Blueberry Rust Alert

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Blueberry rust has been reported in rabbiteye blueberry cultivars in Alabama. Leaf rust, caused by the rust fungus, Pucciniastrum vaccinii (synonyms: P. myrtillus, Naohidemyces vaccinii, and Thekopsora vaccinii), has the potential to be very damaging to yields, and is most prevalent in the southeastern United States. Rabbiteye cultivars suffer from premature defoliation, while highbush blueberries are subject to occasional localized outbreaks.

Symptoms

The first symptoms appear as yellow leaf spots on the upper leaf surface of newly emerged blueberry leaves (Image 1). As the disease progresses, spots turn reddish brown (Image 2). Entire leaves may turn brown, die and drop prematurely if infections are severe. Yellowish orange pustules become visible on the lower leaf surface about mid-summer. Blueberry rust can lead to a loss in yield and a reduction in flower buds next year due to defoliation in susceptible varieties.

Image 1. First blueberry rust symptoms appear as yellow spots

Image 2. Spots turn reddish brown later in the season.
Disease Cycle

- Airborne spores infect newly expanded blueberry leaves in the spring.
- Leaf spots usually become visible in mid-season.
- Spores released from rust pustules formed in mid-season on blueberry lower leaf surface below these leaf spots may re-infect blueberry leaves, leading to disease build-up on blueberry.
- Telia (a structure of the reproductive rust disease cycle) form in the blueberry leaf infections late in the season. They appear as flat, dark-colored crusts on the lower leaf surface.
- Leaves infected with telia drop to the ground where the fungus overwinters.
- Pustules can be seen on newly infected leaves 10 days after inoculation
- The fungus's alternate host Hemlock needs to be present for the disease cycle to be completed. Leaf rust is most prevalent in areas within the natural range of hemlocks.

Management

- Plant resistant varieties.
- Remove all hemlocks within 0.25 miles of the planting.
- Apply two to three fungicide sprays from August to mid-September. For current fungicide recommendations, consult your local extension agent or see the Southeast Regional Blueberry Integrated Management Guide.

References: