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STATE PURPOSE 032

Five land shaping and land forming demonstrations were held in eastern North Carolina, beginning in late September. Three meetings were jointly sponsored by the Agricultural Research Service, Reynolds Research and Manufacturing Company, the Departments of Biological and Agricultural Engineering and Soil Science at North Carolina State University, the Soil Conservation Service, and the Agricultural Extension Service. Approximately 63 acres of land were formed and shaped, and some 225 people attended these demonstrations.

The North Carolina Irrigation Society held its Fifth Annual Conference in Fayetteville on November 20 with 133 people in attendance from nine states. The theme was labor saving irrigation equipment.

STATE PURPOSE 040

The sixth year of a field study on the response of corn and peanuts to irrigation was conducted in 1968. This study was conducted on the Charles Smith, Jr., farm near Scotland Neck in Halifax County. In addition to response to irrigation, other variables were plant populations and varieties on corn and varieties on peanuts. The most critical period or periods to irrigate were also investigated. During the six years of this experiment, corn yields have increased approximately 36 bushels per acre with irrigation; peanut yields, approximately 500 pounds per acre; and during four years of tests, cotton yields, 88 pounds of lint cotton per acre. Peanut quality has increased approximately \$.60 per hundredweight. The most critical time for corn irrigation is from just prior to tassel to soft dough stage; for peanuts during the nut enlargement stage, and for cotton during and immediately after the bloom stage.

Another test was started in 1968 at the Coastal Plain Vegetable Research Station to determine the response of anapheans and pickling cucumbers to irrigation. A gross increase of approximately \$200 per acre was obtained by irrigating both spring and fall cucumbers. Data is inconclusive with snapheans.

032 - Sneed a series of 26 country meetings were held in March and early april to discuss mechanization of irrightino two sepations and crops to be irrighted sporting These meetings were jointly sponsered by Carolina Power and Light Company who displayed their irrigation display trailer at each of the meetings, the North Carolina Irrigation Society, the Soil Conservation Service, and the agricultural Extension Service approximately 750 people attended these meetings. Five land shaping and land forming demonstration were held starting in late September. There meetings were jointly sporsered by the agricultural Research Service, Reynolds Research and Monufacturing Company, the Deportment of Biological and agricultural Engineering and Soil Science at North Corolina State University, the Soil Conservation Service and the agricultural Extension Service. Opproximately 63 oever of land were formed and shaped and some 225 people attended these demonstration The North Corolina Irrigation Society held its Fifth annual Conference in Fayetteville on November 20th with 133 people in attendance

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