Personal Column

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Do you have a plan for controlling weeds in your wheat stubble?

Combines are rolling in the wheat fields around north central KS. The 2022 wheat crop has certainly been through a variety of conditions during the growing season. Stay tuned and I will provide an update on developing a plan for controlling weeds in your wheat stubble.

Post-harvest weed control in wheat stubble is very important to conserve critical soil moisture and prevent weeds from going to seed and adding to the weed seedbank. This year, it will be especially important to be ready to spray after wheat harvest because of less cover from shorter and thinner wheat than we have seen in the last few years in many areas.

When thinking about weed control in wheat stubble, there are two priorities – controlling already emerged weeds and preventing later flushes. Making applications before weeds exceed 4 to 6 inches is necessary for good control of already emerged weeds (Figure 1). Residual herbicides are needed to reduce the number of herbicide applications needed to control multiple flushes of weeds.

As I was traveling this week in north central Kansas, I did notice combines have been in full force rolling in the fields, in between the rains, so let's hope that wheat harvest progresses and producers have a safe and successful harvest. I also noticed that weeds are starting to become more abundant in the wheat fields with the moisture. Post-harvest weed control in wheat stubble is very important to conserve critical soil moisture and prevent weeds from going to seed and adding to the weed seedbank. This year, it will be especially important to be ready to spray after wheat harvest because of less cover from shorter and thinner wheat than we have seen in the last few years in many areas.

When thinking about weed control in wheat stubble, there are two priorities – controlling already emerged weeds and preventing later flushes. Making applications before weeds exceed 4 to 6 inches is necessary for good control of already emerged weeds. Residual herbicides are needed to reduce the number of herbicide applications needed to control multiple flushes of weeds.

According to Dr. Sarah Lancaster, K-State Research and Extension Weed Specialist, the standard treatment for many years to control weeds and volunteer wheat in wheat stubble was glyphosate plus 2,4-D LVE and/or dicamba. This tank-mix provided two herbicide modes-of-action to help target challenging (and often drought-stressed) weeds. These herbicides continue to be important for weed control in wheat stubble.

However, these tank-mixes may not be adequate in many cases because of herbicide resistance in weed populations, particularly glyphosate resistance in Palmer amaranth (pigweed) and kochia. Higher rates of the 2,4-D and dicamba may improve control, but in most cases 1 qt/acre of 2,4-D or 1 pint/acre of dicamba are the highest rates that should be used.

Lancaster stresses that **Paraquat (Gramoxone, others)** is one herbicide that can work well in place of glyphosate to control emerged pigweed and kochia. Paraquat is a contact herbicide with a different mode of action (Group 27 - cell membrane disruptor), so spray coverage is critical. Paraquat also needs to be applied with a non-ionic surfactant or oil concentrate to enhance surface coverage of the plant foliage. A tank mix with **atrazine** will enhance control on emerged weeds and provide some residual weed control, if planning to plant corn or sorghum next spring. Likewise, **metribuzin** can be tank-mixed with paraquat if rotating to soybean to enhance control and provide some residual activity.

Lancaster points out that other weed control options include **saflufenacil (Sharpen),** if planting wheat this fall, applied at one to two fluid ounces per acre is an option to provide postemergence and short-term residual control of Palmer amaranth, kochia and other broadleaf weeds. Sharpen should be applied with glyphosate for grass control, and can be applied with other products labeled for use in wheat stubble. Sharpen works best with the addition of methylated seed oil and good spray coverage, so using 15 to 20 gallons/acre spray solution is important. If rotating to soybean, note the zero to 45-day rotation interval, depending on use rate and soil texture.

In addition**, Flumioxazin (Valor and others)** can be added to burndown treatments at rates of one to four fluid ounces per acre for activity on emerged broadleaf weeds and some residual activity on broadleaf and grass weeds in wheat stubble. Flumioxazin can be mixed with glyphosate or clethodim (Select Max) for enhanced grass control. It can also be mixed with 2,4-D, atrazine, metribuzin, or paraquat.

For more detailed information, see the **"2022 Chemical Weed Control for Field Crops, Pastures, and Noncropland"** guide available online at https://www.bookstore.ksre.ksu.edu/pubs/CHEMWEEDGUIDE.pdf or stop by any of our Post Rock Extension District Offices in Beloit, Lincoln, Mankato, Osborne or Smith Center for a paper copy or with more of your questions.

We certainly wish you a safe and successful wheat harvest!!!

Post Rock Extension District of K-State Research and Extension serves Jewell, Lincoln, Mitchell, Osborne, and Smith counties. Sandra may be contacted at swick@ksu.edu or by calling Smith Center, 282-6823, Beloit 738-3597, Lincoln 524-4432, Mankato 378-3174, or Osborne 346-2521. Join us for our weekly "The Ag Roundup" by simply emailing me and getting on our weekly ag listserv. Also remember our website is ***www.postrock.ksu.edu*** *and my twitter account is @PRDcrops.*