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PURDUE EXTENSION WEED SCIENCE

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Fall Applied Herbicides for Soybean, Corn, and Wheat

Cressleaf groundsel (butterweed) in the fall.

Now is the time to be thinking about fall treatments to control winter weeds. Although recent dry conditions across much of the state has limited winter weed emergence, we have observed cressleaf groundsel (butterweed), chickweed, and dandelion emergence in several fields. It would be advisable to scout fields that won't be tilled this fall to determine the level of winter weed infestations and determine if fall applied herbicide treatments are needed.

When to apply fall herbicide treatments for soybean or corn:

For control of winter annual weeds and dandelion, apply herbicide anytime between now and mid-November for best results. The best time to control winter annuals, biennials and herbaceous perennials such as pokeweed is going to be a bit earlier than the optimal timing for dandelion control. So you may need to make a judgment call on the fields that have dense infestations of annuals, biennials, pokeweed and dandelion. Dandelions can be effectively controlled with applications before a frost, but you will need to increase the rate of glyphosate to 1.1 to 1.5 lb acid equivalent per acre for optimum activity.

For any fall applied herbicide treatment the herbicide labels are very specific about not apply herbicides once the ground has frozen or is snow covered to minimize off-site movement . To prolong residual activity you should apply residual herbicides when soil temperatures have declined to 50 degrees F or below at a 2-inch depth. Residual activity provided by herbicides applied in the fall can be influenced by the weather during the winter months. Warm wet winter months can promote microbial activity and increase the breakdown of the herbicides in the soil, decreasing residual activity.

Purple deadnettle

For Free Herbicide Labels

www.cdms.net

and

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There are several products that are labeled for fall applications. For a larger list of fall applied herbicides see the 2005 Weed Control Guide for Ohio and Indiana (http://www.btny.purdue.edu/Pubs/WS/WS-16/). An important consideration when choosing a fall applied program is to understand the strengths and weakness of the herbicide and inquire about the "clean field guarantee" offered by selected manufacturers. Some manufacturers may offer to respray fields in the spring if weed control is less than satisfactory. Unfortunately, we generally do not have access to this information making it difficult for us to sort through the benefits of specific programs. The information below highlights the herbicide treatments that have worked effectively across a broad range of weed species and environmental conditions in Indiana.

Treatments that can be used in front of either corn or soybean:

Glyphosate + 2,4-D controls most winter annuals, biennials, and also dandelion. A glyphosate rate of 0.38 to 0.5 lb of glyphosate acid should be adequate for most winter annuals, but rate should be increased to at least 0.75 lbs acid where dandelion and other perennials and biennials are present. Apply with ammonium sulfate. 2,4-D should be added if you think you have glyphosate-resistant marestail. A fall applied treatment of glyposate + 2,4-D won't be effective in suppressing spring emergence of winter annual weeds.

Valor + 2,4-D and Sencor + 2,4-D will control many winter annual broadleaf weeds, but not biennial or perennial weeds. Sencor rate of at least 8 oz/A or a Valor rate of 2-3 oz/A should be used to provide meaningful residual activity, especially on spring emerging marestail. If chickweed is present, glyphosate or Express should be added to either Sencor or Valor.

2,4-D alone at 1 to 2 lbs ai/A will control many winter annual weeds, but not chickweed or grassy species. Add Express at 0.125 oz/A to control chickweed and provide some additional activity on dandelion seedlings . Add glyphosate to control grassy species and improve control of large dandelion.

Treatments that can be used in front of corn only:

Simazine (1 lb ai/A) + 2,4-D controls most winter annual weeds, but is less effective on dandelion and grassy weeds than Basis + 2,4-D or glyphosate + 2,4-D. Simazine does not provide much residual control of summer annual weeds the following spring, so expect to use a typical herbicide program in next year's corn.

Basis + 2,4-D will control most winter annual weeds and dandelion, and has more activity on grassy species than simazine + 2,4-D. Basis does not provide much residual control of summer annual weeds, so expect to use a typical herbicide program in next year's corn.

Some Weeds Often Controled in Fall

- Buttercups
- Canada thistle
- Carolina foxtail
- Catchweed bedstraw
- Common chickweed
- Common mullein
- Corn speedwell
- Corn flower
- Dandelion
- Docks
- Field pennycress

Whitlow grass

Continued

- Garlic mustard*
- Henbit
- Marestail (Horseweed)
- Musk thistle*
- Purple deadnettle
- Poison hemlock*
- Sheperd's purse
- Smallflowered bittercress
- Wild mustart*
- Yellow rocket*

*control in the first year of biennial growth

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Treatments that can be used in front of soybean only:

Canopy EX + 2,4-D and CanopyXL + Express + 2,4-D will control most winter annual weeds and dandelion and provide residual activity into the spring. The minimum rate of Canopy EX should be 1.1 oz/A. Canopy EX is formulated with Express, but you should add 2,4-D for improved foliar activity on broadleaf weeds or add glyphosate if you have winter annual grasses or volunteer wheat. Rates of CanopyXL range from 2.5 to 4.5 oz/A based on soil type. The 2.5 oz rate is adequate for control of emerged weeds in the fall, but higher rates can extend the length of weed control the following spring. Do not use more than 2.5 oz where soil pH is greater than 6.8.

Other products that we have evaluated in our research program and are labeled for fall applications to fields going into soybean include Gangster, Python, Scepter, and Synchrony XP. Gangster is a premix of Valor and FirstRate and would be a good choice for fields that have dense marestail infestations that emerge both in the fall and in the spring. Python and Synchrony XP would also provide some actitivity on marestail. Scepter would provide some residual activity on spring emerging summer annual weeds. Use of 2,4-D or glyphosate with all of these products is recommended to maximize foliar activity. If chickweed is present, glyphosate or Express will be needed to provide effective control of this weed.

Wheat

Wheat planting will commence soon and many growers are utilizing no-till practices for wheat production. Although winter weed pressure at this time appears to be relatively light, it would be prudent to consider a fall treatment to control the seedlings that are present and reduce dandelion infestations. Dandelion control in wheat is becoming a more important issue and if it is not managed before wheat is planted we are left with fewer options after it is planted. Most 2,4-D product labels DO NOT support fall applications either before or after wheat is planted because of crop injury and yield loss concerns. Fall applied glyphosate, before wheat is planted, should be just as effective at controlling winter annuals and dandelion and would be the recommended tactic for control of weeds prior to planting. Other fall treatments that can be used in emerged wheat will be discussed in a subsequent article.

Weed Identification aids:

Virginia Tech Weed Identification Guide

Missouri Weeds

USDA Plant Data Base

Weeds of the North Central States

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 publication and does not imply endorsement of a particular brand nor does exclusion imply non-approval. Always consult herbicide labels for the most current and up-to-date 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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