

Return to Mrs Kelley

NORTH CAROLINA AGRICULTURAL EXTENSION SERVICE

PLAN OF WORK

AGRICULTURAL PRODUCTION, MANAGEMENT AND NATURAL RESOURCE USE

Title of Project

EXTENSION ANIMAL HUSBANDRY

Section

1963-64

Fiscal Year

Name and Title of Worker	Percentage of Time Devoted to Entire Project by Each worker
JACK KELLEY Project Leader	100 %
J. S. BUCHANAN, Beef Cattle & Sheep	100 %
A. V. ALLEN, Beef Cattle & Sheep	100 %
J. W. PATTERSON, Beef Cattle (Performance Testing)	100 %
J. R. WOODARD, Swine (Swine Evaluation Station)	100 %
D. G. SPRUILL, Swine	100 %
R. L. McGUIRE, 4-H Club Work	100 %
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Signed _____
State Director of Extension

Date Recommended _____

Signed _____
Administrator, Federal Extension
Service, U.S. Department of
Agriculture

Date Approved _____

1963-64 PLAN OF WORK
FOR
ANIMAL HUSBANDRY EXTENSION
IN
NORTH CAROLINA

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ANIMAL HUSBANDRY PLAN OF WORK

1963 - 1964

PROJECT III

AGRICULTURAL PRODUCTION, MANAGEMENT AND NATURAL RESOURCE USE

- A. Major problem of Extension's Clientele - To encourage farmers now in meat animal production to make more profitable use of their resources in generating farm income and encourage other farmers with potential resources to develop them to generate additional farm income.
- B. Major components of this problem:
1. Poor planning.
 2. Unwise use of resources.
 3. Resistance to change.
 4. Inefficient production methods.
 5. Lack of livestock know-how on the part of producers, farm managers and agricultural workers.
 6. Size of enterprise and volume of production within a given area too low for maximum return.
 7. Shortage of production tested, quality breeding stock.
- C. Goals:
1. Beef Cattle. Increase 1962 income by 38% by 1966.
 - (a) One-half by increasing the number of beef cattle.
 - (b) One-half from:
 - (1) Increasing the number of cattle marketed per 100 cows in the breeding herds from 65 to a minimum of 75 (top herds achieve 90% to 95%).
 - (2) Improving the average quality of feeder calves by one grade.

(3) Increasing the average weaning weight of calves by 25 pounds.

2. Hogs. Increase 1962 income by 40% by 1966.

(a) One-half from increasing numbers.

(b) One-half from:

(1) Increasing litter size from 7.2 to 7.6.

(2) Improving carcass quality by one grade.

(3) Improving feed efficiency by 15%.

BEEF CATTLE

1. STATEMENT OF PROBLEM - J. S. Buchanan

The problem is to increase and improve cattle feeding operations and the production of stocker cattle in Eastern North Carolina. This is the area of the State where most of our grain is produced, and there is a surplus of grain and labor on many farms that could be used for a cattle feeding enterprise. Farm feeding operations will be used to supplement income from tobacco and other cash crops that are produced on the farms in this area. Creating interest in cattle feeding, providing fencing and feed lot equipment and following a recommended feeding and management program will be given special attention in working with farmers who have a cattle feeding operation.

2. PLAN OF ACTION

- A. Four counties have been selected in different sections of the area and we now have 36 farms with 1,306 head of cattle on feed. These cattle were purchased in the fall of 1962 and will be marketed in the spring and summer of 1963. All of these farm feeding operations are being used as demonstrations of applied research to encourage more farmers throughout the area to establish similar operations.
- B. Extension specialists are working closely with extension agents in these counties in the planning and supervision of these demonstrations.
- C. County agents and extension specialists will continue to assist cattle feeders as follows:
 - (1) Conduct meetings on different systems of feeding cattle.
 - (2) Visit each demonstration farmer and work out a definite plan for his particular operation.
 - (3) Furnish information on feed lot equipment, management and parasite control.

- (4) Assist feeders with buying and selling cattle, and help to work out plans for financing cattle on some farms.
 - (5) Conduct tours and field days.
 - (6) An extension worker is visiting each demonstration once each month and will help to prepare a complete and accurate record on each farm at the end of the feeding period.
- D. All cattle feeders conducting the demonstrations are following a recommended feeding, management and marketing program. Each feeder will keep accurate and complete records on his operation and these will be made available to help promote the cattle feeding program.
- E. A goal of 20 new cattle feeding demonstrations per year with 600 cattle, has been set for these four counties for the next five years. At the end of five years we should have 120 demonstrations in the four counties with 3,600 head of cattle on feed.
- F. Starting in 1963, this program will be expanded to other counties with from three to five demonstrations in each county the first year.
- G. A summary of the information obtained from the records of all cattle feeding demonstrations will be made available to all county extension personnel for use in expanding and improving farm feeding operations throughout the State.
1. STATEMENT OF PROBLEM - A. V. Allen
- The efforts of last year resulted in some improvement in the quality of feeder calves sold in the Rich Square and Monroe Feeder Calf Sales. The sale at Monroe dropped from 52% Mediums in 1961, to 45% in 1962, and the Rich Square Sale decreased their Mediums from 52% in 1961, to 48% in 1962. Additional increase in quality can be expected as improvement in breeding shows up in later years. However, these two sales are still the lowest in quality

in the State with 5% more Mediums than the next lowest sale. Therefore, a special project to improve the quality of these calves will be continued for another year.

2. PLAN OF ACTION

- A. To make a profit with a beef cow operation it is necessary to get a high income per cow. The quality of calves in a feeder sale has a direct effect on the price of all animals in the sale as the highest price is usually obtained where the greatest volume can be offered. For example; the Jefferson sale graded the highest of any in the State while Monroe was next to last. The Choice grade steers at Jefferson brought \$29.42 compared to \$26.89 at Monroe. However, in the Medium steers the greater volume in this grade enabled the Monroe Mediums to average \$27.11 compared to \$26.71 at Jefferson. The higher percent in the top grades resulted in an overall steer average of \$28.46 for Jefferson and \$27.46 for Monroe. The number of Medium calves at Monroe and Rich Square are resulting in lower prices for the good producers as well as the Medium calf producers and an improvement in quality of a few herds would benefit all producers.
- B. The main effort will be made to improve the quality of the low producers at each sale by improvement of breeding stock and adoption of better management techniques. A secondary effort will be made for the areas in general through livestock schools, field meetings and demonstrations to improve quality of all consignors.
- C. (1) The records of the two sales will be studied to determine the producers and counties consigning the greatest number of Medium calves to the sales. The bottom half of the producers worked with in 1962 will be retained and the top half replaced with new producers consigning a large number of Medium calves.

- (2) An office visit will be scheduled with the agent or assistant in the counties involved to get their approval and to plan the work for the year.
 - (3) Visits to each farm will be made to study the operation and see what recommendations can be made to improve quality.
 - (4) Where management improvement involves changes in feeding such as creep feeding, plans for the creeps will be furnished and when parasite control is needed, mimeographed directions will be given each producer.
 - (5) Culling, grading and other method demonstrations will be conducted on the farms selected.
- D. This work will be accomplished by the Animal Husbandry Extension Specialists with the cooperation and assistance of the agent in charge of livestock work in the counties involved.
- E. The value of this work can be accurately measured by a study of the records of the two feeder calf sales for the past two years and by comparison of these two sales with the other nine sales in the State.
1. STATEMENT OF PROBLEM - J. W. Patterson

The problem is to increase the level of quality and performance of beef cattle in North Carolina through the use of performance testing.

Observation and collected data indicate that there are wide differences in weaning weights, gain on feed and grade or quality in every herd. Research gives us heritability estimates for these differences as 25% for weaning weights, 60% for gain on feed and 42% for finished grade. With these heritability estimates, it is evident that much improvement can be made with a sound selection program based on records.

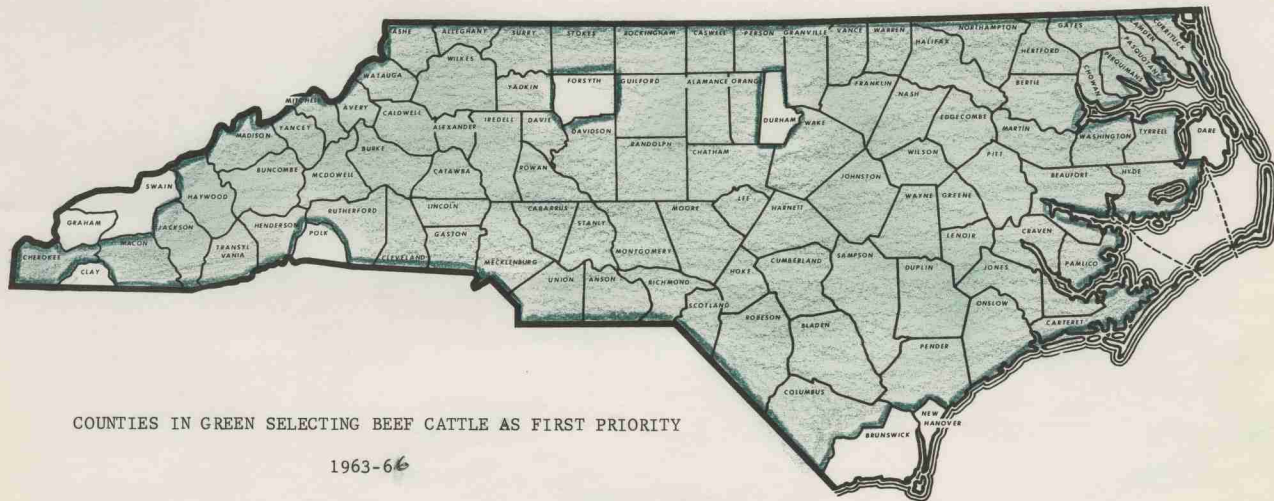
2. PLAN OF ACTION

A concentrated effort will be made during the coming year to increase the number of bulls that pass first test at 205 days to be tested for 140 day feedlot gain. During 1963 groundwork will be laid for a carcass evaluation program to supplement the 205-day and 140-day feed tests. This phase of the testing program will help to insure in the end that we will be producing an economical, desirable product.

This work will be done entirely with North Carolina purebred breeders, but in time will improve all cattle as the purebred breeders breed and offer for sale more profitable seed stock. The approach will involve the extension specialists, county extension personnel, organized cattle groups, and associated agricultural agencies and industries.

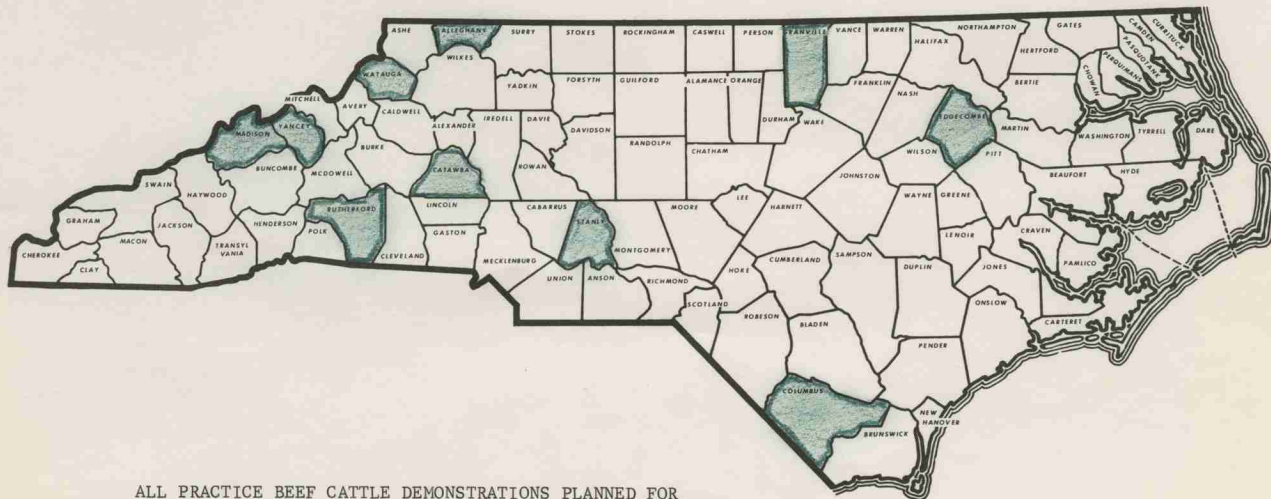
The educational approach:

- A. Mass communication.
- B. County group meetings.
- C. Breed meetings and field days.
- D. Demonstrational sales.



COUNTIES IN GREEN SELECTING BEEF CATTLE AS FIRST PRIORITY

1963-66



ALL PRACTICE BEEF CATTLE DEMONSTRATIONS PLANNED FOR

1963-64

SWINE

An All Practice Swine Committee has been organized in connection with the program of 1.6 in '66. This committee has developed an all-practice commercial program as a guide for producers.

The goal is to increase income from hogs 43% by 1966. One-half of the increase is to be derived from increasing the number of hogs. One-half from increasing income from the present number of hogs through increasing litter size, feed efficiency, and meat qualities.

Piedmont North Carolina, with a limited grain supply, offers a great potential for feeder pig production. Eastern North Carolina, with corn to market, is well suited for feeding hogs. The small farms of Eastern North Carolina may well consider the feeder pig program.

Markets are available for both feeder pigs and market hogs. Quality feeder pig markets have done a great deal in promoting feeder pig production with one market selling 28,000 pigs last year. Several counties have organized to sell pigs on a cooperative basis to meet the increasing demand for feeder pigs. Packing plants in the State are bringing in hogs from other states to keep the plants operating at the present capacity. The planned increase of hog numbers can be taken care of with the present slaughter facilities.

1. STATEMENT OF PROBLEM - Jack Kelley and D. G. Spruill

- A. Develop an educational program that will encourage farmers to add hogs to the farming operation. There are many farmers that do not realize the potential income that can be derived from hogs.

- B. To develop the hog enterprise as a business and not as a side line.
This would encourage farmers to stay in the swine business instead of going in and out, depending on price.
- C. The problem is to sell the idea of feeder pig production in Piedmont North Carolina where hogs have been a minor enterprise.
- D. The shortage and price of grain with the need for more on-the-farm storage.
- E. To develop a plan of action to improve the efficiency of the hog enterprise.
- F. To sell the fact that grain can be marketed with a considerable increase in value by feeding to swine.

2. PLAN OF ACTION

Meetings will be held in cooperation with the Farm Management Department to set up an All-Practice Swine Committee in counties selecting swine as a major enterprise. Feeder pigs in the Piedmont and a complete swine program in eastern counties. The first meeting in the county to be held will be with feed representatives, extension personnel, organized farm groups, teachers of vocational agriculture, and all other groups interested in swine program. The committee will be assisted in developing a plan of action that includes a county program.

All-practice demonstrations to be conducted with selected farmers in eastern North Carolina with a marketing incentive to encourage complete acceptance of recommendations. These units to be visited frequently by the local agent and specialists to give assistance as needed. One requirement to be met to receive the incentive price at marketing will be a complete set of records.

Educational approach associated with the projects:

- A. County group meetings on management and production practices to increase quality and numbers of feeder pigs on a farm basis.
- B. Farm visits by professional personnel to advise in planning and developing individual farm program.
- C. Demonstrational field days.
- D. Farm tours of outstanding operations.
- E. Mass communication media as well as individual communications on improved practices.
- F. All-practice demonstration in cooperation with the Crop Science Department.

1. STATEMENT OF PROBLEM - J. R. Woodard

Purebred swine breeders in North Carolina have been working for approximately eight years on an on-the-farm hog certification program. This program, while far from being perfect, has helped make the breeders aware of the need for improving the performance and carcass quality of swine.

The per capita consumption of pork has remained relatively constant for the past ten years at approximately 67 pounds per person. During this same period, the consumption of other meats, notably beef and poultry, has increased tremendously. It is felt that the reason pork has not shared in this increase is the fact that it has failed to meet consumer demands for a high quality red meat with a minimum amount of fat.

The on-the-farm certification program has many weaknesses. It fails to measure or stress the economic traits such as rate of gain, feed efficiency, and yield of lean cuts. Certainly no single trait is more important to the breeder than feed efficiency since feed costs represent

approximately 75% of the cost of producing pork. There is also too much variation between data collected on individual breeders' farms to make a fair comparison of differences in the performance different breeder's hogs. Each breeder has a difference in: Disease and parasite infestation, size and location of buildings and pastures, feeders, feed, environment, management, breeds, bloodlines, etc. It would be erroneous to compare the performance of one breeder's animals with those of another breeder unless most of these variables had been removed.

Therefore, the problem to be attacked is to work with the purebred swine breeders of North Carolina in the most effective manner possible to develop or identify breeds, lines, or strains of swine with superior performance and high quality carcasses. It is felt that by working with the producers of "seed-stock" the program will directly benefit the commercial producers of pork.

2. PLAN OF ACTION

A. Efforts will be made to encourage more purebred swine breeders to participate in a performance testing program. The complete testing program which will be recommended and promoted is as follows:

- (1) Enter two or more litters sired by each herd sire in the North Carolina Swine Evaluation Station. This will give each participating breeder a comparison, with the least variation possible, of the performance and carcass characteristics of his different lines of breeding. The breeder will also be able to compare the performance and carcass characteristics of his animals with those of other breeders. A between-breed comparison will also be available.

- (2) Breeders participating in the N. C. Swine Evaluation Station testing program will be encouraged to expand their testing program to include a complete on-the-farm testing program. Under this phase of the program, Extension Animal Husbandry Specialists with the cooperation and assistance of the local Extension Agent will assist the breeder in weighing and probing backfat on each animal saved for breeding purposes. The weight will be adjusted to a 180-day standard, the backfat probe will be adjusted to 200 pounds. This data along with sire number, dam number, and litter size will be programmed and analyzed by IBM. Each animal, each litter, each sire, and each herd will have an index or score. This complete herd test, complimented by the test data accumulated at the Swine Evaluation Station, will give the breeder a complete, well-rounded, performance testing program. The breeder will be able to use this information to do a much more effective job of culling his herd and also to do a more effective job in selecting herd replacements. This information can be of great value in advertising and selling breeding animals.
- (3) Breeders will be encouraged to continue on-the-farm certification work to supplement testing done at the Swine Evaluation Station. This will give the breeder carcass data on more animals. Efforts will be made to encourage the breeder to keep feed records wherever possible to get more complete data on feed efficiency under farm conditions.

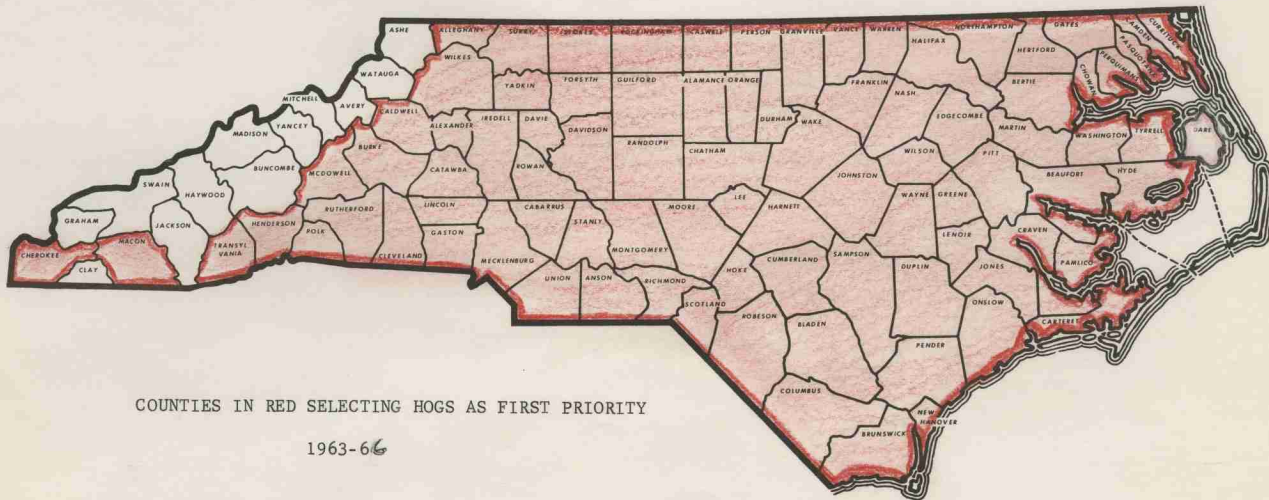
B. This complete swine performance testing program will be implemented in the following manner:

- (1) Contact concerned county extension agents by letter and personal visit to explain the program and solicit their help.
- (2) Contact the breeders in company of county extension agent, explain program, and encourage participation.
- (3) Test litters in N. C. Swine Evaluation Station and supply breeders and extension agents with complete performance and carcass data. Suggestions will be made as to points that need most improvement.
- (4) Weigh and get backfat probe on each animal saved by the participating breeder for breeding purposes. Analyze data on IBM and assist breeder in interpreting results.
- (5) Give testing program wide-spread publicity through Swine Evaluation Station reports, swine meetings, newspaper and magazine articles, radio talks and personal contact with both commercial and purebred swine breeders.
- (6) Work with cooperating slaughter stations that will do carcass measurements.
- (7) Encourage the use of performance tested sires by both commercial and purebred breeders.
- (8) Solicit and help of other interested persons and organizations.

C. Additional equipment and assistance needed to successfully get this swine performance testing program underway is as follows:

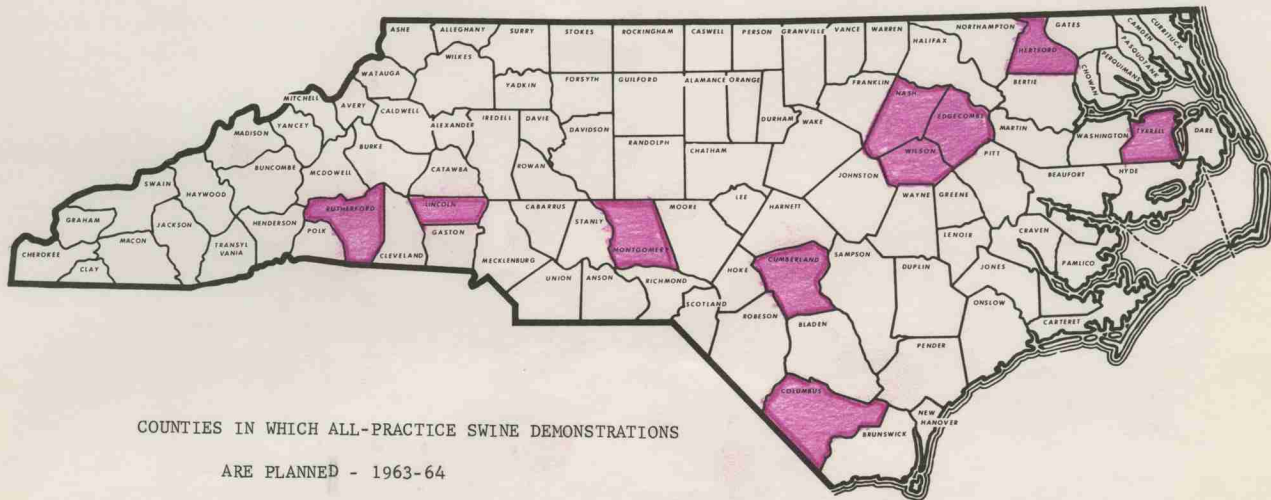
- (1) One pick-up truck to transport pigs and scales.
- (2) One set of portable scales with squeeze gate.

- (3) Backfat probes and necessary record forms.
- (4) More secretarial help to handle more of record keeping and computing of data. This would free more of Extension Animal Husbandry Specialists' time to visit and work with more purebred breeders in this performance testing program.



COUNTIES IN RED SELECTING HOGS AS FIRST PRIORITY

1963-64



COUNTIES IN WHICH ALL-PRACTICE SWINE DEMONSTRATIONS
ARE PLANNED - 1963-64

4-H

1. STATEMENT OF PROBLEM - R. L. McGuire

Eastern North Carolina is an area that has many wonderful opportunities for the development of livestock farming. A tremendous amount of grain is produced in this area and much of it is sold directly off the farm at harvest time. There are many markets available for the sale of finished meat animals and in most cases prices are as high or higher than those in the mid-west. Many people believe that a producer can expect a 50% to 100% increase in the value of his grain when marketed through livestock. There is a need for some accurate records under average farm conditions that could be used to show grain farmers this extra source of income.

2. PLAN OF ACTION

- A. Since swine was one of the classes of livestock that agents and specialists agreed had a great potential in Eastern North Carolina, it was decided that swine would be used in this project.

Six counties in the northeastern part of the State that produce a considerable amount of grain will participate in the project. These are counties in the Albemarle area where a concentrated effort is under way to increase farm income through grain and livestock farming. Each county will have from three to five demonstrations with 4-H Club members that are taking corn as a project. These club members will market their corn through home-grown pigs or through ones they purchase. Each project will be used by the agent in the county as a swine feeding demonstration. Accurate records will be kept on these projects and the final

measure will be made in dollars per bushel for corn marketed through swine.

It is hoped that through these feeding demonstrations and the use of records obtained that agents can show grain farmers that this is an additional source of income.

B. The educational approaches to be used with these projects are:

- (1) County meetings with extension agents to be sure that the program is well understood and supported by this group.
- (2) County meetings with boys that are interested in the project.
- (3) Farm visit by specialists and agents before and during the projects.
- (4) County tour by club members during the project to observe how their project compares with the other in the county.
- (5) Tour by farmers or county livestock association members to observe projects.
- (6) Continued publicity throughout the project by radio, newspapers, etc.
- (7) Recognition or awards meeting at the completion of the projects.

