Issue 1040

K-STATE Research and Extension

Extension Agronomy

eUpdate

02/13/2025

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. Late winter kochia control in fields going to soybeans, sunflowers, cotton, and wheat

This is the third and final article discussing pre-emergence herbicides for kochia control. This week, we will discuss recommendations specific to fields planted to soybeans, cotton, or sunflower this spring and wheat in the fall. Previous articles have discussed general considerations for late-winter kochia control (Issue 1037) and pre-emergence herbicides for kochia control in fields that will be planted to corn or grain sorghum (Issue 1038).

Fields going to soybeans

Start in February or early March with a tank mix of glyphosate (using a minimum of 0.75 lb ae/acre) or Gramoxone SL (minimum of 2 pts/acre) and 8 to 16 oz/acre of Clarity before kochia emergence. Clarity requires a minimum accumulation of 1 inch of rain and 28 days before planting soybeans, except for Roundup Ready 2 Xtend or XtendFlex soybeans. As indicated by the label, Clarity cannot be used as a pre-plant treatment in soybeans in areas with less than 25 inches of annual rainfall. Other dicamba-containing products may have different plant-back restrictions, so consult the label if using one of these products. Paraquat tank-mixed with metribuzin (Dimetric, others) will provide extended residual control of kochia as long as the kochia population is susceptible to triazine herbicides. Be aware of rate restrictions for metribuzin in western KS, as soil and environmental characteristics influence the potential for soybean injury following metribuzin.

Sulfentrazone-based products (Spartan, others) could also be considered for use prior to kochia emergence to manage an early flush. (Figures 1 and 2). However, it's important to note the crop rotation restrictions on these products. Pyroxasulfone (Zidua) also has activity on kochia, although more rain is required for activation. Figure 1 illustrates the efficacy of various pre-emergence herbicide programs for controlling glyphosate- and dicamba-resistant kochia in Roundup Ready 2 Xtend soybeans planted in no-till dryland fields at Hays, KS. These treatments were applied to emerged kochia on May 23. All treatments also included Roundup PowerMax.

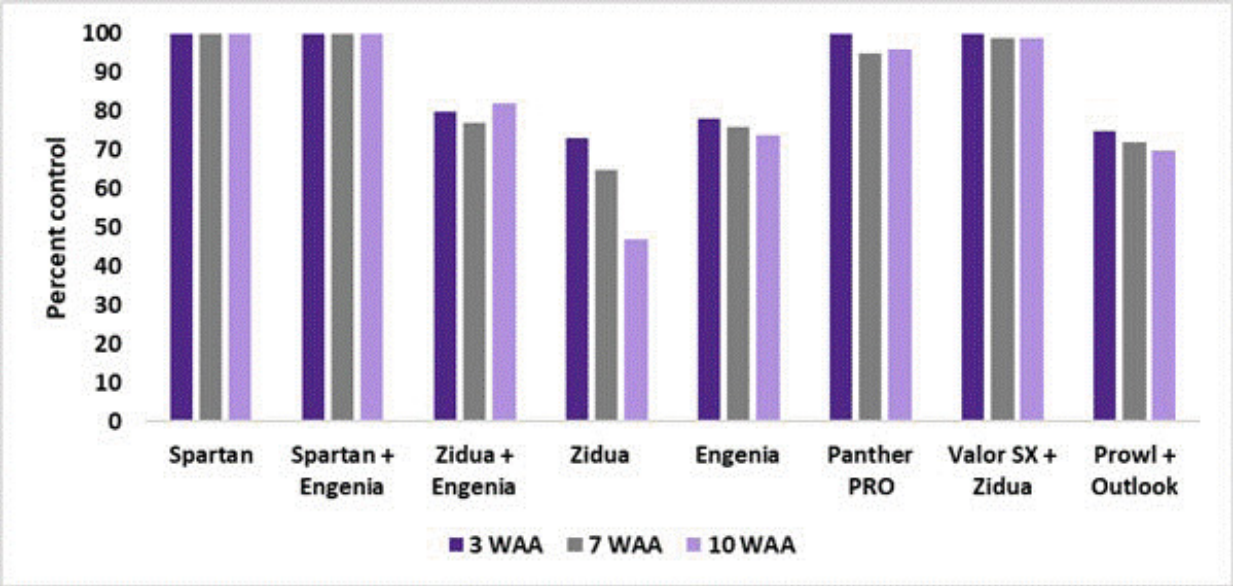

Figure 1. Kochia control following pre-emergence herbicide application in no-till dryland

soybean in Hays, KS (WAA= weeks after application). Note that Engenia is not labeled for use in 2025; other dicamba formulations can be substituted. Data collected by Vipan Kumar, K-State Research and Extension.

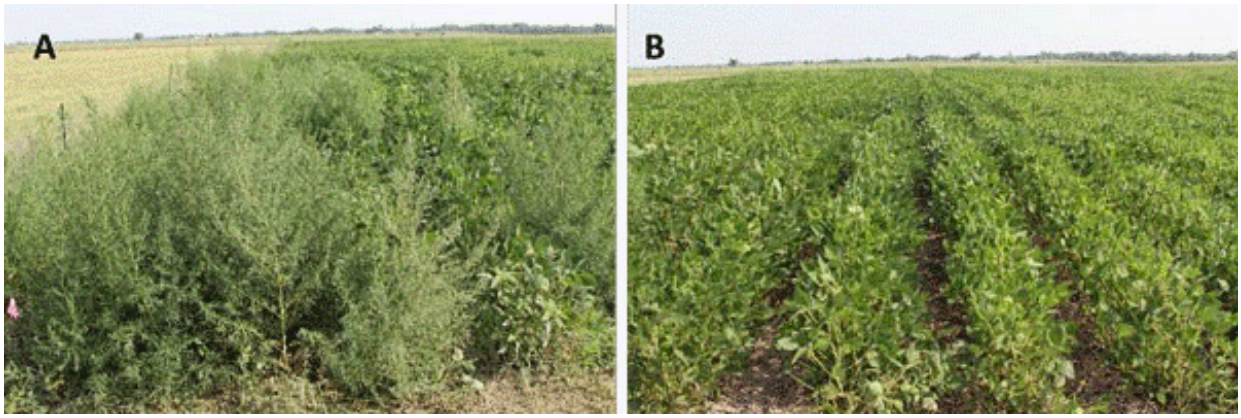

Figure 2. Kochia control in non-treated plot (A) and with PRE applied Spartan (B) in Roundup Ready 2 Xtend soybean at 7 weeks after treatment (WAT). Photos by Vipan Kumar, K-State Research and Extension.

Fields going to sunflowers

Planting sunflowers into a clean seedbed is key to achieving good season-long control of all broadleaf and grassy weeds. But, it is especially important for getting good control of any weed populations, such as kochia, that are resistant to glyphosate or ALS-inhibiting herbicides and cannot be controlled with post-emergence herbicides in sunflowers.

The best approach to control ALS/glyphosate-resistant kochia in sunflower is to start in February/early March with a tank-mix of Gramoxone (using a minimum of 2 pts/acre) and Spartan, Spartan Charge (sulfentrazone+Aim), Broadaxe or Authority Elite (sulfentrazone+Dual Magnum), or Authority Supreme/Authority Edge (sulfentrazone+Zidua) before kochia begins to germinate. Select pre-emergence products effective on kochia and apply additional pre-emergence herbicides at planting to extend control of kochia and other weeds. Dicamba is not an option in these applications due to label restrictions. Monitor fields closely, as additional Gramoxone SL treatments may be required before sunflower planting.

Fields going to cotton

Effective kochia control in cotton often requires a pre-plant application two to three months ahead of the typical May planting. Dicamba (Banvel, others) plus flumioxazin (Valor, others) applied in February prior to kochia emergence can be effective, and any cotton variety can be planted 30 days after application. Prometryn (Caparol) is also an option with some preemergence kochia activity, but a 12-month recropping restriction exists for all crops other than cotton (anytime) and corn (5 months). Should a burndown of kochia become necessary, Gramoxone should be used, along with an approved tank-mix partner such as Caparol, Cotaran (fluometuron), or Karmex (diuron).

Fields going to fall-planted wheat

If kochia is emerging in fields to be planted to wheat this fall, atrazine cannot be used. Metribuzin can be substituted for atrazine and has a 4-month plant-back restriction for wheat. Additional products include Scoparia, Authority MTZ, and products containing sulfentrazone or isoxaflutole. Zidua also has good activity but requires significant rainfall for activation, so it should be applied with dicamba.

Consult the 2025 K-State Chemical Weed Control Guide (SRP 1190) for more information on controlling kochia: https://bookstore.ksre.ksu.edu/item/2025-chemical-weed-control-for-field-crops-pastures-rangeland-and-noncropland_SRP1190

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.

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2. Native grasses: Management factors during and after stand establishment

Management options during the establishment phase

Overgrazing and weed control are the two most important management considerations during establishment. Depending on stand establishment, grazing should be avoided during the first and possibly the second growing season. Especially consider limiting grazing and cutting pressure in stands that are slow to establishment due to limited rainfall. Short periods of grazing (flash grazing) for weed control early in the first growing season are encouraged to stimulate tillering in the new seedlings. For example, graze for 1 day with enough animals to remove the weeds without damaging the grass seedlings.

Haying during the year of seeding may be beneficial if enough forage is produced, but setting the mower to at least 4-inch height will ensure that the plants can readily regrow. As a general rule, hay most native species after the first week of July. This will allow the plants to develop tiller buds for the following year and build reserves for early growth.

Figure 1. Native prairie a few weeks after hay harvesting. Photo: B. Pedreira, K-State Research and Extension.

Weed control

Weed control helps reduce competition for moisture, nutrients, and sunlight in new seedings. When weed control is necessary, the main methods are mowing and herbicides. Dense shade created by annual grasses is the greatest concern, the most commonly encountered are downy brome, Japanese brome, crabgrass, and foxtail. Weed control is most beneficial during May and June with little benefit in August. Preplant or preemergence herbicides are labeled for some species and situations. Consider using an herbicide wipe-on applicator if weeds are 6 inches taller than the desirable grass or spot spray if the weeds are not spread throughout the whole field. Consult the K-State *2025 Chemical Weed Control for Field Crops, Pastures, Rangeland, and Noncropland* (bookstore.ksre.ksu.edu/pubs/CHEMWEEDGUIDE.pdf) for current herbicide recommendations for products, rates, and timing.

Mow before weedy plants produce seeds. Generally, broadleaf weeds should be mowed before they are 8 inches tall. Annual grasses should be mowed to prevent seed production. Herbicides may be used to reduce annual or perennial broadleaf weeds after the grass plants have become established. Consult the label for application restrictions and instructions.

Chemicals must be federally and state registered. They also must be applied in accordance with authorized registered uses, directions, and cautions on the label and all other federal and state policies and requirements.

Management options after establishment

After establishment, seeded areas should be managed to promote tillering and to keep the soil covered. A great forage stand reduces erosion and runoff, minimizing soil loss, providing high forage production, and improving wildlife habitat.

New stands must be grazed following appropriate stocking rates, good grazing distribution, and proper season of use. Proper management of a seeded grass stand is a must with the investment of time, money, and labor involved in establishing it. Stocking rate information can be found in MF1118.

Haying should be done in early July to harvest the highest combination of forage accumulation and nutrient value. A minimum cutting height of 4 inches is recommended to ensure plants have adequate opportunity to regrow and build reserves for the following season.

Prescribed burning should be done in late spring, just as the seeded grasses are starting to grow (less than 1½inches). Burning at this stage stimulates tillering, removes the last year's dead forage, and increases forage quality. Prescribed burning can be done as early as one growing season after seeding. This burning is not suggested for cool-season forages.

This article originated from the recently released KSRE publication *Establishing Native Grasses (MF2291)* and can be viewed online at bookstore.ksre.ksu.edu/pubs/MF2291.pdf

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Bruno Pedreira, former Southeast Area Agronomist

Walt Fick, Professor Emeritus – Range Management

3. K-State Crop Talk webinar series started on February 11

The popular K-State Crop Talk online webinar series is back! The Crop Talk series will highlight several topics important to crop producers in north central and northwest Kansas. Topics include weed management, maximizing irrigation applications, leveraging precision ag tools, dryland tillage and rotations, and corn stunt. Continuing education credits will be offered, with one credit for each session.

Each webinar will begin at 12:00 pm (CST) and last until 1:00 pm. The first webinar occurred on February 11 and will continue every Tuesday until March 11.

Upon registration, participants will receive an email with instructions on how to attend via Zoom or YouTube. These virtual webinars are open to all, and there is no cost. Register online at https://www.northwest.k-state.edu/events or call your local extension office.

A complete list of the remaining webinars, with dates, topics, and speakers, is detailed below.

February 18 – **Getting the Most out of Your Irrigation Water**
Jonathan Aguilar, K-State Irrigation Engineer

February 25 – **Leveraging Precision Ag Tools**
Deepak Joshi, K-State Precision Ag Specialist

March 4 – **Dryland Tillage and Rotations**
Lucas Haag, K-State Northwest Area Agronomist

March 11 – A New Corn Disease: Corn Stunt
Anthony Zukoff, K-State Entomologist and Rodrigo Onofre, K-State Plant Pathologist


Broadcast Live
12:00pm - 1:00pm CST via ZOOM and YouTube
CROPtalk
Webinar Series
K-STATE
Research and Extension
Focused on crop production in Northwest and North Central Kansas
February
11
Weed Management in the Age of New Technology
Sarah Lancaster,
K-State Extension Weed Scientist
18
Getting the Most Out of Your Irrigation Water
Jonathan Aguilar,
K-State Irrigation Engineer
25
Leveraging Precision Ag Tools
Deepak Joshi,
K-State Extension
Precision Ag Specialist
March
4
Dryland Tillage and Rotations
Lucas Haag,
K-State NW Area Agronomist
11
A New Corn Disease: Corn Stunt
Anthony Zukoff,
K-State Entomologist
Rodrigo Onofre,
K-State Plant Pathologist
Certified Crop Advisor (CCA) Credits will be offered
register to attend at
www.northwest.ksu.edu/events
Links for joining will be sent after registration
For more information, contact Sandra L. Wick
Post Rock Extension District Crop Production Agent
swick@ksu.edu 785-282-6823 postrock.ksu.edu
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Kansas State University Agricultural Experiment Station and Cooperative Extension Service
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4. Weed Management Schools for northwest and north central Kansas

A series of weed management schools will take place in northwest and north central Kansas during the month of February and are hosted by local K-State Research & Extension county and district offices.

Controlling difficult weeds continues to be a significant challenge for producers. To address the topic of weed control, K-State Research and Extension has scheduled five regional weed control programs in February. This program has been designed to help producers and agri-business retailers improve weed control with challenging species and weather conditions.

The remaining dates and locations are:

February 13 in Ness City, KS – 5:30 p.m. to 8:30 p.m.
Ness County 4-H Building

February 17 in Mankato, KS – 3:00 p.m. to 6:00 p.m.
Mankato Community Center 214 N. High Street

February 18 in Holyrood, KS - 9:30 a.m. to 12:30 p.m.
St. Peter Lutheran Church Parish Hall 209 S County Rd

Presenters at the schools include Sarah Lancaster, K-State extension weed science specialist, Jeremie Kouame, K-State weed scientist, and local KSRE extension agents. Topics will include:

- A systems approach to weed management
- Pre-emergent herbicides and climate
- Strategic and occasional tillage for weed management
- Know your K-State Chemical Weed Control book

Three credit hours for 1A certification and CCA credits have been applied for.

There is no cost for the schools. However, pre-registration is requested for all meetings. You can register online at www.northwest.ksu.edu/events or by calling your local Extension Office.

2025
K-State NW Weed Management Schools

Topics

- A systems approach to weed management
- Pre-emergent herbicides and climate
- Sorghum pre-emergent and weed size for post applications
- Strategic and Occasional Tillage

Speakers

- Sarah Lancaster, K-State Extension Weed Specialist
- Jeremie Kouame, K-State Weed Scientist

There is no cost to attend. See specific location information at www.northwest.ksu.edu/events

Wednesday	Thursday	Thursday	Monday	Tuesday
February 12, 2025	*February 13, 2025*	*February 13, 2025*	*February 17, 2025*	*February 18, 2025*
5:30pm - 8:30pm	**9:30am - 12:30pm**	**5:30pm - 8:30pm**	**3:00pm - 6:00pm**	**9:30am - 12:30pm**
Cheyenne Co. 4-H Building North College St. St. Francis, KS	Phillips County Fair Building 1481 HWY 183 Phillipsburg, KS	Ness County 4-H Building 302 W. Nevada Ness City, KS	Mankato Community Center 214 N. High Street Mankato, KS	St. Peter Lutheran Church Parish Hall 209 S County Rd Holyrood, KS
Sunflower District 785-462-6281	Phillips-Rooks District 785-543-6845	Walnut Creek District 785-798-3921	Post Rock District 785-282-6823	Midway District 785-472-4442 Cottonwood District 785-628-9430

REGISTER NOW

K-STATE Research and Extension

Please register by **Feb 10th**
www.northwest.ksu.edu/events

Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to physical, vision or hearing disability, contact Jeanne Falk Jones, K-State Agronomist for 785-462-6281.

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www.agronomy.ksu.edu | www.facebook.com/KState.Agron | www.twitter.com/KStateAgron

5. Updated: Weed Management Schools for southwest and south central Kansas

A series of weed management schools will occur in southwest and south central Kansas hosted by local K-State Research & Extension county and district offices.

Controlling difficult weeds continues to be a significant challenge for producers. To address the topic of weed control, K-State Research and Extension has scheduled four regional weed control programs in February and March. This program has been designed to help producers and agri-business retailers improve weed control with challenging species and weather conditions.

The dates and locations are:

Rescheduled for February 19 in Syracuse, KS – 11:30 AM (MT)
Hamilton County Fair Building, 806 S Main St, Syracuse, KS 67878
RSVP to Lora Horton at ljhorton@ksu.edu or 620-384-5225

March 11 in Kiowa, KS – 9:00 AM (CT)
Kiowa Community Center, 119 S 5th St., Kiowa, KS 67070
RSVP to Matt Rhodes at amrhodes@ksu.edu or 620-886-3971

March 11 in Lewis, KS – 4:00 PM (CT)
Mankato Community Center 214 N. High Street
RSVP to Baley Doggett at baley@ksu.edu or 620-659-3004

Presenters at the schools include Pat Geier, K-State extension weed scientist, Logan Simon, K-State agronomist, and Deepak Joshi, K-State precision ag extension specialist. Topics will include:

- Weed identification
- Weather influences and herbicides
- Perennial grass control in cropland
- Robots/precision technologies for weed management

CCA credits have been applied for.

There is no cost for the schools and a meal is provided at each school. However, pre-registration is requested for all meetings.