

ANNUAL NARRATIVE REPORT

OF

EXTENSION WORK

CULPEPER COUNTY, VIRGINIA

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INTRODUCTION

The writer of this annual report will endeavor to give the aims and goals of the different programs carried out by the Extension Service in Culpeper County during 1947, the degree of their accomplishments and explanation of the various phases of work not definitely recorded in the statistical report. The readers of this report are requested to bear in mind that the real and true value of Agricultural Extension Work is next to impossible to evaluate, since the indirect influence of recommended practices cannot be accurately measured or recorded.

County Organizations, such as the Professional Workers Council, Farmers Cooperatives, and the County Board of Agriculture, have all extended a helpful attitude and have given encouragement to the agricultural employees in their undertakings. The Extension agent has been very fortunate in having well trained and very efficient co-workers; Elizabeth Farrar, home demonstration agent, J. M. Huffman, assistant county agent in charge of 4-H club work, and Virginia Yancey, Extension stenographer, in charge of routine office work.

The aims and goals of Extension work in Culpeper County are to advocate and encourage those farming practices that will result in improvements of soil fertility, the quality of products produced, stop leaching and erosion of soils and to obtain larger returns from fewer acres; also to procure and train leaders among rural people, by encouraging spiritual fellowship and cooperation among families in the communities.

Extension workers in 1947 put forth every effort in explaining the value of well planned home gardens, along with canning, freezing and storage of these products; also the importance and value of beef cattle, dairy cattle, poultry, hogs and sheep in a well balanced farm program. In addition to these, to produce on the farm sufficient pasture, hay, and grain to properly feed these animals.

Agricultural Extension work has been planned to work in harmony and accord with farm and other local organizations that are operating for the mutual benefit of all people, encouraging farm men and women to carry out the most economical production and marketing of their products; also to encourage boys and girls, through 4-H club work, to take an active part in their farm and home enterprise, and to lend cooperative support to community life, both socially and spiritually.

SOME FACTS
ABOUT
CULPEPER COUNTY

- I. Three hundred and eighty-four square miles in the county.
- II. Total population - fourteen thousand.
- III. Total farms - fourteen hundred and nineteen - (1945 Census).
- IV. Total land in county - two hundred and twenty-five thousand acres.
- V. Total crop land - seventy-five thousand acres
- VI. Thirty-three and one-third percent of total county area is in woodland.
- VII. Five magisterial districts in the county.
- VIII. One consolidated high school. (White)
- IX. Six white grade schools.
- X. One negro consolidated high school.
- XI. Eleven negro grade schools.
- XII. Thirty-three white churches in the county.
- XIII. Twenty-three negro churches in the county.
- XIV. Fifty artificial barn hay driers now in operation in the county.
- XV. Two large railroads through center of county.
- XVI. One R.E.A. Cooperative - with one thousand members.
- XVII. One Farm Bureau Cooperative with eleven hundred and sixty-seven members.
- XVIII. One Frozen Food Locker Cooperative with seven hundred and thirty-seven members.
- XIX. One Artificial Breeding Association organized and chartered in 1946.
- XX. One consolidated Northern Virginia Artificial Breeding Center organized and chartered in 1947.
- XXI. One Seed Cleaning and Treating Plant - serving most counties in middle and northern Virginia
- XXII. Agricultural Extension Work in county for thirty-seven years.

- XXII. Ten different extension agents continuously serving in this period of time.
- XXIII. Two National Banks with resources of approximately \$9,000,000.00.

COUNTY ORGANIZATION

In 1936 Culpeper County organized what is known as the County Board of Agriculture composed of both farm men and women. The purpose of this organization was to unify all agricultural agencies in the county, and that all farm programs be carried out through this Board. This organization was very effective until the outbreak of World War II and then all agricultural agencies were so confused with added responsibilities that little work was accomplished through the Board. It is believed that there are too many men and women leaders involved to carry out recommended programs effectively and to justify the necessary time spent by the agricultural workers.

To replace this organization, plans are now in progress to have a representative appointed from each farm organization, both men and women. These men and women to compose the advisory Board, along with the home demonstration agent and county agent.

In addition to the above organization, there is the Professional Workers Council which has held monthly meetings throughout the year. These meetings have been well attended and the workers have benefited greatly by them. This Council is represented by workers from the Soil Conservation Service, Farm and Home Administration, Production and Marketing Administration, Loan Agencies, Home Economics Department, Home Demonstration Agent, Vocational Agriculture Instructor, Agriculture Banker, G. I. Instructors, assistant county agent and the county agent.

TYPE OF AGRICULTURE

Culpeper County, located in Northern Virginia, is primarily a rural farming area, with a total population of 13,500 of which 7,500 are listed as living on farms as owners and tenants. There is approximately 248,960 acres of land in the county, 75,000 acres of cropland, 85,595 acres of pasture and non-crop land, including waste land and 88,365 acres of woodland and other non-farm land. Farms are classified as follows: 116 large scale farms; 360 adequate, 538 low output and 405 minimal.

Fortunately the county is conveniently located to a number of good markets, with a weekly livestock auction being held in the county and in adjoining counties; each auction being held on separate days of the week. The Washington and Baltimore Livestock Markets are all within trucking distance of the farmers.

One of the best markets is the Washington Milk Shed Area, which is

a cooperative association receiving Grade "A" Milk from the farmers. There are ninety two shippers from the county shipping milk to this Association at present, with more farmers entering all the time. In addition to this outlet for fluid milk, there are five milk and cream receiving stations in and around Culpeper which furnish a ready market for approximately four hundred smaller dairymen.

Dairying leads the county in farm income, but general farming, including beef cattle, hogs, sheep and poultry out number the dairy farmers. Most of the general farms contain fewer acres per farm unit than the dairy farms.

The beef cattle farmers have for the past several years practiced better feeding and management of their herds and improved the breeding by use of purebred sires and dams. At least eighty five percent of all herds in the county have purebred registered sires. The agent has been strongly recommending alfalfa on beef farms, first to improve the balanced ration for the herds and in case of a surplus to sell to dairy farmers.

The number of sheep on farms at this time are about the same as in past years. Approximately eighty farmers have from a few head to several hundred. The wool is marketed locally and through the United Wool Growers Cooperative and the lambs marketed either locally or in Baltimore, Md.

Hogs have never been a major enterprise in the county and brood sows have not been materially increased in numbers over the past several years. Farmers produce enough for their own use and that of their tenants, with the surplus going to the local market.

Poultry is mostly an in and out enterprise. Farmers cut down in the production of broilers this year due mostly to the unsettled feed situation. This reduction in broilers automatically reduced the number of laying birds. Turkeys are about the same in numbers as in the past several years. Most of the turkeys are grown by a few farmers with large flocks on the farms.

Local markets are available for these products either by truck, receiving stations, local stores and slaughtering; also freezing service at the Cooperative Locker Plant.

PROJECT ACTIVITIES

1947 PROGRAM OF WORK

The agent has tried as far as possible to follow the 1947 plan of work as set up at the beginning of the year. Major phases of the plan, such as dairying, agronomy and beef cattle, have required more of the agent's time than others. However, the program and its recommendations have been encouraged by all agencies working in the county. Although final results are not entirely satisfactory, progress has been made in most of the work and this, of course, is encouraging to the workers.

The program of work for 1947 in its final form is as follows: (All 4-H club work will be reported by the 4-H club agent and attached to this report.)

ADULT WORK

GOALS

ACHIEVEMENTS

A. County Board of Agriculture

- | | |
|---|--|
| 1. To reorganize the Board on a workable basis. | 1. Some work has been accomplished on this goal but not completed at this date. |
| 2. To select Board members from existing farm organizations, with each making their appointment to the Board. | 2. Most of the organizations have been contacted but no appointments made to date. |
| 3. To hold monthly meetings of the Professional Workers Council. | 3. This was accomplished with good results obtained. |

B. DAIRYING

- | | |
|---|--|
| 1. To hold a two day dairy breeding school in February. | 1. This was featured with about one hundred farmers attending each day. |
| 2. Add ten new herds under the D.H.I.A. testing program. | 2. Seven were added including one H.I.R. herd. |
| 3. To hold annual D.H.I.A. meeting with election of officers. | 3. This meeting was held. |
| 4. To assist local association in artificial breeding of dairy cows. | 4. The agent called and participated in all meetings and contact was made most every day with the inseminator. |
| 5. To cull herds of low butterfat producers, shy breeders, mastitic and unhealthy cows. | 5. This was strongly recommended throughout the year and most commercial dairymen carried it out. |
| 6. To feed the higher producing cows all the good green leafy roughage they can eat and enough grain and silage to secure maximum production. | 6. This was done by at least fifty commercial dairymen. |
| 7. To encourage efficient management of the herd to prevent production slump. | 7. This was strongly recommended, especially in the fall when milk was in demand. |
| 8. To provide abundant silage for both winter and summer feeding. | 8. At least seventy five commercial dairymen did this. |
| 9. To encourage good breeding, especially artificial breeding of dairy cows. | 9. This was strongly encouraged and to date about 800 cows have been artificially bred. |

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GOALS

10. Recommend that all feed possible be produced on the farm, including high protein and concentrated feeds.
11. Recommend 50 to 60 days dry period and to condition dry cows for freshening.
12. To properly feed and manage growing heifers from time of birth to freshening.

BEEF CATTLE

1. To cull the herd for off type, shy breeders and unhealthy cows
2. Market off type and undesirable calves as veals.
3. To encourage Farmers not to overstock but to keep only the number of cattle that could be fed and grazed properly.
4. Recommend that cattle be sprayed with D.O.F. for flies.
5. Encourage farmers to spray or dust for lice and external parasites.
6. Provide plenty of salt and water for the herd.
7. To use only proven registered bulls in the herd.
8. To hold feeder calf sale in October.
9. To encourage good pastures by reseeding, liming, fertilizing.
10. To produce on the farm all feeds necessary to feed the herd.

ACHIEVEMENTS

10. More dairy farmers are doing this each year by use of hay driers and alfalfa hay.
 11. This practice is generally carried out by dairymen over the entire county.
 12. This has been encouraged with all dairymen but too few are doing it at present.
1. This was done by at least 25 farmers.
 2. Approximately fifty percent of the farmers did this.
 3. This was strongly encouraged throughout the year, and good results were obtained.
 4. About 25 farmers carried this out by hiring custom spraying of their cattle and barns.
 5. This was encouraged by circular letters, office and farm visits.
 6. This was carried out practically 100%.
 7. Eighty five percent of the farmers did this.
 8. No sale was held in the county but approximately 75 calves were sold in the Grange Sale.
 9. This was recommended throughout the year, and about 10% of the farmers carried it out.
 10. This was done by the growing of alfalfa, small grains and silage. Plenty of feed on farms for coming winter.

GOALS

11. Recommend that dairy cows for home use on beef cattle farms be bred artificially to dairy bulls.
 12. Encourage the growing of alfalfa for sale to dairy farmers.
- D. SHEEP
1. Cull the flock, removing ewes with excessive age, sky breeders, poor milkers and other unhealthy conditions.
 2. Recommend four treatments per year for external parasites.
 3. To encourage rotation of pastures to help control parasites.
 4. To provide comfortable quarters for ewes at lambing time.
 5. Recommend creep feeding of early lambs.
 6. To use only purebred registered rams in the flock.
 7. To use proper method of shearing and preparation of fleeces.
 8. Provide adequate salt and water for flock.
 9. To provide one and one half acres of good permanent pasture per ewe.
 10. Encourage the feeding of good legume hay such as alfalfa with adequate grain.

ACHIEVEMENTS

11. At least six beef cattle farmers have done this.
 12. Some two or three farmers have carried this out with good financial results.
1. This was encouraged by circular letters, farm visits and news items. About 75% of the farmers did this.
 2. This was carried out by news articles, circular letters and farm visits. About 10% of the farmers did it.
 3. Most farmers did this, but did not treat sheep often enough to control parasites.
 4. Eighty percent of the farmers carried this out and most lambs were saved.
 5. A very small percent of the farmers did this. This has been strongly encouraged, but poor results have been obtained.
 6. Approximately 95% of the farmers are doing this.
 7. This practice was carried out by practically all farmers.
 8. The agent encouraged this often throughout the year. Most farmers did it.
 9. Approximately 25% of the farmers did this. Better results are expected within the future.
 10. This was strongly advocated by the agent, especially alfalfa hay, but only fair results.

GOALS

11. ~~Sheep~~ and castrate all lambs.
12. Recommend the marketing of wool where it would bring greater returns to the farmers.

E. POULTRY

1. To practice continuous culling of the flock.
2. Encourage strict sanitation methods at all times.
3. To provide comfortable houses free from draft and dampness.
4. Remove male birds from flocks unless producing eggs for hatching.
5. To feed a well balanced ration, clean, fresh water, grit and sufficient grain to maintain body weight.
6. To encourage the purchasing of chicks from State Certified Hatcheries.
7. To grow all scratch feed necessary for the flock on the farm.

F. SWINE

1. To adjust brood sow numbers to fit market demand.
2. To save all pigs possible by careful management at farrowing time.
3. To recommend the use of purebred registered hogs.

ACHIEVEMENTS

11. This was carried out by 95% of the farmers.
12. All farmers sold through the wool cooperative. A total of 15,000 pounds were marketed.

1. This was advocated by farm visits, circular letters and culling demonstrations. About 50% of the farmers carried out this recommendation.
2. The agent at all times advocated this practice, but only fair results were obtained.
3. This was strongly encouraged by farm visits and office calls. Most growers have made a move toward this goal.
4. Ninety per cent of the growers do this. Small flocks do not carry out this practice.
5. This was advocated by the agent throughout the year. Most commercial growers carried it out.
6. This has been strongly recommended by the agent with about sixty five percent carrying it out.
7. Approximately 30% of the growers grow their own feed.

1. Brood sows were reduced too much, this was due to unsettled market at beginning of the year.
2. The agent strongly advocated this practice and about sixty five percent carried it out.
3. This practice has long been encouraged with good results.

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GOALS

4. Produce enough pork for farm use first, then marketing surplus.
5. Encourage sanitary methods to prevent diseases and parasites.
6. To feed a well balanced ration with proper protein and mineral supplements.
7. To provide abundant pastures such as alfalfa, rape and Ladino clover.

AGRONOMY

1. To conduct four pasture Plant Food Demonstrations.
2. To conduct eight Corn Hybrid Demonstrations.
3. To conduct four corn hybrid demonstrations for producing hybrid seed.
4. To hold one day school for merchants and seed dealers on all phases of seeds and plant food.
5. To hold one day school for farmers on all phases of seed and plant food.
6. To conduct 22 demonstrations on pasture fertilization, liming and seeding.
7. To recommend Ladino clover and orchard grass for pastures.
8. To discourage the grazing of early spring pastures until they are 3 to 4 inches high.
9. To encourage the control pasturing of Ladino & Orchard grass.
10. Recommend an increase of 400 acres of new alfalfa in 1947.

ACHIEVEMENTS

4. Two-third of the farmers followed this recommendation.
5. This was strongly advocated by the agent on farm visits, circular letters, phone calls and office visits.
6. Approximately thirty five percent of the farmers did this. Better results expected in the future.
7. This practice has been strongly encouraged by the agent, with about six farmers starting it this year.

1. Three were carried out with good results.
2. Nine demonstrations were carried out with satisfactory results.
3. Three farmers conducted this demonstration and seed was certified.
4. This was done with assistance from the state agronomy department. Good attendance.
5. This was accomplished with about one hundred farmers attending.
6. Twenty one were conducted with records turned in.
7. This was strongly encouraged for both dairy and beef cattle farms.
8. This was carried out through meetings and farm visits. Only fair results obtained.
9. Most all farmers did this, with satisfying results.
10. Approximately 1500 new acres seeded.

GOALS

11. To encourage the harvesting of hay crops at the time of highest protein and carotene content.
12. To encourage the seeding of legumes or other grasses with leopodema.
13. To conduct a farm tour of State Experiment Station Orange, Va.
14. To conduct Orchard grass tour of the county.
15. To assist in conducting fertilizer mixing and spreading demonstration by local cooperative.

H. T.V.A. PROGRAM

1. To conduct 22 home and farm unit demonstrations.
2. To encourage these demonstrators to keep complete and accurate farm records.
3. To hold annual meeting of the demonstrators in the fall.
4. To encourage other farmers to visit these demonstrations.
5. The agent to visit these demonstrations at least twice during the year.
6. To order two carloads of super-phosphate for demonstrators in 1947.
7. To send monthly informational letters to all demonstrators.

I. AGRICULTURAL ENGINEERING

1. To encourage repair work on farm buildings.

ACHIEVEMENTS

11. About forty per cent of the farmers are doing this. The quality of all hay made in the county was much better.
12. The agent has definitely stressed this practice with very good results obtained.
13. This was carried out with about fifty farmers attending.
14. This was accomplished by aid and assistance of the agronomy department and seed dealers.
15. This was accomplished with good attendance.

1. Twenty one were conducted and carried out.
2. The demonstrators carried out this request and all records were turned in at the end of the year.
3. This was accomplished.
4. The agent requested other farmers to do this with average results.
5. This was accomplished by the agent.
6. Due to shortage of materials the demonstrators did not receive any phosphate in 1947.
7. This was carried out by assistance from the Farm Management specialist of the State College.

1. The agent advocated this but due to high cost of labor and materials little was done.

GOALS

2. To install ten new artificial hay driers in barns in 1947.
3. Recommend building of machinery sheds to house farm machinery.
4. To hold two demonstrations on open drainage of ditches by use of explosives.
5. To encourage farm families to install telephones.
6. Recommend the installation of electricity on all farm houses.
7. To recommend safety precautions in the handling of farm machinery.

J. HOME GARDENS

1. To encourage an adequate home garden on every farm in the county.
2. Recommend, through preparation of seed bed, plenty organic matter, fertilizer and proper cultivation.
3. To recommend correct sprays and dusts.
4. To ask dealers or merchants selling sprays and dusts to properly instruct farmers in use of same.
5. To recommend the purchasing of good certified garden seed.
6. All of the above items be recommended for and to urban families.

ACHIEVEMENTS

2. Six were installed.
3. This was strongly advocated but again labor and material costs were too high.
4. This was not completed due to the inability to secure explosives.
5. The agent urged this practice both to farmers and company officials. Results to date are encouraging.
6. Approximately 100 farm homes have been wired.
7. The agent worked on this in connection with the national safety campaign.

1. This was strongly advocated and most all farmers participated.
2. The agent stressed these points in farm visits, circular letters and office calls.
3. Considerable time was spent on this practice with very satisfactory results.
4. Ninety percent of the dealers did this.
5. This was stressed by news items, circular letters and office visits.
6. This was carried out through civic clubs, news items and home visits.

MISCELLANEOUS

The many unclassified duties and problems of a county extension agent will be carried on with as much care and attention as possible and will be discussed fully in the annual narrative report under "Miscellaneous."

LIVESTOCK

(Extension Teaching Methods used - county meetings, subject matter schools, method and result demonstrations, office and phone calls, farm visits, circular letters and news items.)

DAIRY CATTLE:

As stated previously in this report, dairying is the leading farm enterprise in the county. At this time farmers shipping milk to the Washington Market are receiving \$4,500 per day for their product, and the approximate figures for the year are \$1,400,000.00. This does not include the host of smaller shippers who sell locally. Therefore, one can readily see why the agent is required to spend considerable time on dairying and its related problems.

Dairy cows have been in great demand throughout the year and a large number of good producing cows have been purchased from Canada, Wisconsin and Pennsylvania. These cows have replaced those in the herd that were culled and also to increase the quantity of milk to be shipped this fall and winter. The Washington Fluid Milk Cooperative is trying very hard to supply the consumers demand by the association members without going outside the membership for milk.

Culpeper County has ninety two farmers shipping to this market at the present time, with new farmers making plans to ship to this Association. One significant fact about these dairy farmers is that although they are small in number of shippers compared to other Northern Virginia and Maryland shippers, they ship more milk per farm than any other county in the Milk Shed Area. Milk prices remain at a profitable level even with such higher labor and machinery cost, and the farmers predict fair prices for several years to come. That is, provided economical trends do not change the picture.

In 1946 Culpeper dairy farmers organized a Dairy Artificial Breeding Association. This organization started operating on March 15, 1947, and to date approximately 800 cows have been bred artificially. This program, while it has taken the greater portion of the agent's time, has so far been very satisfactory. In September 1947, Albemarle County was included in this breeding program and is now a part owner of the consolidated Bull Center. Other adjoining counties are interested in the program but so far have not definitely stated their intentions in joining the Association. There are nine bulls of the Holstein, Guernsey, and Jersey breeds at the Breeding Center and these bulls are the very best that the directors have been able to secure.

There are many different problems in dairying and the efficient dairyman realizes he must take advantage of the very latest methods and management to be able to make a profit. The agent has put forth much effort in getting the information from the State and Federal Experimental Farms to the farmer in order that he might carry out a more satisfactory job on his farm.

One of the most important methods is the D.H.I.A. and H.I.R. testing of dairy herds. The testers are employed by the dairy farmers and under the supervision of the county agent to do this testing. At present we have two testers, testing 2,320 cows in 40 dairy herds once every thirty days. With artificial breeding now in full operation, it is anticipated more herds will want to D.H.I.A. test and, if so, will require a third man to do the work.

The feed situation for the dairy farmers this winter is very bright. Again in 1947 the farmers have been blessed with a good productive crop year, and a long grazing season. Most dairymen have enough grain, insilage, and good quality alfalfa hay to feed heavily throughout the winter. This means lower cost to produce more milk and in return creates more clear profit to the farmers.

The dairy farmer is also taking advantage of the very latest methods of science, such as the curing of hay in the barn on artificial hay driers and the breeding of dairy cows artificially. A total of fifty driers are now in operation on dairy farms. Six of these were installed in 1947.

BEF CATTLE

For most of the beef cattle farmers the feed and pasture situation is parallel to that of the dairyman. At this time there appears to be plenty of feed to last through the winter. Prices for heavy beef cattle have been very favorable throughout the year and more farmers are feeding larger number of cattle than ever before. A better and more efficient market seems to be the most important project with beef cattle farmers at this time, and some leading farmers are now encouraging farmers to join the new cooperative meat packing plant at Timberville, Virginia, with the hope of somewhat solving this problem.

The Feeder Calf Association did not sponsor their annual sale in the county this year due mostly to the farmers feeding out their own calves. However, the agent did get a few farmers to enter calves in the Orange County Sale. A total of seventy five calves were sold in this sale from Culpeper County averaging around 22¢ per pound. The agent, throughout the year, has encouraged beef cattle farmers to increase the grazing on their farms, both in number of animal units per acre and new pasture acres seeded. Today more beef farmers are liming, fertilizing and seeding legumes and grasses than ever before, thus lengthening the season for grazing and producing much more economical beef on the farm.

SHEEP

Sheep farmers in Culpeper County are about the same in numbers as they have been for the past several years. This farm project has never been a

major part of farming in the county, but it has been a profitable supplement to general farming.

One carload of wool, approximately 15,500 pounds, was shipped through the United Wool Growers Association this year and returned an income to the farmers of around \$300.00.

Farmers were informed throughout the year in regard to treating their flocks for internal and external parasites, docking and castrating of lambs, and especially the use of D.D.T. for external parasites.

SWINE:

This enterprise as carried out in this county is mostly for home consumption but a few commercial hogs are raised on general farms. 4-H club boys and a few purebred farmers are doing more to promote the swine enterprise at this time, and it is the opinion of the agent that this project can be greatly expanded, especially with the smaller farmers provided they manage intelligently and produce feed on the farms. The hog farmer, like that of the beef farmer, is looking for a better market for his product and is interested in the same project at this time; that is, where the animals will be bought on a graded basis.

POULTRY:

Poultry and poultry products produced on the farms this year have been about the same as in the previous year and the farmers have had no trouble in finding a ready market for their products. However, the broiler enterprise has not been too flourishing, as the farmers were somewhat afraid to venture too far on this project due to high feed prices. Laying flocks have been paying good dividends, especially this fall, and it appears that prices will stay up most of the winter.

The agent has urged all poultrymen to practice strict sanitation methods with their flocks in order to cut down losses and prevent slumps in egg production. Culling of the flocks to save grain and to return more profit to the farmers has been strongly recommended by the agricultural workers.

The number of turkeys on farms this year are about the same as in the past and as usual farmers are thinking of marketing these birds for Thanksgiving and Christmas. Price trends are from 40¢ to 50¢ per pound on the farm, and the most efficient and well managed farmers will make a satisfactory profit on the birds. Fortunately there was a low percentage of losses this year and the feed was plentiful.

AGRONOMY

(Extension teaching methods used farm visits, method and result demonstrations, news items, farm tours, circular letters, bulletins and phone calls.)

The agronomy program is one of the major projects in the county and along

with it goes many difficult problems farmers are trying to solve from year to year. For example the harvesting and curing of good green leafy and other legume hay, the proper storage of grains and the job of harvesting these grains at the proper time. Also the controlling of crop insects and the securing of wilt and disease resistance varieties of seeds.

Field crops in 1947 produced record yields, due to a good uniform season with ample rainfall. This would indicate that most farmers will have plenty of feed for this winter and until pasture is ready in the spring. In some sections of the county a surplus of alfalfa is for sale and in other sections lespedeza and clover are for sale. Most of the surplus will be sold within the county.

The county being situated in a dairy section, naturally legume crops have been strongly recommended. The agent, along with farm leaders, has put forth special effort to get farmers to seed alfalfa and the goal is to get alfalfa on every farm in the county that is adapted to the growing of this legume crop. This acreage continues to increase each year, with about a 1500 acre increase in 1947. Most all farmers harvested their alfalfa four times and some five if they needed the hay. The average farmer and especially the dairyman realize that alfalfa is almost a necessity to produce milk economically. Artificial hay driers have greatly encouraged the growing of alfalfa, as well as a market demand which has developed in the past few years.

Oats, barley and corn are the major small grains grown by the farmers, and the latest recommended varieties from the Experimental Stations are being grown. The agent has encouraged farmers to seed these crops on a smaller acreage, to apply heavier applications of commercial fertilizers, lime and other necessary plant food elements, thereby getting increased yields per acre with less labor and less wear and tear on machinery. Secondary to the above recommendation is to get more land in grass for pasture and to protect the soil against erosion and leaching.

In cooperation with the agent, nine farmers in different sections of the county conducted hybrid corn demonstrations; each demonstrator growing three or four different varieties. All farms selected were located on highways where there was much travel so others could observe the results of the demonstrations. These demonstrations were outstanding and well worth the time and effort spent in getting them carried out. In addition to these, there were three demonstrators growing hybrid corn for seed and under certification of the state seed association.

The agent, in cooperation with the Plant Food Institute of Raleigh, N. C., carried on pasture demonstrations which were conducted on three farms in the county. The fertilizer was furnished by the Plant Food Institute and the farmers and agent worked together in carrying out the demonstrations. Results for the first two years have been very satisfactory and the demonstrators are very interested in finding out the correct analysis and rate of application of fertilizer that will give them the best results on the pastures.

There are twenty one T.V.A. demonstrators in the county carrying on pasture and hay land improvements demonstrations by the use of fertilizer, lime, and manure reinforced with phosphate.

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The agronomy program, even with difficult problems to solve, is scientifically farther ahead than any other phase of agriculture in the county, but there is still plenty of progress to be made. With the assistance of the Federal and State Experimental Stations agronomy in the county will continue to go forward.

EXTENSION T.V.A. PROGRAM:

There are twenty-one active demonstration farms in the county at the present time. Complete and accurate records were turned in for last year by all but one demonstrator. This program has been of untold value in the communities and neighborhoods and has really served as method and result demonstrations. No T.V.A. phosphate was received by the demonstrators in 1947, but they are still cooperating and carrying out the demonstrations as well as turning in complete farm record books to the agent.

Reports from the demonstrators in 1947 show that 105 acres of new pasture was established; 1739 acres of old pasture phosphated in 1947; 2630 acres of old and new pastures and meadows fertilized with commercial or AAA phosphate; 823 acres of hayland phosphated and limed in 1947; 217 acres of alfalfa established; 595 acres of clover and lespedeza; 1648 tons of lime applied on these farms in 1947; 21 farms rearranged their fields and crops in relation to soil type and slopes; 31 prevented leaching by sowing winter cover crops and 21 protected woodland from grazing. The report showed 97.5 acres of seriously eroded land on the demonstration farms. All demonstrators reported from twenty to thirty days increased grazing on their farm since the beginning of the program.

COOPERATIVES AND COUNTY ASSOCIATIONS:

There are eight cooperatives and associations located in the county; all of which the agent has worked with throughout the year. They are as follows: County Farm Bureau, R.E. A., Frozen Food Cooperative, Northern Virginia Artificial Breeding Cooperative, Culpeper Artificial Breeding Association, D.N.I.A., Feeder Calf Association, and the United Wool Growers Association. These organizations are always ready to help and promote agricultural programs in the county. The most interesting fact is that these organizations continue to grow each year in volume of business and membership.

FARM LABOR PROGRAM:

All work pertaining to this program was handled by the extension stenographer and county agent. This consisted mainly of trying to locate and place workers on farms when available, or trying to fill the requests of farmers who needed labor. The extension workers cooperated with the local United States Employment Service in contacting farmers and trying to place workers on farms when they requested it. The stenographer filled out all labor reports requested by the State labor committee and also maintained a list of farmers who were in need of laborers. Farmers were encouraged to interchange labor and machinery and to make use of all custom work possible. This was successfully carried out.

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OTHER AGRICULTURAL AGENCIES

P. E. A. PROGRAM :

The agent has cooperated with the County Production and Marketing Administration committees when called upon and assisted in all educational work throughout the year. This program has been operated very efficiently by the chief clerk and the county committee, and they should be commended for the splendid job they have carried out in 1947. The agent has strongly encouraged all farmers to participate in this program, in order that more lime and fertilizer might be used on their farms and thereby increasing the fertility of the farms and more profits to the farmers.

SOIL CONSERVATION SERVICE :

The office and personnel of the Calpeper Soil Conservation District are located in the same building as that of Extension and serves five counties from this location. The agent has cooperated in this program when called upon, and in return has received outstanding cooperation from the Soil Conservation office personnel and field workers. Farmers have been encouraged by the agent to take advantage of this service and to follow the farm plans that are drawn up by the S.C.S. workers. Considerable work has been carried out in 1947, such as farm ponds, strip cropping and other conservation practices.

LOAN AGENCIES:

The agencies now operating in this county are local banks, Farm Home Administration, Production Credit, and Federal Land Bank. All of these agencies have been very cooperative and ready to loan money to farmers that really need loans and are capable of handling them. All of these establishments are very much interested in progressive agriculture in the county and throughout the year have participated in all educational work featured for the farmers. One of the local banks employed an agricultural specialist to work with farmers on loans and to supervise these loans. The agent has encouraged this program for some time, believing it to be sound and most convenient to local farmers. All agencies are in agreement with the county agent that now is the time to pay off farm debts while prices are up, and to borrow as little money as possible. It is a pleasure to report that this is being followed by a large number of farmers.

SUMMARY OF AGENT'S WORK IN 1947

In summing up the year's work - the results are as follows: 111 days in office; 165 days in the field; 334 farm visits made and of this number 193 were visited for the first time; 1126 office calls; 1428 phone calls; 104 news items published; one radio broadcast; and 631 bulletins distributed. There were 7 method demonstration meetings held with 166 attending; 57 adult result demonstrations conducted; and 2 tours conducted with 90 farmers attending. In addition to the above statistics, 39 other meetings were held with a total attendance of 127 people.

The over all picture of the agricultural Extension Program in the County is not entirely satisfactory to the agent, especially concerning those farmers who do not seem to have a desire to progress. The agent is trying to reach these farmers and to encourage them to plan and operate their farms in the most profitable way.

THE LOOK-A-HEAD PROGRAM

The continuation of a long time program in agriculture for farmers of Culpeper County might be summarized as follows:

1. An increased acreage of alfalfa in the county; this to be accomplished by more acreage on farms already growing this crop; and new acres seeded on all farms where alfalfa is adapted. Also heavy applications of lime and fertilizer each year.
2. New seeding or improvement of permanent pastures by reseeding with Ladino Clover and Orchard Grass, heavy applications of lime, fertilizer each year, and clipping these pastures as often as necessary to maintain a good stand of grass.
3. To increase the services of the Dairy Artificial Breeding Association. To breed 500 additional cows each year until a maximum of 6000 Dairy cows has been bred artificially.
4. To establish a cooperative market outlet for all meat animals, whereby these animals will be bought from the farmers on a graded basis.
5. To establish more method and result demonstrations throughout the county and to give ample publicity to these demonstrations.
6. To conduct schools for the purpose of giving subject matter to the farmers on how to operate their farms on a more profitable basis.

COOPERATION WITH CIVIC ORGANIZATIONS

Listed below are the civic organizations the agent has worked with throughout the year, and their sympathetic cooperation in Extension Work has been very encouraging to the extension workers: Churches, Schools, Lions and Rotary Clubs, Chamber of Commerce, Salvation Army Corp, T. B. Association, Fraternal Lodges, and Retail Merchants Association.

The extension agent is a member of most of these organizations and attends their regular meetings.

CONCLUSION

The agricultural extension specialists from the State College have been called on for major projects throughout the year. This assistance has been of untold value and greatly appreciated by the farmers and agents. Their work has resulted in new methods and techniques, which have been put into practice by the farmers of the county. The agent wishes to express his appreciation for their fine spirit of cooperation and to give recognition to these men, whose names are listed below:

H. E. McSwain	District Agent
J. G. Bruce	Asst. District Agent
E. T. Swink	Assoc. Agric. Engineer
J. E. Collins	Asst. Agric. Engineer
J. A. Waller, Jr.	Assoc. Agric. Engineer
G. C. Graf	Assoc. Dairy Husbandman
R. G. Connelly	Dairy Husbandman
W. H. Armstrong	Asst. Dairy Husbandman
P. M. Reeves	Dairy Husbandman
M. L. Dalton	Asst. Animal Husbandman
George Herring	Animal Husbandman
George Litton	Asst. Animal Husbandman
D. T. Painter	T. V. A. Supervisor
G. G. Dickenson	Farm Management Specialist
H. L. Dunton	Agronomist
W. H. Lewis	Assistant Agronomist
P. H. Dehart	Agronomist
T. J. Smith	State Experimental Station Specialist
Dr. A. Vieler	State Experimental Station Specialist
S. B. Ferne	Plant Pathologist
John Foster	Asst. Dairy Husbandman
Gordon A. Elcan	State Boys' Club Agent

Mr. J. G. Bruce, assistant district agent, has given valuable advice in all agricultural problems, especially in agronomy and 4-H club work which has been greatly appreciated and all the farmers have profited by his sound advice.

Mr. H. E. McSwain, district agent, has also given valuable assistance to the agent and 4-H club agent throughout the year. He has made frequent visits to the county and each time gave assistance and information that proved very helpful to the agent and farmers.

Miss Margaret Virginia Yancey has been extension stenographer in the county agent's office for the past six years, and her work has been of the highest type and most efficient at all times. She is responsible for all the office work; the home agent, assistant county agent, and the county agent relying on her for all stenographic work. In addition to the above, she assists two D.H.I.A. supervisors, and many of the farm organizations. Her work, so well

performed and carried out, has contributed greatly to the Extension program throughout the year.

The following persons, other than Extension Specialists, have given valuable services during the year and this cooperation has been most gratifying and appreciated by the Agent:

G. C. Harris . . .	Chairman County Board of Agriculture
Silas Miller . . .	F. M. A. Chief Clerk.
Francis Yancey . . .	P. M. A. County Committee Chairman
L. B. Henry . . .	District Soil Conservationist
W. K. Miller . . .	F. M. A. Supervisor.
Giles W. Miller . . .	Banker
Floyd White . . .	Key Banker
Richard E. Jones . . .	Agricultural Representative Culpeper Nat'l. Bank.
C. E. Tinsley . . .	Chairman, Northern Virginia Feeder Calf Assoc.
A. D. Scott . . .	Secretary, Northern Virginia Feeder Calf Assoc.
Jere White . . .	Director, Culpeper Feeder Calf Association
John Willis . . .	Secretary-Treasurer D.H.I.A.
Paul Hounshell . . .	Supt. of County Schools.
R. E. Tolbert . . .	Vocational Agric. Instructor
S. C. Broyles . . .	G. I. Agricultural Instructor
R. S. Apperson . . .	G. I. Agricultural Instructor
J. C. Eller . . .	President, Artificial Breeding Assoc.
Earl Hawkins . . .	Treasurer, Artificial Breeding Assoc.
A. G. Willis . . .	Secretary, Artificial Breeding Assoc.
H. R. Hawkins . . .	Inseminator, Artificial Breeding Assoc.
Chester Hetch . . .	Maryland-Virginia Field Representative
