

All Crops, February 11, 2003

MARCH TREATMENT IS KEY TO NO-TILL SUCCESS

Andy Kendig

State Extension Weed Specialist

Commercial Agriculture Program

MU Delta Center

Far and away, the number one no-till (or stale seedbed) problem in Southeast Missouri is growers failing to make a March application of a 2,4-D type product. A general burndown, close to planting with a glyphosate or Gramoxone-type product is 80% of the battle, but those herbicides have a few weaknesses, which are bolstered by 2,4-D and related products.

If you are further South, February may be the better month, but in Missouri, it's usually March before you can think about hitting the field. For cotton or rice it needs to be early March. But, whether it's corn, cotton, rice or beans, 2,4-D usually has something to offer. Traditionally, it was cutleaf evening primrose that needed the 2,4-D. Now, especially in West Tennessee, you may need to do something for horseweed/mare's tail that happens to have glyphosate resistance. Although the horseweed is a new "issue", the fundamentals haven't changed at all- it just joined the club of those weeds that are troublesome to the overall burndown products. For the record, Gramoxone-type products are quite weak on horseweed as are postemergence applications of Valor. Most growers are aware of March 2,4-D applications and their benefits, the issue is that they just don't get around to it.

For cotton and rice, it is essential that the application be made at least 30 days before planting. Soybeans require 2 or 3 weeks (for ester or amine forms) and in corn you can use 2,4-D preemergence. In cotton, most labels allow 2,4-D to be used in a fallow situation, where it will completely break down before planting. It is also noteworthy that Helena has worked with most Cotton-Belt universities in developing a specific burndown label for one of their 2,4-D products. That label is currently pending; however, it may add some nice flexibility over what we have done in the past when it gets EPA approval.

To repeat, most 2,4-D labels require a 30-day preplant interval for rice (PBI Gordon has a special label for Hi-Dep at 15 days). While 2,4-D is labeled for direct application to rice at internode elongation, rice may actually be more sensitive than cotton with preplant applications. We've had several cases of 2,4-D burndown applications injuring rice when they were made within two weeks of planting.

For horseweed or "marestail", Clarity has also received a lot of press. The key advantage with Clarity is that given a couple of honest rainfall events, you can plant cotton 21 days after a Clarity application. But, check the label- rainfall is important to avoid crop injury. Clarity controls many of the same troublesome weeds as 2,4-D, but is a little weaker on primrose and is a little more expensive than 2,4-D.

One major problem with 2,4-D is cotton's extreme sensitivity, and the likelihood that 2,4-D will contaminate the spray tank and plumbing for years to come. While there are ways to clean 2,4-D from a spray tank- Murphy's law is supreme- the bigger the cotton field, the more likely you are

to damage it with a contaminated sprayer. It is probably best to work some kind of deal to have a dedicated burndown sprayer, that is never used to spray on cotton. The sprayer could double for a general burndown application closer to planting time- any residues at that time would be much less likely to injure cotton. While the thought of an extra sprayer sounds bad, the most likely solution is custom application, by growers or retailers, where the dedicated sprayer could cover more acres. Also, don't forget that no-tillage and stale seedbed methods reduce your need for tillage equipment and time. You are still likely to be ahead by switching to conservation tillage- even if that means a dedicated burndown sprayer.

Careful attention to drift is important with 2,4-D and Clarity products. A key advantage to the March time frame is that few sensitive plants are growing at that time. However, greenhouses are a key exception to that rule and there has been a case or two of products being injured in a greenhouse. Follow all label restrictions, watch the wind, avoid dangerous scenarios and use Amine formulations when off-target injury is an issue. Ester versions usually work better and can offer shorter preplant intervals (for soybeans), but esters have the bigger potential for off-target injury.

The problem is simple. We know that we need to make a March treatment. Just be sure to get it done. A quart of preventative 2,4-D is worth a gallon glyphosate later. You will still need to apply a general burndown treatment, but glyphosate and Gramoxone rarely do it alone.