

Cotton: June 26, 2003

LAYBY: HOW GOOD IS GOOD ENOUGH?

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The purpose of this article is to review post-directed, layby chemistry for cotton. But before we do, we need to stress the importance of traditional layby treatments. In Roundup Ready soybeans, you can do wonders with a couple of shots of glyphosate. But cotton is planted thinner, grows slower and shades less. Since glyphosate has no residual weed control- new weeds will grow late season. Post-directed and layby treatments are as important as ever. And, at least one of the herbicides you are spraying needs to have residual weed control activity.

One more comment- there is a lot of terminology and jargon surrounding post-directed and layby applications in cotton. These terms are even loosely married to certain equipment and spray-nozzle setups. Post-directed can mean two nozzles, layby can mean a single nozzle, and then there are hooded applications. Regardless of the equipment, the concept is the same- you are carefully spraying something underneath the cotton foliage, and are spraying herbicides that injure cotton if they are sprayed directly on foliage. The equipment differs on how much protection it provides the crop from the spray. Nevertheless, the set up and adjustment of whatever equipment you use is very critical, as is a healthy height differential

Twenty years ago, establishing and maintaining a height differential was critical and tricky. Today it is just as critical. It's a little bit easier, but it still isn't Bubba-proof. After Roundup Ready cotton hits the 4-leaf stage, you can't spray over-the-top. You can quickly lose your cotton-weed height differential if the weather delays your application. In fact, some of the faster growing weeds often give you the wrong kind of height differential.

A few years ago, Bladex + MSMA was the best post-direct and layby treatment- hands down, but we don't have Bladex anymore. The good news is that there are six other fairly good, post-directed herbicides we can use. The bad news is that none of them are quite as good as Bladex. We're going to discuss the differences between these- but you should remember that a lot of this is hair-splitting. We do a post-directed/layby test every year and all of the products do a good job. But, when you take several years worth of information, some subtle differences emerge.

Currently, the Karmex-based herbicides are most popular. Karmex is not available by that name, but Direx and many Diuron-based compounds are. The price is hard to beat. In our test plots Diuron-based products do a good job, but they aren't the best. Some growers have also expressed that they needed better broadleaf activity. That leads to our key question: How good is good enough- and only you can answer that question. If your late-season cotton weed control is fine, stick with it (In other words: If it ain't broke, don't fix it).

Another popular post-direct/layby herbicide is Caparol (also sold as Cotton Pro and other prometryn herbicides). An advantage to Caparol is that it has slightly better Palmer amaranth

activity than Karmex-based products.

Goal is usually one of our better layby treatments. It has good activity on morningglory, cocklebur and pigweed, but can be weak on prickly sida/teaweed. It's quite hot on cotton and you need to be extra careful when adjusting your sprayer.

Valor is still in experimental stages, and some recent requests for Section 18 labeling were denied by the EPA because of the great number of post-directed herbicides we already have. Valor has been among our better post-directed herbicides, but on the other hand, it hasn't outperformed any of them either. Reflex is still mentioned on occasion by Syngenta for a possible label. It has performed well in tests, but, just like the Valor, we already have herbicides that do much the same thing.

Cobra, Aim and Harvade are often mentioned as layby additives. These herbicides can add postemergence activity on certain weeds, but the key to layby is residual activity. Use these if you need them, but they aren't the meat of a post-directed treatment.

Over the last few years, we've been testing Cotoran (fluometuron) in the late-post-direct/early layby window. Cotoran used to be used more preemergence and early post-directed, as opposed to the later applications. It has performed very well. Cotoran, Karmex and Caparol are all somewhat related to each other, and Cotoran has always been the best. And, it's price does reflect that. It has performed well in post-directed layby window too. It has the best morningglory activity of the three "photosynthetic inhibitors" as the chemists call them.

An area worth debating is the addition of DSMA/MSMA versus the addition of glyphosate in the post directed spray. Oddly enough, these herbicides are very different, but in this scenario, they are both there for grass control. If you've got a few grasses, the two herbicides are pretty much the same. If you have problems with nutsedge or volunteer Roundup Ready soybeans, MSMA has a slight edge. If you have big problems with grass, glyphosate has the edge. Herbicide rotation is a very popular subject, this is a good opportunity to give glyphosate a rest and use some DSMA or MSMA.

The bottom line on post directed layby is that it is important to use something with residual activity and apply it on time. Liberty Link and Roundup Ready Flex cotton should be available soon. This will simplify cotton weed control; however, neither of these will eliminate the need for a good, traditional layby treatment.