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Spring Greenup Applications, Winter Annual Burndowns, and Cover Crop Termination.

The harsh winter is finally winding down and we are bound to have warmer days and spring in the near future. As we look at towards the warmer weather there a few field activities that are going to start quickly, including winter wheat greenup herbicide applications and winter annual weed burndown applications in no-till fields. There are few things to keep in mind as these activities ramp up in “late” springs like this year..

Spring Greenup applications:

There have already been reports of greenup fertilizer applications on wheat that survived the harsh winter and many more will likely follow as the temperatures rise. While making these applications or prior to making these applications it may be useful to look for winter annual weeds that occur on those wheat acres that may require a spring herbicide application. In typical years, winter annual weed pressure in wheat is of less concern, but with potentially weakened wheat stands the pressure from winter annuals will be of more concern. When planning a spring herbicide application on wheat make sure you consider the wheat stage as well as soybean plant back restrictions for field with a planned double crop soybean rotation.

A desirable option for wheat producers is to combine the spring herbicide application with the topdressing pass by using liquid nitrogen as a carrier. Many of the herbicide labels do allow for liquid nitrogen to be used as a carrier, but may have differing adjuvant requirements and growth stage restrictions as compared to applying with a water carrier. The use of liquid nitrogen as a carrier also poses an increased risk of crop injury for the majority of herbicides applied to wheat in the spring. Refer to our previous article, Spring Herbicide Applications on Winter Wheat, for more information (https://ag.purdue.edu/btny/weedscience/Documents/spring_wheat.pdf).



Spring Greenup and Burndown

April 11, 2014

Winter annual weeds, cover crops, and wheat burndowns:

The jury is still out on how the past winter affected winter annual weeds that emerged last fall and where not controlled with a fall herbicide application. Either way it is likely that spring burndowns will need to be made to control some winter annual weeds, particularly marestail. Fields that did not receive a fall burndown will likely require an earlier application as established winter annual weeds, especially marestail, will begin growing rapidly as the weather warms up. The key for spring burndowns is the timing of the burndown with considerations of weed size and air temperatures. Applications need to be made when weeds are actively growing, but when plants are still small or prior to bolting in the case of marestail. To ensure that plants are actively growing make applications when nightly temperatures have maintained above 45F for four to five days. It will also take time for soil temperatures to warm to a level that will encourage active weed growth.

We encourage the use of residual herbicides, especially in no-till soybean fields with marestail and pigweed (waterhemp and Palmer) species. If planning on using residuals, maximize the residual control into the cropping season by applying the products preemerge rather than tank mixing it with early spring burndown or splitting the residual between the early burndown and a burndown just prior to planting. No-till soybean fields with marestail pressure are going to require multiple spring burndowns as well as a residual product to achieve maximum control of marestail.

Wheat fields that did not survive the harsh winter and need to be abandoned as well as cover crops will also need to be terminated soon. Both wheat and cover crops can be controlled with 1-2qt/A of a generic glyphosate product. Higher rates are required as the size of the cover crop or wheat plants increases. The same principles apply, as with the winter annual weeds, in making applications to smaller plants that are actively growing. Although, the success of a burndown on wheat or a cover crops is much more dependent on actively growing plants than the size of the plant. Reemphasizing a point made earlier, to assure the herbicide is applied to actively growing plants, only make applications after night time temperatures have been above 45F for four to five days with forecast of continued warm nights. It will also be useful to scout the field for other winter annual weeds that may be filling in the gaps in the likely poor wheat or cover crop stand and determine if the addition of 2,4-D or Sharpen is warranted to accomplish a complete burndown. If you are not successful in controlling the wheat with the initial burndown treatment, retreatment may be necessary and we have had good luck with adding a clethodim product to glyphosate with the second burndown treatment. Another consideration is the use of Gramoxone + Sencor (for fields going to soybean) or Gramoxone + atrazine (for fields going to corn). The Gramoxone base programs will provide a quicker burndown if that is the goal of the program.

For more information about winter annual burndowns as well as marestail control in no-till soybeans refer to the article and publication below.

Spring Burndown Applications to Weeds and Cover Crops (<https://ag.purdue.edu/btny/weedscience/Documents/SpringBurndown.pdf>)

Control of Marestail in No-till Soybean

(<https://ag.purdue.edu/btny/weedscience/Documents/marestail%20fact%202014%20latest.pdf>)

Information listed here is based on research and outreach extension programming at Purdue University and elsewhere.

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