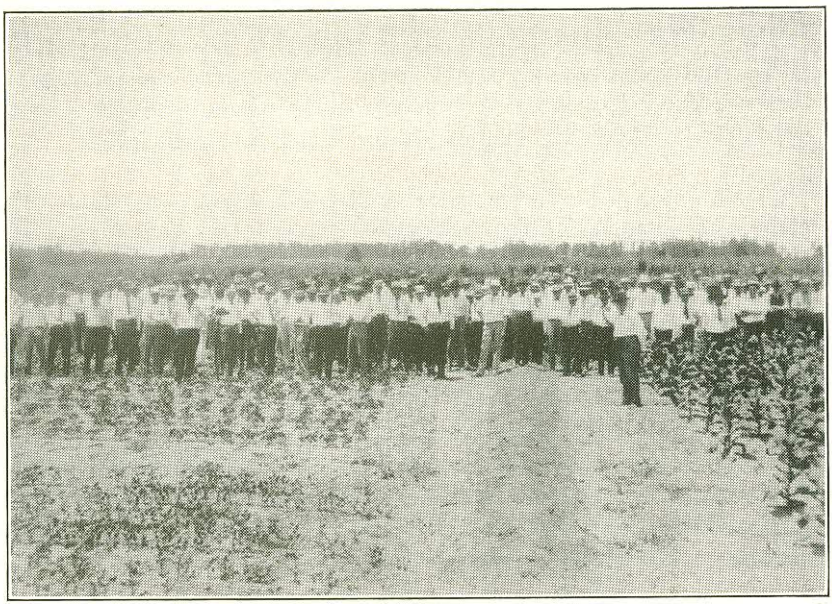
WALNUTS: The behavior of plantings of walnut varieties at this Station indicates that this nut is poorly adapted as a commercial crop in the Coastal Plain of Georgia.

QUINCE: This fruit is highly susceptible to blight and for that reason has not been successfully grown at this Station.

OTHER FRUITS: Plantings of apricots, prunes, and chestnuts have died as a result of blight and until blight resistant strains are developed these fruits hold no promise of successful production in this section. Also the entire planting of hazlenuts has died, indicating that this fruit is poorly adapted.



Tobacco field day at the Experiment Station.

TOBACCO

The tobacco experimental work at the Georgia Coastal Plain Experiment Station is being carried on in cooperation with the Division of Tobacco and Plant Nutrition of the United States Department of Agriculture and the University of Georgia College of Agriculture.

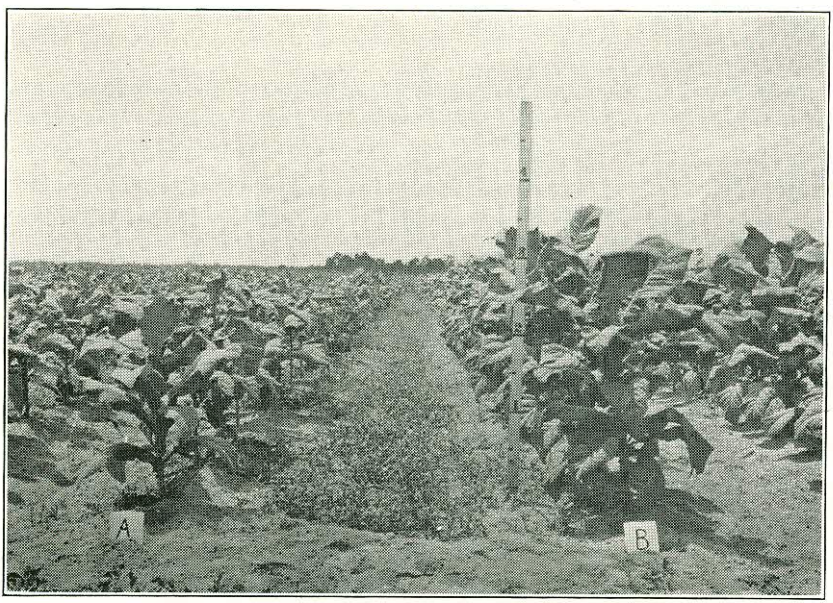
Since practically the whole tobacco nutrition research program was revised in 1933, results from the revised program cannot be considered reliable. The time covered by these tests has not been sufficient to justify conclusions. Final results of most of the original tests have been published in Bulletin No. 22, "Bright Tobacco Culture in the Coastal Plain of Georgia", which may be obtained upon request to this Station. However, for those who do not care to go into the detailed information given in this publication it is believed that a short summary will be in place here.

SOILS: The Coastal Plain soils best adapted to tobacco are the light friable types of the Tifton and Norfolk series. The most important of these are the Norfolk sandy loams and the light phases of the Tifton sandy loams. Good tobacco soils have good water holding capacity and yet are well drained, light and fluffy with a comparatively low ammonia reserve.

VARIETIES: The light, highly colored cigarette tobacco, now so much in demand, can be produced easier with such varieties as Jamaica, Bonanza, Yellow Mammoth, Yellow Pryor, Cash and similar varieties than with the heavier varieties such as Warne, Gold Leaf and Adcock.

SEED BEDS: The selection of the soil and location for tobacco seed beds is one of the most important factors in the successful production of tobacco plants. The soil should be moist and loamy with an abundance of organic matter. A heavy growth of gallberry bushes or blackberry plants indicate this type of soil. Soil that has washed down from fields should be avoided as such soil may result in heavy nematode infestation on the plants. Seed beds should be located with a southern or southeastern exposure, having a wind break on the north and northwest side. All trees should be cut on the south side so that the sun can reach the bed throughout the day. When possible, the soil should be sterilized either by steaming or by burning with brush, wood or any other material available. In order that the heat may penetrate, the soil should be loosened up thoroughly before the heat is applied. If it is not practical to sterilize the seed beds, new locations every year are advisable. Only tobacco fertilizers should

be used. The rate of application will depend on whether or not the same location has been used before. On new locations two to three pounds of high grade fertilizer per square yard should be used. On old locations that have been sterilized, 1 to 1½ pounds per square yard is sufficient. Seedings should be made at the rate of one tablespoonful of good seed per 100 square yards of bed area. The seed should be sown in late December and early January.



The effect of proper and improper tobacco fertilizers.
Plot "A" received an unbalanced fertilizer, Plot "B" a complete fertilizer.

FERTILIZERS

FORMULAS AND RATES OF APPLICATION: In the light of all available data it is generally concluded that under most conditions tobacco fertilizers should contain eight parts phosphorus (P_2O_5), three parts ammonia (2.47 parts nitrogen) and from five to eight parts potash (K_2O). It is not necessary that the formula be an 8-3-5 or 8-3-8 but it is desirable that these proportions of phosphorus, ammonia and potash be maintained. Potash tests show rather conclu-