

Extension Agronomy

eUpdate

01/12/2018

These e-Updates are a regular weekly item from K-State Extension Agronomy and Kathy Gehl, Agronomy e-Update 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 Curtis Thompson, Extension Agronomy State Leader and Weed Management Specialist 785-532-3444 cthompso@ksu.edu.

Subscribe to the eUpdate mailing list: https://listserv.ksu.edu/cgibin?SUBED1=EUPDATE&A=1

eUpdate Table of Contents | 01/12/2018 | Issue 668

1. Winter/spring options for winter annual broadleaf control in wheat	3
2. Training required for application of dicamba herbicides	5
3. Prescribed Burning workshops scheduled for 2018	6
4. Kansas weather highlights for 2017	7
5. 2017 Kansas climate summary: Dry to wet to dry again	15
6. Kansas Agricultural Technologies Conference, January 18-19 in Junction City	22
7. Canola College 2018 in Enid, Oklahoma, January 19	23
8. Cover Your Acres Winter Conference, January 16-17 in Oberlin	25
9. Western Kansas Forage Conference, February 21 in Garden City	27
10. Mark your calendar for the K-State Sorghum Schools in early February	29
11. Get registered for the K-State Soybean Schools offered in late January	31

1. Winter/spring options for winter annual broadleaf control in wheat

There are several herbicide options for controlling winter annual broadleaf weeds in wheat. Generally, fall applications will provide the best control of winter annual weeds with any herbicide, as long as the weeds have emerged. The majority of winter annual weeds usually will emerge in the fall, although you can still have some emergence in the spring, especially if precipitation after planting is limited in the fall. However, winter annual weeds that emerge in the spring often are not very competitive with the crop, at least in years when there is a decent crop.

Some herbicides can work well even when applied during the dormant part of the season, while others perform best if the crop and weeds are actively growing. The key difference relates to the degree of soil activity provided by the herbicide. Herbicides that have good residual activity, such as Glean, Finesse, Amber, and Rave can generally be applied in January and February when plants aren't actively growing and still provide good weed control, assuming you have proper conditions for the application. Most other herbicides, which depend more on foliar uptake, will not work nearly as well during the mid-winter months, when the wheat and weeds aren't actively growing, as compared to a fall or early spring application. This may be especially true this year due to the colder temperatures and dieback of foliage this winter.

Spring herbicide applications can be effective for winter annual broadleaf weed control as well, but timing and weather conditions are critical to achieve good control. Spring applications generally are most effective on winter annual broadleaf weeds soon after green-up when weeds are still in the rosette stage of growth, and during periods of mild weather. Once weeds begin to bolt and wheat starts to develop more canopy, herbicide performance often decreases dramatically.

Spring-germinating summer annual weeds often are not a serious problem for a good healthy stand of wheat coming out of the winter. However, if wheat stands are thin and the wheat is very late developing, early-germinating summer annual weeds such as kochia, Russian thistle, and wild buckwheat may be a problem, especially at harvest time. Many of these weeds may be controlled by residual herbicides applied earlier in the season. If not, post-emergence treatments should be applied soon after weed emergence and before the wheat gets too large in order to get good spray coverage and achieve the best results.

Another important consideration with herbicide application timing is crop tolerance at different application timings. For example, 2,4-D should not be applied in the fall or until wheat is fully tillered in the spring. On the other hand, any herbicide containing dicamba can be applied after wheat has two leaves, but should not be applied once the wheat gets close to jointing in the spring, Herbicides containing dicamba include Banvel, Clarity, Rave, Pulsar, Agility SG, and several generic dicamba products. Dicamba is one of the most effective herbicides for kochia control, but if the wheat is starting to joint, it shouldn't be applied. At that point, Starane Ultra or other herbicides containing fluroxypyr would be a safer option and could still provide good kochia control. Most other broadleaf herbicides in wheat can be sprayed from the time that wheat starts tillering until the early jointing stages of growth, but the label should always be consulted to confirm the recommended treatment stages before application.

The best advice regarding crop safety with herbicide-fertilizer combinations and application timing is to follow the label guidelines. We generally see minimal crop injury and no yield loss from topdress

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 fertilizer/residual herbicide applications during the winter months. However, these combinations can often cause considerable burn to the wheat if applied when the crop is actively growing and with warmer weather. The foliar burn is generally temporary in nature and the wheat usually will recover if good growing conditions persist, but the risk of serious injury increases after wheat starts to joint.

Dallas Peterson, Weed Management Specialist dpeterso@ksu.edu

2. Training required for application of dicamba herbicides

As we embark on the 2018 growing season, producers should be aware that dicamba herbicides Engenia, FeXapan, and XtendiMax have been reclassified as Restricted Use Pesticides (RUPs). In order to purchase and apply these herbicides, you must be certified as a private or 1A (Agriculture Plant) commercial pesticide applicator. In addition, anyone planning to apply these herbicides this coming season will be required to attend dicamba or auxin specific applicator training. In Kansas, these trainings will be sponsored by K-State Research and Extension, as well as industry representatives from BASF, Dow/Dupont, and Monsanto. It will be the responsibility of the applicators to obtain this training before the application of these herbicides.

The purpose of these trainings is to cover the label changes and application requirements in detail and provide information on what you, as an applicator, need to do to meet these requirements. The labels for these herbicides include mandatory record keeping requirements, modified wind speed restrictions (3 to 1 miles per hour only), limited times of day that applications can be made (between sunrise and sunset), a revised list of sensitive crops and sensitive sites, buffer zone requirements, and revised sprayer cleaning procedures and documentation.

The dates and locations for K-State Research and Extension sponsored trainings will be posted on the KSU-IPM website at the following address:

https://www.ksre.k-state.edu/pesticides-ipm/private-applicator.html

Frannie Miller, Pesticide Safety and IPM Coordinator <u>fmiller@ksu.edu</u>

Dallas Peterson, Extension Weed Specialist dpeterso@ksu.edu

3. Prescribed Burning workshops scheduled for 2018

Several Prescribed Burning workshops are currently scheduled for the remainder of the winter in Kansas, with the possibility of more upon request. The agencies involved include K-State Research and Extension, USDA-NRCS, USDA-FSA, Department of Wildlife, Parks, and Tourism, National Weather Service, and the Kansas Prescribed Fire Council.

Each workshop lasts about 4-5 hours and includes topics on reasons for burning, regulations, weather considerations, liability, burn contractors, equipment and crew, hazards, fuels, firebreaks, fire types and behavior, ignition techniques, and burn plans.

Contact Walt Fick at 785-532-7223 or <u>whfick@ksu.edu</u> if you would like to host a prescribed burning workshop.

Workshop	Date	Location	Host/Contact	Agency	Phone	e-mail
Stafford Co.	Jan. 23	Hudson	Glenn	KPFC	620-549-3502	gnewdigg@ksu.edu
			Newdigger			
Clay Co.	Feb. 20	Clay Center	Benjamin	FSA	785-632-3550	ben.hanson@ks.usda.gov
			Hanson			
Reno Co.	Feb. 21	South	Jess Crockford	KPFC	620-669-8161	Jess.crockford@ks.usda.gov
		Hutchinson				
Dickinson	Feb. 26	Woodbine	James Coover	KSRE	785-263-2001	jcoover@ksu.edu
Co.						
Saline Co.	Feb. 28	Salina	Tom Maxwell	KSRE	785-309-5850	tmaxwell@ksu.edu
Rooks Co.	Mar. 8	Stockton	Dorothy Heim	FSA	785-425-6302	dorothy.heim@ks.usda.gov

Walt Fick, Range Management Specialist whfick@ksu.edu

4. Kansas weather highlights for 2017

The following is a month-by-month highlight reel of the significant weather events affecting Kansas

in 2017.

<u>January</u>

The highlight of January weather was the storm system that moved through the state from the 13th through the 16th. Eastern Kansas missed most of the ice, while southwest Kansas saw significant icing followed by as much as 6 inches of snow. This event pushed the state-wide average precipitation to 1.60 inches, or 227 percent of normal. It ranks as the 7th wettest.



Ice in Elk City. Photo by Samantha Mueller.

February

Warm, dry weather was the predominant feature for February. It ranked as the 7th warmest February on record. It was also very dry. With a statewide average of just 0.23 inches, it ranked as the 14th driest since 1895. Fire danger was a major concern.



<u>March</u>

Although March ended on a wet note, it was the month of wildfires. There were thirteen major events on March 6th alone. One of the worst fires was the complex that affected Clark County. There were seven separate fires. Two moved near or through Englewood, originating in Oklahoma. Another consumed several homes just north of Ashland. Four others in northern Clark County consumed several homes initially but became a monster fire as the cold front moved through. Preliminary damages were estimated at over 3 million dollars, with miles of fence destroyed, an untold number of cattle killed, and 425,000 acres burned in Clark County alone.



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

Satellite imagery of burn area. Source: NWS DDC.

<u>April</u>

While much of April was warmer-than-normal, the last week brought a return to cold, wintery weather in the western third of the state, and cold rainy weather in the east. Thirteen stations recorded record amounts of snow for a three-day spring storm ending on the 1st of May. Tribune 1W, in Greeley County, reported 22 inches of snow for the event, with part of that total reported on the 1st of May. There were widespread reports of more than a foot of snow. This was complicated by strong winds, with averages over 30 mph for more than six hours, and peak winds in excess of 55 miles per hour. The storm also included cold temperatures with lows below the freezing mark each of the three days of the storm, with some locations reporting over 48 hours of below-freezing temperatures.



Snow on lilacs on April 27 in Tribune, Kansas. Photo by R. Mai.

<u>May</u>

After the remnants of the winter storm, an outbreak of typical spring severe weather occurred. There were 37 reports of tornadoes, 160 hail reports, and 106 high wind reports during May. The largest outbreak came during the week of May 16th to May 22nd when 35 tornadoes and 123 hail events were reported. With the storms came a month of above-normal precipitation, erasing drought from the state. Rains were frequent enough that even the divisions with below-normal precipitation had planting delays.



U.S. Drought Monitor for Kansas, May 30, 2017. Source: http://droughtmonitor.unl.edu

<u>June</u>

Severe weather was the significant weather feature of June with most of the events in the form of hail and high winds. There were 3 reports of tornadoes, which is less than the 1950-2016 average of 14 tornadoes in June. In addition, there were 152 hail reports, and 178 high wind reports. One of the worst outbreaks came during the week of June 14-20 when 117 hail events and 124 wind events were reported. The largest hail stones reported were 4.5 inches in diameter near Ulysses on the 20th. The Kansas Mesonet recorded a 24-hour peak wind of 77 mph at Hays for the period ending on June 16th at 9:55 a.m.



Maximum winds at 10 meters. Source: Kansas Mesonet.

<u>July</u>

The most damaging event of July was the flooding in Johnson County, following the heavy rains on the 27th. Catastrophic flooding was reported along several local streams, including Indian Creek in Overland Park and Tomahawk Creek in Leewood. Numerous swift water rescues were performed across the city and surrounding areas.



Radar estimated precipitation for July 26-27, 2017. Source: NWS EAX

<u>August</u>

The most notable weather feature for August was the cooler-than-normal temperatures. The statewide average temperature was 72.7 degrees F, which is a -4.4 degree departure from normal. All divisions were in the cooler-than-normal range. The Northwest Division was closest to normal with an average temperature of 71.1 degrees F, or -3.6 degrees from normal. The East Central Division had the greatest departure; the average for that division was 72.1 degrees F which resulted in a departure of -5.0 degrees. The other big event was astronomical rather than meteorological, and that was the solar eclipse on August 27th. Unfortunately, cloudy weather obscured much of the path in Kansas.



Eclipse through the clouds in Manhattan, KS. Photo by G. Jacobus.

<u>September</u>

The main feature in September was a split pattern in the precipitation, with the heaviest rains in the western third of the state. All three western divisions saw more than 100 percent of normal, as did the South Central Division. None of the eastern divisions saw even half of their normal rainfall. This wasn't as much of a challenge in the East Central Division, which saw the only heavy precipitation in August. Statewide average precipitation was 2.09 inches or 94 percent of normal.



<u>October</u>

A quick switch from warm to cold temperatures marked October. The coldest reading reported for the month was 11 degrees F reported at both Alton 2SW, Osborne County, and Russell 2E, Russell County, on the 28th. The 15 degrees F low reported at Great Bend 3W on the 31st set not only a

record low for the date, but also a record low for the month at that location. That system also brought the first snow of the season as a Halloween storm.



Snow falling. Photo is public domain.

<u>November</u>

The major climate feature for November was the dryness. Statewide average precipitation was just a tenth on an inch. That places the month in a 3-way tie for the sixth driest November on record. The driest November on record was in 1989 when the statewide average precipitation was zero, and the greatest amount reported was just 0.01 inches. Not surprisingly, drought conditions expanded.



U.S. Drought Monitor for Kansas, November 28, 2017. Source: http://droughtmonitor.unl.edu

December

December started on a very warm note, but ended in the deep freeze. The statewide average temperature was 32.9 degrees F, or 1.5 degrees warmer-than-normal. The very cold end wasn't enough to outweigh the very warm start to the month. The first three weeks of December all averaged above-normal, while the week ending January 2nd averaged 12 degrees cooler-than-normal. All divisions reported below-zero temperatures and many divisions saw the coldest readings of the year in the last three days of the month.



Ice pans on Tuttle Creek Reservoir in Kansas. Photo by Judi Nechols.

Mary Knapp, Weather Data Library mknapp@ksu.edu

5. 2017 Kansas climate summary: Dry to wet to dry again

Despite a very wet January, drought of various stages covered over 80 percent of Kansas at the start of 2017. By the first of May the state was drought free, however a dry pattern developed. Abnormally dry conditions started to emerge by the first of July, particularly in the North Central and South Central Divisions. A pattern of much below-normal precipitation that began in October resulted in a rapid expansion of drought conditions. By the end of December, almost ten percent of the state, mainly in the Southwestern Division, had degraded to severe drought conditions. Conditions from abnormally dry to moderate drought expanded across the rest of the state. With the bookend dryness, this year ranked towards the dry end of the middle range, as the 74th driest since 1895. State-wide average precipitation was below-normal for the first three months, but switched to a wetter pattern in April. By May, only the East Central Division was below-average for the year-todate. The Southwestern Division averaged 4.70 inches in April or almost 3 times the normal for the month. However, the year ended on a dry note, which started in September in the southwest, and progressed to the rest of the state from October through December. December state-wide average precipitation was 0.08 inches, just 5 percent of the normal December total. The greatest annual total for the year at a National Weather Service Cooperative station was 54.40 inches at Erie 1N in Neosho County. The greatest annual total for a CoCoRaHS station 57.24 inches at Farlington 0.8 NNE, Crawford County. The driest reporting station was the Russell Airport, in Russell County, with 17.28 inches. The greatest 24hr precipitation total reported at a CoCoRaHS station was 8.30 inches at Wellsville 3.6 NNW, Douglas County, on August 22nd. The greatest 24hr precipitation total reported at a NWS station was 8.85 inches at Hillsdale Lake, Miami County, also on August 22nd.



Snow was not much of a factor in 2017, although there were several large events. The first major event was in January, where an ice event in southwest Kansas was followed by up to 6 inches of snow. February through March saw some snow events, but generally lighter than usual. The most noteworthy snowstorm was the blizzard that hit western Kansas at the end of April through the first of May. Thirteen stations recorded record amounts of snow for the three-day spring storm ending on the 1st of May. The greatest total for the year was 35.3 inches at Johnson, Stanton County. Most of that came during the April event. Damage from the event is still being collected, but included downed power lines/power poles, tree damage, livestock deaths, and damage to winter wheat. The state average annual snowfall for 2017 was 4.2 inches, below last year's average of 6.6 inches, well below 2015's of over 8.6 inches. The greatest snowfall totals were seen in the Western Division, while several stations reported no snow at all in 2017. In the eastern third of the state, much of the moisture that ended the month of April came as rain not snow. A map which illustrates the snowfall distribution across the state for 2017 is included below.



Temperatures averaged above-normal for the year, but not to the degree of 2016. State-wide average temperature in 2017 was 56.6 degrees F, which places it as the 21st warmest on record where 2016 was the 9th warmest. Only May and August averaged below-normal. February had the greatest departure from normal, with an average of 41.9 degrees F, or 7.9 degrees warmer-than-normal. Temperatures fluctuated considerably during the year, ranging from 111 degrees F at the Salina Airport, Saline County on July 22nd to -15 degrees F at Clinton Lake, Douglas County, on January 6th. Despite being warmer-than-average, all divisions also saw temperatures plunge below zero. Even the Southeast Division recorded sub-zero temperatures, the coldest of which was a -4 degrees F at Winfield 3NE, Cowley County, on December 31st. The average date for the last spring freeze was April 14th. The earliest start to the growing season was a last freeze on March 15th at various locations in the South Central Division. Russell Springs 3N, Logan County, had the latest freezing temperature in the spring with 31 degrees F reported on May 5th.

The first fall freeze was mostly seasonal state-wide. The average date was October 22nd. The earliest first frost was reported on October 10th at Goodland, in Sherman County. The latest first frost was reported at Fredonia, Wilson County, on October 29th when temperatures dropped to 27 degrees F. The average length of the growing season was 190 days. The shortest growing season was at multiple locations in northwest and west central Kansas with 158 days. The station with the longest growing season was the Coffeyville Municipal Airport, Montgomery County, with a growing season of 226 days.



Drought conditions have shifted over the year, with just a short period that was drought-free. The year started with much of the western third of the state in moderate to severe drought. Heavy spring moisture resulted in the state being drought-free by the end of April. This lasted for 6 weeks, with abnormally dry conditions developing first in the North Central Division. Despite the overall wetterthan-average year in the Southwest Division, lack of moisture in the late fall resulted in deterioration. Conditions declined most guickly in the South Central Division, with severe drought conditions in that part of the state. At the end of December almost 9 percent of the state is in severe drought. The rapid switch from extremely wet conditions to extremely dry conditions created problems with establishment of fall seed crops, such as winter wheat and canola. The continued dry weather, coupled with warmer-than-normal temperatures in November meant abnormally dry conditions spread across the state. Currently, approximately 63 percent of the state is in abnormally dry conditions, and an additional 24 percent of the state is in moderate drought. Just over 8 percent of the state is in severe drought. Little improvement is expected during the winter, and the severe drought might continue to push north and eastward. Normal spring rains are critical for any improvement in drought conditions. The El Niño/Southern Oscillation (ENSO) is expected to be in the La Niña phase as we move into the spring. This gives little confidence in increased moisture across the region, and the pattern is expected to continue into the spring.



December 26, 2017 (Released Thursday, Dec. 28, 2017)

Valid 7 a.m. EST

	Drought Conditions (Percent Area)					
	None D0 D1 D2				D3	D4
Current	0.00	67.30	24.08	8.63	0.00	0.00
Last Week 12-19-2017	0.00	79.42	18.73	1.85	0.00	0.00
3 Month s Ago 09-26-2017	59.89	30.03	8.73	1.35	0.00	0.00
Start of Calendar Year 01-03-2017	17.31	51.98	17.13	13.58	0.00	0.00
Start of Water Year 09-26-2017	59.89	30.03	8.73	1.35	0.00	0.00
One Year Ago 12-27-2016	17.31	51.99	17.13	13.58	0.00	0.00

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

The severe weather season wasn't as active as in 2016, nor as active as the 5-year average. Preliminary numbers from the Storm Prediction Center (SPC) show a total of 74 tornadoes in 2017, compared to a total of 99 tornadoes in 2016, and the five-year average (2008-2012) of 116 tornadoes. In contrast, hail and damaging wind reports were higher in 2017, with 590 hail reports versus 569 hail reports in 2016 and 580 damaging wind reports versus 539 damaging wind reports in 2016. Data on other severe weather events are available from the National Climatic Data Center (NCDC) storm database, but only through September.

For the period from January to September, there were 129 flood or flash flood events affecting over 49 counties. There was one fatality from the flood events, in Miami County on the 22nd of August. Preliminary damage reports total to property and crops from the floods was approximately 27 thousand dollars. Generally, these property and crop damage reports are underestimated. In many cases, crop damage isn't immediately available and fails to be included in the storm total. Likewise, property damage that is from uninsured losses often is also missing in the overall total.

There were no excessive heat events reported in 2017. There were 107 winter weather reports, including cold temperatures, snow, ice storms, through September, with the most intense occurring at the end of April. This total does not include the winter weather with extremely cold temperatures in December.

Preliminary Severe Weather Reports for 2017



Table 1 Annual Summary Kansas Climate Division Summary								
	2017 through December				Tempe	Monthly Extremes		
Division	Total	Dep. ¹	% Normal	Ave	Dep. ¹	Max	Min	
Northwest	20.37	-0.99	94	52.8	1.3	109	-15	
West Central	23.25	2.48	112	54.0	1.3	110	-8	
Southwest	24.32	4.42	123	56.3	1.4	106	-10	
North Central	26.29	-1.75	93	55.1	1.8	109	-10	
Central	25.99	-3.30	89	56.7	1.9	111	-7	
South Central	31.18	-0.14	99	57.6	1.9	107	-2	
Northeast	29.28	-5.72	83	55.0	1.8	104	-6	
East Central	33.15	-4.77	86	56.5	1.9	107	-8	
Southeast	41.37	-0.12	99	58.3	1.9	106	-2	
STATE	28.64	-0.75	98	55.8	1.6	111	-15	

1. Departure from 1981-2010 normal value

2. State Highest temperature: 111 % at Salina Airport, Saline County, on July 22nd.

3. State Lowest temperature: -15 % at Clinton Lake, Douglas County, on January 6th.

4. Greatest Annual Precipitation: 54.40 inches at Erie 1N, Neosho County (NWS); 57.24 inches at Farlington 0.8 NNE, Crawford County (CoCoRaHS).

Source: KSU Weather Data Library

Mary Knapp, Weather Data Library <u>mknapp@ksu.edu</u>

6. Kansas Agricultural Technologies Conference, January 18-19 in Junction City

The 21th Annual Kansas Agricultural Technologies (KARTA) Conference will be held January 18-19,

2018 in Junction City at the Courtyard by Marriott & adjacent Convention Center, 310 Hammons Dr.

This annual event brings hundreds of agricultural producers and industry leaders together for a twoday interactive workshop on the ever-changing precision agriculture industry. There will be presentations on a wide variety of topics dealing with precision agriculture. The two-day event also includes vendor displays, the KARTA Annual Meeting, research presentations from grant recipients, and an interactive evening discussion that is always an attendee favorite.

Conference topics and invited speakers include:

- Making precision work, perspectives of a service provider Ty Flichenster, Upward Ag Systems
- Are you harvesting your most important assets? Jeremy Wilson, CropIMS
- The internet of machines Jason Ward, NC State University
- Optimizing every plant with automation Erik Ehn, Blue River Technology
- Approaches to variable rate nitrogen Brian Arnall, Oklahoma State Univ.
- Rapid fire overview of current precision ag research at K-State various K-State faculty

In addition to the invited spearks, KARTA members will present research results from various on-farm projects.

The conference is co-sponsored by K-State Research and Extension and the Kansas Agricultural Research and Technology Association, whose members are producers, university researchers, and industry professionals focused on learning about agricultural production and technological and informational changes on today's farms.

There is a fee for this conference, and you must register. More information about the conference, including online registration, is available at <u>www.KARTA-online.org</u>

Information is also available by contacting Lucas Haag, K-State Research and Extension Northwest Area Crops and Soil Specialist, at 785-462-6281 or https://www.ucashibactuation.org https://www.ucashibactuation.org



The latest developments in canola production and marketing will be highlighted at the Canola College 2018. This conference is sponsored by Kansas State University, Oklahoma State University, Great Plains Canola Association, and partners from the canola industry.

Canola College 2018 will be held January 19 at the Chisholm Trail EXPO Center, 111 W. Purdue, Enid, OK.

This will be the premier canola education/training event in the region in 2018. Canola College 2018 is for anyone with an interest in the canola industry including: experienced and first time growers, crop insurance agents, members of agricultural governmental agencies, and canola industry service and product suppliers. Attendees will hear from canola experts on a variety of key topics and will have the opportunity to visit with industry members who provide the goods and services needed to produce, handle, and market the crop.

Canola College 2018 topics will include:

- Why We Grow Winter Canola Heath Sanders, OSU Southwest Area Extension Agronomist and Josh Bushong, OSU Northwest Area Extension Agronomist
- Advanced Production Practices Bob Schrock, Grower, Kiowa, Kan., Jeff Scott, Grower, Pond Creek, Okla., and David Seck, Grower, Hutchinson, Kan.
- Interactions of Seeding Rate, Row Spacing, and Genetics Kraig Roozeboom, KSU Cropping Systems/Crop Production
- Canola Cropping Systems Josh Lofton, OSU Extension Cropping Systems Specialist
- Managing Harvest to Maximize Yield and Oil Content Mike Stamm, KSU Canola Breeder
- Canola Harvest Management and Combine Adjustment Randy Taylor, OSU Agricultural

Engineering

- **Canola Economics** Trent Milacek, OSU Northwest Area Extension Ag Economist and Rodney Jones, OSU Extension Ag Economist
- Weed Control Misha Manuchehri, OSU Extension Weed Scientist
- Disease Control John Damicone, OSU Extension Plant Pathologist
- Insect Management Tom Royer, OSU Extension Entomologist

The very popular **Canola Learning Laboratory** will be continued in 2018. A meal and coffee breaks are being sponsored by members of the canola industry. The lunch program will consist of updates from Canola College sponsors. Time will be allotted on the program for attendees to meet with sponsors at their booths.

Individuals can register for Canola College 2018 at <u>www.canola.okstate.edu</u>. For more information on Canola College, contact Mike Stamm at 785-532-3871 or <u>mjstamm@ksu.edu</u>

Mike Stamm, Canola Breeder mjstamm@ksu.edu

8. Cover Your Acres Winter Conference, January 16-17 in Oberlin

K-State Research and Extension is partnering with the Northwest Kansas Crop Residue Alliance to host the 15th annual Cover Your Acres Winter Conference for crop producers and consultants on January 16-17 at the Gateway Center in Oberlin, Kansas.

¥	C	Cover Yo Winter Register Onl	Ur Acres	January 16 and The Gateway i	17, 2018 n Oberlin, KS	Like to Attend? <u>Early-Bird Registrations</u> Due January 10.
		Room 1	Room 2	Room 3	Room 4	Online Registration:
7:45	8:15		Registra	tion		www.northwest.ksu.edu/CoverYourAcres
8:15	8:20		Welco	mc		or Mail in:
8:30	9:20	Profitability Opportunities and Pitfalls ¹	A Historical Look at Climate Variability ¹	Moisture Probes: Measurement to	Encirca Services: Analytical Services for Growers	Circle when you would like to attend. Tuesday, Jan 16 Wednesday, Jan 17
9:30	10:20	(M. Wood) Surviving & Thriving in Tough Times ¹ (C.Griffin)	(J. Basara) Weed Management Strategies ¹² (C.Thompson)	Management ' (J. Aguilar) NWKS Agronomy Research Updates ¹ (L.Haag)	(DuPont Pioneer) Technology Update (Monsanto)	Cost \$40.00 Cost \$40.00 Both days - Jan 16 & 17 Cost \$60.00
10:20	10:50		View Exd	hibits		Name:
10:50	11:40	Soil Health & Profitability in Dryland Cropping ¹ (M. Schipanski)	Making the Right Crop Insurance Choices ¹ (A. Barnaby)	Maximizing Your Rangeland ¹² (K. Harmoney)	Sunflower Update (National Sunflower Assoc.)	Address:
11:50	12:40	Smart Spending of Fertility Dollars ¹ (D. Leikam)	Moisture Probes: Measurement to Management ¹ (J. Agailar)	In	nch	City, State Zip:
12:50	1:40	Making the Right Crop Insurance Choices ¹ (A. Barnaby)	NWKS Agronomy Research Updates ¹ (LHaag)			Phone:
1:50	2:40	A Historical Look at Climate Variability ¹ (J. Basara)	Soil Health & Profitability in Dryland Cropping ¹ (M. Schipanski)	Smart Spending of Fertility Dollars ¹ (D. Leikam)	Is Wheat Worth It? (Horton Seed Services)	Please include information for all attending. Would you be interested in receiving Agronomy
2:40	3:10		View Ext	hibits		After Lanuary 10
3:10	4:00	Producer Panel: Staying Successful with No-Till	Maximizing Your Rangeland ¹² (K. Harmoney)	Surviving & Thriving in Tough Times ¹ (C.Griffin)	Lower Inputs, Raise Yields (Sims Fertilizer & Chemical)	560.00 per day Mail registrations to:
4:10	5.00	Weed Management Strategies ¹² (C.Thompson)	Profitability Opportunities and Pitfalls ¹ (M. Wood)	The Importance of Adjuvants (EGE Products)	Finding a More Effective Application for Starter Fer- tilizer (CapstanAG)	Cover Your Acres KSU NW Research-Extension Center PO Box 786
Plat E Hor H	inun Ca DuPo ton oxie Lau	Sponsors: pstanAG nt Pioneer Seed Services Implement ng Diesel	Monsanto National Sunflower A PacLeader Technol Plains Equipment G SureFire Ag	Tues hors lssoc. ¹ CCA ogy ² Com roup CEU	day: Bull session with d'ocurves begins at 5:00 A CEUs applied for. Imercial Applicator Is applied for.	Colby, KS 67701 For questions, call (785) 462-6281. Program will be held regardless of weather. No refunds will be given.

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 representatives discussing the following topics:

- A historical look at climate variability
- Making the right crop insurance choices
- Maximizing your rangeland
- Moisture probes: measurement to management

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

- Northwest Kansas Agronomy Research update
- Profitability opportunities and pitfalls
- Smart spending of your fertilizer dollar
- Soil health and profitability in dryland cropping
- Surviving and thriving in tough times
- Weed management strategies

The same programs will be offered both days of the conference. Registration will begin at 7:45 a.m. with educational sessions ending at 5:00 p.m. The sessions are followed by a "bull session" on Tuesday evening where attendees can visit with industry and university specialists.

Early registration is due by January 10. The fee is \$40 for either January 16 or 17 or \$50 for both days. After January 10, the cost is \$60 per day. The conference fee includes lunch and educational materials. Continuing education unit credits are available for commercial applicators and certified crop advisors. The conference will be held regardless of weather and no refunds will be given.

Mail your registration, with a check payable to KSU, to Cover Your Acres, KSU NW Research-Extension Center, P.O. Box 786, Colby, KS 67701. To view the conference details and for online registration, visit <u>www.northwest.ksu.edu/coveryouracres</u>. For questions, call 785-462-6281.

Major sponsors of the conference include CapstanAG, DuPont Pioneer, Horton Seed Services, Hoxie Implement Co., Lang Diesel, Monsanto, National Sunflower Association, PacLeader Technology, Plains Equipment Group, and SureFire Ag. CCA and Commercial Applicator CEU's have been applied for.

Lucas Haag, Northwest Area Crops and Soils Specialist <u>Ihaag@ksu.edu</u>

9. Western Kansas Forage Conference, February 21 in Garden City

Kansas State University Research and Extension and the Kansas Forage and Grassland Council (KSFGC) in collaboration with a number of private forage industry supporters will be hosting the Southwest Kansas Forage Conference on February 21, 2018 at the Southwest Research-Extension Center in Garden City from 9:00 am-3:30 pm. The Southwest Research-Extension Center is located at 4500 E Mary Street, Garden City, KS, 67846.

Topics to be covered include:

- Impact of climate variability on western Kansas agriculture
- Nutritional value of forage sorghum
- Triticale forage production and variety selection
- Trucking and forage transportation rules and regulations
- Getting the most out of your silage
- Silage safety

This conference provides a platform to keep producers up-to-day on new research and technology development in the forage arena. Producers should consider this conference as an opportunity to refresh basic principles and to learn new principles that they can apply to their own situation.

Conference registration is \$25 per individual, and for an additional \$25 a farmer or rancher can support and gain the benefits of becoming a KSFGC member.

Online Conference Registration is available at <u>https://ksfgc.org/wkfc/</u>. The registration link can also be found at <u>http://www.southwest.k-state.edu/</u>. Advanced registration required by February 9, 2018.

Continuing Education credits have been applied for and should be available.

Please direct any questions to Mark Nelson at info@ksfgc.org

2018 WESTERN KANSAS FORAGE CONFERENCE

FEBRUARY 21, 2018

SOUTHWEST RESEARCH-EXTENSION CENTER 4500 E Mary Street, Garden City, KS 67846 9:00 A.M.—3:30 P.M. (CST)

Topics to be covered include:

- Impact of climate variability on western Kansas agriculture
- Nutritional value of forage sorghum in silage feed production
- Triticale forage production, variety selection and future outlook
- Dairy Farmers of American Garden City Plant Update
- Trucking Laws
- · Getting the most of your silage
- · Silage safety

Online Conference Registration: <u>https://ksfqc.org/wkfc/</u> Registration Link also @: <u>http://www.southwest.k-state.edu/</u>

Signup to Become Membership Online for an additional \$25.00. @ https://form.jotform.com/72816740441960

Presented by: K-State Research & Extension Kansas Forage and Grassland Council





Kname State University is committed to making the set likes, actuates and programs accessible to alignatic parts. Hyori have special requirements due to apply skal, utition, or he arring disability, contractual indeter, 620-2756 164. Knames table University Agricultural Experiment's tation and Cooperative Extension Service K-State Research and Extension 8 as equal opporth alty provider and employed.



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

10. Mark your calendar for the K-State Sorghum Schools in early February



A series of three K-State Sorghum Production Schools will be offered in early February 2018 to provide in-depth training targeted for sorghum producers and key stakeholders. The schools will be held at three locations around the state.

The one-day schools will cover a number of issues facing sorghum growers: weed control strategies; production practices; nutrient fertility; and insect and disease management.

The dates and locations of the K-State Sorghum Production Schools are:

• February 6 – Dodge City - Boot Hill Casino Conference Ctr., 4100 W Comanche St

Andrea Burns, Ford County, aburns@ksu.edu, 620-227-4542

• February 7 – Hutchinson – Hutchinson Community College, 1300 N Plum St

Darren Busick, Reno County, darrenbusick@ksu.edu, 620-662-2371

• February 8 – Washington – FNB Washington 101 C Street, Box 215

Tyler Husa, River Valley District, <u>thusa@ksu.edu</u>, 785-243-8185

Lunch will be provided courtesy of Kansas Grain Sorghum Commission. There is no cost to attend, but participants are asked to pre-register by January 31.

Online registration is available at: <u>http://bit.ly/KSSORGHUMSchools</u>

You can also pre-register by emailing or calling the nearest local K-State Research and Extension office for the location you plan to attend.

More information on the final program for each Sorghum School will be provided in upcoming issues of the Agronomy eUpdate.

Ignacio Ciampitti, Cropping Systems Specialist ciampitti@ksu.edu

Pat Damman, Kansas Grain Sorghum Commission pat@ksgrainsorghum.org

11. Get registered for the K-State Soybean Schools offered in late January

A series of three K-State Soybean Production Schools will be offered in late January 2018 to provide in-depth training targeted for soybean producers and key stakeholders. The schools will be held at three locations around the state.

The one-day schools will cover a number of issues facing soybean growers including: weed control strategies, production practices, nutrient fertility, and insect and disease management. Attendees will also receive auxin training needed for applications of approved dicamba formulations for Xtend soybean and cotton.

The dates and locations of the K-State Soybean Production Schools are:

January 22 – Phillipsburg, KS ***Start time for this location only will be 10:00 a.m.***

Phillips County Fair Building, 1481 US-183

Cody Miller, Phillips-Rooks District, codym@ksu.edu, 785-543-6845

January 23 – Salina, KS (program begins at 9:00 a.m.)

Webster Conference Center, 2601 North Ohio

Tom Maxwell, Central Kansas District, <u>tmaxwell@ksu.edu</u>, 785-309-5850

January 24 – Rossville, KS (program begins at 9:00 a.m.)

Citizen Potawatomi Nation Center, 806 Nishnabe Trail

Leroy Russell, Shawnee Co., <u>lrussell@ksu.edu</u>, 785-232-0062

Lunch will be provided courtesy of Kansas Soybean Commission (main sponsor of the schools). The schools will also be supported by Channel Seeds. There is no cost to attend, however participants are asked to pre-register by January 17.

Online registration is available at: K-State Soybean Schools

You can also preregister by emailing or calling the local K-State Research and Extension office for the location you plan to attend.



Ignacio Ciampitti, Crop Production and Cropping Systems Specialist ciampitti@ksu.edu

Doug Shoup, Southeast Area Crops and Soils Specialist <u>dshoup@ksu.edu</u>

Stu Duncan, Northeast Area Crops and Soils Specialist sduncan@ksu.edu