

**INCIDENCE AND SEVERITY OF COTTON SEEDLING
DISEASES UNDER STALE SEED-BED PRODUCTION**

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Abstract

In recent years there has been a renewed interest in producing cotton using stale seed-bed tillage practices. Stale seed-bed is a production system in which all tillage operations are conducted in the fall and often includes a reduction in tillage by elimination of disking. This practice facilitates earlier planting in the spring when fields may be too wet for equipment. Stale seed-bed production, however, results in the accumulation of cotton debris in the cotton furrow that could result in an increase in cotton seedling diseases. Field experiments were established using a split-plot design to evaluate the effect of stale seed-bed production on cotton seedling diseases. Main plots were conventional tillage and stale seed-bed. Subplots were with and without in-furrow fungicide (Terraclor Super X 18.8G at 6.5 lb/a) application. Disease incidence and severity were determined by plant populations 14 and 42 days after planting, number and length of skips within the row, and root and hypocotyl disease ratings. Seedling disease pressure in the test area was light. Tillage had no effect on any of the disease evaluation parameters measured. Fungicide application did not affect any of the disease parameters except seedling survival. The application of fungicides improved seedling survival 14 and 42 days after planting. Neither tillage or fungicide application affected seed cotton yield. Under the conditions of this test, stale seed-bed production did not increase the incidence or severity of seedling diseases.