Issue 1085

K-STATE Research and Extension

Extension Agronomy

eUpdate

01/08/2026

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. Native Grassland Management: Considerations on Seeding Time for Native Seed Mixes

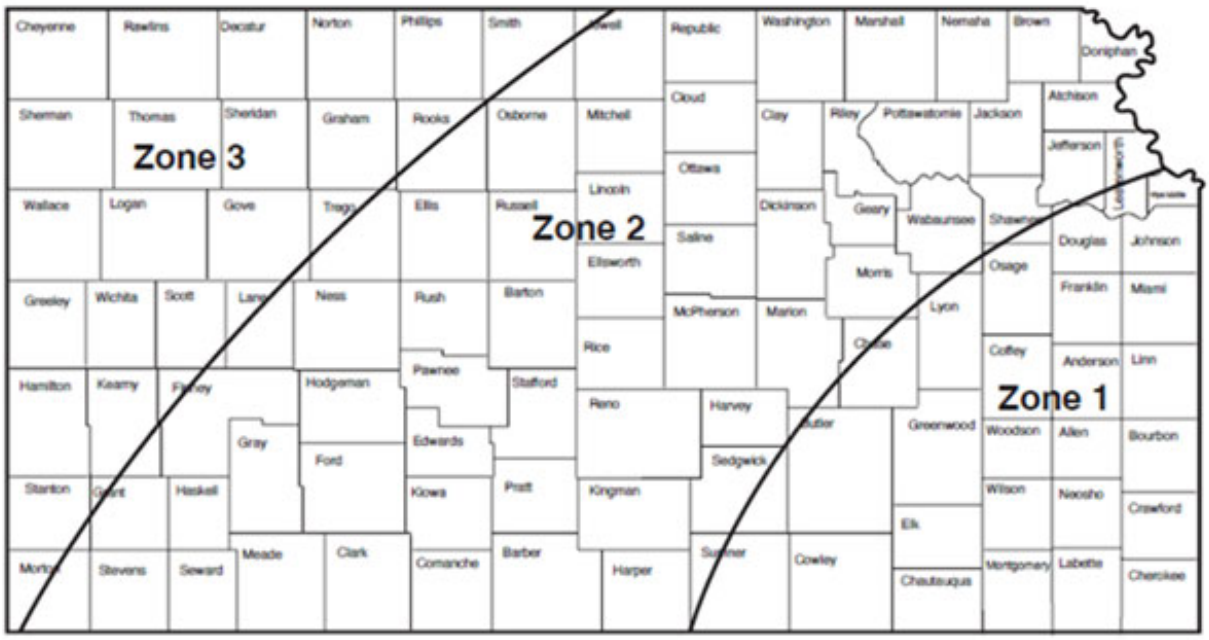
Figuring out the right time to plant seed is a key decision for many across the state of Kansas. Native grasslands in Kansas are dominated by warm-season grass (WSG) species, such as big bluestem (*Andropogon gerardii*) or sideoats grama (*Bouteloua curtipendula*). A smaller proportion of the plant community is composed of forb (wildflower) species, or broadleaf plants that are not grasses, such as purple prairie clover (*Dalea purpurea*) or maximilian sunflower (*Helianthus maximiliani*). Most native seed mixes have a higher proportion of WSG (60-80%) compared to forbs, but the proportion of grasses to forbs in any given native seed mix varies considerably depending on its intended use.

Spring seeding in the few weeks before the last expected frost date has traditionally been suggested for warm-season native plantings. This spring planting window is recommended with WSG as the dominant component of seed mixes in mind, expecting that they will germinate, receive early summer rains, and develop enough of a root system before the onset of summer conditions, while avoiding a long exposure period in the ground before the soil is warm enough to trigger germination. Depending on your goals, planting native seed mixes during the winter months (typically December or January) can also be beneficial, as it offers more flexibility in planting dates and provides forbs that require a longer exposure period to cold conditions before germination a better chance of establishment. Below are some key factors to consider when deciding when to plant native seed mixes in Kansas.

Figure 1. **A warm-season native grassland in southeastern Kansas. Photo credit Molly Reichenborn, K-State Extension.**

Precipitation

Receiving adequate precipitation at the right time is a primary constraint on seedling germination and establishment. Spring planting recommendations for native WSG in late March and April (Figure 2) are intended to take advantage of peak annual precipitation, which typically occurs in May (Figure 3). However, as any Kansan knows, predicting when and how much rain will actually fall in any given year is notoriously difficult. If heavy rainfall occurs earlier than the planned seeding date, fields may remain inaccessible for days to weeks until the soils dry out enough to allow equipment access. Delayed planting can lead to a shortened window between the time of seeding and the onset of peak summer conditions, leading to weak stand establishment if plants aren't sufficiently developed before this occurs. Early seeding followed by a dry period can also jeopardize successful stand establishment. Dormant season seeding during the winter will ensure that seeds receive moisture whenever it falls in the next growing season without risking delayed seeding due to waterlogged soils.



Zone	Optimum	Acceptable
1	March 25–April 10	Feb. 15–May 1
2	April 1–April 20	March 1–May 15
3	April 10–April 30	March 1–May 15

Figure 2. Suggested seeding dates for native grass species from K-State Extension Publication "Establishing Native Grasses" (MF2291).

Division	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
Northwest	0.42	0.56	1.05	2.07	3.22	2.91	**3.53**	3.10	1.68	1.67	0.73	0.61	21.58
North Central	0.68	0.87	1.56	2.49	**4.37**	3.86	4.31	3.60	2.55	2.05	1.22	1.00	28.56
Northeast	0.84	1.24	2.18	3.56	**5.06**	4.99	4.57	4.31	3.44	2.82	1.78	1.41	36.20
West Central	0.41	0.59	1.09	1.83	2.91	2.86	**3.40**	3.03	1.60	1.56	0.67	0.63	20.58
Central	0.72	1.02	1.78	2.62	**4.67**	3.99	4.07	3.83	2.56	2.15	1.20	1.08	29.68
East Central	0.96	1.45	2.35	3.79	**5.33**	5.03	4.26	4.23	3.68	3.02	2.01	1.50	37.62
Southwest	0.50	0.47	1.18	1.68	2.54	**3.12**	3.07	2.87	1.41	1.75	0.60	0.78	19.99
South Central	0.80	1.10	2.11	2.70	**4.62**	4.49	3.68	3.65	2.43	2.57	1.30	1.15	30.60
Southeast	1.28	1.65	2.83	4.26	**6.20**	5.54	4.28	4.02	4.06	3.60	2.39	1.87	41.96
STATE	0.78	1.07	1.90	2.92	**4.51**	4.25	3.95	3.69	2.75	2.47	1.42	1.19	30.91

Figure 3. Average monthly and annual precipitation in each of Kansas' nine climate divisions. Courtesy of Matthew Sittel, Assistant State Climatologist.

Temperature

Many grassland species require a period of stratification, or exposure to cold conditions, before they

can break seed dormancy and germinate. Seeding in the weeks before the expected last date of frost is sufficient for most WSG to break dormancy and germinate with adequate soil moisture and temperatures above 55-60°. Native forb species often require longer periods of stratification to break dormancy, typically 30-60 days, and may require both cold temperatures and sufficient moisture to germinate. Dormant season seeding can be completed anytime after soil temperatures are low enough to keep seeded species in dormancy until the spring (below 50°F is acceptable, but ideally below 40°F), which can allow greater flexibility in planting date compared to a spring seeding in addition to allowing sufficient time and exposure to environmental conditions for forb stratification.

Artificial stratification can be achieved by placing seeds in a refrigerator for 30-120 days in moist or dry conditions, depending on the species. In this way, species requiring stratification can be "tricked" that they have overwintered outside of field conditions and are set up for higher germination success in a spring seeding. In the end, species that do not undergo sufficient stratification in a spring seeding will undergo this process the following winter and could germinate in subsequent seasons. Keep in mind that these plants will be competing with other species that were established in earlier seasons, and germination will likely be suppressed due to high competition for light and other resources.

Time to Germination

As the window between seeding and germination widens, the possibility of seed loss also increases. This window is expected to be relatively small for spring seeding events, but can extend over several months when seeding during the winter. Seeds can be lost to decay, wind and water erosion, and animal activity during this time. This effect can be lessened by using a planting strategy that ensures good seed to soil contact, such as a grass drill, or by coupling a broadcast seed strategy with post-seeding surface compaction (e.g., with a cultipacker). Increasing the grass seeding rate by 25-50% in warm-season native seed mixes has also been suggested to account for reduced grass establishment in winter seedings.

Weed Control

Preparing the seedbed before seeding is a key step in a successful seeding project. This step is typically completed in the late summer and fall prior to seeding in the winter or following spring, depending on the size of your project area. Winter weeds can create additional competitive pressure for your seeded species before they emerge in the next growing season. Spring seeding provides another opportunity to apply herbicide if necessary to suppress winter weeds that come up before seeding. Applying herbicide in the spring may not be recommended if the herbicide would damage seeded species already in the soil if seeding was completed during the winter. Be sure to use an appropriate herbicide that can control targeted weeds but avoid impacting the germination and establishment of your seeded species (e.g., low soil residual time).

The best time to seed will depend on several factors, including your project site, seed mix, equipment availability, and weather conditions. Increase your chances of successful native plant stand establishment by planning your seeding project in advance and reaching out to your local K-State extension agent or range management scientist to discuss options to best meet your project goals.

Additional Resources

Establishing Native Grasses (K-State Extension Publication MF2291): https://bookstore.ksre.ksu.edu/pubs/establishing-native-grasses_MF2291.pdf

Establishing and Managing Native Prairie Plants in Small Areas (K-State Extension Publication MF3233): https://bookstore.ksre.ksu.edu/pubs/establishing-and-managing-native-prairie-plants-in-small-areas_MF3233.pdf

Planting Natives in Northeast Kansas: Reconstructing Prairie: https://plantnativeks.weebly.com/uploads/2/0/7/3/20731482/reconstructing-prairie-book.pdf

Converting Introduced Grasses to Rangeland (Oklahoma State University Extension Publication E-1056): https://extension.okstate.edu/fact-sheets/print-publications/e/converting-introduced-grasses-to-native-rangelands-e-1056.pdf

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2. Smooth Bromegrass and Tall Fescue Seed Production Management

Smooth bromegrass and tall fescue seed production may be utilized as an alternative crop in primary grazing and haying stands. When used in this dual purpose, low seed yields can still offset production costs with the right market/contract. As with any alternative crop, it is essential to consult with seed dealers or potential buyers before harvesting to ensure that the correct procedures are followed.

Two important production practices for high seed yields include forage removal at seed stalk maturity and well-timed nitrogen (N) applications in late fall or early winter. Additionally, stubble height management (Figure 1) and pest control should not be overlooked. Seed yields often decline when the stand reaches three to four years old, but proper management can lead to 400 to 500 lbs per acre annually.

Figure 1. Ensuring your stubble height in both grazing and baling scenarios encourages longevity of stands, especially in dual-purpose situations. Picture provided by Wendie Powell of Wildcat District.

Fertilization

Seed head fill depends on proper N fertilization. Tiller formation does not drive N needs, but seed production demands 70 to 100 lbs N applied during December or January. Adequate moisture years demand the same rates for bromegrass seed production.

With regular N applications, soil pH tends to decline, calling for regular pH soil sampling and lime application to counteract soil acidification. Testing the pH, P, and K soil levels ensures proper amounts are available, and applications can be done if found to be critically low. For pH, pure grass stands need to be above 6.0, while grass-legume mixes need to stay about 6.5 to benefit the legume longevity.

Stubble Height and Grazing

Stubble should be clipped to a height of 3 to 4 inches as soon as possible after seed harvest to allow for tiller initiation at ground level with the increased light interception. Because bromegrass has fewer basal leaves, clip it no shorter than 4 inches high. In grazing operations, most seed production fields are grazed in the fall or winter, though grazing in the fall should be kept minimal to maintain a stubble height of 6 inches.

Pest Management

Weed management is critical to ensure clean seed that is free from quality-lowering quackgrass or annual brome, as well as the noxious weeds of Johnsongrass, musk thistle, and sericea lespedeza. Maintaining good soil fertility reduces the problems associated with weed invasion. Some issues (nematode or foliage feeding insects) can be limited due to the endophyte presence in tall fescue. Smooth bromegrass stands have experienced increased fall armyworm damage in recent years, largely due to highly prolific populations, partly attributed to increased Texas populations and above-average fall temperatures. Fertility management, cutting time, and well-timed insecticide applications used in conjunction may help with this growing pressure; however, research is still needed to quantify the return on investment.

From a disease perspective, stem rusts can cause issues in tall fescue, but can benefit from fungicide applications in these seed production fields due to the associated seed income. Before any application, knowing the level of rust and timing is key to the ROI. Regardless of the pest type, damage often worsens in dry, hot years.

For more information, please refer to the Kansas State University Extension publication MF924 "Seed Production Management for Smooth Bromegrass and Tall Fescue" at https://bookstore.ksre.ksu.edu/pubs/seed-production-management-for-smooth-bromegrass-and-tall-fescue_MF924.pdf

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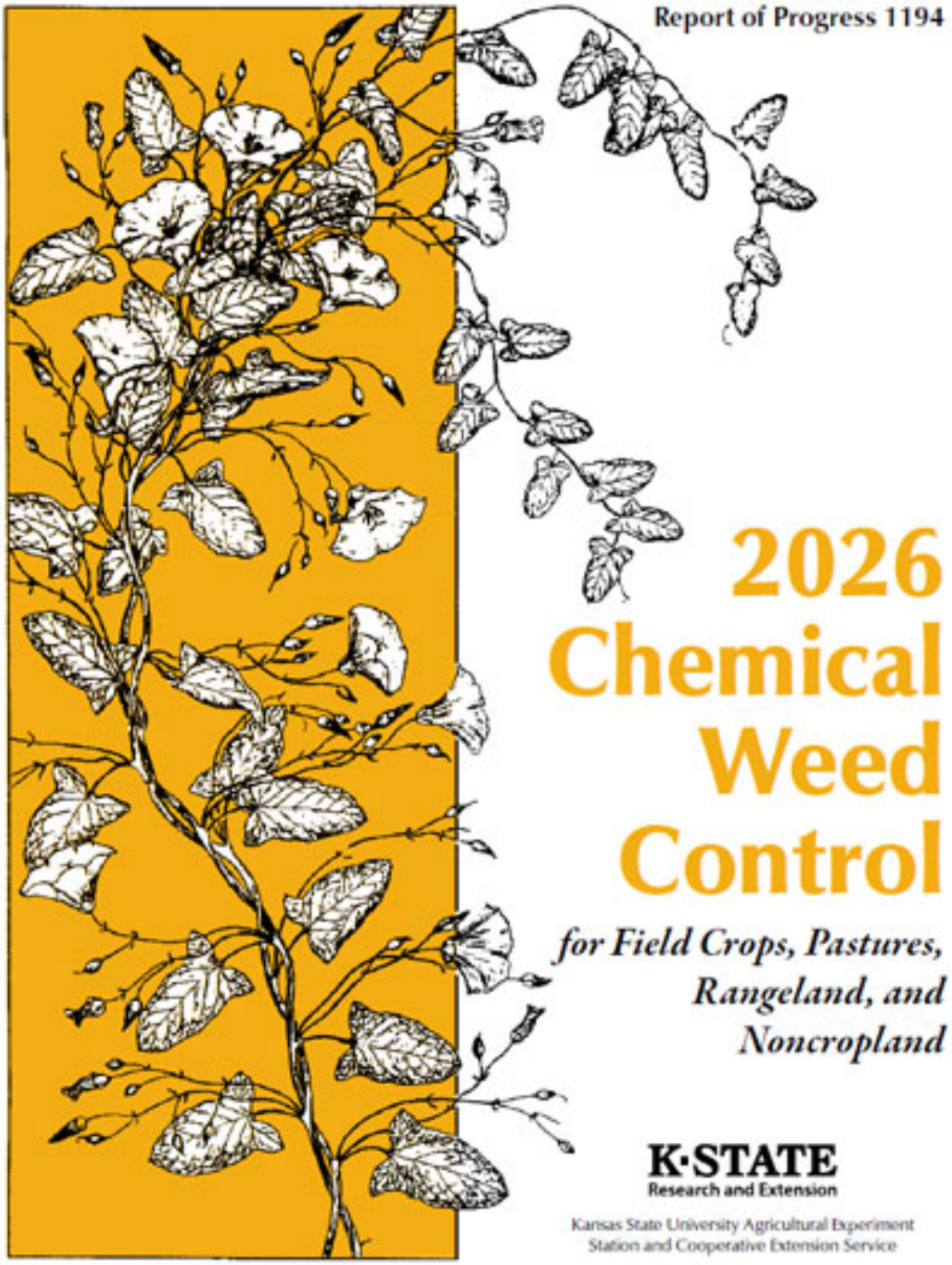
3. K-State 2026 Chemical Weed Control Guide is Now Available Online

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:

http://ksre-learn.com/ChemWeedGuide

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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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.

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4. Help Improve Irrigation Management for Kansas Soybeans - Take this Survey

Much of the irrigation research in Kansas has focused on cropping systems in the western part of the state. However, as irrigated acres shift eastward, there is limited data on how irrigated soybeans are managed across Kansas, particularly in terms of yield and pest management. Even less is known about the practices farmers use on irrigated soybean fields.

We are conducting a survey targeting on-farm practices related to cropping, irrigation, and pest management. Your input will help guide future research and refine recommendations for more effective and sustainable soybean production.

This survey is part of a project supported by the Kansas Soybean Board.

Interested in sharing your experiences? Please follow the link or scan the QR code to access the questionnaire.

https://kstate.qualtrics.com/jfe/form/SV_eA7EnuS3HoLprYq

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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.

- **Registration by January 14**: $60 for Tuesday, Jan. 20, $55 for Wednesday, Jan. 21, or $80 for both days.
- **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

Register at www.CoverYourAcres.com

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

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:

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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.

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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.

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