

Agriculture

CENTRAL KANSAS EXTENSION DISTRICT NEWS

centralkansas.ksu.edu

August 2021

Upcoming Events

August

13 & 14	Junior Dairy Show
17	NKS Field Day
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September

2 Soil Health Field Day



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Stopping Wheat Streak Mosaic Before It Starts

Last season, I confirmed more fields infected with the wheat streak mosaic virus than I had ever witnessed in our area. It was not in one particular area either we had fields infected in all areas of the district. The sad part about this experience is by the time we are sending off plant samples to the pathology lab; it is too late for that wheat crop. Once infected, it is a question as to how much damage will be done. **This disease is yield devastating**. One field I know of was adjusted at 3 bushels to the acre when similarly grown healthy fields in the area were making 50-60bu/ac. Early infections like this example are essentially a total loss. Later infections might not take that much yield but rob the top side profitable bushels with all the remaining expenses. Results like this one leave a financial burden and a lasting impression that no one wants to experience.

The virus cannot be cured, but it is preventable. Wheat streak mosaic is a viral disease transmitted by the wheat curl mite; a microscopic insect carried with winds. The key to breaking the disease cycle and preventing further infection is eliminating the host plants of the wheat curl mite between growing seasons. This is referred to as eliminating the "green bridge."

The main alternate host is volunteer wheat, and controlling volunteer across our area effectively eliminates the risk of this disease. It needs to be a community effort as these mites travel with the wind and can move significantly. For some of the infections I witnessed, you could find patterns from a mite source. In one particular area, you could see damage 1.5 miles away. That location was similar to chemical drift with close areas overwhelmed by disease, and it decreased further from the source.

Other agronomic control measures that can decrease the significance of the virus include avoiding planting early and choosing a wheat variety that has increased resistance. Keep in mind that no variety has true, complete resistance. Any wheat will fail if put up against enough mite/ disease pressure. To find more information about the wheat streak mosaic virus, search the KSU bookstore for publication MF3383. That publication includes pictures of symptoms and a list of grassy weeds and crops that can serve as an alternative host for the virus.

Overview of Upcoming events

NCK Fall Field Day - August 17, 2021

Time & Location: 6:00 p.m. 1300, 60 Road Courtland, KS

NCK Fall Field Day at the experiment field in Scandia. An outstanding lineup of Kansas State University agronomy specialists. Speakers start at 6:00 PM. Dinner will follow. Tour topics include: row-spacing and layered residual herbicides in soybean with Dr. Sarah Lancaster, how do field peas fit in North Central Kansas crop rotations with Dr. Kraig Roozeboom, and the hidden half: corn root development, water and nutrients with Dr. Colby Moorberg and Dr. Dorivar Ruiz Diaz.

Risk Profit Conference - August 19 & 20, 2021

Time & Location: KSU Alumni Center Manhattan Ks

Live, in-person meeting on August 19-20, 2021, with 4 general sessions and 7 breakout sessions. Registration for in-person meeting includes access to online sessions the following week and recordings. Register for 2 days or 1 day. Cost \$225/175. Two live online breakout sessions daily from 12:00—1:30 PM, on August 23-27. Online registration includes live online sessions during August 23-27, plus recordings of the general sessions from in-person meeting. Cost \$50. For more information and to register go to agmanager.info/risk-and-profit—conference

Wheat Preplant Meeting - August 24, 2021

Time & Location: 9:30 a.m.- 12:00 in 4H building 900 Greely Ave Salina, KS

Featuring a range of topics, including variety selection and agronomic practices in preparation for the upcoming growing season. Speakers include Romulo Lollato, extension wheat specialist, and Allan Fritz KSU wheat breeder. Lunch will be provided. To register call Salina office 785-309-5850

Flickner Innovation Farm - August 31. 2021

Time & Location: 8 a.m. - 1:30 p.m. 1923 Arrowhead Moundridge, Kansas

This field day is focused on water technology. Participants will hear about the history of the farm and more specifics about using automated drone technology to identify crop conditions, using an interseeder to plant cover crops, soil health and carbon studies as well as mobile and sub-surface drop irrigation systems. Lunch will be provided. Register at kscorn.com/tour

Soil Health Field Day - September 2, 2021

Time & Location: 4-6:30 p.m. at Knopf Farms 6229 S Kipp Road, Gypsum Ks

At this event farmers will hear from Chuck Rice, Kansas State University on soil health principles and carbon markets. On-farm soil health data will be shared, as well as soil health management strategies. Dorivar Ruiz Diaz and Ignacio Ciampitti will discuss soil fertility for healthy soils and crop intensification, especially warm season cover crops, respectively. There will be a cover crop root demonstration. The day concludes with a farmer panel and free dinner. Register at kscorn.com/tour

Managing Pinkeye During Summer Months

Pinkeye (Infectious Bovine Keratoconjunctivitis) can be a costly disease for cattle producers during the summer and early fall in Kansas. Understanding the cause, signs, treatment, and prevention of this disease can go a long way in reducing pain and discomfort for the cattle as well as help the productivity of the cattle operation.

<u>Cause</u>: Pinkeye is a multifactorial disease that is often initiated by direct irritation to the cornea followed by bacteria invading the lesion. *Moraxella bovis* has long been considered the key pathogen in pinkeye cases, however, other bacteria such as *Moraxella bovoculi, Mycoplasma bovis*, and *Mycoplasma bovoculi have* been implicated as well. Factors that can contribute to the disease are as follows: UV radiation from the sun, dust, grass awns (scratches on the eye from grazing tall grass), face flies flies feed on discharge from the eye. They can spread the bacteria rapidly from animal to animal, stress, and concurrent disease or viral infection (IBR, BVD)

These factors can cause physical irritation to the surface of the eye initiating the disease or inhibit the body's natural defense mechanisms.

Signs: Excessive tearing, blinking, and squinting are all early signs of pinkeye. The excess tears often drain down the face collecting dirt and grime. This can be seen from a distance. As the disease progresses the eye becomes extremely red, the cornea (clear part of the eye) becomes white and cloudy. The clear cornea can form an ulcer and even rupture in severe cases. Healed lesions on the cornea will appear as a white scar, which may clear over time.

Treatment: Injectable long acting oxytetracycline antibiotics are often used for treatment of pink eye cases with good effect. There are labelled veterinary prescription options as well. It is always important to work with your local veterinarian and have a valid Veterinary Client Patient Relationship (VCPR). If pinkeye is becoming an issue on a premise, a veterinarian has the tools and expertise to help in face of an outbreak. Samples may be sent to the diagnostic lab to determine the best course of treatment. that a glued eye patch be applied to the affected eye. An eye patch does two things to promote healing. First, it takes away the irritant of the sun's UV radiation and wind. Eliminating these irritants will increase cattle comfort during the healing process. Second, the patch can help decreasing the spread of the disease by physically blocking flies from feeding on the tears of the affected eye.

Prevention: Prevention starts with ensuring optimal herd health. Quality forage along with vitamin and trace mineral supplementation supports a strong immune system. The immune system can be hindered during times of stress from shipping, weaning, weather, and changes in feed. A solid vaccine program against respiratory pathogens such as IBR and BVD is also important to help strengthen the immune system. These viruses can contribute to the severity of pinkeye outbreaks.

There are many commercially available pinkeye vaccines available on the market. There are also several companies that offer autogenous vaccines as well. Inherently pinkeye vaccines have some downfalls. There are many different subtypes of the bacteria that cause pinkeye. Many of which can be isolated from just one infected animal. Although the vaccines usually have several strains, unfortunately the different strains are not cross protective. This means if a different wild strain subtype of the bacteria infects the animal, disease may still occur in a vaccinated animal. If pinkeye vaccines are used, it is important to administer these products at least 4 weeks prior to pinkeye season (some products require 2 doses) to ensure adequate response. Discuss vaccine options with your veterinarian to see if they may have a place in the herd health plan.

Other ways to help prevent the disease is to manage the environment and vectors of the disease. This can include mowing tall stands of grass and weeds in the pasture or using dust mitigation strategies. This reduces the scratching and irritation potential. Fly control is also very important. Strategies may include fly tags, pour-on products, dust bags etc. Providing simple shade structures can decrease the irritation of the sun during the middle of the day. Also isolating infected animals may decrease the spread to other animals. Using these strategies will help prevent pinkeye severity on an operation.

To help with the healing process, it is recommended

by A.J. Tarpoff, DVM, Beef Extension Veterinarian

		Myers Farm		Isaacson Farm		Ryan Farm	
		Minneapolis Ks		Mentor Ks		Solomon Ks	
		Merl Parde Farm		West edge of town		Gypsum Valley Rd S River	
Brand	Variety	Bu/Acre	% of Avg	Bu/Acre	% of Avg	Bu/Acre	% of Avg
AGSECO	AG Icon	81.3	99%	48.1	95%	61.7	95%
KWA	Larry	82.4	101%	59.1	117%	63.3	98%
KWA	Zenda	79.9	98%	63.5	126%	58.9	91%
Limagrain	Atomic AX	98.8	121%				
Limagrain	Chrome	71.3	87%	49.3	98%	57.9	90%
Limagrain	Helix AX	68.8	84%	51.8	102%	61.5	95%
Limagrain	Julep	81.1	99%	37.3	74%		
Limagrain	Photon AX	66.9	82%				
Limagrain	Valiant	79.2	97%	61.0	121%	67.2	104%
OGI	Double Stop CL+	74.6	91%	52.3	104%	58.0	90%
OGI	Gallagher			43.2	86%		
OGI	Strad Cl+	84.6	103%			59.8	93%
OGI	Showdown	73.7	90%				
Polansky	Rockstar	91.8	112%	63.4	125%	71.8	111%
Syngenta	AP 18 AX	87.5	107%	34.2	68%	63.3	98%
Syngenta	Benefit	67.5	83%	26.7	53%	66.2	103%
Syngenta	Bob Dole	90.9	111%	66.3	131%	60.6	94%
Syngenta	Monument	67.6	83%	51.1	101%	68.5	106%
Syngenta	Wolverine	88.7	109%	36.4	72%	70.8	110%
WestBred	WB 4269	90.1	110%	46.0	91%	68.7	106%
WestBred	WB 4303					60.8	94%
WestBred	WB 4401	102.9	126%	72.6	144%	78.4	121%
WestBred	WB 4699	83.1	102%	42.8	85%	69.7	108%
WestBred	Grainfield	88.5	108%	43.2	86%	59.8	93%
Plot Average		81.9		49.9		64.6	
	Previous Crop	op Alfalfa		Wheat		Soybeans	
	Tillage System	Conventional		Conventional		No-Till	
	Fertilizer 50-30-0-10S Prep		OS Preplant	40-30-0 Preplant		50-30-0-7S Preplant	
		40 lbs N Top-dressed		40 N 10 S Top-dressed		50 Top dressed	
	Seeding Rate 75 lbs/acre		s/acre	90 lbs/acre		90lbs/acre	
	Foliar Fungicide	No Fungicide		No Fungicide		Fungicide applied	

2021 Central Kansas District Wheat Plot Results

Yields adjusted to 12.5% moisture. The results presented here are from unreplicated demonstration plots. For replicated research plot results go too:

2021 K-State Wheat Performance Test Results

https://www.agronomy.k-state.edu/services/crop-performance-tests/winter-wheat/index.html Special Thanks to: The Myers, Isaacson, and Ryan families for the work and support of these plots.



Central Kansas District Jay Wisbey Crop Production Agent Central Kansas District 2218 Scanlan Ave. Salina, Ks 67401 785-309-5850 jwisbey@ksu.edu





2021 Preplant Wheat Meeting

August 24, 2021 9:30 A.M. to Noon Meal will be provided Location: 4H Building Across from Tony's Event Center 900 Greeley, Ave Salina, Kansas

Featuring:

Extension Wheat Specialist Romulo Lollato Ph.D.

KSU Wheat Breeder Allan Fritz Ph.D.

Plant Pathology Representative

Register:

Call the Central Kansas District office at 785-309-5850 or emailing Jay Wisbey at jwisbey@ksu.edu

Register by Friday, August 20, 2021

Topics:

Variety Selection Wheat Management Practices Results from 2021 Wheat Diseases

Sponsors include

Ag Service Agri Trails Coop Berry Seed Crop Service Delphos Coop Everhart Precision Ag Mid Kansas Coop Olson Seed Farm Phelps Seed Phillips Seed Farm River Hills Seed Tri-Valley Seed & Service



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 Jay Wisbey, (785) 309-5850.

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Soil Health Field Day - Summer Tour 2021



Kansas Soil Health Partnership Update - Soil Health Principles - Carbon Markets - Crop Intensification - Cover Crop Root Demo - Soil Fertility - Farmers Panel - Dinner provided by KS Corn

KNOPF FARMS

6229 S Kipp Road, GYPSUM, KS 67448

REGISTER AT KSCORN.COM/TOUR or carlospires@ksu.edu



KANSAS STATE UNIVERSITY Department of Agronomy





K-STATE Research and Extension

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Address Service Requested

The enclosed material is for your information. If we can be of further assistance, feel free to call or drop by the Extension Office.

Sincerely,

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