

No-Till Cotton Weed Control Guidelines

Glyphosate Resistant Weed Problem Growing

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Dr. Chris Main, extension cotton and small grains specialist at the University of Tennessee, recently spoke on the problem of controlling weeds in cotton.

According to the University of Tennessee Weed Control Recommendations Guide, weed management systems for cotton may include the following:

1. Early preplant burndown with or without residual herbicide(s)
2. At-planting burndowns with or without residual herbicides(s)
3. Postemergence with or without residual herbicides(s)
4. Post-directed herbicide(s) with or without residual herbicides(s)
5. Layby herbicide(s)
6. Pre-harvest herbicide(s)

Main talked about using products other than Glyphosate and products that are complimentary to Glyphosate's performance, while specifically addressing resistant weed issues in cotton production. Main explained, mare's-tail, Palmer amaranth, giant ragweed, Johnsongrass, and Italian ryegrass are problems found in the mid-south and southeastern states.

"Mare's-tail has been a problem in Tennessee and resistant to glyphosate since about 2001. We have found giant ragweed in Tennessee within the last year that is glyphosate resistant. Several producers in the mid-south are fighting problems with glyphosate resistant Palmer amaranth. Mississippi and Arkansas are having some problems with Johnsongrass being resistant to glyphosate. Mississippi also has issues with Italian ryegrass resistance to glyphosate," he said.

Production practices such as row spacing and shading out the soil surface helps prevent weeds. Weed control will aid in insect control according to Main, "spider mites are a problem and growers need to use early burndowns to help get early season green plant material out of the field so the mites do not have a 'green bridge' to move on to cotton as it is emerging."

Main pointed out, "An early burndown does not necessarily last until planting, and particularly from a residual standpoint, may not give growers control into the season."

Main suggests that there are several options

growers can utilize at planting and, "adding a soil residual to the glyphosate tank such as the metolachlor products (Dual Magnum or Parrlay) can be applied over-the-top of cotton to provide growers residual control into the growing season."

"Once growers can get out their hoods and layby applicators they can use products that were common 10 to 15 years ago, many of which have been forgotten about."



Dr. Chris Main, Extension Cotton and Small Grains Specialist at the University of Tennessee explains the problem of controlling weeds in cotton. Photo by John LaRose, Jr.

Main said there are 18 to 20 different products and combination mixes of those products that growers can use in a layby application system, "the biggest thing is growers have to use something that has knockdown potential. Growers need to be able to control the pigweeds that have escaped their Glyphosate application. It also has to have soil residual activity and ideally, growers will be getting a couple of different herbicide modes of action at this time to help prevent resistance occurring to those chemistries as well." When asked about a list of specific chemicals, Main said, "The Weed Control Manual for Tennessee provides weed control recommendations that are proven effective through extensive University testing. The manual is available online at www.utcrops.com. Growers can access this material, which lists what we recommend for early pre-plant, pre-emergence, postemergence and layby applications." △