

# The Effect of Field Conditions and of Field Practices on the Development of Black Root in Sugar Beets

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## Abstract

Results of the study of an average of 124 diseased fields per year during 1939, 1940, and 1941 are expressed in percentages of diseased acreage saved, under different conditions, and as a result of different field treatments given after the infection was discovered.

Fields planted late or replanted and those with a low level of fertility or with poor drainage had a relatively low degree of recovery from black root.

The percentage saved, after different preceding crops, was highest when sugar beets were planted after such cultivated and usually fertilized crops as navy beans, potatoes, tomatoes, etc. Next in order of value were legumes, corn, and small grains, with beets after beets showing a total loss.

As to remedial treatments given diseased fields, immediate aeration with rotary hoe, weeder, or spike-tooth harrow saved 63 percent; use of a roller or cultipacker saved only 34 percent; delayed treatment of any kind saved only 24 percent, and no treatment resulted in a loss of all but 13 percent of the acreage.

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# The Beet Leafhopper as a Pest of Beets Grown for Seed

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## Abstract

Beets grown for seed by the annual method in the Mesilla Valley, New Mexico, and in the Salt River Valley, Arizona, are subject to occasional injurious infestations of the beet leafhopper, *Eutettix tenellus* (Baker). These agricultural districts are surrounded by summer breeding areas of this insect, and the amount of damage from year to year depends upon leafhopper numbers and host-plant conditions during the fall months in these breeding areas. Damage results from the transmission of the curly-top virus from plant to plant

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