

Soybean Test

Studies Focus On Soil Type, Pesticides, Seeding Rates

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Tests conducted by Eugene Burris, research entomologist at the Northeast Research Station St. Joseph, La., were showcased at the Northeast Research Station Crop Production and Pest Management Field Day recently.

“Our test today had about three different objectives that we wanted to study,” he said. “We are working with a soybean crop planted on a light soil classed as commerce silt loam and the variety that we used was a Pioneer 94Y90 which is a Group 4 bean. We selected a test design that would give us a split; our main plot treatments nematicides. The treatments were 3 gallons/acre of Telon II fumigation and 10 lbs/acre, Temik 15G applied on a band versus a nontreatment; then in subplots over those main plots we looked at seeding rates for the beans at 4, 8 and 12 seeds per linear foot. The machine we used to vary the seeding rates was novel and unique because it’s attached to a GPS and Viper 2 raven system, which is hydraulically operated from the cab of the tractor to change the seeding rates.”

So far no differences were shown in stand or plant population densities for the pesticide treatments. However, the seeding rates, as one might expect, showed differences.

“The bottom line is that to get eight seeds per foot on a 40-inch row, which is optimum by the agronomists’ standards, we need to plant about 12 seeds per foot to allow compensation and get back to that optimum number,” Burris said.

Also working to conduct the studies were two county agents, Mr. Dennis Burns, a local county agent for Tensas Parish, and R.L. Frazier, the local county agent for Madison Parish.

“The three of us put the test out, and we’ll continue to follow it through harvest to make sure there are no differences that we haven’t detected yet,” he added.

Burris said the seed treatments, Aris and Avicta, have shown some impact.

“At this point I’m not sure whether we’re looking at nematode differences or insect differences, or maybe a combination of both,” he said. “We’ve just begun to evaluate some of these kinds of programs on beans, and the first year or two of testing can sometimes be a bit confusing until you start to stack up some data; but as it usually works out, pest complexes are there and are capable of causing damage. They

can be insects, nematodes, even diseases and, the complexes are often capable of causing losses on stand, plant biomass and ultimately yield.”

Avicta’s first label was with cotton and it was the first product to hit the market in which



Research Entomologist, Eugene Burris, at the Northeast Research Station, St. Joseph, La., detailed three different objectives with soybeans that they wanted to study. Photo by John LaRose Jr.

there was a classic nematicide applied as a seed treatment which works well. It has a nice package coupled with an insecticide, a nematicide and a group of fungicides that provide good early vigor on cotton.

“I think the novel part of this is a lot of farmers are now starting to get the equipment that we use to put this test out to vary the seeding rates; and there’s a limited amount of research available to tell them which directions to go,” Burris added. “Our two county agents are precision ag based and have responsibilities to provide help to farmers, so it was a good thing that they could come to the station, have hands on and actually put the test out. They’ll have a good bit of practical information to take back to the farm level for next planting season, based on their experiences now and based on what we get out of the test from yield.” △

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