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LSU AgCenter Cotton Extension

Louisiana Cotton Bulletin

Is a Residual Herbicide in Your Future?—Sandy Stewart, Ph.D.

The benefits of residual herbicides are well known. In recent years, we have become more acutely aware of their value to our cropping systems. Herbicide resistance in other states besides Louisiana has brought into sharp focus the need to rotate modes of action, use residuals, and stop the reliance on glyphosate as the only means of chemical weed control. It is an obvious, yet no small statement, to say that our cropping systems in cotton, soybeans, and increasingly in corn are built around the ability to control weeds over the top with glyphosate. Any threat to that ability has to be taken seriously.

Until recently, the message for areas like Louisiana that do not yet have a documented glyphosate resistance problem has been to use residuals and alternate modes of action in order to be good stewards of the Roundup Ready technology. Our effort has been to practice good resistance management before we have a widespread problem. There may, however, be other good reasons to use residuals in 2008.

"Indications are that glyphosate supplies are tight and likely to be so throughout the 2008 growing season."

Indications from basic manufacturers are that supplies of glyphosate are tight and likely to be so throughout the 2008 growing season. The price increase in glyphosate a couple of months ago gained a great deal of attention. However, the basic supply and demand issues around that active

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Herbicide Resistance Management in 2008

The best way to delay or prevent weed resistance is through use of tillage, crop rotation, and herbicides with different modes of action. Use of labeled rates of herbicides and tank mixes of herbicides with multiple modes of action would also be good weed resistance management practices. When weeds are not adequately controlled, they should be removed by hand to prevent seed production. Monitor fields closely and if a resis-

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Upcoming Dates:

Northeast Research Station Field Day, St. Joseph—June 24

Louisiana Farm Bureau Annual Meeting, New Orleans—June 25-29

Dean Lee Field Day, Alexandria—Aug. 21

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ingredient have not gone away. It is no secret that glyphosate supplies are tight already in the mid-South and we are still several weeks away from planting in the Midwest.

Louisiana producers should strongly consider the value of a residual herbicide in the face of a tight glyphosate supplies. Can a residual replace an application of glyphosate in cotton? The answer is yes in most situations, particularly with a PRE application of materials like Cotoran, or Staple that might replace an early glyphosate application. Metolachlor and other residual herbicides applied in-crop essentially can buy some time and reduce the reliance on POST applications of glyphosate from a pure weed control standpoint. The importance of residuals at lay-by increases when one considers the potential cost of having to make a "clean-up" application of glyphosate if there is a shortage.

In planning for the coming year, farmers learn to expect the unexpected. Few of us would have anticipated a potential shortage of a herbicide like glyphosate, but the possibility exists nonetheless. Fortunately, we have many tools with which to manage weeds in cotton effectively, and this may be a year that it pays to utilize the entire toolbox. So, is a residual herbicide in your future? It probably should be.

Early weed competition can be reduced with residual herbicides and lessen the reliance on glyphosate to "clean up" fields like the one above.

Herbicide Resistance Management in 2008

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tance problem is suspected, contact your county agent, LSU AgCenter Specialist, and/or company rep and alert them to the problem.

Louisiana producers have the opportunity to deal with herbicide resistance proactively rather than reactively after its widespread occurrence. A proactive resistance management program may cost slightly more in the short term, but can avoid huge expenses in the long term. However, this can only be achieved by implementing a sound resistance management program immediately. Glyphosate and Roundup Ready crops have been a tremendous benefit to Louisiana farmers and preserving those technologies should be a high priority.

"Louisiana producers have the opportunity to deal with herbicide resistance proactively rather than reactively "

The emergence of glyphosate resistant weeds in other states requires us to recommend the following strategies to mitigate herbicide resistance in Louisiana cotton. Therefore, the following herbicide use recommendations have been developed for Roundup Ready and Roundup Ready Flex cotton. Using multiple modes of action is a primary approach to delay herbicide resistance in weed popula-

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Herbicide Resistance Management in 2008

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tions. Cotton producers should incorporate herbicides with non-related modes of action into their weed management programs for Roundup and Roundup Ready Flex cotton to manage resistance and preserve glyphosate as an effective weed management tool.

The following recommendations are for managing Roundup Ready and Roundup Ready Flex cotton in 2008. The use of residuals and other modes of action other than glyphosate is critical for practicing good herbicide resistance management.

Roundup Ready Cotton

Use at least 1 of the following, preferably 2:

Preemergence	Treflan PPI, Prowl, or metolachlor followed by Cotoran[1] or Staple PRE or Prowl + Staple PRE, Prowl, or Dual
Postemergence	Roundup[2] + Dual[3] (or Sequence[2]) or Roundup[2] + Staple or Envoke[4]
Layby	MSMA + Caparol, Direx, Suprend, Valor, Layby Pro, Cobra, Goal, Aim, ET or herbicide with a residual

1 Or any generic fluometuron.

2 Apply before cotton reaches 5th true leaf.

3 Or any generic metolachlor

4 Apply after cotton reaches 5th true leaf.

Note: Staple or Envoke applications should be limited to one per year due to concerns for ALS resistance.

Note: For most Louisiana soils, the maximum yearly use rate of metolachlor is 2.6 pts/acre.

Roundup Ready Flex Cotton

Use at least 2 of the following, preferably 3:

Preemergence	Treflan PPI, Prowl, or metolachlor followed by Cotoran[1] or Staple PRE or Prowl + Staple PRE, Prowl, or Dual[3]
Early Postemergence	Roundup + Dual[3] (Sequence) or Roundup + Staple or Envoke[4]
Mid-Postemergence	Roundup + Dual[3] (Sequence) or Staple or Envoke[4]
Late Postemergence	Roundup + Dual[3] or Staple or Envoke[4]
Post Directed	Roundup + Dual[3], Suprend, diuron, linuron, Reflex, Caparol, MSMA, Aim, Cotoran[1]
Layby	MSMA + Caparol, Direx, Suprend, Valor, Layby Pro, Cobra, Goal, Aim, ET or herbicide with a residual

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