

SOME ACCOMPLISHMENTS IN AGRICULTURAL ENGINEERING

EXTENSION IN 1939

The demands for assistance and information on agricultural engineering problems from individual farmers, farm organizations, State and Federal Agencies have been much greater than could be met with the personnel available. Progress has been made, however, in organizing the extension program to reach the greatest possible number. Considerable assistance in the form of consulting engineering advice, drafting and blue printing has been rendered other departments of the college, Experiment Station and Extension Service as well as State and Federal Agencies.

Some 5,328 individual and 2,000 circular letters were written. Eight articles were prepared for the press and sixteen radio talks were given. Three mimeographed circulars and four bulletins were published. Some 5,026 bulletins were mailed out. One hundred and sixty-five adult meetings were held with a total attendance of 4,609. At least 20,000 farm people were reached through the extension projects in agricultural engineering.

Soil and Water Conservation Project:

The extension soil conservationist is secretary of the state soil conservation committee and as such cooperated with the assistant state coordinator, soil conservation service and the administrative officer of the state soil conservation committee in organizing seven soil conservation districts consisting of twenty-one counties. The specialist held twenty-five meetings in this district organization work with a total attendance of 514 farmers. Inspections and reports were also made by the specialist on fifty-nine special Extension-SCS cooperative demonstration farms.

The extension agricultural engineer served as chairman of the sub-committee on engineering of the state soil conservation committee. This sub-committee on engineering prepared the engineering work programs and work plans for the Tidewater, Thomas Jefferson, Southside, Natural Bridge, Piedmont and Blue Ridge Soil Conservation Districts.

Considerable time of the specialist was devoted to work with the nine soil conservation associations having terracing units. These associations held thirteen annual meetings with an attendance of 240. Thirty-one (31) meetings of directors of the associations were held with an attendance of 189. The associations built 266½ miles of terraces to protect 4179 acres of farm land. The enhanced value of this land due to terracing is conservatively figured at approximately \$36,000. In addition, the terracing units graded 111 miles of farm roads, moved 10,189 cu.yds. of earth and worked on 445 individual farms.

Twenty-five drainage demonstrations were held in sixteen counties for the drainage of 460 acres of farm land. Seventeen garden irrigation demonstrations were held. The average increase of garden produce on these demonstrations was 30%.

Farm Structures Project:

During the year the farm building specialist made visits to 205 farms to hold farm building demonstrations and instruct farmers with their building problems. Farmers requested and were supplied with 2,609 plans for farm buildings. The value of buildings constructed from these plans is estimated at about \$1,000,000.00. Of the plans furnished by the department, 223 were for farm homes, 602 dairy barns, 861 poultry houses, 210 hog houses and equipment, 165 storage buildings, and the balance miscellaneous farm buildings.

Eleven new standard plans were prepared and added to the large list of available standard plans. Thirty-two special plans were prepared. Thirty old plans were revised and retraced. A number of special charts, tables, etc. were prepared for various other departments. About 4,000 blue prints were made. The department collaborated with the U.S.D.A. on the preparation of a Farm Building Plan Book which will be made available to all agricultural workers in the Southern States.

Thirteen meetings were held in ten counties where 167 people were given instructions on termite control and prevention. The specialist made 45 visits to twenty-one counties to hold demonstrations on the prevention of damage to buildings from termites.

Rural Electrification Project:

A total of 3,215 miles of rural lines were built during the year and 11,331 rural customers were connected to these lines. Of these totals, the utilities built 1,019 miles and connected 5,340 customers, while the R.E.A. cooperatives built 2,196 miles and connected 5,991 members. In addition, 5,171 customers were connected to old lines for the first time by both utilities and cooperatives, making a total of 16,602 rural homes connected for electric service during 1939. Approximately 77,000 rural customers are now receiving electric service in Virginia of which about 35,000 are farms. This means that approximately 19% of the farms of the state have electric service. At least 29% of the farms now have electric service available to them.

In conducting the rural electrification project, the extension specialist cooperated with the electric service organizations in holding 66 farm wiring meetings where 3,217 farmers and farm women were given instructions in adequate farm wiring. Twenty leader training meetings were held for adults and 855 given training. Three 4-H club leader training meetings were held

and 295 given instructions. The specialist collaborated with the U.S.D.A. in setting up an investigation project in rural electrification. Approval of the State Health and Dairy Departments were secured for electric sterilization of dairy utensils and a bulletin published on this subject. Some 15,000 farm people were reached through the rural electrification project.

Miscellaneous

Seventy-four farm water system surveys were made in twenty counties. Fifteen home demonstration agents and home economics teachers were given six weeks' training in household equipment. About 1,500 farmers attended the farm machinery demonstration staged in the new agricultural engineering building during the summer.

The department cooperated with the W.P.A. on the construction of the agricultural engineering building which was completed during the year. Proposals were prepared and W.P.A. funds secured for the construction of a home economics building, which was started during the year and is under the supervision of the agricultural engineering department. The department cooperated closely with the R.E.A. on rural electrification, the S.C.S. and T.V.A. on erosion control.