

BENEFITS AND LIMITATIONS OF LATE BURNDOWN HERBICIDE APPLICATIONS

Ideally, burndown herbicide applications should be made 4 to 6 weeks prior to planting. However, burndown applications may be delayed due to wet soils or poor environmental conditions. A late burndown application could occur a couple of weeks before or just a few days or hours in front of planting and crop emergence. A late burndown herbicide application is still important even if the typical application window is missed and planting is delayed due to weather conditions.

Why is it important to make a late burndown herbicide application when an early burndown application is missed and what are the major limitations?

Weeds grow fast and if allowed to get a head start and grow with the crop they can compete for resources and have a competitive advantage for the rest of the season. A major limitation of late burndown applications is that weeds can be larger and more difficult to control. Burndown herbicide rates may need to be increased and more aggressive herbicide mixtures required for good control. Herbicide plant back restrictions can be another limitation with later burndown applications affecting decisions on herbicides to use along with the need to plant as soon as possible.

Why not just wait and spray after planting to avoid any further delay in planting the crop?

If possible, it is better to make a late burndown herbicide application before the crop is planted. Weeds can be injured by the planting operation requiring time to recover before spraying. Weather can quickly change after planting and prevent a post-plant application allowing existing weeds to begin to adversely affect the crop. Planning burndown herbicide applications after the crop is planted can be risky as it is easy to become busy with other operations and the weeds will only become harder to control with further delays. The risk of crop injury can also increase from some herbicides used in the burndown application.

Why is it important to scout fields before making late burndown herbicide applications?

Fields should be scouted to determine the weed spectrum and size in order to select the right burndown herbicide program. Generally, winter annual weeds that are often the focus of early burndown herbicide applications will already be setting seed with a late application. The focus may switch to summer annual weeds such as common lambsquarters, common ragweed, velvetleaf, and pigweed species. Additionally, it may be important to have a plan to control glyphosate and multiple herbicide resistant horseweed (marehail), waterhemp, and Palmer amaranth. Horseweed may be 6 to 8 inches tall or more and waterhemp and Palmer amaranth may just be starting to emerge. The burndown herbicide program needs to be selected to control the largest or the most difficult-to-control weeds in the field.

Can growth regulator herbicides be used in late burndown applications?

When using 2,4-D and dicamba it is important to be conscious of the label precautions and observe the plant back restrictions. When using 2,4-D, soybean planting must be delayed at least 7 to 15 days depending on the rate of application. When using dicamba, soybean planting must be delayed 14 to 28 days depending on the rate of application and an inch of rainfall is required after application before planting can occur. These restrictions can be avoided when planting 2,4-D or dicamba tolerant soybeans and using approved growth regulator herbicide products in the burndown application.

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How can you control glyphosate-resistant horseweed and giant ragweed and generally big weeds in soybeans with late burndown herbicide applications?

Increasing the rate of glyphosate in the burndown application will generally help in the control of larger weeds. For immediate planting after a late burndown application, using XtendiMax® herbicide with VaporGrip® Technology (a restricted use pesticide) in the Roundup Ready® Xtend Crop System is the best option for the management of glyphosate-resistant weeds. Additionally, a burndown program that includes a residual herbicide can provide extended weed control along with multiple sites of action for the management of resistant weeds. Residual herbicides can help to improve the control of weeds with an extended germination time period, such as giant ragweed, waterhemp, and Palmer amaranth. Herbicide products that can be tank mixed with XtendiMax herbicide with VaproGrip Technology can be found at <http://www.xtendimaxapplicationrequirements.com/Pages/default.aspx>.

What are the weed control considerations when making late burndown herbicide applications in corn?

There is more flexibility and herbicide choices for effective weed control in corn than soybeans. Late burndown herbicide applications in corn can be very effective and safe to the crop. Dicamba and 2,4-D can be used around the time of corn planting, and emerged corn has tolerance to these herbicides. Residual herbicides such as atrazine and mesotrione can provide good activity on emerged weeds. Additionally, there are many postemergence herbicide options available depending on the weed spectrum to be controlled.

Sources:

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Burns, E. and Sprague, C. 2019. Weed control recommendations for late and prevented planting. Michigan State University Extension. <https://www.canr.msu.edu>.

Steckel, L. 2019. Late burndown in corn. University of Tennessee Extension. www.news.utccrops.com.

Web sites verified 11/26/2019.

XtendiMax® herbicide with VaporGrip® Technology is part of the Roundup Ready® Xtend Crop System and is a restricted use pesticide. ALWAYS READ AND FOLLOW PESTICIDE LABEL DIRECTIONS. It is a violation of federal and state law to use any pesticide product other than in accordance with its labeling. XtendiMax® herbicide with VaporGrip® Technology and products with XtendFlex® Technology may not be approved in all states and may be subject to use restrictions in some states. Check with your local product dealer or representative or U.S. EPA and your state pesticide regulatory agency for the product registration status and additional restrictions in your state. For approved tank-mix products and nozzles visit XtendiMaxApplicationRequirements.com.

Performance may vary, from location to location and from year to year, as local growing, soil and weather conditions may vary. Growers should evaluate data from multiple locations and years whenever possible and should consider the impacts of these conditions on the grower's fields.

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