

80 112

NORTH CAROLINA

AGRICULTURAL EXTENSION SERVICE

AGRICULTURAL ENGINEERING

PLAN OF WORK

FOR

1953

<u>Major phases of project or subdivisions of project covered</u>	<u>Name of Worker*</u>	<u>Percentage of time devoted to entire project by each worker</u>
Farm Drainage, Irrigation, Soil Conservation Water Systems Fence Construction and Post Treating Demonstrations	H. M. Ellis	100%
Rural Electrification Crop Drying	E. S. Coates	100%
Farm Machinery, Cotton Gins	J. C. Ferguson	100%
Farm Buildings, Plan Service	R. M. Ritchie, Jr.	100%
Result Housing Project	W. C. Warrick	100%

Date Submitted: January 9, 1953. Signed: H. M. Ellis
Project Leader

Date Approved: _____, 195__. Signed: _____
Asst. State Director of Extension

Date Approved: _____, 195__. Signed: _____
Director of Extension Work
U. S. Department of Agriculture

*If phases of project are divided between two or more workers, indicate assignment to each.

1

TABLE OF CONTENTS

	<u>PAGES</u>
BRIEF STATEMENT REGARDING PRESENT SITUATION	2 - 3
FARM MACHINERY	4 - 7
COTTON GINNING	8
FARM STRUCTURES	9 - 13
RURAL ELECTRIFICATION	14 - 16
CROP DRYING	17 - 19
DRAINAGE	20 - 21
IRRIGATION	22 - 23
SOIL CONSERVATION	24
WATER SYSTEMS	25
FENCE CONSTRUCTION AND FENCE POST TREATING DEMONSTRATIONS	26 - 27
GENERAL	28 - 29
PLAN OF SPECIALISTS' WORK AT STATE LEVEL	30 - 34
PLAN OF SPECIALISTS' WORK AT COUNTY LEVEL	35 - 48

1953

PLAN OF WORK FOR THE DEPARTMENT OF EXTENSION
AGRICULTURAL ENGINEERING

A BRIEF STATEMENT REGARDING THE PRESENT SITUATION WHICH WAS TAKEN INTO CONSIDERATION BY EXTENSION SPECIALISTS IN THE DEPARTMENT OF AGRICULTURAL ENGINEERING IN MAKING THEIR PLAN OF WORK FOR THE COMING YEAR.

The world situation appears as uncertain now as it did at the beginning of 1952. The economic outlook is uncertain, but it appears that strong inflationary trends will continue.

FARM MACHINERY: Farmers will pay higher wages for farm labor, and even then labor will be difficult to find. Mechanization is the best answer to this problem. North Carolina agriculture is rapidly being mechanized, and this trend will continue at a rapid rate. Power should be in keeping with farm requirements. The general care, operation, and maintenance of power machinery will be stressed in this program.

FARM BUILDINGS: Thousands of our farm homes are in need of major repair. Too many of them are not really livable because they lack adequate and comfortable furnishings. Only a small percentage have bathrooms, ample storage facilities, and central heating systems. Construction costs are high, but buildings needed for comfort and efficient production are in order, and their construction should be encouraged.

DRAINAGE: Farm mechanization and the better utilization of farm labor requires uniformity of land drainage. The overall Extension program has been and will remain pointed towards more efficient production. The drainage program for 1953 is as timely as it has ever been.

IRRIGATION: Following the prolonged drought of 1952, interest in irrigation is at an all-time high. Method demonstrations of applying water to farm land will be conducted. These demonstrations, plus industrial promotion, will move irrigation forward as fast as we care for it to go until research catches up. Farmers will be taught through community method demonstrations.

SOIL CONSERVATION: Because of the efforts of many agencies, farmers are more than ever aware of their soil losses; but as yet they have just begun the fight of

checking soil erosion. While the Extension program has been somewhat curtailed because of the activities of the Soil Conservation Service, there should be no let-up in our educational program.

CROP DRYING: As was true at the beginning of 1952, interest in crop drying is increasing. Farmers are continuing to learn that their losses because of moisture can be greatly reduced. Wherever practical, farmers will be encouraged to install equipment for drying grain and hay crops.

WATER SYSTEMS: The installation of running water in the kitchens of rural homes has not kept pace with our rural electrification program. People usually buy what they desire the most. Our job in this phase of our work will not be completed until our farm people desire running water in their homes to the extent that it will be placed higher on the list of priority. We should keep before us the fact that the low income groups cannot afford to be without running water in the farm home.

RURAL TELEPHONES: In our changing world, telephones are every day becoming more and more necessary. Progress will continue; and where practical, we should encourage this program as much as possible.

FARM MACHINERY

Prices received for farm products are now on a downward trend, which has long been regarded as eventually inevitable. At the same time, production costs are rising. Should these trends continue during the next few years, farmers' net income will be materially affected and must be offset by lower production costs and high yields per acre. Farm machinery will play a major role in meeting this problem.

North Carolina farmers are now operating more than 98,000 farm tractors; but many thousands of these tractors are not equipped with sufficient implements to fully utilize the labor-saving possibilities afforded by tractor power.

Adequate supplies of tractors and farm machinery are now available through the many dealers; but due to the lower net income in 1952, farmers will be reluctant toward the purchase of additional machinery, except those items which are considered absolutely necessary to their farming operations.

Care and maintenance of tractors and farm equipment are of utmost importance to every farmer. Due to limited possibilities of purchase of new equipment or replacement, special emphasis should be put on conservation of machinery. This involves the training of more skillful operators, making of more careful adjustments and repairs, and proper maintenance of not only the tractor but all associated equipment.

For several years numerous tractor maintenance schools have been held throughout the state for both adults and 4-H members. While these schools deal mainly with operator care and daily maintenance, they do serve to better acquaint the farmer with mechanical principles and the importance of systematic service and maintenance. Too often an expensive tractor through neglect is worn out in a matter of two or three years, when it could be made to last for a number of years with only minor repairs. Implement dealers throughout the state have been very cooperative in this effort, working with county agents and vocational teachers to further inform the farmer of his losses in power and efficiency of equipment resulting from careless and negligent maintenance and operation.

For 1953 fifty-two counties have requested assistance in holding county-wide or community tractor maintenance schools for their farmers. Since county agents normally schedule one to three schools per county and prefer meetings

during winter months only, it appears that it will be impossible to schedule all of this requested work for 1953.

Two three-day tractor maintenance schools for 4-H members, leaders, and assistant agents have been scheduled for late February. These will be held in the Agricultural Engineering Building on the College campus, and will have available the equipment and facilities of that department. Forty central and eastern counties have been invited to send delegates to the schools. The schools are sponsored annually by a leading oil company through the National 4-H Club Committee. Members of the Agricultural Engineering staff cooperate in this undertaking and afford the group a rather intensive course in tractor maintenance during the three day period. Normally about twelve tractors of various makes and models are used in the laboratory work on which the students put into practice the theory taught in the classrooms. Sufficient tools and testing equipment are supplied so that each student may actually gain practice in such work as adjusting valves, carburetors, engine timing, wheel bearing lubrication, etc.

The training offered assistant agents and 4-H leaders through these annual three-day tractor schools has been a stimulus to the 4-H tractor maintenance projects at county level. As a supplement to this project, 4-H tractor operator contests have been held in numerous counties. To be eligible to participate in such contests, a 4-H member must be an active member in the tractor maintenance project. For the past two years state driver contests have been held at the College, from which a winner was designated to participate in the southeastern contest held at Richmond, Va., during the Atlantic States Rural Exposition. Indications are that twenty-five to thirty counties will hold such contests during 1953 from which a state winner will be selected at the state contest in September. Fifteen counties have requested assistance from the state office in holding their county-wide contests during late summer and fall.

Farm machinery field days have been a very popular phase of Agricultural Engineering work for the past several years. County agents find ready assistance among all farm equipment dealers in planning and executing such farm machinery exhibitions in their counties.

Many new items of farm machinery are being developed each year, such as off-set harrows, improved planters, fertilizer attachments, spraying equipment for herbicides and insecticides, soil fumigators, harvesting machinery, etc. With this ever-widening possibility of mechanizing the many farm operations, it affords excellent material for annual field day demonstrations at both county and community levels. Through such exhibitions of new equipment and practices, farmer acceptance is greatly accelerated

over normal procedures.

For example, spraying and dusting of insecticides and herbicides on various crops is of major economic importance. This work requires know-how and properly designed equipment for application. Many requests are received each year by county agents, implement dealers, seed dealers, vocational teachers, and also by the State Extension Office for technical assistance in the more advanced phases of modern agriculture which can best be met by scheduled field demonstrations.

Root knot nematode in tobacco during 1952 was the cause for many millions of dollars loss and has caused thousands of farmers to suddenly become intensely interested in nematode control. It is estimated in some eastern counties that from 60 to 75% of all tobacco acreage will be treated with soil fumigants prior to planting of the 1953 tobacco crop. Because of the somewhat complicated equipment and the necessity of precision application, farmers are anxious for assistance in meeting this problem.

During November and December of 1952 the Agricultural Engineering Department cooperated with the Agronomy division in a series of educational meetings on nematode control for tobacco. Equipment was assembled and displays arranged at each of these meetings; and in practically every county farm equipment dealers supplied fumigation equipment for actual field demonstration. Many of the counties in which these educational meetings were held have requested further assistance in field demonstrations during the early spring.

Because of the high cost of solid nitrogens, considerable interest is now being shown in the use of anhydrous ammonia and solution nitrogens as a cheaper source of top dressing. The Agricultural Engineering Department cooperated with the Agronomy Department during the past summer in putting on a series of anhydrous ammonia and solution nitrogen demonstrations. At present there are several anhydrous ammonia distribution points within the state, and considerable acreage of corn and cotton has been so treated. However, due to the high cost of equipment, the use of anhydrous ammonia does not appeal to the small farmer; but in the case of solution nitrogens, it appears that less expensive application equipment may be used and thereby attract many small growers to this less expensive source of nitrogen. Some work was done during the past season on inexpensive gravity flow equipment by which solution nitrogens could be applied satisfactorily. While some difficulties were encountered in regard to corrosion and vapor pressures under mid-summer temperatures, it seems entirely possible that satisfactory equipment may be developed which would cost little more than distributing equipment for solid nitrogens.

The rotary hoe has been used for years in the early cultivation of corn, cotton, peanuts, and other large acreage crops; but doubt existed to its adaptability to transplanted crops such as tobacco. However, as a result of demonstrations conducted for the past three seasons, the rotary hoe has been fairly well accepted in many areas as a cultivating tool for young tobacco. Several counties have requested repeat demonstrations for 1953. Many farm equipment dealers report the sales of rotary hoes during 1952 far exceeded their expectations. By proper use of the rotary hoe on tobacco, it entirely eliminates hand hoeing, and a thorough cultivation can be accomplished with considerable saving of both time and labor.

Joint projects and demonstrations with Agronomy, Entomology, and others will be arranged as the demand justifies in 1953. Such projects may include the complete cultivation and dusting or spraying of tobacco with high clearance tractors; close space planting, cultivation, and harvesting of peanuts; soil fumigation; cotton spraying, dusting, and chemical weed control work.

Farm machinery exhibits and demonstrations have become a major part of the annual Farm and Home Week and was a main feature on the 1952 program. Plans are now underway for a rather comprehensive program on mechanization which will be one of the outstanding features of the 1953 Farm and Home Week program.

Each year the Agricultural Engineering Department cooperates very closely with the management of North Carolina State Fair in arranging the many farm machinery exhibits. Exhibit space and facilities are being improved each year, and as a result more manufacturers are being attracted, which has afforded steady improvement of farm machinery exhibits, and thereby are attracting many thousands of farmers who have already mechanized or are considering mechanization in their future farm plans.

The 1952 farm machinery exhibit was by far the best ever arranged for a State Fair, and it is anticipated that 1953 will be even better.

Many special requests for assistance not included in the annual county plans of work are received throughout the year from county agents, individual farmers, vocational teachers, and specialists in other fields of work. Such requests are fitted into the existing schedule insofar as possible.

COTTON GINNING

Extension cotton gin work includes conducting of cotton gin operator schools, field service to individual cotton gin owners and operators, along with general educational cotton meetings. Since cotton ginnerers are dependent on a cotton crop for return on their investment in gin machinery, they are keenly interested in promotional work among farmers, and lend their full support to extension work in this field.

Due to the extreme shortage and high cost of labor, in 1952 approximately fifty new cotton pickers were purchased in North Carolina, which has created additional problems for those ginnerers not already equipped to handle mechanically harvested cottons. One of the most serious handicaps in mechanically harvesting cotton in North Carolina is brought about by the large amount of grass which appears in cotton fields after the crop has been laid by. Stem and leaf trash collected along with the seed cotton in mechanical harvesting can be fairly well extracted and cleaned from the cotton with modern cotton gin cleaning machinery; but with grass badly entangled in the fibres by the action of the mechanical picker, it becomes almost impossible to separate it with any present day gin machinery; therefore, it appears that one of our major problems to overcome in mechanical harvesting of cotton is to be able to control grass in cotton fields during the late growing season.

For 1953 ten counties have requested assistance in cotton gin improvement work, including individual visits to gins and educational meetings with farmers on harvesting and handling seed cottons. Normally cotton gin operator schools are held jointly with the State Department of Agriculture which has a staff of two specialists who inspect and supervise ginning operations during the ginning season.

FARM STRUCTURES

Housing:

In spite of the large number of farm homes that have been built or repaired in the past few years, many North Carolina homes are still in need of major repair, improvement, or replacement. The large number of new homes being built is encouraging, but a large percentage of these new homes are almost completely lacking in desirable features. A survey of new farm homes built in North Carolina in the period 1948-1950 indicated that one-third of these new homes had no closets in the bedrooms, two-thirds had no closets other than in the bedrooms, only 40% had running water in the kitchen, and only about one-fourth had bathrooms. Even though costs are high, farm homes will continue to be built in large numbers in 1953, but due to lack of resources or lack of appreciation for desirable features, many of these new homes will not be very liveable.

MAJOR PROBLEMS:

1. Some families who need a better home and could afford to have it seem to lack interest.
2. Many families will build or supervise building of their own homes but lack knowledge of proper planning and construction.
3. With the limited time available, and their many other duties, it is difficult to train all agents to the point that they feel qualified to advise people on building problems.
4. More cooperation is needed between Extension agents and local builders and dealers in promoting the use of better plans and construction methods.

ACTIVITY GOALS:

- 152 specialist days in field
- 263 specialist days in office
- 255 agent conferences and visits
- 58 assistance with meetings
- 24 result demonstrations to be continuously underway
- 8 construction demonstrations (method)
- 4 new plans prepared
- 2 old plans revised
- 18 news articles and radio talks
- 2 circular letters

METHODS OF PROCEDURE:

Assistance will be given, where requested, with meetings and demonstrations in the counties. Subjects to be discussed in the meetings include home planning, construction, remodeling, and heating. Method demonstrations will cover such subjects as floor finishing, wallboard finishing, residential concrete floors, and storage space construction. Most of these will be held in some of the homes used as result demonstrations.

One specialist will continue supervision of the 24 result demonstration houses now underway. As each house is completed, an open house will be held to give people an opportunity to inspect the house, and a printed leaflet giving the story of the project will be sent to all agents. As projects are finished, new ones will be started so as to keep as many projects going as the specialist can supervise. A program will be presented at agent training meetings which will report on the result demonstration housing project and suggest ways in which the information gained in these projects can be used in county programs.

New plans will be developed where necessary to meet the needs of families cooperating in the result demonstration housing project. The best of these plans will be added to our standard house plan catalogue.

COOPERATION:

Commercial representatives will cooperate in conducting method demonstrations in the result demonstration houses and in the special interest meetings. Agents will be encouraged to invite local builders and dealers to come to Extension meetings on housing. Other Extension specialists will cooperate in conducting meetings and demonstrations when needed. The house furnishings specialists and horticultural specialists will assist in furnishing, decorating, and landscaping the result demonstration houses.

PUBLICATIONS, VISUAL AIDS, AND OTHER TEACHING AIDS:

Work will continue in making slides and pictures of result demonstration houses. These, along with cost figures and other information, will be used by agents and specialists in educational work.

In cooperation with house furnishings specialists, publication of a bulletin on built-in storage space is planned.

One or more new sets of slides on home planning and construction will be assembled with accompanying script for agents' use in housing meetings.

Farm Service Buildings:

North Carolina agriculture is expanding rapidly in livestock, poultry, and dairy production. This shift in the agricultural pattern requires a great many new buildings. Often the cost of buildings is a major obstacle to the adding of a new livestock, poultry, or dairy enterprise. It is therefore important in our farm building work that we make available information on buildings of the lowest cost possible, consistent with sound management.

RESEARCH NEEDED:

More information is needed on requirements for sound, low cost buildings suited to our climate and farming practices. Many buildings still being built are outmoded or based on research or practices in other areas. Buildings for grain conditioning and storage and for housing all types of livestock are among those where additional information is most needed.

MAJOR PROBLEMS:

1. The need for more definite information on which to base building design.
2. Information on buildings needs to be presented in a form which will be more readily understood and accepted by farmers and builders.
3. Need for an adequate plan book in the hands of agents so that they can show farmers what plans are available.
4. Many agents need more training before they will feel qualified to advise on building problems.
5. Need for closer cooperation between Extension workers and local dealers and builders.

ACTIVITY GOALS:

- 63 specialist days in field
- 108 specialist days in office
- 53 agent visits and conferences
- 17 assistance with meetings
- 13 construction demonstrations
- 6 new plans prepared
- 20 present plans revised
- 4 news articles and radio talks
- 3 circular letters

METHODS OF PROCEDURE:

Counties will be visited as requested to assist with meetings, to hold conferences with agents, and to make visits to individual farmers on special problems. Meetings planned include those on tobacco barns, silos, dairy barns, and general type meetings where various type buildings are discussed.

Interest in silo construction has increased greatly in the past two years. Increased livestock production, together with unseasonable weather, has shown the importance of silage for both winter and summer feeding. In an effort to help farmers in constructing satisfactory low cost silos, a series of demonstrations is planned in constructing both upright and trench type silos. The emphasis in these demonstrations will be on silos which can be built at minimum cost by utilizing farm materials and labor where possible.

Burley tobacco is an important source of income in the western part of the state, and much money is lost due to poor quality tobacco caused by improper curing conditions. Several counties have requested assistance in conducting demonstrations in building or remodeling burley barns to improve curing.

Other construction demonstrations planned include dairy barn floor construction and adapting tobacco barns for sweet potato curing.

Considerable time will be spent in preparation of a new plan book of farm service buildings. This book will, insofar as possible, consist of printed copies of all farm service building plans which will be bound in loose leaf form and supplied to each county agent's office. A similar book for house plans was prepared during 1952 and was very favorably received.

COOPERATION:

Specialists from other departments will be consulted for advice in connection with the preparation of new plans or revision of old ones.

Many of the meetings and demonstrations planned will be conducted in cooperation with specialists from other departments.

Commercial representatives will assist in conducting some of the meetings and demonstrations and in supplying information and literature in their fields.

PUBLICATIONS, VISUAL AIDS, TEACHING MATERIALS:

As much time as possible will be devoted to the preparation of the new plan book mentioned above.

RURAL ELECTRIFICATION - 1953

Less than ten per cent of North Carolina's 288,508 farms were without electricity July 1, 1952. During the preceding twelve months 41,863 farm families were added to the electric distribution lines serving rural communities. North Carolina still ranks second in the nation with the total number (260,811) of farms with electric service.

To increase the efficiency of farm production and to raise rural living standards, farm families must be properly informed as to how electrical equipment can most wisely be used to cut labor costs. This is the factor on which the educational work relating to rural electrification will be based during 1953.

Farm and home agents realize the importance of producing more farm products with the present acreage and equipment and with less labor. They also realize the need for the care and proper use of electrical equipment as a method of continued efficient production. Consequently, the agents need assistance in training rural people along these lines.

Commercial groups, utility companies and rural electric membership cooperatives are to be encouraged to assist the farm and home agents with the electrification problems in each county.

Civic groups, farm groups, and electrical equipment representatives will be encouraged to promote the purchase of productive equipment before luxury equipment as a means of boosting farm income.

MAJOR PROBLEMS:

1. Preparation of subject matter material for adults and 4-H Club members on uses of electricity for farm and for the home.
2. Preparation and presentation of demonstrations on use of electrical equipment on farm and in the home.
3. Making information available to farm and home agents in an acceptable form for teaching to rural people.
4. Training agents on proper utilization of electricity through the most modern practices and methods.

- 5. Securing cooperation from electric utilities, rural electric membership cooperatives, and local commercial dealers in electrical appliances and equipment in promoting the sale of productive equipment to farm families.

ACTIVITIES GOALS:

- 49 specialist's days in field
- 66 specialist's days in office
- 29 conferences and visits with agents
- 7 county-wide training meetings
- 41 counties assisted
- 4 circular letters
- 5 news articles and radio talks

METHODS OF PROCEDURE:

- 1. Meetings and demonstrations:
Special interest meetings for farmers, home demonstration members, and 4-H Club groups on utilization of electricity and use and care of electrical equipment.
- 2. Agent's conferences and visits:
Visits will be made to discuss Farm and Home Electric program and methods of promoting an over-all educational program.
- 3. Training School:
A special school will be held to train instructors of the summer camp program on the subjects used in electric classes.
- 4. 4-H Club camps:
Four subjects on electricity will be taught at each 4-H camp during the summer. Electric utilities will furnish instructors and equipment.
- 5. Publicity:
News articles and radio talks on timely topics will be released by the State office. These will be prepared in this department for use by REA Coops, in monthly news letters and by newspapers and magazines throughout the State.

COOPERATION:

The Home Management Department will cooperate in preparation of material and in promotion of the program.

The electric power companies will cooperate in furnishing assistance to agents and in supplying educational material when requested. They will furnish instructors and electrical equipment for electric classes in four summer 4-H camps. They will also furnish awards to 4-H Club winners in the electrical project on county and territorial levels.

The Westinghouse Electric Corporation will furnish educational material for electrical classes in 4-H camps and for agents and club members. They will give awards to winners in the 4-H Club Farm and Home Electric program on county and state levels.

Close cooperation will be maintained between this office and the state 4-H specialists, the district agents, and county farm and home demonstration agents in promoting the electrification program.

The state REA office and rural electric membership cooperatives will cooperate with an educational program to reach each of its consumers with the latest recommended practices. They will assist in promoting the 4-H Club electric project on a local and county level.

Dealers and electrical supply houses will assist county extension agents with promotional work on a county and local level.

CROP DRYING - 1953

North Carolina farmers are being asked to boost production to a level greater than any previously attained. With fewer farm workers available each year, the farmers must produce larger quantities and better quality with less help. This calls for a greater production efficiency through improved farm practices and mechanization.

Farmers have readily accepted improved agronomy practices to boost yields. Since weather conditions are such that mechanical harvesting of crops at the proper time is often hampered in North Carolina, one of the most forward steps toward improving the quantity and quality of many North Carolina farm products would be the increase in use of crop drying equipment.

The distribution of crops in North Carolina lends itself well to some system of crop drying, since seventy-four counties grow one or more of the ten principal crops that have need of artificial drying or curing. There are 21 counties that grow from five to seven of these crops.

There is a critical need for more on-the-farm storage and drying facilities in North Carolina. As a result of a combined educational program in grain production, storage, and marketing, a sizable percentage of grain producers constructed farm storage and drying facilities in 1952. Such a program will be intensified during 1953 to reduce the number of farmers that sell all their farm products immediately upon harvest at low harvest prices.

Research is needed on a crop drying system that is practical for the small farmer with limited capital. Many of these farmers have been reached with a suitable system through the use of tobacco barns as a source of heat, but many more farmers do not have tobacco barns and must depend upon commercial driers or upon improperly controlled home-made heating systems. The cost of a commercial system is out of reason for the small farmer.

Research is also needed on storage of small grain crops in different type structures in North Carolina.

MAJOR PROBLEMS:

1. Education of farmers to benefits of artificial drying. Comparison of cost of installation of driers to amounts lost in crops from weather damage.

2. Training agents to promote crop drying and to be able to assist in designing a drying installation.
3. Preparing and presenting educational information to show practicability of crop drying.
4. Securing cooperation of commercial firms in properly presenting facts to prospective buyers of equipment.

ACTIVITIES GOALS:

78 specialist's days in field
 95 specialist's days in office
 40 agents' conferences and visits
 61 counties assisted
 33 field days and farm demonstrations
 5 circular letters
 6 news articles and radio talks

METHODS OF PROCEDURE:

1. Meetings and demonstrations:
 Field demonstrations are conducted to show methods of designing and constructing crop drying systems. Several of these demonstrations will be conducted in cooperation with Agronomy, Farm Management, and Entomology Departments, on a planned series of meetings through grain producing area.

Special interest meetings for groups interested in installation of hay, grain, or seed drying systems.

Result demonstrations in grain drying, where one or more crops are dried on the same system.

2. Agents' conferences and visits:
 Conferences in agents' offices for training, and visits made with agents to assist farmers in planning drying installations.

COOPERATION:

1. Research and Extension departments will cooperate in promoting timely educational programs. The Research Department will be consulted on the design of any new systems.

2. Certain farmers will cooperate in studies of various types of drying systems.
3. The Production and Marketing Administration will cooperate by making loans to farmers who desire to install crop driers.

DRAINAGE

PROJECT SITUATION:

In North Carolina approximately 4,000,000 acres are poorly drained. This figure includes woodlands, muck soil areas, and wet sands, as well as wet areas that are cleared. Soils and drainage specialists estimate that one-fourth of the 4,000,000 acres is in cultivation, and that 980,000 acres have some form of drainage; but that not more than one-fifth of this 980,000 acres has adequate drainage for the crops commonly grown in the area. Inadequate drainage of potentially good agricultural land is a statewide problem.

North Carolina farming is rapidly becoming mechanized, and mechanized farming demands uniformly drained fields. Coupled with this is a definite trend towards livestock farming, and this presents a real drainage problem, because extremely low wet places are being surface drained to provide additional pasturage.

OBJECTIVES:

The overall Agricultural Extension Program has been and will remain geared toward more efficient production. This program demands adequately drained land. Our objective is, through an educational program, to promote the use of better drainage practices in adequately draining land. Assistance will be given county agents in conducting method demonstrations.

MAJOR PROBLEMS:

1. Lack of satisfactory outlets.
2. Lack of information on hard-to-drain soils.
3. Lack of trained personnel.

ACTIVITY GOALS:

- 15 specialist days in field assisting in conducting county programs
- 25 specialist days in office preparing educational material to aid in county programs
- 6 specialist days in office in cooperative work with PMA and SCS programs
- 12 demonstration meetings conducted by specialist
- 4 news articles

METHODS OF PROCEDURE:

We will assist agents in planning and conducting their county programs. The specialist will hold educational meetings, conduct preliminary surveys, hold tile laying demonstrations and ditch blasting demonstrations, primarily for the benefit of the agent. The agent will not be expected to launch a personal service program, but our demonstrations should enable him to conduct similar demonstrations and to make sound recommendations. He will be supplied with teaching aids, so that he may feel confidence in carrying on the work. Trips to the counties by the specialist for follow-up work cannot be listed in a plan of work, but these follow-up trips will be cared for in our unallotted time.

COOPERATION:

<u>Name of Agency</u>	<u>Assistance to be given</u>	<u>Assistance to be received</u>
PRODUCTION. MARKETING ADMINISTRATION	Committee work on preparation of specifications for soil building practices and engineering advice on special programs.	Stimulation of program through payment to farmers for drainage practices.
SOIL CONSERVATION SERVICE	<ol style="list-style-type: none"> 1. Preparation of specifications for all drainage practices. 2. Will work together on many of the county demonstrations. 	<ol style="list-style-type: none"> 1. SCS technician will make surveys for community projects. 2. Will work together on many of the county demonstrations.
VOCATIONAL TEACHERS	They will be invited to attend the county demonstrations and to bring their students.	Teachers will assist in making surveys and will promote programs in other ways.

IRRIGATION

PROJECT SITUATION:

Following two dry summers with an unusual drought during the summer of 1952, interest in irrigation is at present at an all time high. This practice has already proved a profitable practice for many crops grown in North Carolina. Even though we are located in a humid area, some sections of this state experience a damaging drought each year. During the period of the past five years, irrigation has been increased from a very few thousand acres to an estimated 15,000 acres. Major crops that are now being irrigated to a limited extent include Irish potatoes, general truck crops, tobacco, peaches, pasturage, blueberries, and flowers.

Portable revolving sprinkler systems are best suited to the needs of North Carolina farmers. As indicated by requests on the county agents' plans of work for specialist assistance with irrigation problems, there will be a tremendous increase in the acreage irrigated in North Carolina during the coming year.

MAJOR PROBLEMS:

1. Lack of "know-how".
 - A. Little information in infiltration rate of soils.
 - B. Little information on water requirements of crops grown and results of watering, such as increasing susceptibility of plants to disease.
2. Lack of trained personnel in agencies of USDA and in sales organizations.

ACTIVITY GOALS:

- 38 specialist days in the field
- 30 specialist days in the office
- 65 agents to be assisted
- 18 preliminary surveys to be made (for demonstrations and for training agents)
- 16 county-wide demonstrations of portable irrigation systems

PLANNED DEMONSTRATIONS:

During 1953 major emphasis in this phase of our program will again be placed on field demonstrations. These demonstrations will be located at strategic points to cover the main crops produced in this state. Exact sites will be selected with regard to available water supply, ease in accommodating the spectators, how well the area can serve in putting the subject over, etc.

Dealers will be invited to participate in each demonstration, and each dealer will be asked to demonstrate one small and one medium or large system.

The actual technique employed in conducting these demonstrations is to alternately have the dealers explain and then demonstrate their equipment. While one is talking or demonstrating, the others are closed down. After each dealer has had an opportunity, the group is called together and they form a panel group for answering farmer questions on irrigation. After questions from the group are answered, the dealers are asked to demonstrate all at the same time, and the spectators are permitted to go from one set-up to another, asking questions concerning operation.

COOPERATION:

Subject matter specialists of other departments will cooperate in conducting demonstrations, as will dealers and manufacturers of irrigation equipment.

Vocational teachers and SCS technicians will be invited to participate in all method demonstrations.

VISUAL AIDS:

Work will be continued in building up a set of slides for agents' use in conducting educational meetings on irrigation.

SOIL CONSERVATION

PROJECT SITUATION:

From more than 22% of the total land area of North Carolina, erosion has stripped one-third or more of its topsoil. The Piedmont Section, which covers about one-third of the state, has suffered the greatest loss. In ten of the worst eroded Piedmont counties, around 25% of the area has been abandoned.

OBJECTIVE:

The Extension Agricultural Engineering Department is concerned with the educational program of the engineering phases of all conservation programs in the state. The county programs are well organized, and the county agents are well informed. The bulk of the field work is being conducted by the Soil Conservation Service, and only a small amount of field work is planned by the Agricultural Engineering Extension specialist. Agents are encouraged to continue their educational program by conducting educational demonstrations on the conservation of soils.

PLANNING AND TEACHING ACTIVITIES:

- 8 specialist days in field
- 12 specialist days in office
- 5 method demonstration county meetings
- 3 circular letters
- 3 news articles
- 6 state level conferences with PMA and SCS officials

COOPERATION:

<u>Name of Agency</u>	<u>Assistance to be given</u>	<u>Assistance to be received</u>
PRODUCTION MARKETING ADMINISTRATION	In preparation of specifications for earth moving practices.	Stimulation of program through incentive payments.
SOIL CONSERVATION SERVICE	Conducting educational program and in coordinating work.	Conducting action program through Soil Conservation districts.
VOCATIONAL TEACHERS	Furnishing educational materials and inviting them to participate in demonstrations.	Helping in training farmers and making farm visits on follow-up work.

WATER SYSTEMS

PROJECT SITUATION:

With less than one-third of our rural homes equipped with complete running water systems, we are lagging terribly far behind in this phase of our work. It is still almost unbelievable how running water has lagged behind the general electrification program in North Carolina. All Extension field agents are emphasizing the need for running water more than they have in the past several years. We have continually called their attention to the fact that people usually buy what they desire the most; and lack of interest on the part of farmers is the main reason for not having running water in their homes.

MAJOR PROBLEMS:

1. Lack of income and improper use of income.
2. Large tenant population.
3. Farmers' lack of sufficient desire for the improvement.

ACTIVITY GOALS:

18 specialist days in field
 30 specialist days in office
 100 counties to participate
 10 community (or county-wide) meetings conducted by specialist
 5 news articles
 5 circular letters

METHODS OF PROCEDURE:

Agents have requested assistance on their plans of work. They will inform this department whether the meeting planned will be a general educational meeting on farmstead systems, water conditioning, or a method demonstration at some home where a system is being installed.

After agents and specialist agree on a date, the agents make local arrangements; and where dealers are to participate, the specialist makes arrangements with them.

COOPERATION:

Equipment dealers will be invited to participate at both educational meetings and at method demonstrations.

Vocational teachers will be invited to participate.

FENCE CONSTRUCTION AND FENCE POST

TREATING DEMONSTRATIONS

With a major trend toward livestock farming, and faced with an all-time high for farm labor, North Carolina farmers are more fence conscious than they have been since the passing of the "no-fence" law. A big factor adding to the need for an educational program in better fence construction is the scarcity of good fence posts.

The Extension Agricultural Engineering and the Extension Forestry Departments have jointly planned a series of fence post treating and fence construction demonstrations. Based on the success of a series of these demonstrations held last year, a considerably larger number of demonstrations have been planned for the coming year.

MAJOR PROBLEMS:

1. The general belief on the part of farmers that they are experts at fence construction.
2. Lack of good posts.
3. The high price of woven wire.
4. The prevailing belief on the part of farmers that most barbed wire fences are only temporary at best, and should be so constructed.

METHODS OF PROCEDURE:

The necessary equipment and materials needed for conducting a complete demonstration will be assembled at the demonstration point. Posts will be peeled, both by hand and by machine. They will be stacked to demonstrate how they should be stacked to dry properly. A home-made tank will be exhibited so that farmers may be shown how to properly treat posts. The corner post assembly will be constructed before the beginning of a demonstration, and a complete explanation of the proper method of bracing corner posts with attention directed to proper sizes of posts and braces. Fundamentals of good fence construction will be explained. The group will be given ample opportunity to ask questions.

PLANNING AND TEACHING ACTIVITIES:

- 32 specialist days in field
- 8 specialist days in office
- 32 counties to participate in 1953
- 32 county-wide method demonstration meetings
- 5 news articles
- 1 set of approximately 30 slides on post treating and fence construction for county agents' use in conducting meetings.

GENERAL

4-H CLUB WORK:

Method demonstration outlines will be prepared as teaching aids for agents' use in conducting 4-H meetings. Counties that request help will be assisted by specialists in conducting handicraft projects at the 4-H Club camps.

A farm and home safety record book will be prepared in 1953 jointly by an Extension Agricultural Engineer and the Home Management specialist.

For other 4-H Club activities, see the Rural Electrification and Farm Machinery sections.

FARM AND HOME WEEK AND 4-H CLUB SHORT COURSE:

All members of this department will participate in conducting these two annual programs. Definite plans for these programs have not, as yet, been made; but each specialist in the department will spend at least two weeks' time in planning and conducting them.

SAFETY AND FIRE PREVENTION:

Each Extension specialist in Agricultural Engineering is responsible for promoting safe practices in his field of work. Information on the programs for Fire Prevention, Spring Clean-up, and National Safety Week will be distributed from this office. In cooperation with the North Carolina Insurance Commission, a county-wide field day has been planned in one county. It is anticipated that this will be used as a trial balloon for promoting similar activities in counties next year.

SPECIAL FARM ENGINEERING PROBLEMS:

There are a large variety of problems of an engineering nature that confront an Extension Agricultural Engineer on each trip to the field, and in his office work. Many urgent requests are received from field agents. A few of these problems are on general farm sanitation, the construction of farm ponds, county safety programs, fence construction demonstrations, farmstead planning, land clearing, special field days, etc.

For such phases of an engineering program only tentative plans can be made. For this reason a number of both field and office days are set aside by each Extension specialist in order that he will have time to assist with these special problems as requests come in.

A PLAN OF SPECIALISTS' WORK AT THE STATE LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

H. M. Ellis

List the number of days required by months for each type of work

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educational Materials	Preparation of News and Radio Materials	Conferences in State and Out-of-State	Training Schools	Office Conferences and Correspondence	Preparing your Plan of Work	Preparing your Annual Report	Days Allotted to Field Work	Holidays	Annual Leave	Unallotted Office Time	Total Days For Month
DECEMBER, 1952	3	2	1	6		4			4	6	1		27
JANUARY, 1953		2	1	3		5	3	3	9			1	27
FEBRUARY		3	1	7		5			8				24
MARCH		2	1	1		5			15			2	26
APRIL	1	4	1	1		7			10	1		1	26
MAY		4	1	2		6			11		1	1	26
JUNE		3		5		5			12			1	26
JULY		2	1	1		5			10	1	5	2	27
AUGUST		4	1	1		6			7		6	1	26
SEPTEMBER		3	1	1		5			12	1	1	2	26
OCTOBER		5	1	1		6			11		1	2	27
NOVEMBER		5	1	1		7	1	1	4	1	2	2	25
TOTAL	4	39	11	30		66	4	4	113	10	17	15	313

A PLAN OF SPECIALISTS' WORK AT THE STATE LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 1953

J. C. Ferguson

List the number of days required by months for each type of work

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educational Materials	Preparation of News and Radio Materials	Conferences in State and Out-of-State	Training Schools	Office Conferences and Correspondence	Preparing your Plan of Work	Preparing your Annual Report	Days Allotted to Field Work	Holidays	Annual Leave	Unallotted Office Time	Total Days For Month
DECEMBER		2	1	3		4	2		3	6	2	4	27
JANUARY	2	2	1	2	2	2	1	3	9		1		27
FEBRUARY		2	1	1	6	2			12				24
MARCH		4	1	1	1	2			14			3	26
APRIL		4	1	1		3			14	1		2	26
MAY		4	1	1		3			14		1	2	26
JUNE	2	3	1	1		3			10		2	4	26
JULY		5	1	1		2			8	1	2	7	27
AUGUST		6	1	1		2			8		2	6	26
SEPTEMBER		4	1	3		2			7	1	4	4	26
OCTOBER		6	1	1		3			5		1	10	27
NOVEMBER		5	1	2		3			5	1		8	25
TOTALS	4	49	12	18	9	31	3	3	109	10	15	50	313

A PLAN OF SPECIALISTS' WORK AT THE STATE LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

E. S. Coates

List the number of days required by months for each type of work

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educational Materials	Preparation of News and Radio Materials	Conferences in State and Out-of-State	Training Schools	Office Conferences and Correspondence	Preparing your Plan of Work	Preparing your Annual Report	Days Allotted to Field Work	Holidays	Annual Leave	Unallotted Office Time	Total Days For Month
DECEMBER, 1952	1½					6	2		9	6	1½	1	27
JANUARY, 1953	8			2		4		3	9			1	27
FEBRUARY	4		2	2		3			13				24
MARCH	4		1			3			18				26
APRIL	5		1			4			15	1			26
MAY	1					1			14		10		26
JUNE	2		1	5		4			11			3	26
JULY	7		2			4			8	1	2	3	27
AUGUST	9		1			6			6			4	26
SEPTEMBER	7				2	10			6	1			26
OCTOBER	4		2	2		9			8			2	27
NOVEMBER	8½					4			10	1	1½		25
TOTALS	61	10	11	2	58	2	3	127	10	15	14	313	

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 1953

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
DECEMBER, 1952							
Pitt	Sweet Potato Curing					2	
Martin	Sweet Potato Curing					1	
Wayne	Sweet Potato Curing					1	
Duplin	Sweet Potato Curing					1	
Columbus	Sweet Potato Curing					1	
Harnett	Sweet Potato Curing					1	
Johnston	Sweet Potato Curing					1	
Mecklenburg	Hay Drying					1	
Catawba	Hay Drying					1	
Forsyth	Hay Drying					1	
Edgecombe	Farm and Home Electric					1	
Guilford	Farm Machinery	1					
Mecklenburg	Farm Machinery	1					
Wake	Farm Machinery	1					
	District Meetings				6		
Carteret	Demonstration Housing				1		
Jones	Demonstration Housing				1		
Lenoir	Demonstration Housing				1		
Sampson	Demonstration Housing				1		
	District Meetings		6				
Pasquotank	Eastern District Meeting	2					
Washington	Fence Construction & Drainage	2					
JANUARY, 1953							
Columbus	Irrigation surveys	2					
Hoke	Fence Construction	1					
Wilson	Irrigation & Farm Pond	1					
Rockingham	Water Systems	1					
Nash	Fence Construction	1					
Wayne	Irrigation Survey	1					
Alexander	Irrigation Survey	1					
Alexander	Ditch Blasting	1					
Wilson	Farm Machinery		1				
Harnett	Farm Machinery		1				
Tyrell	Farm Machinery		1				

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	MARRICK	COATES	
JANUARY - continued							
Craven	Farm Machinery		1				
Onslow	Farm Machinery		1				
Pasquotank	Farm Machinery		1				
Wayne	Farm Machinery		1				
Chowan	Farm Machinery		1				
Caldwell	Farm Machinery		1				
Caldwell	Farm Buildings			1			
Alexander	Farm Buildings			1			
Union	Farm Buildings			1			
Hyde	Farm Buildings			1			
Person	Farm Buildings			1			
Davidson	Farm Buildings			1			
Rockingham	Housing School			2			
Barnett	Housing			1			
Onslow	Housing			1			
Chowan	Housing			1			
Scotland	Housing			1			
Wake	Housing			1			
Orange	Farm Buildings			1			
Halifax	Farm Buildings			1			
Franklin	Demonstration Housing				1		
Edgecombe	Demonstration Housing				1		
Scotland	Demonstration Housing				2		
Jones	Demonstration Housing				1		
Onslow	Demonstration Housing				1		
Rockingham	Demonstration Housing				1		
Greene	Demonstration Housing				1		
Mitchell	Demonstration Housing				1		
Stokes	Demonstration Housing				1		
Davie	Demonstration Housing				1		
Caldwell	Demonstration Housing				1		
Lenoir	Demonstration Housing					1	
Union	Electric Hotbeds					1	
Cherokee	Electric Hotbeds					1	
Union	Farm & Home Elect. in 4-H					1	
Johnston	Farm & Home Elect. in 4-H					1	
Edgecombe	Farm & Home Elect. in 4-H					1	

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
JANUARY - continued							
Chowan	Farm and Home Elect. in 4-H					1	
Bladen	Farm and Home Elect. in 4-H					1	
Watauga	Electric Wiring for Adults					1	
Guilford	Electric Wiring for Adults					1	
FEBRUARY							
Currituck	Irrigation Demonstration	1					
Perquimans	Land Clearing	1					
Chowan	Irrigation Surveys	1					
Scotland	Irrigation Surveys	1					
Johnston	Irrigation Demonstration	1					
Wilson	Irrigation Demonstration	1					
Edgecombe	Tile Laying	1					
Duplin	Agriculture Building	1					
New Hanover	Livestock Pavilion	1					
Sampson	Ext. Day Water Systems	1					
Surry	Fire Prevention	1					
Perquimans	Farm Machinery		1				
Hertford	Farm Machinery		1				
Edgecombe	Farm Machinery		1				
Franklin	Farm Machinery		1				
Martin	Farm Machinery		1				
Cleveland	Farm Machinery		1				
Gaston	Farm Machinery		1				
Iredell	Farm Machinery		1				
Sampson	Farm Machinery		1				
Moore	Farm Machinery		1				
Hoke	Farm Machinery		1				
Cumberland	Farm Machinery		1				
Anson	Housing			1			
Sampson	Farm Buildings			1			
Jones	Farm Buildings			1			
Edgecombe	Farm Buildings			1			
Bertie	Farm Buildings			1			
Nash	Farm Buildings			1			
Caswell	Farm Buildings			1			
Duplin	Public Agricultural Bldg.			1			

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARICK	COATES	
FEBRUARY - continued							
New Hanover	Public Agricultural Bldg.			1			
Cumberland	Housing			1			
Sampson	Housing			1			
Cleveland	Housing			1			
Western District	Housing Schools			5			
Sampson	Demonstration Housing				1		
Franklin	Demonstration Housing				2		
Warren	Demonstration Housing				1		
Gates	Demonstration Housing				1		
Edgecombe	Demonstration Housing				1		
Bertie	Demonstration Housing				1		
Greene	Demonstration Housing				1		
Anson	Demonstration Housing				1		
Caldwell	Demonstration Housing				1		
Caldwell	Farm and Home Elect. in 4-H					1	
Chatham	Hay and Grain Drying					1	
Tyrrell	Hay and Grain Drying					1	
Nash	Electric Farm Equip. for Adults					1	
	F & H Elect. in 4-H Conferences					9	
MARCH							
Franklin	Fence Construction & Ponds	1					
Nash	Irrigation Demonstration	1					
Sampson	Terrace Constr. & Drainage	1					
Coastal Plains	Soils Study	5					
Graham	Ditch Blasting	1					
Buncombe	Ditch Blasting	1					
Henderson	Water Systems	1					
Polk	Terrace Maintenance	1					
Granville	Water Systems	1					
Durham	Ditch Blasting	1					
Franklin	Ditch Blasting	1					
Columbus	Farm Machinery		1				
Jones	Farm Machinery		1				
Chatham	Farm Machinery		1				
Person	Farm Machinery		1				

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
MARCH - continued							
Halifax	Farm Machinery		1				
Bertie	Farm Machinery		1				
Richmond	Farm Machinery		1				
Wake	Farm Machinery		1				
Granville	Farm Machinery		1				
Nash	Farm Machinery		1				
Vance	Farm Machinery		1				
Pitt	Farm Machinery		1				
Wayne	Farm Machinery		1				
Yadkin	Farm Machinery		1				
Rowan	Farm Buildings			1			
Iredell	Farm Buildings			1			
Jones	Farm Buildings			1			
Jackson	Farm Buildings			1			
Cherokee	Farm Buildings			1			
Avery	Farm Buildings			1			
Durham	Farm Buildings			1			
Caldwell	Housing			1			
Stanly	Housing			1			
Alexander	Housing			1			
Bladen	Housing			1			
Beaufort	Housing			1			
Onslow	Housing			1			
Franklin	Housing			1			
Sampson	Demonstration Housing				1		
Franklin	Demonstration Housing				1		
Gates	Demonstration Housing				1		
Jones	Demonstration Housing				1		
Chowan	Demonstration Housing				1		
Onslow	Demonstration Housing				1		
Edgecombe	Demonstration Housing				1		
Bertie	Demonstration Housing				1		
Greene	Demonstration Housing				1		
Bladen	Demonstration Housing				1		
Orange	Farm and Home Elect. in 4-H					1	
Hertford	Farm and Home Elect. in 4-H					1	
Macon	Farm and Home Elect. in 4-H					1	

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
MARCH - continued							
Columbus	Farm and Home Elect. in 4-H					1	
Chatham	Farm and Home Elect. in 4-H					1	
Haywood	Electric Farm Equipment					1	
Pitt	Hay Drying					1	
Bertie	Hay Drying					1	
Mecklenburg	Hay Drying					1	
Lincoln	Hay Drying					1	
Pender	Electric Hot Bed					1	
Pasquotank	Corn and Soybean Drying					1	
	F&H Elect. in 4-H Conferences					6	
APRIL							
Cleveland	Ditch Blasting	1					
Rutherford	Irrigation Surveys	2					
Avery	Ditch Blasting	1					
Ashe	Ditch Blasting	1					
Alleghany	Water & Sewage	1					
Caldwell	Irrigation Survey	1					
Iredell	Ditch Blasting	1					
Orange	Irrigation Survey	1					
Jones	Irrigation Survey	1					
Haywood	Farm Machinery		1				
Graham	Farm Machinery		1				
Cherokee	Farm Machinery		1				
Union	Farm Machinery		1				
Burke	Farm Machinery		1				
Sampson	Farm Machinery		1				
Montgomery	Farm Machinery		1				
Bladen	Farm Machinery		1				
Anson	Farm Machinery		1				
Alleghany	Farm Machinery		1				
Randolph	Farm Machinery		1				
Rockingham	Farm Machinery		1				
Vance	Farm Machinery		1				
Caswell	Farm Machinery		1				
McDowell	Farm Buildings			1			
Stanly	Farm Buildings			1			

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
<u>APRIL - continued</u>							
Beaufort	Farm Buildings			1			
Warren	Farm Buildings			1			
Mitchell	Housing			1			
Person	Housing			1			
Guilford	Housing			1			
Perquimans	Demonstration Housing				1		
Sampson	Demonstration Housing				1		
Pender	Demonstration Housing				1		
Warren	Demonstration Housing				1		
Gates	Demonstration Housing				1		
Chowan	Demonstration Housing				1		
Onslow	Demonstration Housing				1		
Edgecombe	Demonstration Housing				1		
Durham	Farm & Home Elect. in 4-H					1	
Greene	Farm & Home Elect. in 4-H					1	
Yancey	Farm & Home Elect. in 4-H					1	
Caldwell	Farm & Home Elect. in 4-H					1	
Henderson	Hay Drying					1	
Buncombe	Hay Drying					1	
Hoke	Hay Drying					1	
New Hanover	Hay Drying					1	
Gabarrus	Hay Drying					1	
Burke	Grain Drying					1	
	Grain Drying Demonstrations					5	
<u>MAY</u>							
Macon	Farm Buildings	1					
Duncombe	Irrigation; Drainage	1					
Madison	Drainage	1					
Fancy	Irrigation Survey	1					
Cumberland	Irrigation Survey	1					
Bladen	Irrigation Survey	1					
Onslow	Irrigation Survey	1					
Sampson	Farm Pond Construction	1					
Nash	Water Systems	1					
Wake	Irrigation	2					
Alamance	Farm Machinery		1				

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
MAY - continued							
Halifax	Farm Machinery		1				
Warren	Farm Machinery		1				
Clay	Farm Machinery		1				
Transylvania	Farm Machinery		1				
Vance	Farm Machinery		1				
Robeson	Farm Machinery		1				
Wake	Farm Machinery		1				
Edgecombe	Farm Machinery		1				
Wilson	Farm Machinery		1				
Lenoir	Farm Machinery		1				
Wilkes	Farm Machinery		1				
Martin	Farm Machinery		1				
Bertie	Farm Machinery		1				
Iredell	Farm Buildings			1			
Northampton	Farm Buildings			1			
Lenoir	Farm Buildings			1			
Watauga	Farm Buildings			1			
Macon	Farm Buildings			1			
Rockingham	Farm Buildings			1			
Rutherford	Farm Buildings			1			
Gaston	Farm Buildings			1			
Perquimans	Demonstration Housing				1		
Pender	Demonstration Housing				1		
Gates	Demonstration Housing				1		
Chowan	Demonstration Housing				1		
Onslow	Demonstration Housing				1		
Rockingham	Demonstration Housing				1		
Mitchell	Demonstration Housing				1		
Richmond	Demonstration Housing				1		
Davie	Demonstration Housing				1		
Jones	Demonstration Housing				1		
Lenoir	Demonstration Housing				1		
Pender	Demonstration Housing				1		
Alamance	Demonstration Housing				1		
Orange	Hay Drying					1	
Wake	Hay Drying					1	
Davie	Hay Drying					1	

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	CORTES	
MAY - continued							
Cleveland	Hay Drying					1	
Forsyth	Crop Dryers					1	
Orange	Convert Tob. Barn for Grain					1	
Lenoir	Grain Drying					1	
Anson	Grain Drying					1	
Buncombe	Farm and Home Elect. in 4-H					1	
	Grain Drying Demonstrations					5	
JUNE							
Robeson	Irrigation Demonstration	1					
Richmond	Irrigation Demonstration	1					
Columbus	Irrigation Demonstration	1					
Bladen	Irrigation Demonstration	1					
State Tour	TVA Supervisors Tour	5					
Haywood	Drainage	2					
Madison	Irrigation Survey	1					
Pitt	Farm Machinery		1				
Buncombe	Farm Machinery		1				
Hyde	Farm Machinery		1				
Cleveland	Farm Machinery		1				
Wake	Farm Machinery		4				
Johnston	Farm Machinery		1				
Davidson	Farm Machinery		1				
Iredell	Farm Buildings			1			
Ashe	Farm Buildings			1			
Haywood	Farm Buildings			1			
Rockingham	Farm Buildings			1			
Warren	Farm Buildings			1			
Burke	Farm Buildings			1			
Surry	Housing			1			
Perquimans	Demonstration Housing				1		
Harnett	Demonstration Housing				1		
Warren	Demonstration Housing				1		
Tyrrell	Demonstration Housing				1		
Rockingham	Demonstration Housing				1		
Richmond	Demonstration Housing				1		
Bladen	Demonstration Housing				1		

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FEEGUSON	RITCHIE	WARRICK	COATES	
JUNE - continued							
Durham	Hay Drying					1	
Davie	Crain Drying					1	
Caldwell	Farm Home Elect. in 4-H					1	
JULY							
Durham	Irrigation Demonstration	1					
Beaufort	Water Meet	1					
Surry	Irrigation Demonstration	1					
Cleveland	Irrigation Demonstration	1					
Alexander	Irrigation Demonstration	1					
Cabarrus	Irrigation Demonstration	1					
Edgecombe	Irrigation Demonstration	1					
Lee	Irrigation Demonstration	1					
Duplin	Irrigation Demonstration	1					
Jones	Irrigation Demonstration	1					
Beaufort	Cotton Gins		1				
Wilson	Cotton Gins		1				
Johnston	Cotton Gins		1				
Harnett	Cotton Gins		1				
Cleveland	Cotton Gins		1				
Iredell	Cotton Gins		1				
Mecklenburg	Cotton Gins		1				
Montgomery	Cotton Gins		1				
Davie	Farm Buildings			1			
Madison	Farm Buildings			1			
Mitchell	Farm Buildings			1			
Bertie	Farm Buildings			1			
Cleveland	Housing			1			
Stokes	Housing			1			
Yadkin	Farm Buildings			1			
Pender	Demonstration Housing				1		
Franklin	Demonstration Housing				1		
Richmond	Demonstration Housing				1		
Bladen	Demonstration Housing				1		
Wilkes	Demonstration Housing				1		
Columbus	Demonstration Housing				1		
Davie	Demonstration Housing				1		

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
<u>JULY - continued</u>							
Watauga	Hay Drying					1	
Brunswick	Hay Drying					1	
<u>AUGUST</u>							
Clay	Fence Construction	1					
Transylvania	Water Systems	1					
Rowan	Irrigation Survey	1					
Greene	Drainage	1					
Granville	Terracing and Farm Ponds	1					
Craven	Water System Meeting	1					
Franklin	Water System Meeting	1					
Lenoir	Farm Machinery		1				
Bladen	Farm Machinery		1				
Anson	Farm Machinery		1				
Chowan	Farm Machinery		1				
Orange	Farm Machinery		1				
Sampson	Cotton Gins		1				
Hoke	Cotton Gins		1				
Rowan	Cotton Gins		1				
Cabarrus	Cotton Gins		1				
Alexander	Farm Buildings			1			
Greene	Farm Buildings			1			
Catawba	Farm Buildings			1			
Chatham	Public Agricultural Building			1			
Forsyth	Housing			1			
Richmond	Housing			1			
Tyrrell	Demonstration Housing				1		
Franklin	Demonstration Housing				1		
Richmond	Demonstration Housing				1		
Bladen	Demonstration Housing				1		
Wilkes	Demonstration Housing				1		
Columbus	Demonstration Housing				1		
Davie	Demonstration Housing				1		
Perquimans	Demonstration Housing				1		
Forsyth	Crop Dryers					1	
Anson	Hay Drying					1	
Cumberland	Hay Drying					1	

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
AUGUST - continued							
Union	Hay Drying					1	
Harnett	Grain Drying					1	
Caldwell	Farm " Home Electric in 4-H					1	
SEPTEMBER							
Durham	Fence Construction	1					
Franklin	Fence Construction	1					
Nash	Fence Construction	1					
Chatham	Fence Construction	1					
Moore	Fence Construction	1					
Cumberland	Fence Construction	1					
Forsyth	Fence Construction	1					
Rockingham	Fence Construction	1					
Caswell	Fence Construction	1					
Alamance	Fence Construction	1					
Person	Fence Construction	1					
Wake	Farm Machinery		1				
Caswell	Farm Machinery		1				
Rowan	Farm Machinery		1				
Pender	Farm Machinery		1				
Alamance	Farm Machinery		1				
Davidson	Farm Machinery		1				
Person	Farm Machinery		1				
Orange	Farm Buildings			1			
Randolph	Farm Buildings			1			
Guilford	Housing			1			
Montgomery	Housing			1			
Alamance	Farm Buildings			1			
Franklin	Demonstration Housing				1		
Warren	Demonstration Housing				1		
Tyrrell	Demonstration Housing				1		
Richmond	Demonstration Housing				1		
Bladen	Demonstration Housing				1		
Wilkes	Demonstration Housing				1		
Columbus	Demonstration Housing				1		
Davie	Demonstration Housing				1		
Durham	Demonstration Housing				1		

A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL

Line of Work AGRICULTURAL ENGINEERING EXT. 195 3

Write in Counties to be served for the month	Description of work to be done in Counties	Days Devoted to work by					Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
SEPTEMBER - continued							
Franklin	Sweet Potato Curing					1	
OCTOBER							
Hertford	Fence Construction	1					
Gates	Fence Construction	1					
Chowan	Fence Construction	1					
Bertie	Fence Construction	1					
Lenoir	Fence Construction	1					
Jones	Fence Construction	1					
Onslow	Fence Construction	1					
Pamlico	Fence Construction	1					
Wilson	Fence Construction	1					
Pitt	Fence Construction	1					
Columbus	Fence Construction	1					
Wilson	Farm Machinery		1				
Caldwell	Farm Machinery		1				
Duplin	Farm Machinery		1				
Forsyth	Farm Machinery		1				
Rutherford	Farm Machinery		1				
Columbus	Farm Buildings			2			
Durham	Farm Buildings			1			
Johnston	Farm Buildings			1			
Wayne	Farm Buildings			1			
Hertford	Demonstration Housing					1	
Harnett	Demonstration Housing					1	
Fender	Demonstration Housing					1	
Franklin	Demonstration Housing					1	
Warren	Demonstration Housing					1	
Jones	Demonstration Housing					1	
Richmond	Demonstration Housing					1	
Bladen	Demonstration Housing					1	
Wilkes	Demonstration Housing					1	
Columbus	Demonstration Housing					1	
Davie	Demonstration Housing					1	
Guilford	Rural Elect. School						1

