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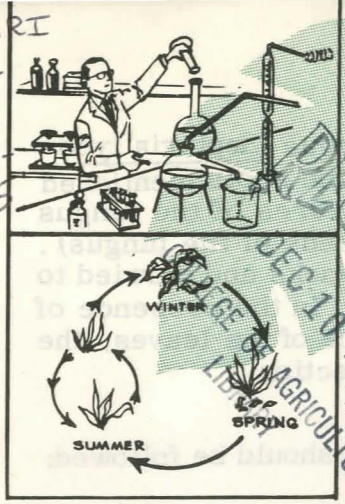

E.C. 59-1825

PLANT DISEASES

JOHN L. WEIHING
Extension Plant Pathologist

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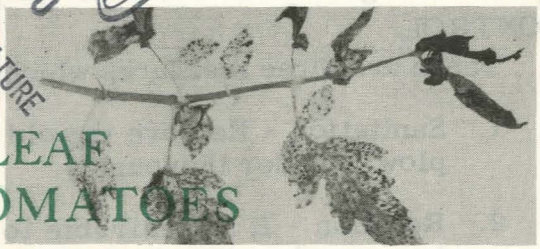

SEPTORIA LEAF SPOT OF TOMATOES

Septoria leaf spot, or "blight" as it is often called, is the most common foliage disease of garden tomatoes in Nebraska. This disease develops most rapidly during periods of warm, wet weather. During hot, dry seasons the disease is of little importance unless the foliage is kept damp for prolonged periods of time by sprinkler irrigation.

SYMPTOMS

The disease may occur on plants of any age but in the garden the injury becomes most evident after the plants begin to set their fruit. The lower leaves of the plants are the first to be affected by the disease. They turn yellow and die. Close examination of these leaves will show a spotted condition. Actually, the spots develop before the leaf dies. When there are but a few spots on the leaf they will have grayish centers and if one looks closely, tiny black specks may be found within the centers of the spots. Numerous spots on a leaf cause a quick collapse and death of the leaf (See Fig. 1).

Under favorable conditions there is a progressive loss of foliage until only a few leaves are left at the top of the stems and the fruits are exposed to sunscald.

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CAUSE

This disease is caused by a fungus (Septoria lycopersici). The black specks within the spots mentioned above are actually sack-like structures of the fungus that contain hundreds of spores (seeds of the fungus). These spores are forced out of the sacks and carried to uninfected foliage by air currents. In the presence of moisture, such as dew on the surface of the leaves, the spores will germinate and cause infection.

CONTROL

There are three measures which should be followed:

1. Sanitation - Remove the old diseased foliage or plow it under thoroughly.

2. Rotation - It is desirable to plant the tomatoes in a new location in the garden area each year.

3. Spraying or dusting.

Spraying or Dusting: Spraying or dusting is a protective measure. The fungicide placed upon the plant will kill the fungus spore before it germinates and causes infection but will not kill existing infection. You should start spraying or dusting the tomatoes soon after the first fruits have set and repeat at least at weekly intervals if the weather is relatively wet. Applications at two-week intervals may be satisfactory during dry seasons.

Recommended fungicides: Copper containing fungicides are all acceptable. There are a number of newer fungicides which are very good and are becoming common in Nebraska. They are sold under numerous trade names. These compounds are Zineb, Maneb and Nabam plus Zinc sulfate. You should check the list of active ingredients given on the container for one or several of these compounds. If the commercial product lists one of these chemicals, then it is a satisfactory product for control of Septoria leaf spot.

Thorough coverage of the plant surface is necessary. Add a teaspoonful of common household detergent such as Dreft, Tide, etc. to each gallon of solution as a wetting agent so that the material will wet the foliage thoroughly.