Issue 1086

K-STATE Research and Extension

Extension Agronomy

eUpdate

01/15/2026

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. Site-Specific Weed Management and Targeted Sprayers: The Basics and Use in Fallow Systems

Introduction

Site-specific weed management (SSWM) is the process of managing weeds only where they occur, instead of treating the entire field, including areas without weeds. This management system has been very helpful in reducing herbicide inputs and costs. Different technologies are commercially available to farmers for targeting weeds in both fallow settings and in-crop scenarios. Application systems using real-time weed detection can immediately turn on one or more spray nozzles to treat detected and/or identified weed plants. Platforms could have one or more spray booms with one or more tanks to allow for different herbicide mixtures that could include both broadcast and targeted applications.

This article discusses the basics of how these technologies work and how farmers can apply them in fallow systems. A second companion article will outline in-crop systems, recent K-State research, and herbicide cost savings.

Precision weed control in fallow settings

Targeted application systems that can detect/sense and spray emerged weeds on bare soil or fallow ground have been used for several decades. Optically-guided systems such as WEED-IT (Figure 1) and WeedSeeker® (Trimble Ag) work by detecting reflectance data from the ground. Such sprayers have detected weeds with a more than 95% positive rate.

Even newer technology uses machine vision, with cameras mounted on the boom that continuously take images of the fallow ground. Then the image data is transferred to the sprayer's processing unit to detect 'green' weeds, and specific nozzles are activated to target-spray the weed (e.g., John Deere See & Spray™ Select). The number of nozzles activated can vary based on weed pressure within that area of the field (Figure 2). Based on the sprayer settings for detection sensitivity, the sprayer can switch between targeted spraying and broadcast spraying to ensure that weeds are not missed.

Figure 1. WEED-IT Quadro Red emits red LED lighting and detects returning chlorophyll fluorescence from plants. Image Courtesy Weed-IT (https://weed-it.com/what-is-weed-it/).

Figure 2. The number of nozzles activated by a weed detection system depends on weed pressure within that area of the field. Image courtesy of John Deere: https://www.deere.com/en/sprayers/see-spray.

How weed detection sensitivity works

The artificial intelligence algorithms that are used in the commercial sprayers (combining computer vision and machine learning) can be adjusted for their detection sensitivity, or how well they detect only weeds and not crop plants. Correctly identifying only a weed results in only spraying that weed (true positive), while incorrectly identifying a crop as a weed results in triggering the system to spray that crop plant (false positive). If weeds are present but not detected (false negative), the weed is not sprayed, and if there are no weed plants and the sprayer is not triggered to turn on, that would be a true negative. In this context, the false negatives are a concern because weeds remain untreated.

The benefit is that the threshold to classify a weed can be adjusted, ultimately affecting overall performance and resulting in more true positives. Thresholds are related to the size or area of the weed plant that can be detected. A small threshold represents high sensitivity and triggers more frequent spraying. A larger threshold reduces sensitivity, resulting in fewer applications and less herbicide use.

Sensitivity settings are used to determine the confidence of the algorithm in correctly detecting a weed, with lower thresholds increasing the probability of detecting more weeds and higher thresholds likely resulting in missed weed detections. In terms of precision spraying, these confidence intervals can translate to an efficacy (lower) threshold with more herbicide applied or a savings (higher) threshold approach resulting in less herbicide being applied. A fallback mode enables the machine to transition between targeted applications and broadcast applications whenever the boom encounters issues, including high weed pressure (i.e., a large area of green detected by the camera).

Application accuracy and sprayer settings

If booms and travel speeds are both low, an individual detected weed can be targeted accurately with relatively short band lengths because relatively little can happen to displace the spray during its short journey. However, as boom and travel speeds increase, predicting the time it takes for the spray to arrive at the target becomes more challenging, and longer band lengths need to be programmed. For example, wind can push the spray off its target. Or the faster speeds impart more of a horizontal vector to the spray, causing it to land further away from the point of release. Wind, droplet size, spray velocity, and boom height all influence where the spray ultimately lands.

This article establishes how targeted spraying works in fallow fields and introduces the concepts behind detection sensitivity and spray accuracy. The next article will focus on in-crop systems and the economic benefits of targeted spraying.

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Anita Dille, Professor – Weed Ecology
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2. Site-Specific Weed Management and Targeted Sprayers: In-Crop Systems and Herbicide Savings

Introduction

While targeted spraying has been widely adopted in fallow systems, recent advances in computer vision and machine learning have made site-specific weed management (SSWM) possible in cropped fields. These "green-on-green" systems are more complex because they must distinguish weeds from crop plants, but they offer significant potential for reducing herbicide use while maintaining effective weed control.

Precision in-crop weed control

Multiple targeted sprayer systems with automatic detection and actuation controls have been recently commercialized for in-crop weed control, with excellent performance for SSWM. In general, these systems use cameras that can accurately classify and localize weeds and crop plants to activate nozzles and precisely spray weeds in the crop. Examples include the See & Spray™ Technology from John Deere (https://www.deere.com/en/sprayers/see-spray/), Greeneye™ Technology (https://greeneye.ag/), and the ONE SMART SPRAY (https://www.onesmartspray.com/) system, which is a joint venture of Bosch and BASF Smart Farming.

Cameras and processors are mounted on the boom and utilize the combined power of computer vision and machine learning to detect and distinguish weeds from crop plants (Figure 1). The accuracy of the target spray is improved by boom height control systems. Different systems have explored how to use dual-boom, dual-tank, and plumbing systems to allow simultaneous broadcast and targeted applications in one pass through the field.

- Single-tank systems can target-apply all herbicides, including residual herbicides, specifically to weeds or apply only postemergence herbicides in one pass.
- In dual-tank systems, the first boom can apply residual or broadcast herbicides while the second boom can target-apply to emerged weeds in one pass.

Figure 1. Lighting units, cameras and nozzles on the ONE SMART SPRAY sprayer system. Image courtesy ONE SMART SPRAY (https://www.onesmartspray.com/).

Detection performance and sensitivity tradeoffs

Sensitivity settings determine the confidence level of weed detection. Lower thresholds increase the probability of detecting weeds but may increase herbicide use. Higher thresholds increase herbicide savings but increase the risk of missing weeds. These settings allow operators to choose between an efficacy-focused approach (lower threshold) and a savings-focused approach (higher thresholds). A fallback mode enables the machine to transition between targeted applications and broadcast applications whenever the boom encounters issues, including high weed pressure.

Herbicide and cost savings

Key factors that will help achieve effective weed control and maximize herbicide savings when using targeted spray technologies include the sensitivity setting, overall lower weed pressure, the use of pre-emergence residual herbicides, and early-POST applications. The ability of the cameras to detect very small areas of green plant material allows for more herbicide savings. Increased cost savings will generally be associated with fields that have less weed pressure at the time of spraying. Therefore, fields with strong and effective soil-applied residual herbicide control will offer greater potential for herbicide savings with fewer weeds to target during the early-POST application pass.

Research from K-State in 2023 in Manhattan evaluated the impact of four herbicide programs and four sensitivity levels on the cost savings of the ONE SMART SPRAY system in corn and soybean. The herbicide programs were composed of:

- A two-pass "**Residual-at-plant**" approach with a fallow application including simultaneous broadcast soil-residual and targeted foliar herbicides, followed by an in-crop targeted application of foliar herbicides only.
- A two-pass "**Overlapping-residual"** approach with a split application of soil-residual herbicides for both fallow and in-crop timings as well as targeted foliar herbicides at each timing.
- A "**Spike**" approach in which a base recommended rate of foliar herbicide was broadcast for both fallow and in-crop timings, with the goal to control small, undetected weeds, and superimposed with a targeted spike application to increase the rate of the same herbicides when weeds were detected and to increase the likelihood of control.
- A two-pass "**Spot-spray-only**" approach with targeted applications of foliar herbicides in both fallow and in-crop timings, with no broadcast soil-residual herbicides applied.

The four sensitivity levels were: traditional **Broadcast**, **Efficacy** (with some false positives), **Balanced**, and **Savings** (with no false positives). The "as-applied maps" generated by the sprayer, showing when the nozzles are turned on and off, can be used to determine the percentage of each field/area that was actually sprayed.

Results of research on cost savings

For both corn and soybean, the three detection thresholds resulted in lower costs than the

corresponding Broadcast application across all herbicide programs (Figure 2). The Spot-spray-only (SS Only) program with all three SS detection thresholds cost less than the Residual-at-plant, Overlapping-residual (because of broadcast soil-residual herbicides), and Spike (because of broadcast foliar herbicides) programs. However, poorer weed control was observed with the SS Only program.

The average savings across the three detection thresholds was $50 per acre for soybean but only $17.41 per acre for corn compared to broadcast. The difference in savings between the soybean and corn studies could be attributed to weed pressure and crop growth stages. The soybean field had less weed pressure than the corn field, resulting in fewer detections and less frequent herbicide applications. Also, the in-crop application to taller corn plants (at the V5 growth stage) had corn leaves that reduced the space visible between rows, led the ONE SMART SPRAY sprayer to default to a broadcast application when interrow space could not be clearly observed.

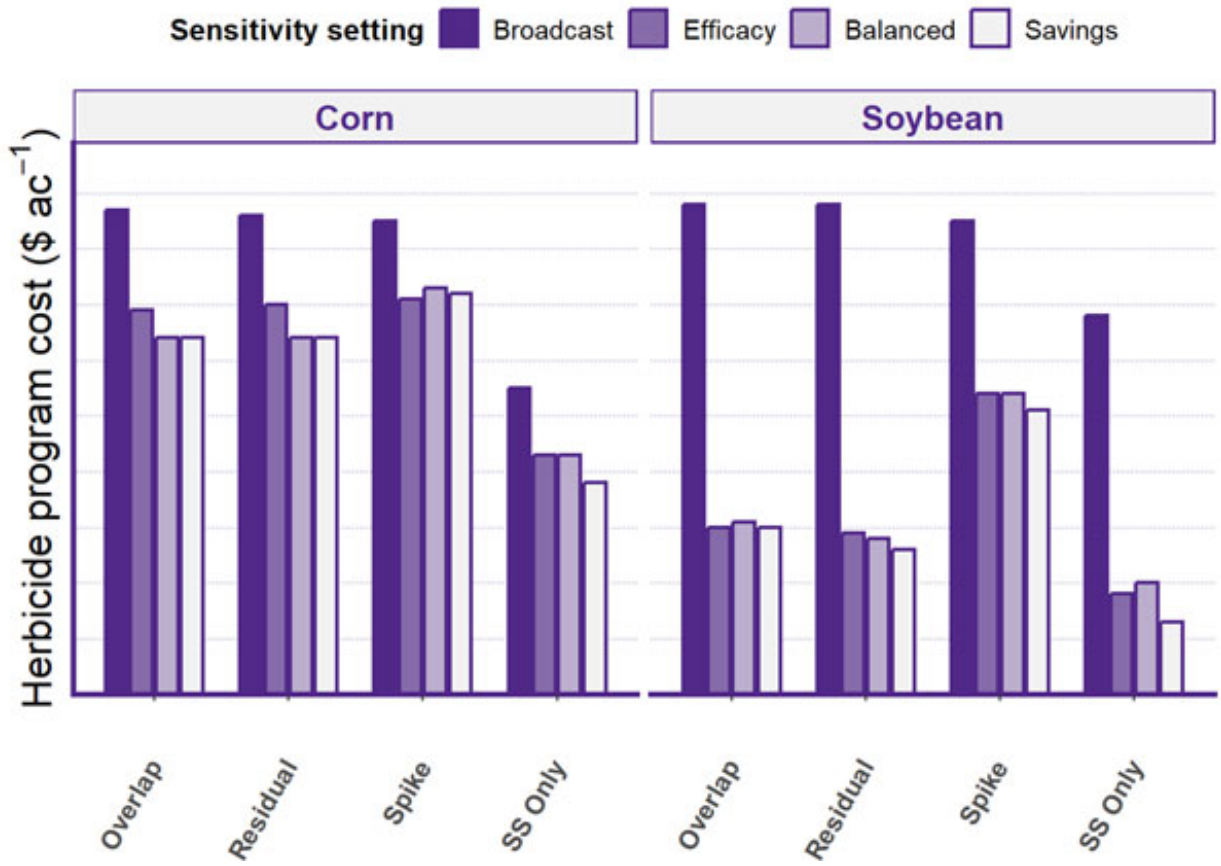

Figure 2. Herbicide program costs for corn and soybean when comparing four herbicide programs: [Overlap (Overlapping residual), Residual (Residual at-plant), Spike, SS Only (Spot-spray-only)] and four sensitivity levels of the ONE SMART SPRAY system. Research conducted in Manhattan, KS, in 2023.

Take-home message

Targeted in-crop spraying systems can reduce herbicide use. Additionally, this research highlights

that residual herbicides and multiple passes of foliar herbicides are still important when using this technology. Growers would benefit from using two-boom, two-tank targeted sprayers for these simultaneous applications. Incorporating integrated weed management principles with this technology remains very important.

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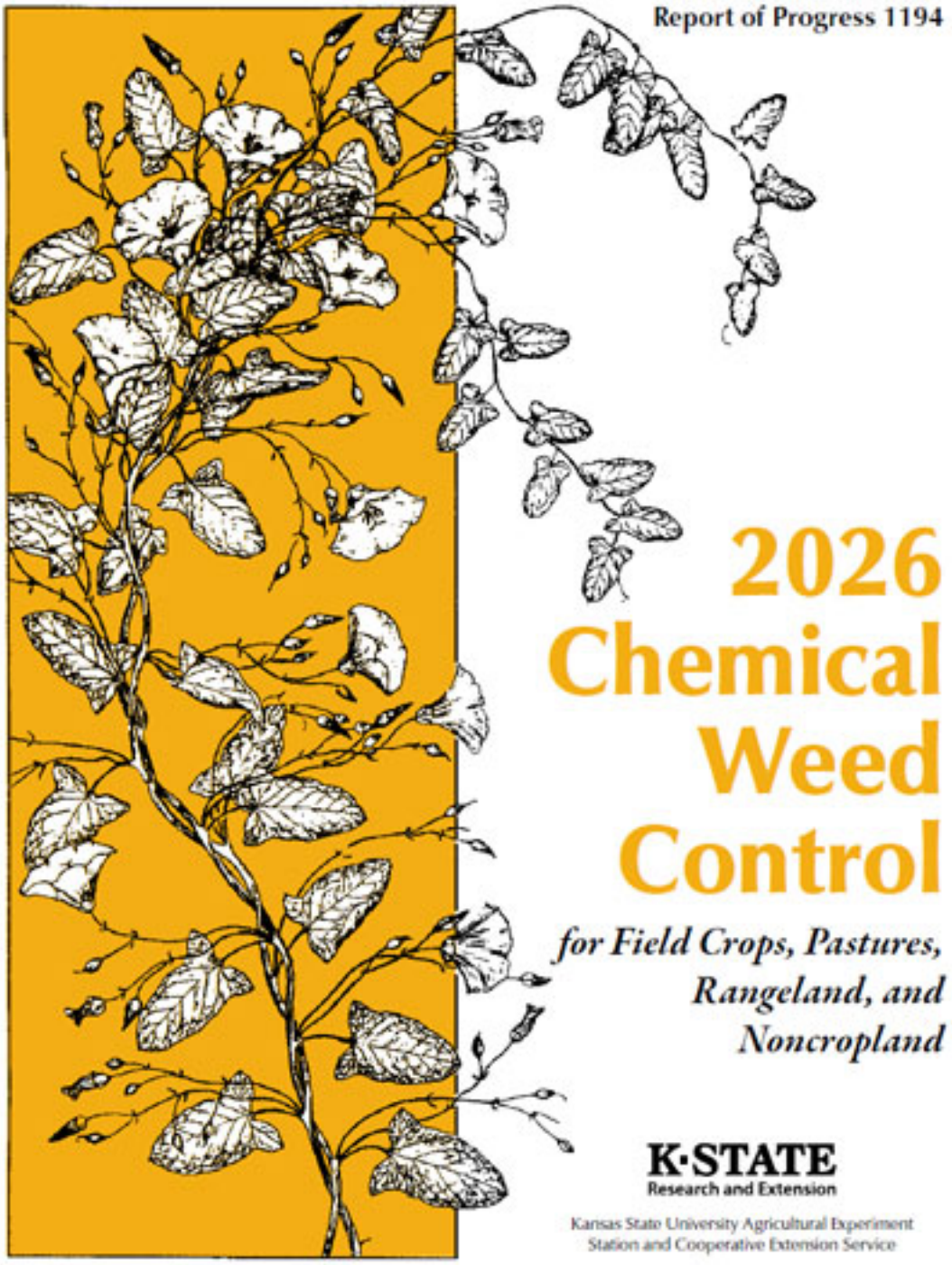
3. K-State 2026 Chemical Weed Control Guide is Now Available Online

One of the most popular K-State Research and Extension publications is here! This annually updated guide provides herbicide recommendations, application guidance, and comparative information for major field crops, fallow, pastures, rangeland, and noncropland areas, along with sections on herbicide modes of action, resistance management, and application best practices. For crops not listed, consult your local K-State Extension agricultural agent.

Some of the updates added for 2026 include information on forage sorghum, efficacy of residual herbicides in fallow, preemergence herbicides for oats, a devil's claw rating for cotton, and two new products, Intrava DX and NovaGraz. Additional updates may be implemented in the online edition in March 2026 if new information is released.



How can I access the online version?

The online version of the 2026 K-State Chemical Weed Control Guide is available at:

https://bookstore.ksre.ksu.edu/item/2026-chemical-weed-control-for-field-crops-pastures-rangeland-and-noncropland_SRP1194

You can also use the camera app on a mobile device and scan the QR code below to be directed to the Weed Control Guide.

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2004 Throckmorton Plant Sciences Center | Manhattan, KS 66506
www.agronomy.ksu.edu | www.facebook.com/KState.Agron | www.twitter.com/KStateAgron

When viewing the file in a web browser or in Adobe, bookmarks can be accessed to guide you to the first page of every section (options vary per program settings and device type).

How can I order copies?

If you would like to purchase hard copies of the 2026 Weed Control Guide, use the 2025-2026 Kansas Ag Experiment Station Order Form.

Sarah Lancaster, Extension Weed Science Specialist
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4. Share Your Input: Digital Ag and AI Survey for Farmers

Are you a Kansas farmer working in row crops, specialty crops, or livestock/ranching? We invite you to share your perspective on Digital Agriculture and Artificial Intelligence (AI) in farming systems by completing a brief survey.

Your survey responses will help identify opportunities, challenges, and resource needs across Kansas as these technologies continue to evolve.

The information collected in this survey is strictly confidential and will be used solely for academic and educational purposes. All responses are anonymous and will not be linked to any individual. We appreciate your participation and collaboration.

The survey takes less than 10 minutes to complete and is open to all producers and growers in Kansas.

Scan the QR code in the flyer or click the link below to participate:
https://kstate.qualtrics.com/jfe/form/SV_bwoxVYFC5t10Wge

Deepak Joshi, Precision Ag Extension Specialist
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5. Cover Your Acres Winter Conference set for Jan. 20–21 in Oberlin

The **23rd annual Cover Your Acres Winter Conference** for crop producers and agronomy professionals will be held **January 20–21, 2026**, at The Gateway Civic Center in Oberlin, Kansas.

Cover Your Acres is a producer-driven meeting featuring new ideas and research-based updates for crop production in northwest Kansas and the Central High Plains. In response to current challenges, this year's program also includes agricultural economics, legal, and risk management topics.

The conference highlights the latest technology, methods, and conservation practices to improve crop production in the region. University specialists and industry experts will discuss what's driving profitability on northwest Kansas farms. This year's sessions will focus on crop fertility needs, weed control and site-specific weed management, intensifying rotations, forages, crop markets, crop insurance, legal issues for farmers, and much more!

The same program will be offered both days (see below or on the website), allowing participants to choose the day that best fits their schedule. Those attending both days may find it easier to attend most or all sessions.

Online registration is open.

After January 14 and for walk-ins, registration is $80 per day.

The registration fee includes lunch, morning and afternoon refreshments, and educational materials.

The program will offer continuing education units (CEUs) for Certified Crop Advisors and 1A credit for commercial applicators at select sessions.

For conference details, lodging accommodations, and online registration, visit **https://www.coveryouracres.com/**. For questions, contact Jeanne Falk Jones at 785-443-3403.

Many thanks to these confirmed 2026 Platinum Sponsors: K-State Research and Extension, AKRS Equipment, Hoxie Implement Co., 4G Farm and Sales, Lang Diesel, Inc., and SurePoint Ag Systems.

Cover Your Acres
Winter Conference

January 20 and 21, 2026
Full Program Offered Each Day
The Gateway, Oberlin, KS

Register at www.CoverYourAcres.com

K-STATE Research and Extension

		Room 1	Room 2	Room 3	Room 4
7:45	8:15	Registration			
8:15	8:20	Welcome			
8:30	9:20	Crop Prices and Equitable Lease Arrangements [1] *(M. Wood and G. Conover)*	Navigating the 2026 Crop Insurance Decision, with SCO and ECO [1] *(J. Iffi)*	Meeting Crop Nutrient Needs in Lean Times [1] *(D. Ruiz-Diaz)*	
9:30	10:20	Top 5 Legal Issues Farmers Don't Think Of, But Should [1] *(R. McEowen)*	Considerations for Intensifying Crop Rotations [1] *(L. Haag)*	Incorporating Forages into Dryland Rotations *(A. Obour)*	Industry Session
10:20	10:50	View Exhibits			
10:50	11:40	2026 Grain Market Outlook and Strategies [1] *(D. O'Brien)*	Weather Resources and 2026 Outlook [1,2] *(C. Redmond)*	Weed Control in Crop Rotations [1,2] *(J. Falk Jones)*	Industry Session
11:50	12:40	Navigating the 2026 Crop Insurance Decision, with SCO and ECO [1] *(J. Iffi)*	Early Experiences with Targeted Herbicide Applications in Kansas [1,2] *(S. Lancaster)*	Lunch	
12:50	1:40	Meeting Crop Nutrient Needs in Lean Times [1] *(D. Ruiz-Diaz)*	2026 Grain Market Outlook and Strategies [1] *(D. O'Brien)*		
1:50	2:40	Considerations for Intensifying Crop Rotations [1] *(L. Haag)*	Top 5 Legal Issues Farmers Don't Think Of, But Should [1] *(R. McEowen)*	Weather Resources and 2026 Outlook [1,2] *(C. Redmond)*	Industry Session
2:40	3:10	View Exhibits			
3:10	4:00	Weed Control in Crop Rotations [1,2] *(J. Falk Jones)*	Incorporating Forages into Dryland Rotations *(A. Obour)*		Industry Session
4:10	5:00	Early Experiences with Targeted Herbicide Applications in Kansas [1,2] *(S. Lancaster)*	Crop Prices and Equitable Lease Arrangements [1] *(M. Wood and G. Conover)*	[1] CCA CEUs applied for [2] Commercial Applicator CEUs approved	

Register to Attend:

Platinum Sponsors:

SurePoint Ag Systems · 4G Farm & Safety · AKRS Equipment · HOXIE Implement Co., Inc · LDI

2026 Session Descriptions

2026 Grain Market Outlook and Strategies: Grain market prospects for 2026 depend on how seasonal market supply and demand looks and whether local crop usage will be strong enough to avoid the 'weak grain basis' and 'scarce selling opportunities'.

Crop Prices and Equitable Lease Arrangements: Using data from NW KS farms, we take a look at profitability and how it factors into negotiating lease terms that are equitable to both landlord and tenant.

Considerations for Intensifying Crop Rotations: As we look at intensifying crop rotations, what factors should be considered? We'll take a look at research results from various long-term dryland trials with insight into this.

Early Experiences with Targeted Herbicide Applications in Kansas: Information from interviews with early adopters of the technology and from in-field research trials will be covered.

Incorporating Forages into Dryland Rotations: A look at where forages fit into dryland cropping systems and how they affect the overall rotation.

Meeting Crop Nutrient Needs in Lean Economic Times: Determining how to spend the fertilizer budget can be challenging. Learn about fertilizer products and management techniques to get the best return on your fertilizer investment.

Navigating the 2026 Crop Insurance Decision, with SCO and ECO options: Recent policy changes have reduced the cost of Supplemental Coverage Option (SCO) and Enhanced Coverage Option (ECO). This presentation will review these options and provide practical examples of these coverage strategies.

Top 5 Legal Issues Farmers Don't Think Of, But Should. We will review legal items that farmers should consider, for both farm business matters and future planning.

Weather Resources and 2026 Outlook: Get a look at available weather tools/apps and understand where their forecast information originates from. And get an outlook for weather this growing season.

Weed Control in Crop Rotations: A look at weed control plans for common rotations and commonly asked questions for controlling hard-to-control weeds.

Jeanne Falk Jones, Northwest Area Agronomist – Colby
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6. K-State Agronomy Science and Solutions Virtual Conference

Make plans to join us online for the 2026 **K-State Agronomy Science and Solutions Conference: Research to Results**, a two-day virtual program designed to connect the latest K-State agronomy research with on-farm decisions.

Date and time

- **February 3–4**
- **11:00 a.m. – 1:00 p.m. (CST) each day**
- **Online via Zoom** (link and registration details coming soon)

Each day will feature **four 30-minute presentations** from K-State specialists and collaborators, focused on practical strategies for crop production in Kansas. This conference is designed to address the full spectrum of Kansas crop production, with content relevant across all major crops. Planned topics include:

- Perennial weed management
- Strategic tillage
- Turning farm data into decisions
- Irrigation timing and system maintenance
- Fertility management when crop prices are low
- Soil pH and soil health
- Spray water quality
- Using residual herbicides effectively

Participants can register for **one or both days**:

- **$20 per day**, or
- **$30 for both days**

Certified Crop Advisers (CCAs) can earn 0.5 CEUs per presentation, totaling 4 CEUs if attending all sessions over both days.

More information, including the full program schedule, speaker list, and registration link, will be shared in upcoming issues of the Agronomy eUpdate and on K-State Agronomy communication channels.

Mark your calendar now and plan to join us for this focused look at "research to results" in Kansas crop production.

Sarah Lancaster, Extension Weed Specialist
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Kathy Gehl, Extension Program Coordinator/eUpdate Editor
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7. Kansas Seed and Crops Conference – Feb. 17 and 18 in Manhattan

Join us at the **Kansas Seed and Crops Conference**, hosted by the Kansas Crop Improvement Association, at the Hilton Garden Inn in Manhattan, KS, on February 17-18, 2026.

The conference is the site of seed company associate meetings, the annual business meetings of the Kansas Crop Improvement Association (KCIA) and the Kansas Seed Industry Association, meals, and a trade show. It is a great opportunity to keep in touch and up to date with your friends and associates in the seed industry.

The main session is a panel discussion of "Wheat from A to Z" and is set for 3:00 to 5:00 p.m. on February 17. The panel will have representatives from six stages of wheat production: breeding, farm production, co-op elevator operations, marketing and supply chain logistics, milling, and baking. This panel is open to the public, and we need lots of participation from farmers and seed producers to make it a success.

Also on the schedule are three sessions: Tuesday afternoon (Feb. 16) and Wednesday morning (Feb. 17). Tuesday's session covers new processes and updates to the KCIA field, lab, and lot management dashboard. Wednesday topics include updates on the HB4 wheat trait by Tyler Benninghoven of Colorado Wheat and an update on wheat research in Kansas.

For more information about this event, including registration, sponsorship and exhibitor opportunities, and lodging, please see this website linked below.

https://www.kscrop.org/annualconference/2026conference/2026AnnualConference.html

We hope you will register and join us for the whole conference. However, if you can only come for part of the conference, the panel discussion on February 17 is open to the public and does not require conference registration.

WHEAT FROM A TO Z

Breeder

Allan Fritz

Head of the K-State, Manhattan wheat breeding program, Dr. Allan Fritz has over 25 years of experience in wheat variety development.

Seed Producer & Farmer

Audience

This audience has some of the most dedicated wheat growers in Kansas. We need your participation to represent this part of the chain!

Co-Op/Elevator

Adam Butler

Director of Northern Grain Operations for MKC, Adam has over 15 years of experience in grain operations with Cargill and Mid Kansas Coop.

Marketing

Guy Allen

Senior Economist for IGP at K-State, Guy has extensive career experience in agricultural commodity trading, risk management and supply chain logistics.

Miller

Fran Churchill

Professor emeritus of K-State, Fran has over 25 years of practical milling experience and served as president of the International Association of Operative Millers.

Baker

Ethan Hart

President of Custom Foods, Inc. for 7 years, with prior experience as an engineer and serving in the US Army.

A panel discussion brought to you by:

Kansas Crop Improvement Association

February 17, 2026

3:00 - 5:00 PM

Hilton Garden Inn, Manhattan, KS

At the 2026 Kansas Seed and Crops Conference

Register Now!
kscrop.org

785-532-6118

8. K-State Soil Fertility Schools for North Central and Northwest Kansas – Jan. 28 and 29

Producers and ag professionals in north central and northwest Kansas are invited to attend the **2026 K-State NC/NW Soil Fertility Schools**, a series of regional programs focused on helping growers make the most of their fertilizer investments. These schools will provide practical, research-based guidance on optimizing nutrient management decisions in a time of tight margins and rising input costs. Topics include: maximizing fertilizer dollars, application methods, products that best fit tight budgets, alternative sources of soil nutrients, residual nutrients, and soil sampling and testing.

The programs are designed to give attendees actionable strategies they can apply immediately to improve nutrient efficiency and profitability.

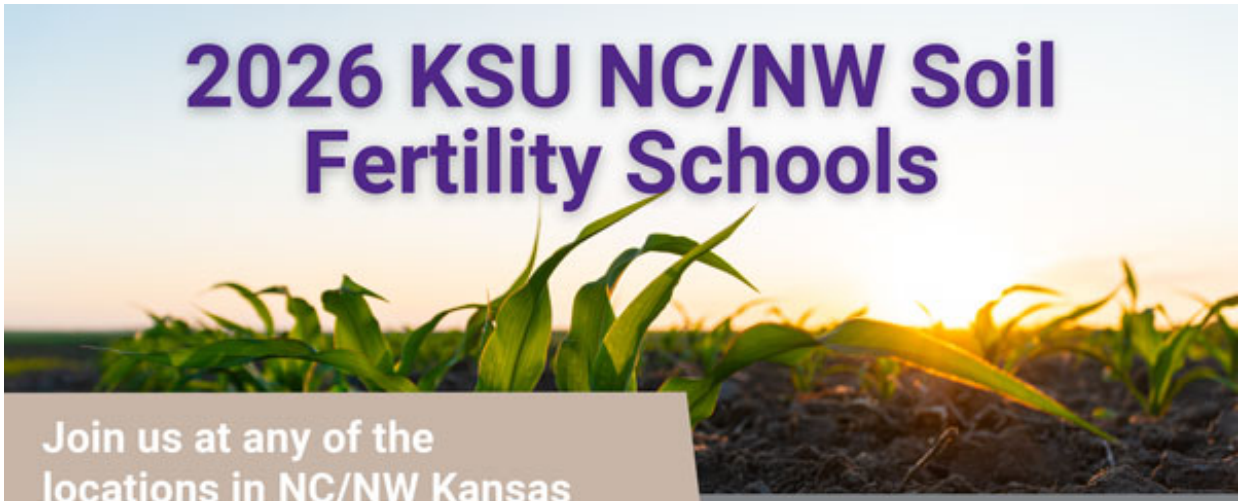
Three locations are available to make attendance convenient:

- **Colby – January 28, 9:30 a.m. to Noon**
  Thomas County 4-H Building, 1100 West Cedar Street, Colby
  Lunch following, sponsored by Nutrien Ag Solutions.
  Contact: Helen Giefer at 785-460-4582
- **Kensington – January 28, 3:00 p.m. to 5:30 p.m.**
  First St. Johns Lutheran Church, 332 N. Adams Street, Kensington
  Supper following, sponsored by Trinity Ag, LLC.
  Contact: Sandra Wick at 785-282-6823 or Cody Miller at 785-543-6845
- **Great Bend – January 29, 9:30 a.m. to Noon**
  Barton County 4-H Building, US N281 Highway / NW 60th Road, Great Bend
  Contact: Stacy Campbell at 785-628-9430

There is no cost to attend, and each school offers 2.5 Certified Crop Adviser (CCA) credits.

Registration is requested by **January 23** for any location and can be completed online by scanning the QR code on the flyer below or by contacting the local Extension offices listed above.

2026 KSU NC/NW Soil Fertility Schools



Join us at any of the locations in NC/NW Kansas to learn about optimizing your fertilizer applications!

2.5 CCA credits applied for. Additional questions contact your local Extension Office.

COLBY: January 28
9:30 am - NOON
Thomas County 4-H Bldg.
1100 West Cedar Street, Colby
Helen Giefer - 785-460-4582
Lunch following sponsored by Nutrien Ag Solutions.

KENSINGTON: January 28
3:00 pm - 5:30 pm
First St. Johns Lutheran Church
332 N. Adams Street, Kensington
Sandra Wick - 785-282-6823
Cody Miller - 785-543-6845
Supper following sponsored by Trinity Ag, LLC.

GREAT BEND: January 29
9:30 am - NOON
Barton County 4-H Building
US N281 Highway/NW 60th Road, Great Bend
Stacy Campbell - 785-628-9430

TOPICS WILL INCLUDE
How to make the most out of your fertilizer dollar; Application methods; Products that fit best in tight budgets; Alternative sources of soil nutrients; Residual nutrients and Soil sampling and testing.

NO COST TO ATTEND

Registration is requested by **January 23** for any of the locations ONLINE at:

Scan the QR code or contact the locations to register!

Kansas State University
Extension

This institution is committed to providing equal opportunity for participation in all programs, services, and activities. Program information may be available in languages other than English. Language access requests and reasonable accommodations for persons with disabilities, including alternative means of communication (e.g., Braille, large print, and American Sign Language), may be requested by contacting the event contacts (Helen Giefer, Sandra Wick, Cody Miller or Stacy Campbell) prior to the event (January 28-29) at the numbers listed above. Requests will be honored when it is feasible to do so. Language access services, such as interpretation or translation of vital information, will be provided free of charge to limited English proficient individuals upon request. Kansas State University is an equal opportunity provider and employer.