



EXTENSION'S FIVE YEAR

AGRICULTURAL OPPORTUNITIES PROGRAM



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This program is the Agricultural Extension Service's part of the Agricultural Opportunities Program developed by the North Carolina Board of Farm Organizations and Agricultural Agencies in 1961. This program called for "Expanding and Developing Agricultural Opportunities in North Carolina."

- 1. To Increase Farm Income
- 2. To Develop Marketing and Processing Facilities and Services
- To Promote Education for Family and Community Development.

Published by the North Carolina Agricultural Extension Service, May, 1962



How It Came About

Agriculture, which has played the major role in the economic de-lepoment of North Carolina since its beginning, will continue to velopment of North Carolina since its beginning, will continue to be the backbone of the state's economy for many years to come. Thus, it is appropriate to look ahead, to plan ahead, and to work for an

This projected program has been developed from 100 county pro-This projected program has been developed from 100 county programs by the Agricultural Extension Service at North Carolina State expanding agriculture in the state. College. In each county the extension advisory boards worked with the county are extension auvisory poarus worked with the county are extension at fin developing a program and setting up an county extension stair in developing a program and setting up an income goal for the people of the county. These income goals are income goals for the people of the county.

In the meantime, committees at State College representing various In the meantine, committees at State Conege representing various subject matter areas were projecting what they thought were realistic shown on pages 16 and 17. subject matter areas were projecting what they thought were reasset figures on where agriculture in the state might be five years from now.

Highlights of these reports are shown on pages 4-9. Then the figures were put together, and the final figures were developed. The goal of approximately 1.6 billion dollars in 1966 was

veropeu. The goal of approximately 1.0 office donars if established. The statewide figures are shown on page 2. The setting up of county and state income goals is only one small part of this program, however. The Extension Service is taking a part of this program, nowever. The extension Service is taking a close look at its whole operation—the clientele to be served, the strucclose look at its whole operation—the chelicule to be served, the structure of the organization, and other factors that have a bearing on making the service of the most value to the citizens of the state.

Thus, not only in production and marketing, but in all phases of extension's activities are new programs being developed. Reports on home economics, youth, and community and area development are

And as rural income increases, and family living improves, all And as rural income increases, and lanny living haproves, all North Carolinians will benefit. The impact the new program is expected to have on agriculturally related business is shown on page 3. given on pages 10-13.

Close to 2,000 people had a part in developing this program. It is close to z,uou people had a part in developing this program, at is a program developed by the people and for the people of the state. The a program developed by the people and for the people of the state. The Agricultural Extension Service is pleased to be working with the people of the state on this important program. W. Thoffeer

N. W. SHUFFNER DIRECTOR
N. C. AGRICULTURAL EXTENSION SERVICE R. W. SHOFFNER DIRECTOR

1966 Farm Income Goals

| | Dollars | Percentage Increase Over 1961 |
|---|---------------|----------------------------------|
| Tobacco | 623,926,534 | 16 |
| Cotton | 85,688,602 | 41 |
| Peanuts | 39,241,493 | 19 |
| Corn | 44,369,448 | 1 * |
| Soybeans | 47,137,200 | 40 |
| Small grains | 26,080,801 | 4 * |
| Hay and other crops | 14,836,831 | 17 |
| Fruits, nuts, vegetables, greenhouse and nursery (including potatoes) | 98,474,899 | 29 |
| TOTAL CROP | (979,755,808) | (22) |
| Hogs | 92,881,467 | 43 |
| Cattle | 59,048,068 | 38 |
| Poultry and Eggs | 218,412,782 | 32 |
| Dairy | 80,487,674 | 22 |
| Other livestock and livestock products | 17,116,295 | 21 |
| TOTAL LIVESTOCK AND | | 1-4-1-1 |
| LIVESTOCK PRODUCTS | (467,946,286) | (33) |
| Forestry | 98,176,003 | 13 |
| TOTAL SALES | 1,545,878,097 | 24 |
| GOVERNMENT PAYMENTS | 28,758,686 | same |
| TOTAL | 1,574,636,783 | 24 |

^{*} Additional production gains are recorded as increased sale of livestock

Total State Economy to Benefit

Agribusiness is big business in North Carolina, accounting for a major share of our income. In 1961, agribusinesses and their employees were paid approximately \$3 billion for their services. This is approximately three times the value of farm products sold. It is approximately four times the \$782 million net which farmers and farm laborers receive for their services.

Agribusinesses are of two kinds, those supplying farmers and those marketing and processing farm products. North Carolina farmers spent \$448 million for production supplies and services in 1961. Of this amount, \$88 million was paid to local farm supply businesses and their employees for services rendered. The \$360 million was the cost of machinery, fertilizer materials and other things purchased by these local farm supply businesses. Agribusinesses and their employees engaged in the marketing and processing of farm products received \$2.9 billion for their services.

If the 1966 gross farm income goal of \$1.6 billion is to be reached, agribusiness must serve the farmer well. Extension is working with businesses

which market and process cotton, tobacco, fruits, vegetables, livestock, poultry and forest products to help them provide a better and larger market for increased farm production and to add more of the services the consumer is demanding. It is estimated that the income for services rendered by these industries will increase by \$874 million by 1966.

Extension is also working with businesses which serve the farmer to help them meet the farmer's expanding needs and to do so efficiently and at lower costs. It is estimated that the returns to farm supply businesses and their employees for services rendered will increase \$23 million to \$111 million by 1966 and that their sales to farmers will increase by \$119 million to \$567 million. In total, returns to agribusinesses and their employees are expected to increase by \$897 million by 1966.

The combined returns to farmers and agribusinesses and their employees is expected to increase \$1.1 billion to a total of \$4.9 billion by 1966. This increase will provide a real stimulus to the total economy of the state.

Growth of Farming and Agribusiness in North Carolina

| | 1961 | 1966 | Increase |
|---|---------|-----------------------|----------|
| | | (millions of dollars) | |
| Cost to Local Farm Suppliers of Farm Production Items | \$360 | \$456 | \$ 96 |
| Returns to Local Farm Supply Businesses and Their Employees for Services Rendered | (88) | (111) | (23) |
| Cost of Farm Production Items | 448 | 567 | 119 |
| Returns to N. C. Farmers and Farm Labor Above Cost of Farm Production Items | 782 | 1,008 | 226 |
| Farm Sales | 1,230 | 1,575 | 345 |
| Returns to N. C. Manufacturers and Processors of Farm Commodities and Their Employees for Services Rendered | (2,913) | (3,787) | (874) |
| Returns to Agribusinesses and Their Employees for Services Rendered* | 3,001 | 3,898 | 897 |

^{*} Total of two items in parentheses

Field Crops

Mechanization of all major field crops will continue at a fast pace during the 5-year period. It is also assumed that adoption of good soil management practices—and weed, disease and insect control measures—will increase rapidly.

Tobacco will continue to be the state's major money crop in 1966, producing about 50 per cent of the total farm income on less than 10 per cent of the cropland.

Individual crop reports are as follows:

BARLEY: Production will probably total 2.9 million bushels on approximately 55,000 acres. Production efficiency and improved storage should be emphasized, with attention focused in the Piedmont, and associated with livestock producers.

Barley is the one small grain crop which has increased slowly but almost constantly over the years. Grown primarily in the Piedmont, it is consumed, to a large degree, on the farms where it is grown.

CORN: A production goal of 80 million bushels of grain on 1,450,000 acres is anticipated for the state. A considerable increase to be marketed through livestock is expected. Central Coastal Plain and northeastern counties are expected to maintain their high level of production.

Development of grain storage elevators and buying points—plus a new meat packing house at Wilson—has increased the importance of grain in these areas.

Top farmers should pass the 200-bushel mark by 1966. A large proportion of the crop is now being mechanically harvested. Most farmers are using hybrid seed and improved cultural practices.

COTTON: The attitude toward cotton has changed. Producers are showing more interest in new and recommended practices, varieties and insect control programs. Mechanical harvesters have opened a new horizon in a desire for applied technology for the producer.

Complete or partial mechanization is moving a big percentage of our cotton production to the flat fields of the Coastal Plains. In 1966, it is estimated that less than 15 per cent of the total will be produced in the Piedmont.

PEANUTS: No change in area of production is expected. Top farmers in those counties where peanuts are the major source of income should pass the 4800-pound-per-acre mark by 1966. A production goal of 390 million pounds on 178,000 acres is anticipated for the state.

Research work along a broad front during the past two decades has laid the foundation for a stepped up educational program beginning in 1963.

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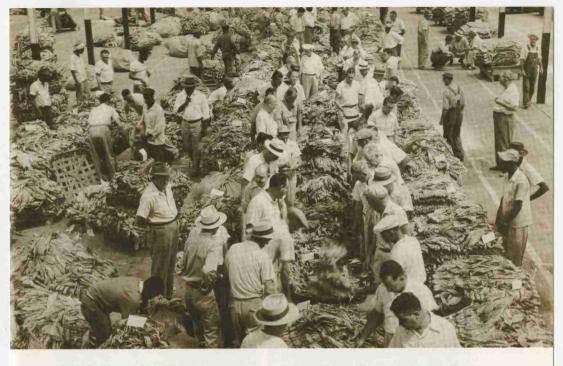
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OATS: Oat acreage will continue to decline. However, many producers will still find the crop profitable, and do a good job, averaging 125 bushels per acre.

Problems in oat production have developed faster than research could meet them. A production goal of 8 to 9 million bushels from approximately 200,000 acres is estimated for 1966.

GRAIN SORGHUM: The production goal is 3 million bushels on nearly 60,000 acres. Top farmers will average 150 bushels per acre. Predictions are based on the assumption the feed grain program will continue and affect production.

SOYBEANS: A production goal of 25-30 million bushels on one million acres is possible, with noticeable increases in the upper Coastal Plain and Piedmont. Development of superior varieties, grain handling facilities, and processing units have created new interest in soybeans.

Our soybean production generally reflects the increase that has occurred nationally. State income from the crop is estimated at \$47 million for 1966, an increase of 40 per cent.

TOBACCO: Tobacco farmers are said to accept mew agricultural production methods and technology rather quickly. This situation is expected to continue. Since the allotment is on the land, there will be little change in production areas. On some farms additional mechanization to save labor is advisable. Further developments in mechanical harvesting and bulk curing are underway.

Domestic consumption of cigarettes will increase at the rate of about 3 to 5 per cent. However, agricultural, industrial and allied groups must work together to bring about improvements needed in all areas of the tobacco program.

WHEAT: It is doubtful that more than 5 million bushels will be produced in 1966 on less than 200,000 acres. State average yields should range from 25-30 bushels, with top yields above 60 bushels per acre. A new wheat program in 1961 will have a marked effect on the current crop. This program will probably continue and production in 1966 will be determined largely by government programs.

FORAGE CROPS: A goal of 248,000 acres of improved pastures is suggested for 1966. A second goal is to raise the productivity of existing improved pasture through application of known technology. For alfalfa the goal is 14,000 additional acres, and the goal for silage crops is an increase in acreage of 50 per cent.

MISCELLANEOUS CROPS: Research is underway to find a replacement for crotalaria as a cover crop. Crops under investigation which may play a small role in increasing the state's farm income include castorbeans, sunflower, and sesame.

Livestock and Poultry

DAIRY: North Carolina needs additional plants for manufactured milk to take care of an appreciable expansion in milk production and to make possible more efficient use of fluid milk surpluses.

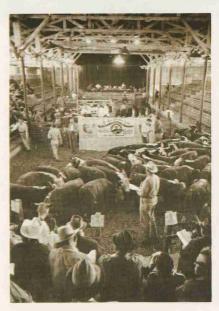
The goal is to establish a milk by-product processing plant in the Piedmont and a cheese processing plant in the eastern part of the state—with a 25 per cent increase in milk production per cow to meet the needs of these plants. More efficient milk distribution will be made possible through facilities for pooling excess fluid milk.

BEEF CATTLE: Goals call for an increase of 100,000 beef cows and 50,000 more cattle to be finished for market. Marketing has been one of the chief factors of expanded feeder calf production in North Carolina. There has been more than a 500 per cent increase in beef cows on North Carolina farms since 1945. This increase was very

rapid during the period 1948-1954 and it has continued each year since then.

Although 65 per cent of the cows were located in the mountain area of the state in 1945, expansion has been more rapid in other parts of the state since that time. At present approximately 27 per cent of the beef cows are located in the mountains, 40 per cent in the Piedmont and 33 per cent in the Coastal Plains. Since 1955 there has been a growing interest in feeding cattle for slaughter in the Coastal Plains and in wintering stocker cattle in the Upper Piedmont.

SWINE: There were approximately 280,000 litters farrowed in North Carolina in 1960 with an average of 7 pigs saved per litter. Goals for 1966 include a 20 per cent increase in the number of litters farrowed and a 20 per cent increase in over-all efficiency of production. This includes a





15 per cent increase in feed efficiency, an increase in the number of pigs weaned per litter to 7.6, and an improvement in carcass quality of market hogs by an average of one grade.

Organized feeder pig sales and feeder pig contracts have done much to stimulate pig production in some counties. Approximately one-half of the increase in litters farrowed is expected to occur in

new sources of income. Since small acreages are suitable for poultry production, North Carolina's small farms adapted easily to such production. The poultry industry being new to them, farmers in the state were receptive to technological advances.

By increasing the number of eggs produced per hen and moderately increasing the number of

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| Poultry and Eggs | 218,412,782 | 32 |
| Dairy | 80,487,674 | 22 |
| Other livestock and livestock products | 17,116,295 | 21 |
| TOTAL LIVESTOCK AND LIVESTOCK PRODUCTS | (467,946,286) | (33) |

the Piedmont with the feeder pigs moved to the corn areas of the Coastal Plain for finishing.

This state leads the nation in country-style cured ham production. The value of this product on a wholesale basis exceeded \$20 million in 1961 (retail value approximately \$24 million). It is estimated that production will increase 50 per cent by 1966 with the wholesale value approaching \$30 million.

SHEEP: There is little likelihood of an increase in sheep numbers until a breakthrough in technology occurs to permit increased efficiency and volume production. The goal for sheep is to increase the returns per ewe from lambs and wool 1/4 or approximately \$3.50 per head by improved management.

Approximately 50 per cent of the sheep are in the mountains. The Piedmont has 30 per cent of the total and 20 per cent are raised in the Coastal Plain.

POULTRY: The poultry industry in North Carolina is expected to continue growing. Nearness to large metropolitan areas and a moderate climate makes North Carolina competitive with other producing states. From 1945 to 1960, North Carolina broiler production increased by 773 per cent and egg production by 119 per cent. A substantial increase was also made in turkey production.

Several factors contributed to this increase. Tobacco and cotton controls forced farmers to seek hens, a goal of 2.5 billion eggs can be reached by 1966. This 25 per cent increase in eggs should add 15 million for a total of \$86,255,000 income from eggs in 1966.

Two hundred and sixty million broilers is the goal for North Carolina in 1966. The added income from the increased production should be \$57 million for a total gross income from broilers in 1966 of \$139.5 million.

The goal for turkeys is 2,225,000 which will produce an increased income of \$2.5 million over 1960. This will give a total gross of \$11.5 million from turkeys in 1966. The cash value of farm chickens produced in 1966 is expected to remain about the same at approximately \$7.5 million.

PACKING PLANTS: North Carolina is a deficit meat-producing state. We import about two-thirds of our beef from the major beef-producing areas in the United States. A large number of meat animals produced in the state are sold to packers in other states.

North Carolina slaughter plants have a capacity for about 43 per cent more beef and 32 per cent more hogs than they are currently processing. Therefore, there is a considerable potential for increased meat production without any need for increases in slaughtering facilities.

In poultry, feed manufacturing, poultry meat and egg processing, facilities in North Carolina today are adequate to serve an increased production in the state.

Horticultural Crops

The over-all picture for horticultural crops looks bright. Horticultural crops are a \$145 million business now. They are expected to reach \$182 million by 1966.

As our population increases, demand for fruits and vegetables will increase. Within the next 10 to 15 years we will need 20 per cent more fruits and 40 per cent more vegetables. The demand for the product form has changed from predominantly fresh to about equal volumes of fresh and processed. This trend to processed foods will continue.

In the ornamental field, the opportunities are almost unlimited. The building boom for the past 15 years has created the greatest demand for



ornamental plants in history. Our nursery industry is expanding at a rapid rate.

Most horticultural crops are grown on comparatively small units and still require considerable hand labor. This is rapidly changing, but may always lag behind most other crops.

The fresh market demand for most horticultural commodities will continue to greatly exceed the supply from North Carolina producers. Future developments in the processing industries depend on availability of adequate capital, competent management, changes in food consumption patterns, and large production units.

Any expansion that North Carolina makes in fruits and vegetables, except to take up the slack in population increase and per capita consumption, will come at the expense of growers in other areas. Because of competition, lack of support prices and acreage controls, efficiency is more imperative in horticultural crops than in most farm crops.

The greatest potential for increase lies in the following crops: flower and nursery crops, apples, blueberries, sweet potatoes, pickling cucumbers, tomatoes, peppers and watermelons.

Four crops—muscadine grapes, carrots, celery and spinach—show considerable promise as new sources of income. Presently these crops have little commercial value in the state, but several concerns are interested in the possibilities of having these crops produced for processing. Expansion of peach production in the Piedmont has considerable promise as a new source of income for that area.

While the over-all picture for horticultural crops looks bright, competition will require growers to put into practice all available information, including disease and insect control. Another important problem is financing. Growers will need to have sound farm enterprises and organized marketing to justify commercial financing.

Fruits, nuts, vegetables, greenhouse and nursery (including potatoes)

| Dollars | Percentage Increase Over 1961 |
|------------|----------------------------------|
| 98,474,899 | 29 |



Forestry

The state's forest economy has expanded rapidly during the past 10 to 12 years. Although the number of wood processing plants is now about the same as in 1950, employment in processing has increased by 17 per cent and value of output (excluding pulp and paper) by nearly 50 per cent. Lumber production dropped 19 per cent, but pulp manufacturing capacity rose by 142 per cent and pulpwood consumption by 100 per cent. Forest land area increased 3 per cent despite competition from other uses.

To stimulate continued sound growth of forestry in North Carolina, extension will step up its educational program with both forest industries and forest landowners. The industry phase of the program will focus on the lumber, veneer and plywood, hardwood dimension and logging sectors. It will emphasize improved production efficiency, upgrading product quality, the development of new product lines, adoption of better business and financing methods, and stepped-up consumer education and market programs. The effects are expected to total \$77 million annually in increased value of output and cost reduction by 1966.

With forest landowners, more emphasis will be directed towards expanding the production of quality hardwood timber and improving landowner knowledge and practice in hardwood marketing. Extension will seek to promote a tenfold increase in the planting and production of quality fir Christmas trees in the mountain counties. Throughout the state, a special program to improve landowner knowledge and appreciation of profit opportunities under various timber and forest land conditions is expected to lead to immediate increases in net income and rates of return per dollar invested.

In many respects, North Carolina is the most important forestry state east of the Rocky Mountains. Nationally, it ranks first in the maunfacture of wooden furniture and hardwood plywood and fourth in lumber production. It ranks second in the number of forest owners and farm forest owners.

In the South, North Carolina produces more lumber than any other state, ranks fifth in roundwood pulpwood production, and is a leader in the production of pulp chips and veneer mill waste.

Within the state, the 3,200 wood products factories make up 45 per cent of the total. They employ 90,000 people and produce over \$1 billion worth of products per year. Sixty-two per cent of the land area is in forest cover and nearly 92 per cent of the forest land is in private hands. Sales of standing timber have been estimated at \$70 million to \$80 million in recent years.

Forestry

Dollars

98,176,003

Percentage Increase Over 1961

13

Family Living

The years since World War II have seen unprecedented changes in family living in North Carolina. As a result of these changes the families of the state are faced with both opportunities and problems which could not have been imagined 15 years ago.

Urbanization has proceeded at such a rapid rate that 40 per cent of all North Carolinians are now city dwellers. And many of the differences between rural and urban people and their way of living have been erased.

Some Problem Areas

The incomes of North Carolinians have increased sharply, but are still substantially below the national median farm income. Also, there are still many low income families—more than 260,000 reported incomes of less than \$2,000 in 1959.

The age of marriage has steadily declined, until today in more than half the marriages the bride is no more than 20 years old. This results in a large group of young married couples with small children who have hardly become adults before they are faced with the responsibilities and work required of parents, homemakers, and breadwinners.

On the other hand, there is a growing group of families who have completed child rearing and have reverted to two-person families. These families have very different needs and interests from those young families mentioned above.

With the decrease in the number of farms, many rural young people must look off the farm for future careers and employment.

Related to the rising level of family income is the rapid rise in the proportion of homemakers working outside the home. Demands for church and civic responsibilities invade the family's time for homemaking.

Technological Developments

The technological developments in home economics and related fields during the last 15 years have been phenomenal. A multitude of new materials and services undreamed of in 1945 are now an accepted part of our way of life. While they have

brought great promise, they have also created new problems in the form of almost unlimited alternatives and have put a premium upon decision making.

Along with this flood of new products and services have come tremendous advertising campaigns which vary greatly in their intent and purpose. Some are confusing and misleading.

One other change that is especially important to extension programing is the dramatic growth of consumer credit during the last few years. Not only is consumer credit widely used for major purchases, but increasingly it is being used by all segments of the population for all types of purchases.

These are only a few of the changes that have affected family living in North Carolina; but they give some direction for home economics extension programs for the next few years.

Some Opportunities

These changes imply a serious need and a great opportunity for education in the area of foods and nutrition. Foods containing calcium, vitamin A, vitamin C, and riboflavin are frequently deficient in diets of North Carolinians. These deficiencies are especially true in the diet of teen-age girls. This poor nutrition for several years preceding marriage and childbearing increases the health hazards for both the young mother and her child.

Another group that requires particular attention is the working homemaker. She needs help in planning and skills required for quick meal preparation, and information on nutritive requirements, buying food wisely, and methods of motivating her husband to maintain a high level of nutrition.

We must be aware of the fact that the income of many families is low and home food production and conservation is a realistic alternative for thousands of families.

In housing and house furnishings work, too, this low level of income poses some acute problems. This is reflected in the poor housing of many families—in the lack of running water in 40 per cent of the rural homes, for example. Families

need guidance in selecting and adapting house plans to meet their needs, how to get the most for their limited housing dollars, and what financing plans are available. Similarly, for house furnishings, an aggressive information program should be carried on the wise selection, use and care of furniture, equipment and furnishings. The house furnishings dollar can be extended by such activities as making draperies and slipcovers, and refinishing and upholstering furniture.

These changes of the last few years also present some challenges for the clothing program. Here, too, the influx of women into the labor force poses some special problems. Clothing requirements go up for these working homemakers while time available for construction and care go down. For this group special attention must be given to

"buymanship" and care.

For many young families the emphasis must be on saving time and money in the buying of clothing and in their subsequent care. In families with very young children both time and money are usually at a premium.

There are still many homemakers who find clothing construction a valuable and satisfying use of their time. For this group extension must provide them with the understanding and skills needed.

Alternatives and Goals

Certain threads have been running through this

discussion thus far. There is a basic need and opportunity for families to clarify their personal and family goals in the total range of family living. In today's fast-moving society, with its vast range of alternatives, such clarification is essential if wise choices are to be made.

These numerous choices, while opening new horizons in family living, at the same time have put a premium upon management and decision making. Thus, home economics extension will place major emphasis on management and consumer education, with particular attention being given to young homemakers and to working homemakers.

A real opportunity and challenge is the development of an effective marriage education program for the flood of young people approaching the age of marriage. Extension can also help families to make fuller use of their capabilities in the middle and aging years.

It is a recognized fact that home economics extension deals more with utilization of income than with generating income. The home marketing program, however, offers an opportunity for supplementing income in view of (1) low income and (2) large rural population.

Homemaking is big business—it involves all family members. Home economics extension has the important opportunity and challenge of working with families on some of the intangibles that make for happy and successful homes.



4-H and Youth Work

With the possible exception of one state, North Carolina leads all other states in the number of rural boys and girls of 4-H Club age. In addition, a number of young people in our towns and cities are interested in 4-H and are demanding the services and opportunities it provides.

The 1960 Census of Population shows that there are some 900,763 boys and girls between the ages of 10 and 19 and eligible for 4-H membership: 193,313 rural farm; 392,134 rural non-farm; and 315.316 urban.

Future Direction

Many factors should influence directly the course and direction of 4-H Club work. Four-H work in North Carolina is now becoming an integral part of the community and is being conducted by trained volunteer leadership through organized community 4-H Clubs. The organization of the work on a community basis will require at least 9,000 local community 4-H Clubs and 50,000 adult leaders to serve the present enrollment.

With the decrease in the number of farms, mechanization, and the increasing consolidation of small farms into larger farming operations, many rural young people must look off the farm for future careers and employment. Added to this is the lack of enthusiasm in agricultural fields due in part to competition with so-called more lucrative and challenging positions in other fields.

As a general rule, farm parents have not had the experiences necessary to properly advise their youngsters in ways to make a living in the city, or of social adjustments necessary for a satisfactory life in an urban environment.

These and many other factors and problems confronting our young people emphasize the need for the Agricultural Extension Service to broaden and strengthen the size, scope and total concept of 4-H in pursuing a program.

Goals and Objectives

Four-H is a natural and practical program of education for young people. It emphasizes learning by doing. The term 4-H refers to Head, Heart, Hands and Health. Around these four words, symbolized in the emblem, are the educational objectives of the 4-H program.

In addition to our own long-range program, objectives have been adopted nationally for use by

extension workers and leaders to help 4-H members analyze their situations, needs and interests. They point the way toward building programs that will prepare the young for better living: physically, mentally, economically, and spiritually.



Special Projects



During the past 10 years the Agricultural Extension Service has assumed responsibility for a number of special educational projects. These have included rural development, farm and home development, community development, area development, and two newly created rural areas development programs.

In one form or another, these programs are continuing, with considerable emphasis expected to be given them during the next five years.

Community and Area Development

Community and area development began in North Carolina in 1950. At that time there was one organized area, and three counties containing 29 organized communities. By the end of 1961 there were 10 organized area development associations involving 80 counties, and the community development approach was being used in 81 counties with a total of 917 organized communities.

The North Carolina Council of Community and Area Development was formed in November 1961. This council includes the heads of public and private agencies and one representative of each of the area development associations. The purpose of this council is to coordinate state agencies in community and area development and act as a counsel to the area development associations.

During 1961 the rural areas development program was created by the U. S. Department of Agriculture with objectives similar to those of the community and area development program in North Carolina. The area redevelopment act was put into operation, also by the federal government, as an added tool to provide money for development efforts in selected counties.

The community and area development program, the rural areas development program, and the area redevelopment act are all viewed as one extension program—the community and area development program.

Area development in North Carolina is regarded as the grouping together of people (farm, business, professional and others) and counties with similar situations, problems, and potentialities in a combined effort to motivate and assist them in developing their resources for their own improvement.

Area development associations have been organized with four basic divisions: industrial development, agricultural development, travel and recreation, and community development.

Farm and Home Development

In recent years the Extension Service has developed an approach for working with selected families which is referred to as farm and home development. This approach is defined as "an intensive personalized educational approach." It is largely management oriented and is often referred to as the unit approach. The selected families are basically those who plan to continue to make their living from farming.

The objectives of farm and home development are educational in nature. Thus, the development of people is the primary concern. The ultimate objective, however, is to develop in those families selected for this intensive educational assistance the understanding skills and attitudes that are essential for effective management of their resources.

Some Plans for Action

Our agriculture is changing from a way of living to a way of making a living; from a business of arts and crafts to a business deeply rooted in science and technology. We are seeing the greatest agricultural changes of all time—at an ever-increasing rate.

Educational Needs Expanding

People now live in new residential patterns. Their educational level is rising; values are changing; and the level of living is going up. Agricultural problems are no longer confined to the farm. Needs and opportunities for expanded educational services are growing out of such social and economic changes as the number of farms and farm people declines and modern farming becomes more complex.

The increasing number of urban, suburban and open country non-farm residents requesting services from extension presents a great challenge, as does the growing inter-dependency of agriculture, business and government.

Changes in the Making

The North Carolina Agricultural Extension Service is fully aware of the powerful forces just described. We are making rapid adjustments to help farm people achieve their 1966 goals. Some of the more important changes are:

1. Greater Emphasis on Income Generating

With the low per capita income in North Carolina, we will strive to move income generating activities forward with special emphasis on higher crop yields and more efficient livestock production. We will seek and develop new sources of agricultural income. We will also work to improve farm management and the use of farm records as guides to more efficient farm production and marketing. Development of an expanded food processing industry in North Carolina will be reflected in extension's activities.

2. More Specialized and Better Trained Personnel

Many counties, marketing areas or geographic areas will have agents working with particular aspects of farming, family living, youth development, or other special interests. State staffs will also have to specialize more than ever before.

Problem solving often requires many disciplines working together. Consequently, specialists will work in teams. These teams will teach in workshops or short courses of 2 or 3 days.

Extension agents will tailor specific programs to specific audiences. Subject matter specialists will be involved in program planning and program development at the county level. There will be closer relationships between research and extension.

This means extension will need staff members who are better trained.

Regular training at the post-graduate level will be expected of virtually all extension workers. Training must also go beyond technical subject matter for the expanded job of adult education that we must be prepared to do. All staff members must have or must acquire, through inservice training, an appreciation of the basic principles of the social sciences, including sociology and psychology, so they may work more effectively with people. Training and retraining of extension workers will be an absolute necessity.

3. Organizational Structure and Functions Adjusted to Meet Changing Educational Needs of People

New programs often cut across departmental lines. They involve men, women, and young people in a single program, and they deal with a highly specialized clientele. Traditional administrative structures may not always be adequate to meet their needs. The N. C. Agricultural Extension Service will keep flexible and alert to emerging needs and adjust its programs accordingly.

Extension, in its awareness of persistent change, has initiated various programs to help rural people solve their adjustment problems. These programs include public affiairs, community and area development, and farm and home development.

These growing administrative responsibilities may necessitate some reassignment of present personnel and other changes.

4. More Emphasis on Program Planning, Leadership, and Evaluation

Stronger program planning procedures will strengthen every phase of the N. C. Agricultural Extension Service. The people to whom a program is directed will help plan it.

We will train and use more leaders in adult and youth programs. These leaders can serve as organization and, in some instances, subject-matter leaders.

We know lay people can handle these responsibilities adequately and are proud of the opportunity to serve. The way in which our extension programs are planned and developed is, in itself, an educational process. Program planning can teach leadership, citizenship skills, and appreciation of both the scientific

problem-solving process and of democratic group action. Extension staff members will pretrain as well as train these leaders for their jobs.

Leaders will be adequately informed as to their functions. Extension has a single function to perform—education for action. Such action will be supported by facts derived from and directed at specific needs and prob-

The "scatter shot" is of little use. Extension staff members will provide direction.

To meet these changes, Extension will develop more effective evaluation techniques for its programs. Only then will we be able to evaluate, adjust, and discard obsolete programs and adopt new ones as the needs for them are identified.



| 4.6 | 1961 | | 1966 Farm |
|----------------------------|--------------------------|-----|--------------------------|
| County | Farm Income | | Income Goal |
| Hertford | 9.087,514 | | 12,220,737 |
| Hoke | 7,611,570 | | 10,025,000 |
| Hyde | 3,349,564 | | 6,066,432 |
| Iredell | 17,280,986 | | 19,200,550 |
| Jackson | 2,111,832 | | 2,779,000 |
| Johnston | 46,912,321 | | 55,210,000 |
| Jones | \$ 8,431,062 | | \$12,357,640 |
| Lee | 7,252,462 | | 8,824,911 |
| Lenoir | 20,007,069 | | 27,733,608 |
| Lincoln | 7,268,900 | | 9,118,750 |
| McDowell | 1,690,896 | | 2,133,500 |
| Macon | 3,384,977 | | 3,927,098 |
| Madison | 6,621,054 | | 7,895,000 22,909,560 |
| Martin | 20,430,150 | | 6,436,350 |
| Mecklenburg | 5,119,750 | 1 | 6,436,330 |
| Mitchell | 3,535,002 | | 5,539,008 |
| Montgomery | 8,698,676 | | 9,965,350 |
| Moore | 25,031,355 32,954,995 | | 33,469,898 41,769,521 |
| Nash | 5,011,424 | | 5,949,075 |
| New Hanover Northampton | 20,134,402 | | 28,737,136 |
| Onslow | 10,849,626 | | 14,860,910 |
| Orange | 7,493,972 | | 9,693,200 |
| Pamlico | 4,218,975 | | 6,156,000 |
| Pasquotank | 7,075,677 | | 8,841,856 |
| Pender | 14,663,194 | 111 | 22,151,850 |
| Perquimans | 7,339,812 | | 9,437,092 |
| Person | 13,038,381 | | 15,257,900 |
| Pitt | 43,535,989 | | 55,585,375 |
| Polk Randolph | 1,950,274 14,602,267 | | 2,730,400 18,940,506 |
| Richmond | 9,396,771 | | 12,307,994 |
| Robeson | \$46,284,697 | | \$67,344,515 |
| Rockingham | 17,151,717 | | 18,879,770 |
| Rowan | 5,687,406 | | 7,500,120 |
| Rutherford | 4,650,065 | | 5,934,900 |
| Sampson | 41,728,935 | | 45,607,597 |
| Scotland | 7,078,612 | | 10,216,380 |
| Stanly | 12,030,050 | | 15,184,750 |
| Stokes | 13,029,784 | | 14,569,000 |
| Surry | 18,825,656 | | 22,164,718 |
| Swain | 1,280,545 | | 1,560,620 |
| Transylvania | 3,704,460 1,741,798 | | 5,024,310 2,071,680 |
| Tyrrell Union | 15,682,515 | | 23,306,000 |
| Union | 13,002,313 | | 23,300,000 |
| Vance | 9,437,304 | | 11,454,125 |
| Wake | 31,446,752 | | 38,804,219 |
| Warren Washington | 10,622,144 4,119,002 | | 12,850,274 6,211,625 |
| Watauga | 3,052,754 | | 3,555,475 |
| Wayne | 32,530,644 | | 40,085,963 |
| Wilkes | 15,051,220 | | 18,527,500 |
| | | | |
| Wilson | 29,582,867 | | 35,664.625 |
| | 29,582,867 11,036,644 | | 35,664,625 11,553,500 |



