



University of Kentucky
College of Agriculture,
Food and Environment
Cooperative Extension Service



Wheat Science

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Harvest Aid in Wheat

Dr. Chad Lee, Grain Crops Specialist
Dr. Travis Legleiter, Extension Weed Specialist
Dr. Carrie Knott, Grain Crops Specialist



The cool, cloudy and rainy temperatures this spring delayed wheat development across much of Kentucky. The wet weather recently has many thinking about adding a harvest aid to their fields. Although much of the wheat is likely back to a 'normal' development stage due to recent record-breaking high temperatures, many producers may already be considering harvest aids in wheat.

Harvest aids remove weeds that complicate harvest and potentially stain wheat grains. Harvest aids should not be used to help a crop dry down faster.

Several products are labeled as harvest aids. A subset of those products is listed in Table 1. They are labeled for the "hard dough stage" (actually hard kernel stage or Feekes 11.3) when seeds are at 30% moisture or less. This stage is physiological maturity when the seed development is complete. Applying the harvest before physiological maturity often reduces yield and test weight, especially in soft red winter wheat. Earlier application of glyphosate has less effect on yield of spring wheats grown in Canada and North Dakota. Some growers may be reading articles that promote earlier timings of application and those early timings apply to the spring wheats, not to soft red winter wheat grown in this region.



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Most products labeled for harvest aid have harvest intervals of either 7 or 14 days. This means that once the product is applied, the crop cannot be harvested until at least 7 or 14 days after the product is applied. Some products have restrictions on feeding straw to livestock while others allow feeding straw to livestock. Some products do not allow applications on fields being grown for seed production.

If you are considering a harvest aid application in wheat, read the label of the products being considered. Follow the label. Again, the harvest aid application is best suited to removing problematic weeds. Applying a harvest aid to speed up drydown will likely reduce yield and test weight.

There are numerous products containing glyphosate. Read the label of that product for specific directions on harvest aids. The ones we found all had the same growth stage for application (less than 30% grain moisture). Those labels had variances in grazing restrictions and the use rates differed.

Table 1. Wheat Preharvest Guidelines According to Product Labels †

Product ‡	Manufacturer	Wheat Stage at Preharvest Timing	Total Volume Applied for Broadcast Applications	Maximum Use Rate for Broadcast Application	Preharvest Interval For Broadcast Application	Other Restrictions
Roundup PowerMax 3 β	Bayer	For wheat, apply after the hard dough stage when grain moisture is 30 percent or less.	Apply in 10 to 20 gallons per acre for ground application.	Do not use more than 22 fluid ounces of this product per acre for preharvest application.	Allow a minimum of 7 days between application and harvest or grazing.	Stubble may be grazed immediately after harvest
Aim EC	FMC		Use a minimum of 15 gallons of finished spray per acre for ground applications.	Up to 2 fluid ounces per acre, not to exceed a total of 2 fluid ounces per acre per season.	7 days before harvest	
Weedone LV6	Nufarm	Apply when grains are in the hard dough stage to suppress large weeds that may interfere with harvest.	Apply a minimum of 10 gallons of water per acre.	2/3 pint/A	14 days	Limited to one preharvest application per crop cycle. Do not feed treated straw to livestock.
2,4-D LV6	WinField Solutions	Apply when grains are in the hard dough stage to suppress large weeds that may interfere with harvest.		2/3 to 1-1/3 pints/A	14 days	Limited to one preharvest application per crop cycle. Do not feed treated straw to livestock.

† This list is compiled from selected products and all comments are based off each product's label. Please consult the label of any product before making any applications.

‡ Mention of a product is not an endorsement by the University of Kentucky or the Kentucky Cooperative Extension Service.

β Numerous generic glyphosate products are labeled for harvest aid in wheat, although not all glyphosate products are labeled for this use. Always look at the product label to verify labeled use as a harvest aid and restrictions that apply to that particular product.

Referenced Research Papers:

Darwent, A.L., et al. 1993. Effect of Preharvest Applications of Glyphosate on the Drying, Yield and Quality of Wheat. Canadian J. of Plant Science.

Nelson, et al. 2011. Harvest Application Timing Effects Wheat and Relay Intercropped Soybean. Agronomy Journal. 103: 851-855.

Yenish, J.P. and F.L. Young. 2000. Effect of Preharvest Glyphosate Application on Seed and Seedling Quality of Spring Wheat (*Triticum aestivum*). Weed Technol. 14: 212-217.

Kentucky Wheat Yield Contest forms available online

Dr. Chad Lee, Grains Crop Specialist

The Kentucky Wheat Yield Contest forms are available online. Eligible entries included a harvested area of at least 3 acres in Kentucky. Entries should be completed and submitted within seven days of harvest. The final **deadline for all entries is July 28, 2021**. They can be **mailed to Chad Lee, 423 Plant Science Bldg., Lexington, KY 40546-0312**. Be sure to include the final four digits on the zip code for the mail to make it to my office.

Visit <https://graincrops.ca.uky.edu/files/2021wheatyieldcontestrules.pdf>

KATS will hold Spray Clinic July 15

The Kentucky Agriculture Training School will hold a Spray Clinic on July 15, 2021. Topics will include fungicide application technology, nozzle selection for herbicides, pulse wide modulation, weather conditions during spray applications, herbicide tank mixing and adjuvants, and economics of sprayer sizing.

The training will run from 8:30 am to 12:30 pm, with lunch following. Registration is open at <https://katssprayclinic21.eventbrite.com> and will close at 11:59 on July 13. The cost is \$75. If you have questions please contact Lori Rogers lori.rogers@uky.edu. 270-365-7541 ext 21317



<http://wheatscience.ca.uky.edu/home>



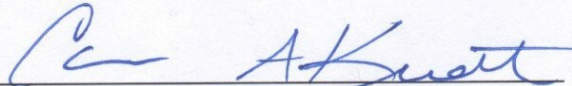
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RETURN SERVICE REQUESTED

Upcoming Events

July 15, 2021	Spray Clinic
July 27, 2021	Corn & Soybean Field Day
TBA	Self-Led Educational KATS Plot Tour (in person)



Carrie Knott, Extension Grain Crops Specialist

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