

AGRICULTURAL ENGINEERING EXTENSION

PLAN OF WORK

For

1932

State of Virginia

By

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AGRICULTURAL ENGINEERING EXTENSION

Project: Terracing

Leader: J. A. Waller, Jr.

Object: To encourage the practice of terracing to prevent soil erosion, conserve soil moisture and improve soils subject to erosion.

Procedure:

1. Hold two day soil erosion schools (community or district) for adults in at least 10 counties. These schools to cover the theory and practice of terracing.
2. In addition to holding terracing demonstrations during above schools, demonstrations will be held at other points where definite requests are made.
3. Enroll 250 boys in soil erosion clubs. A total of three lectures to each club class will be given during the winter. Practical terrace surveys and construction work will be given. (For time see under Locality.)
4. Encourage in every way possible the control of soil erosion.
5. Establish seven model terrace farms in as many counties.
6. Make this a thorough and definite piece of work so that it will continue under its own momentum.

Locality: The greatest need for this project is in Southside Virginia and Piedmont Virginia. However, practically all of the state suffers this loss. The model terrace demonstration farms will be established in the seven following counties: Franklin, Campbell, Mecklenburg, Dinwiddie, Pittsylvania, Halifax, Botetourt.

Lecture work will be given during January, February and March and field surveys and demonstrations during September, October and November to the Boys Clubs in terracing which will be organized in the following six counties: Dinwiddie, Chesterfield, Isle of Wight, Prince Edward, Campbell and Halifax.

Adult terracing demonstrations will be conducted during October, November and December in the following twelve counties: Mecklenburg, Pittsylvania, Dinwiddie, Chesterfield, Prince Edward, Campbell, Charlotte, Appomattox, Buckingham, Lunenburg, Franklin, and Botetourt.

Plan of Work:

A. County Agents' duties:

1. Assist specialist in selecting groups to work with, (work with Hummel organizations when possible) demonstrators for demonstration farms, secure good attendance, and distribute publicity supplied by specialist.
2. Assist specialist in laying out and building terraces at demonstrations.
3. Secure equipment needed by specialist and arrange with local school authorities for club work.

B. Specialist's Duties:

1. Be responsible for accuracy of work and supply publicity material to agents, *and handle all lecture and instruction work at schools and demonstrations*
2. In all cases, but especially in connection with the model terrace farms, get all data possible to compare yields before and after terracing.
3. Furnish plans for homemade level and terracer, whenever requested.
4. Get as many terracing levels in use in the state as possible and teach farmers to use level.

Results: Results will be measured by the number of adult farmers instructed in methods of erosion control, number of acres terraced and the number of Club boys trained to do terracing work.

AGRICULTURAL ENGINEERING EXTENSION

Project: Farm Water Supply

Leader: J. A. Waller, Jr.

Object: To demonstrate the most practical methods of securing running water in the farm home.

Procedure:

1. To put on a county wide campaign which will give every farm owner an opportunity to know how, and at what cost, running water can be put in his home.
2. To teach farmers the fundamentals of different types of water systems.
3. To instruct local plumbers as to class of work generally put in in such campaigns and to ask them to cooperate with the farmers.
4. To make this a definite and thorough piece of work so that it will continue under its own momentum.

Locality: Water supply campaigns will be conducted in the following twelve counties:

Southampton	Isle of Wight	Augusta	Nelson
Franklin	Dinwiddie	Craig	Grayson
Prince George	Greensville	Washington	Carroll

Five months will be devoted to this work from April 1st to September 1st.

Plan of Work:

A. County and Home Demonstration Agents' Duties:

1. Get pump dealers, plumbers, etc., together first night for conference.
2. Check requests to see if made in good faith to avoid errors, etc.
3. To promptly fill in information form furnished and return to specialist.
4. To distribute all publicity material sent by specialist in such a way that all farmers in the county will be informed concerning availability of service.
5. To take specialist to visit each farmer making request for service and assist him in making survey.
6. To give purpose and date of campaign in all talks and interviews prior to specialist's visit.
7. To list requests received for assistance on water problems as result of publicity. Divide requests into trips and route accordingly.
8. To conduct the follow-up work and get the record of results.

B. Specialist's Duties:

1. Supply all educational and publicity material to agencies willing to give cooperation.
 - (a) Write weekly articles for newspapers.
 - (b) Make placards for stores, banks, postoffices, if money is available.
 - (c) Write agent's letter to be mailed to farmers on their revised list.
 - (d) Send notices to plumbers, hardware dealers, school principals, District Extension Agents, school superintendent, County Supervisors and Advisory Board members.
 - (e) Get up mimeographed card for agents to keep requests on.
2. Visit all farm homes, from which an inquiry has been received, for the purpose of making complete survey of proposed water system.
3. Furnish each farmer having survey made with data taken from which estimate of cost of installation may be secured.
4. Leave illustrative literature at each place.

Results: Campaign results will be measured by:

1. Number of water systems installed during 36 months following date of survey.
2. Number of water systems improved during 36 months following date of survey.

Project: Farm Structures

Leader: H. H. Gordon

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

- Procedure: *1. Instruct farmers on remodeling buildings and in the construction of new buildings*
1. Prepare plan booklet of miniature plans to be used by county agents, *sent* building supply dealers and other cooperating agencies as guide in ordering complete working plans.
 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 association, architects, etc., on plans available.

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 dairymen 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, 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 and 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 Association and Horticultural Department, V. P. I. in fruit packing and storage plans.
4. Cooperate with Vegetable Department, V. P. I. in sweet potato storage plans; Poultry Department with poultry plans and Home Demonstration Agents in farm house plans.
5. Supply county agents with plans, specifications, bills of material, publicity and all other 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

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Project: Rural Electrification

Leader: Chas. E. Seitz

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 production 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 staging demonstrations of the efficient use of electric power.
 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.

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

Pulaski	Montgomery	Bedford	Chesterfield	Norfolk
Wythe	Roanoke	Franklin	Rockbridge	Princess Anne
Washington	Botetourt	Shenandoah	Page	Nansemond
		Hanover	Henrico	
			Isle of Wight	
			1 " + Queen	
			Caroline	

Plan of Work:

A. County 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 on handling demonstrations.
3. Cooperate with other departments of college especially concerned in demonstrations.
4. Advise with rural service representatives of power companies in selecting demonstrations, methods of handling demonstrations, keeping records, making reports, etc. assisting farmers with engineering problems.

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

educational activities

AGRICULTURAL ENGINEERING EXTENSION

Project: Farm Development

Leader: H. H. Gordon

Object: To promote the adoption of improved engineering practices in farm organization on typical Virginia farms.

Procedure:

1. Cooperate with Agricultural Economics Department, Agronomy Department and other interested departments of V. P. I. and the Bureau of Agricultural Engineering of U. S. Department of Agriculture.
2. Select 6 additional typical farms in the Southwestern section of the state for demonstrations.

Locality: Seventeen farms have been selected in the following counties: Princess Anne, Warwick, Henrico, Albemarle, Botetourt, Rockingham, and Appomattox. Plans for development will be worked out in February and visits to farms made at certain intervals throughout year. The six additional farms will be selected in Wythe, Tazewell, Scott, Lee, and Smyth Counties.

Plan of Work:

A. County Agents' Duties:

1. Help select farms for demonstrations.
2. Assist various specialists in formulating program of development.
3. Confer and advise with farmer in carrying out recommended improvements, rotations, etc.
4. Conduct follow-up work and get records of results.

B. Specialist's Duties:

1. Assist in selecting farms for demonstration.
2. Cooperate with other parties in making plans for the development of the farms.
3. Make detailed estimates of, plans for, and supervise construction of such improvements as may be recommended when and if they are undertaken by the farm owner.

C. Other Cooperators:

1. The Department of Agricultural Economics of V. P. I. will obtain farm records of each farm, keep cost and income records throughout the life of the demonstration and cooperate with other parties in developing plans for and improvement of these farms.
2. The Agronomy Department of V. P. I. will make soil surveys of each farm and assist in developing plans for crop rotations, improvement, etc.
3. Other departments, such as Dairy, Poultry, etc. will assist in making recommendations in regard to developing plans in their particular fields.
4. The Bureau of Agricultural Engineering, U. S. D. A., will make necessary field surveys of selected farms, prepare and provide maps of the same and cooperate with other parties in preparation of plans for the development of these farms.

Results: Results will be measured by improved income, crops, layout, etc., resulting from following recommended development.

AGRICULTURAL ENGINEERING EXTENSION

Project: Farm Development

Leader: C. E. Seitz *H. H. Gordon*

Object: To promote the adoption of improved engineering practices in farm organization on typical Virginia farms.

Procedure: 1. Cooperate with Agricultural Economics Department, Agronomy Department and other interested departments of V. P. I. and the Bureau of Agricultural Engineering of U. S. Department of Agriculture.
2. Select ~~17 or 20~~ ^{6 additional} typical farms in the ^{South Western section of the} state for demonstrations.

Locality: Seventeen farms have been selected in the following counties: Princess Anne, Warwick, Henrico, Albemarle, Botetourt, Rockingham and Appomattox. Plans for development will be worked out in February and visits to farms made at certain intervals throughout year. *The six additional farms will be selected in Spotsylvania, Fauquier, Scott, Lee & Smyth counties.*

Plan of Work:

A. County Agents' Duties:

1. Help select farms for demonstrations.
2. Assist various specialists in formulating program of development.
3. Confer and advise with farmer in carrying out recommended improvements, rotations, etc.
4. Conduct follow-up work and get records of results.

B. Specialist's Duties:

1. Assist in selecting farms for demonstration.
2. Cooperate with other parties in making plans for the development of the farms.
3. Make detailed estimates of, plans for, and supervise construction of such improvements as may be recommended when and if they are *undertaken* constructed by the farm owner.

C. Other Cooperators:

1. The Department of Agricultural Economics of V. P. I. will obtain farm records of each farm, keep cost and income records throughout the life of the demonstration and cooperate with other parties in developing plans for and improvement of these farms.
2. The Agronomy Department of V. P. I. will make soil surveys of each farm and assist in developing plans for crop rotations, improvement, etc.
3. Other departments, such as Dairy, Poultry, etc., will assist in making recommendations in regard to developing plans in their particular fields.
4. The Bureau of Agricultural Engineering, U. S. D. A. will make necessary field surveys of selected farms, prepare and provide maps of the same and cooperate with other parties in preparation of plans for the development of these farms.

Results: Results will be measured by improved income, crops, layout, etc., resulting from following recommended development.

AGRICULTURAL ENGINEERING EXTENSION

Project: Farm Development

Leader: C. E. Seitz

See other revised sheets

Object: To study ~~possibility of improving~~ agricultural conditions on typical farms by ~~better crop rotations~~, improved layout, and better machinery and equipment.

Procedure: 1. Cooperate with Agricultural Economics Department, Agronomy Department and other interested departments of V. P. I. and the Bureau of Agricultural Engineering of U. S. Department of Agriculture.
2. Select 17 or 20 typical farms in the state for demonstration and study.

Locality: Seventeen farms have been selected in the following counties; Princess Anne, Warwick, Henrico, Albemarle, Botetourt, and Rockingham. Plans for development will be worked out in February and visits to farms made at certain intervals throughout year.

Plan of Work:

A. County Agents' Duties:

1. Help select farms for demonstrations.
2. Assist various specialists in formulating program of development.
3. Confer and advise with farmer in carrying out recommended improvements, rotations, etc.
4. Conduct follow-up work and get records of results.

B. Specialist's Duties:

1. Assist in selecting farms to be studied.
2. Cooperate with other parties in making plans for the development of the farms.
3. Make detailed estimates of, plans for, and supervise construction of such improvements as may be recommended when and if they are constructed by the farm owner.

C. Other Cooperators:

1. The Department of Agricultural Economics of V. P. I. will obtain farm records of each farm, keep cost and income records throughout the life of the study and cooperate with other parties in developing plans for and improvement of these farms.
2. The Agronomy Department of V. P. I. will make soil surveys of each farm and assist in developing plans for crop rotations, improvement, etc.
3. Other departments, such as Dairy, Poultry, etc. will assist in making recommendations in regard to developing plans in their particular fields.
4. The Bureau of Agricultural Engineering, U. S. D. A. will make necessary field surveys of selected farms, prepare and provide maps of the same and cooperate with other parties in preparation of plans for the development of these farms.

Results: Results will be measured by improved income, crops, layout, etc., resulting from following recommended development.

OTHER EXTENSION PROJECTS

Irrigation:

Work will be done during the spring and summer months by Prof. Seitz on irrigation. Field demonstrations are under way on irrigation in Roanoke, Botetourt, Rockbridge, Shenandoah, Page and Princess Anne Counties.

Drainage:

Work on the drainage project will be handled as urgent requests are received throughout the year. This work will also be handled by Prof. Seitz.

Requests for information on miscellaneous engineering problems not coming under regular listed projects will be handled through correspondence as far as possible.

Farm Water Power:

Prof. Waller will be responsible for work on this project. Urgent requests for surveys will be taken care of while the specialist is in the community on other project work.

Calendar of Work:

Extension Staff

The administrative duties as head of the agricultural engineering department comprising resident instruction and research as well as extension, require considerable of Prof. Seitz's time. He will spend about 120 days in the field and 162 in the office.

Prof. Waller will spend about 166 days in the field and 94 days in the office.

Professor Gordon will spend about 166 days in the field and 94 days in the office.

College and Experiment Station Staff

Professor S. H. Byrne, instructor on the college staff, will devote about 5 months to extension office work preparing building plans for farm structures project.

Professor V. R. Hillman of the college staff will devote about ^{30 days} two months to extension, assisting with the rural electrification project. (~~Thirty~~ ^{Fifteen} days of which will be field work or demonstrations and ~~thirty~~ ^{thirty} days office work on equipment, radio-talks, reports, short courses, etc.)

Professor J. W. Sjogren of the College and Experiment Station staff, will devote about 15 days to extension, assisting in farm machinery, answering letters, assisting in short courses, preparing radio-talks, etc.

Professor P. B. Potter of the College and Experiment Station staff, will devote about 15 days to extension, assisting with short courses, ^{distributing} preparing radio talks, answering letters, etc. on household equipment.