the award for outstanding leadership which is given each year to the five most outstanding 4-H Club leaders in the state. These leaders were O. W. Dishaw of Sahuarita, who has been leading 4-H work in Pima County for five years and during that time has carried on Handicraft, Camera, Poultry, Swine, Gardening, and Rural Electrification projects, as well as helping to conduct all public 4-H gatherings such as 4-H Fairs, Victory Market Days, and 4-H Club Camps. John F. Dayton of Emery Park, is the other leader to receive this award in Pima County this year. Mr. Dayton has been in charge of the Emery Park boys' club for four years, and during that time club members under his direction have carried Beef, Swine, Lamb, Poultry, and Garden projects. John Dayton spent more time with individual club members than any other leader in the county.

In addition to the 4-H leaders listed, a great many men and women and organizations in the county helped with 4-H Club work, and were largely responsible for the success of this program. Among those who should receive recognition for this work are: Albert Lent, Mrs. Agnes Krentz, Mrs. Mary Hurlbut, Norman B. Cobb, Mrs. Louise Martin Cobb, Charles Robertson, Marlin Price, Gabriel Angulo, E. B. Carmack, James M. Sawtelle, James F. Houston, Clyde E. Gaines, James Ewing, Jr., Jimmie Carter, Matt Mansfield, C. E. Goyette, Donald Bell, Hymie Myerson, Joe Myerson, Jack Wright, all of Tucson; Carlos Ronstadt, Santa Margarita Ranch; J. G. McIlvain, Ruby Star Ranch; David Jeffcott, Patagonia; Henry Boice, Tucson; Dan W. Clarke, Midvale Farms; Loren Curtis, Marana; Joe M. King, Anvil Ranch; Mrs. Charles Rasmussen, Ajo; Maurice Marks, Ajo; C. S. Brown, Ajo.

4-H Clubs:

Most of the 4-H Clubs in the County carried agricultural projects. However in some cases where few of the members had facilities at home, projects in Farm and Ranch Handicraft were carried at school. Following is a brief summary of the activities carried on by each club.

Ajo:

Ajo is a mining community so there is little space for 4-H projects. Club members in Ajo carry backyard poultry, rabbit, and swine projects. There are also a few very good gardens. This past spring the Ajo Club held their 4-H Fair, which was even larger than in previous years. This year, too, girls' work was completed for the first time at Ajo. The boys' Club in Ajo boasted the largest number of club members enrolled and the greatest percentage of completions in the county.

Amphitheatre:

A small group of older boys made up this club which was under the leadership of the County Agent. These boys raised beef calves, dairy calves, poultry, and rabbits.

Catalina:

The Catalina 4-H Club is made up of older boys who were very active during the past year, carrying a wide variation of agricultural projects. Nearly all of these boys carry their project on a commercial scale. The area from which club members join this club is the River Road District north of the Rillito, and the District surrounding Catalina Junior High School.

4-H Clubs, continued

Continental:

Club members in this club are handicapped by lack of facilities at home for agricultural projects and carry Farm and Ranch Handicraft projects at school. During the past year this group was handicapped by inability to obtain materials with which to work.

Emery Park:

Most of the boys in this club are older and have been club members for three or four years. Projects carried include beef steers, swine, and poultry.

Flowing Wells:

Members of the Flowing Wells 4-H Club carried Farm and Ranch Handicraft projects at school, and in addition carried agricultural projects at home. Both types of projects were successful.

Marana:

4-H Club work at Marana is divided into two clubs for boys and two for girls. The Marana school system includes 4-H work in its curriculum, both in high school and in grammar school with the result that worthwhile projects are carried by all club members. The plan in this community is to have younger members start this work in grammar school and develop into real club members when they become older.

Sahuarita:

The Sahuarita 4-H Club carried Farm and Ranch Handicraft during the past year, making useful articles of very good quality. Several of the members carried agricultural projects at home in addition to their school projects. This club was handicapped during the past year by the fact that a large turnover of personnel in the community occurred.

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4-H Completions, Project Totals, Project Values:

During the past year the greatest emphasis in 4-H work was placed on food production, particularly on poultry, vegetable gardens, beef cattle, swine and rabbit projects; while dairy cattle, sheep, milk goats, bees, and farm and ranch handicraft were among other projects carried. Most of the products were consumed at home, although older members usually carried their projects on a commercial scale.

Figures in the following table include sales made during the past seven months, products consumed at home during the same period, and an inventory of projects now being carried.

Clubs	Beef	PIGS	Dairy	Goats	Sheep	Rabbits	Chickens	Turkeys	Ducks	Pigeons	Bees	Garden	Orchard	Handicraft	TOTAL
Sahuarita	\$200						310							50	\$560
Continental						10	55					51		40	156
Catalina	600	120	350			75	180			70		350	1100		2845
Flowing Wells	80	120		100		85	160	100			30	290		60	1025
Marana	120	215	100		20	240	340	150	120			130		27	1462
Emery Park	621	20	70							10					701.20
Jaynes Station	640	30		100		250	80					1100			2200
Ajo						205	740	25	55	10	100	110			1245
Amphitheatre	360		200			190		200							950

GRAND TOTAL: \$11,144.20

Totals	\$2,621.20	555.00	650.00	200.00	20.00	1,055.00	1,865.00	475.00	175.00	90.00	130.00	2,031.00	1,100.00	177.00	Grand Total \$11,144.20
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4-H Completions, Project Totals, Project Values, cont'd.

During the past seven months Pima County Club members have raised or now have on hand the following livestock, livestock products, vegetable gardens and other projects:

Fruits and Nuts-----9 Acres
 Home Gardens-----3 Acres
 Market Gardens-----15 Acres
 Poultry, including turkeys,
 ducks, geese, pigeons-----2600 Birds
 Dairy cattle-----10 Animals
 Beef Cattle-----19 Animals
 Swine-----14 Animals
 Sheep-----5 Animals
 Rabbits-----800 Animals
 Bees-----18 Colonies

Following is a list of completions of agricultural projects by clubs:

<u>CLUB</u>	<u>COMPLETING</u>		<u>TOTAL</u>
	<u>BOYS</u>	<u>GIRLS</u>	
Ajo	35	0	35
Amphitheatre	5	0	5
Catalina	22	0	22
Continental	11	0	11
Emery Park	4	0	4
Flowing Wells	14	4	18
Marana	26	0	26
Sahuarita	6	0	6
Jaynes Station	7	5	12

Agricultural projects were carried on by the above listed club members as follows:

Gardens-----35	Dairy Calves-----7
Poultry-----43	Rabbits-----20
Swine-----12	Bees-----2
Beef Calves-----14	Farm and Ranch Handicraft-22
Sheep-----3	Fruit Growing-----2

Other projects were also started this spring by club members enrolling too late to receive credit for their work in 1944, but who will be eligible to complete their work in the spring of 1945.

4-H Victory Market Day:

The Second Annual 4-H Victory Market Day was held in Tucson on April 15. The number of exhibits shown and sold were about double those of the year before, and in most cases the quality of exhibits also improved. This increase in size shows better than anything else the effect that a sale of this type has on the production of food by 4-H Club members.

4-H Victory Market Day, continued

First plans for the 4-H Market Day were laid in the summer of 1943 when the Assistant Agent notified all club members that the day would be held in 1944, and urged club members to produce food, the best of which they could exhibit and sell at the Market Day. The Market Day was continually stressed throughout the fall and winter as a final outlet for fine food products.

Plans for the Market Day were laid in January with Chamber of Commerce officials, and were completed in February. The Tucson Chamber of Commerce sponsored this event and contacted business and professional organizations in the surrounding area for support. Before this was done however, all agricultural organizations in Pima County agreed to support the day both financially and by their purchase of exhibits at the sale. A letter was mailed to all organizations in Tucson, Pima County, and some in Pinal and Cochise Counties which was signed by all the supporting agricultural organizations, announcing their support and urging others to back this sale. This letter was followed by personal contact by the Tucson Chamber of Commerce.

During the latter part of February an entry catalogue was mailed out to club members in the four counties participating, which showed the awards in each lot, and gave a list of supporters. A deadline for entries in the latter part of March was also announced in this catalogue. When all entries had been received and it could be determined what lots were to be filled, the awards were distributed and credit was given to each supporting organization for the award given in second catalogue listing awards and entries to be exhibited and sold. This catalogue was distributed as far as possible to prospective buyers.

To further advertise the Market Day large posters with pictures from the Market Day Sale in 1943 and lists of livestock and other exhibits to be sold were prepared and placed in stores and other business houses around Tucson.

As was the case in 1943 governmental regulations threatened to slow the sale of some of the stock exhibited. However by contacting all government organizations which had anything to do with rationing, sale of livestock, and handling meat a minimum of restrictions were imposed and so far as the sale of the stock was concerned the Assistant Agent was unable to tell that it was hindered in any way. Cooperating buyers and regulating agencies made out the necessary forms when an exhibit came under some price control regulation. The only possible buyers who were effected were the eating establishments who had been cut in number of points to such an extent that they could not purchase stock of this kind.

In making final preparations for holding the Market Day the Chamber of Commerce, the City of Tucson, and Pima County Highway Department, along with local 4-H leaders and club members took on the responsibility of getting materials moved to the vacant lot which was used for the sale, and seeing that exhibits were prepared in the best condition

4-H Victory Market Day continued

just before the sale. Local leaders and large farms in the county also furnished transportation for club members to bring exhibits to Tucson the day of the sale.

The day of the sale all departments were handled well by persons in charge of them, so that everything took place on schedule, starting at 9:00 in the morning, and finishing at about 5:00 in the afternoon when final clean-up of the sale lot was finished by club members and leaders.

A great deal of credit for the success of this Market Day Sale was due to the fine support of the Tucson Chamber of Commerce, the agricultural and business organizations who supported the event with their awards of War Bonds and Stamps, and to the fine support given by purchasers of 4-H exhibits.

Most of the interest centered about the 10 fat steers which were exhibited and sold at auction. Eight of these steers were raised and exhibited by Pima County 4-H boys, one by a 4-H boy in Santa Cruz County who started his project in Pima County, and one from Cochise County. The steers were raised on feed alone without nurse cows and six of them graded Choice, the other four grading Good. The fat steers and hogs were sold at auction by Jimmie Carter and brought very good prices ranging from \$.27 to \$.24 per pound.

All the meat animals were exempted from live weight ceilings, but buyers still had to resell the meat at the retail ceilings according to the grade of the beef. The difference between the prices by the buyers and the prices for which the beef could be sold was about \$700.

The exhibits at this year's 4-H Victory Market Day were more than double those of last year in most departments and in addition to the livestock, rabbit, poultry, and garden entries, new departments were set up for farm and ranch handicraft, canned goods, and baked goods. Nearly all exhibits were sold as soon as they were judged, and by the time the beef steers and fat hogs were sold the total amount grossed over \$2500.

A great deal of credit for final preparations for the Market Day are due the State Leader of 4-H Club Work who helped the Assistant Agent work out the final plans and put them into effect. Credit for the sale of the livestock is largely due to several local leaders who contacted buyers before the sale. Principal among these were John F. Dayton, Ferd Itzweire, and Carlos Ronstadt.

A great deal of the success of the 4-H Market Day was due to the splendid publicity given by both Tucson newspapers and by Radio Station KTUC. Both papers ran feature stories for about two weeks prior to the sale, and also ran several good follow up stories to give credit to buyers and exhibitors. Station KTUC transcribed a program from the sale grounds and presented it at noon the same day to encourage local people to attend the sale and buy the exhibits.

4-H Victory Market Day, continued

The Assistant Agent and the Arizona Daily Star prepared enlargements of the calves and the carcasses and these were presented to buyers and people who were particularly cooperative in putting on the Market Day.

When the fat steers had been dressed two of the slaughter houses handling this meat, Price Meat Co. of Tucson, and Tovrea Packing Co. of Phoenix, turned in dressing percentages on eight of the steers. Following is a list of these percentages, the names of the boys who raised the calves, grades and weights:

	Liveweight	Dressed Wt.	Grade	Dressing %
Roland Graves, Nogales	750	470	AA	62.66
Lee Garrison, Emery Park	780	477	AA	61.15
Naurice Koonce, Emery Park	810	493	AA	60.86
Bill Nevelle, Emery Park	780	473	AA	60.64
Dell Haverty, Benson	890	516	AA	59.98
Weldon Shumaker, Jaynes	700	414	A	59.14
Winston Shumaker, Jaynes	730	427	A	58.50
Jack Stranathan, Tucson	780	431	A	55.25

Ajo 4-H Fair:

The Ajo 4-H Club held their third Annual 4-H Fair during the latter part of April. Although this club is in a mining community the Fair they held was very successful and was larger than any held previously. This year for the first time in addition to the agricultural projects girls' work was carried in Ajo, and a large group of girls completed projects, and exhibited at the Fair.

4-H work in Ajo is sponsored by the Ajo Womens' Club who this year contacted organizations in Ajo and obtained support for club members in a similar manner to the way in which the 4-H Victory Market Day was sponsored in Tucson by the Chamber of Commerce. The Assistant Agent helped in preparing a catalogue for the Fair, but the entire Fair was carried on by the 4-H Leaders and the Womens' Club.

Both the Assistant Agent and the Home Demonstration Agent attended the Fair and Achievement Day and in addition Mrs. Agnes Krentz, and Mr. Norman B. Cobb of Tucson, attended to help with the judging of homemaking and agricultural projects.

This year's fair was held in the school gymnasium with the girls' exhibits on one side of the room and the boys' on the other. Poultry coops were shipped from Tucson to take care of the boys' exhibits.

In addition to the exhibits in the building the Assistant Agent and Mr. Cobb inspected poultry, rabbit, and garden projects in the community. The improvement in the types of projects has been considerable in the three years that club work has been conducted in the community, and nearly all the boys are now carrying good economical projects of laying hens, meat rabbits, or small vegetable gardens. In spite of the fact that water is scarce in Ajo, several club members have very good vegetable gardens.

11

National Junior Vegetable Growers' Contest:

Two Pima County club members participated in the 1943 National Junior Vegetable Growers' Contest. Two of the three awards made in Arizona went to these club members. Celia Shumaker of Jaynes Station won second place in the Western Division, an area composed of the 11 western states, and a prize of \$100. John Collins of Marana won the state award for the second year in succession, a \$25.00 War Bond.

Partly due to the success other Pima County Club members had in 1943 in this contest, several 4-H boys and girls joined the Junior Vegetable Growers' Association and will participate in the 1944 Contest.

Farm Bureau Awards:

Each year for the past two years the Pima County Farm Bureau has offered a \$25.00 War Bond each to the 4-H boy and girl who during the previous year have done outstanding work in their projects, but for some reason have not received state or national recognition for this work.

At the annual meeting of the Pima County Farm Bureau these awards were presented to Mildred Deitering of the Flowing Wells 4-H Club and to Jack Stranathan of the Catalina 4-H Club. Mildred Deitering raised chickens, milk goats, rabbits, and had helped her mother in canning, cooking, and housework as well as carrying her cooking and sewing projects at school. Jack Stranathan took care of two dairy cows which he had raised from calves, raised about five acres of garden, a beef calf, two horses, and raised part of the feed for his stock on his small farm on River Road.

Arizona Hereford Breeders' All Star Sale, and Valley National Bank Essay Contest:

The Arizona Hereford Breeders' Association held their All Star Selection Sale in Tucson early in February, where Arizona breeders exhibited and sold purebred bulls and cows. In connection with the sale the Valley National Bank offered \$100 in War Bonds and Stamps to 4-H Club members who wrote the best essay on their observations at the sale.

For a month prior to the time of the sale the Assistant Agent instructed 4-H Club members in the selection of beef cattle so that they would appreciate the type of cattle seen at the sale, and so that they would be better prepared to write essays on what they observed.

Approximately twenty club members attended the sale and eight wrote essays in competition with club members from other parts of the state who were also in attendance at the sale. Six Pima County club members received six of the ten awards as follows:

Bill Nevelle, Emery Park) Celia Shumaker, Jaynes Station)	Blue awards, \$25.00 War Bond.
Bud Vermilyea, Catalina) Laurie Hauck, Catalina) Laymond Burton, Catalina)	Red awards, \$10.00 War Stamps.
John Collins, Marana	White Award, \$5.00 War Stamps.

4-H Educational Fund:

At the time of the scrap metal drive a year ago, the farmers and ranchers of Pima County voted to turn in any money collected from the sale of scrap by the collecting agency which brought in farm and ranch scrap to a 4-H Club Educational Fund which could be used in the future by club members for worthy uses in 4-H projects or other 4-H works.

The first application for funds was received in February of this year from the Flowing Wells School, who turned in a considerable amount of money from the sale of scrap collected by 4-H members. This school wished to withdraw the amount of money contributed by club members of that school and wished to purchase a stove for the school cafeteria with the money.

The 4-H Educational Fund Committee composed Carlos Ronstadt, Rancher; Norman B. Cobb, Poultryman and Rabbit Producer; Clyde Gaines, Farmer; and Mrs. Agnes Krentz, Chairman of Girls' 4-H Club work, voted to reject this application as it was not to be used primarily for the good of 4-H Clubs.

The Committee decided that in the future only loans from 4-H Clubs or individuals in 4-H Clubs will be considered, and that the funds will be used only for club projects or 4-H projects for individuals. The money will usually be loaned but may be withdrawn if the committee approves this action.

4-H Programs for Service Clubs:

During the year programs were presented by 4-H Club members for the Kiwanis and Rotary Clubs in Tucson. Club members talked on different phases of their work, and members were selected who carried different types of projects. In addition to the club members at the Rotary Club program, John F. Dayton, one of the outstanding leaders of the county, presented a short talk on the Leaders' job in 4-H Club work. Following is a summary of the program given at the Rotary Club luncheon.

- Explanation of the 4-H Club Program-----The Assistant Agent
- Girls' 4-H Work in War Time-----Celia Shumaker, Jaynes
- Project Preparation and Keeping 4-H Records---Karl Ronstadt, Tucson
- Vegetable Gardening-----John Collins, Marana
- Poultry Projects, and Trapping-----Bob Honea, Marana
- Dairy and Vegetable Projects-----Jack Stranathan, River Road
- Livestock Production-----Naurice Koonce, Emery Park
- The 4-H Club Leaders' Job-----John F. Dayton, Emery Park

4-H Junior Leader Awards:

This year for the first time in Arizona outstanding club members received the 4-H Junior Leader Award as recognition of their ability to act as leaders and help other club members. The award is a felt emblem, green on white featuring the sahuaro and fir tree, with the 4-H insignia in the center and the words Arizona Junior Leader above and below the 4-H insignia. One of these emblems is enclosed in this report.

It is hoped that the Junior Leaders selected will in a few years develop into leaders of their own 4-H Clubs. In order to be eligible club members must have completed at least three years of 4-H work, must be 14 years of age, and must have been recommended by the local 4-H leader, and the County Agricultural Agent.

4-H Junior Leader Awards, continued

Pima County club members selected to receive the Junior Leader Award in agricultural 4-H Club work are as follows:

- Catalina: Karl Ronstadt, Jack Stranathan
- Laguna: Celia Shumaker, Bud Shumaker
- Continental: John Henry Jones
- Flowing Wells: Roy Vidal
- Emery Park: Bill Nevelle, Naurice Koonce
- Sahuarita: Paul Adams
- Marana: John Collins, Bobby Honea
- Ajo: Alex Romero, William Sparkman, James Jones, Fred Greer

4-H Club Summer Camp:

This year for the first time a 4-H Club Summer Camp will be held at Camp Lawton in the Catalina Mountains for club members from Pima and Pinal Counties. The camp will be under the direct supervision of the State 4-H Club Leader and Extension workers and leaders of 4-H clubs in the two counties. Thirty Pima County Club members have sent in reservations for the camp which will take place from July 3 to July 10.

First plans for this camp were made in February when the Assistant Agent took the State Leader to the camp site and took pictures to be used for publicity purposes in promoting the camp.



Arizona 4-H Junior Leader Award planned by the State Leader of 4-H Club Work, and designed by the Assistant County Agent.



Winning 4-H fat steers at 1944 4-H Victory Market Day. Reading from left to right in order the steers placed: Naurice Koonce, Emery Park; Bill Nevelle, Emery Park; Dell Haverty, Benson.



Winning 4-H fat steers at the 1944 4-H Victory Market Day. Reading from left to right in the order the steers placed: Naurice Koonce, Emery Park; Bill Nevelle, Emery Park.



Ralph McCall, University of Arizona Animal Husbandry Department, judging 4-H Fat Steer Class at the 1944 4-H Victory Market Day.



Bob Honea, Marana, with his second place Duroc-Jersey fat hog, 1944 4-H Victory Market Day.



Patty Collins, Marana, and part of her 4-H canning and baking exhibit. Patty Collins was winner of the sweepstakes award in baking and canning, 1944 4-H Victory Market Day.



Radio program over station KTUC from the grounds of the 1944 4-H Victory Market Day conducted by State Leader of 4-H Club Work, Kenneth McKee.



Patty Collins, Marana. 4-H Victory Market Day, canning and baking exhibit which won Sweep Stakes Award.





Alex Romero and Bill Sparkman with White Leghorn Hen and White Leghorn Rooster, 1944 Ajo 4-H Fair.



Charles Honea and Alex Romero with first place New Hampshire Red Rooster and New Hampshire Red Hen, 1944 Ajo 4-H Fair.

Robert J. Moody, Assistant
County Agricultural Agent
Pima County, 1944

4-H FAT STEERS GRADED 'CHOICE'

**Animals Raised by Club
Rated Same Dressed
As on Hoof**

The leading fat steers raised and sold by 4-H Club members at the second annual 4-H Victory Market Day last Saturday graded the same when dressed out as carcasses as they did at the time they were judged on the hoof, it was stated yesterday by Robert J. Moody, assistant county agricultural agent.

At the same time, Moody announced that purchasers of the steers paid a total of \$692.50 more for the animals than would have been allowed under government ceiling prices if an exception had not been made so the youthful producers could be paid a sufficient amount to encourage them in future endeavors.

Should Grade "Choice"

Ralph McCall, of the University of Arizona animal husbandry department, who judged the animals in the show ring, said yesterday after inspecting the carcasses that all but one should grade "choice," and that the carcasses graded exactly as had the live animals in the ring.

The six carcasses displayed at the Price Meat Company plant here were of calves raised by Naurice Koonce, Emery Park, purchased by the Price Meat Company; Roland Graves, Nogales, purchased by Sears, Roebuck and Company; Jack Stranathan, Tucson, purchased by Safeway Stores; Lee Garrison, Emery Park, purchased by the J. C. Penney Company, Winston Shumaker, Jaynes Station, purchased by the Tucson Rotary Club, and Bill Nevelle, Emery Park, purchased by Consumers Market.

Placings of Animals

Placings of these animals both in the ring and in carcass form were: Koonce steer, first; Nevelle, second; Graves, fourth, and, Garrison, fifth.

Two of the other steers exhibited and sold at the 4-H Victory Market Day, those raised by Dell Haverty of Benson and Weldon Shumaker of Jaynes Station, were sold to the Tovrea Meat Company, of Phoenix, while the steer raised by Dick Haga of Amphitheatre was sold to A. J. Busby and Sons, Tucson, and the one raised by Jack West was sold to the Price Meat Company for slaughter May 15.

Under government ceiling prices these steers would have brought only \$1,169.40, while purchasers paid a total of \$1,861.90, extra profit for the boys of \$692.50.

"UM-M-M-M! HOW 'BOUT A STEAK?"



Robert J. Moody, assistant Pima County agricultural agent in charge of 4-H Club work, and Ralph McCall of the animal husbandry department at the University of Arizona, are shown inspecting carcasses of six of the 10 steers exhibited and sold by boys at the 4-H Victory Market Day last Saturday. All but one of the carcasses graded out as "choice" beef. (Photo by Sam Levitz.)

IRRIGATION PRACTICES

(Field plans were made for a total of 900 acres.)

During the past seven months the Assistant Agent continued to help farmers make irrigation field plans, lay out borders, and make recommendations for the improvement of the irrigation set-up.

In a number of cases the Assistant Agent made surveys of farms and some maps, but in most cases after laying out a field the field plans and recommendations were worked out in the field without making a map.

Part of the surveying work was done by a survey party of the Soil Conservation Service who keep two men in this area for work of this kind.

During the year surveys were made for the following farmers:

Two irrigation surveys were made for Frank Williams in the Silverlake area, laying out irrigation borders and figuring cut and fill on land to be levelled.

Several days were spent with W. T. McClelland in the Flowing Wells area planning the method of irrigation, the location of a new well, and making plans for levelling the land. This place is 80 acres just south of the Shamrock Dairy and is on very steep land which will have to be terraced.

Recommendations for irrigation were made on the J. L. Lankford farm in the Flowing Wells area. This farm is steep and has to be irrigated parallel to the greatest slope, which makes the rows diagonal across the field.

Recommendations and field plans were prepared for J. G. Biggs on a small farm in the Flowing Wells area. The direction of irrigation was changed from the steep slope of the land so that it would irrigate without any slope on a short run.

Some work was done for Chuck Abbott in the Fort Lowell area. This farm was levelled in 1943 and the Assistant Agent worked out an irrigation plan at that time. Some of the additional work was in levelling small fields and the remainder was running a flood ditch from the Rillito which will divert silt onto the sandy land on the lower part of Abbott's farm during flood seasons.

Surveys and recommendations for irrigation were made on three new pieces of land in the Sahuarita area. A survey was made for C. M. Gross in which recommendations for levelling, irrigation, and flood control were included. Borders were laid out for Ferd Itzweire on an 80 acre field which had been broken last year and which was not irrigated according to recommendation. A third survey and rough map was made for Carroll Thomas at Sahuarita. Thomas' place was levelled with heavy equipment and the direction of irrigation was changed according to the Assistant Agent's recommendations.

Irrigation Practices, continued

This year, partly due to the Agricultural Conservation program in this area a number of farmers are making improvements in their irrigation systems. Others have been making these improvements from year to year, but because of this program are receiving payment for this work. Among the farms on which the Assistant Agent made recommendations for improvements of the irrigation system are the following:

- Herbert Krancer, Rillito: concrete pipe line.
- E. L. Rogers, Valley Road: levelling farm land.
- Dr. Donald Hill, Fort Lowell: concrete dams and turnouts in irrigation system.
- E. M. Furrey, Flowing Wells: concrete dams and turnouts in irrigation system.
- W. H. Grimm, Flowing Wells: concrete dams and turnouts in irrigation system.
- Ferd Itzweire, Sahuarita: concrete pipe line and concrete ditch structures.
- Chuck Abbott, Fort Lowell: levelling land and concrete irrigation structures.

Determination of Water Holding Capacity:

Mr. W. T. Dudgeon, a farmer in the Flowing Wells area north of Tucson, has a method of determining the water holding and water taking capacity of the soil which was new to the County Agent, and which seems to be very practical. Although this method is not in general use Mr. Dudgeon has practiced it himself for 21 years.

The County Agent and Mr. Dudgeon determined the moisture holding capacity and the moisture taking capacity of the soil on the Pelaar place in the Flowing Wells area by this method.

In order to make this determination several holes were dug in the plot to be tested with a post hole digger; making one hole about eight inches deep, one about 15 inches deep, one two feet six inches, and one hole four feet deep. Approximately one quart of water was put in each one. At the start of the test the water stood one and three fourths inches deep in each hole; and at the end of 10 minutes the water had dropped to one inch in the first hole; the 15 inch hole was dry; the third hole had 7/8 inches; and the fourth hole had one half inch of water. When 15 minutes had passed both the first and fourth holes had a slight amount of water and both the second and third holes were dry. When the test was repeated the 15 inch hole and the four foot hole lost water first, although there was little difference in the time of penetration. It took thirty minutes for the quart of water to disappear in the holes the second time.

The ground on which this test was made was levelled with heavy equipment this spring before planting, and because of that fact has been packed so hard that water penetration in the first foot was slowed down.

When the test had been completed, a soil tube was run down to a depth of eight feet to find out what soils were present

Determination of Water Holding Capacity, continued

to that depth. From three to six feet the soil changed from a coarse, sandy, clay loam, to a sandy or gravelly clay. At the six foot level it changed suddenly to almost pure sand which ran as far down as the soil tube would penetrate at the eight foot level.

It was our opinion that the heavy clay from the three to six foot level was holding the water from deeper penetration to some extent; although not impermeable. We also felt that it would not be a good idea to try to water deeper than the four foot level because there would probably be less fertility in the clay and sand than in the three or four feet on top, and that it would be better to concentrate the water in the top four feet. Water which was able to penetrate the heavy clay layer might be lost in the sand as far as any good it would do the plants. After considering all the facts uncovered by the tests, Mr. Dudgeon decided that an eight inch irrigation is probably the maximum that would do a crop any good on this soil, and that this irrigation should be given fairly rapidly.

VEGETABLE GROWING

Victory Garden Program:

One of the most important programs, and one to which a great deal of time was devoted by the Assistant Agent, is the growing of home vegetable gardens, and handling the many problems which arise with amateur gardeners.

During the past seven months a similar program has been conducted to that which was carried on the year before. Regular radio broadcasts were made over Station KTUC. Newspaper publicity was given to particular problems, and mimeographed material was furnished to local gardeners and seed dealers on request. This mimeographed material was prepared by the County Agent and the Assistant Agent, particularly for conditions in the Tucson area. In addition to the methods of promoting this program just mentioned about half the entire telephone and office calls during the past spring have been devoted to answering personal inquiries on Victory Gardens.

Weather:

The weather during the past spring has been very unusual, as frost continued to the last of March, and even since that time weather has been cool, with a minimum of days over 100 degrees. Because of the climatic conditions it has been very difficult for the Assistant Agent to make planting recommendations for home gardeners or commercial growers as the late frosts made it appear that certain crops such as tomatoes would never mature after they could be planted on the first of April. It has been the experience that certain crops must be planted early enough in the spring that they will mature before the hot part of the summer, otherwise they will not set fruit. However the cool weather has continued this year and those crops which ordinarily would have failed due to late planting have made a good crop and except for the lateness of the market will do as well as in normal years.

Vegetable Growing, continued

Improved Pearson Tomato:

A local seed dealer obtained a quantity of Improved Pearson tomato plants in the spring of 1943, and the results of most growers with these plants were so outstanding that Improved Pearson seed has been planted by several commercial growers, plants have been grown by local nurseries, and most home gardens are growing this variety. It was on the recommendation of the Assistant Agent that this seed dealer try the Pearson tomato in the first place, and the results have gone far beyond all expectations. While this tomato does not set fruit as early as some other varieties, when it does mature the fruit are larger, better shaped, and are better packers than most other local varieties.

Hot Cap Protection:

The cold weather this spring gave growers a good opportunity to determine just how valuable hot caps are in preventing frost damage. Various reports were received from horticulturists, and seed dealers saying that from three to seven degrees protection could be expected from these caps. After finding that plants froze under the caps when the temperature went down to 26 degrees a local grower, Chuck Abbott, contacted an out of state experiment station where some work had been done on this subject. He found that the maximum protection to be expected was about one degree and that the value of hot caps came from their protection from wind and from concentrating the sun's heat on cool spring days.

Soil Tests on Abbott Farm:

During the past year considerable work has been done on the Chuck Abbott farm in the Fort Lowell area in levelling the land for irrigation and installing an irrigation system. Because of the heavy cuts and fills in various places and because of the fact that Mr. Abbott is growing vegetable crops, soil samples were taken from each of the fields in several places to determine what effect, if any, the cutting and filling had had on the available nitrates and phosphates. No relation was found between the nitrate and phosphate contents on the cut and filled areas, but in all the fields an unusual amount of available nitrates was found to be present. The available nitrates ran from 50 parts per million to as high as 800 parts per million. In almost all cases there was also sufficient phosphates in the soil. It was recommended that no fertilizer be added at the present time and that they be observed carefully to determine how well they will grow on the soil with the excessive amount of nitrates.

Garden Pests:

The number of calls and the percentage of loss caused by Curly Top Yellows this spring seems to be considerably larger than at any time in the last few years. However the loss was not too serious and in no case exceeded more than about 10% of the total crop.

During the spring the cucumber beetle caused a more serious problem than in other recent years, especially on commercial acreages of squash, melons, and cucumbers. Growers have been advised to dust regularly with calcium arsenate mixed with lime, using one part calcium arsenate to 10 parts of lime. It was also recommended that the dust be applied as early as possible in the morning while there is some dew on the plants to hold the dust.

RADIO PROGRAMS

The County Agent and the Assistant Agent continued the regular radio broadcast over Station KTUC which was started two years ago. Since that time programs of agricultural interest and of agricultural education have been presented almost every week. At the present time this broadcast is given at 7:00 A.M. on Tuesday mornings.

Following is a list of the programs given by the Assistant Agent from December 1 to May 1, and of all programs presented at this time from May 1 to June 30:

December 14 and 28--"Farm Land Improvement During the Winter Months". Two programs were presented giving recommended practices on levelling, plowing, and irrigating farm land during the winter months.

January 4--"Preparing for the Spring and Summer Vegetable Garden". Cultural practices before planting, and early plantings of spring vegetables.

January 11--"Timely Garden Hints". Continuation of the broadcast of the previous week.

February 22--"The Work of the Tucson Game Protective Association." President of the local Association, Martin Baldwin, and the Assistant Agent presented a program telling of the work and plans of the Association.

February 29--"The Early Spring Vegetable Garden". Recommendations of methods of planting, irrigation, and planting dates of spring vegetables. Also protection against frost by the use of hot caps.

March 7 and 14--"Individual Cultural Practices". Two programs were devoted to cultural practices. These were more important than ever this year because of the unusually cold weather.

April 10--"Plans for the 4-H Victory Market Day." Publicity and plans were given for the 4-H Market Day, urging local people to support this event.

April 15--"4-H Victory Market Day Broadcast". A program was transcribed at the Market Day grounds and was presented at noon the same day to encourage local people to attend this event.

May 2--"Summer Care of Rabbits". Norman B. Cobb, Secretary of the Southern Arizona Rabbit Producers Association, presented a program on the care of rabbits in the Tucson area during the hot months. Mr. Cobb has agreed to handle one of these broadcasts a month.

May 9 and 16--"Early Summer Garden Problems". Two programs were devoted to the discussion of problems facing home gardeners at this time of year.

May 23, May 30, June 13--United States Forest Service. Three program periods were given to the Forest Service to present fire control programs as the fire season is coming on.

Radio Programs, continued

June 20--"Continuing Summer Care of Rabbits". Norman B. Cobb continued his programs on summer care.

June 27--"Summer Garden Problems"--The Acting County Agent presented this program on problems confronting vegetable gardeners at this time of year.

DAIRY

During the latter part of 1943 the Assistant Agent started making up monthly news letters for 25 dairymen in the county, giving results of the Dairy Herd Improvement program each month, and also including some educational material prepared by W. H. Riddell, Head of the University of Arizona Dairy Department, or material written by the Assistant Agent.

Following are the subjects covered during the period from December, 1943 to May, 1944:

"Cull out the Low Producers"-----W.H.Riddell
"Testing Makes Cows Pay"-----W.H.Riddell
"The Importance of a Good Breeding Program-W.H.Riddell
"Feed According to Production"-----W.H.Riddell
Holstein-Friesian Herd Classification-----Acting Agent
"Permanent Pasture for Dairy Cows"-----Acting Agent

Following are the monthly averages for Pima County herds under test from the period December, 1943 to May, 1944:

<u>Month</u>	<u>No Herds</u>	<u>Cows</u>	<u>Avg. Milk</u>	<u>Avg. Fat</u>
December	5	343	882	34.2
January	5	341	850	32.6
February	7	385	796	31.6
March	8	447	885	34.9
April	8	472	842	33.4
May	7	433	844	32.9

MISCELLANEOUS

Rabbit School:

A rabbit school was held in Tucson this spring under the supervision of the Agricultural Extension Service and the Southern Arizona Rabbit Breeders' Association. Mr. George S. Templeton, Director of the Rabbit Experimental Farm at Fontana, California, was in charge of the discussion at the three meetings which were held in the morning, afternoon, and evening.

Permanent Pasture Plans:

During the spring the Acting County Agent contacted a number of farmers in the county concerning the possibility of starting Permanent Pasture this fall. This pasture is proving very good wherever there is sufficient irrigation water.

Permanent Pasture Plans, continued

At the present time a demonstration is being set up on Midvale Farms in which the mixture recommended by the Extension Agronomist will be planted. In this demonstration part of the field will be sowed in Dallis Grass during the next few weeks so that the Dallis Grass will be established before fall. At that time all the other grasses in the mixture will be planted. In an adjacent field the same size the recommended mixture including Dallis Grass will be planted to determine whether or not establishing Dallis Grass in this way is of any value. Each field will be about 10 acres in size.

Work in Yuma County:

Several weeks were spent in Yuma County this spring becoming acquainted with the farming in that area with the County Agent, and helping the County Agent and specialists in inspecting pure seed fields of alfalfa for registration and certification.