Spring freeze damages wheat

"The repeated hard freezes in Kansas are taking a toll on some of the wheat furthest along in development," said Jim Shroyer, K-State Research and Extension crop production specialist. Temperatures were in the midto low-20s on several occasions the past two to three weeks, which is low enough to damage wheat in more advanced growth stages, he said.

Wheat may look its worst five to eight days after a severe cold snap waiting for warmer growing weather and the wheat with new green growth will be a great sign.

On April 22, Jim Shroyer was out with District Extension Agent Keith VanSkike for the Sheridan-Decatur-Norton Twin Creeks District of K-State Extension. "This is the third episode of hard freezes we've had, starting April 9. This time, the freeze caught a few more fields in the jointing stage than the freeze on April 9 and 10. What should producers expect now? If freeze-damaged wheat heads out, will that head be viable and produce grain? It depends on what stage the wheat was in when the freeze occurred," Shroyer said.

"Wheat that hasn't started to joint yet will probably suffer damage to the existing foliage, but the growing points will be protected by the soil and should escape injury," Dr. Shroyer said.

Wheat in the jointing stage or stem elongation, can usually tolerate temperatures in the mid to upper 20s with no significant injury. But, if temperatures fall into the low 20s or even lower for several hours, the lower stems, leaves, or developing head can sustain injury. Jointing to preboot: If the tillers were in this stage or earlier at the time of the freeze and the tillers are green and growing actively now, then the heads should be fine. If the head had been killed, the tiller would not be green and actively growing. If the leaves coming out of the whorl are green and white stripped, then the head on that tiller may be dead. Frosty white or brown leaves at the tip may not indicate lower stem

If the leaves of tillers are yellowish when they emerge from

Views with Van Keith VanSkike, **Extension**

Director



the whorl, this indicates those tillers have been damaged. Existing leaves may also be damaged so severely that they turn bluish-black and water-soaked in appearance, then bleach out. This usually results in the fields having a silage smell. Boot: If tillers were in this stage at the time of the freeze, there are several possibilities. The head may be fine, it may be partially damaged, or it may have been completely killed. In any of those cases, the head may continue to emerge, but fail to develop if frozen. If the head is fine, it will turn from lime green in the boot to a darker green when it emerges. If the head is freezedamaged, some or all of the spikelets will become yellow and/or water soaked in appearance as it emerges.

Irrigated wheat is probably going to have the most severe freeze injury, and some stands could be mostly or entirely lost, the irrigated wheat may have been further developed, just depending on stem development. Some of the dry-land wheat in southwest Kansas, especially early maturing varieties and wheat in low-lying areas also may lose some tillers – or have even more severe damage in some cases. The freezes have caused leaf damage in large portions of northwest Kansas, but some of that wheat is already greening back up, especially where the growing point was still at the soil surface or just slightly above the soil at the time of the freezes. Where tillers were killed, new tillers are beginning to grow in many cases. "The best thing producers can do for the first few days is walk the fields to observe lodging, crimped stems, and damaged leaves." "Be patient. Do not take any immediate actions as a result of the freeze, such as destroying the field for re-cropping. It will take several days of warm weather to accurately

evaluate the extent of damage," Shroyer says. After several days, producers should split open some stems and check the developing head. If the head is green or light greenish in color and seems firm, it is probably fine. If the head is yellowish and mushy, it may have freeze

If the main tillers are injured, secondary tillers may begin growing normally from the crown. The wheat may look ragged because the main tillers are absent, but enough tillers may survive to produce good yields, if spring growing conditions are good. If both the main and secondary tillers are injured, the field may eventually have large areas that have a yellowish cast and reduced yield potential.

Leaf burning or removal of leaf tissue or tillers can be a cause of concern since the plant will attempt to introduce new tillers, which can deplete its resources over time given very little soil profile moisture. "However, there are reports of freeze damage in South Central Kansas. If the lower stem damage is severe, the wheat will eventually lodge," he added. If wheat begins to lodge over then there is some stem damage and like a water hose that kinks, it may not be able to feed the rest of the

plant!! And finally, those slow emerging fields that were planted last fall and just emerge this spring will still head out but research over years and years give a typical average reduction of 40 to 60 percent yield loss, compared to wheat that fully tillers in the fall. The best thing we need is moderate temperatures, slow grain filling temperatures and no or minimum stress in order to help this crop along. More information on freeze damage to wheat is available in "Spring Freeze Injury to Kansas Wheat," K-State Research and Extension publication C646, available at county and district Extension offices and online at: www.ksre. ksu.edu/library/crps12/c646. pdf or contact Keith VanSkike, Twin Creeks District Agent from Norton, Sheridan and Decatur in Norton, Kan., or call 785-877-5755

Science Fair



(From left to right) Bailey Sides and Coy Kinderknecht displayed their science experiment, "Ice Cube Race" at Northern Valley's third grade science fair on Friday, April 12. They crushed ice cubes into different sizes to discover how quickly they melted in liquid based on the size. The third graders partnered up and chose a different experiment then put them on display for their grandparents and the public

-Photo courtesy Amy McKinney

SCHOOL MENU

Norton Jr.-Sr. High Schools **Menu**

Monday, May 6

Breakfast-Pizza squares, fruit or juice or choice of assorted cereal, toast w/margarine and

Lunch-Breaded chicken sandwich, lettuce and chopped tomato, green peppers and corn, applesauce w/cinnamon, or chef

Breakfast-French toast sticks, w/syrup, fruit or juice or choice of assorted cereal, toast w/mar-

Lunch-Beef burrito, lettuce and chopped tomato, Picante sauce and sour cream, peaches,

Breakfast-Breakfast pocket, Picante sauce, fruit or juice or choice of assorted cereal, toast w/margarine and jelly, and

Lunch-Chicken and noodles, whipped potatoes, broccoli and carrots, rolls w/margarine, cottage cheese, pears, or chef salad

Thursday, May 9 Breakfast-Breakfast quesadil-

la w/Picante sauce, fruit or juice or choice of assorted cereal, toast w/margarine and jelly, and milk.

Lunch-Ham and cheese rollup, baked beans, Carnival salad, pineapple tidbits, or chef salad and milk.

Friday, May 10

Breakfast-Breakfast casserole with sausage, Picante sauce, fruit or juice or choice of assorted cereal, toast w/margarine and jelly, and milk.

Lunch-Salisbury steak, whipped potatoes, carrots, rolls w/margarine, or chef salad and

EES Menu

Monday, May 6

ries, bagels w/cream cheese, apple juice, milk and toast with peanut butter.

ad, peaches, garlic bread and

Tuesday, May 7 Breakfast-Shipwreck, pineapple chunks, orange juice, milk publication

and toast with peanut butter.

Lunch-Corn dog, sweet potato tots, baby carrots, fruit cocktail and milk. Wednesday, May 8

Breakfast-Banana

apple wedge, oatmeal muffin, grape juice, milk and toast with peanut butter. Lunch-Scalloped chicken,

spears,

corn, sweet heart pears, celery stick and milk.

Thursday, May 9

Breakfast-Sausage pancake stick, warm syrup, strawberry fruit cup, apple juice, milk and toast with peanut butter.

Lunch-Beef burrito, cheesy broccoli, applesauce, tomato wedge and milk.

Friday, May 10

Breakfast-Hot ham slice, hash brown patty, peaches, orange juice, milk and toast with peanut butter.

Lunch-Beef and noodles. whipped potatoes, green beans, orange half, cheese rolls and

Northern Valley Menu

Unavailable at the time of

SCHOOL CALENDAR

May

Monday-Wednesday,

6-8 Jay Singer auditions

Monday, May 6 Jay Singers, A.P. Golf at Phillipsburg, 3 p.m. Track at Hill City, 4 p.m. Tuesday, May 7

B.A.S.S. meetings Dance team fundraiser ends Jay Singers, 7:30 a.m.

Kindness Unites Us at East Campus, 6 p.m. Wednesday, May 8

FCCLA 2013-14 Board meeting, 7:45 a.m. MTSS early dismissal: meals

served; buses run at dismissal, 1 p.m.

MTSS collaboration: 1:30 p.m. - 2:45 p.m. Staff meeting with architects:

Music Room, 2:45 p.m. Thursday, May 9 Jay Singers, 7:30 a.m

MCL A.D. scheduling meet-

MCL meeting at Hill City, 1 p.m.

MCL Golf at Plainville, 1 S.A.D.D. meeting, A.P.

MCL Track at Hill City, 3

Friday, May 10

Spring Awards Assembly: Stull Gym, 2:15 p.m Saturday, May 11

Artist of the Year judging Forensics End-of-Year Picnic, 6 p.m.

NJHS

Tuesday, May 7 KAYS, 8:30 a.m.

MCEL Administration meeting at Stockton, 10 a.m.

MCEL Track at Phillipsburg,

1 p.m.

Wednesday, May 8 MCEL Track at Phillipsburg,

MTSS early dismissal: meals served; buses run at dismissal, 1 p.m.

collaboration: 1:30

p.m. - 2:45 p.m.

Staff meeting with architects: Music Room, 2:45 p.m.

Thursday, May 9

MCL scheduling meeting at Hill City, 10 a.m.

Monday, May 6

5/6 band concert rehearsal at East Campus Gym, 8:30 a.m. 5/6 band concert at East Cam-

pus Gym, 7 p.m.

Wednesday, May 8

MTSS early dismissal: meals served; buses run at dismissal, 1 p.m.

MTSS collaboration: 1:30 p.m. - 3:30 p.m.

Staff meeting with architects: Band Room, 3:45 p.m.

Thursday, May 9 3rd and 4th Grade level meet-

ing, 3:40 p.m. Northern Valley Unavailable at the time of publication

jelly, and milk.

salad and milk.

Tuesday, May 7

garine and jelly, and milk.

or chef salad and milk.

Wednesday, May 8

and milk.

Breakfast-Ice cold strawber-

Lunch-Spaghetti, tossed sal-

Seeding project to start in Sherman County

This week construction work will begin along the shoulders of Interstate-70 beginning at the Edson interchange and extending east 8.3 miles, to the Sher-

man/Thomas County line. "I-70 traffic should not be impacted while this work takes place," explains KDOT Area Two Engineer Eric Oelschlager, of the Atwood office.

The work puts the finishing touches on a reconstruction job which took place last year, along the same section of I-70.

Please pay attention to the signs and workers within a road construction zone. Slow down and "Give 'Em A Brake!"

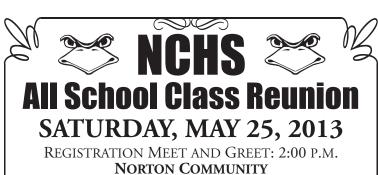
KDOT awarded this construction contract - totaling \$54,058 - to Perry Fulsom Construction, of Grenola, Kan.

Weather permitting, this proj-

ect will be complete by June

For questions concerning this project, please contact KDOT

Northwest Kansas Public Affairs Manager Kristen Brands at (785) 877-3315 or kristenb@ ksdot.org in Norton.



HIGH SCHOOL CAFETERIA SOCIAL HOUR: 6:30 P.M.; DINNER: 7:00 P.M.; LIVE BAND: 9:00 P.M.

> AT EAGLES LODGE **DEADLINE: MAY 11, 2013**

Questions: Kris 785-871-1771 or 785-877-2899 Work

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PHONE 785-877-2911

Couples Currently Registered

Kayla Scheetz and Billy Broeckelman.....June 1, 2013 Laurie Hildebrand and Heath Vincent......July 6, 2013 115 W. MAIN





from the records of filings in the offices of the Norton Municipal Court. These cases were given to the paper with the date of the hearings. April 18

March 21-Edward Safford,

Valley, Neb.; Charge: 1. Driver's license cancelled, 2. No proof of insurance; Other action: 2. Dismissed/proof, 1. Dismissed for costs/license re-instated; Sen-

tence: \$76.

March 12-Jessica Warren, Norton; Charge: Domestic batter; Other action: Diversion with city prosecutor; Sentence: 1 year diversion and probation

jail costs, diversion fee \$100, costs \$76, total \$428.

April 25

April 4-Nicholas Peterson, Norton; Charge: Exhibition of acceleration; Plea: No contest; Found: Guilty; Sentence: In lieu of fine and costs, pick-up all trash along the dike on the south side of Elmwood Park and that part of the frisbee golf course, from April 25-Oct. 31, 2013. April 12-Rachael Hickman,

Found: Guilty; Sentence: Fine \$124 school zone, costs \$76, total \$200. April 21-Steven Hess, Cedar

Norton; Charge: Speeding 32 in

20 (school zone); Plea: Guilty;

Falls, Iowa; Charge: Speeding 47 in 35; Plea: No contest; Found: Guilty; Sentence: Fine \$42, costs \$76, total \$118.

For help with your advertising needs please give Dana a call 877-3361 email: dpaxton@ nwkansas.com