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Planting Corn Following Frost Damaged Wheat

For wheat fields which will be terminated due to cold temperatures and planted to corn, growers will need to be more concerned about getting complete and timely control of the existing wheat than they would if they were planting soybean. Corn is more sensitive to early-season weed competition than soybean, and living wheat plants are essentially weeds and can absorb nitrogen and make it unavailable for the corn plants during the same growing season.

One can kill a wheat stand with one of two herbicide programs for fields going into corn. Use of a glyphosate-based burndown program should include the use of glyphosate at 1.5 lb ae/A + 2,4-D at 1-2 pts/A. 2,4-D is needed to control glyphosate-resistant marestail which is very prevalent in southern Indiana and help with control of emerged common lambsquarters and ragweeds. Apply in a spray volume of 10 to 15 GPA and include AMS if you have hard water.

The other program for controlling an existing stand of wheat is a Gramoxone-based program. It may be advisable to consider the use of Gramoxone Inteon (3-4 pt/A)+ atrazine (at least 1.5 lb ai/A) + 2,4-D(1-2 pt/A) if one desires to plant corn as soon as possible. This mixture is more expensive than glyphosate + 2,4-D, but could provide a more rapid burndown of the wheat and minimize the early-season competition between the remaining wheat and newly planted corn. Apply this mixture in 15 to 20 GPA carrier volume. A rain 3-4 days after application can help move the atrazine into the roots of wheat to provide additional control. If the cold weather conditions continue or you do not get the rain forecasted for this week and are able to spray, this mixture may be more desirable since the activity Gramoxone is less influence by temperature than glyphosate.

Regardless of whether you use a glyphosate or Gramoxone-based program, keep in mind that wheat is somewhat tough to kill in the spring during cold weather conditions and a follow up treatment may be necessary to completely control the existing wheat plants. It likely will not pay to use reduced herbicide rates. Also, it may be advisable to wait until we have a day or two of daytime air temperatures above 50 to get the maximum herbicidal activity out of the products.

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

The use of trade names is for clarity to readers of this site, does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult the herbicide label for the most current and update precautions and restrictions. Copies, reproductions, or transcriptions of this document or its information must bear the statement 'Produced and prepared by Purdue University Extension Weed Science' unless approval is given by the author.

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