

Treat Aphids NOW

Applying Foliar Insecticide Helps Curb Aphid Damage In Wheat

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Aphid management in wheat and the resulting barley yellow dwarf virus were reviewed recently by Dr. Scott Stewart, extension entomologist with the University of Tennessee located in Jackson.

“Very seldom do aphids, at least in Tennessee, cause yield loss by directly hurting the plants, but they are a vector or a transmitter of barley yellow dwarf virus and that can be a pretty significant problem,” he said. “We’re already seeing some virus showing up this year on some of our wheat. We’ve been doing some research now for the last four or five years that I think is really relevant to this time of year.”

In this research, he has been mostly working with wheat not having an insecticide seed treatment.

“We’ve been applying a foliar application of insecticide, sometime beginning late January through mid February and trying to determine what impact that has on our aphid populations but also on the disease,” Stewart said. “What’s been striking to me across eight or nine different trials is we’ve been averaging over an eight bushel yield response to that application. It has always been a positive response even though in individual years it’s not always statistically significant, but sometimes it’s very significant. It has ranged anywhere from three bushels to 12 bushels but on average a gain eight bushels is a pretty impressive number.”

With this application, timing isn’t very critical as long as you’ve not already allowed aphids to spread the virus. It’s too late if aphids are already well established in your wheat. Treatment to prevent virus transmission needs to occur before you can easily find 4-5 aphids in a foot of row.

“Generally, if you follow our recommended wheat planting windows, Oct. 15 or later, populations are normally very low going into the winter months, often one or two aphids per foot,” he noted. “You can ride those low populations during the winter months because they’re dormant. The wheat is dormant, the aphids aren’t growing or reproducing, so if you can control those aphids before they begin to reproduce, you can prevent the early spring blowup of aphids that may transmit virus to the still small and sensitive plants. And that’s what I’m recommending.”

One question is “What happens if a farmer did use an insecticide seed treatment?”

“The answer is I don’t know. We have a little bit of data that suggests that it may be neces-

sary in some years to make that same foliar application even though you used an insecticide seed treatment,” he said. “We have a lot of data that shows an average yield increase of seed treatments in wheat of about three bushels per acre, so that indicates that seed treatments may not always be adequate when you compare it to larger yield response we’ve been seeing with un-



Dr. Scott Stewart, extension entomologist with the University of Tennessee located in Jackson discusses aphid management in wheat and their connection to barley yellow dwarf virus.

Photo by John LaRose Jr.

treated wheat seed when making a foliar spray.”

Another consideration is what happens if you planted before the recommended window?

“Avoid planting wheat before the recommended window,” he said. “If you did, you may already have barley yellow dwarf virus. In fact we’re looking at fields on the way back from this meeting where people planted in very early October and they have serious virus infections because the aphids got started early in the fall. So what we recommend on very early planted wheat is to use an insecticide seed treatment such as Gaucho, Cruiser, the Nipsit products, or consider making a foliar application in the fall when aphids start showing up at one to two aphids per foot,” he summed. Δ