

## RESUME OF ANNUAL REPORT

### Agricultural Engineering 1930

The extension projects in agricultural engineering emphasized during 1930 were terracing to control soil erosion, farm water supply, farm buildings and rural electrification.

#### Short Courses and Meetings:

Agricultural engineering instruction was given at the State club short course to 210 boys. Forty-three (43) meetings were attended by the extension agricultural engineer and talks given at 24 of these, which were attended by 2400 people.

#### Publicity:

In the matter of publicity, thirty (30) articles were written for the agricultural press, twenty-five (25) talks were given over the radio and forty-five hundred (4500) personal letters were written and twenty-eight hundred (2800) circular letters were sent out. 15,190 bulletins sent.

#### Terracing Project:

Work on the terracing project was late in starting due to the drought and therefore continued later into the winter after the end of the fiscal reporting year. As of December 1, nine (9) demonstrations were held in four counties, from two to three days being spent in each county. 301 farmers and farmers' sons attended the meetings. 4,175' of terraces were constructed and 20,715' were surveyed. Fifteen blue prints of a home-made terracer and 10 prints of a home-made level were distributed. These drawings were made also. Plans were made to start some terracing clubs and at this writing clubs have been organized in five counties with a total attendance of 115 boys. Each month during 1931, through July, one week will be given to this work.

#### Farm Water Supply Project:

Work on the farm water supply project was handled as follows: From April 1 to September 1 water supply campaigns were conducted in nine (9) counties during which time suggestions and recommendations were made to 255 farmers. Each farm was visited and the recommendations were made after a complete survey of the conditions found. Many of these surveys resulted in installations but with the return of prosperous times a big majority of the jobs will be completed. The service given will hold good. Many farmers were forced to make installations because of the failure of regular supplies. At most of the above farms sewage disposal information was given also. In addition to the above, 81 surveys were made in counties not having campaigns. 16 visits were made to 24 different counties to make these 81 surveys. 1280 bulletins on farm water supply were mailed out.

Farm Building Project:

The most outstanding work during the year was accomplished in handling the farm building project. As a result of the endeavors of the farm building specialist relations with State Dairy and Food Division were most cordial and cooperation all that could be asked for. As the regulation duties of the Dairy and Food Division increase they are gradually turning over their educational work and plan service to us and frequently requesting help on planning projects. A check-up of work by the two departments showed very few duplications of effort and 170 plans furnished by the Dairy and Food Division as compared with 875 by our department. Twenty-four (24) new plans requiring 48 tracings were prepared for them last year by this department.

Cooperation with Maryland and Virginia Milk Producers' Association continued and broadened. A letter from the secretary says our cooperation has been extremely valuable in that the dairymen are now assured of plans meeting all inspection requirements and approved by the Health Department, and the service they have been able to render as a result of our cooperation has been a great aid in increasing membership. As a result of this cooperation the Maryland Extension Service requested the privilege of duplicating our plans for the Maryland dairymen including the Baltimore market. This was gladly granted and is a step toward sectional planning.

Another feature of our work during the year was help rendered to the small milk producers supplying Philadelphia. Plans were prepared showing steps required to secure best price at a very low cost, and the Philadelphia inspector liked them so well he requested the privilege of using them all over the Philadelphia territory. These were very helpful around Staunton and on Eastern Shore.

Several remodeling plans were prepared resulting in several thousand dollars saving to dairymen.

Plans for a proposed district 4-H Club camp were prepared and help in choosing site given. The success of the project now appears assured.

An interesting feature of our work was the preparation of proposed county office plans for Chesterfield County which resulted in a \$15,000.00 office building through the county agent's efforts. Our proposed plan was used as presented.

Considerable work was done on apple packing houses and common storage in cooperation with the Horticultural Department. A study of common storages has resulted in a very satisfactory design, and splendid results in operation and increased profit on stored fruit.

Milk cooling is becoming a big problem. To meet this problem a careful study is being made and many valuable facts are being learned and prepared for distribution to the dairymen.

In handling the farm building project, Mr. Gordon made 131 visits to 301 farmers in 47 counties, working with 43 agents and 3 home agents. 90 other men were visited by him on various projects. A total of 2570 farm building plans were sent out as compared with 875 two years ago and 1400 last year.

48 stock plans, 25 special plans, 3 remodelling plans and 122 tracings were prepared during the year.

Rural Electrification Project:

Considerable progress was made in the rural electrification project. The State plan for rural line extensions which was worked out by the special joint committee appointed by Governor Byrd, has resulted in 1324 miles of rural lines being constructed during 1930 and about 2500 additional farmers securing electric service. This makes a total of about 4,100 miles of rural electric line in the state and about 9,000 farms receiving electric service. When it is realized that only 500 farms were connected to high lines in 1926 and there were only about 350 miles of rural electric line, it is evident that progress is being made.

Considerable time was devoted on the project to organizing an educational program for the power companies. During the year two additional agricultural engineers were placed with companies for farm service work. Two men were also placed with the General Electric Company and two with the Westinghouse Company for training in rural electrification.

A bulletin on rural electrification was written and is now being published. Assistance was rendered several rural communities in securing electric service. Several orchardists were rendered assistance in planning orchard stationary spray systems and irrigation systems. Twenty-four (24) farm water power surveys were made in 18 different counties and 200 bulletins mailed out on this subject.

In addition to the four major projects as above outlined urgent requests for help were answered as follows:

Ten (10) drainage surveys were made of 710 acres of farm land and 520 bulletins on drainage mailed out. Three hundred (300) bulletins on land clearing were sent out.

As a result of the drouth, there was considerable demand for help and information on irrigation. Eighteen (18) irrigation surveys were made of 940 acres and 560 irrigation bulletins mailed out. Several orchardists were given advice on the installation of irrigation systems.

Demand for engineering assistance from the various departments, farmers and organizations was even greater than usual in spite of the drouth or as a cause of it. Some of the miscellaneous work handled was: preparation of plans and specifications for home-made apple washing machine, plans for dairy refrigeration, apple cold storage, surveys for wheat yield contest in Albemarle County, special plans for college poultry department, power survey for bulletin on "Industrial Development of Virginia", plans for agricultural engineering building, wiring plans and specifications for proposed home economics building, survey for college farm.

Summary of Projects and Demonstrations

244 Visits were made to counties  
 68 Counties visited  
 1020 People visited on projects  
 10 Drainage surveys made  
 710 Acres in drainage surveys  
 9 Terracing demonstrations held in 4 counties  
 201 Farmers at terracing demonstrations  
 18 Irrigation surveys made  
 940 Acres in irrigation surveys  
 9 Counties conducted water supply campaigns  
 255 Farmers assisted in farm water supply campaigns  
 107 Farmers assisted in farm water supply not in  
 campaigns  
 1 Farmers' camp instructed in home equipment  
 301 Farmers assisted in farm structures project  
 2570 Farm building plans sent out  
 73 Plans prepared  
 1 Boys Short Course held  
 2 Agricultural Engineering graduates placed in  
 rural service work with power companies  
 1324 Miles of rural electric lines built  
 7000 Rural customers (estimated added to high  
 line electric service.)  
 2500 Farm customers added to high line electric service  
 24 Water power surveys made in 18 counties