

July 15, 2013

Some farmers may still be considering planting double crop soybeans. Dr. Laura Lindsey, Ohio State Soybean specialist offers these suggestions in CORN Newsletter (7/2/2013):

1.) **Soil moisture and rainfall-** Soil moisture and subsequent rainfall are essential to double crop soybean after wheat. When seeds are planted into dry soil, it may take weeks for soybeans to germinate/emerge. If possible, adjust drill to place seed in moist soil, but do not drill deeper than 1.5 inches as soil crusting may become problematic.

2.) **Relative maturity-** As planting is delayed, there is concern about whether late maturing varieties will mature before frost. When planting late, we recommend planting the latest-maturing variety that will reach physiological maturity before the first killing frost. Soybean flowering is triggered by day length. As days get shorter (and nights get longer), soybeans are triggered to flower which generally occurs around the first week of July. Later maturing soybeans will put on more vegetative growth before flowering. Plant soybean varieties with a relative maturity of 3.0-3.3 or lower since the planting date is now Mid-July.

3.) **Row spacing and seeding rate-**Drill double crop soybean in 7.5-inch row spacing. Canopy closure is necessary to maximize yield of late planted soybeans. If drilling during early to mid-July, 250,000 to 275,000 seeds per acre is recommended.

Mark Loux, OSU Weed specialist in our CORN Newsletter (7/2/13) offers these tips for controlling marestail in double crop soybeans. Little has changed since last year but Liberty has been even harder to procure this year, so using a glyphosate+Sharpen burndown may be more realistic.

A weed free start is critical for double-crop soybeans. This can be challenging to achieve where glyphosate-resistant marestail are present after wheat harvest. Problems with marestail include the following: 1) most marestail populations are now glyphosate-resistant and also ALS-resistant; 2) if 2,4-D ester is used, wait 7 days until drilling double-crop soybean; and 3) marestail cut off by harvesting equipment are difficult to control. OSU research indicates that there are no herbicide treatments that consistently control glyphosate-resistant marestail that have regrown following mechanical disturbance or prior herbicide treatment.

Certainly one of the best options is to plant LibertyLink soybeans, which allows for a POST application of Liberty to help control plants that survive a preplant burndown. The following are the most effective burndown options for control of marestail prior to double-crop soybean emergence:

1) Liberty (32 to 36 oz) + Sharpen (1 oz) + MSO + AMS (can also add metribuzin);

- 2) Liberty (32 to 36 oz) + metribuzin (4 to 8 oz of 75DF) + AMS;
- 3) Glyphosate (1.5 lb ae/A) + Sharpen (1 oz) + MSO + AMS.

We suggest using a spray volume of 20 gpa for any of these treatments, and avoiding nozzles that produce large droplets. Results with a combination of glyphosate and 2,4-D may be more variable than the treatments listed.

With regard to the control of weeds that can emerge after drilling double-crop soybeans, the following approaches should be considered:

1. Include a residual herbicide with the burndown treatment so that POST herbicides are not needed. Residual herbicides used at this time of the year should be restricted to those that have little or no carryover risk – such as metribuzin, Valor, or low rates of chlorimuron or cloransulam products. However, POST marestail control might be impossible in these systems.
2. Plant a LibertyLink soybean, and apply Liberty POST as needed. Probably the best option for control of later-emerging marestail or plants that regrow after the burndown, assuming that there is any Liberty available.
3. Plant a Roundup Ready soybean and apply glyphosate POST. Should work for most weeds, but not a good choice if the POST application needs to control marestail.
4. Plant a nonGMO soybean and apply conventional POST herbicides (Flexstar, Fusion, Select, etc) as needed. This system has the most potential for soybean injury, but seed may be cheaper than the other systems. Not a good choice if the POST application needs to control marestail.

Overall, if marestail is a problem, farmers may want to consider spraying their wheat fields with glyphosate and 2-4D ester and planting a cover crop after 7 days. Farmers should be thinking about spraying all marestail infected fields this fall and next spring with glyphosate and 2-4D ester to reduce marestail populations.