

BACTERIAL SPECK, A LEAF SPOT OF TOMATO CAN BE A SERIOUS PROBLEM ON TOMATO SEEDLINGS

The disease was observed last year on several varieties of tomato seedlings in bedding plant greenhouses and in garden centers. The damage was mainly on the leaves (figure 1) of young seedlings and the plants were not suitable for sale. Some leaf defoliation was also observed on the plants. The disease is caused by a bacterium, *Pseudomonas tomato*, which is believed to be carried on the seeds.

The disease was reported to cause damage on tomato plants and fruits in the Atlantic and Central states and in Canada, Formosa, Italy, Australia, and New Zealand. Tomato is known to be the only host for the bacterium. The disease was not reported in the Oregon State University disease handbook because it does not cause any significant damage to tomatoes in Oregon under field conditions. It attacks the tomato in greenhouses in early stages of growth due to high humidity and high average temperature. Leaf spots around 1/16 of an inch are formed on the leaves. The spots are greasy and water-soaked at first, especially on the lower surface of the infected leaves. Then the whole leaf turns yellow and may drop, causing defoliation.

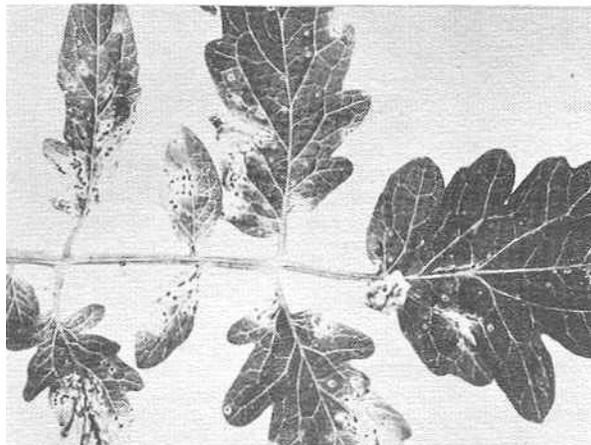


Fig. 1. Bacterial speck on leaves of a young tomato seedling.

To control the disease, tomato seeds should be free of the bacteria. One way to be sure of clean seeds is to treat the seeds with a bactericide such as copper sulfate. Soak the seeds in copper sulfate solution for 10 minutes (1 ounce of copper sulfate in 4 gallons of water), remove the seeds and dust them with fine lime while the seeds are wet and plant the seeds immediately. If the symptoms develop on the leaves, spray applications with fixed copper compounds or with streptomycin are recommended. Streptomycin spray at the rate of 200ppm is effective. Sprays should be applied every 5 to 7 days until control is obtained.

Pesticide Use - Due to constantly changing laws and regulations, no liability for the suggested use of chemicals in this Newsletter is assumed by the ONW Newsletter. Pesticides should be applied according to label directions on the pesticide container.

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