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Tobacco Wildfire and Blackfire Control

Purdue University Cooperative Extension Service
Tobacco Wildfire and Blackfire Control

The tobacco diseases referred to as wildfire and blackfire, also known as "rust", are two destructive bacterial diseases of burley tobacco. These diseases are commonly considered field troubles, but in most cases, they originate in the plant bed.

Wildfire, easily recognized by the typical dead spots with a yellow halo, occurs in spots 1 to 2 yards in diameter and may become widespread throughout the plant bed. Blackfire (also referred to as "angular leaf spot") will be more generally distributed over the bed.

The occurrence of wildfire or blackfire in the plant bed means that plants set out in the field may carry the bacteria on their roots, even though no symptoms of either disease are apparent. Wildfire and blackfire may develop later in the field from plants contaminated in the plant bed, and may cause extensive field losses.

If these diseases are properly controlled in the plant bed, there is little danger of field infections later. Drenching the plant beds with bordeaux mixture or one of the fixed coppers is the standard control for these two diseases.

How to Prepare Copper Drench for Wildfire and Blackfire Control

1. Bluestone-Lime Mixture:
   a. Dissolve 3 pounds of powdered blue-stone in 2 to 3 gallons of warm water. Stir until completely dissolved.
   b. Mix 4 pounds of fresh hydrated lime in 2 to 3 gallons of water.
   c. Pour the lime water into the bluestone solution. Stir well, strain through screen wire, cheesecloth or suitable screen and add water to make 50 gallons. (This is 3-4-50 Bordeaux mixture.) The mixture should be used within 4 hours after it is prepared, and will be sufficient to cover 100 feet of plant bed.

Left: Tobacco Wildfire.
2. **Fixed Copper Mixture:**

Use a commercial brand of fixed copper, such as Tri-basic, copper 'A', etc. at the rate of 6 ounces of actual copper in 25 gallons of water. This means 3/4 pound (12 ounces) of a fixed copper containing 25% metallic copper, dissolved in 25 gallons of water.

No lime is necessary when using fixed copper. Do not use instant or ready prepared bordeaux.

**How to Apply the Drench**

The copper drench (either bluestone mixture or fixed copper) should be applied with a sprinkling can through the plant bed cover so as to thoroughly drench the tobacco seedlings, the soil in the plant bed and the frame of the bed. The drench should be applied at the rate of 1 quart of solution to each square yard of bed, or 25 gallons per 100 square yards of plant bed area. The drench also may be applied with a coarse-nozzled sprayer.

**When to Apply the Drench**

1. The first application should be made as soon as the young tobacco seedlings start to emerge.
2. A second application should be made approximately 10 to 14 days after the tobacco seedlings start to emerge.
3. Copper drenches applied after the tobacco seedlings are the size of a quarter, are of no value for wildfire and blackfire control.
4. Copper drenches are not recommended for blue mold control.

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