ANNUAL NARRATIVE REPORT

COUNTY EXTENSION WORK

Virginia Agricultural Extension Service

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1958

Middlesex
County

ANNUAL REPORT

ON

THE EXTENSION PROGRAM

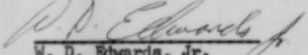
IN

MIDDLESEX COUNTY

FOR

1958

BY



W. D. Edwards, Jr.
County Agent
Middlesex County

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MIDDLESEX COUNTY

Middlesex County lies in the Chesapeake Bay Region. It is bordered on the north by the Rappahannock River and on the east the Chesapeake Bay. It is bordered on the west by Essex County and on the southern border by King & Queen, Gloucester and Mathews Counties.

The climate is moderate in both winter and summer. The temperature is tempered by the ocean breeze. The humidity is relatively high most of the time. The average annual rain fall is approximately forty-two inches. The average growing season is two hundred and twenty-two days as recorded by the weather bureau located within the county. The farms near the river have a little longer frost-free seasons and the soils are a little more sandy which gives them some advantage of early and late growing seasons.

The soils are alluvial soils. They vary from sandy to clay soils. Most of the soils are well drained to intermediately drained; however, very few of the soils are poorly drained. The pH of most of the soils is rather low except where they have been corrected by the use of lime. The phosphate and potash content of the soils are relatively low. Organic matter content is relatively low; however, a continuous supply of this matter is being turned into most of the soils each year. Weather prevents the building up of large organic matter content. The major soil types are Galestown, Sassafras, Kempsville, Woodstown, Dragston, Fallsington, Atlee and Wayside. The soil samples appear to show some build-up in the lime content, and phosphate content of the soils from previous years. The soils that have not had liberal application of liming materials and phosphate fertilizers still show to be low in these plant foods. The nitrogen content of the soils vary greatly from farm to farm and from year to year. It appears that potash is not being built up in the soils to any great extent.

There are 643 farms in Middlesex County which vary in size from small part-time farms to large estates. The large estates are usually owned by the absentee landlords and the part-time farms are usually owned by the oystermen and fishermen. Some of the oystermen and fishermen own and operate medium size farms.

The county has a varied type of agriculture. Most of the farms are classified as general farms. The trend is to large but moderately diversified types of agriculture. The leading farms will usually select maybe two or three different types of agriculture and develop along these lines. Some of these combinations are livestock and vegetables, turkeys and beef cattle, dairying and turkeys, and dairying and soybeans. Very little attempt is being made to diversify beyond one or two lines. The number of dairy cattle over the past forty to fifty years has been downward although commercial dairying has been introduced and has continued to grow during this period. The family cow is almost a thing of the past in Middlesex. Beef cattle are increasing. The increase is taking place on the large farms. The small farms do not have enough pastures and hay to feed beef cattle.

EXTENSION ORGANIZATION AND PROGRAM PLANNING

SITUATION:

The Agricultural Extension Service is a part of the Land Grant Colleges. These Land Grant Institutions were started about 100 years ago to teach agricultural and mechanical arts. It was found that more information was needed in teaching agriculture so the Agricultural Experiment Stations were started at a later date. These experiment stations gathered considerably information that would be valuable to the farmer and in 1914, the present Agricultural Extension Service was formed for the purpose of taking valuable information in Agriculture and Home Economics to the people of the United States. In 1938, the Agricultural Extension Service began in Middlesex County with the employing of a county agent. In 1955, the Home Economics phase of Extension was begun in the county.

The Land Grant Institutions have grown to large and influential institutions in all the states. These institutions include residence teaching in agriculture and engineering, agricultural research or the Agricultural Experiment Stations and the Agricultural Extension Service. Some research is also being done in engineering.

A County Extension Advisory Committee was organized in 1948. This committee has been re-organized from time to time. The present committee consists of a County Board of Agriculture with 12 members and three special interest committees. The 4-H County Council was organized in 1938 or 1939. It has been re-organized from time to time and was completely re-organized in 1955. A Home Economics Committee was organized in 1955 also.

PROBLEMS AND NEEDS:

The County Board of Agriculture, the 4-H County Council and the Home Economics Committee should be represented on an overall County Extension Board.

GOALS:

1. To re-organize the County Board of Agriculture.
2. To organize and re-organize some of the Commodity Committees.
3. To organize an overall County Extension Board.

Extension Organization and Program Planning

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METHODS:

The Virginia Agricultural Extension Plan of Organization will be followed in attempting to reach the goals. As much freedom in the planning for the county program will be given as long as such planning comes within the Federal and State Agricultural Extension Service policies. Not many changes will be made in the 4-H Club County Council as this council was re-organized in 1955.

RESULTS:

The 4-H Club County Council has re-organized and is a good functioning organization.

The re-organization of the Middlesex County Board of Agriculture has not been undertaken during the year.

A Forestry Committee has been organized and considerable interest has been shown in forestry work and improvement.

CROPS

Production and Marketing

SITUATION:

Corn is the major grain crop in the county. Wheat is the second major grain crop. About 3 acres of corn is planted for each acre of wheat. Both of these grain crops have been decreasing in acres during the past fifty years. Just after World War I, more corn was grown than at any other previous time. At present, we are planting about 40% as much corn as was grown during this time. In 1929, 11,180 acres of corn was grown in the county and in 1954, 4,238 acres of corn was grown. 1880 was the highest wheat year with 3,646 acres of wheat grown, and about half this much was grown in 1954 on 1,626 acres.

Corn is sold on the terminal markets and used for dairy feed, furnishing beef cattle, poultry and hog feed. Over 50% of the corn has been sold on the terminal markets during the past 5 years.

The acres of wheat has increased according to the 1949 and the 1954 census. Wheat yields have increased during the past few years. This increase is due to the usage of better varieties, favorable weather and probably better fertilization for the small grain production.

Hay and pasture production has changed. Twenty-five years ago, pasture and hay was grown chiefly for feed for the farm work stock and the family cow. Today the farm work stock and the family cow are things of the past. About all of the hay and pasture today is grown and used by the commercial dairymen, beef producers and hog producers. Middlesex County does not have permanent pastures as they are known in Southwest Virginia. Permanent pastures in Middlesex will last three to five years and then they need to be plowed up and completely reseeded.

There has been a drastic change in soybean production during the past twenty-five years. The first soybeans were grown chiefly for hay but today, almost all of the soybeans are grown for oil. The acres, shifted from corn production, have been planted mostly with soybeans. The acres planted to corn and soybeans thirty years ago will about equal the acres of corn and soybeans today.

The family orchard of yesteryear has gone and the present fruit production is limited to a few commercial orchards. High quality peach and apple production is possible by following good production methods.

Crops - Production and Marketing

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OBJECTIVES:

1. The overall objective in crops is to produce the needed food and fibers for human consumption.
2. To produce crops at the lowest total cost.
3. To make a maximum return from crop production.

METHODS:

The methods that are planned are all methods of communication. They will range from mass media for awareness to the use of neighbors and friends and extension personnel work by the county agent.

1. Conduct tours to the Agricultural Experiment Stations.
   a. Spring and fall tour to the Experiment Station at Warsaw.
   b. Probably one tour to the Virginia Truck Experiment Station.
   c. Probably a livestock tour to the Experiment Station at Warrington.
   d. Probably a tour to Hollard's Experiment Station on hogs.
   e. Probably a tour to the National Research Center at Beltsville, Maryland.

Corn

Goals:

1. To increase the yield of corn 10% within the year.
2. To get farmers to plant hybrids adapted to our area.
3. To get 10% more farmers to side-dress their corn with nitrogen.

Results:

Corn yields were larger this year due mainly to good weather conditions during the growing season. Also better fertilization and increased use of liquid nitrogen for side dressing helped. Some farmers reported corn yields as high as 120 bushels per acre. Some farmers in the northern end of the county reported an average yield of approximately 90 bushels. On the average, this year is the best corn crop in several years.

Small Grain

Objectives:

1. We are producing about as much small grain as we can market at a reasonable return.
2. Small grains provide a much needed winter cover crop for our soils.
3. Farmers should comply with wheat allotments and quotas.

Goals:

1. To maintain small grain yields and acres at about the 1955 and 1956 level.
2. Introduce or get more widely planted the following varieties: Oats - Woodgrain; Barley - Hudson and Davie; Wheat - Anderson, Coker and Taylor.
3. Visit the Eastern Virginia Agricultural Experiment Station at Warsaw during small grain growing season.

Results:

Small grain yields were larger this year due to better weather conditions and fertilization. Most of the farmers planted the recommended small grain varieties recommended for this area. Farmers complied well with wheat allotments and quotas this year.

Hay and Pasture

Objectives:

1. The production of hay and pasture is important to our dairymen and livestock producers.
2. Hay and pasture needs to be improved for our dairy animals and beef animals.
3. Hay and pasture needs to be improved especially in view of internal parasite control.
4. Better control of winter grass in alfalfa is needed.

Goals:

1. Spray all alfalfa fields for the control of the alfalfa weevil.
2. Soil test all fields that are to be seeded in alfalfa.
3. Get as many farmers as possible to seed orchard grass and ladino clover for their pastures.
4. Encourage all hog producers to seed a ladino clover pasture for their hogs.

Results:

Alfalfa and pasture yields were higher this year than for several years because of better weather conditions and good spray programs for both the alfalfa weevil and chickweed. Also better fertilization programs were used on alfalfa and pastures.

Soybeans

Objectives:

1. We need a better soil management practice with our soybean production.

Goals:

1. Get as many farmers as possible to soil test their land for soybean production.
2. If soybeans this year appear to have insects or diseases on them, get as many farmers as practical to follow the best known control programs.
3. The Lee soybean should be evaluated a little more by the majority of the farmers.
4. Chemical weed control in soybeans should be tried out on a limited extent this year.

Results:

Soybean yields were very good this year because of good growing season, better fertilization, liming and rotations. Some farmers reported yields on early soybeans around 40 bushels per acre with an average of about 31 to 33 bushels. Yields of soybeans behind small grains are averaging from 20 to 25 bushels per acre.

More farmers are taking soil samples of the fields that are being planted to soybeans because they are realizing how important lime is to soybean production.

About 30% of the soybeans in the county were sprayed for the velvetbean caterpillar with good results.

Fruits

There are only two commercial fruit growers in the county. The methods used in fruit work were more or less directly from the fruit specialist to the grower. They received the spray programs sent out from VPI.

Several orchard visits were made by the fruit specialist during the year.

LIVESTOCK PRODUCTION AND MARKETING

DAIRY ANIMALS

SITUATION:

The dairy cows have left the small or general farms and have become centralized on commercial dairy farms. The number of dairy cows has decreased during the past forty years. About 85% of all the dairy cows are found on the commercial dairy farms.

The great demand for fluid milk in the Newport News and Norfolk areas during the war has greatly increased the commercial dairying in Middlesex County.

OBJECTIVES:

1. Promote better dairy animals.
2. Plan for good production during base setting periods.
3. Eliminate and control as many diseases and parasites as possible.
4. Increase the production per cow.

GOALS:

1. Cull out the lowest producers. A 5% to 10% greater than average culling is set as a goal. In some herds production minimums should be set.
2. Cull out chronic mastitis diseased cows. Most herds have mastitis trouble but one or two should be culled this year.
3. Vaccinate heifers at the ages of 4 to 8 months for Brucellosis, preferable at 6 months. Keep good records of vaccinated heifers.
4. D. H. I. A. testing should be strengthened.

RESULTS:

A Brucellosis vaccination tour of all dairy heifers between the ages of 4 and 8 months is planned for December. The survey of the number of dairy heifers to be vaccinated has already been made.

Two dairies are having D. H. I. A. testing.

Artificial breeding is being done in two dairies and more dairymen are being encouraged to use this method of breeding.

A meeting of Middlesex dairymen was held in September on bulk tanks and the hauling of bulk milk. Two dairies are using bulk tanks now and as a result of the meeting on bulk tanks, three more dairies plan to install them within the next few months.

BEEF CATTLE

SITUATION:

Beef cattle numbers were down to less than 100 head during the depression in the 1930's but the numbers are up to 1,500 and 2,000 head at the present time. The purchasing of feeder calves in the fall and winter feeding with a summer pasture season and a short fall feeding period has become popular with some of the producers.

PROBLEMS AND NEEDS:

1. Breeding, feeding, management, financing, etc., are common to beef cattle production.
2. The farmers who buy and feed out cattle need the best quality.
3. Pasture and feed supplies are needed.
4. A few cow herd producers should sell some cows and buy better foundation cows for breeding.

GOALS:

1. Seed 25% more pastures this year than normal.
2. Most or a part of the producers spray for lice. Get this practice adopted by 95% of the producers.
3. Get all feeders to purchase top quality animals.
4. Get one cow herd producer to try purchasing a few feeder calves this fall.

METHODS:

1. Put on a special pasture seeding program in August or in time for fall seeding.
2. Use neighbors and friends to persuade the producers who are not spraying for lice to try it this coming fall and winter.

3. Use some of the more successful feeders as demonstrators in feeding and management.
4. Encourage prospective buyers and sellers to attend some of the feeder calf sales.
5. Work individually with at least one-half of the producers on their individual problems.

RESULTS:

Spraying and dusting for lice has been carried out by a fairly large percent of the commercial beef producers.

The purchasing of feeder calves and feeding them to reach a grade of good plus and choice around 1,000 has continued.

Approximately 50 feeder calves were bought at the fall feeder calf sales in Richmond and Fredericksburg this fall. A large number of calves were bought from local farmers and at local auctions because of the high prices at the feeder calf sales.

A Brucellosis vaccination tour of all beef heifers between the ages of 4 and 8 months is planned for December.

POULTRY

SITUATION:

Poultry has been fairly important in the county. Most of the poultry is raised by the commercial producers; however, chickens are found on over half of the farms in the county. The turkeys are raised by two commercial producers with the exception of a very few small producers. About all of the ducks are raised by one commercial producer.

In 1954, 79 farmers reported selling 30,987 chickens and 3 farmers reported selling 8,200 broilers. Twenty-eight farmers reported raising 39,628 turkeys.

Livestock Production and Marketing

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PROBLEMS AND NEEDS:

1. Commercial broiler production is increasing in the county. These new producers usually need special help at times.
2. The lack of poultry disease control.
3. Broiler and egg marketing is a big problem.
4. Keeping eggs so as to maintain high quality.

GOALS:

1. Cooperate in conducting a Tri-County Poultry winter meeting.
2. Cooperate in conducting the Tri-County summer meeting and tour.
3. Visit all 4-H projects in poultry.
4. Conduct a county general poultry meeting with the aid of the poultry specialist.
5. Publish four newspaper articles on poultry production.
6. Mail poultry producers poultry suggestions.
7. Visit some of the commercial producers with the extension poultry specialist.
8. Do some educational work on building and equipping poultry houses.

METHODS:

1. The use of specialist to meet special production problems.
2. The use of specialist and the Virginia Department of Agriculture and Immigration Diagnostic Laboratories to determine diseases.
3. Individual assistance.
4. Help conduct the Tri-County poultry winter meeting.

RESULTS:

The Tri-County Poultry Meeting was held in Urbanna with fair attendance.

The series of poultry pellets are mailed all poultry producers in the county.

Disease prevention and vaccination is carried out to a large degree by all the larger poultry producers in the county.

We have one producer in the county who raises cage replacements for several cage layers in surrounding counties.

Several businessmen, bankers, producers and agent attended the Tidewater Poultry Development Council Meeting at Tappahannock in June.

SWINE

SITUATION:

In 1954, 354 farmers reported 2,513 hogs. The number of farms reporting hogs has decreased about 25% with only a slight reduction in the total number of hogs reported.

OBJECTIVES:

1. Produce hogs at the lowest cost.
2. Control diseases.
3. Control internal parasites.
4. Control external parasites.
5. Vaccinate pigs when they are small.

GOALS:

1. Increase hog pastures by 25%.
2. Try to meet disease problems as they come up.
3. Get a 25% increase in the number of hogs vaccinated against cholera.
4. Get a 25% increase in pigs treated for worms and lice.

METHODS:

1. Put on a special pasture seeding program in August.
2. Encourage the pig producers to vaccinate all pigs that he raises.
3. Use newspapers, radio, demonstrations in promoting internal and external parasite control.
4. A tour to some of the experiment stations that conduct swine research may be undertaken during the year.

RESULTS:

Hog pastures have probably increased about 10%. More clover (ladino) is being used for hog pastures.

The number of hogs and pigs vaccinated for cholera has increased about 15%. The Tappahannock Feeder Pig Sale helped to bring about the increase in the number of pigs vaccinated.

There has been a little increase in the number of pigs treated for lice and worms.

Three farmers consigned 89 pigs to the Tappahannock Feeder Pig Sale. The pigs brought good prices at the sale and the consigners were well pleased.

FARM BUILDINGS AND MECHANICAL EQUIPMENT

SITUATION:

Farmers have gone to power equipment. More and more power equipment is being used. The plowing of the fields have long changed from horse power to tractor power but only recently have the orchardmen changed from the hand clippers to power clippers. Our entire farms are geared to one type of power or another. In case of war, and power failure in the farm or electrical power and gasoline power failures, our farms would not be able to operate.

OBJECTIVE:

We need better and more information on all types of farm buildings and equipment.

GOALS:

1. Help each individual farmer with building plans if he requests such help.
2. Discard from 25% to 50% of the farm building plans now on file in the office.
3. Have farm building plans returned to the County Agent's office when the farmer is through with them.

RESULTS:

One farmer has constructed a pig parlor and another has constructed a central farrowing house. The agent worked with both farmers.

Several farmers have built holding chutes.

SOIL AND WATER CONSERVATION AND MANAGEMENT, FORESTRY AND WILDLIFE

SITUATION:

The soils in Middlesex County are soils that have been eroded down from the higher parts of the county. They vary considerably from sandy to clay soils but most of them are sandy loams in nature.

Water in general, is fairly plentiful. Shallow wells supply most of the farms with plenty of water and larger amounts of water are available in deep wells that run from 200 to 300 feet in depth.

Farm markets are fairly close to the county: Richmond, Virginia; Washington, D. C.; Baltimore, Maryland; Newport News, Virginia; and Norfolk areas are the chief markets.

In 1954, the census reported $20,320 worth of firewood, piling logs, lumber, pulpwoods, and poles sold by 41 farmers. Middlesex County has around 132 square miles in area. Estimating that between one third and one half of the area, it is in woods or between 28,160 to 42,240 acres. The Forestry Department at VPI estimates that a 40 year old stand of loblolly pine should cut 27 thousand board feet per acre. If the wooded area is cut every 40 years, we would be cutting from 700 to 1000 acres each year. Not all of the area is good loblolly pine, but if we take only one half of the VPI figures, we would be cutting from 9,450,000 to 13,500,000 board feet of timber per year. At $25 per thousand board feet stumpage, Middlesex County would be cutting from 236,250 to 337,500 dollars worth of timber per year. In comparing census data of 20,320 dollars of forestry products to the computed figure of 236,250 dollars to 337,500 dollars worth, there is a considerable amount of difference.

The Virginia Forestry Service gives the following information: Middlesex County has approximately 52,200 acres of commercial forest exclusive of public reserved and other non-commercial forest land. About 55.3 per cent of the timber is softwood (loblolly pine, Virginia pine, shortleaf pine, red cedar and other softwoods), and 44.7 per cent is hardwoods (gums, white oak, red oak, yellow poplar, hickory and miscellaneous hardwoods.) The Virginia Forestry Service estimates that annual growth amounts to 8,104,000 board feet and annual drain to about 10,766,000 board feet.

Soil and Water Conservation and Management, Forestry and Wildlife

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PROBLEMS AND NEEDS:

We need to analyze the soil and water situation and plan an extension program to help solve some of our problems.

Properly treating soils with lime is one of our major problems. We have made considerably progress in the direction; however, our problem is to get the individual to get all soils limed properly that need it.

An adequate supply of water is needed for irrigation in many places in the county. Some of the ponds are not holding water and more information is needed as to the construction of ponds.

Background information as to forestry in the county varies considerably. Undesirable hardwoods often take over cut-over areas rather than coming back to pine or other desirable trees.

GOALS:

Soil and Water

1. We first need to plan a program by analyzing the situation, determining the problems and needs, establish goals and plan methods of obtaining such goals.

Forestry

1. Get some better background information as to forestry conditions in the county.
2. Continue the forestry demonstration at Warner.

METHODS:

Soil and Water

1. Use Extension methods of working up an Extension Program on this phase of work.

Forestry

1. Use aerial photographs and spot check some areas in the county.
2. Use newspapers and circular letters to promote better forestry in the county.

Soil and Water Conservation and Management, Forestry and Wildlife

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RESULTS:

Soil and Water

One farmer has installed tile drain in a field that he had trouble with being wet. He is very pleased with the results of the tile drain. Several farmers have put in sod waterways and ditches.

The commercial users of water in the county feel their supply of water is adequate even though the water table has dropped a little in the last few years.

The municipalities in the county depend on deep wells for their water supply.

Forestry

Approximately 94 acres of land has been bull-dozed by Chesapeake Corporation and 20 acres by a private bull-dozer. This land will be planted in pine seedlings in December.

The agent has been cooperating with the Virginia Forestry Service and ASC program to promote more and better forestry practices in the county.

In 1956 - 1957, 78,000 pine seedlings were set out. In 1957 - 1958 140,000 pine seedlings were planted. With more interest developing in forestry, we expect an increase of pine seedlings to be set in the next several years.

4-H CLUB WORK

SITUATION:

Extension work was organized in the county in 1938. This included organization of 4-H Clubs. The 4-H Club enrollment averaged a little better than 100 members except during the war years when enrollment dropped considerably. With the beginning of the Home Demonstration work in 1955, it appears that the enrollment will average a little better than 200 members. A fairly strong 4-H Club County Council was organized in 1955.

PROBLEMS AND NEEDS:

The problems in 4-H Club work are many and probably common to many of the counties in the State.

GOALS:

1. Maintain the present enrollment or increase some if possible.
2. Offer a wider selection of projects.
3. Increase the per cent of completions.
4. Increase the total number of boys and girls attending camp.

RESULTS:

The 4-H Club sponsored the Middlesex County Youth Round-Up in October. The day consisted of exhibits, horse show and a parade. Each of the seven 4-H Clubs in the county had a float in the parade. Approximately 800 people attended the Youth Round-Up.

The County Council met three times during the year and helped plan the year's program of work and activities.

Representatives from each 4-H Club met to plan the club projects for the year.

Rural Life Sunday was observed by all clubs.

National 4-H Club Week was observed. 4-H members wrote news articles and gave a radio program on National 4-H Club Week.

A "Share the Fun" program was held with approximately 100 attending.

Twelve 4-H members attended Jamestown 4-H Camp and one boy attended older youth camp.

FARM AND HOME DEVELOPMENT

SITUATION:

The farm and Home Development Program is in its third year of operation in Middlesex County. Complete farm plans have not been worked out for any one farm. Some of the planning has not been written up as definite farm goals and some of the goals have been changed from time to time.

OBJECTIVE:

To increase the Farm and Home Unit Approach method of doing agricultural extension work.

GOALS:

1. Work with at least six families.
2. Devote more time to this project.

RESULTS:

The agent has worked with two families in Farm and Home Development.

Both of the farms are dairy farms and the agent has worked closely with them in planning rotation, livestock disease control and the purchasing of dairy herd replacements. Both of the farmers are planning to install bulk milk tanks.