Issue 981

K-STATE Research and Extension

Extension Agronomy

eUpdate

11/02/2023

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 plants such as field pennycress, bushy wallflower, flixweed, tansy mustard, and blue mustard 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 various 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. However, 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. Also, be aware that some of the Group 2 herbicides have long rotation intervals to other crops.

Group 27 herbicides like Huskie (pyrasulfotole) or Talinor (bicyclopyrone) can 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. Applying them with fertilizer in January or February when weeds are dormant will not provide good mustard 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 is often applied too late to be effective on blue mustard.

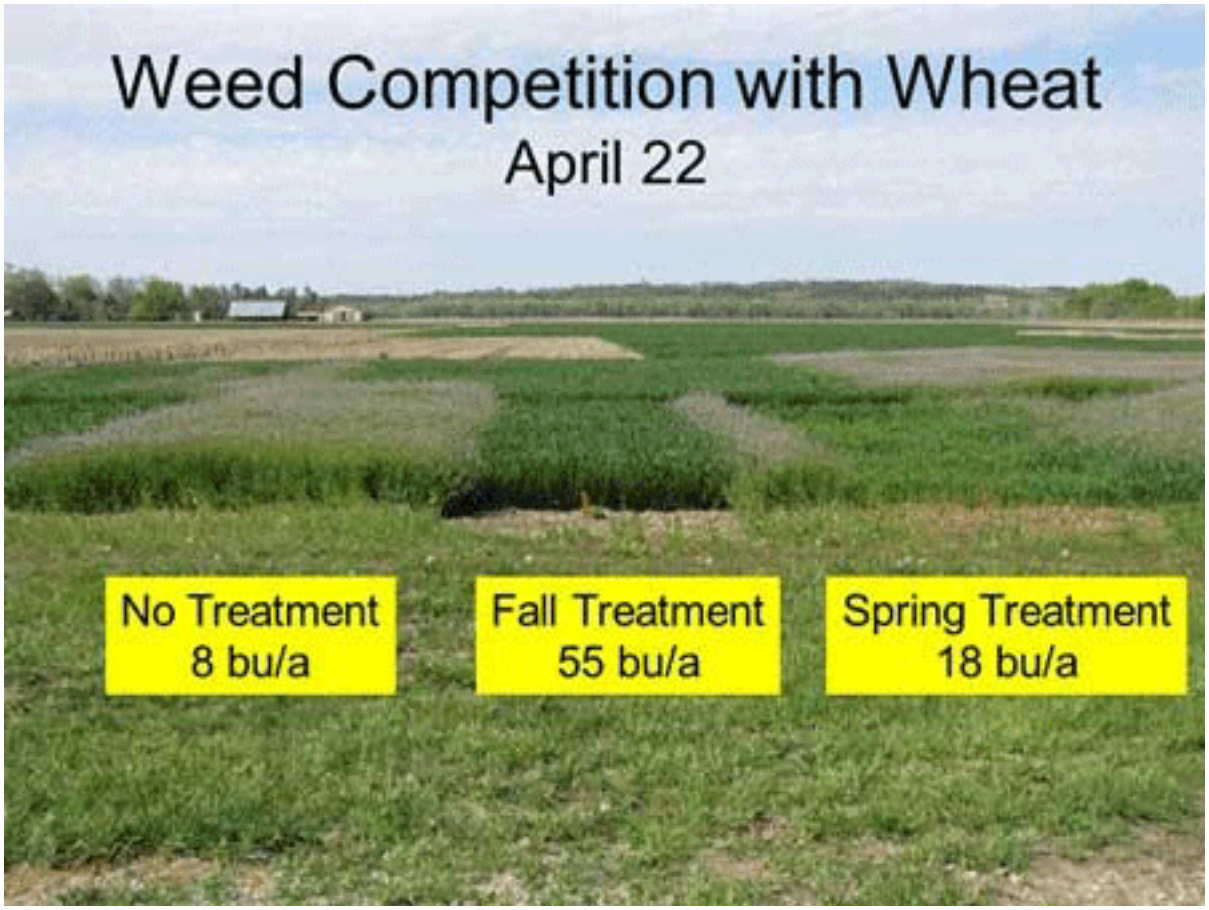

Figure 1. Effect of timing of blue mustard control in wheat: K-State research, 2014. Photo by Dallas Peterson, K-State Research and Extension.

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 before producing seeds. 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. World of Weeds - Toothed spurge

Some Extension clients reached out during late summer and early fall with questions about toothed spurge (*Euphorbia dentata*) in their fields. This unique plant is in the spurge family (Euphorbiaceae), the same family as the invasive leafy spurge and poinsettias. The plant is sometimes called green poinsettia or summer poinsettia. The common name 'spurge' is believed to come from the Latin for 'purge,' referring to the ill effects plants in the family have on digestive systems. Plants in the spurge family produce a milky sap when any plant part is broken. The sap can irritate the skin and eyes.

Ecology

Toothed spurge is a summer annual plant distributed across the United States from New York to Arizona. It is believed to be native to the United States. It is typically found in pastures, hayfields, roadsides, and other non-crop areas. It can be found in both wet and dry sites.

Identification

Toothed spurge grows upright and reaches heights between 8 and 24 inches. The round stem is hairy and can be reddish when growing in bright light.

Leaves are oppositely arranged (Figure 1). They are lanceolate and approximately 1/2 to 3 inches long with toothed margins. They usually have hairs and often have one or more dark red spots on the upper surface, especially with age (Figure 2). Lower leaves may sometimes be alternately arranged. Leaves at the ends of stems near the flowers often appear whorled.

Figure 1. Red spots on lanceolate leaves surrounding light green fruits. Photo by Kevin Bradley, University of Missouri.

Figure 2. Toothed spurge seedling. Image by Phil Westra, from Bugwood.org

Inconspicuous, white/yellow flowers without petals are found in clusters at the ends of branches. Three seeds form in a smooth, yellowish-green capsule. Seeds are dark brown/black ovals about 1/8 inch long.

Management

There is some evidence that toothed spurge is more prominent in tilled fields than in no-till fields. It is relatively tolerant of glyphosate and Group 15 herbicides like S-metolachlor (Dual, others), acetochlor (Harness, others), and dimethenamid-P (Outlook). However, dicamba, atrazine, metribuzin, and flumioxazin (Valor, others) will control this weed.

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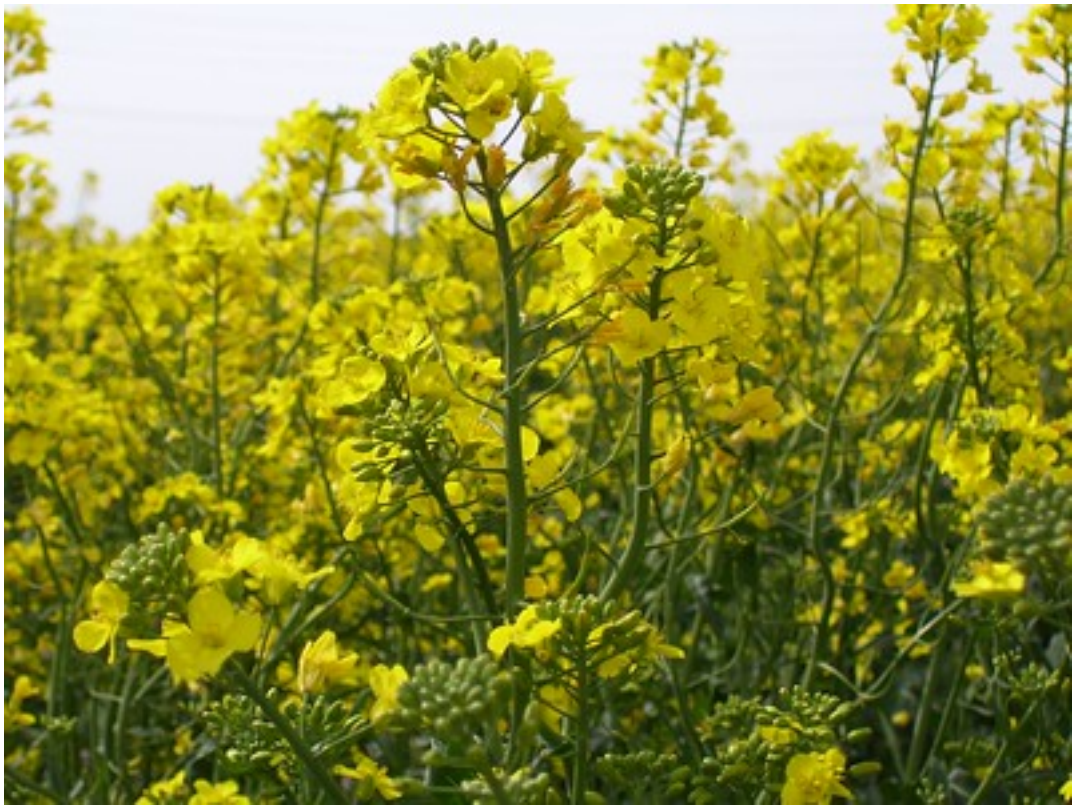
3. K-State plans winter canola field tours on Nov. 6

Kansas State University, Scoular, and the Great Plains Canola Association will host field tours in Kingman and Sumner counties on Nov. 6 in Kansas to highlight the marketing of winter canola and fall management decisions.



According to K-State canola breeder Mike Stamm, the field tours are an opportunity to see established winter canola fields or variety trials as the crop enters the colder months of the growing season. He said management decisions to ensure a good stand will be discussed, however, he points out that questions related to crop marketing remain a hot topic.

Ed Prosser, senior vice president for Omaha, Nebraska-based Scoular building a crush facility near Goodland, said, "There has never been a better time to grow winter canola in the Central Plains, with the market demand for vegetable oil soaring."

"These tours will connect farmers to Scoular experts on marketing and delivery points to help set them up for success," he said.

"Scoular's investment in the crush facility in Goodland created renewed interest in planting canola this fall," Stamm said. "With the opening of the facility still on the horizon, it is important we give producers an opportunity to get their marketing questions answered. We want to put everyone in the best position possible to harvest and market a successful crop next summer."

- The first field day on Nov. 6 will be held in Kingman County, south of Norwich, at 11 a.m. From the KS-2 and SE 150th Avenue intersection, drive north and take a left on SE 160th Street. The

plots are 1/4 mile west on the south side of the road.

- The second field day on Nov. 6 will be held in Sumner County at 3 p.m. From the US-81 and S. Sumner Rd. intersection (2.3 miles east of Caldwell), turn south and drive 1 1/4 miles. The plots are on the east side of the road.

Contact Mike Stamm for more information at 785-532-3871, or mjstamm@ksu.edu.

4. 2023 K-State Crop Pest Management Schools - Dec. 5 and 6

K-State Research and Extension and the NW Region Extension Counties/Districts are hosting two Crop Pest Management Schools, December 5 in Colby at the City Limits Convention Center and December 6 in Russell at the Elks Lodge starting at 7:45 a.m. with registration and concluding at 5:00 PM.

Join us in person to learn how to control the latest pests – weeds, insects, and diseases – affecting all crops in central and western Kansas! The entire agenda with speakers and topics is featured in the flyer below.

Commercial Applicators will earn 1 Core Hour & 7 Hours for 1A, certified by the Kansas Department of Agriculture. Certified Crop Advisors (CCA) will also earn 8 Pest Management Credits. These schools would also be an excellent educational opportunity for producers.

The cost to participate is $50 if registered by November 27; after that date, the fee is $75. Those wishing to participate are asked to **register by Monday, November 27, by midnight**. Go to http://www.northwest.k-state.edu/events/crop-pest-mangagement-school or any Extension Office website in the NW region. You can also call Jeanne Falk-Jones, K-State Research and Extension, Multi-County Agronomist, at 785-462-6281 or Craig Dinkel, Midway Extension District, at 785-472-4442.

K-State Crop Pest Management School

Focused on weeds, diseases and insects found in central and western Ks

December 5 in Colby
City Limits Convention Center

December 6 in Russell
Elks Lodge

$50, if registered by November 27
After November 27, cost is $75

Continuing Education Credits:
For 1A Commercial Applicators, 7 hours and core hour
For Certified Crop Advisors, 8 pest management credits

Register online:
www.northwest.ksu.edu/events

The Schedule:

7:45	Registration
8:05	Welcome
8:15	**Weather Influences on Herbicides** *Chip Redmond, K-State Climatologist and Mesonet Manager*
9:10	**Herbicide Application Technology Update** *Ajay Sharda, K-State Agricultural Engineer*
10:05	Break
10:20	**Emerging Diseases in Corn and Soybeans** *Maira Duffeck, Oklahoma State Plant Pathologist*
11:15	**Controlling Palmer Update in Row Crops** *Sarah Lancaster, K-State Extension Weed Scientist*
12:10	Lunch
12:50	**What You Need to Know About Adjuvants** *K-State Weed Science Team and Jay Wisbey, K-State Central Kansas District*
1:45	**Wheat Diseases That Are Problematic in Central and Western Kansas** *Craig Dinkel, K-State Midway District, Jeanne Falk Jones, K-State Agronomist, K-State Wheat Pathology*
2:40	Break
2:55	**Insects to Be on the Lookout for in 2024** *Anthony Zukoff, K-State Entomologist*
3:50	**Kansas Regulation (Core Hour)** *Kansas Dept of Ag*
4:45	Questions/Adjourn

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