In the 1949 fumigation a mixture of equal volumes of D-D and Dowfume W-40 was substituted for Iscobrome D. The fumigants gave little or no increase in yield and grade index was reduced. Crop indexes for the two fumigants were about the same and both were lower than the checks. Burn was significantly reduced by both fumigants; D-D resulted in the poorest burn and the mixture was intermediate.

10. **Alteration of Fumigants.**—This test on area C previously was the choice-of-fumigant test, involving four fumigants, two of each type. The test was changed in 1949 to two fumigants applied either in continuation of the same type or in alteration with the other type. All treatments increased yield significantly, but the highest rate of increase was from continuous Dowfume W-40. D-D, either continuous or alternating, gave a significant reduction in burn. Dowfume W-40, either continuous or alternating, had little effect on burn.

11. **Residual Effect.**—One row of each four-row plot in the 1948 date-of-fumigation test was left unfumigated in 1949. Yields were increased slightly by September fumigation with both fumigants but the increase was significant only with D-D.

12. **Date of Fumigation.**—The second year of this test gave more striking and significant results than the first (Test 7). Both yield and burn were lower with each successively later date of fumigation. Yields were increased over the check by all treatments. Significant increases were, in order from most to least: D-D early, Dowfume W-40 early, medium and late. D-D gave lower burn tests than Dowfume W-40.

Late application of D-D retarded growth and produced a dark green color of the plants. Yield and burn were lowest of all treatments but grade index was highest.

In comparison with the preceding test, where fumigation was not repeated, yields were higher but grade indexes and burn tests were lower. Crop indexes were about the same for both tests.

RESULTS BY CLASSES OF OBSERVATION

Root-Knot Index.—Incidence of root-knot was reduced significantly by one or more of the fumigants tested in 7 out of 10 tests (not including residual tests) and substantially in the others. Average reduction in root-knot index was about 65 percent for both types of fumigant.