

All Crops, September 25, 2001

TANK MIXES TESTED

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During the first few years of Roundup Ready soybeans, we were testing tank mixes of several broadleaf herbicides. Most often we were looking either for improvements in morningglory control or residual activity to compliment Roundup. In many cases the tank mixes did improve things. However, the other side of the story was that if the Roundup was sprayed twice, the benefit became very slight.

The bottom line was that Roundup alone and Roundup tank mixes worked great and growers could chose which approach served them best. Recently, a new breed of tank mixture has been promoted. This is a tank mixture with a narrower-spectrum herbicide. In addition, the herbicides tend to have a burning type mode of action. Most of these mix partners are inexpensive and, as before, morningglory control is the reported benefit. However, relatively little university research has been done with these mixtures.

To learn more, we tested combinations of 1, 1.5 and 2 pint-equivalents (based on old Roundup) of Roundup with 1/6 oz of Aim, 1/3 oz of Aim, 8 oz of Harvade, 2 oz of Resource, and an experimental herbicide which is similar to Aim. We used preemergence Sencor which controls most weeds with the exception of the fuzzy morningglory species. The morningglories were 4 to 6" long and just starting to run when we sprayed our Roundup mixtures..

The full, quart-equivalent rate of Roundup was beaten slightly by Roundup + 1/3 oz of Aim, but was not beaten by any of the other tank mixtures. The 1/3 ounce rate of Aim is too high for use on soybean, but could theoretically be used post-directed in cotton. Both rates of Aim gave some benefit to pint-equivalent rates of Roundup. The other herbicides did not give a significant improvement in morningglory control.

The story from these newer herbicides is the same as that from the older broadleaf herbicides- Roundup is not the world strongest morningglory herbicide and tank mixtures can bring an improvement. But, when the full, quart-equivalent rate is used- and used twice, that benefit is very slight.

Resistance prevention is a good argument for tank mixtures. However, both tank mix partners must have good activity on target weeds. If one of the tank-mix herbicides is weak on certain weeds, there is little benefit to the prevention of resistance with those weeds. Whether you are mixing an older herbicide or a newer herbicide with Roundup, it is important to mix wisely. There is probably no perfect tank mixture for resistance prevention. Regardless of the tank mixture or herbicide rotation, awareness is important. If there is a patch of weeds- that should normally be controlled- that is spreading for no good reason- investigate and rotate.