

## Finishing off that Damaged Wheat Stand

The temperatures we have experienced over the past week and the resulting injury to some wheat fields have led many to consider killing off the current wheat crop in order to plant corn or soybeans. There are many factors that should be considered before this decision is made but once it has been made, there are two additional questions you should ask yourself. First, are the herbicides that I used in my wheat crop going to carryover and harm my corn or soybeans? And second, what are the options for killing my current stand of wheat in order to plant my new crop?

As far as the possibility of herbicide carryover, the table below shows some of the more common wheat herbicides that are used in winter wheat production in Missouri and the rotation intervals to corn and soybeans after applying these herbicides. For the most part, the majority of wheat fields in Missouri are treated with either 2, 4-D or Harmony Extra. As you can see from the table below, if you have treated your wheat crop with either of these herbicides, carryover to corn or soybeans should not be much of a concern. One caveat to this statement is that the previous Harmony Extra label had a 45 day requirement between application and planting of corn or soybeans. Recently, a new supplemental label for burndown use of Harmony Extra in corn or soybeans has been approved which allows for an interval of 14 days between application of this herbicide and planting. I have talked with DuPont about the “burndown” terminology on this new supplemental label in contrast to the use of Harmony Extra in the existing wheat crop, and they have assured me that this 14 day interval is still appropriate for our current situation. If you have applied one of the other products in the table below like Olympus, Olympus Flex, Osprey, etc., then herbicide carryover may be much more of an issue and rotating to corn or soybeans may not be possible at this time.

Wheat Herbicide	Corn Replant Interval	Soybean Replant Interval
2,4-D	15 days	15 days <sup>a</sup>
Harmony Extra	14 days <sup>b</sup>	14 days <sup>b</sup>
Olympus	18 months	12 months
Olympus Flex	12 months	5 months
Osprey	12 months	3 months
Peak	1 month	10 months
Sencor	4 months	4 months

<sup>a</sup>Rotational intervals vary between amine and ester formulations and for specific amount used. Check label for specific restrictions.

<sup>b</sup>See note in text regarding previous Harmony Extra labels and restrictions.

Finally, if you have made the decision to kill off your wheat crop and herbicide carryover is not a concern, then the good news is that killing your current crop should not be that much of a problem. One of the most obvious options is tillage. However, if you wish to stay with a no-till system, then any of the brand name or generic glyphosate products will

provide good control of wheat, even at this stage in the game. Most of the glyphosate labels indicate that 12- to 18-inch tall wheat will be controlled with 1 lb of glyphosate per acre (1 quart/acre of most generics; 22 fl ozs/acre of Roundup WeatherMax or Roundup OriginalMax), and that poorer control should be expected if wheat is in the boot stage of growth. Based on my experience with killing wheat, I would agree with this recommendation. Additionally, in one of the few studies that I have found published on this topic (Weston, L. A. 1990. Weed Science 38:166-171), the author observed essentially complete control of wheat with glyphosate at either 1.0 or 2.0 lb a.i. per acre and therefore increasing the rate of glyphosate above 1.0 lb a.i. per acre was not warranted. Perhaps the most important factor to consider when making a decision about rate selection, however, is the condition of the wheat at the time of the glyphosate application. For optimum control, it will be important to make sure you delay the glyphosate application until after the wheat has resumed active growth. Making a glyphosate application to injured wheat stands that are not actively growing in the cool, wet conditions we are currently experiencing will more than likely not provide good results and if you have no other alternative than to spray under these conditions, then increasing the glyphosate rate above 1.0 lb a.i. per acre would be a good idea.

Another option for killing your wheat in areas where corn will be planted is to apply paraquat (Gramoxone Max, Gramoxone Inteon, etc.) plus atrazine. As paraquat is a contact herbicide, applications of paraquat alone will more than likely not provide sufficient wheat control, but the combination of paraquat and atrazine should provide good control as both foliar and root uptake will occur with this combination.

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