AGRICULTURE FOCUS

August/September 2017

CONTACT INFORMATION

Ford County Extension Office
100 Gunsmoke
Dodge City, KS 67801

Agent:
Andrea Burns,
County Extension Agent,
Agriculture & Natural Resources

Hours:
8:30 a.m. – 12:00 (Noon)
1:00 p.m. – 5:00 p.m.

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620-227-4586

E-Mail:
aburns@ksu.edu

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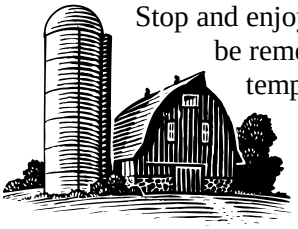
www.ford.ksu.edu

K-STATE Research and Extension

THE NEEDLE IN THE HAYSTACK...



Stop and enjoy the cool temperatures and the moisture! 2017 will be remembered as the year of rain, snow and fire. Cooler temperatures and record rainfall for the year to date will be the good things to remember.

NOTICE: I received word last week that the sugarcane aphid has been identified in Sumner County, Kansas and will be moving its way north as the summer continues. We will try to post as much information as possible about its location on our website (www.ford.ksu.edu) and on our Facebook page (Ford County Extension). We may also have a hands-on school a little later in the month to give producer hands on experience in identifying this pest. If you need information, please be sure to contact me!

This newsletter also has information on many great upcoming field days in and around Ford County. I hope you will find the time in your busy schedule to attend!

If we can provide assistance in any way, please stop by, e-mail (aburns@ksu.edu) or call the extension office at 620-227-4542.

Andrea

What is in a Name?

Do you graze or hay annual forages? We need your help!

We want to hear about your experiences. Many annual forages/cover crops are known to accumulate nitrate in dry or cool conditions (such as during late fall or early spring). Our goal is to understand how often producers run into nitrate issues when using these forages so that we can help cattle producers through applicable research and extension programming. Fresh and dry forages act differently in the rumen, and the incidence of nitrate toxicity may reflect these differences in grazed verses hayed forages. The short survey (estimated time to answer these questions is 5 minutes) will be used to direct future research and extension programming.

Please complete the short survey by following this link: Annual Forage Nitrate Survey (https://ssp.qualtrics.com/jfe/form/SV_2mek8zeFxbJU0Sh). This is survey is a collaboration of the University of Nebraska and Kansas State Extension. Your answers will remain anonymous and confidential. We know your time is valuable and appreciate your help.

Collaborators: Mary Drewnoski, Beef Systems Specialist, University of Nebraska-Lincoln; Mary Beth Lentz, Graduate Student, University of Nebraska-Lincoln; and Jaymelynn Farney, Beef Systems Specialist, Kansas State University.

Soil Health Workshop Set for Southwestern Kansas

Tuesday, August 22, 2017
American Legion Hall
101 S. Nebraska Ave., Bucklin, KS

A soil health workshop will take place next month to help growers understand and implement modern practices in caring for the land.

No-till on the Plains, a farmer-led soil health leadership organization, will host a field day on August 22 on Fiekert Farms and at the American Legion Hall, 101 S. Nebraska Ave., Bucklin, Kan. Registration begins at 8 a.m. A full day of activities is planned in the Bucklin area designed to inform new producers and enhance current methods used to protect and produce agriculture products.

The first tour stop will begin at 8:30 a.m. at Feikert Farms, north of Bucklin, and will feature cover crops, grazing forages, pollinator planting for sugar cane aphid control and soils demonstrations. At noon the group will return to the American Legion Hall for a rainfall simulator demonstration then enjoy lunch at no charge.

The afternoon session begins with Meagan Schipanski, assistant professor at Colorado State University, who will present more information on the cover crop grazing study being conducted on Feikert Farms. No-till on the Plains Board Member and grower/stockman Jimmy Emmons will speak next about his 2,000 acre farm in Dewey County, Okla. Emmons manages a wheat, irrigated dairy alfalfa hay, wheat-canola rotation and cow-calf operation – all with soil health in mind and will share how to utilize cover crops for forage to improve soil health and production on both cropland and rangeland. Jimmy will discuss how he has transformed his farm using soil heath principles.

At 2:45 p.m. the field day will feature Almena, Kansas grower/stockman Michael Thompson. Thompson farms with his father and brother in northwestern Kansas and southwestern Neb., to grow wheat, corn, oats, barley and cover crop cocktails. The ranch includes a cow/calf operation that grazes on native range and diverse cover crops on farmland acres. Thompson is committed to soil health and improving the acreage currently farmed by using cover crops, high stock density rotational grazing, and a zero-tillage approach to improve his farm and ranch land.

The final event of the day will feature a question and answer session with each speaker, allowing attendees to ask questions and gain face-to-face answers with the industry leaders featured at the field day.

There is no charge for the event and lunch will be provided. Pre-registration is encouraged to ensure enough meals are available. Visit notill.org or call (785) 210-4549 for more information.

Registration for the Bucklin field day is available on the No-till on the Plains website, http://www.notill.org/events/soil-health-workshop-0

This educational event is funded through a grant to Oklahoma State University Extension from the Natural Resources Conservation Service and support from Green Cover Seed. No-till on the Plains hosts an annual conference to educate growers about soil health. The next Winter Conference is set for January 30-31, 2018 at Century II Convention Center, Wichita, Kan. More information, including registration, can be found at www.*notill.org*.

Water Technology Farms Expanded and Field Days Scheduled

Water conservation techniques being demonstrated on established farms

The Kansas Water Office (KWO) and Kansas State University are providing an opportunity to see firsthand what is taking place on water technology demonstration farms by hosting a series of field days in August. Each location will showcase the technology that has been implemented on that site and the results to date.

Last year, three water technology demonstration farms: Roth/Garden City Company, T & O Farms, LLC and WaterPACK/ ILS, were created in response to public input and identified in the *Long-Term Vision for the Future of Water Supply in Kansas (Water Vision)*. These farms were initiated in southwest and south central Kansas and are three-year pilot projects featuring the installation and testing of the latest irrigation technologies on a whole field scale with a primary focus on water conservation. *(Continued on next page.)*

(Continued from previous page.)

"We greatly appreciate the leadership and innovation from these stakeholders who are willing to participate in these demonstration farms and the partners who also believe in these projects," said Kansas Water Office Director Tracy Streeter. "While we need to evaluate the performance of these farms for multiple years from a water savings and economic standpoint, the preliminary results of these demonstration farms are encouraging. There is growing evidence that water use reductions coupled with irrigation technology adoption and water management will result in positive effects on the aquifer and the producer's bottom line."

In addition to these existing farms, 10 more Water Tech Farms via partnerships have been established in western Kansas. Throughout August each farm will host a Field Day.

- Monday Aug. 7 - Circle C Farms, 10 a.m., Healy - *(RSVPs are required by Aug. 5) - Owned and operated by: Steve Compton*
- Friday, Aug. 11 – Hatcher Land and Cattle, 2 p.m., Liberal - *Owned and operated by Nick Hatcher*
- Monday, Aug. 14 – WaterPACK/ILS, 2 p.m., Larned - *Owned by ILS Inc. and operated by Richard Wenstrom*
- Tuesday, Aug. 15 – T& O Farms, LLC 9 a.m., Garden City - *Owned and operated by Tom Willis*
- Thursday, Aug. 24 – Northwest Technical College, time TBD, Goodland - *Owned by Northwest Technical College and operated by tech students*
- Thursday, Aug. – Big D Farms, 9 a.m., Holcomb - *Owned by Garden City Company and operated by Dwane Roth*

In addition to an understanding of how the technologies work, the field days are opportunities to learn from local producers, irrigation companies, soil water sensor dealers and others about options and experiences toward improving irrigation water use. In 2016 alone, the first three such field days drew a collective attendance of 375 people wanting to learn something new as well as wanting to share their experience with fellow producers.

KWO provides financial assistance to Kansas State University's efforts to give technical support to each technology farm. K-State became deeply involved in establishing and monitoring the farms to help answer producers' specific questions and concerns about the new technology.

"K-State is working with partners to help address questions and concerns about the new irrigation technologies so in the future, farmers will fully embrace the technology appropriate for their operation and situation," said Jonathan Aguilar, water resource engineer with K-State Research and Extension, based in Garden City, Kansas. "Each farm is set up slightly different, depending on the primary concern the producer has. For example, one farm has three adjacent spans with different modes of application for comparison purposes. In all fields, soil moisture sensors are installed and tested for accuracy as feedback or for its performance in the different soil types."

The farms are supported by: *Kansas Water Office; K-State Research and Extension;* Kansas Corn Commission; *Servi-Tech Expanded Premium Services, LLC; United Sorghum Check-Off Program; Seaman Crop Consulting; SW Kansas Groundwater Management District No. 3; Kansas Department of Agriculture; Conestoga Energy Partners; Teeter Irrigation; Dragon-Line; Helena; Kansas Geological Survey; Ogallala Aquifer Program; Syngenta; Hortau; Kansas Farm Bureau; K-State Mesonet; AquaSpy; Kansas Grain Sorghum Commission; Crop Metrics; Netafim; Valley Irrigation; and Presley Solutions; American Irrigation; WaterPACK; Pioneer Hi-Bred International; Western Irrigation Supply House and Ag Systems, Inc.;* Tri-State; John Payne; TerrAvion; and Phytech. Visit the KWO website, www.kwo.org for more information on each field day or call 1-888-KAN-WATER.

SOUTHWEST AREA

PRE-PLANT WHEAT UPDATE

AUGUST, 7 2017 6:00 PM
MEAL WITH SPEAKERS TO FOLLOW

Pre-plant wheat update for the Southwest area. Speakers will be to addressing solutions to many common problems that have been surfacing the last few years.

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K-State Research and Extension 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, or a dietary restriction please contact Aaron at 620-582-2411

SOUTHWEST AREA ENTOMOLOGIST-SARAH ZUKOFF

SOUTHWEST AREA AGRONOMIST-AJ FOSTER

WHEAT AND FORAGES PRODUCTION-ROMOLU LOLLATO

WHEAT EXTENSION SPECIALIST-ERICK DE WOLF

Kiowa County Fairgrounds

720 N Bay Street

Greensburg, Kansas

RSVP by August 4, 2017

Comanche County Extension

620-582-2411

asawyers@ksu.edu

KLA & KSU Ranch Management Field Day

Thursday, August 17, 2017

Black Diamond Angus Ranch
aka Warner Angus Ranch
Spearville, KS

Sponsored by:

FARM CREDIT ASSOCIATIONS OF KANSAS

BAYER

Background

The historic Warner Angus Ranch started in 1884 when Willis B. Warner moved to the Sawlog Creek valley near the Ford-Hodgeman county line. Warner's son John started a purebred Angus herd in 1893 and a registered Morgan horse breeding program in 1949. Today the ranch is operated by Willis Warner's great-granddaughter Marcella Warner Holman and her husband John Holman. The Angus herd is the base of their commercial cow-calf operation and registered Morgan horses continue to be bred and used on the Warner Angus Ranch today.

Field Day attendees will have an opportunity to learn about Morgan horses and see a sample of the ranch's horses that represent a legendary breeding program of over 60 years!

Directions

From Jetmore:

Go south on Highway 283 approximately 12 miles to SE A Road. At this intersection, go east on SE A Road for 2 miles, then ¾ mile south on 120 Road to ranch headquarters.

From Hwy 283 and Hwy 50 intersection near Wright:

Go north on Highway 283 for 9.2 miles to SE A Road. At this intersection, go east on SE A Road for 2 miles, then ¾ mile south on 120 Road to ranch headquarters.

K-STATE Research and Extension

KANSAS LIVESTOCK ASSOCIATION

Questions about the field day?
Contact KLA at 785-273-5115 or email wendy@kla.org

Program

3:30 p.m. Registration

4:00 p.m. Welcome & Introductions

4:30 p.m. Educational Sessions

6:45 p.m. Dinner

Topics

Will Annual Forage Crops Work with Dryland Farming in the High Plains?

John Holman, PhD, KSU Cropping Systems Agronomist, Garden City, Kansas

Holman will discuss the economics and options for incorporating annual forages in a diversified livestock and crop production operation.

Do High Protein Forages Negatively Impact Fertility?

Sandy Johnson, PhD, KSU Extension Reproductive Physiologist, Colby, Kansas

Dr. Johnson is collecting conception data and breeding success rates on Black Diamond Angus Ranch heifers grazing triticale during the breeding season. Johnson and Marcella Warner Holman will highlight this project and share results.

Opportunities for Enhancing Stock Water and Grassland Health

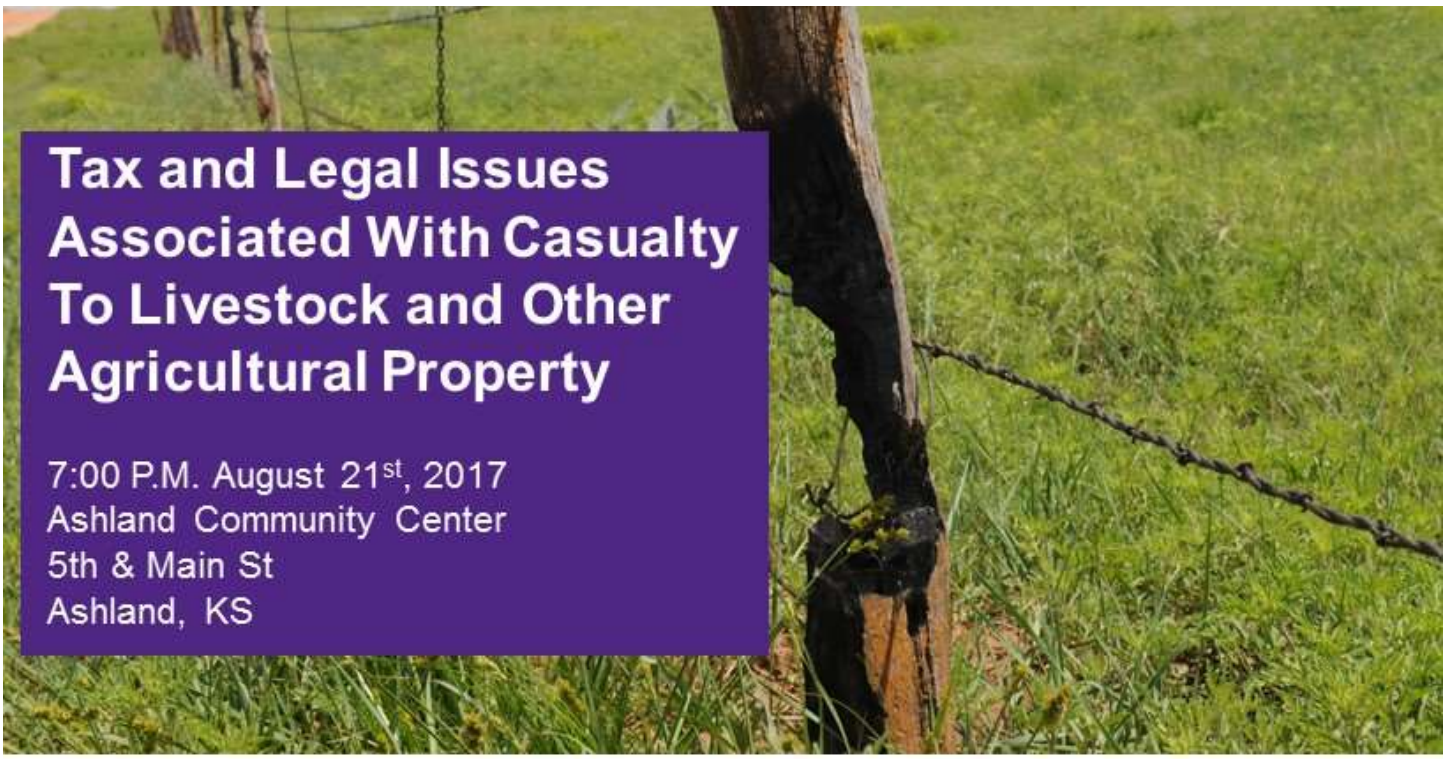
Brad Shank, Supervisory District Conservationist, Natural Resources Conservation Service, Jetmore, Kansas

Shank will describe the new stock water sources on the ranch and highlight services and assistance NRCS provides for stock water systems and enhancements to grassland health.

The Latest on Fly and Tick Control for Beef Cattle Operations

Justin Talley, PhD, Entomologist and Professor, Oklahoma State University, Stillwater, Oklahoma

Dr. Talley will explain the differences between face flies, horn flies, stable flies and deer flies and provide timely research results on management practices that offer optimum control for commonly found insect pests affecting livestock.



Tax and Legal Issues Associated With Casualty To Livestock and Other Agricultural Property

7:00 P.M. August 21st, 2017
Ashland Community Center
5th & Main St
Ashland, KS

The wildfires in March devastated thousands of acres of quality grassland, miles of fence, and thousands of cattle. With this type of loss and devastation, then considering the aid received, the following question does arise at some point: **How will all of this impact my taxes?**

K-State Research and Extension in conjunction with our meeting sponsors, C.S. Slaton & Company and Stockgrowers State Bank present: **Tax and Legal Issues Associated With Casualty to Livestock and Other Agricultural Property**

Topics Covered

- Casualty Losses
- Involuntary Conversions
- Livestock Indemnity Payment (LIP) Program
- Oil and Gas Issues
- Water Issues
- Fence Issues

Speaker

Roger McEowen
Farm Bureau Professor of Agriculture Law
Washburn University

To RSVP for the Meeting

Call the K-State Research and Extension-Clark County at 620-635-2811 by August 16th.

STOCKGROWERS STATE BANK
WWW.STOCKGROWERSBANK.COM
800-772-2265

C. S. SLATON & COMPANY
PUBLIC ACCOUNTANTS
112 WEST 8TH | POST OFFICE BOX 467 | ASHLAND, KANSAS 67831
PHONE (620) 635-2299
FAX (620) 635-2298

K-STATE Research and Extension | Clark County

Biological and Agricultural Engineering
Kansas State University

Yield Monitor School

August 14th, 2017

Machinery Automation And Robotics Lab

142 Seaton Hall, Biological and Agricultural Engineering
Kansas State University

9:00 AM – 2:00 PM

Speakers Include:

- Jared Ochs, Topcon Precision Agriculture
- Justin Atwood, LandMark Implements
- Lucas Haag, Kansas State University
- Terry Griffin, Kansas State University
- Ignacio Ciampitti, Kansas State University
- Ajay Sharda, Kansas State University
- K-State Research and Extension, and K-State Precision Ag

Topics Include:

Yield Monitor Calibration for quality data; Yield Data Cleaning; New Yield Monitoring Technologies; Yield Monitor setup and Data Extract for FMIS/Analysis, Utilizing Yield Data for Input Prescription; and Utilizing Satellite Imagery for Yield Prediction

Registration: Free for KARTA Members and K-State Extension Agents and $25 for everyone else.
Includes: Lunch, and refreshment

LANDMARK IMPLEMENT

TOPCON Precision Agriculture

For Questions Contact:

Arlene Jacobson, ajacobso@ksu.edu; 785-532-5825
Ajay Sharda, Assistant Professor, asharda@ksu.edu

K-STATE PRECISION AG

KARTA

K-STATE Research and Extension

2017 Wheat Plot Data

Plant Date: October 21, 2016 *Harvest Date: June 30. 2017*
Cooperator: Dodge City Community College

Brand	Variety	Yield	Moisture	Harvest Weight	Harvest Length	Harvest Width	Test Weight	% Protein	Rank in Plot
Public	KanMark	55.46	10.2	600	593	165	60.30	11.90	8th
Public	Winterhawk	57.52	11.3	630	593	165	60.10	12.10	6th
Public	WB 4303	62.44	10.8	680	593	165	57.00	12.70	2nd
Public	WB 4462	58.76	10.8	640	593	165	58.70	12.70	4th
Public – TX A&M	TAM 204	53.87	11.3	590	593	165	56.80	12.90	9th
Public	T-158	70.25	10.2	760	593	165	59.30	11.90	1st
Public – KS Wheat Alliance	Tatanka	61.38	11	670	593	165	59.70	11.30	3rd
Public – CSU	Avery	55.88	11	610	593	165	57.20	11.40	7th
Public – CSU	Byrd	57.84	10.8	630	593	165	56.70	11.70	5th
Public – CSU	Denali	44.89	11	490	593	165	57.30	12.40	10th

2017 Ford County Market Wheat Show Winners Announced

The 2017 Market Wheat Show winners were announced on Monday, July 24, 2017 at the conclusion of the Ford County Fair. During the 2017 wheat harvest, local grain elevators collected samples from Ford County producers, which were analyzed by the Kansas Grain Inspection Service in Dodge City. Points were then awarded for milling and baking quality (determined by variety characteristics), test weight, protein content, dockage and the number of shrunken and broken kernels.

The winners for the following classes include: **Class 6170 – KSU Hard Red Wheat Varieties –** (1st Place) KanMark -Maurice Bleumer, Wright; (2nd Place) Everest – Douglas Melia, Dodge City; (3rd Place) Ike – Grant Powers, Spearville. **Class 6171 – Other Public Hard Red Wheat Varieties –** (1st Place) LCS Mint – Allen Morton, Wright; (2nd Place) LCS Mint – Kenny Nau, Spearville; (3rd Place) LCS Mint – Rick Heeke, Spearville. **Class 6172 – Hard Red Wheat Blends –** (1st Place) LCS Pistol/T-158/Ruby Lee – Royden Derstein, Ford; (2nd Place) T-158/LCS Pistol/LCS Mint – Derstein Brothers, Ford; (3rd Place) T-158/Winterhawk – Janet Williams, Offerle. **Class 6173 – All Westbred Hard Red Wheat Varieties –** (1st Place) Westbred Cedar – Newell Farms LLC, Dodge City; (2nd Place) Westbred Cedar – Lane Newell, Dodge City; (3rd Place) Westbred Winterhawk – Alan Wetzel, Offerle. **Class 6174 – All Hard White Wheat Varieties –** (1st Place) Joe – J. Frank Mages, Spearville.

The 2017 Market Wheat Show Grand Champion was Maurice Bleumer and his KanMark entry. The winning entry was collected at Ag Alliance and Grain LLC in Wright. Reserve Grand Champion honors went to the Westbred Cedar entry belonging to Newell Farm LLC.

Pride Ag Resources sponsors the Market Wheat Show Champion traveling trophy. The top three entries, in each class, will represent Ford County at the Market Wheat Show during the Kansas State Fair in Hutchinson in September.

The Ford County Extension Council, the Ford County Fair Association, the Kansas Grain Inspection Service, Dodge City and Pride Ag Resources work together to sponsor this annual contest. Thanks also to all of the local elevators for promoting and taking samples for this year's Market Wheat Show.

Maurice Bleumer accepted the 2017 Market Wheat Show traveling trophy with Alliance Ag employees of the Wright Elevator where the winning sample was collect. Alliance Ag will display the trophy at their Wright Elevator for a year.

Grant to Help Develop Prediction Models for Determining Best Winter Wheat Varieties

Nearly $1 Million Grant Helps University Researchers Predict Best New Winter Wheat Varieties

A nationally funded project by Kansas State University wheat researchers could help determine more quickly which new candidate varieties of wheat will produce superior yields and baking quality.

A team of wheat breeders and geneticists at the university has received a nearly $1 million grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture, or NIFA, and the Kansas Wheat Commission for "An Integrated Omics Approach to Accelerating Wheat Quality Improvement."

"NIFA and the Kansas Wheat Commission, in response to the commodity board provision in the 2014 Farm Bill, are co-funding Kansas State University researchers to increase understanding of the genes responsible for wheat quality as well as improve selection strategies that will speed the delivery of superior varieties to wheat farmers," said Justin Gilpin, CEO of the Kansas Wheat Commission. "Kansas wheat farmers, through the Kansas Wheat Commission, are proud to sponsor this important work along with NIFA to help enhance quality and add value to winter wheat in the southern Plains."

The university's team is led by Jesse Poland, associate professor of plant pathology and a wheat geneticist, and includes Allan Fritz, professor of agronomy; Guorong Zhang, associate professor of plant pathology at the university's Agricultural Research Center in Hays; Eduard Akhunov, professor of plant pathology and wheat genomics; and Rebecca Miller, research associate professor of grain science and industry and director of the university's Wheat Quality Lab. Fritz and Zhang are wheat breeders, while Akhunov is a wheat geneticist. Miller specializes in wheat and flour quality and in baking and cereal chemistry.

With the world's population estimated to reach 9.6 billion by 2050, more food — and more nutritious food — will be needed, making wheat even more important to feed a hungry world, according to Poland. But developing new wheat breeds is an expensive and time-consuming process that often produces candidate varieties that may be high-yielding but of poor quality. The new project aims to develop prediction models to better determine which new wheat breeds have the best potential for yield combined with good baking quality.

"New DNA sequencing technology has enabled the determination of genetic differences between candidate wheat varieties as well as the development of genomic prediction models for important traits such as milling and baking," Poland said. "These prediction models can then be used for selection of superior candidate varieties."

To speed up the process of determining which new varieties of winter wheat are best, Poland's research team will take an integrated approach to develop profiles on each breed's genomics and other "omics": proteomics for proteins; metabolomics for metabolites; and ionomics for minerals. These factors will be evaluated as determinants of wheat quality, and the information will be combined to develop improved models for yield and quality.

"Such integrative genomics' approaches hold great promise to identify genes and biological pathways that underlie complex agronomic traits in wheat and develop novel strategies for accelerating wheat improvement," Akhunov said.

For the project, advanced breeding lines in Kansas State University's wheat program will be profiled for milling and baking quality. Proteomic, metabolomic and ionomic profiles of the parental and advanced breeding lines, as well as genomic profiles of all breeding lines, will be generated. Then the researchers will develop, test and implement novel prediction models using the genomic profiles combined with the other "omics" data as predictor variables and phenotypes, or characteristics.

"We will test and implement the integrated models in new breeding lines to accelerate the wheat breeding process for improving quality," Poland said. "Overall, this project will lead to an increased understanding of the genetic determinants of wheat quality as well as improved selection strategies that can result in accelerating the delivery of superior varieties to wheat farmers."

The new project follows up on previous projects Poland's lab has conducted involving high-throughput genotyping and work involving the wheat genome. Poland's research has been honored with the National Association of Plant Breeders' 2016 Early Career Scientist Award, which recognizes a young scientist who is active in the field of plant breeding. *(Continued on Page 10.)*

The Importance of Early Control of Volunteer in Hailed-Out Wheat Page 10

J.P. Michaud, Entomologies, KSU Agricultural Research Center-Hays; Erick DeWolf, Extension Wheat Pathologist and Romulo Lollato, Wheat and Forages Specialist

The severe problems wheat producers had with wheat streak mosaic virus this year can be traced back in most cases to a lack of control of volunteer wheat – especially the volunteer wheat that got started early after widespread hail damage to wheat just before harvest in 2016. It is important to keep that from happening again. Where wheat has been hailed out this year, volunteer wheat control should start immediately.

Producers often like to wait several weeks after harvest before making their first herbicide application to control volunteer wheat. This allows as much volunteer as possible to emerge before spraying it or tilling it the first time. Often, a second application or tillage operation will needed later in the summer to eliminate the green bridge to wheat by making sure all volunteer is dead within ½ mile of wheat being planted in the fall. Green bridge elimination can be more difficult to accomplish when wet weather prevails through late summer be3cause this tends to keep a lot more alternate host plants alive during the critical period when mites are host-limited. As with most plant diseases, the earlier infection occurs, the more impact on the plant and the greater the yield loss, so infections of wheat in early growth stages in the fall are most damaging.

Volunteer wheat in a hailed out field.

Where wheat was hailed out and volunteer has already emerged at the time of harvest, control should begin immediately at the time of harvest, control should begin immediately after harvest if possible. This is true even for fields that got hailed out relatively early during grain filling, as wheat grain at soft dough or late stages of development already has the potential to germinate. Hailed out fields may require one more field pass than normal to control volunteer wheat, but will help prevent even bigger problems down the road. It should be noted that grazing volunteer is not an effective option because there is green wheat material left and the mites can be living in that material.

Why the need for early control of volunteer in hailed-out wheat? Where wheat suffered hail damage after heading, volunteer often emerges even before the existing field is harvested – as much as two to three weeks or more earlier than it would normally emerge after harvest. This volunteer wheat is especially likely to become infected with wheat curl mites and lead to problems later in the season if left uncontrolled.

Wheat curl mites will move off growing wheat as the green tissue dries down and dies. After moving off the existing wheat at or near harvest time, the mites needs to find green tissue of a suitable host soon or they will die of desiccation.

Research has found that the mites can live quite a few hours off the plant and up to 24 hours or more under low temperature conditions, so significant numbers of mites may be blown in from farther away than previously thought.

If there is young, volunteer wheat growing at the time the current wheat crop is being harvested in the nearby region, the mites can quickly infest those volunteer plants and survive.

If volunteer has emerged and is still alive shortly after harvest in hailed-out wheat, wheat curl mites could easily build up rapidly and spread to other volunteer wheat the emerges later in the season. On the other hand, if this early-emerging volunteer is controlled shortly after harvest, that will help greatly in breaking the green bridge. However, if more volunteer emerges during the summer, follow-up control will still be needed.

Volunteer wheat is not the only host of the wheat curl mite. Over the years, multiple research studies have evaluated the suitability of wild grasses as hosts for both the curl mite and the wheat streak virus. There is considerable range in the ability of a grassy weed species to host the mite and the virus. Barnyardgrass is among the more suitable hosts for both virus and mites, but fortunately it is not that common in wheat fields. In contrast, various foxtails, although a rather poor host, could be an important disease reservoir simply because of their abundance. These grasses may play an important role in allowing the mites and virus to survive during the summer months particularly in the absence of volunteer wheat.

(Continued on next page.)

A new K-State Research Extension Publication, Wheat Streak Mosaic (MF3383) is now available. This publication includes information about grassy weed hosts of the mite and virus, and the contribution of these grassy weed hosts to the risk of severe wheat streak mosaic infections. Take not of significant stands of these grasses in marginal areas and control them as you would volunteer wheat.

If volunteer wheat and other hosts are not controlled throughout the summer and are infested with wheat curl mites, the mites will survive until fall and could infest newly planted wheat at that time. Wheat curl mite infestations of wheat often lead to wheat streak mosaic infections.

(Grant Money Continued from Page 9)

Poland also serves as director of the university's Feed the Future Innovation Lab in Applied Wheat Genomics. The lab, supported through the U.S. government's Feed the Future initiative to reduce global hunger and improve food security, uses research, education and outreach to advance solutions to hunger, poverty and undernutrition in low-income countries. The lab is conducting research at Kansas State University and in Mexico and southern Asia.

Another tool producers can use to help control or reduce the impact of wheat streak mosaic is the use of varieties with resistance to the disease. There are currently three varieties adapted to Kansas that have wheat streak mosaic resistance:

- Clara CL (white)
- Joe (white)
- Oakley CL (red)

All have the same resistance source (WSM2). Temperature sensitivity varies a bit among these, but all will tend to lose wheat streak mosaic resistance at high temperatures.

In addition, there are a handful of varieties with resistance to the wheat curl mite, including TAM 112, Byrd, Avery and T-158. These varieties are actually susceptible to the wheat streak mosaic virus itself, but since they have resistance to the wheat curl mite vector of the disease, they can escape the disease pressure in many cases – depending on the severity of wheat curl mite pressure. Under light to moderate wheat curl mite pressure, these varieties held up relatively well this year against wheat streak mosaic infections. Under severe pressure, such as on fields adjacent to a field with volunteer wheat, these varieties did not generally hold up any better than other varieties that are susceptible to wheat streak mosaic.

Don't Like All This Summer Heat? Neither Does Your Yard!

Lawns Go On Strike Until Conditions Improve

Ward Upham, Extension Associate, Horticulture

First the good news: Your lawn is not dead – it just looks that way.

Yes we have had some unusually cool days here recently and your gardens and lawns are likely enjoying this reprieve from the typical, blistering July heat, but why does your lawn still look bad?

Dormant tall fescue lawn.

Home lawns planted with cool season turfgrasses, like tall fescue and Kentucky bluegrass, not only go dormant when it gets cold in the winter but they also go dormant when it gets really hot in the summer too. While dormant, your lawn will still need water; healthier lawns will need less than lawns that are already stressed, or that may have been planted or overseeded this past spring. A helpful strategy is to slowly dial back your watering schedule, increasing the number of days between watering, until the lawn is only watered every other week.

Apply about ¼ inch of water every two weeks to hydrate the crown. This will be enough to hydrate the crown but not enough to encourage weed germination and growth. Normally, a healthy lawn can stay dormant for a good five weeks and still recover. After the five weeks are up, it's important to keep the crown hydrated because if the crown dies, the plant dies.

The crown is the area between grass leaves and the roots. The crown should feel hard when pressed between thumb and forefinger; if it feels dry or papery, then the plant is dead.

Ford County K-State Research & Extension
100 Gunsmoke
Dodge City, KS 67801

August/September 2017

Congratulations to Maurice Bleumer, winner of the 2017 Ford County Fair Market Wheat Show! Maurice and his KanMark entry will be representing Ford County at the Kansas State Fair Market Wheat Show in September.

This newsletter contains information on several upcoming meetings in and around Ford County and the importance of early control of volunteer wheat.

Notice: I received word last week that the sugarcane aphid has been identified in Kansas and will be moving its way north as the summer continues.

Please scout your fields regularly.

Please let us know if we can be of assistance to you and your ag operation this summer/fall. Do not hesitate to contact me at 620-227-4542 or e-mail me at aburns@ksu.edu.

Sincerely,

Andrea Burns

Andrea Burns
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