

when 5 pounds of the crystals were applied and the covered frames were left on the seedbeds 48 hours and not removed except to repeat the treatment the second afternoon.

**Other Fungicides.**—Other fungicides were applied as sprays or dusts with knapsack, barrel and traction sprayers and hand-operated dusters. Quantities of spray and dust used varied according to the size of the plants, as listed in Table 1.

TABLE 1.—QUANTITIES OF SPRAY AND DUST USED AT EACH APPLICATION IN PLANT BEDS FROM 1940 TO 1943.

Plant Height	Narrow Two-Drill-Row Plant Beds 40 Inches Apart	
	Spray Gals. per Acre	Dust Lbs. per Acre
Less than 2 inches .....	40 to 60	8 to 10
2 to 4 inches .....	60 to 100	10 to 15
4 to 8 inches .....	100 to 150	15 to 25

Most plants are grown in narrow, raised seedbeds in low-lying flatwoods soils at Hastings and in other areas of the state where natural drainage is poor. The beds are 12 to 18 inches wide on top, 8 to 10 inches high and 40 inches apart from middle to middle. The seed is planted about  $\frac{1}{4}$  inch deep in tops of the beds in one to three drills, usually two, which are spaced 4 to 6 inches apart.

The fungicides were applied to plants grown in 10- to 50-foot sections in narrow, two-drill-row plant beds. The tests ran from two to seven weeks, depending upon the stage of growth of the plants when treatments were started and time required for them to grow large enough for transplanting. Different formulations of the various fungicides were tested one to eight times. Tests made in 1941 showed that three applications per week of chloranil with a one- to two-day interval between treatments gave best control of downy mildew. Thereafter that schedule was used with all fungicides (2). Degree of downy mildew control obtained from each fungicide and the degree of plant injury it caused are summarized in Table 2.

Full strength bordeaux mixture, Flordo and Flordo K sprays (7, 9) gave good control of downy mildew but injured the plants. They did not give satisfactory control when used at half- and quarter-strength.