



K-STATE
Research and Extension

Extension Agronomy

eUpdate

11/17/2022

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. Recent cold front brings snow and needed moisture to Kansas

Snow fell for the first time this fall across many parts of Kansas on November 14. While amounts were not particularly heavy, measurable snow was observed in many parts of the state. After a warm autumn, this recent cold spell and associated snow was an abrupt change in the weather for most of Kansas. The latest Drought Monitor reports that almost 70% of Kansas is under severe to exceptional drought. In times like this, every precipitation event, rain or snow, is important. In this report, we take a closer look at average snowfall totals across Kansas and what snow means in terms of added moisture to the soil.

Snow amounts for November 14, 2022

For the snow event on November 14, a few locations exceeded their November average. As much as 5 inches of snow was reported in the southwest part of the state, in Stevens, Gray, Haskell and Grant counties. Lesser amounts from 2 to 3 inches were reported in parts of central Kansas, and from 0.5 to 2 inches across much of eastern Kansas. Much of this snow melted the next day, with sunshine and above-freezing temperatures, but it's a reminder that winter is just around the corner.

Average snowfall for Kansas

Monthly average snowfall amounts for 45 locations, five within each climate division, are listed in Table 1, along with cumulative totals for those months with non-zero snowfall: September through May, although not all sites average snow in all months. Divisional averages for each set of five cities appear in Table 2.

Average snowfall for a "snow year", defined here as the period from July 1-June 30, ranges from 6 to 30 inches across the state, with a statewide average of 16 inches. Goodland has the highest amount, 30 inches, helped in part by being one of only four locations that averages a small amount of snow in September. Goodland averages 3.3 inches in November, second only to Colby for the largest November amount in the state. All locations average some snow in November, but the statewide average is only 1.2 inches.

About 70% of the total snow that falls in a snow year typically occurs between December and February. That's from 5 to 16 inches of snow depending on your location in the state. The snowiest month varies around the state. In Salina, December is the snowiest month on average. In Garden City, it's January, and in Goodland, it's February. But these numbers are 30-year averages; every year is different. In 2013-14, Manhattan had 41.1 inches. Three years later, in 2016-17, there was only 3.2 inches. One strong winter storm could drop the majority of the accumulation in any given snow year. In December 2005, Manhattan had 12 inches of snow from a single storm, and only 6.7 inches in the other months of the 2005-2006 snow year. If you missed out snow this week, there are still plenty of time as we move into meteorological winter in just two weeks, starting on December 1.

Table 1. Monthly snowfall averages for various locations around Kansas. These averages are 30-year normals, based on the period 1991-2020, as calculated by the National Weather Service.

Kansas State University Department of Agronomy

2004 Throckmorton Plant Sciences Center | Manhattan, KS 66506

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

	City	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
North west	Colby	0.2	1.6	3.5	3.9	5.1	5.8	4.2	2.2	0.7	27.2
	Goodland	0.2	2.0	3.3	5.2	4.7	6.3	4.8	3.2	0.3	30.0
	Hill City	0.0	0.7	1.5	3.8	3.3	5.5	2.1	0.3	0.2	17.4
	Oberlin	0.0	1.3	2.3	4.2	5.7	6.2	3.4	1.9	0.2	25.2
	St. Francis	0.3	0.9	2.0	2.9	4.6	4.5	2.9	1.7	0.0	19.8
North Centra l	Cawker City	0.0	0.3	1.6	3.5	4.5	5.8	1.7	0.5	0.0	17.9
	Concordia	0.0	0.3	1.9	4.5	5.4	5.2	1.6	0.4	0.0	19.3
	Minneapolis	0.0	0.3	1.6	4.5	4.7	3.4	2.2	0.9	0.0	17.6
	Phillipsburg	0.0	0.7	1.1	3.2	3.4	6.6	1.5	0.5	0.0	17.0
	Washington	0.0	0.1	1.0	2.4	4.6	4.6	1.4	0.3	0.0	14.4
Northe ast	Atchison	0.0	0.3	0.9	3.8	5.0	4.8	1.8	0.4	0.0	17.0
	Bonner Springs	0.0	0.3	1.1	4.3	5.0	5.1	1.5	0.1	0.0	17.4
	Hiawatha	0.0	0.0	1.2	3.6	4.7	4.1	2.2	1.1	0.0	16.9
	Manhattan	0.0	0.0	1.1	4.8	4.8	5.0	1.8	0.1	0.0	17.6
	Marysville	0.0	0.1	1.0	3.3	4.9	4.3	1.5	0.7	0.0	15.8
West Centra l	Ness City	0.0	0.4	1.3	3.2	3.2	3.5	3.3	0.4	0.1	15.4
	Oakley	0.0	1.2	2.5	4.5	4.5	6.6	4.2	1.8	0.4	25.7
	Scott City	0.0	1.2	1.1	3.1	4.5	4.0	3.9	1.8	0.0	19.6
	Tribune	0.1	1.3	2.1	3.8	4.2	4.2	3.6	2.1	0.3	21.7
	WaKeeney	0.0	1.1	1.8	4.3	4.3	4.3	3.2	1.3	0.0	20.3
Centra l	Abilene	0.0	0.2	1.0	2.2	4.1	2.8	1.7	0.2	0.0	12.2
	Great Bend	0.0	0.1	1.7	2.3	2.2	2.6	2.3	0.3	0.0	11.5
	Hays	0.0	0.3	1.4	3.3	3.4	4.8	2.1	0.5	0.0	15.8
	McPherson	0.0	0.1	0.6	2.9	4.1	3.3	2.6	0.6	0.0	14.2
	Salina	0.0	0.5	1.4	4.1	3.8	4.0	1.3	0.4	0.0	15.5
East Centra l	Council Grove	0.0	0.4	0.5	2.8	4.0	2.9	1.2	0.2	0.0	12.0
	Emporia	0.0	0.1	1.4	3.9	5.5	4.1	1.0	0.3	0.0	16.3
	Garnett	0.0	0.5	0.4	3.0	4.8	2.5	1.4	0.2	0.0	12.8
	Olathe	0.0	0.3	1.2	3.4	3.9	3.3	1.4	0.3	0.0	13.8
	Topeka	0.0	0.4	1.0	4.1	4.6	5.2	1.7	0.1	0.0	17.1
South west	Ashland	0.0	0.1	0.5	3.2	2.3	3.6	1.8	0.1	0.0	11.6
	Dodge City	0.0	0.6	1.4	4.0	3.9	4.7	3.7	0.8	0.0	19.1
	Elkhart	0.0	0.7	1.2	4.7	4.2	2.1	3.5	0.4	0.8	17.6
	Garden City	0.0	0.8	1.0	2.7	3.4	3.3	3.2	1.1	0.1	15.6
	Liberal	0.0	0.7	1.0	4.6	3.5	1.8	2.3	0.4	0.1	14.4
South Centra l	Greensburg	0.0	0.4	1.4	3.6	4.5	2.6	3.8	0.0	0.0	16.3
	Hutchinson	0.0	0.0	0.7	3.1	3.5	1.9	2.3	0.3	0.0	11.8
	Medicine Lodge	0.0	0.0	0.3	2.1	2.1	4.0	0.8	0.1	0.0	9.4
	Pratt	0.0	0.1	0.4	2.6	3.6	3.9	4.1	0.4	0.0	15.1
	Wichita	0.0	0.2	0.8	3.1	2.7	3.6	2.1	0.2	0.0	12.7
Southe ast	Arkansas City	0.0	0.0	0.2	1.9	1.8	1.1	1.1	0.1	0.0	6.2
	Coffeyville	0.0	0.0	0.6	3.2	1.8	1.4	1.3	0.0	0.0	8.3
	Eureka	0.0	0.1	0.5	3.0	2.8	1.2	0.9	0.1	0.0	8.6
	Fort Scott	0.0	0.0	0.4	2.3	3.9	1.0	0.7	0.1	0.0	8.4
	Pittsburg	0.0	0.0	0.6	2.9	3.4	1.0	1.6	0.0	0.0	9.5

Table 2. Monthly snowfall averages by climate division.

Division	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Northwest	0.1	1.3	2.5	4.0	4.7	5.7	3.5	1.9	0.3	23.9
North Central	0.0	0.3	1.4	3.6	4.5	5.1	1.7	0.5	0.0	17.2
Northeast	0.0	0.1	1.1	4.0	4.9	4.7	1.8	0.5	0.0	16.9
West Central	0.0	1.0	1.8	3.8	4.1	4.5	3.6	1.5	0.2	20.5
Central	0.0	0.2	1.2	3.0	3.5	3.5	2.0	0.4	0.0	13.8
East Central	0.0	0.3	0.9	3.4	4.6	3.6	1.3	0.2	0.0	14.4
Southwest	0.0	0.6	1.0	3.8	3.5	3.1	2.9	0.6	0.2	15.7
South Central	0.0	0.1	0.7	2.9	3.3	3.2	2.6	0.2	0.0	13.1
Southeast	0.0	0.0	0.5	2.7	2.7	1.1	1.1	0.1	0.0	8.2
Statewide	0.0	0.5	1.2	3.5	4.0	3.8	2.3	0.6	0.1	16.0

How much moisture is in snow?

Several terms are used when talking about how much moisture is contained in a certain amount of snow. In Kansas, the most frequently used term is often *liquid equivalent*. This is the depth of water that would result from melting a sample of snow. Liquid equivalent is the amount of measurable moisture if the snow were to have fallen as rain. This is where the infamous “10-to-1” ratio has its roots. The “10-to-1” ratio is the assumption that for every 10 inches of snow that falls, there is roughly 1 inch of actual moisture. This ratio is actually only an estimate and is based on snow forming in the 28-34 degrees F range. If temperatures are colder, say in the 10 to 15 degree F range, estimates can be as high as 30-to-1 (30 inches of snow equal to 1 inch of moisture/precipitation). This is a simplified estimation because snow liquid equivalent is also subject to temperature and humidity above the surface as well. Historically, average Kansas snow ranges from 12-14 inches per 1 inch of moisture (Figure 1).

For the recent snow event on November 14, the Dodge City National Weather Service office measured 1.9 inches of snow. The liquid amount of the melted snow reported was 0.11 inches. This results in a snow-to-liquid ratio of 17.3. During the snowfall, surface temperatures ranged from 23 to 26 degrees F, so ratios higher than 10-to-1 are expected. Other ratios from this event include 14.5 at Larned (3.2 inches snow, 0.22 inches liquid), 14.0 at Hugoton (2.8 inches snow, 0.20 inches liquid) and 12.5 at Minneapolis (2.5 inches snow, 0.20 inches liquid).

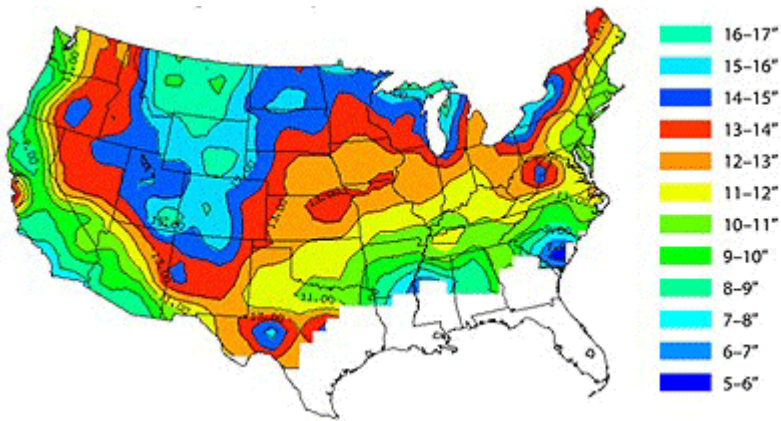


Figure 1. Average amount of snow per inch of water, 1971-2000. Graphic by Marty Baxter, Saint Louis University, courtesy of UCAR Comet Program – www.comet.ucar.edu.

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2. Natural Resources Conservation Service unveils a new website

The Natural Resources Conservation Service (NRCS) recently modernized their website www.nrcs.usda.gov. The new NRCS website has been designed with the conservation program user in mind. The goals of the new website are to support and enhance the NRCS mission by delivering relevant, timely, customer-focused information in an easy-to-navigate platform.

Key features include:

- It's been designed using the U.S. Web Design System, so you'll see a certain "family resemblance" among USDA and other federal websites, including farmers.gov.
- It's accessible (or 508 conformant), meaning the site is designed for use by people with disabilities.
- It's mobile responsive, meaning that it should work on a phone or tablet as easily as on a desktop computer.

Content is organized under four key headers:

- **Conservation Basics:** In this section, there is information on natural resource concerns such as soil, water, plants, animals, land, etc. and [Conservation by State](#) which allows users to explore state level information and well as state office contact information.
- [Getting Assistance](#): This section provides links to technical help, financial help, compliance and cultural resources, and other topics.
- **Programs and Initiatives:** There are four key sub sections:
 - [Programs](#) which directs users to information from NRCS on programs such as the Environmental Quality Incentive Program (EQIP);
 - [Easements](#) which directs users to information from NRCS on programs such as Wetland Reserve Easements;
 - [Watershed Programs](#) which directs users to information from NRCS on contents such as Emergency Watershed Protection and Watershed and Flood Prevention Operation;
 - [Initiatives](#) which directs users to information from NRCS on initiatives such as Grazing Lands Conservation Initiative and High Tunnels.
- **Resources:** In this section, users will find detailed information on NRCS conservation practice standards, soil survey and taxonomy resources, links to NRCS databases, education and teaching materials and resources such as the Web Soil Survey which is described in more detail below.

Be sure to check out [Guides and Instructions](#) – Users can search by resource type, NRCS program, natural resource concern, and state.

Web Soil Survey

A popular resource found within the NRCS website is the [Web Soil Survey](#) (WSS). The WSS provides agricultural producers, agencies, Technical Service Providers, and others electronic access to relevant soil and related information needed to make land-use and management decisions. The WSS:

- Provides an alternative to traditional hardcopy publication for quicker delivery of information,
- Provides access to full soil survey report content,
- Provides access to the most current data, and

- Provides customers with the ability to download spatial, tabular, and thematic soils data for use in GIS.

To learn more about the Web Soil Survey, visit <https://www.nrcs.usda.gov/resources/data-and-reports/web-soil-survey>

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3. Kansas Ag-Climate Update for October 2022

The Kansas Ag-Climate Update is a joint effort between our climate and extension specialists. Every month the update includes a brief summary of that month, agronomic impacts, relevant maps and graphs, 1-month temperature and precipitation outlooks, monthly extremes, and notable highlights.

October 2022: Drought conditions persisted and expanded in Kansas

The statewide average temperature for October was 57.7°F, or 1.5° above normal. This ranks as the 41st warmest October out of the last 128 years, dating back to 1895. Divisional departures from normal ranged from +0.3° in the northeast to +2.8° in the northwest. Combined with August and September, the average temperature was 69.6°, or 2.2° above normal (Fig. 1), and ranks as the 20th warmest.

The statewide average precipitation for October was 0.69", or 1.63" below normal (Fig. 1). This was the 15th driest October on record. The average 3-month total precipitation for August through October was 3.25", or 5.10" below normal, and ranks as the driest August-October on record. The previous record was 3.55" in 1956. This 3-month period ranks as top 7 driest in all climate divisions, but ranks 1st in both east central (4.86", old record 5.21") and south central (2.15", old record 2.85").

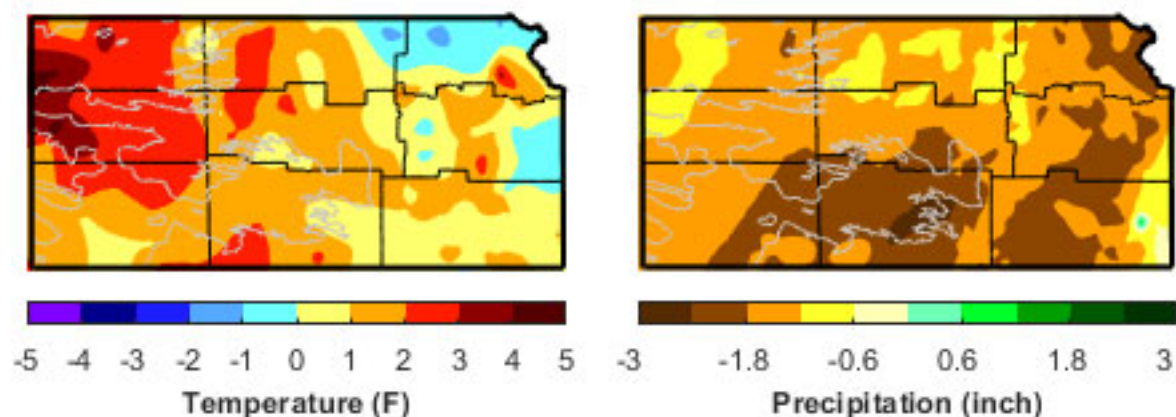


Figure 1. Departures from normal temperature (°F) and precipitation (inches) for October 2022.

View the entire October 2022 Ag-Climate Update, including the accompanying maps and graphics (not shown in this eUpdate article), at <http://climate.k-state.edu/ag/updates/>

Xiaomao Lin, State Climatologist

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4. Don't miss out on free Soybean Cyst Nematode testing through K-State

Soybean cyst nematode (SCN) is a major problem in soybean fields throughout eastern and central Kansas. As of January 1, 2020, SCN was identified in 59 Kansas counties that produce >85% of Kansas soybeans. It is important to monitor SCN levels regularly to determine if management strategies, such as variety resistance and crop rotation, have been successful.

Immediately following harvest is the best time to check fields for SCN and start planning for next season. Confirming the presence of SCN and determining population levels is the basis for a successful integrated management program.

To make that process easier, the K-State Plant Disease Diagnostic Lab is now offering free SCN testing for Kansas producers. This program is facilitated by a grant received from the SCN Coalition.

Detailed instructions for collecting and shipping samples to the K-State Plant Disease Diagnostic Lab can be found in this recent eUpdate article: https://eupdate.agronomy.ksu.edu/article_new/free-soybean-cyst-nematode-testing-is-available-through-ksu-plant-disease-diagnostic-lab-518-3

Remember, your results will only be as good as the sample that you send to the lab!

You can also check out this short, informative video from the lab: Soybean Cyst Nematode-SCN Sampling 2022, <https://youtu.be/b6Eo0is11I0>.

Please note that the Plant Disease Diagnostic Lab will be closed from 12/26/2022 through 1/2/2023.

For more information, feel free to contact us at the K-State Plant Pathology Department.

Rodrigo Onofre, Row Crop Plant Pathologist
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5. Winter Forage Conference: Drought survival, recovery, and success - Dec. 15

The Kansas Forage and Grassland Council and Kansas State University are teaming up to host their Annual Winter Forage Conference: Drought Survival, Recovery, and Success, on Thursday, December 15, in Great Bend, Kansas. The meeting will be held at the Burnside Room, 1214 Stone Street, and will run from 9:00 a.m. to 3:00 p.m., with a meal included.

This year's conference features a great mix of university and industry presentations, with sessions covering range weed control, cattle markets, drones, soil fertility, alfalfa management, and tips for building a resilient business. Featured industry partners include Forage Genetics and Star Seed.

Tentative Agenda

- Weed Control – Keith Harmony
- Cattle Market Update – Glynn Tonsor
- Drones, Not Tomorrow's Fantasy – Trent Page
- Soil Fertility – Lucas Haag
- Alfalfa Management Decisions – Jerry Gano
- "Plan B" Ranch: Building a Resilient Business – Kevin Wiltse

"Our presenters are some of the leading experts in Kansas, with a wealth of knowledge and experience," said Dale Helwig Black, KSFGC President. "And we have a great mix of Industry Partners presenting at the conference. Companies with a long history and great forage expertise, like Forage Genetics and Star Seed," said Mark Nelson, KSFGC Executive Secretary.

The event is free for current KSFGC members and \$45 for non-members (which includes your KSFGC membership and lunch). To renew your membership or join KSFGC prior to the meeting, go to https://www.afgc.org/restricted-content/?amo_redirect_to=https://www.afgc.org/member-center/, or you can join at the door.

For more information, **to RSVP for the meal count**, or inquire about a vendor table, contact the Cottonwood Extension District Barton County Extension Office at 620-793-1910.

6. K-State/KARA Crop Production Update - Dec. 7-8 in Manhattan

The 2022 Crop Production Update, hosted by the Kansas Agribusiness Retailers Association (KARA) and in cooperation with K-State Research and Extension, will be offered in-person this year, with a virtual option. The two-day event will take place on December 7 and 8 at the Bluemont Hotel in Manhattan, KS. This course will provide a total of 12 CCA CEUS and one Commercial Applicator credit.

This training provides the latest research and technological advances in fertilizer and chemical recommendations, soil fertility, soil water and soil conservation, and much more. The agendas for each day are still being finalized. Confirmed topics include:

- Impacts of the Russia-Ukraine conflict on grain production and market
- Carbon credits: What do we know?
- New nitrogen recommendations for corn
- Weather update
- Sensor-based N management
- Economics of fertility management
- Corn and soybean production update
- Wheat and alfalfa production update
- Soil mineralogy review and applications
- Wind erosion and the Dust Bowl
- Disease management in wheat
- Phosphorus runoff in agroecosystems

Don't delay - get registered today! Registration information and cost options can be found here:

<https://www.ksagretailers.org/events-training/crop-production-update/>

Registration costs differ depending on membership status and the program selected. For registration questions, please contact Clay Fagan at clay@kansasag.org or 785-234-0461.

Romulo Lollato – Wheat and Forages Specialist

lolato@ksu.edu



2022 KARA Crop Production Update

Kansas Agribusiness Retailers Association
K-State Research and Extension

8:30 a.m. – 4:40 p.m. December 7 and

8:30 a.m. – 2:50 p.m. December 8

Bluemont Hotel, 1212 Bluemont Ave, Manhattan KS 66502

Topics

- Russia-Ukraine conflict
- Carbon credits
- Sensor-based N management
- Weather outlook
- New corn N recommendations
- Wheat and alfalfa production
- Corn and soybeans production
- Wind erosion and the Dust Bowl
- Soil mineralogy
- Wheat diseases
- Phosphorus runoff
- Economics of fertility

Speakers

- Antonina Broyaka
- Peter Tomlinson
- Laila Puntel (UNL)
- Chip Redmond
- Nathan Nelson
- Romulo Lollato
- Ignacio Ciampitti
- Colby Moorberg
- DeAnn Presley
- Kelsey A. Onofre
- Lucas Haag

This event will offer 12 CCA CEUs and one Commercial Applicator credits.

Register online at <https://www.ksagretailers.org/events-training/crop-production-update/>
For registration questions, please contact Clay Fagan at clay@kansasag.org or 785-234-0461.
Prices differ depending on membership status and program selected.

Coffee breaks and lunch are included with registration and will be provided both days.

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Kansas State University is committed to making its services, activities and programs accessible to all participants. If you have special requirements due to a physical, vision, or hearing disability, contact Clay Fagan, 785-234-0461. Kansas State University Agricultural Experiment Station and Cooperative Extension Service
K-State Research and Extension is an equal opportunity provider and employer.

7. 2022 Crop Pest Management Schools

Get registered to attend one of the [2022 Crop Pest Management Schools](#). This year, two schools will be offered in the traditional, in-person format on November 30 in Beloit and December 1 in Grainfield.

Each school will start at 7:50 am with registration and conclude at 5:00 pm. A lunch will be provided to all participants. The cost to attend either of the events is \$50 if registered by November 22. After November 22 and at the door, the cost will be \$75. Please register at northwest.k-state.edu/events/

Each school will feature a variety of topics on weed control, insects, and diseases. The agenda for both locations, with speakers and topics, is detailed below.

The dates and locations of each school are:

November 30 –Beloit, KS

Beloit First United Methodist Church
801 N. Bell St.
Beloit, KS 67420

December 1 – Grainfield, KS

St. Agnes Catholic Church
242 Cedar St.
Grainfield, KS 67737

Agenda for each school

7:50 Registration

8:15 Weather Influences on Herbicide Applications - Chip Redmond, K-State Asst Climatologist and Mesonet Manager

9:10 Research Update & Discussion on Utilizing Cover Crops & Pre-Emergence Herbicides - Vipin Kumar, K-State Weed Scientist at Hays

10:05 Break

10:20 Stalk rots, Ear rots, and Other Dry Weather Row Crop Diseases - Rodrigo Onofre, K-State Row Crop Pathologist

11:15 Herbicide resistance, mechanisms and alternative weed control technologies - Michael Walsh, University of Sydney (Australia) Weed Scientist

12:10 Lunch

12:50 Getting the most effective herbicide applications in dry conditions - Sarah Lancaster, K-State Extension Weed Scientist

1:45 Insect pests that we should be on the lookout for in central and western Kansas - Anthony

Zukoff, K-State Entomologist

2:40 Break

2:55 Lookalikes – Is this herbicide damage or another pest problem? - Jeanne Falk Jones, K-State Multi-County Agronomist, Craig Dinkle, K-State Crop Production Agent, Sandra Wick, K-State Crop Production Agent

3:50 Kansas Regulations (Core Hour) with KDA Representative

4:45 Questions

5:00 Adjourn

Continuing Education Credits have been applied for and include:

- 1A Commercial Applicators: 7 credits and 1 core hour
- Certified Crop Advisor: 8 pest management credits

For questions, please contact the Northwest Area Research and Extension office at 785-462-6281 or email Jeanne Falk Jones at jfalkjones@ksu.edu



CROP PEST MANAGEMENT SCHOOLS

Wednesday, November 30th:

Beloit First United Methodist Church
801 N. Bell St., Beloit, KS 67420

Thursday, December 1st:

St. Agnes Catholic Church
242 Cedar St., Grainfield, KS 67737

**Cost is \$50 if registered by November 22.
After Nov. 22 & at the door, cost is \$75**

Continuing Education Credits:

1A Commercial Applicators: 7 credits and 1 core hour applied for
Certified Crop Advisors: 8 pest management credits applied for

Schedule:

7:50: Registration

8:15: Weather Influences on Herbicide Applications

Chip Redmond, K-State Asst Climatologist and Mesonet Manager

9:10: Research Update & Discussion on Utilizing Cover Crops & Pre-Emergence Herbicides

Dr. Vipin Kumar, K-State Weed Scientist at Hays

10:05: Break

10:20: Stalk rots, Ear rots, and Other Dry Weather Row Crop Diseases

Dr. Rodrigo Onofre, K-State Row Crop Pathologist

11:15: Herbicide resistance, mechanisms and alternative weed control technologies

Dr. Michael Walsh, University of Sydney (Australia) Weed Scientist

12:10: Lunch

12:50: Getting the most effective herbicide applications in dry conditions

Dr. Sarah Lancaster, K-State Extension Weed Scientist

1:45: Insect pests that we should be on the lookout for in central and western Kansas

Anthony Zukoff, K-State Entomologist

2:40: Break

2:55: Look alikes - Is this herbicide damage or another pest problem?

Jeanne Falk Jones, K-State Multi-County Agronomist, Craig Dinkle, K-State Crop Production Agent,
Sandra Wick, K-State Crop Production Agent

3:50: Kansas Regulations (Core Hour) with KDA Representative

4:45: Questions

5:00: Adjourn

Registration available at: www.northwest.ksu.edu/events

For any questions please contact your local Extension Agent



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