Issue 931

K-STATE Research and Extension

Extension Agronomy

eUpdate

11/03/2022

These e-Updates are a regular weekly item from K-State Extension Agronomy and Kathy Gehl, Agronomy eUpdate Editor. All of the Research and Extension faculty in Agronomy will be involved as sources from time to time. If you have any questions or suggestions for topics you'd like to have us address in this weekly update, contact Kathy Gehl, 785-532-3354 kgehl@ksu.edu, or Dalas Peterson, Extension Agronomy State Leader and Weed Management Specialist 785-532-0405 dpeterso@ksu.edu.

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1. Control of mustards in wheat - Timely treatment is important

Mustard weeds in wheat fields often are not noticed until the mustards start to bloom in the spring. As a result, farmers often do not think about control until that time. Although it is possible to get some control with spring herbicide applications mustards are much more difficult to control once they have flowered and often have already reduced wheat yields by then.

To minimize yield losses, mustards should be controlled by late winter or very early spring, before the stems begin to elongate, or bolt (Figure 1). If mustards are present in the fall, they can be controlled by a variety of active ingredients. You can look for products containing Group 2 herbicides such as chlorsulfuron (Glean, others), metsulfuron (Ally, others), triasulfuron (Amber, others), propoxycarbazone (Olympus, others) or pyroxsulam (PowerFlex, others), and premixes of thifensulfuron plus tribenuron (Affinity and others). Most ALS-inhibiting herbicides control winter annual mustards very well, although there are populations of bushy wall flower (treacle mustard) and flixweed in Kansas that are ALS-resistant and cannot be controlled by these products. Alternative herbicides will be needed to control these populations.

Group 27 herbicides like Huskie (pyrasulfotole) or Talinor (bicyclopyrone) can be used to control ALS-resistant mustards. Other options to control ALS-resistant mustards are Group 4 herbicides like 2,4-D and MCPA. Dicamba and fluroxypyr (Starane, others) are not very effective for mustard control. Quelex, (halauxifen plusflorasulam) and Tarzec (halauxifen plus pyroxsulam) are also labeled for mustard control.

Group 27 and Group 4 herbicides have little to no residual activity, thus will only control weeds that have emerged and are actively growing. This means that applying them with fertilizer in January or February when weeds are dormant will not provide good mustard control. application when weeds are dormant may not provide good control. In addition, Special care should be taken to ensure wheat is fully tillered when 2,4-D is applied to avoid reducing tillering.

In the late winter or early spring, blue mustard is perhaps the most difficult of the winter annual broadleaf weeds to control because it bolts very early. To be effective on blue mustard, herbicides typically need to be applied in late February or early March. Blue mustard is more difficult to control than tansy mustard with 2,4-D because blue mustard has often already bolted by the time 2,4-D can be safely applied to wheat. Thus, 2,4-D often is applied too late to be effective on blue mustard.

Figure 1. Effect of timing of blue mustard control in wheat: K-State research, 2014. Photos by Dallas Peterson, K-State Research and Extension.

Flixweed and tansy mustard should be treated when they are no larger than two to three inches across and two to three inches tall. As these plants become larger, control decreases dramatically. Ester formulations of 2,4-D and MCPA are more effective on tansy mustard and flixweed than amine formulations. Field pennycress is easier to control than tansy mustard or flixweed. Herbicide applications made before the pennycress bolts are usually effective.

Crop rotation with corn, grain sorghum, soybeans, cotton, or sunflowers is a good way of managing mustards as long as they are controlled in the spring prior to producing seed. Crop rotation will usually result in a gradual reduction of mustard populations in the future as the seedbank in the soil decreases.

The use of trade names is for clarity to readers and does not imply endorsement of a particular product, nor does exclusion imply non-approval. Always consult the herbicide label for the most current use requirements.

Sarah Lancaster, Weed Management Specialist

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2. Crop water allocator designed to help farmers with limited water

Kansas agriculture has been impacted significantly by the drought conditions across the state, but Kansas State University water resources engineer Jonathan Aguilar said a web-based application can help farmers plan for the future. The K-State Mobile Irrigation Lab includes a crop water allocator to help farmers with limited water resources maximize their return. With this new tool, farmers can decide the best crop combinations for their fields, and then estimate net returns.

"This crop water allocator pushes the model toward the net return, so most of the inputs here could be modified toward their own local operation," Aguilar said. He recommends 'playing' with the application to understand its function and decide which scenarios work best for an individual operation.

For example: Inputs could be modified to change the price of the commodity, (projecting) that the price will be better next year, or that the price is going to go down. Changing the seeding rate, the nutrient, or the fertilizer that's going to be applied, you could change the labor cost, your yield goal, how many acres are going to be planted with a type of crop, and the water allocation. Completely customizable, this tool helps producers plan their goals and make decisions based on current conditions and future predictions. Any number of scenarios could be tested online to fit an individual producer's goals.

"If you only have a water allocation of five inches in western Kansas, that typically will not get through a corn crop," Aguilar said. "So, you would be better off going through either grain sorghum or wheat in that scenario. But if you have more water than that, then you have more flexibility in terms of looking at what kind of crops that you would be able to put in your field or sub-divide your fields into four sections."

More information on the crop water allocator application is available online, or by contacting local extension offices in Kansas.

The source for this article is a KSRE news release written by Maddy Rohr.

Jonathan Aguilar, Water Resources Engineer
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3. Learn to identify rangeland and pasture grasses of Kansas

A recently revised publication that serves as comprehensive identification guide for range and pasture grasses in Kansas is available to purchase or as a free download. The publication, *Rangeland and Pasture Grasses of Kansas* C567, was written by Dr. Walt Fick, professor and extension specialist in range management in the Department of Agronomy at Kansas State.

In Dr. Fick's words, "The native grasslands of Kansas are rich in species diversity. The tallgrass prairies of eastern Kansas epitomized by the Flint Hills give way to the mixed prairies of central Kansas and eventually by the shortgrass plains of western Kansas. Included in this publication are the common native grasses found throughout the state. I have also included introduced grasses and some of the pasture grasses used as forage crops for grazing, haying, and irrigated pasture. I hope you enjoy the publication and find it useful in helping identify the major grasses of Kansas."

To access the online version, please visit https://bookstore.ksre.ksu.edu/pubs/C567.pdf. To purchase a hard copy, you can visit the KSRE Online Bookstore at: https://bookstore.ksre.ksu.edu/Item.aspx?catId=364&pubId=133

Rangeland and Pasture Grasses of Kansas

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4. Feedback requested about the War Against Weeds podcast

Have you listened to any episodes of the War Against Weeds podcast? If so, we want to hear from you! The survey takes about 5 minutes to complete and will provide feedback to help us make improvements for the future.

https://kstate.qualtrics.com/jfe/form/SV_eQz80kVErxhSafY

This podcast is an outreach effort from Sarah Lancaster, K-State Extension Weed Science Specialist, Mandy Bish, Extension Weed Scientist at the University of Missouri, and Joe Ikely, Extension Weed Scientist at North Dakota State. There are more than 50 full-length episodes available. Season four officially started on September 7.

Episodes are approximately 30 minutes long and free to access. They are posted at https://waragainstweeds.libsyn.com/ in addition to being available on Spotify, iTunes, and Google Podcasts.

Sarah Lancaster, Extension Weed Science Specialist
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5. Save the date for the 2022 Crop Pest Management Schools

Save the date to attend one of the 2022 Crop Pest Management Schools. This year, two schools will be offered in the traditional, in-person format on November 30 in Beloit and December 1 in Grainfield.

Each school will start at 7:50 am with registration and conclude at 5:00 pm. A lunch will be provided to all participants. The cost to attend either of the events is $50 if registered by November 22. After November 22 and at the door, the cost will be $75.

Each school will feature a variety of topics on weed control, insects, and diseases. Detailed agendas are still being finalized and will be shared in a future eUpdate article.

The dates and locations of each school are:

November 30 –Beloit, KS
Beloit First United Methodist Church
801 N. Bell St.
Beloit, KS 67420

December 1 – Grainfield, KS
St. Agnes Catholic Church
242 Cedar St.
Grainfield, KS 67737

Please register at northwest.k-state.edu/events/

Continuing Education Credits have been applied for and include:
1A Commercial Applicators: 7 credits and 1 core hour
Certified Crop Advisor: 8 pest management credits

For questions, please contact the Northwest Area Research and Extension office at 785-462-6281 or email Jeanne Falk Jones at jfalkjones@ksu.edu

SAVE THE DATE!

K-STATE Research and Extension

CROP PEST MANAGEMENT SCHOOLS

Join us at one of our two locations!

Wednesday, November 30th:
Beloit First United Methodist Church
801 N. Bell St., Beloit, KS 67420

Thursday, December 1st:
St. Agnes Catholic Church
242 Cedar St., Grainfield, KS 67737

Cost is $50 if registered by November 22.
After Nov. 22 & at the door, cost is $75
Register at: www.northwest.ksu.edu/events

Credits:
1A Commercial Applicators: 7 credits and 1 core hour have been applied for
Certified Crop Advisors: 8 pest management credits have been applied for

Schedules for each school: www.northwest.ksu.edu/events

For any questions please contact your local Extension Agent

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