

Death *To* Insects

Broad Lep Corn Trait To Debut In 2010

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The new broad-spectrum lepidopteran corn trait, or MIR162* trait, a means to control many above ground worms in corn, was explained recently by Dr. Von Kaster, project leader for insect traits with Syngenta Seeds, Inc. The MIR162 trait has not yet been approved for sale or use in the United States.

"We're anticipating regulatory approval toward the end of this year," Kaster explained. "Once that happens, we will have a limited supply of the product in 2009 to use for regulated strip trials in combination with our corn borer trait, Agrisure CB/LL."

He added that Syngenta anticipates a full commercial launch of hybrids containing the MIR162 trait through its Garst, Golden Harvest and NK seed brands in 2010.

"The broad lepidopteran trait adds enhanced control of insects that we don't have right now with our Agrisure CB/LL trait," Kaster said. "Primarily we will be able to corn earworm, Western bean cutworm, black cutworm, fall armyworm and common stalk borer."

Black cutworms are predominately a problem throughout the central southern corn belt. Corn earworms typically are a problem also in the southeast and into the southern corn belt.

"This year is kind of an unusual year for corn earworm," Kaster said. "There's a very heavy infestation in this part of the state. In this field we have at least a 50 percent infestation. The pests have already moved into the ear tips so they're starting to feed on the kernels themselves. In addition to the yield loss that you see from direct kernel feeding, you also have the possibility of disease. In fact, we've already found some mold starting to develop where the insects have fed."

Kaster explained how corn earworm feeding brings on mold. First, the mold spores have to be present in the ear. Then, with the earworm causing damage, it creates just the right environment for mold spores to grow.

"Mold needs to have a nutrient-rich environment, and there's nothing better than a bunch of insects to create that environment," he says. To complicate matters further, there are currently few control options for these pests.

"There are foliar insecticides on the market that offer some corn earworm control," Kaster said. "The problem is that the window of treatment opportunity is very small, and knowing when to treat is really tricky. You can have multiple stages of larvae in a field at any one time, and if you try to control the younger larvae,

you're going to miss the ones that are older. Or, if you try to get the ones that are older, you're going to miss the younger ones. Timing is everything, and timing is difficult."

The issue of timing is one reason Kaster says the built-in protection that comes from a trait makes sense. Since the MIR162 trait is bred right into the corn plant, it provides control during the entire time that insects are trying to establish on the plants. The result is an unprecedented level of season-long control of a broad spectrum of lepidopteran corn pests from seedling stage insects such as black cutworms all the way to corn earworms that attack later in



DR. VON KASTE

Project Leader for insect traits with Syngenta Seeds, Inc.

the season.

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