# NORTH CAROLINA

AGRICULTURAL EXTENSION SERVICE

AGRICULTURAL ENGINEERING

# PLAN OF WORK

FOR

1954

Major phases of project or subdivision of project covered	Name of Worker*	Percentage of time devoted to entire project by each worker
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 12	, 195 <u>4</u> , Signed:	H. M. Tolia Project Leader
Date Approved:		Asst. State Director of Extension
Date Approved:		Director of Extension Work S. Department of Agriculture

<sup>\*</sup>If phases of project are divided between two or more workers, indicate assignment to each.

# TABLE OF CONTENTS

	PAGES
BRISF STATEMENT REGARDING PRESENT SITUATION	2 - 4
FARM MACHINERY	5 - 8
COTTON HARVESTING AND GINNING	9 - 13
FARM STRUCTURES	
Housing	14 - 16
Farm Service Buildings	17 - 19
IRRIGATION	20 - 22
DRAINAGE	23 - 25
SOIL CONSERVATION	26 - 27
CROP PROCESSING	28 - 31
RURAL ELECTRIFICATION	32 - 35
WATER SYSTEMS	36
FENCE CONSTRUCTION AND FENCE POST TREATING DEMONSTRATIONS	37 - 38
GENERAL	39 - 40
PLAN OF SPECIALISTS' WORK AT THE STATE LEVEL	41 - 45
PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL	46 - 63

# 1954

#### PLAN OF WORK FOR THE DEPARTMENT OF EXTENSION

#### AGRICULTURAL ENGINEERING

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

Lower prices and higher production costs are squeezing all classes of North Carolina farmers. Since Engineering fundamentally deals with more efficient production, a greater than ever before challenge meets each specialist in preparing his plan of work.

FARM MACHINERY: A continuing squeeze on the farmer in the form of lower prices
for his products and higher costs will require careful analysis
of possible savings and positive action towards more efficient production methods.
More complete utilization of farm machinery is an immediate and direct method
of improving efficiency. In our educational program, we shall again emphasize
that power should be in keeping with farm requirements. Our work on the county
level will deal primarily with the general care, operation, and maintenance of
power machinery.

FARM BUILDINGS: Farm buildings generally need modification and re-design to further reduce storage and handling costs on the farm. A definite need exists in the field of lower cost structures for adequate housing, forage crops, and animals, with special consideration for drying and processing grain and other crops. Construction costs remain high, but buildings needed for comfort and efficient production are still in order, and their construction will be encouraged.

IRRIGATION: An accelerated Extension program based on research findings and
the use of strategically placed demonstrations on farms, plus
three dry summers which considerably curtailed production of certain crops have

stimulated a tremendous interest in irrigation. Thousands of North Carolina farmers can further reduce the risk in growing expensive crops such as tobacco and truck. Supplemental irrigation with portable sprinkler irrigation systems is established as another means of improving the over-all efficiency of crop production, and this program will be stressed during the coming year.

DRAINAGE: Farm mechanization and the better utilization of farm labor requires uniformity of land drainage. Due to the pressure of other phases of Engineering, drainage will not be stressed as much as it deserves; but this department will continue in conducting a general educational program.

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. As with drainage, the Extension program has necessarily been curtailed; but an educational program will continue to be conducted. The need for cooperation of all agencies in conducting this program will be stressed.

GROP DRYING: The pressure from the field was not as great in this phase of the program during the past year due to the fact that it was abnormally dry throughout North Carolina. The need for crop drying is as great as ever, and the work will be continued. There is always the possibility that the next year will be the wet year.

YOUTH PROBLEMS: To increase the efficiency of farm production and to raise rural living standards, farm families and especially rural youth must be properly informed as to how mechanical and electrical power can be most effectively used to cut labor costs. All specialists of this department will cooperate in every possible way with the 4-H Club program.

WATER SYSTEMS: The installation of running water in the kitchens of rural homes has not kept pace with our rural electrification program. An

accelerated program in the area of so-called farm conveniences will be pushed on the county level.

# FARM MACHINERY

#### PROJECT SITUATION:

The Extension Agricultural Engineering goal in farm mechanization is to make every North Carolina farmer's labor as productive and thus as well rewarded as farmers of any other state in the nation. Competition for farm labor has accelerated mechanization more than any other factor, and at the same time has done more to improve southern agriculture than any other single contributing factor. Tractor population is a good indicator of mechanization trends. A tenfold increase over a period of twelve years, with a present population of near 120,000 units, has dramatically influenced North Carolina agriculture.

Farm machinery, both new and used, is in adequate supply; but due to an estimated \$72,000,000.00 reduction in farm income in 1953 compared to the previous year, and reduced acreage allotments, farmers will be more reductant to buy needed equipment. More tractors will be overhauled and other equipment repaired to meet the needs, rather than trade or buy new machines.

While good care and maintenance of tractors and equipment are always of utmost importance, the shortage of operating capital in 195h makes it even more important that good maintenance and full utilization of power machinery be accomplished.

# MAJOR PROBLEMS:

Due to more limited possibility of purchase of new equipment or replacement, special emphasis should be put on conservation of machinery. This involves the training of more skillful operators, practicing recommended daily services, along with more careful adjustments and prompt repair of minor deficiencies before expensive and major repairs are required. This not only applies to the tractor and power units but to every piece of machinery that may be used on the farm and associated enterprises.

Lack of experience with power machinery has made it necessary that North

Carolina farmers spend an estimated \$5,000,000.00 annually for tractor repairs alone. This amounts to almost 50% of the annual fuel bill. This ratio is considered excessive when compared with operating cost for automotive equipment.

Normal tractor life between overhauls ranges from around 2 to 5 years for a large percentage of our farm tractors; but with good service and maintenance, this life could be easily doubled.

Of the approximately 288,500 farms in North Carolina, an estimated 63,000 are now using tractor power; and approximately 16,000 are dependent on tractor power along, having no work stock whatever on the farm. There is an estimated potential need of 200,000 to 300,000 tractors in North Carolina within the next ten years. As the smaller, less efficient farms move into mechanization, their margins of profit may be affected adversely if wise decisions are not made as to adaptability and utilization of machinery purchased.

To amply meet the needs, the tendency is for the small farm to over-invest in machinery, which places an additional burden on the land, and offtimes may result in failure, particularly with declining farm prices. It is believed that the machinery investment on small farms should not exceed \$100.00 per acre of cultivated land. Such a figure, of course, restricts the purchase of equipment to a bare minimum, and in most instances does not satisfy the machinery need of the farmer. This presents an acute problem for North Carolina agriculture because of the large number of small farms, but one that is challenging not only to the farmer but to the Agricultural Engineer and manufacturer as well.

The introduction of small one-row tractors and associated equipment has helped in solving this problem, but there is still a very definite need for smaller, less expensive harvesting machinery. There are other considerations which must also be given to mechanization on all size farms, such as improving field lay-out by enlarging fields, eliminating ditches, terraces and other obstructions. The adoption of uniform row spacing for all crops on the farm, combining machine operations and utilizing the tractor for every possible job

on the farm would further improve the efficiency.

Along with newly recommended cultural practices come new machines, designed to perform the job which may be an entirely new practice or a modification of an old practice. An excellent example of equipment recently introduced in North Carolina is the soil fumigator new used in the treatment of tobacco soils for the control of nematodes. Field fumigation is a generally accepted practice throughout the tobacco growing areas of North Carolina, and through the cooperative efforts of the Agricultural Engineering Department along with tobacco specialists, fumigant and implement dealers, farmers throughout the state were trained by means of demonstrations to properly apply fumigants for best results. Field demonstrations in fumigating along with other new practices and appropriate equipment will be demonstrated in the coming year.

Other departments such as Agronomy, Entomology, Horticulture, Dairying, etc., frequently call on Agricultural Engineering to assist with problems involving machinery or other special equipment with which they may not be entirely familiar.

Considerable work has been done with the Agronomy specialist in weed control on the application of herbicides using both manufactured equipment and shop built equipment constructed in the Agricultural Engineering shops. Joint demonstrations of this nature will be one of the many activities in 195h.

For the past several years many requests have been received from the counties asking assistance in conducting tractor and machinery maintenance and service schools for both adults and 4-H Club members. Since tractors are being used generally throughout North Carolina ranging from a small number of units to as many as 3600 in one county, the requests for assistance in this field (normally for the months of January, February, March, and April) exceed the possibilities of one specialist to meet all requirements.

In the 1954 county plans of work, 88 requests for tractor and farm machinery schools for the winter months have been made. Each of these requests scheduled

will involve from one to three half day schools; therefore, it will be impossible to arrange all of this work during the period requested.

County plans of work also include requests for assistance in fumigation, spraying, dusting, and harvesting demonstrations; and during the late summer and fall, a number of requests have been made for assistance in conducting county-wide tractor operator contests, many of which will be held as an attraction at the local County Fair.

Due to the popularity of county-wide farm machinery field days which have been held in a number of the counties during the past several years, many other counties are considering adding this as a part of their Extension program in Farm Machinery, and have asked assistance in planning and conducting these field days in 1954.

Each year the Agricultural Engineering Department cooperates very closely with the management of the North Carolina State Fair in arranging the many farm machinery and other displays. Exhibit space facilities are being improved each year, and as a result more manufacturers are being attracted, which has afforded steady improvement in the farm machinery exhibits. The 1953 exhibit was by far the best ever arranged for a State Fair, and it is anticipated that this improvement will continue.

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 HARVESTING AND GINNING

Cotton harvesting and ginning practices in North Carolina have made remarkable strides in recent years. It is estimated that more than 100 mechanical cotton pickers are now owned by North Carolina farmers, which have helped to expedite the harvesting of the annual cotton crop. While the mechanical harvester has reduced the labor requirements in removing the cotton from the field, it has also created many ginning problems in the cleaning and processing of roughly harvested cottons.

Not only has mechanically harvested cotton forced ginners to more adequately equip their gins, but more roughly handled picked and hand snapped cottons have also contributed to the over-all problem.

While ginners in certain localities were reluctant to recognize the need for more elaborate ginning machinery, and still in some instances refuse to add the necessary equipment, there are generally throughout the state sufficient modern gins to properly clean and process the cotton crop and maintain in most instances its inherent qualities desired by mill buyers.

One of the most serious problems in regard to mechanical harvesting and one that has retarded progress in mechanical harvesting has been the late growth of grass and weeds in cotton fields. Farmers are interested and are exploring various possibilities, both through mechanical methods and the use of chemicals, to control this undesirable growth. Also it has been found that with uniform stands, slight ridge cultivation and good defoliation, the mechanical harvesters will do a much more efficient job.

As experience is gained through the use of these new machines and better cultural methods are practiced, more and more cotton will be so handled.

Considering the high cost of cotton harvesting machinery, it will not be economically feasible for the small cotton farmer to own such equipment; however, where harvesters are available, custom operation of such equipment will help to solve harvesting problems of both large and small cotton farmers.

A major portion of North Carolina cotton gins are now equipped with seed cotton driers, and many have added lint cleaning machinery which have all contributed to better preparation and cleaner samples. While some ginners are prone to crowd their equipment during rush periods and consequently lower the grade of the product, North Carolina as a whole has a very good record in this regard.

For 1954 several counties have requested assistance in cotton gin improvement work, including individual visits to gins and educational meetings with both ginners and farmers on harvesting and ginning seed cotton. 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.

# ACTIVITY GOALS:

- 118 Specialist days allotted to field work.
  - 90 Specialist days allotted to office work.
- 42 Specialist days unallotted, for special requests and in and out of state conferences.
- 80 County Agents to be assisted in various phases of mechanization.
- 75 Training schools on tractors and farm machinery.
- 30 Field demonstrations involving tractors and field equipment.
- 10 County-wide tractor operator contests.
- 25 Visits to individual cotton gins.
- 3 Cotton gin operator training schools.
- 5 Farmer meetings on mechanical cotton harvesting.

#### METHODS OF PROCEDURE:

- 1. Comunity or county-wide training schools on tractor and farm equipment service and maintenance. Training schools will deal mainly with operator care and daily maintenance and to better acquaint farmers with mechanical principles and the importance of systematic preventitive maintenance. Tractor and machinery charts supplied by manufacturers along with cutaway models of air cleaners, carburetors, ignition systems, etc., along with damaged parts, will be used as visual aids. Farmer owned tractors and equipment will be used to illustrate the application of good service and proper adjustment of equipment. Farm equipment dealers are also invited to cooperate in this effort.
- 2. Farm machinery field days and demonstrations. Field demonstrations afford an excellent opportunity to bring before the farmer new items of machinery that are being produced and to acquaint them with proper use and application. Field demonstrations may involve only specific items of equipment associated with certain crops; while the county-wide farm machinery field days which are becoming more popular will usually include a wide variety of equipment supplied and demonstrated by local implement dealers. Such field days are normally sponsored by the Extension Service and planned jointly by the Extension agent and specialists along with local implement dealers and branch representatives.
- 3. Special training schools. Since more adequate facilities are available on the campus for specialized training, many groups are brought in each year for special short courses in which the Agricultural Engineering laboratories are utilized. Such training is offered annually to 4-H Club and county agent groups, insecticide dealers, cemetery superintendents, nurserymen, vocational teachers, test farm superintendents, etc.

- 4. Test farm field days. The various test farms throughout the state on which many phases of experimental work are in progress offer excellent teaching facilities for many phases of Extension work. Farm machinery has taken a prominent part in field day programs for the past several years, and will continue to be one of the highlights of future field days arranged for farmers of the locale.
- 5. Tractor operator contests. The continuing expansion of the use of farm tractors and farm machinery in North Carolina along with the 4-H Club tractor maintenance project has stimulated considerable interest in county-wide and community tractor operator contests. A standard score card which is now being used throughout the Southeast prescribes a definite procedure for conducting such competitive events. Such contests have been used chiefly with 4-H groups as a supplement to the 4-H tractor maintenance project, but they also are popular among adult groups. Tractor driving contests have been feature attractions at a number of county fairs and have been used as a supplement to farm machinery field day programs.

# FARM STRUCTURES

# Housing

of the total of 313,112 farm dwellings in North Carolina in 1950, only about 10% could be considered adequate for desirable living standards. For instance, even though 18.6% of these houses were built in 1940 or later, there are only 11.1% with running water, private toilet, and bath. Of the total rural dwellings, 2.6% had central heat as compared to 56.2% of all dwelling units in the city of Raleigh with central heat. It can be surmised from the above figure that even the new farm houses being built are lacking in comfort and convenience. With 58.9% of the total farm dwelling units in North Carolina being owner occupied in 1950, only about 43% of them had running water. It would be reasonable to believe that this figure has changed considerably since 1950 and also that the 70% of the units using wood for cooking fuel in 1950 has been reduced considerably during the last three years. However, the need for all types of home improvements is still great.

#### MAJOR PROBLEMS:

- 1. Many families lack incentive to improve their homes.
- 2. Many farm families building their own houses need guidance in planning and construction.
- 3. Many agents do not feel that they are competent to advise on house planning and construction.
- 4. Some farmers balk at the idea of borrowing money to improve their houses.
- Short crops because of drought in 1953 and also the farmer price squeeze will hinder many from building or remodeling in 1954.

# ACTIVITY GOALS:

- 15h Specialist days in field.
- 210 Specialist days in office.
- 168 Agent conferences and visits.
- 3h Assistance with meetings.
- 32 Result demonstrations to be carried over from 1953.
  - 5 Proposed new result demonstration projects.
- 26 Assistance with public showing of demonstration houses.
- 30 News articles, radio, and TV programs.
- 2 Circular letters.

# METHODS OF PROCEDURE:

A housing school will be conducted in cooperation with home economics specialists in housing and home furnishing in a total of 20 counties, including all counties in the northwestern district. These schools will be held in two 2-hour periods. Information will be presented on planning remodeling, heating, storage, with emphasis on bathrooms, kitchens, and workrooms. Illustrated lectures and models will be prepared as teaching aids. Meetings on these and other subjects will be conducted in other counties where requested. Method demonstrations will cover such subjects as wallboard finishing, storage, and floor finishing. Most of these will be conducted in homes built as result demonstrations.

Work by one specialist will be continued on 32 result demonstration houses that are underway, and a few other such projects will be initiated. It is planned that this specialist will also do more general housing work such as house remodeling meetings with fewer result demonstrations initiated in 1954.

New plans that have been developed during 1953 in the result demonstration housing programs will be screened, and the best ones will be added to our standard North Carolina house plan catalogue.

# COOPERATION:

Method demonstrations will be conducted in cooperation with commercial representatives at special interest meetings and in result demonstration houses. House furnishing specialists will assist with housing schools and in public showing of result demonstration projects.

# PUBLICATIONS, VISUAL AND OTHER TEACHING AIDS:

Color slides and black and white pictures will continue to be made of result demonstration houses. Cost figures, floor plans, and pictures will be assembled into a leaflet on each result demonstration project finished. These will be distributed to Extension agents throughout the state. Color slides will be used in conducting meetings and for agents use.

Model storage units and a device for demonstration the effectiveness and use of insulating materials will be constructed for use in housing meetings and schools.

# Farm Service Buildings

Farmers are becoming more and more conscious of the need for increased labor efficiency. The day of plentiful low cost labor is rapidly passing, and farm buildings should be designed with this thought in mind. Shortage of labor has brought about progress in the mechanization of most farm operations, including the production of tobacco, North Carolina's chief source of farm income; and building designs should be revised to keep pace with this trend.

With more North Carolina farmers seeking to increase their income by adding livestock, dairy and poultry enterprises, there is a continuing need for information on the construction of buildings to house these enterprises. In order that the capital investment may be kept to a minimum, buildings recommended should be as economical as 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 of 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 building 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 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:

- 83 Specialist days in field.
- 70 Specialist days in office.
- 65 Agent visits and conferences.
- 32 Meetings.
- 25 Construction demonstrations.
- 4 New plans prepared.
- 12 Present plans revised.
- 6 News articles, radio talks.
- 3 Circular letters.

# METHOD 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, siles, dairy barns, and general type meetings where various type buildings, plans, and the plan service are discussed.

1953 was probably the biggest sile building year in North Carolina's history. The total number built is not known, but reports were received indicating 624 new siles built in the 17 counties of the western district.

Another Piedmont county reported over 200 new siles; and another, 127. This great interest in sile building has been brought about both by the increased numbers of livestock and by adverse weather conditions which have emphasized the need for adequate storage. The demand for assistance with sile work is

still large, and it is anticipated that a great many will be built in 1954.

A series of demonstrations on the construction of upright and trench silos begun in 1953 will be continued, and these demonstrations have been requested in a total of 17 counties.

During 1953 a plan for a home-size (64-bushel) sweet potato house was developed in cooperation with horticultural specialists as an aid in promoting storage of sweet potatoes for home use. Four of these houses were built as demonstrations in 1953, and an additional eight counties have requested this demonstration for 1954. This is a house which lends itself well to this type demonstration because the complete building can be constructed in about two days.

Preliminary work has been done on the development of one or more tobacco packhouse plans which would reduce labor requirements in handling flue-cured tobacco. This work will be continued in an effort to complete these plans in 1954.

Preparation of a book of farm service building plans is about one-half completed, with approximately 35 plans printed and ready for the book. These plans are being reproduced by offset printing, and will be supplied to farm agents in a loose leaf book, so that plans may be removed and new plans added as revisions become necessary. This book should be placed in agents' hands during the year.

# COOPERATION:

Specialists from other departments will be consulted 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.

# IRRIGATION

# PROJECT SITUATION:

Due to an accelerated Extension program based on research findings and the use of strategically placed demonstrations on farms, plus three dry summers which considerably curtailed production of certain crops, interest in supplemental irrigation in North Carolina is at present at an all-time high. Supplemental irrigation has definitely established itself as a profitable practice for a large number of North Carolina farmers. Some sections of this state experience a damaging drought each year. Some acreage of all our major crops is now being irrigated.

Portable revolving sprinkler systems are best suited to the needs of North Garolina farmers.

There was far more than enough time requested on the county agents' plans of work for specialist's assistance to employ a full-time person on supplemental irrigation during 1954.

Based upon thoroughly reliable estimates, there were 2500 acres of flue cured tobacco irrigated in North Carolina during this past season. All indications point to the fact that the increased net income per acre because of irrigation would approximate \$150.00. On this basis, North Carolina tobacco farmers reslized approximately \$375,000.00 in profits from tobacco irrigation last year. Based upon equally reliable estimates, the increase in profits to tobacco farmers over 1952 is \$225,000.00. This increase is due to an additional 1500 acres irrigated in 1953.

# MAJOR PROBLEMS: .

# 1. Short water supply:

As unreasonable as it may seem, the water supply will definitely prove to be the bottleneck to supplemental irrigation in North Carolina.

Our normal rainfall will, in all probability, discourage large expenditures

in water supply. Water from existing streams is expensive to use. Ponds are expensive to construct, and water from wells is out of the question for two-thirds of the area we would like to irrigate in this state.

- 2. Lack of "know-how".
  - A. Insufficient information on infiltration rate of soils.
  - B. Insufficient information on water requirements of crops.
- 3. Lack of personnel to conduct an educational program. Farmers are buying irrigation equipment at an alarming rate when we take into consideration their lack of information concerning the proper use of this equipment.

# ACTIVITY GOALS:

- 57 Specialist days in the field.
- 60 Specialist days in the office.
- 70 County agents to be assisted.
- 22 Preliminary surveys to be made. (For demonstrations and for training agents.)
- 24 County-wide demonstrations of portable irrigation equipment.
- 18 General educational meetings on irrigation.

# PLANNED DEMONSTRATIONS:

During 195h major emphasis in irrigation will again be placed on educational field demonstrations. These demonstrations will be located at strategic points to cover the main crops produced in this state. Sites will be selected with regard to available water supply, ease in accommodating spectators, how well the area can serve in putting the subject over.

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. It is anticipated that there will be so many dealers desiring to participate in these demonstrations that dealers will have to be selected on a sectional basis.

The technique employed in conducting these demonstrations is as follows:

The Extension Engineering specialist discusses supplemental irrigation from the standpoint of its need, research facts, and farm records. Emphasis is placed on fundamentals that farmers who are planning to irrigate should know. Following this talk, each dealer is allotted 15 minutes to describe his equipment, his service, and to demonstrate his equipment. While one dealer is talking, all the other dealers are cooperating in seeing that the one speaking has the full attention of the crowd. Individual dealer locations at the demonstrations are decided by the drawing of straws. After each dealer has had an opportunity to discuss and demonstrate his equipment, the entire group meets at the far end of the line of equipment; and with the specialist and dealers acting as a panel group, a general discussion of irrigation, with farmer participation, is entered into. In this way the information pertinent to a location or section is drawn out. These demonstrations have improved throughout the last three years, and are proving to be a very effective way of carrying information to farmers.

# GOOPERATION:

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.

# DRAINAGE

#### PROJECT SITUATION:

In North Carolina approximately 1,000,000 acres are poorly drained. This figure includes woodlands, muck soil areas, and wet sands, as well as wet areas that are cleared. Soil and drainage specialists estimate that one-fourth of the 1,000,000 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 surfaced drained to provide additional pasturage.

Due to the pressure from agents for assistance with other phases of Engineering work, specialist help will be reduced below the amount given last year. This department will make every possible effort to continue to conduct its general educational program.

# OBJECTIVES:

The over-all 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.
- Lack of personnel to satisfactorily conduct the needed educational program.

3. The high cost of installing under drains.

#### ACTIVITY GOALS:

- 6 Specialist days in field assisting in conducting county programs.
- 10 Specialist days in office preparing eductional material to aid agents in carrying out their county programs.
- 6 Specialist days in office in cooperative work with personnel of the SCS and other agricultural agencies interested in drainage.
- 6 Demonstration meetings conducted by specialist.
- 4 News articles on drainage.

#### METHODS OF PROCEDURE:

An Extension specialist will assist agents in planning and conducting their county programs. In a few special cases specialist will hold the educational meeting and conduct the tile laying or ditch blasting demonstrations. This will be done primarily for the benefit of agent and leader training. The agent will not be expected or encouraged 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.

#### COOPERATION:

# Name of Agency

AGRICULTURAL STABILIZATION AND CONSERVATION ADMINISTRATION

# Assistance to be given

Committee work on preparation of specifications for soil building practices and engineering advice on special programs.

# Assistance to be received

Stimulation of program through payment to farmers for drainage practices.

SOIL CONSERVATION SERVICE

- 1. Preparation of specifications for all drainage practices.
- 2. Will work together on the county demonstrations.
- 1. SCS technician will make surveys for community projects.
- 2. Will work together on 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.

# 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 conservations of soils.

# PLANNING AND TRACHING ACTIVITIES:

- 4 Specialist days in the field.
- 7 Specialist days in the office.
- h Method demonstration county meetings.
- 3 News articles.
- A State level conferences with ASCA and SCS officials.

# COOPERATION:

# Name of Agency

AGRICULTURAL STABILIZATION AND CONSERVATION ADMINISTRATION

# Assistance to be given

In preparation of specifications for earth moving practices.

#### SOIL CONSERVATION SERVICE

Conducting educational work.

# Assistance to be received

Stimulation of program through incentive payments.

26

Conducting action program through program and in coordinating Soil Conservation districts.

Furnishing educational materials and inviting them to participate in demonstrations.

Helping in training farmers and making farm visits on follow-up work.

27

#### CROP PROCESSING

With the economic squeeze on the North Carolina farmer, the accent for 1954 will be on better quality farm products and a greater production efficiency. This can be attained solely through improved farm practices and mechanization.

Hay and grain are crops that greatly affect the farm income in this state. Approximately one-third more hay acreage is planted than is actually needed to provide an adequate supply for the state; however, the farmers continually find themselves importing hay from out of state. By drying hay artificially, not only would importing hay not be necessary, but it could also become a cash crop, adding considerably to the farm income. At the present prices, artificially cured hay is worth \$10.00 per ton more than field dried hay. The cost of curing is approximately \$2.50 per ton.

Grain has already become a cash crop in the state. The consumption of grain and grain products is high in North Carolina, which is of tremendous importance to the grain producer. However, this market is limited in its holding capacity; consequently it is necessary for the producer to hold the grain for delivery throughout the year. Safe storage of grain in North Carolina is an operation that requires skill. High humidities and temperatures during storage create hazards not prevalent in other large grain producing areas of the nation. The moisture content of grain going into storage must be lower, which calls for artificial drying under normal weather conditions. Buildings must be properly constructed, not only to withstend tremendous pressures involved in storage but also to provide for adequate and practical methods of fumigation against insects.

Drying of grain is becoming a vital part of the farming operation. It must become a more common practice if hazards are to be eliminated in storage and if quality grain is guaranteed. Mature kernels of wheat cannot maintain their quality under heavy dews or light showers. To assure highest quality,

it should be harvested and dried early.

There is a continued 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, drying, storage, and marketing, considerable drying and storage facilities were added during 1953. This program will be stepped up during 1954 to reach more of the grain producers in North Carolina.

The increasing livestock and poultry production has greatly increased the demand for feed. Interest is keen on home production and processing of feed to eliminate some of the costs involved in these farming enterprises. Meetings and demonstrations will be held in several counties on feed processing.

Further information will be sought both from research and field observations.

Approximately twelve new small sweet potato houses heated with electricity will be constructed as demonstrations. This specialist will cooperate in conducting such demonstrations in discussing the value of uniform, automatically regulated heating. Further data will be collected from the 6h-bushel houses constructed during the 1953 season.

#### MAJOR PROBLEMS:

- More information is needed about drying systems that will be satisfactory for small farming operations.
- Reach more farmers with the story of greater profits available through drying and storage.
- 3. Train agents to promote crop drying and to be able to assist in designing a drying installation.
- 4. Train dealers and distributors in the recommended practices already established by research in the state, and secure their cooperation in presenting facts correctly to the prospective buyers of equipment.

5. Preparation of more teaching aids for use by agents and adult leaders.

30

#### ACTIVITY GOALS:

- 81 Specialist days in field.
- 91 Specialist days in office.
- 45 Agents' conferences and visits.
- 60 Counties assisted.
- 42 Field days and farm demonstrations.
  - 3 Circular letters.
- 12 News articles and radio presentations.

# METHOD OF PROCEDURE:

- 1. Grain schools: Field demonstrations will be prepared and given in cooperation with Agronomy, Farm Management, Entomology Departments, and the North Carolina Department of Agriculture for a series of scheduled grain schools throughout the state. Demonstrations will include production, drying, storage, and marketing. Farmers will be shown how to maintain quality and handle grain more profitably by properly drying and storing. Six district schools will be held in areas needing immediate relief in farm drying and storage.
- 2. Sweet potato curing: Ten method demonstrations are planned with county agents to show a practical method of storing a home supply or small quantities of sweet potatoes for market. Farmers will be selected to erect a recommended small house. Heating equipment will be installed in the demonstration. A horticultural specialist will demonstrate packing and will discuss storage requirements.
- 3. Field days: Method demonstrations on hay drying will be held in conjunction with the Forage Crop Field Days at the Experiment Station farms. Grain drying demonstrations will be presented at the Small Grain

Field Days at the Experiment Station farms.

- 4. Method demonstrations on hay drying will be held in approximately 20 counties, using scale models in some cases and construction of drying facilities at others.
- 5. Result demonstrations will be held in approximately twelve counties where recommended baled hay drying systems have been installed and operated for some time.
- 6. Conferences and visits with agents will be made to assist in training the agents and planning individual farm drying plants. Ground work will be made at these conferences for future demonstrations and meetings with interested farmers constructing the necessary facilities.
- 7. Data will be collected from the field toward future promotion of feed processing on the farm.
- 8. A survey will be conducted among farmers drying and storing grain during 1953.

Assistance to be given

tion of drying and storage

facilities.

# COOPERATION:

Name of Agency

Hadio on Registry	PRESCRICTO OF SO PEAGE	PORTROGICA OF LOCATAGE
RESEARCH AGRICUL- TURAL ENGINEERING	Information observed in the field.	Recommendations from experimental data.
AGRICULTURAL STABILIZATION AND CONSERVATION ADMINISTRATION	Invited to participate on Grain School program.	Make loans on drying and storage equipment. Data on farm storage under loan during 1953-1954 season.
NORTH CAROLINA BANKS	Recommendations on proper drying and storage facilities.	Provide means for farmers insuring and financing needed equipment at reasonable costs.
CERTAIN FARMERS	Recommendations and advice on construction and opera-	Data and observation of facilities; use of facilities for demonstration

Assistance to be received

use of facilities for demonstrations.

# RURAL ELECTRIFICATION

On June 30, 1953, it was estimated that 94.1% of North Carolina farms had electricity. With only a few farms without the services of electric power and the North Carolina farmer faced with a most serious problem—the problem of low income and high farming costs—it is necessary that our efforts be directed toward showing the farmer how he can most effectively turn to a more economical way of producing farm commodities. To be more efficient, the farmer should be taught to utilize more labor—saving equipment more wisely. His ability to purchase electric power—using products is somewhat impaired at the very time he stands in greatest need of the farming efficiencies obtainable through the use of many of these products.

With these facts in mind, and with the full realization that to correct these measures much effort must be made through an educational program, it seems wise to intensify the present program, particularly the program as it is related to the education of the farm youth. In only five to ten years these young people will be sharing in the responsibilities of community leadership. The standard of living of rural North Carolina will be determined by the efficiency of the individual farms owned and operated by these men and women of tomorrow.

# MAJOR PROBLEMS:

- 1. Preparation of more subject matter material for adults and 4-H Club members on efficient operation of electrical equipment.
- 2. Training conferences with distributors and dealers concerning the situation facing the farming population.
- Preparation of more teaching aids to be used by agents and adult leaders.

- 4. Community workshops where adults and club members can learn about electrical uses by working with electricity.
- 5. Drawing all electrical suppliers and educators more closely together in a well organized program aimed at properly informing the rural people.
- More information concerning specific uses of electricity such as brooding, heat uses, sanitation, and feed processing.

# ACTIVITY GOALS:

- 46 Specialist days in the field.
- 70 Specialist days in the office.
- 35 Conferences and visits with agents.
- 5 County-wide training meetings.
- 40 Counties assisted.
- 3 Circular letters.
- 10 News articles and radio talks.

# METHODS OF PROCEDURE:

- 1. Meetings and demonstrations: Method demonstrations and special interest meetings on the use and care of electrical equipment will be held for farmers, at home demonstration clubs, and at 4-H Club meetings. Subjects for 1954 include: Hotbeds, Processing Equipment, Lighting, Wiring, Electrical Safety, Motors, and Potato House Heating.
- 2. Conferences and visits: Conferences will be held with county Extension agents and with Agricultural Engineers and electrical advisors of electric power suppliers to coordinate the educational programs.
- 3. Distributors' meetings: Meetings will be held with electrical equipment distributors in cooperation with power suppliers to present the facts concerning the need for electrical equipment in production on the farms in

North Carolina and to stimulate interest in selling this equipment.

- 4. A training school will be held for the benefit of all power suppliers personnel teaching the electrical classes at the summer 4-H Club camps so that all instruction will be similar.
- 5. Publicity: Power-use articles will be prepared to correspond with similar publicity sponsored by electric suppliers. News articles concerning the farmer-use of electricity for production purposes will be prepared by the state office.
- 6. Subject matter: Activity sheets with illustrations will be prepared for use by 4-H Club members in carrying on their study of the use of electricity and electrical equipment.

# COOPERATION:

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

The four major electric utilities will assist Westinghouse Educational Foundation in sponsoring the 4-H Club Electric Program offering county and territorial awards. They will furnish demonstrators and demonstration equipment for the electric classes in the summer 4-H Club camps. Speakers will be provided for local and county 4-H Club meetings.

Westinghouse will furnish county and state awards in the 4-H Electric Program. Educational material will be provided for camp instruction and individual club use.

Electric Membership Cooperatives will provide an Agricultural Engineer to work in cooperation with the Extension Service in promoting both the youth and adult educational program on the use of electrical equipment. Efforts will be made to provide a method through which the cooperatives may assist in sponsoring the 4-H Electric Program. Electrical advisors of the cooperatives will

assist in holding local and county h-H meetings, giving demonstrations and individual help to the h-H Club members.

Close cooperation will be maintained between this office and the district agents, county farm and home agents, and the State la-H Club Staff in promoting the electrification program.

36

### PROJECT SITUATION:

With well over 95% of our farms electrified, we still have only about 40% of our farm families enjoying the benefits of running water. It is almost unbelievable that this necessity has lagged so far 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 many 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. Farmers' apparent lack of desire for the improvement.
- 2. Lack of income and improper use of income.
- 3. Large tenant population.

### ACTIVITY GOALS:

- 6 Specialist days in field.
- 10 Specialist days in office.
- 100 Counties to participate.
  - 6 Community or county-wide meetings conducted by specialist.
  - 3 News articles.

### METHODS OF PROCEDURE:

Agents will be encouraged to stress the need for farmstead water systems at special meetings and at general meetings. A few method demonstrations with dealer and plumber participation will be conducted.

### COOPERATION:

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

### FENCE CONSTRUCTION AND FENCE POST TREATING DEMONSTRATIONS

With a continuing 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 indication for the need for an educational program in fence construction is the scarcity of good fence posts as well as properly constructed fences in North Carolina.

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, but faced with a demand for additional work in many phases of our program, it was necessary to cut down on the number of planned demonstrations for 1954.

#### MAJOR PROBLEMS:

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

## ACTIVITY GOALS:

- 14 Specialist days in field.
- 12 specialist days in office.
- 18 counties to participate in 1954 demonstration program.
- 12 county-wide method demonstrations meetings.
  - 3 news articles.
  - 3 radio programs.

#### METHODS OF PROCEDURE:

The necessary equipment and materials needed for conducting a complete demonstration will be carried to the location of the demonstration by the cooperating specialists. Posts will be peeled both by hand and by machine. They
will be properly stacked to demonstrate drying. A homemade 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 each demonstration, and a complete
explanation of the proper method of placing corner posts with attention directed
to proper sizes of posts and bases. Fundamentals of good fence construction
will be explained. The group present will be given ample opportunity to ask
questions throughout the demonstration.

### COOPERATION:

At the College level, a specialist from the Agricultural Engineering Department and one from the Forestry Department will conduct the demonstration. On the state and local level, dealers of fencing equipment—wire, posts, etc.—will be invited to participate in the demonstration. It will be the local agents' responsibility to arrange for the location.

Special Note: This demonstration has become quite popular for livestock field days, pasture field days, etc. It is anticipated that a number of requests will come to the specialist during the year to arrange for this demonstration to be held for such events.

#### 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 prepared in 1953 jointly by an Extension Agricultural Engineer, the Home Management specialist, and an assistant 4-H Club leader will be used in 1954. It is anticipated that this manual and record book will stimulate interest in the 4-H Safety Project.

Also note work planned in sections on Farm Machinery and Rural Electrification.

## FARM AND HOME WEEK, L-H CLUB SHORT COURSE, AND THE STATE FAIR:

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 many days 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.

# 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.

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educa- tional 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, 1953	1	2	1	2	1	5	3	1	5	6	0	0	27
January, 1954	1	h	1	h	0	5	0	2	9	0	0	0	26
February, 195h	10	1	1	1	0	5	0	_0	1,	0	0	2	21
March, 195h	h	2	1	4	0	6	0	0	8	0	0	2	27
April, 1954	2	4	1	3	0	6	0	0	8	1	0	1	26
Mey, 1954	0	2	1	4	2	7	0	0	8	0	1	_1	- 26
June, 1954	1	h	1	3	0	7	0	0	8	0	0	2	26
July, 1954	0	2	1	2	0	7	0	0	8	-1	5	2	27
August, 195h	0	3	1	1	0	9	0	0	5	0	-6	_1	-26
September, 195h	0	3_	1	2	0	5	0	0	12	1	2-	0	-26
October, 195h	0	4	1	5	0	10	0	0	4	-0	-1	1	26
November, 1954	0	6	_1	2	0	6	0	0	7	-1	1	2	26
TOTAL	19	37	12	33	3	78	3	3	86	10	26	13	313

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educa- tional 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	Total Days For Month
December, 1953	0	2	1	3	3	h	2	0	6	6	0	0	27
January, 195h	0	1	1	1	8	2	3	0	13.	0	0	0	27
February, 195h	0	1	_1	1	2	1	0	0	1.8	0	0	0	21,
March, 195h	0	2	1	0	2	2	0	0	16	0	0	3	26
April, 1954	0	1	1	1	0	2	0	0	34	1	2	1,	26
May, 195h	0	5	_1	1	0	3	0	0	8	0	2	6	26
June, 195h	0	J <sub>4</sub>	1	1	2	3	0	0	10	0	2	3	26
July, 195h	2	3	1	1	0	3	0	0	_6	- 1	- 3	7	27
August, 195h	0	3	1	2	0	3	0	0	10	0	5	2	26.
September, 1954	2	5	1	2	2	3	0	0		0	0	3	26
October, 1954	0	6	1	_1	2	3	0	0	6	0	2	6	27
November, 195h	0	5	_1	2	0	3	-0	0	5	- 1	0	8	25
TOTAL	14	38	12	16	21	32	5	_0	118	9	16	1,2	33.3

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educa- tional 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 Field Work	Holidays	Annual Leave	Unallotted Office Time	Total Days For Month
December, 1953	0	8	0	0	0	7	2	2	2	6	0	0	2
January, 1954	0	5	1	0	1	2	_1	0	13	0	3	0	26
February, 195h	0	6	0	0	0	5	0	0	13	0	0	0	21
March, 1954	0	10	1	0	0	6	0	0	10	0	0	0	2
April, 195k	0	5	0	0	0	5	0	0	12	1	3	0	20
May, 1954	0	6	0	0	0	6	0	0	11	0	3	0	26
June, 1954	0	3	1	3	1	5	0	0	13	0	0	0	26
July, 1954	0	4	1	4	0	5	0	0	11	1	0	2	2
August, 1954	0	6	0	0	0	6	0	0	6	0	_6	2	_2
September, 1954	0	7	1	0	0	7	0	0	6	1	0	h	-20
October, 195h	0	9	1	0	0	7	0	0	5	0	-0	14	2
November, 1954	0	7	1	0	0	7	0	0	6	-1	0	14	2
TOTAL	0	76	7	7	2	68	3	2	108	10	15	15	31

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educa- tional 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	Preparing Rouse	Field Days on Demon-	10.1	Annual Leave	Unallotted Office	Total Days For Month
December, 1953	3	0	1	0	0	2.5	3	2	2	7	6	.5	0	27
January, 1954	3	3	0	2	2	3	0	0	6	8	0	0	0	26
February, 1954	3	0	0	0	5	1	0	0	3	12	0	0	0	21,
March, 1954	0	1	0	0	1	2	0	0	h	19	0	0	0	27
April, 1954	2	1	0	0	1	3	0	0	3	15	1	0	0	26
May, 195h	3	0	0	4	0	3	0	0	3	13	0	0	0	26
June, 195h	3	0	0	0	0	3	0	0	5	13	0	0	2	26
July. 1954	3	0	1	0	0	<u>lı</u>	0	10	5	7	1	6	0	27
August, 1954	3	0	1	0	0	4	0	0	5	5	0	6	2	26
September, 195h	3	0	1.5	0	0	4	0	- 0	6	5	2	1.5	h	26.
October, 1954	6	0	_1	0	0	2	0	0	0	15	c	1	2	26
November, 1954	L	0	1	0	0	F	0	0	0	34	1	1	_1	26
TOTAL	36	5	6.5	5	9	35.5	3	2	1,2	1.33	3.0	16	10	33.3

Write in Month and Specialist's name under each month	Preparation of Bulletins	Preparation of Educa- tional 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	Total Days For Month
December, 1953	0	6	2	2	0	6	1	0	1,	6	0	0	27
January, 1954	0	h	2	1	0	2	3	3	11	0	0	0	26
February, 195h	0	5	1	1	0	4	0	0	12	0	2	0	24
March, 195h	0	4	3	1	0	5	0	0	24	0	0	0	27
April, 195h	0	14	2	1	1	6	0	0	11	1	0	0	26
May, 1954	0	8	1	0	0	3	0	0	13	0	1	. 0	26
June, 1954	0	7	3	2	0	ls.	0	0	10	0	0	0	26
July, 1954	0	7	0	0	0	2	0	0	11	1	6	0	27
August, 1954	0	6	2	0	0	3	0	0	9	0	6	0	26
September, 195h	0	5	3	0	0	6	0	0	10	1	0	1	_26
October, 195h	2	6	0	0	0	24	0	0	12	0	0	2	26
November, 1954	5	4	0	0	0	ls	0	0	1.0	- 3	2	0	26
TOTAL	7	66	19	8	1	19	h	3	127	10	16	3	313

Line of work AGRICULTURAL ENGINEERING EXTENSION

Write in counties to be served for the month	Description of work to be done in counties			devotork i			Total Days to County
		KLIS	FEBGUSON	RITCHIE	WARRICK	COATES	
DECEMBER, 1953 Person	7-1-11- W-11-						
Buncombe	Irrigation Meeting Irrigation Meeting	1 1					
Wake	Fence Construction	+		Un'S			
Granvilla	Errigation Meeting	1				-	
Wake	Farm Machinery	*	2				
Northampton	Farm Machinery	-	ī	-		-	
Mecklenburg	Farm Machinery		ī				
Iredell	Farm Machinery		ī			-	
Rutherferd	Farm Machinery		ī	18			
Wake	Farm Service Buildings						-
Wilson	Farm Service Buildings	100		3			
Greene	Farm Service Buildings			940			
Person	Housing			1 2			
Onslow	Demonstration Housing				1		
Rowan	Demonstration Housing				Ti-dou		
Caldwell	Demonstration Housing				\$		
Franklin	Demonstration Housing				40.		
Mitchell	Demonstration Nousing	11			1,		
Wake Guilford	Demonstration Housing				专		
Wilson	Hay Drying Rural Electrification					2	
	nural signification					1	
JANUARY, 1954			1, 1			ann'	
Craven	Irrigation Meeting at County School	1					
Currituck	Irrigation Meeting at County School	1					
Perquimans	Farm and Home Water and Sewage Systems	1			-		
Onslow Polk	Irrigation Meeting at County School	1					
Cardwell	Irrigation Meeting at County School	1			-	-	
Harnett	Irrigation Meeting at County School	1					
Bladen	Irrigation Meeting at County School General Agr. Engr. Program	1			-	-	<del> </del>

Write in counties to be served for the month	Description of work to be done in counties	1	Days to w	devo			Total Days to County
		RITIS	FERGUSON	RITCHIE	WARRICK	COATES	(e)
Camden	Farm Machinery	-	1	-	-	-	
Bates	Farm Machinery		1				12.1.4
Jones	Farm Machinery	1	0	T			
Onslow	Farm Machinery	1	I				
lash	Farm Machinery		400				
Chatham	Farm Machinery		1			1	
Rockingham	Farm Machinery		1				
lilkes	Farm Machinery		1				
Caldwell	Farm Machinery		1				
Stanly	Farm Machinery	1	ī				
Fraven	Farm Machinery		1				
Perquimans	Farm Machinery		1		1		
Pender	Farm Machinery		4				
Robeson	Farm Machinery		1				
Harnett	Farm Machinery		1				
Onslow	Demonstration Housing			1			
Inslow	Farm Service Buildings			1			
lutherford	Farm Service Buildings			1			
aldwell	Farm Service Buildings		T	1			
Burke	Farm Service Buildings			1	1		
lowan	Farm Service Buildings			1 5			
avie	Farm Service Buildings			1 3	1		
abarrus	Farm Service Buildings			1			
ender	Farm Service Buildings			1			
lenderson	Housing			1			
foore	Housing			1			
dgecombe	Housing		1	1			
redell	Housing	-	-	1	-	-	
leveland	Housing			1			
lake	Farm Service Buildings	+		1	-	-	
tokes	Farm Service Buildings			1			
aswell	Farm Service Buildings		+	1	-	-	
nslow	Demonstration Housing	1			1	1	

Write in counties to be served for the month	Description of work to be done in counties		ays to w			91	Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	
Wake	Demonstration Housing				1		4,14
Nash	Demonstration Housing		-	-		1	
Bertie	Demonstration Housing		2		1	1	
Northampton	Demonstration Housing			+	1	-	
Vance	Demonstration Housing				1	1	
Rowan	Demonstration Housing	-		-	1	-	-
Alexander	Demonstration Housing		114		1		
Henderson	Demonstration Housing		-	-	1	+	
Transylvania	Demonstration Housing				1		
Montgomery	Demonstration Housing			-	1	-	
Sempson	Demonstration Housing				1		1 10
Chowan	Crop Processing	ببسيد	-	-	-	1	
Washington	Orop Processing					\$	
Currituck	Crop Processing			-	-	\$	
Beaufort	Crop Processing				1	1	
Rutherford	Crop Processing		-	-	-	1	-
Burke	Grop Processing	a.				1	
Rowan	Grop Processing		-	-	-	- 8	
Davie	Grop Processing		1			章	
Cabarrus	Grop Processing					1	
Harnett	Grop Processing				1	1	
Martin	Rural Electrification			-		1	
Wake	Rural Electrification			-		2	
FEBRUARY, 195h				-	-	-	-
Lenoir	Irrigation Meeting at County School	1		1			
Greene	Irrigation Meeting; Fence Construction		F	T			
Granville	Irrigation Meeting at County School	î					
TOTAL STREET,	Irrigation Meeting at County School	i					
Wayne	Farm Wachinery	nde.	1			-	
Edgecombe Lenoir	Farm Machinery		i	1			
Wayne	Farm Machinery		3				

Write in counties to be served for the month	Description of work to be done in counties		ays (				Total Days to County
		RITIS	FERGUSON	RITCHIE	WARRICK	COATES	
Wilson	Farm Machinery		1			-	
Alleghany	Farm Machinery		ī				
Cleveland	Farm Machinery		i				
Gaston	Farm Machinery		1				
Swain	Farm Machinery		*		1		
Clay	Farm Machinery		1				
Haywood	Farm Machinery	1	1			1	
Jackson	Farm Machinery	10.16	1	11.5			
Transylvania	Farm Machinery	1	1				
Granville	Farm Machinery		I		133		
Watauga	Farm Machinery		1	-			
Avery	Farm Machinery		1				
Mitchell	Farm Machinery		1				
Buncombe	Farm Machinery		1				
Macon	Farm Machinery		1				
Cherokee	Farm Machinery		I				
Graham	Farm Machinery		7		T Y		EMI
Halifax	Farm Machinery		7"				
Henderson	Farm Machinery		1	1			
Madison	Farm Machinery		1	110			
Yancey	Farm Machinery		1				
Anson	Farm Machinery		1				
Bladen	Farm Machinery		1				T
Cumberland	Farm Machinery		ī				136615
Person	Housing			1			
Caswell	Housing			五			
Guilford	Housing			1			
Stokes	Housing			1			
Davidson	Housing			I			
Wilkes	Housing			1			
Surry	Housing			S IN			
Rockinsham	Housing			72			
Orange	Housing			ī			
Jackson	Farm Service Buildings			-2		1	

Line of work AGRICULTURAL ENGINEERING EXTENSION 195

Write in counties to be served for the month	Description of work to be done in counties			devo			Total Days to County
		ELLIS	FERGUSON	RITCHIE	WARRICK	COATES	1000
Macon	Farm Service Buildings			13	1		aged to
Clay	Farm Service Buildings	-		- 1	-	-	
Cherokee	Farm Service Buildings	1	100	409	10		
Graham	Farm Service Buildings	-	-	- 1	-	-	
Swain	Farm Service Buildings		000	- 4		1	
Rowan	Farm Service Buildings	-		1		-	
Jones	Farm Service Buildings		1	1			100
Bartie	Farm Service Buildings		-	1		-	-
Nash	Farm Service Buildings			1	1		1 1 11
Tyrrell	Demonstration Housing			+	1	-	
Alamance	Demonstration Housing	1			1		
Chatham	Demonstration Housing	-	-	-	1	-	
Durham	Demonstration Housing				1	1	
Rm dolph	Demonstration Housing	+		-	1	-	
Forsyth Yadkin	Demonstration Housing				î		
Davidson	Demonstration Housing	1		1	1	1	
Alleghany	Demonstration Housing	1			ī		
Chowan	Demonstration Housing				1		
Vance	Demonstration Housing				î		
Onslow	Demonstration Housing						
Jones	Demonstration Housing		3		1	14.4	
Cumberland	Grain Storage and Drying					1	
Sampson	Grain Storage and Drving					1	
Lenoir	Grain Storage and Drying					1	
Wilson	Grain Storage and Drying					1	
Halifax	Rural Electrification		192			1	
Pitt	Rural Electrification	-		-		1	
Vance	Rural Electrification	1				1	
Hertford	Electric Hothed					1	
Lenoir	Electric Hotbed	1				1	
Beaufort	Electric Hothed			-	-	1	
Wilson	Electric Hothed			1		1	
Stokes	Feed Production	1				1	

Write in counties to be served for the month	Description of work to be done in counties			levot			Total Days to County
		ELIS	PERGUSON	RITCHIE	WARRICK	COATES	
MARCH, 1954							
Columbus	Irrigation Demonstration	1					
Bladen	Irrigation Demonstration	1					
Sampson	Irrigation Demonstration	ĩ					
Johnston	Irrigation Demonstration				71111		
Rockinsham	Irrigation Demonstration	1					
Person	Irrigation Demonstration	1					
Granville	Irrigation Demonstration	1					
Warren	Irrigation Demonstration	î					
Richmond	Farm Machinery	-	7				
Sampson	Farm Machinery		1				
Columbus	Farm Machinery		i				
Duplin	Farm Machinery		1				
Scotland	Farm Machinery		7				
Greene			1660			-	
Franklin	Farm Machinery		1				
	Farm Machinery						1
Warren	Farm Machinery		1				
Hertford	Farm Machinery		1			-	
Yadkin	Farm Machinery		1				
Davie Polk	Farm Machinery Farm Machinery		i				<del> </del>
Guilford	Farm Machinery		î				
Surry	Farm Machinery		i				
Alexander	Farm Machinery		1			100	
Vance	Farm Machinery		1				1
Halifax	Farm Service Buildings		-	2			
Iredell	Farm Service Buildings			i			
Beaufort		1-1		2			
Union	Farm Sarvice Buildings Farm Service Buildings		,	1		-	
Stanly	Housing			1			
Caldwell				-			1
Bartie	Housing			1			
	Farm Service Buildings			4			1
Alaman <b>ce</b> Rockingham	Farm Service Buildings Farm Service Buildings			100			

Write in counties to be served for the month	Description of work to be done in counties			devo			Total Days to Count
		RITIS	FERGUSON	RITCHIE	WARRICK	COATES	
Montgomery	Demonstration Housing				1		
Richmond	Demonstration Housing		3		1		
Jones	Demonstration Housing				1		
Bertie	Demonstration Housing				1		
Franklin	Demonstration Housing				1		
Nash	Demonstration Housing				1		
Rockingham	Demonstration Housing			-	1		
Davie	Demonstration Housing				1		
Carteret	Demonstration Housing				1		
Graham	Demonstration Housing				1		
Henderson	Demonstration Housing				1		
Bertie	Demonstration Housing				1		
Johnston	Demonstration Housing				1		
Sampson	Demonstration Housing				1	-	
Alexander	Demonstration Housing				. 1		
Halifax	Demonstration Housing				1		
Vance	Demonstration Housing				1		
Sampson	Electric Hothed					1	
Haywood	Riectric Motbed					2	
Yancev	Hay Drying Close					1	
Orange (N)	Grain Drying					1	
Caswell (N)	Adequate Wiring					1	
Nash (N)	Rural Electrification	*		1 7 2		1	
Hertford (N)	Rural Electrification			-		1	
Union	Grain Storage					1	1
Nash (N)	Electric Hotbed			-		1	
Warren (N)	Electric Hothed					1	
Pitt	Electric Hotbed		,	-		1	<u> </u>
Columbus	Electric Hotbed					1	
Johnston	Electric Hothed	-		-		1	
APRIL, 1954				-			
Caldwell	Irrigation Survey	1					1

Rutherford Rutherford New Hanover Fender Lenoir Wilson	done in Counties  Irrigation Demonstration Irrigation, Terracing, Drainage Irrigation, Terracing, Drainage Irrigation Survey Irrigation Survey Irrigation Survey Irrigation Survey	SITE	FERGUSON	RITCHIE	WARRICK	COATES	
enderson Rutherford Rutherford New Hanover Fender Lenoir Wilson Moore	Irrigation, Terracing, Brainage Irrigation, Terracing, Brainage Irrigation Survey Irrigation Survey Irrigation Survey	1					
Rutherford New Hanover Fender Lenoir Wilson	Irrigation, Terracing, Drainage Irrigation Survey Irrigation Survey Irrigation Survey	1	-		1 1		
New Hanover Fender Lenoir Wilson	Irrigation Survey Irrigation Survey Irrigation Survey	1	1	-	-	-	
Fender Lenoir Wilson	Irrigation Survey Irrigation Survey Irrigation Survey		1				Arriva Maria
Lenoir Wilson	Irrigation Survey	2.0	-	-	_		
Wilson	Irrigation Survey			-			
Wilson	Treigation Survey	1	-	-	-	-	
Moore		1	1		1		
	Farm Machinery		1				
Pitt	Farm Machinery		1				
Randolph	Farm Machinery		1				
Union	Farm Machinery		1				
Hoke	Farm Machinery		1				
Montgomery	Farm Machinery		1				
Martin	Farm Machinery		1				
Pitt	Farm Machinery		1				
Union	Farm Machinery		1				
Iredell	Farm Machinery		1				
Percuimans	Farm Machinery		1				
Bertie	Farm Machinery		1				
The second secon	Farm Machinery		1			1	
Jones Gates	Farm Machinery		1				
	Farm Service Buildings	- 1	1	2			
Person	Farm Service Buildings	-	1	2			
Ashe	Farm Service Buildings	. 1	1	2			
Sampson	Farm Service Buildings	-	-	1			
Haywood	Farm Service Buildings			2			
Wake				1		1	
Nash	Housing			2			
Onslow	Demonstration Rousing	-	+	-	1		
Montgomery	Demonstration Housing				3		
Onslow	Demonstration Housing	-	-	-	1		
Tyrrell	Demonstration Housing		1		1 3		
Bertie	Demonstration Housing	-	-	-	1		
Northampton			1		1		
Wake	Demonstration Housing	+	-	-	1		-
Nash					1 3		
Chatham	Demonstration Housing	-	-	+	1	The Personal Property and	
Davie	Demonstration Housing Demonstration Housing			1	1 3		

Write in Counties	Description of work to be				evot	- 4	Total Days to County
served for the month	done in Counties	Elits	PERGUSON.	RITCHIE	WARRICK	COATES	
lenderson	Demonstration Housing				1		
Franklin	Demonstration Housing		-	_			
huilford	Demonstration Housing				1		
lexander	Demonstration Housing				1		
Halifax	Demonstration Housing	1			1		
Sampson	Demonstration Housing				1		
Columbus	Rural Electrification			1		1	
Alexander	Crop Drying					2	
Forsyth	Crop Drying					1	
Mecklanburg	Hay Drying					1	
Gaston	Hay Drying					1	
Lincoln	Hey Drying			1		1	
Jabarrus	Hay Drying					1	
Durham	Hay Drying					1	
Orange	Hay Drying					1	
Iredell	Aural Electrification School	-	-	-	+	1	
MAY 2001.		-	-	-	-	-	
MAY, 1954	Irrication Demonstration	1	1	1			
Anson	Irrigation Demonstration	1	+-	-	+		
Robeson	Trrigation Demonstration	î	1	1			
loke	Irrigation Demonstration	1	-	+	+-	-	
Harnett	Irrigation Demonstration	1					
Wayne	Irrigation Demonstration	1	-	-	+	-	
Durham		1				1	
Franklin	Irrigation Demonstration Clearing Pasture Land	1	-	+	-		
Franklin		1 2	1				
Lenoir	Farm Machinery	-	1	-	-	-	
Nash	Farm Machinery	15	1				
Caldwell	Farm Machinery	-		-	-	-	
Vance	Farm Machinery	1	1		1		-
Anson	Farm Machinery	-	1		+	-	
Caswell	Farm Machinery	1	1		1		
Harnett	Farm Machinery	-	1		-	-	
Johnson	Farm Machinery		-	1			
Durham	Farm Service Buildings	-	-	2		-	
Lenoir	Farm Service Buildings		1	2			
Hertford	Farm Service Buildings		1	6			

# A PLAN OF SPECIALISTS' WORK AT THE COUNTY LEVEL AGRICULTURAL ENGINEERING EXTENSION 14

	3
Line of Work195	

Write in			Da	ys De	evoted	Tota
Counties	Description of work to be		- t	o wor	ck by	Day
to be			1000	E	M	To
Served for	done in Counties	60	DE	Int		Cour
the month		TT.	FERGUSA	RITCH	CONTES	
Edgecombe	Farm Service Buildings			2		
Harnett	Farm Service Buildings					
New Hanover	Farm Service Buildings		-	1		-
Davie	Farm Service Buildings			1		11.00
Royan	Farm Service Buildings		-	1		
Richmond	Demonstration Housing				1	
Jones	Demonstration Housing		-	-	1	-
Bertie	Demonstration Housing	100			F	
Rockingham	Demonstration Housing		-	-		-
Rowan	Demonstration Housing			1	1	
Graham	Demonstration Housing			-	1	-
Transylvania	Demonstration Housing				1	
Johnston	Demonstration Housing		-	-	-	-
Vance	Demonstration Housing	ALL STATE			-	
Sampson Swain	Demonstration Housing		-	1	2	1
Swain Hertford	Demonstration Housing				-	
Yadkin	Hay Drying		_		10	
Wilkes	Hay Drying				1	
Wateuga	Hay Drying				2	
Tradell	Hay Drying					
Buncombe	Hay Drying				1	
Madison	Hay Drying				- F	
Nitchell	Hay Drying				ī	
Avery	Hay Druing				I I	
Orange (N)	Brain Drying Demonstration				1	
Pitt	Purel Fleetrification		-		1	
Warren (N)	Rural Electrification				1	
Nash (N)	Purel Electrification		-		1	-
Johnston	Rural Electrification				1	
JUNE 195h						
Caldwell	Irrigation Demonstration	7				
Caldwell	Irrigation Demonstration	3				
Davidson	Irrigation Demonstration	3				
Stanly	Irrigation Demonstration	3		1		
Caswell	Irrigation Meeting				-	

Write in counties to be served for the month	Description of work to be done in counties		Days devoted to work by					
		KLIS	PERGUSON	RITCHIE	WARRICK	COATES		
Alamance	Irrigation Survey	1				1010		
Lea	Irrigation Survey	1	-		-	-		
Orange	Irrigation Meeting	1	l W			1	138.	
Duplin	Farm Machinery	-	1	-	-	-		
Sampson	Farm Machinery		1					
Hyde	Farm Machinery		1			-		
Edgecombe	Farm Machinery		1					
Alamance	Farm Machinery		1				-	
Ashe	Farm Machinery		1					
Wilkes	Farm Machinery		1	1				
Chowan	Farm Machinery		1					
Beaufort	Farm Machinery		1					
Columbus	Farm Machinery		1					
Haywood	Farm Service Buildings			1				
Henderson	Farm Service Buildings			1			0.5	
Jackson	Farm Service Buildings			2				
Madison	Farm Service Buildings		1	2				
Halifax	Farm Service Buildings			1				
Vance	Farm Service Buildings			2				
Lenoir	Farm Service Buildings			1				
Franklin	Farm Service Buildings			1				
Northampton	Farm Service Buildings			1			1	
Forsyth	Farm Service Buildings			1		T		
Kamett	Bemonstration Housing				1			
Richmond	Demonstration Housing				1			
Jones	Demonstration Housing				1			
Tyrrell	Demonstration Housing	1			1		100	
Northamoton	Demonstration Housing				ī			
Nash	Demonstration Housing		1		1			
Burham	Demonstration Housing			1	1	-		
Davie	Demonstration Housing			1				
Sampson	Demonstration Housing		1	-	1	-		
Halifax	Demonstration Housing				1	1		
Vance	Demonstration Housing	1			1		1	

Line of work AGRICULTURAL ENGINEERING EXTENSION

Write in counties to be served for the month	Description of work to be done in counties		Days devoted to work by						
		ETTE	FERGUSON	RITCHIE	WARRICK	COATES			
Swain	Demonstration Housing				1				
Hertford	Demonstration Housing				1	1			
Union	Orain Drying and Storage					1			
Anson	Grain Drying and Storage					1			
Montgomery	Grain Drying and Storage					1			
Richmond	Grain Drying and Storage					1			
Currituck	Grain Drying and Storage					2			
Pasquotank	Grain Drying and Storage				The same	1			
Tyrrell	Grain Drying and Storage			T		1			
Cleveland	Grain Drying and Storage					1			
Wilkes	Grain Drying and Storage					1			
JULY, 195h		-		-	-	-			
Pascuotank	Irrigation Demonstration	1							
Chowan	Irrigation Demonstration	1							
Nash	Irrigation Demonstration	1							
Hal ifax	Irrigation Demonstration	1							
Mitchell	Irrigation Meeting	1							
Burke	Irrigation Survey	1							
Cleveland	Irrigation Meeting	1				1			
Mecklenburg	Irrigation Meeting or Visits	1							
Harnett	Farm Machinery		1						
Beaufort	Farm Machinery		1	T <sub>m</sub>	119	1.	1 1 2 1 1		
Wake	Farm Machinery		1			-			
Catawba	Farm Machinery		1						
Mecklenburg	Farm Machinery	-	1	-	-	-			
Lincoln	Farm Machinery		1						
Alexander	Farm Service Buildings	+	-	1	-	-			
Cleveland	Farm Service Buildings			2					
Avery	Form Service Buildings		-	1 1	-	-	+		
Cherokea	Farm Service Buildings	1	1	1		1			

Write in counties to be served for the month	Description of work to be done in counties		Days devoted to work by					
		ELLIS	FERGUSON	RITCHIE	WARRIOK	COATES		
Swain	Farm Service Buildings	-	-	1	1	1	+	
Transylvania	Farm Service Buildings			2				
Onslow	4-H Camp	1		2		1		
Montgomery	Demonstration Housing				1	1		
Jones	Demonstration Housing	-		1	1			
Rockingham	Demonstration Housing				1	1		
Chewan	Demonstration Housing	1	-	1	1	1		
Fransylvania	Demonstration Housing	1		1	1		1000	
Sampson	Demonstration Housing	+		1	1	1		
Halifax	Demonstration Housing			1	1			
Wake	Grop Drying	1	1	+	-	1		
Bladen	Rural Electrification					2		
Dare	Rural Electrification	-	-	1	+	2	+	
Richmond	Rural Electrification	1 11				2	1	
Haywood	Rural Electrification	+	1	1	-	2		
Buncanbe	Rural Electrification	-		-	1-	2	-	
AUGUST, 195h		-	-	-	-	-		
Graham	Irrigation Survey	1		1	1			
Swain	Drainage	1	1	1	1	T	1	
Jackson	Drainage	1					I Audi	
Transylvania	Farm Conveniences	1	1	1	1	1	1	
Anson	Farm Machinery	100	1			1	1	
Scotland	Farm Machinery		1	1	1			
Wilson	Farm Machinery	1	1		1			
Chatham	Farm Machinery	1	1					
Orange	Farm Machinery	1	1			1		
Gurrituck	Farm Machinery		1			-		
Iredell	Farm Machinery		1		1			
Clay	Farm Machinery	T	1					
Transylvania	Farm Machinery	1	1	1		-		
Guilford	Farm Machinery		1					
Warren	Housing	1		1	1	1		

Line of work ACRICULTURAL ENGINEERING EXTENSION

Write in counties to be served for the month	Description of work to be done in counties		Days devoted to work by					
		ELIS	FERGUSON	RITCHIS	WARRICK	COATES		
Franklin	Housing			1				
Wake	Housing			1	-			
Nash	Farm Service Buildings		3	1	1		1 2 3	
Bladen	Farm Service Buildings			1	-	-		
lates	Farm Service Buildings			1	-		1	
Richmond	Demonstration Housing			-	1			
Onslow	Demonstration Housing				1			
Bertie	Demonstration Housing			-	1			
Carteret	Demonstration Housing				1			
Fransylvania	Demonstration Housing			-	1	-		
Johnston	Demonstration Housing				1			
Cherokee	Seed Drying			-		1		
Harmott	Grain Drying					1		
Chowan	Sweat Potato Curing			-		1	-	
Polk	Sweet Potato Curing		-			1		
Gates	Sweet Potato Curing				-	1	-	
Iredell	Sweet Potato Curing					1		
Bladen	Sweet Potato Curing					1		
Jones	Sweet Fotate Curing					1		
Hertford (N)	Sweet Fotate Curing			+		1		
SEPTIMBER, 1954	18			1	-		1	
Gumberland	Special Field Study Tobacco Irrigation			-		-		
Johnston	Special Field Study Tobacco Irrigation			177				
Wilson	Special Field Study Tobacco Irrigation		-	-			+	
Pitt	Special Field Study Tobacco Irrigation							
Craven	Special Field Study Tobacco Irrigation			+		-	+	
Beaufort Anson	Special Field Study Tobacco Irrigation Fence Construction	1 1						
Robeson	Fence Construction	1						
Columbus	Fence Construction	1		-	-	-	+	
Sampson	Fence Construction	ī						
Lenoir	Fence Construction	1		1		1		

Write in counties to be served for the month	Description of work to be done in counties		Days devoted to work by						
		KITIS	FERGU SOM	RITCHIE	WARRICK	COATES			
Pitt	Fence Construction	1		1		1			
Wilson	Fence Construction	1		1					
Nash	Pence Construction	1				1	17 7, 10		
Bladen	Farm Machinery		1		-	-			
Bertie	Farm Machinery		1		1		1 - 1		
Pitt	Farm Machinery		1	1	-	1			
Person	Farm Machinery		1			1			
Dieveland	Farm Machinery		1	-		-			
Polk	Farm Machinery		1						
Henderson	Farm Machinery	-	1	-		-			
Moore Pitt	Farm Machinery		1	-					
	Farm Service Buildings	-	-	1	-	+	-		
Sampson Orange	Farm Service Buildings			1					
Chatham	Housing	-	-	1	-	-			
Haywood	Farm Service Buildings			1	1				
Burke	Farm Service Buildings		-	1	+	-	-		
Tyrrell	Demonstration Housing			-	1				
Northampton	Demonstration Housing	-	-	+	1	-			
Graham	Demonstration Housing				1				
Franklin	Demonstration Housing	1	1	-	1				
llexander	Demonstration Housing	1	1	1	1		1		
Pender	Grain Drying	1	1-			1	1		
lew Hanover	Corn Drying	1	1	1		1	1		
New Hanover	Dweet Potato Curing					-to-to			
Richmond	Sweet Potato Curing	1				1			
Vake	Sweet Potato Curing					1	1		
Certeret	Sweet Potato Curing		-		-	1			
Lenoir	Sweet Potato Curing				1	1	1000		
Robeson	Sweet Potato Curing	-	-	-	-	2			
Malifax	Corn Storage					1			
Dates Duilford	Sweet Potato Curing Sweet Potato Curing	-	-	+	-	1			

Write in counties to be served for the month	Description of work to be done to in counties	De t		Total Days to County			
		SITE	FERGUSON	RITCHIE	WARRICK	COATES	
OCTOBER, 1954							
Rockingham	Fence Construction	1				-	-
Durham	Fence Construction	1	100				
Warren	Fence Construction	1					
Franklin	Fence Construction	1	1				
Jones	Farm Machinery	-			-		
Forsyth	Farm Machinery		1 1 1				
Edgecombe	Farm Machinery		1				
Wilson	Farm Machinery		4		. 3		1 15
Wake	Farm Machinery	-	1				+
Mecklenburg	Farm Machinery			1			
Chowan	Housing	-		2	-	-	
Columbus	Farm Service Buildings			2			
Stanly	Farm Service Buildings	-		1		-	
Iredell	Farm Service Buildings			1		1	
Richmond	Demonstration Housing	-		-	1	-	-
Jones	Demonstration Housing				1		1
Onslow	Demonstration Housing				_1	-	
Bertie	Demonstration Housing				1		
Franklin	Demonstration Housing	-			_1	-	
Northampson	Demonstration Housing	1			1		
Nash	Demonstration Housing	-			1		+
Durham	Demonstration Housing				1		1 - 0
Rockinghem	Demonstration Housing	-			_ 1	-	
Davie	Demonstration Housing				1		
Carteret	Demonstration Housing				1		
Graham	Demonstration Housing				1		
Johnston	Demonstration Housing		5		1	-	
Alexander	Demonstration Housing				1		
Wilson	Rural Electrification						
Guilford (N)	Electrical Equipment					3	
Columbus	Sweet Potato Curing			-		- 2	-
Durham	Rural Electrification					1	
Martin	Rural Electrification	1	1			1	4

Write in counties to be served for the month	Description of work to be done in counties		Days devoted to work by						
		KITIS	FERGUSON	RITCHIE	WARRICK	COATES			
Guilford	Rural Electrification			1		1			
Wilson	Rural Electrification					1			
Alamance	Rural Electrification					1			
Lincoln	Grain Storage		1	12		1			
Cleveland	Grain Storage				4	1			
Stanly	Grain Storage	-		-	-	1			
NOVEMBER, 1954	A CONTRACTOR OF THE PROPERTY O			-	-		-		
Franklin (N)	Water Systems Meeting	1							
Columbus (N)	Water Systems Meeting	1		+			1		
Johnston (N)	Water Systems Meeting	1							
Showan	Farm Machinery		1	-	-	+	-		
Beaufort	Farm Machinery		1		1				
Wake	Farm Machinery		1						
Guilford	Farm Machinery		1						
Caston	Farm Machinery		1						
Pitt	Farm Service Buildings			1					
Northampton	Farm Service Buildings			1					
Lenoir	Farm Service Buildings			1					
Edgecombe	Farm Service Buildings			1					
Person	Farm Service Buildings			1					
Jackson	Farm Service Buildings			1					
Richmond	Demonstration Housing	-		-	1	-			
nslow	Demonstration Housing				1				
Pyrrell	Demonstration Housing	-	-	-	1	-			
Bertie	Demonstration Housing				1				
Franklin Wash	Demonstration Housing	-	-	-	1	-			
Nasn Durham	Demonstration Housing				1	1			
THE RESERVE OF THE PARTY OF THE	Demonstration Housing			+-	1	-			
Rockingham	Demonstration Housing		114	1	1				
Davie Carteret	Demonstration Housing	+		1-	1000	1	1		
Parteret Praham	Demonstration Housing Demonstration Housing				1				

Line of work AGRICULTURAL ENGINEERING EXTENSION

Write in counties to be served for the month	Description of work to be done in counties	D	l	Total Days to Count			
		ELIS	PERGUSON	RITCHIE	WARRICK	COATES	
Johnston Wake Mackleriburg Stanly 11 exander Randolph Jatawba Burke Galdwell	Demonstration Housing Rural Electrification Rural Electrification Feed Processing				1	1 1 1 1 1 1	
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