

early or pineland crop were sown during the first 10 days of August on seedbeds built up slightly above the surface of the soil as an insurance against drowning during the period of heavy rains, which usually occur at this season of the year. Seedbeds for the late crop on the marl glades soil were sown from the latter part of October to the middle of November on flat beds or in shallow trenches. By that time, as a rule, the rainy season had passed and to prevent drying out, in so far as possible, it was necessary to keep the beds low. Even with flat beds or trenches, usually it was necessary to sprinkle them once a day to insure an adequate supply of moisture for maximum germination of seed and normal growth of plants. At times it was necessary to water the seedbeds for the early or pineland crop, as the water-holding capacity of the soil is very limited.

During the first two seasons experiments were conducted to ascertain the amount of Phoma infection that might develop on seedlings in the seedbed. During the 1931-32 season portions of the seedbeds on the Station Farm and on that of a cooperative grower were sprayed with 2-2-50 bordeaux and the remainder left unsprayed as checks. Applications of the spray were made at weekly intervals, the first being applied about the time the majority of the plants were showing their first true leaves. The plants were sprayed three times before they were ready for transplanting. At the time of setting no spotting of leaves or stems was observed on the plants of the sprayed portions of the seedbeds and only a small amount in the unsprayed portions. The spotting in every case examined, however, was due to early blight (*Alternaria solani* (E. & M.) (J. & G.) or gray spot (*Stemphylium solani* Weber). Results of tests the second season were similar to those for the first. After this season no portions of the seedbeds were left unsprayed. Subsequent observations made during the remaining seasons on seedbeds both at the Station and in the fields of growers showed that Phoma spotting is not a serious factor on seedlings in the seedbeds. This is due, very probably, to the fact that the seedbeds are sown at the time of year when environmental conditions are unfavorable for growth of the fungus.

Management of Field Plots:—The plants were removed from the seedbeds and set in the experimental field plots about 30 days after the seeds were sown, when the plants were six to eight inches high. Only the stockier, disease-free plants were pulled for use in the field. Plants were set 18 inches apart in