

Rhizoctonia Blight, Scourge Of Rice And Soybeans, Also Affecting Corn

LITTLE ROCK ARK.

Rhizoctonia solani AG1-1A, the same pathogen that causes sheath blight in rice and aerial blight in soybeans, is also infecting corn in spots along the Arkansas River Valley, said Rick Cartwright, extension plant pathologist with the University of Arkansas Division of Agriculture.

Rhizoctonia sheath blight can rot corn stalks, often associated with other infected leaf bases and nodes, and may interact with other stalk-

Cartwright.

Severity, as with rice, is determined by incidence, or the number of infected plants per acre, and the percentage of plant height, or tissue, damaged by the disease.

"In rice, we have noted that fields with an average of 10 to 15 percent infected tillers at mid-season have the potential to develop sheath blight severity by season's end that may reduce yield to a measurable level," he said.

"I would guess that fields with 10 to 15 percent or more infected corn stalks and symptom height at ear leaf prior to milking may suffer minor yield loss, and under the right conditions, could lodge more than fields not affected."

Fungicides have not been recommended to treat Rhizoctonia blight in the past, but in rare circumstances they may be considered, said Cartwright.

"Azoxystrobin is the most effective fungicide in current use against this Rhizoctonia, although other strobilurins like pyraclostrobin and trifloxystrobin may be adequately effective," he said.

Azoxystrobin is the active ingredient in Quadris fungicide and a component of Quilt and Quilt Xcel. Fourteen fluid ounces of Quilt contain 4 fl oz of Quadris, which will have little effect on Rhizoctonia, said Cartwright.

"A minimum of 6.4 fluid ounces of Quadris or its equivalent in Quilt or Quilt Xcel is the minimum to control Rhizoctonia sheath blight in crops for a period of 14 days or so," he said.

Coverage is essential. This may be difficult to achieve in thick corn fields that are already at silking, as the upper canopy may absorb the bulk of the spray, said Cartwright.

"Sometimes dew movement downward or even rainfall may redistribute the fungicide to the lower part of the plants, but on corn plants this is not well understood," he said. "Our observation has been that we are only getting foliar disease control in the upper half of the corn canopy in many fields, indicating inadequate application methods in these thick corn fields."

"Currently, we still consider this disease minor in our state, but with the advent of new hybrids with unknown susceptibility, these higher population systems and cutbacks in fertilization on some farms, it seems to be on the increase."

For more information on crop production, contact your county extension office or visit www.uaex.edu. Δ



(Above) This shot clearly shows sheath blight lesion.



(Left) These stalks clearly show sheath blight.

University of Arkansas Division of Agriculture photos.

rotting diseases.

"I have rarely seen sheath blight at severe enough levels to cause field-wide yield loss, but I

have seen some yield loss in heavily affected parts of fields due to the loss of active leaves and sheaths, combined with increased lodging," he said.

The blight is driven by rotation, and is often worse in rice-soybean-corn rotations with high-yield histories, low potassium-high nitrogen systems and dense plant populations.

"I have seen it progress up the sheaths to the tassels on isolated plants, and have noted it to be worse in twin-row and high-population plantings with dense canopies, and in fields with low potassium soil levels, where adequate potassium fertilization was not practiced," said