

AGRICULTURAL ENGINEERING EXTENSION

PLAN OF WORK

For

1936

STATE OF VIRGINIA

By

Chas. E. Seitz

Agricultural Engineer

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MAJOR PROJECTS:

Emphasis will be placed on the Soil Erosion Control, Farm Structures and Rural Electrification Projects during 1936. Outlines of these three major projects are included in the following pages of this statement of plan.

MINOR EXTENSION PROJECTS:

Farm Water Supply: There is a greatly increased interest in farm home improvement and as water supply is one of the most essential needs in over 80% of our farm homes, considerable attention will be given to this project. While no major water supply campaigns will be conducted all requests for assistance will be taken care of as far as possible.

Drainage: The wet weather so far this year has resulted in increased interest in land drainage. All requests for drainage surveys will be taken care of as far as possible.

Irrigation: Work will be conducted during the spring and summer months on irrigation. Field demonstrations in orchard, truck and general crop irrigation have been under way for several years. These demonstrations will be continued and additional projects developed as the demands arise, *in so far as personnel will permit*

Farm Water Power: There is still considerable interest in farm water power development. Surveys and plans will be made for such developments as the requests for such assistance come in.

Sewing Machine Schools: Requests have been received from a number of home demonstration agents for additional sewing machine schools in their counties. Several schools or clinics will be conducted this spring in cooperation with the home demonstration agents.

Farm Operating Equipment: Numerous requests have been received for assistance in planning stationary spray plants for orchards. Surveys and plans will be made for the installation of such equipment in some dozen orchards this year. A number of farm cold storage plants for fruit will also be planned for orchards. (There will also be some field work in demonstrating lespedeza and soybean harvesters and other farm operating equipment as the needs arise.) *out*

Farm Development: Due to the great demands upon the staff this project will not be stressed this year. We shall continue, however, to follow up the farmers' progress with the hope of making this a major project again as soon as personnel will justify.

4-H Club Short Courses: Requests have been received from county agents for agricultural engineering instruction at all the 4-H Club Short Courses that will be held during the summer. We will give instruction in various subjects at all these schools and will also give a four day short course in agricultural engineering subjects at the State 4-H Club meet at V. P. I. during the summer. *Club work in rural electrification will be developed as far as possible with the staff personnel available.*
Cooperation with other agencies:
Cooperation will be maintained with the rural rehabilitation division of the Resettlement Administration. We will also continue our cooperation with the Soil Conservation Service, the Tennessee Valley Authority, the crop adjustment division of the A. A. A., the marginal land project and the Public Works Administration, and the Works Progress Administration.

We will cooperate with the State Corporation Commission and the State Planning Board, the R. E. A. and other agencies interested in rural electrification development by conducting educational and research programs in rural electrification, extension of rural lines, etc. *short courses and schools, etc.*

Aggr. Eng. Bldg. (see attached sheet)

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With the new public works and relief allotments it is expected that greater demands will be made upon us for assistance. We will cooperate to the fullest extent of our ability. These relief and emergency projects may force us to make adjustments in our regular plan of work for the year.

Requests for assistance in miscellaneous engineering problems will be handled as far as possible through correspondence.

CALENDAR OF WORK:

Extension Staff:

A larger percentage of office time is probably required of specialists in agricultural engineering than for those in other departments due to nature of engineering projects requiring the preparation of estimates, maps, plans, blueprints and other engineering data.

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Professor C. E. Seitz, extension agricultural engineer, as administrative head of the agricultural engineering department directs the resident instruction and research work as well as all extension work in this field. The following new deal activities require considerable of his time and no doubt will continue to do so during the year. He represents the college and state as contact man for the T. V. A. He is closely associated with the work of the Soil Conservation Service demonstration areas. He is a member of the College Committee on Land Use which passes on all land that is to be taken out of cultivation. As a member of the State Planning Board he is often called in consultation for advice on public works projects and the planning of a long time program for the state. He will no doubt be closely associated with the proposed public works and relief agencies in charge of the expenditure of Federal funds for the extension of rural electric lines in the state. He is a member of the committee set

up to work out details of operation for the new Farm Electric Cooperative Act. A number of agricultural engineering projects have been submitted for public works which require considerable attention if they are approved.

In addition to the emergency activities and administrative duties, Professor Seitz will be responsible for the preparation of radio talks and the extension subject matter in rural electrification, irrigation, drainage, and orchard equipment. He will spend about 125 days in the field and 160 days in the office.

Professor J. A. Waller, associate extension agricultural engineer, will be responsible for the extension project in soil erosion control (terracing). He will devote his entire time to this project during the year. He will spend about 160 days in the field and 125 days in the office.

Professor M. E. Johns, assistant extension agricultural engineer, will be responsible for the extension project in farm structures, farm water supply and farm water power. He will spend about 125 days in the field and 100 days in the office.

College and Experiment Station Staff:

Professor S. H. Byrne, who is employed on 1/4 extension time will devote this portion of his time to the Farm Structures Project mainly handling the office end of the work.

Professor E. T. Swink, who is employed 1/2 time by the college and 1/2 by the Extension Division will devote about two-thirds of his time to extension work in rural electrification. He will spend about 160 days in the field and 125 in the office.

Professor P. B. Potter of the college and experiment station staff will devote about 15 days to extension, assisting with short courses, delivering radio talks and answering letters on household equipment.

Professor J. W. Sjogren of the college and experiment station staff will devote about 30 days to extension, assisting with short courses, handling field meetings in farm machinery and answering letters pertaining to farm machinery.

Miss Frances Hicks of the experiment station staff will devote about 15 days to extension, assisting with household equipment short courses and meetings.

Mr. F. G. Payne, Jr., architectural draftsman, of the college staff, will devote all his time to the preparation of plans for farm structures and handling the general drafting work of the department.

(Project outlines for Terracing, Farm Structures and Rural Electrification projects follow.)

AGRICULTURAL ENGINEERING EXTENSION

Project: Soil Erosion Control (Terracing)

Leader: J. A. Waller, Jr.

Object: To teach the practice of terracing where adopted for the purpose of checking soil erosion, conserving moisture and improving the soils of the state.

- Procedure: X
1. Get at least five additional large terracing units operating in selected areas.
 2. Hold county meetings to explain and discuss soil conservation.
 3. Cooperate with Agronomy Department, V.P.I., for follow-up work in reference to cropping, etc.
 4. Cooperate with extension forester and all Federal or State agencies working on soil erosion so that work may be coordinated.
 5. Supply and train qualified terracing specialists to be assistant county agents in charge of terracing program.

Locality: The greatest demand for soil erosion control work has always come from Southside and Piedmont Virginia. However, few counties in the state escape serious soil erosion losses.

In addition to the eight counties where terracing units are now working, it is planned to place units in the Pittsylvania, Roanoke-Botetourt, Bedford-Franklin-Henry, Amelia-Nottoway, and possibly a few other areas. This will depend somewhat on how the units will be financed and on what the State Soil Conservation and Domestic Allotment Committee pays for protection by terracing.

- Plan of Work:
- A. County Agent's Duties:
1. The county agent will have general supervision over the entire project.
 2. Give what advice, information and assistance he can to the assistant county agent.
- B. Assistant County Agent:
1. The assistant county agent will also act as agricultural engineer in direct charge of this project and be responsible for its success.
 2. Make farmer contacts, secure agreements, lay out terrace grades, and supervise the work generally. (In cooperation with SCW camp engineer if in county.)
 3. Lay out and build terraces in accordance with provision in State program.
- C. Specialist's Duties:
1. Organize soil conservation associations in areas as needed. Incorporate these associations. Secure cooperation of all departments and agencies.
 2. Secure the cooperation of the equipment companies manufacturing large Diesel engined tractors and large terracers in giving demonstrations.
 3. Select engineer to act as Assistant County Agent to have direct charge of terracing program and arrange for demonstrations and schools.

when necessary

Results: Results will be measured by the number of terracing units actually operating in the counties, the number of counties adopting this plan, number of acres terraced.

AGRICULTURAL ENGINEERING EXTENSION

Project: Farm Structures

Leader: M. M. Johns and S. H. Byrne *J. J. Bass, D. H. York*

Object: To help the farmer secure the most efficient type and design of farm structures for the money available.

- Procedure:
1. Instruct farmers in remodeling buildings and in the construction of new buildings.
 2. Prepare new plans for farm structures and building equipment and an "Information Series" of mimeographed circulars on buildings and equipment, methods of construction and other data supplementing plan service.
 3. Instruct agents and cooperating agencies, such as building supply dealers, milk producers associations, architects, etc., on plans available.
 4. *out* Distribute new farm building plan booklet to county agents and explain its use.
 5. *out* Prepare Farm House Booklet for county and home agents.

Locality: Cooperative work in dairy barns and equipment will be carried on with the Maryland & Virginia Milk Producers' Association in Northern Virginia, the Richmond Milk Producers' Association in Henrico County, and with the dairy-men in Norfolk, Princess Anne, Nansemond, Warwick, York and Elizabeth City counties throughout the year.

Work on fruit storage and packing houses, etc., will be done in the fruit section during the spring, summer and early fall.

Work on sweet potato storage houses will be done in Southside Virginia, the Northern Neck, Caroline County, Eastern Shore and Norfolk section during the summer and early fall.

Plan of Work: A. County Agent's Duties:

1. Use all publicity means at his command to advise farmers in his county on the value and availability of the plan service.
2. Make efficient use of plan booklet, sending to the department for plans needed by the farmer.
3. Keep record of the farm buildings constructed in the county, alterations made in plans, costs, etc.

B. Specialist's Duties:

1. Make such field trips as are necessary to insure complete and efficient use of plans prepared and study conditions involved in preparation of new plans or remodeling plans.
2. Cooperate with State Dairy & Food Division, Dairy Department, V.P.I., and all dairy associations, milk inspectors, etc., in the use of plans for dairying.
3. Cooperate with Horticultural Assn. and Horticultural Dept., V.P.I., in fruit packing and storage plans.
4. Cooperate with Vegetable Dept., V.P.I. in sweet potato storage plans, Poultry Dept. with poultry plans and Home Demonstration Agents in farm house plans.
5. Supply county agents with plans, specifications, bills of material, as well as necessary field assistance to make project a success.

Results: Results will be measured by number of plans prepared and furnished farmers, buildings constructed or remodeled, etc.

AGRICULTURAL ENGINEERING EXTENSION

Project: Rural Electrification

Leader: C. E. Seitz and E. T. Swink

Object: To improve living conditions on the farm and in rural communities and to reduce production costs through the efficient use of electricity.

Procedure:

1. Instruct farmers on ways of securing electric service, proper wiring of farmstead, and proper use of electric service in the home and in productive operations on the farm.
2. Advise on the organization of rural service departments in power companies and cooperate with the staffs of such departments in educational activities.
3. Cooperate with commercial interests to insure high standards in farm contacts.
4. Make available to farmers and other interested parties the results of research and experimental work in electricity on the farm.
5. Cooperate with state and Federal agencies that will have charge of the expenditure of Public Works and relief funds for rural line extensions.
6. Conduct research studies on applications of electricity peculiar to Virginia farms.
7. Cooperate with R. E. A. in promoting feasible R. E. projects in Virginia.

Locality: This project will be carried throughout the year for the whole state. The field demonstrations will be conducted mainly in the following counties:

Fulaski	Montgomery	Bedford	Chesterfield	Norfolk
Wythe	Roanoke	Franklin	Essex	Princess Anne
Washington	Botetourt	Hanover	Henrico	Manassas
<i>Fallopian</i>	<i>Fallopian</i>	King William	King & Queen	Caroline
<i>Prince William</i>	<i>Rockingham</i>			

Plan of Work: A. County Farm and Home Demonstration Agent's Duties:

1. Select farms for demonstrations.
 2. Arrange for meetings, conferences, etc., of farmers interested in securing electric service.
 3. Use publicity material, etc., furnished by specialist.
 4. Assist in follow-up work to check results and measure progress.
- B. Specialist's Duties:
1. Prepare progress reports on demonstrations, articles, radio talks, etc., on special uses of electricity.
 2. Make such field trips as are necessary to advise with farmers, agents and rural service representatives in handling demonstrations and educational activities.
 3. Cooperate with other departments of college especially concerned in demonstrations and with Federal and State agencies interested in this project.
 4. Advise with rural service representatives of power companies in selecting demonstrations, methods of handling demonstrations, keeping records, making reports, assisting farmers with engineering problems, etc.

Results: Results will be measured by number of farmers and rural residents securing electric service, number of farmers making new uses of electricity, benefits derived by use of electric power, increased use of current on farms, results of special demonstrations, number of farmers instructed, etc.

(Director of Extension)

(Date)

(Agricultural Engineering Specialist)

(Date)

(Regional Agent in Charge of Southern
Section)

(Date)

(Chief, Division of Cooperative
Extension Work, U. S. D. A.)

(Date)

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