A SUMMARY OF RECENT SEED TREATMENT INVESTIGATIONS BY THE COTTON SEEDLING DISEASE COMMITTEE

Abstract

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Many cottonseed treatment experiments conducted by both pathologists and agronomists in different sections of the cotton belt from 1930–36, in which various dust disinfectants and other chemicals were used, have yielded valuable information on the control of seedling diseases. This report, however, comprises results obtained by the members of the Cotton Seedling Disease Committee from 1937–38, inclusive, and is based on data collected from tests in North and South Carolina, Georgia, Mississippi, Louisiana, Texas, and California.

The scope of the investigations were as follows: First, comparisons of the effectiveness of dust disinfectants and other chemicals on stand improvement and yield through control of the important seed-borne and soil diseases; second, minimum, optimum and maximum rates of dust treatment; the storage tests following treatment; and fourth, efficacy of delinting, acid and mechanical, and delinting combined with dust treatment. Dust treatments included Ceresan 2% (ethyl-mercury-chloride), Ceresan 5% (ethyl-mercury-phosphate), Cuprocide (copper oxide), zinc oxide, Sanoseed (ethanol-mercuric-chloride) and Barbak C (mercuric-phenylcyanamide).

In some plantings all of the dust treatments increased emergence, but in the majority of tests, Ceresan and the New Improved Ceresan treatments gave increases in healthy seedlings that were statistically significant. More recent tests indicate that the New Improved Ceresan is superior to Ceresan as a seed treatment material for cotton when the two materials were compared.