ANNUAL NARRATIVE REPORT

APACHE COUNTY
ARIZONA

DECEMBER 1, 1952

to

MAY 25, 1953

By

D. W. Rogers
County Agricultural Agent
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III. Summary of Activities and Accomplishments

Our program of work was arrived at after consulting with farmers and Specialists, and collecting data as to what the farmers conditions were in Apache County and the problems we should work on.

In our project activities and results we worked with poison weeds under range conditions, which was causing trouble because cattle ate too much of a pepper weed; eradication of "Hoary cress" at Round Valley and Nutrioso; pruning demonstrations throughout the county; three landscaping demonstrations at Round Valley; the supervising of the spraying of range livestock for the control of lice and flies; a series of lectures with Howard E. Ray, Soil Specialist and James E. Middleton, Irrigation Specialist from the University, on irrigation and soil management, and some visits and meetings attempting to get some of our low income farmers to supplement their income by going into the poultry business.

We also worked a limited amount with our Triple-A committee. The officers elected for the coming year are as follows:

Elmo Jarvis - Vice-Chairman
H. B. Nelson - Member
Hoska Cronemeyer - Member
Helen K. Overson - Secretary
Wayne Davis - Tech. Assistant
IV. County Program of Work

In our county program of work, as was stated in our last Annual Narrative Report, we attempt to make a program of work and then work our projects from that. Our program of work is developed in order to give our farmers current and valuable information that they need every year. It is based on meetings of farmers to find out what they would like to have given; personal contact with farmers and conferences with Specialists.

We have found that the information which is up-to-date on practically any subject is changing from year to year. As an example of this, we have recommended for years that apple and pear trees be sprayed for codling moth after the calyx fell in the spring. However, as things progressed we then recommended that our horticulture farmers spray with DDT assuring them that three (3) sprayings of DDT would be as good as twelve (12) with the lead arsenate without any calyx spray, but when the fruit was about an inch in diameter. However, we found out that the DDT, for some unexplained reason, increased the activity of the red spiders or mites, which in almost all instances is of the Bryobia species, which is commonly called the "clover" or "almond"mite. As a result of this we had to either go back to the lead arsenate spray or use a dormant lime-sulphur spray. However, where a dormant spray cannot be used the following formula is recommended:

If mites appear during the growing season we recommend spraying with Aramite. Use either a wettable powder or an emulsified concentrate in a spray. One application usually will do the job. We still recommend the dormant spray of lime-sulphur in the winter time, but if the mites appear during the growing season we recommend spraying with Aramite. Use either a wettable powder or an emulsified concentrate in a spray.

As a result of all of these activities, of necessity, our program varies from year to year, but as stated above, by consulting with the farmers and our Specialists we do try to give the best information possible from year to year.

A. Project Activities and Results

1. Weeds
   a. Poison Weeds

   We had some trouble with range cattle at Hunt during the month of April due to the over-eating of pepper grass. Anyway some cattle, which had been in some pastures where there was an abundance of pepper grass, apparently had lost their appetite and could not swallow either water or grass. After calling Dr. Wm. J. Pistor, Animal Pathologist from the University,
and explaining the situation to him, he was sure that their throats had become paralyzed through the over-eating of this weed. He recommended that the only cure would be to feed these animals intravenously for a few days until their throats became normal. This we did, and the animals apparently recovered in about 4 days.

b. Noxious Weeds

We held meetings in Nutrioso in April of this year for the purpose of discussing the possibilities of eliminating "white top" or "hoary cress" in that area this year. We feel that the people in Nutrioso will eliminate this weed, but we doubt that the people in Round Valley will.

2. Horticulture

We gave four demonstrations on fruit tree pruning in February, and feel that we have taken care of all the people who are interested in pruning their orchards. We do not have as many people planting out new orchards as they should in order to produce the fruit they need in the county in the future. However, we are trying as best we can to help them to take care of their orchards and giving all information we can on the best way to plant new orchards.

3. Landscaping

We have given three home beautification demonstrations in Eagar, and feel that we have accomplished a great deal in that line there. Seemingly the people are very much interested in beautifying their homes, and were susceptible to the ideas we gave them on this subject.

4. Range Livestock

In February the Agent received from Dr. Wm. J. Pistor, Animal Pathologist, some information on the effect of pine needles on cattle. Thinking that probably some of our trouble might be due to pine needles from pinyon pine, the Agent on the 12th of February made a rather extensive investigation of the pinyon trees on the following ranches:

Bruce LeSueur; Joe Burk; Lynn Lockhart; Ray Slade; Bobby Trammell; M. J. Wiltbank; Eather Brown, and the Traweek Ranch. We were unable to find any cattle eating pine needles, or where they had been eating pine needles. However, both Eather Brown and Chase Traweek stated that they had seen their cattle eating pinyon pine needles, but doubted very much if they were eating enough to hurt them.

This goes to show that the pinyon pine needles are to be considered as well as the long leaf pine needles in any investigation of the pine needle problem.

On the 13th of January the Agent made a trip to the Voight Ranch at Ceadro looking over the cattle interests there. We found the Voight cattle in excellent condition with plenty of grass and
winter fat and other browse, and plenty to live on. In fact the cattle looked more like they did in the summer when on the mountains, than they had at any other time. We noticed in contrast some neighbors cattle which belonged to the Platt’s were very poor and had little or nothing to eat. This means one thing, and that is, that our ranges under our limited rainfall will produce feed if we will take care of them.

In examining the grass planted by the Garcia Bros. to see which seemed to be the best for grass in the spring, Alta Fescue in January had more green growth at the base than the Hardin, Brome, and Perennial Rye.

In examining the perennial rye grass at Hunt, we found that there was at least one foot of green growth in this grass which seemed to indicate where it was not pastured a great deal that green grass could be expected for February and March grazing.

a. Lice and Flies

We have worked this year with Adelbert Nelson and his father in trying to find out why he was not controlling his lice when he was dipping his cattle. It was our opinion then and now, that he was not cleaning his dipping vat out thoroughly, or not stirring the material enough.

It is my opinion that our range livestock people will have to be supervised in their dipping and spraying more closely in the future than we have been doing, because this operation is so technical and delicate that if it is not done correctly it is of little or no use, and I doubt that the majority of the cattlemen appreciate how delicate the operation is and how important it is to do it absolutely right.

We checked on the 19th of February with cattlemen of Sanders, Chambers and Navajo and found that most of our livestockmen in that area have not been treating for lice as they should. It seems like that an intensive educational campaign will be necessary with those people before they will treat as they should for lice, flies, and grubs.

5. Irrigation

We had Mr. Howard B. Ray, Soil Specialist and Mr. James E. Middleton, Irrigation Specialist from the University, with us in February, at which time we held meetings all day at Round Valley on the 9th and the same in St. Johns on the 10th.

At these meetings Mr. Ray and Mr. Middleton gave illustrated lectures on irrigation and soil management. If our farmers would follow the advise given it would save from water-logging a lot of land in Apache County. Of course, we do not know how many will follow their advise.

By High School students who attended these meetings we had a fairly good turn-out, but without the students the turn-out would have been very small.
6. Poultry

We are doing everything we can this early in the season (January) to get our poultrymen going for the summer. In other words we recommend that people who are going into the poultry business should get their chicks in April, and in order to do this they have to get their orders in early and have their coops ready early. Therefore, at this time of the year we are holding demonstrations on culling and raising a successful poultry flock for the purpose of giving the farmers the proper information early enough so they can order their chicks at the proper time.

On the 28th of January we held a poultry culling demonstration at Vernon at which time we had Lee and Lorenzo Garcia from Concho there to observe the managing of Cecil Aegle's poultry flock at Vernon.

We feel that sine probably 75% of our poultry products are shipped into the county that more of our people should go into the poultry business than there are at this time.

B. Miscellaneous Activities:

1. AAA

A meeting was held in December for all the people of county offices to elect officers for the coming year. The following officers were elected:

Elmo Jarvis - Vice-Chairman
H. B. Nelson - Member
Hoska Cronemeyer - Member
Helen K. Overson - Secretary
Wayne Davis - Tech. Assistant

A copy of our circular letters on agricultural work are found on the following pages:
MEMORANDUM TO THE PEOPLE OF APACHE COUNTY.

Find enclosed herewith the following publications which you should keep for references in the future in these different fields:

"Fertilizer Recommendations for Arizona" Cir. 208
"Water Management" Cir. 205
"Household Pests" Cir 195

Yours very truly,

D. W. Rogers
County Agent

Encl.
D"Rnd
TO THE PEOPLE OF Round Valley and St. Johns

SUBJECT: Fruit Tree Pruning

The fundamentals of fruit tree pruning will be discussed according to the following schedule:

St. Johns at Mrs. Emmitt Waite's residence at 10:00 A.M., February 16.
Round Valley at Mr. Milo Wiltbank's residence at 10:00 A.M., February 17.

If you are interested in the pruning of your trees be sure and attend one of these meetings.

Yours very truly,

D. W. Rogers
County Agent
St. Johns, Arizona

February 4, 1953

MEMORANDUM TO The People of Apache County

SUBJECT: Irrigation and Soil Meetings

DON'T FORGET THE ALL DAY MEETINGS ON IRRIGATION AND SOIL MANAGEMENT HELD IN THE

ROUND VALLEY HIGH SCHOOL, FEBRUARY 9

and

ST. JOHNS HIGH SCHOOL, FEBRUARY 10

PRINCIPAL SPEAKERS WILL BE MR. JAMES E. MIDDLETON, IRRIGATION SPECIALIST, AND

MR. HOWARD E. RAY, SOILS SPECIALIST FROM THE UNIVERSITY OF ARIZONA.

YOU'LL GET A KICK OUT OF THESE MEETINGS

Yours very truly,

D. W. Rogers
County Agent
COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
State of Arizona

St. Johns, Arizona

University of Arizona
College of Agriculture
And Apache County Co-operating
U. S. Department of Agriculture

Agricultural Extension Service
Home Demonstration Work
County Agent Work

January 27, 1953

MEMORANDUM TO: The People of Apache County

SUBJECT: Irrigation and Soil Management


For the purpose of giving the public information on irrigation and management of soils the following program will be given:

Morning Session

9:00 - 9:35 Principles of Soil Management ..................... Howard E. Ray
9:40 - 10:15 The Necessity for Proper Methods of Water Distribution and Land Preparation ..................... J. E. Middleton
10:15 - 10:35 Intermission
10:35 - 11:40 High Soil Fertility to Obtain High Crop Yields .... Howard E. Ray
11:40 - 12:00 Methods and Costs of Land Leveling .............. Frank Farning, SCS

Afternoon Session

1:30 - 2:25 Principles of Water Management ..................... J. E. Middleton
2:25 - 2:45 Electric Power Means to Apache County Farmers ... Dewey Farr, T
e.
2:45 - 3:05 Intermission
3:05 - 3:40 Technicolor Movie - "Gift of Green"
3:40 - 4:00 Summary and Recommendations ..................... J. E. Middleton and H. E. Ray
4:00 - 4:30 Discussion Period

The above program will be at Round Valley High School, Monday, February 9th at 9:00 A.M., and at the St. Johns High School, Tuesday, February 10th at 9:00 A.M.

Yours very truly,

[Signature]

D. V. Rogers
County Agent
COOPERATIVE EXTENSION WORK

AGRICULTURE AND HOME ECONOMICS

State of Arizona

St. Johns, Arizona

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

Agricultural Extension Service
Home Demonstration Work
January 20, 1953
County Agent Work

TO THE PEOPLE OF: Alpine, Navajo, Green, Nutrioso, Springerville, Vernon

SUBJECT: THE EFFECT OF PINE NEEDLES ON PREGNANT RANGE COWS

For many years cattlemen in the northern part of California, particularly in the pine forest area, have contended that Pine Needles affect the percentage of calf crop in their herds.

Although this subject has been widely discussed with research men, there was no scientific information available on this problem until F. A. McDonald of the Canadian Range Experiment Station, Kamloops, British Columbia, conducted an experiment where pine needles were fed to pregnant cows.

In the experiment 18 bangs-free pregnant range cows of Hereford breeding were used. The cattle were divided into three groups of 6 each. Each group was fed once daily the following ration.

Group I - controls - 16.87 pounds of crested wheat-grass hay, 3.13 pounds of alfalfa hay, 0.50 pounds of oil cake meal.

Group II - pine needles - 10.50 pounds of crested wheat-grass hay, 3.10 pounds of alfalfa hay, 0.50 pounds of oil cake meal and 6.40 pounds pine needles.

Group III - pine needles free choice - 16.87 pounds of crested wheat-grass hay, 3.13 pounds alfalfa hay, 0.50 pounds oil cake meal and 4.99 pounds of pine needles free choice.

After being on this ration for several months the average gain per cow was about 80 pounds.

Until this experiment was conducted it was thought that due to the resinous taste of the pine needles animals on an adequate ration would not consume this material. These tests indicate that cows will eat about 5 pounds of these needles per head per day even though they are supplied a balanced ration.

The cows started calving in February, approximately 3 months after the test began, and continued until May 17. In the control group all cows calved and the calves were normal and lived. In the two groups that received pine needles, calf losses were about 68 per cent.

Dr. I. McDonald who conducted this experiment concludes that pine needles and buds are a causative agent of abortion and the birth of weak calves. Pregnant range cows will consume quantities of needles and buds even though adequate feed is available. Bred range cows should be wintered in areas where such feed is inaccessible. Forestry operations to cut western yellow pine should be suspended during times when bred cows are present.

The above information from the California Report which was made in July of '52 is the only scientific results that we have of the effect of pine needles on cattle.

Yours very truly,

[Signature]

D. V. Rogers

County Agent