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Texas Cotton Growers Gain Control of Cotton Root Rot

EPA Grants Emergency Use of TOPGUARD™ Fungicide

Texas cotton growers now have a new tool to control cotton root rot, a devastating disease estimated to cause direct yield losses of as much as \$40 million per year. The U.S. Environmental Protection Agency (EPA) has granted a Section 18 emergency exemption to Texas for TOPGUARD, a Cheminova, Inc. fungicide that targets the cotton root rot fungus. TOPGUARD, a triazole fungicide, is applied at planting and substantially reduces disease occurring later in the season, states Tom Isakeit, a Texas AgriLIFE Extension Service plant pathologist, who extensively tested its performance in field trials with his extension co-workers.

In a bad year, cotton root rot costs Texas growers as much as \$40 million in direct lost yield, in addition to decreased fiber quality and increased trash in lint, says Isakeit. In some fields the cotton root rot fungus is so prevalent, that growers won't even consider planting cotton, he adds.

"In one of our TOPGUARD trials, we saw yield increases between 20 to 60 percent when cotton root rot was controlled" he notes.

Typically cotton root rot shows up later in the season, as plants flower and soil temperatures rise, explains Isakeit. The fungus infects the plant's roots, causing a rot. Once the root rot nears the crown--where the stem and primary roots meet--the plant quickly dies. TOPGUARD prevents or delays disease.

"The ability to apply TOPGUARD at planting is extremely convenient," he notes. "TOPGUARD is persistent in the soil. It will be available in the field later in the season when cotton root rot disease shows up. In growing seasons when there is more moisture, resulting in more root rot within fields, there will be a greater effect from TOPGUARD treatment."

Isakeit strongly recommends that growers follow the correct application method. "Use a T-band as opposed to an in-furrow spray directly on the seed," he advises. "This approach minimizes the risk of phytotoxicity that could occur if it rains immediately after planting."

The label recommends applying TOPGUARD in a five-inch T-Band perpendicular to the row direction after the furrow is opened and the seed is placed, but before the furrow is closed. This method keeps the spray off the seed, explains Isakeit, while allowing some of the spray to enter the furrow and the rest to form a band on either side of the furrow.

TOPGUARD works by protecting the plant, not by killing the fungus in soil. Therefore, the fungicide should be applied whenever cotton is grown, but it only needs to be applied in the portions of the field where root rot usually occurs. To prevent other diseases or pests from increasing, growers will still need to practice crop rotation.

Cotton growers should see their local dealer or go to www.cheminova-us.com to get more information. The EPA letter and approved label can be seen at www.texasagriculture.gov

Cheminova, Inc., headquartered in Research Triangle Park, NC, is the United States subsidiary of Cheminova A/S, a global leader in the production, development and sale of plant-protection products. Cheminova A/S is located in Lemvig, Denmark.

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