

A P A C H E C O U N T Y
A N N U A L N A R R A T I V E R E P O R T

From: December 1, 1955

To: November 30, 1956

C. L. Isaacson
County Agricultural Agent
St. Johns, Arizona

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SUMMARY

The greatest emphasis during the year was on livestock, horticulture, agronomy and 4-H club work. An attempt was made to work toward the long-time goals in the plan of work although a certain amount of service work is necessary.

Horticulture included work on fruits, vegetables and grounds beautification. Recommendations were made relative to cleaning out all invading growth in orchards using chemicals, livestock and hand labor. Also controls for codling moth and clover mite were given. Two sweet corn and tomato variety tests were conducted by cooperators. Chief vegetable insects were corn earworms, cabbage aphid, flea beetle and squash bug. Besides giving individual help in setting up landscaping plans, the Agent helped the St. Johns Jaycees plan for planting the St. Johns Park area. Also, Harvey Tate was present to demonstrate pruning fruit trees and beautification plants. The 4-H club of Sanders planted a red cedar windbreak at the local school.

In the livestock field work on beef cattle was naturally the most important.

Information and help was given on Bang's and T.B. testing, parasite control, simple veterinary practices, marketing, livestock breeding, range management and supplemental feeding. During the year a local boy set up a veterinary practice. A "for sale" bulletin board was kept in the office and 51 cattle owners listed about 8500 animals. Several news articles were published on good supplemental rations, stressing vitamin-A. The use of bu-gas in juniper control was tried in the county and found very effective.

Dairy work consisted mainly of helping the veterinarian organize Bang's testing and some individual demonstrations on simpler treatments of ailments.

In the poultry field, compared to the last two years, very little work was done. Advice was given on parasite control, feeding and cannibalism control.

In agronomy more work was done on irrigated crops as more irrigation water was available. A corn variety test was conducted by cooperator Jack Brown in St. Johns. Older permanent pasture grass tests were checked and best grasses to date determined. A white top weed killing trial put out by Dr. Keith Hamilton was watched and recorded. The spotted alfalfa aphid finally became serious, on the last crop of hay.

Important in irrigation was the drilling of a successful well above St. Johns at Salado. The well puts but 1600 gallons per minute or more.

SUMMARY -- Continued

Entomology activities were centered mainly on the advice and help given to residents in Alpine and Nutrioso in trying to control grasshoppers. Insects were also handled in connection with other projects.

The Agent did some work in connection with soils. Included was the checking and advising on chlorotic plants in Springerville. Also, the Agent attended two S.C.D. meetings in Springerville and was placed on a committee.

Rural sociology activities were mainly in connection with help in conducting the county fair. Besides meeting with the Fair Commission the fairbook was drawn up by the extension office following committee suggestions.

I. SITUATION

Several changes in the agricultural situation have taken place during the year. The number of acres in crops has remained about the same, however there has been a slight increase in silage corn acreage due to an increase in water supply. Another major change in connection with alfalfa production is that the spotted alfalfa aphid has finally become serious.

Range cattle numbers have gone down appreciably during the year. There are no actual figures on numbers remaining in herds but nearly all cattlemen sold not only yearlings but calves and older cows as well, in order to conserve feed. Of course the range is in a fairly extreme drouth condition as compared to last year.

One new thing for at least part of the cattlemen was the use of a "for sale" bulletin board prepared by the county extension office. There were fifty one cattlemen who listed a total of about 8500 head of cattle for sale.

Program emphasis is still on range beef production along with supplemental feed and marketing these livestock.

II. ORGANIZATION

Personnel changes in the county extension force during the year included the replacement of the home demonstration agent, Anne Shute, with the new home agent Bettie Mead.

Acting as chairman the Agent along with a representative of the F.H.A. and S.C.S. selected an A.S.C. election board to conduct the annual election for A.S.C. committee members.

III. PROGRAM PLANNING

The plan of work for the year was formulated by checking over the previous years plans and consulting with county ranchers and farmers.

The Agent went over the plan for the county in a talk to the Springerville Rotary Club. Some suggestions will be incorporated in next year's program.

IV. INFORMATION PROGRAM

The county Agent's column was continued in the local weekly newspaper during the year. Quite a number of pictures of 4-H'ers, the County Fair and the like were included. A number of

IV. INFORMATION PROGRAM - Continued

articles on the county's agriculture were included in the Arizona Farmer. The Agent took the Farmer reporter around the county with him.

Circular letters were sent out with special information to ranchers and farmers. Also an extra large number of bulletins were sent out to county residents. The mailing list was brought up-to-date using boxholder return cards.

The Agent began and nearly completed a bulletin on fruit production in Apache County. It will be sent out in January or February 1957.

V. Projects

3. HORTICULTURE

A. Fruit Production

One of the main problems in this field is the need for cleaning out uncontrolled growth in orchards. Competing weed growth as well as half-dead trees should be removed. There is still need for improvement in proper selection, planting, fertilization and pruning. Codling moth and clover mites are the main pest problems.

For a number of years most county orchards have been in an unthrifty condition. This is believed to be due mainly to a combination of drouth, mite damage and weed competition. Also many trees are overage and need replacing. Home orchard owners do not seem to have time to take care of larger orchards like they did earlier. As a consequence, many orchards are neglected.

The Agent recommended the cleaning out of weeds, Chinese Elm trees and other competing growth from orchards. One suggestion was to basal spray the Chinese Elms with a 2,4-5-T and fuel oil combination. The other was to pasture the orchard with calves or sheep during the dormant season. It was suggested that supplemental feed be given the animals to go along with the dry feed so they wouldn't bother the trees. There are two very good orchards in the county which are kept clean by this grazing method.

Pruning demonstrations in St. Johns and Eagar were conducted by the Agent. Harvey Tate, extension horticulturist gave very good demonstrations. Included were instructions on pruning different ages and kinds of fruit trees along with pruning grapes. The Jay Patterson and Will Harris lots in St. Johns were used and the Del Hale place in Eagar.

Further in the line of pruning the Agent gave several individual demonstrations on pruning. Many were advised to cut off succor growth at any time of the year it appears.

The spray program suggested for controlling clover mites on apples and pear trees did not materialize. Polysulphide dormant spraying was recommended. Only two known individuals sprayed. The lack of irrigation water discouraged many from doing anything with orchards.

Due to fluctuating spring weather a number of year-old trees "greened-up" and then were frozen many dying completely. This may have been partially due to late fall irrigation, causing them to be in too succulent a condition.

In order to get localized home fruit production information all in one publication, the Agent began a county bulletin. It was completed except for a few parts. The plan is

V. Projects - Continued

3. HORTICULTURE - Continued

A. Fruit Production - Continued

to get it out to county people by January, 1957.

B. Vegetable Production

Generally speaking home vegetable producers are using recommended varieties. However, among the list of recommended varieties, and new ones coming on the market, no one is sure which one is probably best for his own garden and needs. Insect and disease control are a main problem. There is a need for greater use of barnyard manure and weed control.

The home garden has always been of importance in the county. Gardens are somewhat smaller than they used to be. About half of the gardens receive fair to good care and the other half poor care. Curly top and tomato fruit worm are and have been the chief tomato disease and pest for some time. Corn earworms, flea beetles, Mexican bean beetles, cabbage aphid, grasshoppers, squash bugs and spotted cucumber beetle are others of the chief pests affecting vegetables.

Two sweet corn variety demonstration plots were conducted to completion. With one, T. E. Waters of St. Johns was cooperator and the other Mary Ellen Greer, St. Johns. Results follow the horticulture project section.

Two successful tomato variety demonstration plots were carried on. These were located at the above gardens. Results follow the horticulture section.

Chief insects encountered during the year included corn earworm on ears and tassels, cabbage aphids, and flea beetles.

One home remedy for controlling flea beetles observed by the Agent was the use of wood ashes as a repellent. The Agent tried it on pepper plants in his own garden and found it to be effective. One drawback is that applications have to be applied quite often, although the beetles were less damaging after the plants got some size.

Curly top was present among the tomatoes, as usual. However it was less damaging this year.

C. Grounds Beautification

There is plenty of room for improved landscaping and home-grounds beautification throughout the county. Very little has been done in this respect. The majority of individuals who desire to landscape their homes need help. Large home lots contribute to poor appearances in the various towns.

V. Projects - Continued3. HORTICULTURE - ContinuedC. Grounds Beautification - Continued

Some landscaping work has been done in recent years on a few home-grounds. The majority of these were in cooperation with the Extension Service. Plans were drawn two years ago to landscape the St. Johns Town Park.

The Agent met with the St. Johns Jaycee Club to go over Harvey Tate's and Joe Folkner's town park landscaping plans. The Jaycees got the town of St. Johns to buy lawn seed. It was to be fall planted but wasn't and is to be done next Spring now.

Harvey Tate demonstrated the pruning of evergreen plantings, along with his fruiting plant pruning demonstration.

Quite a number of American Elm trees in the county suffered from leaf burn. Dr. Ivan Shields analyzed it as salt burn due to dry weather and subsequent alkali accumulation in the root zone. Flushing by leaching was recommended.

In early spring the Agent advised Principal Komedina on landscaping the Sanders' school grounds. A red cedar wind-break was planted with the 4-H club doing the work.

SWEET CORN VARIETY TEST

For 1956

T. E. Waters, St. Johns, Cooperator

Water Source: St. Johns Reservoir

Planting Distance: 42-inch bed - 36" in-the-row

Cultivation: Hoed, Weed-free

PLANTING DATE: JULY 7

Variety	Harvest Date	Av. Ear Length	Number Ears	Number Hills	Stalks Per Hill	Ears Per Stalk	Rows of Kernels
Prosperity	Oct. 18-22	6½"	5	2	4	1	14½
Sweetangold	Oct. 19-20	7"	6	2	4	1	14½
KVF-54-65	Oct. 21	7"	3	2	4	1	15
Tempo	Oct. 23	6"	3	2	4	1	15

PLANTING DATE: MAY 8

Variety	Harvest Date	Av. Ear Length	Number Ears	Number Hills	Stalks Per Hill	Ears Per Stalk	Rows of Kernels
Prosperity	Aug. 19-20	6½"	7	4	4½	1	14
Sweetangold	Aug. 19 Sept. 10	6½"	21	4	6	1½	15
KVF-54-65	Aug. 19-20 Sept. 10	6"	20	4	5½	2	14
Tempo	Aug. 19 Sept. 10	6½"	11	4	5	1	14

PLANTING DATE: APRIL 28

Variety	Harvest Date	Av. Ear Length	Number Ears	Number Hills	Stalks Per Hill	Ears Per Stalk	Rows of Kernels
Prosperity	Aug. 7-9- 15-17	6.7"	28	4	4	1	14
Sweetangold	Aug. 8-11- 12-17	7.4"	13	4	4	2	17
KVF-54-65	Aug. 5-9- 15-17	7.2"	15	4	4	2	15
Tempo	Aug. 3-7- 14-15-17	6.7"	14	4	4	1	17

Remarks:

T. E. Waters: "I liked Sweetangold and KVF-54-65 best according to growth and production. As to eating qualities I could tell no difference. All these varieties seem to need about 10 days longer growing period than Golden-cross Bantam for best maturity."

TOMATO VARIETY TEST

For 1956

T. E. Waters, St. Johns, Cooperator

Planting Date: April 28

Variety	Harvest Date	Number Tomatoes	Lbs. of Tomatoes	Fruit Size	Fruit Shape, Texture	Remarks
Earlypak	Aug. 29 Sept. 7-11- 13-17-19-22- 26-28	64	10.63	Small- Medium	Globular	Yield good, Medium-Early
Ace	Sept. 13-17- 22-26-28 Oct. 8-13	31	8.5	Large	Smooth	Large, Late One vine curly top
Rutgers	Sept. 9-17- 19 Oct. 8	10	1.38	Small- Medium	Smooth	Poor Yield
Pearson	Aug. 28 Sept. 5-9- 13-17-19- 26-28 Oct. 8-13	61	14.25	Small- Medium- Large	Smooth	Generally heavy. Good yield of large, green tomatoes.
Pennheart	Sept. 7-11- 17 - Oct. 8	15	2.88	Large	Rough	Poor Yield

Remarks:

Mr. Waters said from his observations he would prefer Earlypak and Pearson. He stated that even though Earlypak had sparse leaf material the fruit still didn't sunburn.

SWEET CORN VARIETY TEST

Mary Ellen Greer, St. Johns
Cooperator

Planting Date:
Harvesting Date: Aug. 20

Variety	Ear Size	No. Ears Per Stalk	Total No. Ears	Eating Quality	No Hills
Prosperity	Large	2		Not too good. Too mature. Earlier than others.	
Sweetangold	Large		30	Good. Maturity all right. Large cob.	
K V F-5465	Medium to large	2	28	Best eating of all. Sweet	
Tempe	Long narrow	1½	24	Lacking in flavor. Kernels small, Fairly mature. Poorest ears. Weaker growing stalk.	

Remarks:

This was the healthiest patch of corn seen in the entire county.

Stalk growth and ear size were outstanding. Plenty of barnyard fertilizer and good hand weed control were applied.

2½' row
2½' between rows

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
State of Arizona
St. Johns

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

Agricultural Extension Service
Home Demonstration Work
County Agent Work

February 27, 1956

TO: HOME OWNERS IN APACHE COUNTY

No home-lot is complete without a few fruit trees, bush fruits and landscaping plants. However, without proper pruning the value of these is greatly reduced.

On March 1 and 2 (Thursday and Friday) Harvey Tate, Extension Horticulturist from the University, will be present for demonstrations in pruning.

The demonstration schedule is as follows:

Eagar: Thursday (March 1) - 1:30 P.M. - Del Hale home

St. Johns: Friday (March 2) - 1:30 P.M. - Jay Patterson,
Fay Chion, and
Will Harris
residences.

Anyone who has pruning equipment bring it with you. At the finish of the demonstration an opportunity will be given for individual practice and instruction.

Plants which will be pruned include peaches, apricots, apples, pears, plums, currants, shade trees, roses, evergreens and others.

Sincerely,



C. L. Isaacson
County Agent

251 c.
CLI/nd

V. Projects

4. LIVESTOCK

A. Beef Cattle

1. Ailments

T. B. and Bang's diseases have not been a problem in the county. However, the Federal and State Veterinarians feel that the cattle owners will have trouble shipping cattle unless testing is completed and the county declared a modified-Brucellosis free area. Private veterinarians have been stationed in the county periodically, but none have stayed. There is a need for a permanent veterinarian. ✓

The Federal and State Veterinarians have been trying to get all range herds in Apache County tested during the past year in order to certify the county. The Agent has helped in organizing the program. The Agent has had to give quite a bit of veterinary help in emergencies. ✓

During the past year the Agent arranged for more testing of beef herds. Also advertising concerning testing was done. The plan is to get the county accredited by next summer. ✓

Melvin Crosby of Eagar requested information on speying heifers. He also wanted someone to teach him how to do it. He was told that the practice hadn't proven too valuable economically and that speying would have to be left to the veterinarians.

Other information and help during the year was given on the following: cattle grub control, overeating of grain, back scratchers, lump jaw, liquid BHC for dipping, and de-horning with a saw.

Toward the end of the year a local boy moved into St. Johns as a veterinarian. This should help the situation.

2. Economics

We still have a problem of marketing range beef cattle at a fair price.

The only cooperative beef marketing venture in the county is the sale conducted by the Indian Service at Apache Springs. Some time ago the Forest permittee association in and around Springerville attempted to organize a sale but failed. The cattlemen themselves say that it is next to impossible to get ranchers to work together in selling their cattle.

The Agent has been working during the year toward ✓

V. Projects - Continued4. LIVESTOCK - ContinuedA. Beef Cattle - Continued2. Economics - Continued

getting the cattle owners to form some kind of a selling organization. Possibly this could be done through a county Cattle Grower's Association if one were to be formed in the county. ✓

In order to help get prospective buyers and sellers together, the Agent kept a "For-Sale" bulletin listing in the county office. Local cattlemen sent in the numbers and kinds of animals they wanted to sell. The office stenographer recorded these on the chart. Buyers could visit the office and see if there was anything available that they wanted. Buyers were then directed to sellers to do their own bargaining. Through newspaper articles and other sources the existence of this listing was publicized. Even though buyers were quite scarce at least a fair percentage checked the listing. At least it is felt that no buyers could be told that all cattle were sold as long as there were some left on the list. ✓

A total of 51 cattle owners listed cattle and a total of 8500 animals were listed.

Toward the end of the year a slaughtering plant opened up in St. Johns. Cattle are slaughtered, cut up and packaged for home use. This should help in the cost of living on the farm.

3. Feeding

Our main problem is to provide a good supplemental feed for range cattle.

Each year the Agent has given some recommendations on supplements, especially during drouth.

Due to the extreme drouth this year it has been necessary for cattlemen to supplement the range an extra amount. The Agent put several newspaper articles in the county paper giving suggested supplements as provided by Al Lane.

One local feed dealer was selling a lot of drouth feed supplement which contained no vitamin-A. The Agent convinced him that synthetic gelatin-coated "A" should be added. He is in the process of getting the pellet composition changed.

A high grain ration for fattening calves was worked out for E. I. Whiting of St. Johns. Feeds included were corn silage, cottonseed hulls, alfalfa hay, rolled barley and cotton-

V. Projects - Continued4. LIVESTOCK - ContinuedA. Beef Cattle - Continued3. Feeding - Continued

seed meal. This is the only drylot pen feeding operation of any importance going on in Apache County.

4. Improvement

The need is to further improve range herds by continuing to select bulls on "weight-for-age" as well as for conformation. Also there is getting to be quite a problem in connection with dwarfism.

For quite a long time most ranchers have bought good grade herd bulls. However, some went too heavy on conformation, forgetting size and scale. Also the continuous use of comparatively inbred registered stock has increased dwarfism.

The Agent has recommended the use of large, rugged bulls and those as free from dwarfism as possible.

At the 2nd annual Suncrest Hereford sale near Springerville quite a number of local ranchers purchased bulls which shows they are improvement conscious even during drouth.

5. Range Management

Juniper control is still one of the main needs in the county. Also needed is some method of keeping water from freezing, necessitating daily ice cutting for stock watering.

Most of the juniper control in the county during recent years has been done by cabling and bull-dozing.

During the year the Chilcott Ranch near Concho used bu-gas in burning trees on about two sections of heavily infested rangeland. The trees were from small to medium in size. One man drove the tractor pulling the tank and burner while another operated the torch.

Frank Stradling, ranch manager, kept cost records on the operation. He figured the cost of everything except the equipment to be \$1.50 per acre. The equipment was rented for \$2.00 per month from the gas dealer in St. Johns. Regardless of the time of the year it appears that a good kill was realized, sufficient to qualify under the A.S.C. program. Small trees were burned completely and large ones girdled. Grass came back very soon under burned trees.

Several individuals have purchased gas water heaters to

V. Projects - Continued

4. LIVESTOCK - Continued

A. Beef Cattle - Continued

5. Range Management - Continued

keep watering troughs from freezing over. The Agent has recommended these, since they save a lot of pickup mileage and time.



Person standing with gas Chilloott Bahch, Orange, Arizona, 1956.

COOPERATIVE EXTENSION WORK
IN
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University of Arizona
College of Agriculture
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and Apache County Cooperating

Agricultural Extension Service
Home Demonstration Work
County Agent Work

May 1, 1956

TO: County Livestock Owners

Mr. Albert Lane, Livestock Specialist for the University of Arizona will be in Apache County on May 4th and 5th. Those who attended the County Fair last year will remember Mr. Lane as the official livestock judge.

Mr. Lane will be present at a meeting on Friday, May 4th at 7:00 P.M. at the County Courthouse. He will discuss problems in livestock breeding the first part of the meeting. The latter part will be taken up in talking about marketing beef cattle and the possibilities of some type of selling organization in Apache County. Bring your livestock questions with you.

All cattle owners and other interested people should plan to be present. The general public is also invited to attend.

Mr. Lane is outstanding in his field. Don't miss this opportunity to meet and talk with him.

On Saturday Mr. Lane will be the official judge for 4-H livestock judging contests. All county 4-H'ers should be present and participate. Parents and the public should attend if possible. Sheep judging will begin at the LaVerl Hall ranch about 5 miles South of St. Johns and just off the west side of the main highway. Be there at 10:00 A.M. Saturday May 5th. The group will then move on to the Bob Hooper Ranch for the beef judging which will begin at 1:00 P.M. Bring your lunch.

Sincerely,

C. L. Isaacson
C. L. Isaacson
County Agent

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COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS
State of Arizona
St. Johns

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TO: ALL CATTLE BUYERS

In order to help Apache County cattle owners and prospective buyers get together we have started a "for-sale" listing of available cattle.

Our listing is getting off to a good start. At this writing we have over 1500 head of feeder cattle signed up to sell. We expect a lot more.

Interested buyers should check in at the County Agricultural Agent's office in the Courthouse at St. Johns to see what is available. Help will be given in locating the sellers.

It is hoped that this will make for less difficulty for buyers in locating feeder stock and for cattlemen to contact buyers.

Apache County cattle are generally of very good grades. Be sure to check by when looking for your feeder stock.

Sincerely,



C. L. Isaacson
County Agent

CLI/nd
50 c.

COOPERATIVE EXTENSION WORK
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AGRICULTURE AND HOME ECONOMICS
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University of Arizona
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Agricultural Extension Service
Home Demonstration Work
County Agent Work

July 17, 1956

TO: APACHE COUNTY CATTLE OWNERS:

During the past few years increasing difficulty has been experienced in trying to sell cattle at full market value.

At present many cattlemen spend a lot of time waiting around town hoping to "run-into" a buyer. Some never do get a fair price even though their cattle are good grade. Buyers who want cattle may miss them because they don't know they are available.

I have contacted a number of cattle producers and they think that a listing of available county cattle would be good. Buyers would be notified of the listing and could make contact with sellers through this list.

In order to try to help out the situation we are going to keep a bulletin board listing in our office, of county cattle for sale. We will send a letter to all buyers, whose names and addresses can be located, advising them of this listing. They, in turn, can check at the County Agent's office when looking for cattle.

However, in order to start the bulletin board we will need cooperation from you ranchers. Enclosed is a card which can be used to send in the numbers and kinds of cattle you want to sell. We realize you may not know just what you will be selling for a while yet, but when you do the card can be mailed to us.

We want to get this listing made up in plenty of time to be ready when buyers start coming. Be sure you get your information in so that buyers will see your name on the list.

As soon as any cattle listed are sold it will be necessary for each owner to notify our office right away so buyers will not be making unnecessary visits to see cattle.

Fill out and return the enclosed postcard as soon as possible if you want any cattle listed for sale.

Sincerely,

C. L. Isaacson
C. L. Isaacson
County Agent

Encl.
CII/nd
13 c.

COOPERATIVE EXTENSION WORK
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University of Arizona
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August 1, 1956

TO: APACHE COUNTY CATTLEMEN

You may have already heard of the help our office is trying to give in marketing cattle. Just in case you haven't here is a repeat.

We will list all cattle for sale on a special bulletin board in the County Extension office at the Courthouse in St. Johns. The cattle will be listed as to class and number. No owners names will appear on the bulletin board. Each group of cattle will be designated by a code number only. Interested buyers can get the name and address of sellers by asking for them. Remember owners names will be kept strictly confidential and only for bonafide buyer's use.


We are getting a good start on the numbers of each class of livestock listed. Be sure to get your cattle listed so that buyers visiting our office will know they are available. Remember the larger the numbers of cattle we can list the more buyers we can interest.

Part of you have already received a card, for filling out and returning to this office, listing numbers of cattle you want to sell. Those who haven't received one will find it in this letter. If you are accidently overlooked, don't hesitate to send word what you would like to sell and it will be put on our bulletin board.

We are getting a good list of prospective buyers names already. Hurry and get your cattle listed soon. If we can tell these buyers we have a good-sized listing of cattle for sale they are more apt to visit the county.

If you have any suggestions on how this can be done more effectively, or know of some other way to help solve our marketing problem, your help will be appreciated.

Sincerely,



C. L. Isaacson
County Agent

Encl.
CLI/nd
251 c.

V. Projects5. DAIRY

The main concerns in dairying in the county are management problems in connection with family-type cows. Also milk produced in the area is generally not pasteurized so the need for brucellosis and T. B. testing is especially important.

One attempt to operate a dairy in St. Johns several years ago failed. This was either because of lack of interest and ability on the part of the operator or lack of economic soundness of the project or both.

During the year the Agent assisted by organizing the testing program for the county. Nearly all dairy stock were tested for brucellosis as required by law.

The Agent helped with and gave several demonstrations on the simpler veterinary practices which a cow owner probably should know. Intravenous injection for milk fever was demonstrated at the Loren Whiting and the Harold Davis places in St. Johns. Toward the end of the year a veterinarian established himself in St. Johns which will help a lot.

Due to the invasion of the spotted alfalfa aphid toward the latter part of the growing season, the Agent was called on to give information on the possible drawbacks of damaged hay. It was suggested that cow owners try a few bales before buying more.

V. Projects

6. POULTRY

There have been only a few problems in this field as of late. These have been connected chiefly with disease and parasite troubles. Marketing periodically creates a problem.

Two years ago commercial poultry owners and bird numbers were increased and it was necessary to organize in order to get surplus eggs out of the county. Since then numbers have been reduced and all eggs are marketed within the county.

Whiting Brothers of St. Johns have begun buying eggs ungraded and then grading and cartoning them for sale.

A few cases of cannibalism were reported and advice given by the Agent. One of these was feather picking in older hens and another cannibalism in young chicks.

V. Projects

7. AGRONOMY

A. Alfalfa

Alfalfa has been the main crop in the non-mountain areas of the county for some time. Due to a slight increase in irrigation water, production was somewhat higher this year than last. However there are still many stands which are old and need replanting.

Toward the end of the growing season the spotted alfalfa aphid which has been present for two seasons finally reached the epidemic stage. Most fields in the county were damaged so that the last cutting of hay showed the effects. The Agent recommended early cutting to save the present crop, but dusting has not been recommended. It is felt that the land is not worth enough per acre to justify it. Parasites and substitute crops are the only hope.

B. Corn

Corn has been quite an important crop in the past history of the county. With the increase in water storage for the year more was grown than during the previous year.

Several individuals filled their silo pits during the year. Most were in the St. Johns farming area and a few in Round Valley.

Some results on two silage hybrid corn variety demonstration plots were obtained. Results on the Jack Brown farm near St. Johns are at the end of this project unit. Results on the Henry Ashcroft farm at Eagar were only on the observation basis since no exact measurements were taken. Weed control was not practiced in the Eagar plot and it was not harvested for silage. Mr. Ashcroft observed that Funk's G-1A was the only variety which matured for grain. G-16A was close to this variety in maturity but did not completely ripen. Besides Funk varieties, DeKalb and Pfister plantings were made.

C. Permanent Pastures

The Agent has been watching permanent pasture trials of several county farmers for several years. One plot was put out by the Agent and Extension Agronomist several years ago. The Agent has another small plot on his own home lot. From watching these over a 3 year period some recommendations can be made.

A combination of tall wheatgrass, tall oat grass and tall fescue grass has been recommended for extra heavy land in

V. Projects - Continued7. AGRONOMY - ContinuedC. Permanent Pastures - Continued

the Sanders area. This was to be used for a small pasture.

Another recommendation for heavy land in St. Johns was a combination of 6 lbs. tall wheatgrass and 3 lbs. alfalfa to be used for horse pasture.

Observations show that the following pasture plots will grow satisfactorily in the St. Johns area: tall wheatgrass, tall oat grass, alta fescue, intermediate wheatgrass, birdsfoot trefoil, alfalfa, reed's canary grass, orchard grass, weeping love grass and crested wheat grass. Especially thrifty are the tall oat, tall wheat and tall fescue grasses. However the fescue is not too palatable even though it is probably the most aggressive grower.

One planting of Rhizoma creeping alfalfa was made late in the summer. A stand was obtained.

Where sufficient water is available permanent pastures seem to have possibilities in providing out-of-season pasture for milk stock, horses, weaner calves and older range cattle which need a lift to get through the winter and spring. It substitutes some for hay.

D. Weeds

Weed control is a most important field in Apache County. Possibly the most serious weeds are hoary cress, bindweed, mallow and morning glory. Controls on bindweed have been tried for some years, but none are permanent. The general practice is to crowd out the weed by planting smothering crops such as alfalfa. Hoary cress is found only in Nutrioso and Eagar but is giving some concern there as of recent years.

Dr. Keith Hamilton of the Agronomy Department at the University of Arizona put out test plots in Eagar and Nutrioso. Soil sterilants were used and due to lack of moisture very little effect has been shown yet. A diagram of the test and some partial results follow this project.

The Agent discouraged the Apache Butane Manager from buying a flame weed killer. The equipment was quite expensive and it was thought that farmers wouldn't pay too much for weed killing until water becomes more dependable to make the land worth more. The burner company claims that annual weeds in alfalfa are killed but that the alfalfa is stimulated to grow better than before.

HYBRID CORN VARIETY TEST
 Jack Brown, St. Johns, Cooperator

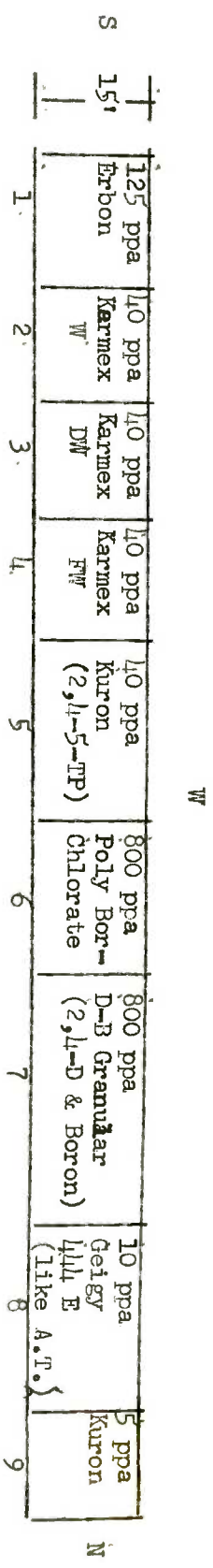
Soil Type: Sandy Clay Loam
 Crop History: Alfalfa 4 years previous.
 Planting Method: Plant in bottom of furrow, irrigate up.
 Harvest Date: September 28-October 3.
 Row Width: 38 inches
 Planting Date: May 22
 Size of Sampling: Two 20 ft. sections of row.

Variety	Number Stalks	Weight Stalks Lbs.	Height Stalks	Ear Size	Maturity
Funk's G-704	16 15	29 31	6' plus	Med.-Large	Still Green Early Dent
Pfister's 222	19 16	20 18	Minus 6' Shorter	Small- Medium	Browning Med.-Late Dent
Dekalb 873	15 16	22 19	Minus 6' Medium	Small- Medium	Still Green Early-Med. Dent
Funk's G-91	16 21	26 24	6' plus Taller	Med.-Large	Still Green Med.-Late Dent
Dekalb 817-A	13 11	23 21	6' plus	Extra Large	Still Green Med. Dent
Pfister's 234	16 23	19 21	Minus 6'	Medium	Browning Late Dent
Mex. June	19 19	32 35	8' plus Tallest	Nubbins- Med.-Large	Still Green Ears immature to milk blisters.
Funk's G-79	20 16	28 24	6' plus Fairly Tall	Medium	Slightly Yellowing Med.-Late Dent
Dekalb 893	25 24	36 32	7' plus Strong Stalks	Most large Some Med.	Very Green Just beginning to Dent
Funk's G-95A	23 19	28 27	6' plus	Med.-Large Well-fill- ed Ears	Yellowing Med. Dent
Dekalb 403	25 22	25 21	Minus 6' Not uniform	Med.-Large	Browning Ears Older
Dekalb 898	29 17	30 29	6'-7'	Large	Yellowing Med. Dent
Dekalb 806	36 21	26 21	6' & under	Medium	Yellow - Brown Med.-Full Dent
Dekalb 1024	29 33	36 32	6'-8'	Large	Yellowing - Green Immature-Early Dent

Variety	Number Stalks	Weight Stalks Lbs.	Height Stalks	Ear Size	Maturity
Pfister's 244	15	22	6' & under	Medium	Browning Ears Old
	20	24			
Funk's C-711	16	34	6'-7'	Large	Very Green Mostly milk stage.
	32	36			
Dekalb 1002	28	29	6'-7'	Very Large Good	Yellowing Early-Med. Dent
	18	27			
Pfister's 277	21	22	6'		Browning Med.-Late Dent
	18	21			
Dekalb 820	16	19	6'	Med.-Large	Yellowing Early-Med. Dent
	16	20			

WHITE-TOP WEED KILLING DEMONSTRATION PLOTS - SUMMER 1956
 Conducted in Cooperation With Dr. Keith Hamilton,
 of A. Weed Specialist
Reed Hall Farm - Eagar

Plots 15 ft. x 15 ft. starting at fence in Southeast corner and running along fence to North. Spray applications of weedicides.



Abbreviations: ppa = pounds per acre rate

Emery Mangum Lot - Nutrioso

Plots 15 ft. x 15 ft. starting central East portion North at burned house. Weedicides mostly sprayed, some applied dry.

	Karmex-DW 40#/A.	Kurron 80#	Check Untreated	Kurron 40#	Atlacide 1500#/A
S	Karmex FW 40#/A.	Karmex-W 40#/A	Conc. Borasco 1000#/A	Chlorrea 400#/A	Polyborchlorate 800#/A

E

N

Remarks:

It will be necessary to wait another growing season to see the real lasting effect of the above formations. Very little moisture fell during the summer which slowed up action quite a bit on the soil sterilants.

Some preliminary observations are as follows:

Erbon - All whitetop and bindweed died in a few weeks and never recovered during the season.

Karmex W - Slighty yellowing of new growth.

Karmex DW - Medium yellowing of new growth.

Karmex FW - Medium yellowing.

Kuron - All dead but a few plants.

Poly Bor-Chlorate - New growth healthy.

D-B Granular - All dead except grass.

Geigy 444 E - All dead.

V. Projects

8. IRRIGATION

The supply and distribution of irrigation water is an ever present problem in the county and has always been so except for a few exceptional years.

During the year a new irrigation well was drilled about 2 miles South of St. Johns. It tested out at 1600 gallons per minute. This well was used in conjunction with Lyman Dam water. Other similar wells are being planned now.

Also, one group made a survey as to the possibilities of building another dam across the Little Colorado just above the present St. Johns Little Reservoir. In the final analysis the cost was prohibitive.

The Lyman Water User's irrigation ditches were all cleaned using a new type ditcher. The cleaner worked on a dredging and escalator principle and was very effective. A Ford tractor furnished all the power necessary.

V. Projects

10. ENTOMOLOGY

The main insect difficulties during the year, and also for other years, were those connected with specific crops and livestock, the main sources of income.

Chief crop insects most troublesome during the year included grasshoppers at Alpine and Nutrioso, corn earworms, squashbugs, codling moth, flea beetles and spotted alfalfa aphids. These are treated under agronomy and horticulture.

Main livestock insects were the usual ones. These included cattle lice, ticks, and grubs. Also horn flies and stable flies were troublesome.

Cockroaches became increasingly bothersome to more home owners than previously.

Dr. J. N. Roney's control recommendations were given out.

V. Projects

11. SOILS

Soil problems in the county are primarily connected with the lack of proper fertilization, knowledge and practice.

The Agent, as in previous years, was confronted with the chlorosis problem on landscaping and garden plants especially. In the Springerville area a layer of soft caliche was located just below the surface of the ground. The use of iron sulfate and barnyard manure was recommended. Also allowing for better root drainage when planting was suggested.

The Agent attended two state Soil Conservation meetings in the Springerville area. Apache County has been selected by the S.C.S. as a pilot county to try out the various conservation practices.

V. Projects

12. RURAL SOCIOLOGY

A. County Fair

The County Agent's office was instrumental in starting the first Apache County Fair. Since then the office has been connected with the fair in one way or another.

During the year the Agent suggested possible fair commission members to the Board of Supervisors which were accepted. Also help on the fair in planning, setting up the premium book and advertising was given.

The Fair commission constructed a new set of 12 pens for cattle besides repairing older pens. There are now a total of 36 pens.

The Apache County Fair was considered quite successful this year. Especially outstanding was the number of entrants in the 4-H beef calf class. A total of 25 calves were exhibited and 19 of these auctioned off.

V. Projects

13. AGRICULTURAL ECONOMICS

The main work under economics was in with livestock marketing. See the livestock project.

COOPERATIVE EXTENSION WORK
AGRICULTURE AND HOME ECONOMICS
State of Arizona
St. Johns

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

Agricultural Extension Service
Home Demonstration Work
County Agent Work

TO: People of Apache County

We would like to be of service in sending out new agricultural and home economics information to our county people. Quite often we have outstanding bulletin and circular material put out by our specialists and others.

If you would like to receive this new material check the enclosed stamped, self-addressed postcard and mail it back. Check those subjects in agriculture and home economics in which you are interested. Be sure to put your name and address at the bottom of the card.

The purpose in bringing up-to-date our mailing list is to be sure that all persons desiring material receive it, and that none is sent where it is not wanted.

Remember, that if you desire any information or advice of an agricultural or home economics nature this office is here to serve you. If we can't answer your problem we will find someone who can, if it is known.

Sincerely,



C. L. Isaacson
County Agent

1800 c.

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

Agricultural Extension Service
Home Demonstration Work
County Agent Work

January 26, 1956

NEW FABRICS AND FINISHES

Dear Homemaker:

During the week of February 6, 1956 demonstration meetings have been planned for Navajo and Apache Counties. We will have the opportunity to talk and learn about cloth or fabrics that are on the market today. Everyone is invited.

On a shopping trip to the yard goods department of our favorite stores we find beautiful fabrics. We touch and feel of them and wonder what they are. "Is it butcher linen? Cotton?" We decide that by touching or feeling of them is not the best way to buy fabrics. So we ask the sales lady. She wrinkles her brow and starts looking for information. She looks at the end of the bolt. It might be there. It could be on the selvage edge. It is also possible that there is no information regarding the fabric.

In that case we check the name or brand, either could be the key word, such as dacron, vicara or acrilan blends. All of this can be true also of ready made clothes for women, men and children.

This is what we would like to do during the demonstrations:

1. Learn what new fabrics and finishes are made of.
2. How to take care of them.
3. Learn to ask for a label or information regarding the fabric.

Sometimes it is more important to reach for the information label than for the price tag. Why?

So that we can do all of these things, will you please bring along a mail order catalog such as Sears & Roebuck, Montgomery Ward, or Spiegel's?

Meeting time - 2:00 P.M. to 4:00 P.M.

Places & Dates: Eagar - L.D.S. Church - Monday, Feb. 6
St. Johns - L.D.S. Church - Tuesday, Feb. 7
Snowflake - Thursday, February 9
Holbrook - Friday, February 10
McNary - Club House 431 - Tuesday, Feb. 14
(Includes homemakers from Pinetop)

It will be a pleasure to work with you again. I am looking forward to the opportunity.

Do not forget to ask a neighbor or friend to come with you to the demonstration meeting. She, too, can be having problems with "man-made" fabrics.

Sincerely yours,

Madeline Barley McConnico
Home Demonstration Agent,
State Office

C. L. Isaacson
C. L. Isaacson
County Agent

CII/nd
195 cc.

P. S.

It is doubtful that there will be time for you to practice sewing on some of the fabrics. In case we do have time, try to have several machines handy and some swatches of the new fabrics.

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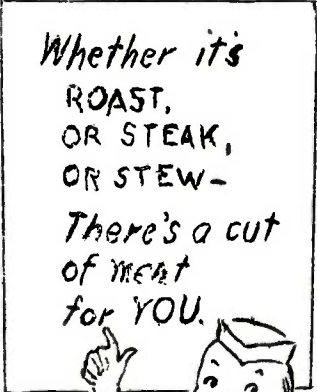
Agricultural Extension Service
Home Demonstration Work
County Agent Work

February 11, 1956

FEBRUARY PLENTIFUL FOODS

Dear Homemaker:

The "meat and potatoes" group in your family can expect plenty of good eating during February as potatoes, beef, and pork lead the list of food plentifuls.



No matter whether you buy spuds in bulk bags or by the pound, they will be a good buy as to price and quality. Late crop potatoes are best for baking, mashing, and combination dishes. But, the winter crop of "new" potatoes -- due to arrive in markets this month -- is excellent for boiling in their jackets, or for boiling and serving "parsley-buttered."

Beef, another good budget-buy this month, is expected to be plentiful in the higher grades. And, pork will also continue to be in good supply at reasonable prices.

Arizona-grown green cabbage offers the budget-minded homemaker a double-barreled buy since it ranks high in both appetite appeal and vitamin C content. It is excellent for salads or quick-cooking.

Another home-grown plentiful in markets this month is green, mild-flavored celery, since this year's crop is 20 percent larger than average. And, be sure to include grapefruit in your menus during February as supplies are good.

Other plentifuls for the month include rice, broiler and fryer chickens, vegetable fats and oils, lard, new-pack peanut butter, and canned tuna in oil.

Sincerely,
C. L. Isaacson
C. L. Isaacson
County Agent

CLI/nd
241 c.

COOPERATIVE EXTENSION WORK
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April 19, 1956

Dear Homemakers:

Our next extension demonstration involves making slip covers. This is the ideal time to take up such a subject because most of us like to change from winter to spring and summer. The demonstration is based on what we call a five-piece slip cover. Mrs. McConnico tells me that this slip cover is designed to make it easy for the homemaker in two ways: (1) it's easy to handle while it is being made because it is in four or five pieces: (2) Laundering it is simple because there are four or five pieces to work with.

You are no doubt wondering how a slip cover made in pieces can ever stay on the chair. Just wait and see. You will be so pleased with it that you will wonder why you didn't think of doing it so easily yourself.

This type of lesson generally requires one demonstration day and several workshop follow-up days. We can't do that at this time because we do not have all the time required for such a program. We can be thinking of it for a future time.

It is not necessary for you to bring anything to these meetings. The illustrative material will be brought to us and the demonstration will be given by Mrs. Madeline McConnico.

It will be necessary to either bring a sack lunch or plan on going home for the noon meal. Everyone invited.

<u>TOWN</u>	<u>TIME</u>	<u>PLACE</u>
St. Johns,	Tuesday April 24, 10:00 A.M. - 3:00 P.M.	-L.D.S. Church
McNary,	Thursday April 26, 10:00 A.M.-3:00 P.M.	-Club House

Sincerely,

C. L. Isaacson
C. L. Isaacson
County Agent

68 cc.
CLI/nd