

**MARCH 1957**

**AGRICULTURAL  
EXTENSION  
SERVICE**

# **ACTIVITIES IN FARM MARKETING**

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**a report by**

*The Agricultural Extension Service  
North Carolina State College*

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Agricultural Extension Service Activities  
in Farm Marketing

Like farmers elsewhere, North Carolina producers have come face to face with marketing problems in recent years. And they are learning that marketing is not something completely separate unto itself -- production and marketing must go hand in hand.

In some areas of the state there has not been sufficient production to enable an efficient marketing system to develop for a particular product. In other instances the quality of the produce has not been high enough for it to command respect and attention in the market place. In other cases production has been sufficient but scattered over a wide area and efficient assembly procedures have not been developed.

To what extent is the Agricultural Extension Service at N. C. State College interested in farm marketing?

The Extension Service is an educational agency supported by Federal, State and county funds. Federal legislation directs the Extension Service to work in the area of agricultural marketing as well as production. From the standpoint of Federal legislation the Extension Service has been designated as the educational marketing agency.

Education has been defined as teaching individuals and firms how to do things for themselves. This is contrasted to service and regulation activities which is doing work for individuals and firms and to research which is fact finding.

The legislation makes it quite clear that the Extension Service should not limit its educational efforts in marketing to farmers, but should work also with marketing and processing firms and even with consumers on problems relating to the marketing of farm products.

The Agricultural Extension Service in North Carolina is striving to uphold these objectives.

Some of the activities are outlined in this report. This is not, however, a complete report of Extension's marketing work in recent years. Rather, it is a brief outline of the objectives of the marketing program developed by the Extension Service and some examples of what is being done.

## THE MARKETING SYSTEM AND EXTENSION'S OBJECTIVES

### VITAL PRODUCTION ELEMENTS IN MARKETING

While markets and the marketing structure are improving, it is clear that they face area-wide, nation-wide, and, in many cases, world-wide competition. Farming adjustments involving shifts to other products must be guided by the competitive situation. A marketing system, no matter how efficient, cannot succeed unless the products pouring through the system have the following characteristics:

Quality: North Carolina farmers must recognize the need for improved quality if they are to maintain and increase profits. The high level of income since World War II has enabled consumers to select quality when they purchase agricultural products. This trend is continuing.

Volume: The same forces which have led to quality standardization have created a marketing environment based on large volume. North Carolina farm production, with some exceptions, is characterized by a large number of small units. This poses a complex assembly problem to meet the volume needs of efficient marketing. Also, in many cases, the total production in an entire area is not large enough to support an efficient marketing system.

Outstanding examples of these situations may be found in eggs, fruits, vegetables, and livestock products. We must wake up and "aim for the big market" -- national markets -- instead of gearing our production to fill a local need. We can fill our local needs from the main flow of products to the "big market." Increased volume per production unit should result in greater efficiency and improved quality.

Dependable Supply: The history of marketing in North Carolina is filled with examples where farmers destroyed marketing attempts by not producing a steady supply of products. Processing plants represent large investments, and they will not develop in our state if a dependable supply of farm products is not assured. Many existing markets could increase efficiency tremendously if this supply of farm products arrived at a constant rate. Our seasonal production pattern of eggs, milk, and livestock are good examples.

### NEEDED ADJUSTMENTS IN THE MARKETING SYSTEM

While greatly improved, the marketing system for our products must make additional adjustments to handle present production and possible shifts in production.

In some cases new markets must be established. This need, except for a few commodities, is not as widespread as was once believed. New markets must be located at proper places with adequate facilities.

The marketing system must react by adopting practices which more perfectly maintain quality.

In this age of large - scale distribution it has become necessary also to standardize quality, and consumers have dictated that this quality must be high.

Our marketing facilities must be geared to a size which will allow increased efficiency. Economics of scale must be present in order to compete on a national market.

Many of our existing markets need to adopt improved technology, expand facilities, and increase efficiency in handling products.

We must train more efficient market managers, and they must be able to compete on every level with marketing men from other areas.

#### OBJECTIVES OF EXTENSION MARKETING WORK

The objective of Extension work in marketing is to provide an educational program to improve the marketing of North Carolina farm products. This objective, when accomplished, will increase farm incomes and raise the standard of living of our farm people, improve the efficiency and organization of our marketing system and facilities, and provide consumers with products of high quality, in the form and in the amount that is desired, and at a reasonable price which reflects the quality delivered.

This objective of Extension work in marketing will be achieved as follows:

1. Providing information for farmers, marketing firms and others, which will enable them to increase efficiency and reduce the cost of marketing agricultural products. This will include presenting information which will lead to (1) an understanding of price determination and the nature of competition; and (2) the adoption of improved practices and new technology in grading, handling, processing, packaging, transporting, storing and merchandising. These practices will preserve quality, decrease waste, and increase the saleability of farm products.
2. Providing information that will help farmers and those providing marketing services to construct and operate the right

kind of marketing facilities at the most logical place and with the proper equipment. This involves promoting wide-spread understanding and use, by producers and others, of basic data and information of supply, movement, prices, marketing outlook and consumer demand for agricultural products, as well as technology of plants and equipment, and organization and management information.

3. Providing consumers with a better understanding of marketing and current market situations; and increasing their ability to judge and value quality in agricultural products. The marketing work with consumers will provide information which enables buyers of agricultural products to get more satisfaction value and dollar value from each purchase. Buying practices adopted under this program will reflect a consumer demand which leads to a more efficient marketing of agricultural products.
4. Help expand outlets for farm products. This can best be accomplished through wide dissemination of timely, up-to-date information on farm and domestic demand, consumers need and preference, location of new markets and markets for new products. It also includes dissemination of marketing information for consumers.
5. Establishing demonstrations dealing with efficiency in the marketing of farm products. Demonstrations in marketing can be arranged to teach valuable lessons at each stage in the marketing process, from the farm to the consumer. Gains in quality, volume and efficiency are possible through coordination of demonstrations throughout the marketing system.
6. Reporting the results of marketing demonstrations and clearly indicating the economic returns to the various groups concerned. This can be accomplished through meetings, conferences, reports, radio, TV and publications; plus tours when visual evidence can give emphasis to the results.
7. Acquainting all units involved in agricultural marketing with the problems and contributions of each in an effort to speed improvements through increased knowledge and cooperation. This will be a natural result of action in the other areas. However, it should be a definite part of the program also because improvements will depend on teamwork all along the line.

## SOME EXAMPLES OF MARKETING WORK

### POULTRY AND EGG MARKETING

1. Anson County farmers desired to increase their farm income so a meeting was called in mid-1954 and the group was urged to pool their production in order to sell on nearby markets. The Extension poultry marketing specialist and a representative of the N. C. Department of Agriculture assisted with setting up the organization and suggesting outside market contacts. The Extension poultry specialists followed with meetings encouraging expansion in the size of flocks, better care of eggs on the farm and instruction in grading and packaging.

This group is selling to wholesale outlets and progress has been so encouraging that the southern part of the county started a similar organization in the spring of 1956. It has been suggested that these consolidate operations but as yet they have not done so.

2. Surry County people were interested in a poultry processing plant. A survey was made by the Extension poultry marketing specialist to ascertain the advisability of locating a poultry processing plant there. Four meetings were held and contact made with an aggressive operator in Maryland. The Extension poultry specialists met with a local banker and other interested people and endorsed the movement and urged farmers to cooperate in production of an ample number of broilers to operate the plant, which was estimated to be 4 or 5 million broilers annually. The Extension turkey specialist met with farmers in the county and encouraged the production of turkeys on a commercial scale as the processor indicated the desire for some 40,000 turkeys annually.

The Extension poultry specialists have made follow-up visits into the area, conferring with hatcheries, feed people, etc., relative to programs of production designed to give the desired supply of broilers to operate the plant. The Extension poultry marketing specialist also supplied the Wilkes report, which indicated the availability of broilers in the immediate vicinity, along with available processing facilities. He also insisted that operators from Delaware or Maryland be secured because of their market contacts.

This plant is now under construction. Fine cooperation has existed between local capital and the Department of Conservation and Development, which is assisting with financing. They have conferred with the Extension specialists relative to production capacity, need for the loan and a plant in this section of the state. An appraisal of this venture was supplied to the officials of the Department of Conservation and Development and the location of the plant endorsed.

3. In Iredell County in 1955 there was a feeling by the farmers

that additional outlets for their eggs were needed so a meeting of the farmers was called by the assistant county agent, and a survey made by the Extension poultry marketing specialist of possible outlets for eggs, and the formation of an organization was suggested.

Principally through the leadership of the county Extension personnel, an organization was formed and poultry farmers began selling eggs to a wholesale outlet in Charlotte, with the result that by the end of the first year they were selling 470 cases a week, and this has increased the gross income to the farmers of approximately \$240,000 annually.

4. Martin County needed to supplement the income from tobacco and peanuts and the Chamber of Commerce of Robersonville called on the Extension poultry specialist to come down and discuss the opportunities for poultry in Eastern Carolina and, at the same time, the need for processing facilities. The county agent and the Extension poultry specialist attended a meeting called by the Robersonville Chamber of Commerce, pointed out the possibilities of poultry, the need for additional income in Eastern Carolina and suggested managerial contacts to make.

Adequate supplies of broilers for operating the plant were assumed by local feed dealers. The Extension specialists have worked with representatives of the Robersonville Chamber of Commerce and the Department of Conservation and Development. Contracts for construction of certain phases of this plant have been let and progress is being made on its construction, as of January 1957.

5. In Henderson County a county poultry association was formed several years ago. It had been used primarily as a means of disseminating information. As flocks increased in size and the outlook appeared better for market eggs, they became interested in the formation of an organization for the purpose of selling eggs. The Extension agent called a meeting of farmers, including the membership of the poultry association. The Extension poultry specialist discussed the market needs of today, the necessity of volume production, and how to grade, pack and care for eggs on the farm.

This meeting was followed by meetings with the Extension poultry marketing specialist and a representative of the N. C. Department of Agriculture, who indicated to the farmers market outlets and pointed out the need for expanding production or assembling eggs in volume. In 1955 they assisted with drawing up the rules and regulations of the revitalized poultry association. This was followed by a meeting and demonstration in mid-1956 by the Extension poultry specialists on how to grade and pack eggs.

This association is now selling over 50 cases of eggs a week to



the Winn-Dixie stores.

6. In Pender County it became necessary to increase the farm income and, after much thought, it appeared that market eggs offered the best opportunity. The county agent called a meeting of farmers and the Extension poultry specialists discussed opportunities for market eggs and urged the commercial production of eggs. They were also informed as to the type and quality of eggs that would find a ready market.

The county Extension personnel took the lead and, with the aid of the Extension poultry marketing specialist, made a survey of market outlets and assisted in setting up the Pender County Poultry Association, which is an educational organization of poultry growers who meet monthly to study improved methods of production and/or marketing. A representative of the N. C. Department of Agriculture also assisted in this organization.

In order to stimulate the program, demonstrations in egg grading, packaging and care were held in connection with poultry field days at the Willard Research Station. The N. C. Department of Agriculture, in cooperation with N. C. State College, built a modern refrigerated egg holding room.

Investigational work was conducted which indicated the economic advantage of employing mechanical refrigeration in retaining egg quality. This information was disseminated by the county Extension personnel in Pender County. As a result, the number of laying birds increased and the number of cases of eggs exported from the county increased significantly.

7. In Beaufort County, in 1956, farmers were looking for an opportunity to increase farm income. The county agent requested assistance of the Extension poultry specialists with a meeting for farmers on poultry marketing. The Extension specialists and the poultry marketing specialist visited the county. Outlook, production techniques and suggested marketing programs were presented.

In May 1956, the county agents and Extension poultry marketing specialists arranged and led a tour for the farmers of Beaufort County to Stanly and Cleveland Counties for the purpose of observing marketing programs in those counties. A survey was conducted in the county by the Extension poultry marketing specialist among egg buyers to ascertain if an association was economically sound. The producer group set up the organization and the Extension poultry marketing specialist assisted in preparing the rules and regulations.

Each producer is grading his own eggs and delivering them to designated firms who purchase the eggs at a specified price. Follow-

up work has been done and the latest contacts with this group, in January 1957, indicate that egg producers are receiving 10¢ more per dozen as a result of this marketing set-up.

8. In Montgomery County needs for a poultry organization were present and through the assistance of the county Extension personnel, a meeting of interested growers was called and the Extension poultry marketing specialist assisted in setting up an association.

The Extension poultry specialist followed up with meetings on production, grading and marketing practices. This group is selling to a wholesale outlet in Charlotte.

9. In Stanly County local poultrymen found they could increase their income from eggs if they worked together in the marketing of their products. So a meeting of interested parties was called by one of the leading poultrymen. He explained the opportunities, and an organization was formed. The county Extension personnel participated in the work and the Extension poultry specialist assisted with demonstrations in grading and packing eggs.

This was in May 1954 and this group of producers is now selling in excess of 100 cases of eggs a week to a local warehouse in Charlotte.

10. The Central Carolina Farmers Exchange was interested in expanding their egg marketing service to the farmers in the five counties they serve. The Extension poultry marketing specialist assisted in helping to reorganize the egg department and expand its outlets. He also assisted on egg pricing.

The result is that they now have an efficiently operated egg assembling and grading station with licensed graders and are exporting eggs to northern states. The N. C. Department of Agriculture licensed the graders.

11. The Farmers Cooperative Exchange in Raleigh indicated an interest in establishing market outlets for egg producers in those sections of the state now being served by them. After many conferences with the Extension poultry marketing specialist and the Extension poultry specialists, as well as other members of the State College Poultry Science Department, a program was suggested.

Meetings in nine counties were called by the county agents and representatives of the Poultry Science Department and Extension specialists discussed the opportunities for market egg production and the need for supplying eggs on a year-around basis. A representative of the Farmers Cooperative Exchange discussed the market outlet that was available and the quality of eggs that would be needed to supply

this outlet. These meetings were held in late 1953. They were followed up with additional meetings in 1954.

The Extension poultry specialist supplied the representative of the FCX with slides to be used in meetings that showed the steps to be taken in producing high quality eggs and retaining high egg quality on the farm. Follow-up work was done with groups in 1954 and with an advertising agent and district FCX representative in 1955. In 1956 a retiring member of the Poultry Science Department became affiliated with FCX and close cooperation has continued between the College and this organization.

Plans are now underway in which 35 refrigerated egg holding rooms will be located at strategic points through eastern North Carolina. This cooperative is handling several hundred cases of eggs each week.

12. In Cleveland County, one of the oldest and most active egg marketing associations has operated for several years. A vocational agriculture teacher took the lead and Extension personnel, both on a county and state level, have cooperated from time to time.

In 1954 the northern part of Cleveland County became interested in the production and marketing of eggs on a commercial basis. The county agent called a meeting and the Extension poultry specialist discussed with the group the need for producing quality eggs in volume. A member of the Poultry Science Department followed with a discussion on supplying eggs the year around.

Follow-up work was conducted in 1956 and this group is selling eggs to a wholesale outlet in Charlotte.

13. In Gaston County it became apparent that egg marketing was a problem unless done on an organized basis. The Extension poultry marketing specialist made a survey and assisted in setting up the organization. The Extension poultry specialists gave demonstrations on grading and packing eggs. All meetings were called by the county agent.

This organization is now selling eggs to a wholesale outlet in Charlotte.

14. In Richmond County the production of market eggs on a commercial basis appeared profitable. The county agent called a meeting of farmers in 1955. The potentials of market egg production were discussed and a marketing organization set up. The Extension poultry specialists met with the group and discussed egg care, grading and packaging of eggs on the farm. The Extension poultry marketing

specialist suggested market outlets and the group is selling some 300 cases or more of eggs weekly to the Central Carolina Farmers Exchange.

15. In Hoke County in late 1955, with cooperation from a local feed mill, the Extension poultry marketing specialist and the Extension poultry specialists held a meeting with a group of farmers and discussed marketing and the outlets available for quality eggs. The feed mill placed egg coolers in a number of stores in Eastern Carolina, and Hoke County eggs are available to consumers. The original meeting was followed up with an educational meeting at which grading, packing and handling eggs on the farm were stressed. These later meetings were held in 1956.

16. Northwestern North Carolina Development Association early in 1954 met with Extension poultry specialist, bankers and others in Winston-Salem to discuss marketing eggs on a graded basis. Another meeting was held about May, 1954. The Extension poultry specialist met with county agents and farmers from seven counties, and representatives of the Wachovia Bank and Trust Company. This meeting was held in the office of Mr. Halfacre in North Wilkesboro. At the second meeting the Extension poultry specialist discussed the need for quality eggs, and the practices necessary for the production of high quality eggs to fit the type of market available in Northwestern North Carolina. This discussion included candling, grading and packing information. Three types of cartons were discussed, and one of these was later adopted by the group.

The Extension poultry specialist, the Extension poultry marketing specialist and various county agents work with the group. Several meetings were held to encourage the growers and to stress practices needed to produce higher quality eggs. These suggestions were aimed at correcting actual weaknesses found in candling eggs market through the association. Candling and grading demonstrations were held in Davie and Stokes Counties. Several TV shows have been presented to viewers in the Northwestern area in which the same points on quality were given. The Extension poultry marketing specialist met with producers on "Farmers Day" and emphasized the need for more volume. At least two meetings have been held in Forsyth County at which the Extension poultry specialist discussed practices designed to improve the egg quality. The second meeting was an effort to bolster the same suggestions made by Mr. Doub, manager of the association.

According to the latest available information, the Northwestern N. C. Development Association is now marketing eggs for about 30 producers in the area. Present volume is around 234 cases (about 7,000 dozen) per week. The peak marketings were about 283 cases (8,500 dozen) per week.

17. Capital Development Association: The Extension marketing

specialists, Extension poultry specialists and county agents have worked with the association. An early conference was held at the Raleigh Farmer's Market, and the Extension poultry specialist, Wake County Farm Agent, and a representative of the Wachovia Bank were present. The discussion centered around the opportunities for commercial egg production in the area, and the need for volume and quality in successful marketing.

Extension marketing specialists have met with association representatives on at least four occasions during the past year to give advice on organization and operation, and to emphasize the factors necessary for a successful market. In November 1956, a meeting was called by the Wake County farm agent. At this meeting Extension specialists, contact men, producers, county agents, and market men in the area discussed the situation. The need for volume, proper care, and high quality was emphasized.

Mr. Dewey Evans, Apex, N. C., assembles and handles the eggs for the association. He has received advice and assistance from all of the people involved, especially the Wake County farm agent and assistant agents.

At present the Association is marketing about 45 cases of eggs per week for farmers in the area.

18. Turkey Marketing. Extension specialists have worked with the Merchandising Committee of the N. C. Turkey Federation in promoting turkey consumption and, from time to time, brought growers, processors and buyers together in order that marketing problems or new market outlets could be worked out.

The Extension turkey specialist has worked with turkey processing plants and is endeavoring to assist them in developing a better distribution system for handling a complete pre-cooked line of turkey. This would include 1/4 pound and 1/2 pound packs and smoked turkey, along with whole turkey and turkey parts.

#### FRUIT, VEGETABLE AND PEANUT MARKETING

1. Hyde County farmers, in 1950, asked for help in adding enterprises to help their income. Marketing and production specialists from State College and the N. C. Department of Agriculture met with the farmers of the county, with the county agent planning the program.

After discussing possible alternatives and examining the potentialities of the soil and climate of the area, as well as the market, it was decided to grow sweet corn.

A series of meetings with the leaders was necessary to set up a cooperative association. The farmers had no previous business experience. Consequently, continuous help was needed by the county agent and marketing specialists in setting up the books, articles of incorporation, and by-laws.

Another series of meetings was held with approximately 100 farmers, in which various specialists explained and demonstrated proper varieties, fertilization, insect control, and proper harvesting and packing techniques.

Contacts were made with prospective packer-buyers by the N. C. Department of Agriculture marketing specialist. Appropriate arrangements were made for one organization to do the selling job.

Marketing specialists gave field and pack-shed demonstrations on proper stage of maturity, and proper grading and packing.

Technical assistance was given in building a pre-cooling tank.

Approximately 200 acres of sweet corn were grown the first year of operation. It was estimated to average 100 crates per acre, and sold at \$1.00 -- \$1.50 per crate, or a gross of about \$25,000.

Since 1950, sweet corn production has become more specialized, and other vegetable crops have been added that result in increased income for many farmers in Hyde County.

2. Peach Hydrocooling Study. In 1953, three hydrocoolers were installed for cooling peaches in the commercial production area in North Carolina. None had been used previously. Growers using this process received premiums of 25¢ to 50¢ per bushel for their fruit, but had no way of calculating expenses. Several other growers and packers expressed interest in getting a study conducted to determine the costs and returns.

County agents in the area brought the problem to the attention of the Extension marketing specialists and Extension horticulturist. A conference was called with the heads of the departments of Horticulture, Agricultural Economics, and the Director of the Experiment Station. Tentative plans for a study were formulated, and personnel assigned to conduct the study in 1954.

A research professor in Agricultural Economics made a study of literature available on hydrocooling, and did much of the survey work and cost analysis. The Extension fruit and vegetable marketing specialist and Extension horticulturist participated by taking cost schedules, interviewing grower packers, and handling the peaches to be stored under various conditions.

Machinery representatives were contacted to determine costs of operation, maintenance, depreciation, etc.

A representative of the U. S. Department of Agriculture assisted in the cost calculations of the cooling operation.

The study was completed and published in February, 1955. It showed the costs and returns of hydrocooling various volumes of peaches.

The results were explained to peach growers at their annual meeting, and by personal visits.

The study enabled growers to make wise decisions on purchasing hydrocooling equipment. It showed some growers that their volume was too small to warrant owning the equipment, and convinced others of the need for it.

It is estimated that over 75% of the peaches are now hydrocooled, or at least a half-million bushels. The premium for cooled peaches is 25¢ per bushel, and the cost is about 10¢ per bushel. This means a profit of at least \$75,000 per year on this operation alone. Probably more important is the fact that hydrocooled peaches find a ready market, in North Carolina as well as outside the state. In many cases, hydrocooling is one of the conditions of the sale.

As a further result, North Carolina peaches are arriving at the market in much better condition, and are acquiring a name as high quality fruit. This development has convinced the growers, as well as the established brokers, that proper quality, condition, and pack are the primary requisites of selling a product, whether at home or abroad.

3. Peach growers asked for assistance in planning a merchandising and advertising program for their peaches. Approximately 300 peach growers belong to the North Carolina Mutual Peach Growers Society, which sponsored the program in 1952 and 1953.

Extension marketing specialists and Extension horticulture specialists, along with representatives of the N. C. Department of Agriculture and the State College Office of Information, met with the officers and directors of this association to plan a promotion campaign.

As a result the growers made voluntary cash contributions to the treasurer to be used for radio, newspaper, and TV advertising. The Department of Information assisted in planning and placing the advertising. Marketing specialists prepared posters to be placed in pack sheds signifying their cooperation in doing a better job of grading and packing.

Extension specialists planned and conducted a series of three TV

programs on varieties, selection and use of peaches.

A group of about 20 growers arranged a conference with the governor, at which he proclaimed a peach week. Prepared stories were given to reporters to publicize North Carolina peaches.

As a result of this program, a record number of truckers came to the area to buy peaches. North Carolina peaches received a much better market in North Carolina as well as in out-of-state markets. The fact that the growers were participating in the program encouraged them to do a better job of grading and packing, and resulted in more participation in similar promotional programs in subsequent years.

4. Vegetable growers around Dunn wanted to establish a vegetable processing plant. Representatives of the Department of Conservation and Development, N. C. Department of Agriculture, and State College helped make contact with a national organization that agreed to build a plant in Dunn. It was necessary to get 600 farmers to sign contracts to grow peppers for processing.

Material was prepared and disseminated on growing plants, fertilization, spacing, cultivation, and harvesting. Demonstrations were conducted on various phases of production and harvesting. Numerous conferences and meetings have been held with the growers, as well as the plant operators, to handle problems on diseases, insects, quality, contracts, etc. The plant is now an established business in the community, providing extra income for several hundred farmers in that area.

5. At the Farmers Market in Henderson County several demonstrations were given in 1950 and 1951 on grading and packing methods for snap beans, squash, cucumbers, apples and other fruit and vegetables. These demonstrations showed immediate results in better pack and higher price for the farmers in the area. Vegetable production in Henderson County is now one of the principal enterprises of the county and Henderson County is one of the leading vegetable counties of the state. Personnel involved were state extension fruit and vegetable marketing specialist, N. C. Department of Agriculture marketing specialist, and the county agent.

6. Sweet Potato Marketing. Assistance was given in cooperation with representatives of several other state agencies and producers, in planning and conducting a campaign to encourage consumption of sweet potatoes which were in surplus supply in 1950. This campaign was successfully conducted and no serious marketing glut resulted. Personnel involved were Extension fruit and vegetable specialist, Fruit and Vegetable Committee (consisting of representatives of Horticultural Extension, Horticultural Research, N. C. Department of Agriculture, chain stores, Chamber of Commerce, Extension Market-



ing, Marketing Research, growers, market operators and processors).

7. Apple growers in Haywood County were given assistance in 1950 in developing a program of advertising and expansion of the market outlet for their apple products. Various possibilities were suggested and the apple growers have since made considerable improvement in the marketing of their apples. Personnel involved were Extension fruit and vegetable marketing specialists, county agent, and Extension horticulturist.

8. Apple growers in the Brushy Mountain areas requested help in 1950 on marketing low-grade and small size apples. A very comprehensive survey was made to determine the possible market outlets for these apples in that area. Several conferences with growers and marketing agencies were conducted in the area, visits were made to other processing plants, research was conducted on the costs and returns on processing of apples.

The results of this research were presented to the growers of the area and they decided not to establish a processing plant since the volume of business was too small to warrant. However, they did adopt one of the alternative suggestions such as better grading and sizing of their apples, more packing and better handling.

As a result, in the past five years very great progress has been made in the quality of apples marketed from the Brushy Mountain area and a large percentage of the apples are now stored, graded, sized and packed and sold through organized marketing channels. In 1950 practically all the apples were sold orchard run to truckers at very low prices.

Where apples formerly brought 75¢ to \$1.00 a bushel orchard run, they now return \$2.00 to \$3.00 and up per bushel to the grower. In the Brushy Mountain area alone this would apply to approximately 750,000 bushels of apples annually. Personnel involved were Extension fruit and vegetable marketing specialists, county agents, Extension Horticulturist, horticultural research, N. C. Department of Agriculture, Department of Conservation and Development.

9. A Winston-Salem wholesale produce market survey was conducted in 1951 and a report prepared. Recommendations were made for moving the market and the market was moved to the new location.

As a result the producers and market operators are in an enclosed building compared to formerly being out in the open; they are operating in a larger space; and their business has increased tremendously over their previous business. Personnel involved were Extension fruit and vegetable marketing specialists, Chamber of Commerce, U. S. Department of Agriculture, and N. C. Department of Agriculture.

10. Pre-coolers for Sweet Corn. Assistance was given in determining the costs and problems involved in installing pre-coolers for sweet corn at several locations in Eastern North Carolina. Three pre-coolers were installed in 1951. Producers following this technique regularly achieved a premium of 25¢ and up per crate for pre-cooled corn. They also received a more ready market for their corn. Since that time it has become practically impossible to sell sweet corn unless it is pre-cooled.

Assistance was given in establishing a market outlet for sweet corn in the Pasquotank County area. Contacts were made with a large sales agency to establish headquarters in the area to assist in handling the sweet corn. Personnel involved were Extension fruit and vegetable marketing specialists, county agents, Extension horticulturist, N. C. Department of Agriculture.

11. Irish Potato Washing. Information was provided to farmers in the Eastern part of the state on costs and returns of operating an Irish potato washing machine. As a result there were twice as many washing machines for potatoes in 1951 as in 1950.

Farmers were regularly receiving up to 25¢ per cwt. premium for washed potatoes. The number of Irish potato washers has increased since that time until now a majority of the crop is washed prior to going to market. Personnel involved were Extension fruit and vegetable marketing specialists, Extension horticulturist, county agents.

12. A roadside market was planned and submitted to a producer in Currituck County in 1952. The market was built according to the plan and has served as a demonstration for a good roadside market for many other areas of the state.

According to the owner of the market, it has more than paid for itself in increased business the first year of operation. He sells his entire crop of 50 acres of peaches plus a few figs and grapes through the market each year. Personnel involved were Extension fruit and vegetable marketing specialists, county agent, Extension horticulturist, Extension agricultural engineering specialist.

13. In a Wayne County farmers meeting in 1953 information was presented on costs, methods and problems of washing potatoes and the various aspects were discussed. As a result of this program there was a potato washer established in Wayne County resulting in a premium price for potatoes in subsequent years. Personnel involved were Extension fruit and vegetable market specialists, county agents, Extension horticulturist.

14. County Marketing Associations. Assistance was given in

organizing county associations for the apple growers in Henderson, Wilkes and Alexander Counties in 1953 and 1954. The principal purpose of these associations was to develop and conduct coordinated programs in production and marketing. The assistance during the organization took the form of discussion of possible plans, objectives and methods of operation, explanation of sample constitution and by-laws, and assistance in rewriting these articles to fit the needs of the local associations. Personnel involved were Extension fruit and vegetable marketing specialist, county agents, N. C. Department of Agriculture, Extension Horticulturist.

15. Apple Merchandising. Assistance was given in planning and conducting a rather extensive merchandising program for apples in 1953 and 1954, similar to the one conducted for the peach growers in the state. Like the peach program it showed a spectacular degree of success. Personnel involved were Extension fruit and vegetable marketing specialist, county agents, Extension horticulturist, Extension information, N. C. Department of Agriculture.

16. Apple growers in the Brushy Mountain area indicated an interest in obtaining a buyer or agent to handle the apples in the area. Through discussion and conferences with apple growers and members of the N. C. Department of Agriculture and other agencies, a buyer-agent was persuaded to locate in the area in 1953 and handle the packed apples for the producers in this area.

This was the first time an organized marketing agent had been located in the Brushy Mountain area and the arrangement has met with complete success. Since the time the agent has operated in the area, a larger and larger share of the apples are being packed and sold as graded packed apples.

17. Potato Referendum. In 1954, assistance was given in planning and conducting a potato referendum whereby the growers assessed themselves one cent per hundred pounds of potatoes to be used for promotion of their industry.

This program was successful and since that time the money has been collected and used for advertising and promotion of potatoes. Personnel involved were Extension fruit and vegetable marketing specialists, county agents, N. C. Department of Agriculture, Extension horticulturist, Agricultural Stabilization and Conservation.

18. Vegetable Market. Considerable time was spent in conducting a survey in connection with establishment of a vegetable market in Washington County in 1954 and 1955. The market has been established for vegetable outlet in that area since that time and has realized fair success. Personnel involved were Extension fruit and vegetable marketing specialist, county agents, Extension horticulturist, Experiment

Station, N. C. Department of Agriculture, Chamber of Commerce.

19. Emergency Assistance. Following the March 1955 freeze the peach and apple crops in North Carolina were killed and emergency assistance was given to market vegetables to offset the loss from these fruit crops. By cooperating with the State Department of Agriculture, the Experiment Station, and various other agencies, information was presented to the growers on possible crops to be grown in these areas and demonstrations conducted on methods of marketing. In addition assistance was given on establishing market outlets for these emergency crops.

As a result of these programs, some of the fruit growers who had their fruit crop entirely destroyed were able to realize some profits from vegetables. It was estimated that between 300 and 500 acres of tomatoes produced under this program in Henderson County alone.

20. Cooling Lettuce. Assistance was given in determining the cost and need for vacuum-cooling of lettuce in New Hanover and Pender Counties in 1955. Since that time this process has been adopted by the lettuce growers in that area resulting in a premium for the lettuce and a better market outlet for North Carolina lettuce. Personnel involved were Extension fruit and vegetable marketing specialist, county agent, Extension horticulturist, Experiment Station, Extension Agricultural Engineering.

21. Curb Markets. Assistance was given in conducting surveys to determine the need for and problems associated with establishing curb markets in Wilkes, Onslow, and Ashe counties in 1955 and 1956. Recommendations on the methods and operations of these markets were given.

Several conferences were conducted in connection with establishing processing plants for vegetables in North Carolina. Personnel involved were Extension fruit and vegetable marketing specialist, county agent, Extension horticulturist, food conservation and marketing, and agricultural engineering.

22. Yam Festival. The specialist works each year with the sweet potato industry in conducting exhibits and demonstrations at the Tabor City Yam Festival in an effort to improve the grade and quality of sweet potatoes packed. In addition, numerous field and market demonstrations have been conducted throughout the sweet potato areas on proper methods of grading and packing sweet potatoes.

As a result of this continuing program, there has been a noticeable improvement in the quality of sweet potatoes marketed in North Carolina. Personnel involved were Extension fruit and vegetable marketing specialist,

county agents, N. C. Department of Agriculture, Extension horticulturist, Experiment Station.

23. Peanut Referendum. The marketing specialist assisted in the planning and conducting of the peanut referendum which was successful and resulted in the farmers assessing themselves one cent per cwt. for the promotion and sale of peanuts.

This program has had a very successful result and has since been expanded to collection of two cents per cwt. Personnel involved were Extension fruit and vegetable marketing specialist, county agents, Extension Agronomy, N. C. Department of Agriculture, U. S. Department of Agriculture, Agricultural Stabilization and Conservation.

24. The peanut growers wanted an organization to operate their their storage program in order to qualify for government support prices. In a series of meetings with leaders in the peanut industry, assistance was given in developing and organizing the N. C. Peanut Growers Co-operative Marketing Association. This Association has been responsible for the entire peanut price support program by storing peanuts and making loans to producers.

Without the Association, peanut prices might have fallen several dollars per cwt. below the price support level. With it, peanut farmers have received support prices, and more orderly marketing has resulted.

In addition to leaders in the peanut industry, this effort received the cooperation of representatives of Extension marketing, the N. C. Department of Agriculture, U. S. Department of Agriculture, ASC, county agents, Extension Agronomy, Experiment Station, Office of information, and the press and radio outlets.

25. A sweet potato production meeting was held in Farmville during the late winter of 1949. The Extension horticulturist emphasized the need for a market in the Pitt-Martin area and outlined the requisites for a successful market. In a few weeks, the Extension horticulturist was called for a conference with the leading businessmen of Bethel. A company was formed and by harvest season of that year a 35,000 bushel curing and storage house was built and an auction market organized. Local businessmen furnished the capital and became actively engaged in the buying, storage and sale of sweet potatoes.

The Extension horticulturist, engineers and marketing specialists, as well as marketing specialist, N. C. Department of Agriculture, have all worked with the businessmen of Bethel to assist them in buying and shipping sweet potatoes. Growers have been assisted by the same groups working through county agents in the practices necessary to grow a quality product.

From the small beginning in 1949, this market has grown consistently to the point that in 1956 there was a total of 300,000 bushels of commercial sweet potato storage space at Bethel.

26. Dewberry Association. Specialists met with dewberry growers in Sampson, Bladen, and Cumberland counties to assist in organizing the N. C. Dewberry Growers Association in 1956.

Charter and by-laws have been drawn up and approved by the membership. Personnel involved were Extension fruit and vegetable marketing specialist, county agents, Extension fruit specialist, and the N. C. Department of Agriculture.

27. Organization of Markets. Several surveys and minor conferences have been held on the need and place of markets in the state -- such as conference with the market officials in Chowan County to change the system of marketing and establish a more satisfactory farmers market in that area.

As a result of these deliberations, the market was made more satisfactory in 1956 than in former years. Personnel involved were Extension fruit and vegetable marketing specialist, county agents, Extension horticulturist, Experiment Station, N. C. Department of Agriculture, and Chamber of Commerce.

28. A sweet potato meeting was held at Henderson in the winter of 1956. Marketing was stressed at the meeting. After the meeting a local businessman showed interest in providing a market at Louisburg. He was advised of the possibilities and what was necessary for success. He and his partner converted a building into a curing and storage house (24,000 bushel capacity) and were ready for business by harvest time, 1956.

Extension engineers and horticulturists examined the old building and advised how to remodel to include a heating system.

The Extension horticulturist made recommendations on necessary equipment for grading, washing, and waxing. Demonstrations were given on suggested means and methods of buying, stocking baskets in the house, and general storage house management. Production, grading, handling, and packing demonstrations were given growers in the area during the year.

29. Lettuce Production. In 1955 specialists met with farm groups at county meetings in eastern and southeastern counties on possibilities for lettuce production. In 1955 a few acres were started in Hyde County. In 1956, 50 acres were started in Washington County.

As a result of conferences and meetings a vacuum cooler was used for the first time on lettuce in New Hanover County in 1956. Two or three are expected in the area in 1957. Personnel involved were Extension horticultural marketing specialist and the N. C. Department of Agriculture.

30. Brushy Mountain Canning Company. In 1954 technical and economic assistance was given in establishing the Brushy Mountain Company. This plant now has a daily capacity of 30,000 pounds of dried apples and 100 bushels for freezing. Personnel involved were Experiment Station, Extension Service, and the Department of Conservation and Development.

31. Packing and Freezing Plants. Technical assistance has been given seven apple packing plants in Henderson County, a peach freezing plant in Lexington that has frozen 3 1/2 million pounds of peaches and 2 million pounds of strawberries, in the past six years, a peach canning plant in Aberdeen, and a dewberry processing plant in Winston-Salem. This assistance has been provided by the processing research personnel in Horticulture Research and Extension and county agents.

32. Processing Plants. In 1956 conferences on possibilities of a processing plant for fruit and vegetables were held with groups from Williamston, Warsaw, Salemburg, Sylva, Greenville, Farmville, Robersonville, Fairmont, Elkin, Goldsboro, Clinton and Whiteville.

The Horticulture Department helped the Willis Brothers of Williston set up a sweet potato processing plant that now is putting out over 20,000 pounds of a finished product per day.

#### GRAIN, LESPEDEZA, AND SOYBEAN MARKETING

1. Grain Committee. Much of the progress in grain marketing can be traced to the activities of the N. C. Grain Production and Marketing Committee organized in 1950.

At that time it was recognized that economic information was needed to chart the way to improved grain marketing. A committee was formed, composed of Extension specialists in marketing, entomology, agricultural engineering, and agronomy; various specialists from the N. C. Department of Agriculture; the chief of price supports, Agricultural Stabilization and Conservation; and the district supervisor, U. S. Fish and Wildlife Service. The N. C. Farm Bureau and the N. C. State Grange have cooperated with the committee and assisted in the program. The Extension marketing specialist has been chairman of the committee since 1951.

Since its organization this committee has held county, district and state schools for farmers, grain handlers, and processors. The purpose of these meetings has been to provide information that would enable the people involved to improve the marketing of grain. Other activities include assistance in organization of several marketing associations, preparing educational materials, and working with other groups concerned with grain production and marketing.

Here are the results:

- a. A 46% increase in commercial grain marketing facilities.
- b. Increase in commercial storage capacity of almost 7 million bushels.
- c. Addition of 3 million bushels of metal farm storage. Another 3 million improved farm storage.
- d. 145 farm driers added.
- e. Grain valued at approximately 1.6 million dollars now saved annually from insects and rodents. Farmers, millers and handlers have benefited from this saving. Consumers have gained through the improved quality of grain products.
- f. Additions of bulk dump pits which have increased the shift away from bags. Facilities usually pay 5 cents per bushel more for bulk grain. Labor costs have been reduced tremendously where bag unloading has been eliminated. Farmers have received a higher price in addition to eliminating the expenditure for bags.
- g. The expansion of grain handling facilities has increased the number of corn shellers so that the normal charge has been reduced from 15-20 cents per bushel to 10-12 cents per bushel. It is estimated that at least 15,000,000 bushels of corn are shelled at commercial shellers each year. A conservative reduction average of 5 cents per bushel means that farmers' costs have been reduced by \$750,000.
- h. Farmers use CCC loan programs more.
  - 1950 - 78,408 bushels
  - 1955 - 2,000,000 bushels. This means thousands of dollars to N. C. farmers.

2. Farmers in Catawba and Lincoln Counties in 1951 asked their county agents to contact the Extension marketing specialist. A tremendous grain market glut had developed. They believed that they should erect a grain merchandising facility. At the same time, the county agent in Forsyth County and the Chamber of Commerce in



Winston-Salem, asked for similar assistance.

Extension grain marketing specialist met with the two groups and recognized that the two problems were related. With assistance of the Market Facilities Branch, U. S. Department of Agriculture, and the Division of Markets, N. C. Department of Agriculture, a survey of the entire Piedmont area (39 counties) was conducted. After a thorough study, it was apparent that under our demand and supply conditions, we did not need grain merchandising facilities. We needed storage to hold our grain until our processing plants could use it.

The farmers initial idea of small scale storage and merchandising was not economically feasible. Farmers in South Carolina tried the same technique later and lost a great deal of money. It was clear that we needed large-scale, area-wide storage and increased storage capacity at the mills. The nature of the production pattern, and the cost of the facility retarded the large scale area-wide approach.

Farmers learned how to add farm storage and maintain quality. Mills added a tremendous amount of storage. The glut conditions were largely eliminated, and farmers have increased their income from grain through orderly marketing.

Interest in the area-wide approach is now gaining some ground. A unified approach toward this end will be attempted in 1957.

3. Lespedeza Marketing. Extension grain marketing specialist, N. C. Department of Agriculture personnel, and county agent of Edgecombe County, assisted lespedeza producers in improving their marketing procedure in 1955. A marketing dimension was organized within an existing cooperative association. The farmers have their seed analyzed, and they pack it in new bags with their own brand name. After the total quantity is assembled they sell as a unit on a volume basis and are able to accept bids from many interested buyers. These producers are pleased with the results of this more efficient method of marketing.

4. Warehouse Loans. Extension grain marketing specialist, personnel from the Division of Markets, N. C. Department of Agriculture and the Superintendent of Warehouses have acted as a committee to investigate applications for loans from the Warehouse Fund for the purpose of erecting grain facilities. Investigation of applications from several areas resulted finally in new facilities at Newton Grove, Mt. Olive, and Statesville. These involved a total addition of storage space of 590,000 bushels. Farmers have a more competitive environment in which to sell their grain.

5. Soybean Marketing. Extension grain marketing specialist, agronomy specialist, specialist from Division of Markets, N. C.

Department of Agriculture and county agents from 5 Northeastern counties met with producers to discuss the emergency soybean marketing situation in November, 1956. This was caused by the high water damage resulting from continual rains. Data assembled and presented led to a change in the CCC requirements for a loan and a more orderly movement of soybeans. Prices advanced, market operators were able to handle the flow more efficiently. County agents in the area estimate that farmer's gross income was increased by at least \$1,000,000 as a result of this work.

## BEEF, SHEEP, AND HOG MARKETING

1. Marketing lambs through lamb pools. This program was organized to improve lamb marketing on a pool basis to allow volume selling according to grade, and has been operating for several years. In 1956, 12,243 lambs were sold through 34 organized pools, and 80.4% of the lambs graded in the top three grades.

Farmers have benefited by \$1-3 cwt. as a result of this marketing work. An important educational objective is included in this demonstrational work, for farmers can see the value of grades and quality while they learn that volume and marketing efficiency are closely related. Personnel involved are Extension marketing specialist, Extension livestock specialist, county agents, N. C. Department of Agriculture.

2. Wool Pools. Personnel involved organize the market pools and contact buyers. Farmers take their wool to the designated assembly point, and it is sold on a grade basis. This method of selling has been operating for several years. Three years ago the system was revised, and marketing charges were reduced by 3¢ per pound.

The poundage sold in this manner has grown from about 120,000 pounds in 1953 to 230,000 pounds in 1956. In 1953, 46% of the wool graded "clear" and by 1956, 61% qualified for this grade. This type of educational demonstration is showing farmers the value of quality and improved marketing procedures. Personnel involved are Extension marketing specialist, Extension livestock specialist, county agents, N. C. Department of Agriculture.

3. Baby beef marketing. Intensive work has been done with young people in improving the marketing of baby beef animals. In 1956, 27 sales were held, and 878 animals sold for \$203,789. These young people are learning the best ways to produce and market quality animals which our livestock marketing system demands. Personnel involved are Extension marketing specialist, Extension livestock specialist, county agents.

4. Purebred hog, cattle and sheep sales have been organized and conducted in which farmers can purchase quality animals. This method of assuring farmers that they are buying quality animals has resulted in an improved livestock product which our markets can handle to the benefit of all concerned. Personnel involved are Extension marketing specialist, Extension livestock specialist and county agents in cooperation with the different breed associations.

5. Twenty-nine demonstration market hog sales were held in 1956. A total of 2,792 hogs were involved in these demonstrations. This is an excellent method of showing farmers and others what quality in hogs means to the successful handling of hogs in our marketing system.

The grade of hogs is improving. More market operators are buying on a grade basis. This is leading to a more stable pricing system for quality delivered. Personnel involved are Extension marketing specialist, Extension livestock specialist, in cooperation with the N. C. Department of Agriculture, local hog buying stations and packing plants.

6. A beef production program was held in Lee County in 1956. This resulted in an increase in beef consumption in the county. It showed farmers that we have an opportunity to increase quality beef production in the area. Personnel involved were Extension marketing specialist, Extension livestock specialist, county agents, N. C. Department of Agriculture personnel, women's clubs, civic clubs, schools, and the meat packing industry.

7. Farmers who produce feeder pigs in Cleveland and McDowell Counties and in the Durham area were assisted in contacting buyers. This work has great promise, for it provides an effective outlet for our piedmont and mountain farmers, and a dependable source of supply for our eastern farmers. Personnel involved were Extension marketing specialist, Extension livestock specialist, county agents, the N. C. Department of Agriculture.

8. The N. C. Meat Packers Association was founded in 1954. The association is made up of local packers throughout the state and it includes all the major packers. Work with this association expanded the use of Extension recommendations, and the services performed by the grading service of the N. C. Department of Agriculture.

Work with the association and member plants has increased the local demand for high quality slaughter cattle to a point where it exceeds local supply. Work with the association has also improved the method of buying slaughter hogs in the state. Many of the local packers now buy hogs on a grade basis and pay from 5¢ to \$1.00 more per cwt. for slaughter meat type hogs. Extension specialists and N. C. Depart-

ment of Agriculture personnel assisted in forming this organization.

9. Auction Markets. Extension specialists, county agents and N. C. Department of Agriculture personnel have worked with auction operators to improve facilities for handling and selling livestock at all the major markets in the Piedmont and Eastern sections of the state. All the major markets in these two areas now weigh slaughter cattle at the time of sale and report that this method of selling assists them in attracting slaughter buyers.

10. Fat Cattle Sales. Extension specialists, county agents and N. C. Department of Agriculture personnel worked with the fat cattle sales committee of N. C. Cattlemen's Association in planning and conducting 8 special fat cattle sales in 1956. Many of the producers estimated that they received at least 2 cents per pound more per animal due to the efforts of the state committee sponsoring these sales. These special sales also help establish a high base price for those sold on private terms.

A survey of cattle on feed conducted by the marketing specialist showed more than 16,000 head of cattle being fed out on farmers in N. C. in 1956 as compared to 4,000 reported in 1955. During the 1956 season a price increase of 1 cent per pound would have netted producers in excess of \$128,000.

11. Feeder Calf Sales. Extension specialists, county agents and N. C. Department of Agriculture personnel assisted in planning and conducting feeder calf sales in all cattle producing areas of the state. The number and quality of the calves being consigned to these sales has increased -- 5,767 in 1956 as compared to 1,232 in 1950.

In 1950, 52% of the calves were in the top three grades; and in 1956, 76% were in the top two grades. Producers report the price increase of at least 2 cents per pound for calves sold through these demonstrational sales as compared to those sold at regular auction markets and their gross income was increased by \$50,000 in 1956.

12. Yearling Sales. For the past two years yearling sales have been organized as indicated for the feeder calf sales. In 1956, 2,395 animals were sold for a total of \$289,174. It is estimated that farmers received from 1 to 1.5 cents per pound more for these animals than they would have obtained through their usual market outlets. They are learning the value of quality and volume in marketing, and this information will allow the normal marketing channels to make improvements.

## DAIRY MARKETING

1. Feed flavors in milk resulted in approximately 5,000,000 lbs. of milk being rejected. Sales were lost to farmers and dairy plants. Cost of producing milk were high because low cost pasture could not be used.

College personnel in the Dairy Manufacturing section met with equipment manufacturers and agreed to work on a machine that would remove feed flavors. After about 4 years of research and development, the machine was ready for testing by a commercial dairy plant. One was installed and found to be satisfactory.

Eleven dairy plants have bought these machines. Conferences have been held with many other dairy plants and it is believed that most of the dairy plants in North Carolina will have flavor removal machines in their plants within the next two years.

From a survey of rejected milk by N. C. dairy plants, it was calculated that N. C. dairy farmers were losing \$300,000 annually from this cause. Sales curves indicated that 10% loss in sales during the green pasture season. It is estimated that farmers can save at least 50 cents per cwt. in feed cost by letting their cows graze the pasture. Based on the monthly production for Grade A milk, this could amount to over \$300,000 monthly in reduced feed cost to N. C. dairy farmers.

2. Cottage cheese sales and consumption was low because of poor quality. A market for milk, and especially for skim milk, was needed.

A series of conferences and short courses have been held at the college and in dairy plants on cottage cheese making. Thirty-eight students representing dairy plants throughout N. C. attended these sessions. Several visits have been made to individual plants to assist with special problems on making and improving the quality of cottage cheese. Bulletins and radio and TV programs have been presented to encourage the use of cottage cheese in the home.

Cottage cheese production in the state has increased from 1,730,000 in 1949 to 5,321,000 in 1954. Total increase in milk used annually 1954 over 1949 is approximately 24,000,000 pounds or \$720,000 annually of increased income to farmers.

These results indicate that sure and steady progress is being made in providing a market for more milk for N. C. dairymen.

3. Lack of technically qualified personnel to work in milk and ice cream plants was a big drawback in dairy manufacturing. Two

week short courses in ice cream making and market milk are now given at the College. Twelve men participated in the Ice Cream Short Course in February 1956, and the same number attended in January 1957.

4. Coble Dairy Products Cooperative, Inc. In the summer of 1954, dairy farmers in North Carolina and in other states decided to form a cooperative and purchase the huge Coble Dairy marketing organization. The Extension marketing specialists, Extension dairy manufacturing specialist, and the cooperative specialist, Division of Markets, N. C. Department of Agriculture, met with the cooperative's board of directors. From that time to the present, the Extension marketing specialist and the N. C. Department of Agriculture specialist have met with the group many times.

Assistance provided has involved organization procedures, charter, by-laws, financing arrangements, and operating methods. County Extension workers throughout the area have contributed through their usual programs of improving quality in milk produced. The Extension marketing specialist and the N. C. Department of Agriculture representative have arranged for assistance from the Columbia Bank for Cooperatives and the Farmer Cooperative Service, U. S. Department of Agriculture. The Extension dairy manufacturing specialists have assisted from time to time.

This marketing attempt involves a multi-million dollar plant and over 2,000 milk producers. Real progress has been made. Eventually, it is believed, these producers will have full ownership of their own milk production, processing, packaging and distribution.

5. Farmers Cooperative Dairy. In the summer of 1956, the president, Farmers Cooperative Dairy in Winston-Salem asked the Extension dairy marketing specialist to conduct a survey to estimate the cost of converting to bulk handling of milk and the savings in marketing milk if the new method was adopted. After conferences with the Extension dairy specialist and agricultural economists on the college staff, a survey was made with the help of county Extension personnel in six counties.

After interviewing producers and plant personnel, the results were tabulated and a report made for the members of the cooperative. Later the dairy marketing specialist met with the members and explained the survey and the report.

It was found that the members, by converting to bulk handling, could receive a return on their investment ranging from 14 to 17.5% depending on the type tank purchased. This saving is possibly due to reduced hauling costs, reduced receiving cost and milk and butterfat saved due to less sticbage.

6. Work with Milk Commission. From time to time, the N. C. Milk Commission asks members of the college staff to point out alternatives regarding the adoption of certain milk marketing regulations. These inquiries are channeled through the College dairy marketing committee, which is made up of appropriate Extension and resesearch personnel. The committee functions to study the problems and report back to the Commission.

An example of the committee's work will show how it operates to improve milk marketing. In the spring of 1956, the Commission asked for alternative methods of pricing Class 111 milk. Four methods were proposed, with an estimate of expected results from each method. The Commission, in May 1956, adopted a revised version of one of the alternatives presented and farmers received a 42 cent per cwt, increase in the price for Class 111 milk.

This effort has increased the dairy farmers incomes by about \$200,000 for the year.

7. Bulk tank buying. In the spring of 1956, dairy farmers in the Asheville milk shed were told they would have to purchase bulk tanks by fall. County agents and farm organizations were concerned about the increased cost facing farmers in buying these tanks. Extension dairy production and marketing specialists were called in to plan group purchases of tanks and reduce costs.

After several meetings and a great deal of correspondence, producers in three counties made group purchases for about 100 bulk tanks at reduced purchase price of about \$200 each -- saving these farmers \$20,000. In addition, lower financing cost over a longer repayment period was arranged.

Savings to the farmers in this case were overshadowed by closer cooperation of the producers in dairy marketing activities. In Haywood County, for example, the Producers Association is now hauling its producers milk for costs with continued savings to the farmers.

## TOBACCO MARKETING

1. Junior tobacco shows and sales were started in 1952. They are conducted by tobacco Extension specialists. Sponsors are Tobacco Associates for state awards; local awards are sponsored by Tobacco Board of Trade, Chamber of Commerce, merchants and other civic groups.

In the five years, 1259 young 4-H, F. F. A. or N. F. A. members have participated and sold 1,885,340 pounds of tobacco for \$1,065,445.46.

On a government grade basis and average market price on the markets on the day of the Junior Show and Sale, the project tobacco brought these young farmers \$48,117.52 more money than it would have on the open market on the same day's sale.

More than 12,000 people observed these Junior Tobacco Shows and Sales.

Two of the above Junior Tobacco Shows and Sales have been motorized and lighted (Winston-Salem and Greenville). The tobacco was moved to the buying arena on trains of dollies. The sales area, 30' x 80', was lighted with from 48 to 80 fluorescent light fixtures. This provided constant and uniform light for the graders and buyers. More than 800 people witnessed these demonstrations.

2. Burley tobacco stripping and sorting demonstrations are conducted each year in 14 burley counties in cooperation with the Federal Grading Service. The annual attendance at these demonstration meetings has averaged from 900 to 1500 farmers. The demonstrations are designed to teach farmers how and why to do a good job of sorting and preparing tobacco for market. Suitable lights are used in these demonstrations.

3. Sorting and preparation for market demonstrations have been conducted in the flue-cured counties. Trailers and tobacco sorting machines, with lights, were borrowed and towed from county to county for use in conducting these demonstration meetings for agents and growers. In 1954, 1803 farmers, warehousemen and business people attended meetings in 31 counties. The Federal Grading Service cooperated in the conduct of these demonstrations.

4. Tobacco grading contests are conducted with young and adult farmers at the State Fair. Teams of young farmers are trained in grading tobacco and identifying the quality characteristics in tobacco as an aid to good preparation for market and as an aid in evaluating the affect of cultural practices on quality.

These teams are trained by county agents with the assistance, in many cases, of the Grading Service. These teams participate in tobacco grading contests held in conjunction with their junior tobacco shows and sales, county fairs and the State Fair.

An average of over 400 young farmers have participated in these grading team programs annually. From 250 to 400 4-H, N. F. A. and F. F. A. members have taken part in the State tobacco grading contest at the State Fair annually.



## COTTON MARKETING

1. Strengthening of Cotton Farmers Bargaining Position. N. C. Cotton farmers needed to be organized into community or county cotton improvement associations to qualify for Smith-Doxey services -- cotton classification and market news provided by the Federal Government.

The Extension cotton marketing specialist, working through county agents, has organized one cotton improvement association for each cotton growing county, beginning in 1938. There are now 46 organized groups. These groups are re-organized annually in order to qualify for these services.

These services have strengthened the bargaining position of cotton farmers in the market place, resulting in increased income to farmers. If income is increased only \$3 per bale, this amounts to over \$1,000,000 annually even at the current production level of cotton.

2. Cotton Quality Improvement: in 1939, 33 per cent of the N. C. cotton crop was less than one inch in staple length. In 1955, only 3.4 per cent was in the same category.

Coordinated effort of the Extension Service specialists and county workers, and State and Federal agencies in emphasizing quality continuously until farmers become quality-conscious brought about this improvement in quality.

Just one 1/32 of an inch improvement in staple means an average annual increase in the value of the North Carolina cotton crop, even at today's level of production, of almost \$1,000,000.

3. Reduction of "Rough Preparation" of Cotton: In 1939, 11.5 per cent of the N. C. cotton crop was reduced because of "rough gin preparation." In 1955, less than 1 per cent was so reduced. A coordinated program of the N. C. Extension Service, the U. S. Department of Agriculture Classing Office in Raleigh, and the N. C. Department of Agriculture Cotton Section aimed specifically at reducing "rough prep" cotton can be credited for this reduction.

Estimated savings to farmers: A decrease in value of \$10 per bale when a bale is "rough prepped" is conservative. Using this estimate, a decline of 9 per cent in "rough prep" cotton yields a savings to farmers of \$324,000 annually at current production levels.

## TIMBER AND FOREST PRODUCTS MARKETING

1. John Hamrick of Route 3, Shelby, a veteran and former factory worker, bought a 52-acre farm and took up farming to improve his health in 1951. The farm included 31 acres of timber. Several sawtimber buyers offered him lump-sum bids for all of the timber on the tract. The top offer was \$2,000.

Mr. Hamrick had a number of debts to settle so he called on the Cleveland County farm agent for advice. The agent contacted the district forestry Extension specialist. The two examined the tract with Mr. Hamrick and taught him and his brother how to select, mark and measure trees ready for sale. Trees which were growing more than 4% in volume annually were generally reserved from cutting.

The specialist checked the marking after the job was completed and discussed the provisions which should be included in the sales agreement with Mr. Hamrick. Mr. Hamrick then invited several buyers to examine the tract and submit lump-sum bids for the marked trees.

Mr. Hamrick sold the marked trees to Edwards Lumber Company of Charlotte for \$3,750 -- \$1,750 more than the original high bid for all the trees. He paid off all debts except his Federal Land Bank loan and had enough left over to buy 8 cows and fence in 14 acres of pasture.

2. R. E. Williams of Wilmar, Beaufort County, owned just one acre of mature pine timber which was ready for sale in 1952. He had received bids for it from three different buyers. Highest bid received was \$450. Since there had been considerable variation between the three bids, he decided it might be well to find out exactly how much timber he had.

The county agent and the district forestry Extension specialist visited the tract with him and trained him in the use of a timber scale stick. He then took a half-day's time to measure all his trees and work up the volume. He found that he had a total of 26,000 board feet by International 1/4-inch log rule.

He then contacted several additional buyers and finally sold the acre of timber for \$900 cash. For approximately one day's time on his part he earned an additional \$450.

3. Seton Westmoreland of Tobaccoville, Stokes County, an elderly farmer, had never sold any timber. He was "holding it for a rainy day."

Two poor crop years in 1951 and 1952 convinced him that the rainy day had arrived, and he let it be known that he had some timber for sale.

He received one offer of \$4,300 for all the merchantable saw-timber on 30 acres of his woodland.

Since he was inexperienced, he called on Stokes County farm agent and district forestry Extension specialist. After examining the merchantable timber area, they advised him to sell only 6 acres out of 30. This 6 acres supported a stand of mature 73-year-old shortleaf pine. The timber on the remaining 24 acres was good-sized but still making rapid growth.

Since only one day's work was required the agent and specialist helped Mr. Westmoreland measure all the trees on the 6 acres. The specialist then helped Mr. Westmoreland work up a list of potential buyers to contact.

One of the buyers Mr. Westmoreland contacted (Burke Wilson of Rural Hall) had a special order for some extra-long-length timbers, and Mr. Westmoreland's trees were large enough and tall enough to fill the bill.

As a result, Mr. Wilson was able to offer a premium price for this stumpage. He paid Mr. Westmoreland \$5,700 for the timber on this 6 acres -- \$1,400 more than another buyer had previously offered for timber on the entire 30 acres.

Mr. Wilson cut the 6 acres, and the following winter Mr. Westmoreland's son replanted the area with white pine seedlings.

4. Pulpwood marketing. Prior to 1949-50 farmer production and marketing of pulpwood was generally an unsatisfactory experience for the landowner. If he wanted to do his own cutting and/or hauling, he had to arrange his operation so as to load a boxcar (12 to 14 cords) within the two-day demurrage free period. He then had to wait two weeks or longer for the car to arrive at the mill, the wood to be scaled and final settlement mailed to him.

Starting in 1949, the pulpwood industry began establishing yard-type buying stations to accept, measure and pay for wood in truckload lots as it was delivered. This type of market was "taylor-made" for the small woodland owner.

In cooperation with pulpwood dealers and company representatives the Extension Service helped publicize the establishment and advantages of these yards through a large number of field tours and pulpwood thinning, harvesting and marketing demonstrations. By 1951, there were 65 such yards in operation.

Extension personnel were in some cases instrumental in advising dealers and companies where to locate such yards. Surry County is a good illustration. This is a Virginia pine timber area with, at that time.

thousands of acres which had grown up on farms so thick that the stands were stagnating before reaching sawtimber size; and there was only a limited outlet for pulpwood through one buyer at Elkin. Farmers in clearing land for crops or pasture were in many cases glad to give pulpwood-size timber away to get rid of it.

In 1951, Extension personnel talked with officials of Piedmont Wood Yards in Sanford about locating a buying yard at Mt. Airy. This was done. In 1953, Extension personnel encouraged Harry Hensel, a lumberman at Elkin, to contact Champion Paper and Fibre Company and see if he could get a dealership for a yard at his siding. This was opened in 1954.

Since then a second yard operated by Bowaters Paper Corporation has gone into operation also at Mt. Airy.

Pulpwood shipped from Surry County in 1949, before the establishment of these yards amounted to only 521 cords -- about \$5200 worth at 1949 prices. By 1952, shipment had increased to 18,403 cords -- \$202,433 worth at 1952 prices. In 1955, shipment totaled 27,011 cords -- \$351,000 worth at 1955 prices.

All of this was wood from farmer-owned forest land since during these particular years there was no paper company-owned land in this area.

Statewide, farmers in 1949, reported that they cut 103,271 cords of pulpwood with their own labor. In 1954, they reported cutting 205,467 cords. Labor-income-wise this represents an increase over this 5-year period of between \$600,000 and \$1,070,000. These figures do not include pulpwood sold as standing timber to buyers.

5. Market demand and price trend information. This phase of Extension's forestry marketing program was started in September, 1956; and it is too early to evaluate dollars-and-cents' results.

The forestry marketing specialist is preparing a monthly letter, the "Tarheel Timber Market". This is a 6-page release divided into three sections: one for "County Agents and Landowners," one for "Industry," and one for "Both."

The "County Agent and Landowners" section contains average prices paid by North Carolina buyers on a delivered basis for pine and hardwood sawlogs, veneer logs, dimension logs, poles, pulpwood and crossties as of the 21st of the month. Inventory and demand information and market strength of each of these major items is also described.

The "Industry" section lists wholesale prices paid or received for pine and hardwood lumber, both rough and finished. Inventory demand

and market strength are listed here also.

The section for "both" discusses developments in money policy, new uses and marketing opportunities, business outlook and other factors which may affect market demand.

Information is based on card reports sent in by approximately 50 in-state wood-using plants to the specialist each month.

Preparation and distribution of this monthly letter was started in September, 1956. It is mailed to 250 timber buyers and plant operators, all men county Extension workers, all Soil Conservation Service county workers, foresters of the North Carolina Division of Forestry, all North Carolina private consulting foresters, industry foresters and interested landowners.

Industry reaction and professional-forester reaction has been most favorable.

To our knowledge, we are the only state getting out such a report on a monthly basis.

6. Strip core patching. Furniture plywood panel producers using yellow poplar lumber for core stock (center layers) in 3- to 5-ply plywood manufacture were forced to use relatively high-grade boards (#2 common and better) since defects such as knots would often show through on the face of the panel. As a result, #3 common poplar lumber was a drug on the market and was suitable only for low-grade use in crating and dunnage. Since #3 common and lower-grade boards make up 20% to 25% of the total lumber cut from second-growth poplar, profitable use of this material was needed to stabilize and improve the market for this type of tree.

The School of Forestry found that defects such as knots could be routed out and plugged with a 1/8"-thick veneer plug in such manner that the plugged area would not show through the face veneer sheet glued over the core stock.

This study was completed in 1955, and is being accepted by the industry. As new furniture plants are built or old ones remodeled or expanded, strip core patching equipment is being installed. Singer Manufacturing Company, Pickens, South Carolina, and Unagusta Manufacturing Company, Hazelwood, North Carolina, are two examples of plants where this process has been incorporated in regular production.

Widespread adoption by the furniture industry is anticipated and should result in strengthening and stabilizing yellow poplar demand.

7. Quality control in veneer and plywood processing. In cooperation with the Hardwood Plywood Institute, Atlanta, Georgia, the School of Forestry developed methods for practical application of quality control techniques in the manufacture of hardwood veneer and plywood. This study was completed in 1952.

As a result, the member mills of this Institute are now able to guarantee their product uniformity as to grade, durability and glue-line quality. They have promoted the sale of hardwood plywood under the Institute's seal of approval. This trade promotion has resulted in a 75% increase since 1952, in the use of hardwood plywood nationally.

Not all of the increase since 1952, has come from Southeastern mills. Japanese adoption of American technology and quality control techniques has been rapid, and Japanese hardwood plywood of good quality is now giving domestic mills intense competition in the United States market.

## CONSUMER MARKETING

1. The Consumer Marketing program has as one objective: The expansion of markets for farm products. This is done by acquainting consumers with products in peak supply.

Agencies worked with on this program include the Extension and research personnel in the departments of horticulture, poultry, dairy, animal industry, agronomy, foods and nutrition, food conservation and marketing and Agricultural Economics; the office of Extension Information, N. C. Department of Agriculture, U. S. Department of Agriculture, Chambers of Commerce, Chain Store Council, individual stores, farmers markets, meat packers, TV stations, radio stations and newspapers, county agents and home agents.