



K-STATE
Research and Extension

Extension Agronomy

eUpdate

01/13/2022

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. Great Plains Initiative indicates more than half of Kansas windbreaks are deteriorating	3
2. Corn and soybean management publications updated for 2022	5
3. Kansas Wheat Rx Schools to be held in Wichita and Hays in early February	7
4. Cover Your Acres Winter Conference to be held in person, January 18-19	10
5. K-State Soybean Schools scheduled for late January and early February	12
6. Kansas Corn Schools scheduled for early 2022	14

1. Great Plains Initiative indicates more than half of Kansas windbreaks are deteriorating

A state forest official said an initiative to support windbreaks and other green infrastructure on Kansas farms is much-needed in light of recent data indicating that more than half of windbreaks in the state are in fair to poor condition.

Robert Atchison, recently retired coordinator of the [Kansas Forest Service's](#) rural forestry program, said the Great Plains Initiative 2 is a continuation of an inventory of windbreaks in Kansas, Nebraska and the Dakotas that first began in 2008 and is sponsored by the U.S. Department of Agriculture's Forest Service.

The most recent inventory of windbreaks in the Great Plains – completed in 2019 – indicates windbreaks throughout the region are deteriorating. [The report is available online](#) from the Kansas Forest Service.

In the 1930s, at the height of the Dust Bowl, the federal government invested \$13.8 million to establish more than 200 million trees and shrubs in windbreaks throughout the Great Plains (Figure 1). Today, this green infrastructure exceeds 80 years of age and is in a state of age- and climate-related decline.



Figure 1. The most recent data provided through the Great Plains Initiative 2 notes that 55% of Kansas windbreaks are in fair to poor condition. Photo credit: K-State Research and Extension.

There are more than 118,000 windbreaks in Kansas, comprising 261,000 acres and stretching 31,348 miles – enough to cross the state east to west more than 76 times. However, an average windbreak in Kansas only takes up a little more than two acres and is generally around 1,500 feet in length.

The great benefit of windbreaks is the extended protection they provide beyond their footprint, which is a distance and area at least 10 times their height on the leeward side and two times the height on the windward side. In Kansas, that adds up to almost a million acres for which windbreaks provide protection to livestock, cropland and farmsteads.

The 2019 data from the Great Plains Initiative reported that 45% of Kansas' windbreaks are in good condition, 37% in fair condition and 18% in poor condition. The report also outlined the types of windbreaks located in Kansas:

- 61% are farmstead windbreaks planted around homes and outbuildings.
- 26% are field windbreaks to reduce soil erosion, which aids crop yields.
- 11% are windbreaks to provide protection for livestock.

According to Atchison, since 55% of windbreaks in Kansas are in fair to poor condition, it suggests that there is a real need to encourage our farmers and ranchers to renovate and manage windbreaks before they lose their ability to provide protection. Fortunately, there are USDA conservation programs like the [Environmental Quality Incentives Program](#) (EQIP) that can help with the cost of renovating and establishing windbreaks.

The importance of windbreaks is illustrated by the fact that Kansas has 2.5 million acres of cropland where the soils are particularly susceptible to erosion, many of these in southwest and south-central Kansas. An inventory kept by the [Natural Resources and Conservation Service](#) indicates that Kansas croplands experience 70.6 million tons of wind erosion annually – or about 2.68 tons per acre each year.

Farmers and ranchers interested in renovating windbreaks should first contact a district forester, who can provide on-site advice for renovating the windbreaks, and connect producers with EQIP assistance to help get the work done.

There are seven forest districts in Kansas. The contact information for each is available on the [website for the Kansas Forest Service](#), or interested persons can call the state office in Manhattan at 785-532-3300.

This eUpdate is a slightly edited version of a recent K-State Research and Extension press release. The full press release can be viewed at: <https://www.ksre.k-state.edu/news/stories/2021/12/forestry-windbreaks-deteriorating-in-kansas.html>

Robert Atchison, Rural Forestry Coordinator (retired) – Kansas Forest Service

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2. Corn and soybean management publications updated for 2022

K-State Research and Extension has recently released two updated publications for the 2022 growing season: [MF3208 Kansas Corn Management](#) and [MF3154 Kansas Soybean Management](#). Each resource is summarized below with links to access online versions or to order paper copies from the KSRE Bookstore.

K-STATE
Research and Extension

Kansas Corn Management 2022

MF3208

Crop Production

This publication offers advice to producers, crop consultants, and agronomists to manage Kansas corn crops as efficiently and profitably as possible. The recommendations provide guidelines and must be tailored to each producer's cropping conditions.

This comprehensive guide is written specifically for Kansas and includes valuable, up-to-date information on:

- Planting practices
- Plant density and yield gain
- Dry down before harvest
- Weed management
- Nutrient management
- Diseases
- Insect management
- Machinery
- Irrigation

Visit the KSRE Bookstore to order paper copies of this publication or to view/download the online version: <https://bookstore.ksre.ksu.edu/Item.aspx?catId=221&pubId=18439>

Contributors to the 2022 version of this publication include:

Ignacio Ciampitti, Crop Production and Cropping Systems

Sarah Lancaster, Weed Management

Dorivar Ruiz Diaz, Soil Fertility and Nutrient Management

Jonathan Aguilar, Bio and Ag Engineering – Irrigation

Ajay Sharda, Bio and Ag Engineering – Planting Systems

Rodrigo Onofre, Plant Pathology

Brian McCornack, Entomology

Adrian Correndo and Javier Fernandez, Crop Production and Cropping Systems

This publication offers advice to producers, crop consultants, and agronomists to help manage Kansas soybean crops as efficiently and profitably as possible. Recommendations provide guidelines and must be tailored to the diverse conditions found in cropping systems across the state.

Visit the KSRE Bookstore to order paper copies of this publication or to view/download the online version: <https://bookstore.ksre.ksu.edu/Item.aspx?catId=286&pubId=17299>

This comprehensive guide is written specifically for Kansas and includes valuable, up-to-date information on:

- Tillage and rotations
- Variety selection
- Planting practices
- Trend on yield and seed protein concentration over time
- Seed quality management and potential uses
- Weed management
- Fertilizer requirements
- Diseases
- Insects
- Irrigation

Contributors to the 2022 version of this publication include:

Ignacio Ciampitti, Crop Production and Cropping Systems
Adrian Correndo and Javier Fernandez, Crop Production and Cropping Systems
Sarah Lancaster, Weed Management
Dorivar Ruiz Diaz, Soil Fertility and Nutrient Management
Jonathan Aguilar, Bio and Ag Engineering – Irrigation
Rodrigo Onofre, Plant Pathology
Jeff Whitworth, Entomology

3. Kansas Wheat Rx Schools to be held in Wichita and Hays in early February



Wheat Rx seminars are scheduled for February 8 in Wichita and on February 9 in Hays. [Wheat Rx](#) is a partnership between Kansas Wheat and K-State Research and Extension to disseminate the latest research recommendations for high-yielding and high-quality wheat to Kansas wheat farmers.

These two Wheat Rx schools will have speakers that will discuss the most up-to-date wheat research information on how to manage your wheat crop not only for yield but also for quality and sustainability.

Registration for the event is \$100 for non-members of the Kansas Association of Wheat Growers. However, members (including new members) will receive one free registration. Lunch and meeting materials are included with the registration fee.

Register online at <https://kswheat.com/wheat-rx-registration-page>

February 8, 2020 – Wichita, KS

- Location: DoubleTree by Hilton
2098 Airport Road
- 9:00 am to 3:00 pm

February 9, 2020 – Hays, KS

- Location: Memorial Union Ballroom
Ft. Hays State University
700 College Drive
- 9:00 am to 3:00 pm

Agenda

8:00 – 9:00 am	Registration
9:00 am	Welcome and Introduction to Wheat Rx <i>Aaron Harries, Kansas Wheat</i>
9:15 am	Capturing Value for High-Quality Wheat

E.G. Herl, Grain Craft

10:05 am	Break
10:20 am	Proper Fertility to Maximize Yield and Quality
11:10 am	Fungicides and Wheat Health <i>Kelsey Andersen Onofre, K-State</i>
Noon	Lunch
1:00 pm	Intensive Wheat Management <i>Romulo Lollato, K-State</i>
1:50 pm	Beyond Grain: Value of Wheat in the Production Chain <i>Aaron Harries</i>
2:40 pm	Question and Answer Panel
3:00 pm	Adjourn

Romulo Lollato, Wheat and Forages Specialist
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KANSAS WHEAT[®] R_X

Seminars

FEBRUARY 8, 2022

Wichita

DoubleTree by Hilton
2098 Airport Road

FEBRUARY 9, 2022

Hays

Memorial Union Ballroom
Ft. Hays State University
700 College Drive

9 a.m. - 3 p.m.

A prescription for economical and sustainable production
of high-quality wheat in Kansas

CCA CEUs available



Register at www.kswheat.com/wheatrx

Cost is \$110 per attendee.
Lunch and meeting materials
included.

**Kansas Association of Wheat
Growers members attend for
free.**



Seminar agenda on page 2.

4. Cover Your Acres Winter Conference to be held in person, January 18-19

K-State Research and Extension will host the 19th annual Cover Your Acres Winter Conference for crop producers and consultants on January 18 and 19. The conference will take place in the traditional in-person format in Oberlin, KS.

Cover Your Acres is a producer-driven meeting focused on new ideas and research-based updates in crop production in northwest Kansas and the Central High Plains region.

The conference, which typically draws more than 400 attendees from Kansas and other states, highlights the latest technology, methods, and conservation practices to improve crop production in the region. This year it will feature university specialists and industry representative discussing the following topics:

- **Changing Strategies in Insect Management**
Anthony Zukoff - KSU
- **Current Financial Status of NW Kansas Farms**
Jordan Steele and Mark Wood - KFMA
- **Economics of Soil Fertility and Testing**
Lucas Haag - KSU
- **High Plains Weather**
Jeff Hutton - NWS
- **Managing Hayed and Grazed Forages for Profit**
John Holman - KSU
- **Rolling with the Punches in Weed Management**
Sarah Lancaster - KSU
- **Soil Carbon: What You Need to Know**
Peter Tomlinson - KSU
- **Soil Health Strategies in Dryland**
Dale Younker and Matalyn Stark - NRCS
- **Taking Weed Control to the Next Level**
Cody Creech – UNL
- **Which Corners Can I Cut: Maximizing Fertilizer Value**
Dorivar Ruiz Diaz - KSU
- **Panel Discussion: Successes and Failures in Herbicide Efficacy**

The same programs will be offered both days of the conference (program schedule posted below). Registration will begin at 7:45 a.m. with educational sessions ending at 5:00 p.m. The sessions are followed by a social on Tuesday evening where attendees can visit with industry representatives and conference speakers while enjoying heavy hors d'oeuvres.

Online registration is due by January 11. The fee is \$60 for Tuesday, January 18th, \$55 for Wednesday, January 19th, or \$80 for both days. The registration fee for walk-ins on each day of the conference is \$80. The conference fee includes lunch, morning and afternoon refreshments, and educational materials. The program offers a total of 10 continuing education unit (CEU) credits for Certified Crop Advisors and 3 CEUs for Commercial Applicators.

To view the conference details, lodging accommodations, and online registration, visit www.northwest.ksu.edu/coveryouracres. For questions, call 785-462-6281.

Premier sponsors of this year's conference include AKRS Equipment Solutions, Hoxie Implement, Lang Diesel, Nutrien Ag Solutions, SureFire Ag Systems and K-State Research and Extension.

Cover Your Acres

January 18 and 19, 2022
The Gateway, Oberlin, KS



2022 SPEAKER TOPICS

Changing Strategies in Insect Management: Get updated on the latest in corn insect management trait technologies, changes in refuge requirements, and alfalfa insect management.

Current Financial Status of NW Kansas Farms: Using data from northwest Kansas farms, we take a look at opportunities for profitability and where producers should be alert for possible concerns.

Economics of Soil Fertility and Testing: How does fertility management change with today's fertilizer prices? Where are there dollars on the table from improved fertility management? We'll take a look

High Plains Weather: We'll take a look at the recent conditions and outlook for the coming year and what it means for agriculture.

Managing Hayed and Grazed Forages for Profit: How to optimize nitrogen in forage sorghum, oat, and triticale for yield and quality given current prices. Also a research update of grazing/haying cover crops.

Rolling with the Punches in Weed Management: Storing herbicide for extended periods, finding product substitutions, new uses for old herbicides, and the latest in weed control research.

Soil Carbon: What You Need to Know: A full discussion on the basics of building soil carbon, managing it, measuring it, and how it fits into current soil carbon credit programs.

Soil Health Strategies in Dryland: A look at the principles of soil health and discussion of field experiences in balancing the challenges and opportunities of improving soil health in our difficult environment.

Taking Weed Control to the Next Level: New problems require new strategies. A look at the latest research in weed control in dryland cropping systems using cultural, mechanical, and chemical methods.

Which Corners Can I Cut: Maximizing Fertilizer Value: We'll discuss where to find the biggest bang for your fertilizer dollar, how to weigh decisions on using starter, macros, micros, and efficiency enhancing products.

	Room 1	Room 2	Room 3	Room 4
7:45 - 8:15	Registration			
8:15 - 8:20	Welcome			
8:30 - 9:20	Current Financial Status of NW KS Farms ¹ (J. Steele / M. Wood)	Changing Strategies in Insect Management ^{1,2} (A. Zukoff)	Economics of Soil Fertility and Soil Testing ¹ (L. Haag)	
9:30 - 10:20	Which corners can I cut? Maximizing Fertilizer Value ¹ (D. Ruiz Diaz)	High Plains Weather: Review and Outlook ¹ (J. Hutton)	Soil Carbon: What You Need to Know ¹ (P. Tomlinson)	The Importance of Adjuncts (EGE Bio) (I)
10:20 - 10:50	View Exhibits			
10:50 - 11:40	Taking Weed Control to the Next Level ^{1,2} (C. Creech)	Soil Health Strategies in Dryland Production ¹ (D. Younker / M. Stark)	Managing Hayed and Grazed Forages for Profit ¹ (J. Holman)	Understanding Biologicals and Bacteria (PathwayAg) (I)
11:50 - 12:40	Rolling with the Punches: Weed Management 2022 ^{1,2} (S. Lancaster)	Which corners can I cut? Maximizing Fertilizer Value ¹ (D. Ruiz Diaz)	Lunch	
12:50 - 1:40	Economics of Soil Fertility and Soil Testing ¹ (L. Haag)	Taking Weed Control to the Next Level ^{1,2} (C. Creech)		
1:50 - 2:40	Soil Health Strategies in Dryland Production ¹ (D. Younker / M. Stark)	Soil Carbon: What you need to know ¹ (P. Tomlinson)	Rolling with the Punches: Weed Management 2022 ^{1,2} (S. Lancaster)	Corn Nematodes, More Common Than you Think (Pioneer) (I)
2:40 - 3:30	View Exhibits			
3:30 - 4:00	Panel Discussion: Successes and Failures in Herbicide Efficacy	Managing Hayed and Grazed Forages for Profit ¹ (J. Holman)	Changing Strategies in Insect Management ^{1,2} (A. Zukoff)	
4:10 - 5:00	High Plains Weather: Review and Outlook ¹ (J. Hutton)	Current Financial Status of NW KS Farms ¹ (J. Steele / M. Wood)		

Tuesday: Social hour with hors d'oeuvres begins at 5:00
¹ CCA CEUs applied for.
² Commercial Applicator CEUs applied for.

Platinum Sponsors:



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5. K-State Soybean Schools scheduled for late January and early February

A series of six K-State Soybean Production Schools will be offered in late January and early February to provide in-depth training targeted for soybean producers and key-stakeholders. The schools will be sponsored by the Kansas Soybean Commission.

The schools will cover a number of issues facing soybean growers including weed control, crop production practices, nutrient management and soil fertility, insects, risk management, and disease management.

The dates are set and specific locations have been chosen with schools located across the state.

Beloit, KS - January 25 (Tuesday) - 8:00 am to 1:00 pm

First Christian Church in Beloit, 321 N. Mill Street

Contact: Sandra Wick, swick@ksu.edu

Holton, KS - January 25 (Tuesday) - 3:00 to 7:00 pm

NEK Heritage Complex – Jackson County Fairgrounds (south of Holton), 12200 214th Rd

Contact: David Hallauer, dhallaue@ksu.edu

Newton, KS - February 1 (Tuesday) – 8:00 am to 1:00 pm

Meridian Conference Center, 1420 E. Broadway Ct

Contact: Ryan Flaming, flaming@ksu.edu

Parsons, KS - February 1 (Tuesday) – 3:00 to 7:00 pm

Southeast Research and Extension Center, 25092 Ness Rd

Contact: James Coover, jcoover@ksu.edu

Oakley, KS - February 8 (Tuesday) – 8:00 am to 1:00 pm

Buffalo Bill Cultural Center, 3083 US-83

Contact: Kelsi Wertz, kjwertz@ksu.edu

Great Bend, KS - February 8 (Tuesday) – 3:00 to 7:00 pm

Knights of Columbus Hall, 723 Main Street

Contact: Stacy Campbell, scampbel@ksu.edu

Lunch/dinner will be provided courtesy of the Kansas Soybean Commission. There is no cost to attend, but participants are asked **to pre-register by January 19**. Online registration is available at <http://bit.ly/KSUSoybean>. You can also register by emailing/calling the nearest K-State Research and Extension office for the location you plan to attend (contact emails for each location are listed above).

2022 SOYBEAN SCHOOLS

KANSAS STATE
UNIVERSITY

Department of Agronomy



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6. Kansas Corn Schools scheduled for early 2022



The popular Kansas Corn School series is returning in January and February with four one-day in-person schools to be held across the state and one virtual session. K-State Research and Extension is partnering with Kansas Corn to offer the winter learning sessions for Kansas corn farmers.

The schools will cover a number of issues facing corn producers and are tailored to each region. Topics include weed control, insect resistance, fertility management, disease management and late-planting seasons, economics, and farm policy. Morning refreshments and a hot lunch are provided at the in-person schools.

In-person schools will begin at 8:30 am with registration and the program will end around 1:00 pm. The virtual school will take place on Zoom from 6:00 to 8:00 pm on February 3.

2022 Kansas Corn Schools

- **January 7 – Oakley**
Buffalo Bill Cultural Center
- **January 14 – Salina**
Hilton Garden Inn
- **January 18 – Parsons**
Holiday Inn Express Convention Center
- **February 3 – Virtual**
Online only via Zoom
- **February 24 – Hiawatha**
Fisher Center

Registration for your school of choice is available online at <https://kscorn.com/cornscool/>

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