

# In The Field With Kansas Wheat

Volume II, Issue 4

Kansas Wheat Commission and Kansas Association of Wheat Growers

May 18, 2011, Manhattan, KS

## TOURS OFFER LITTLE PROMISE

Two recently completed tours of the Kansas wheat crop confirm what farmers have suspected for some time: the 2011 crop could be one of the worst in many years.

Earlier this month, more than 70 participants of the Wheat Quality Council's Hard Wheat Tour pegged the Kansas crop to total 256.7 million bushels, averaging about 37 bushels per acre. That is well shy of last year's 334 million bushel estimate, despite the fact that farmers planted 800,000 more acres of wheat last fall.

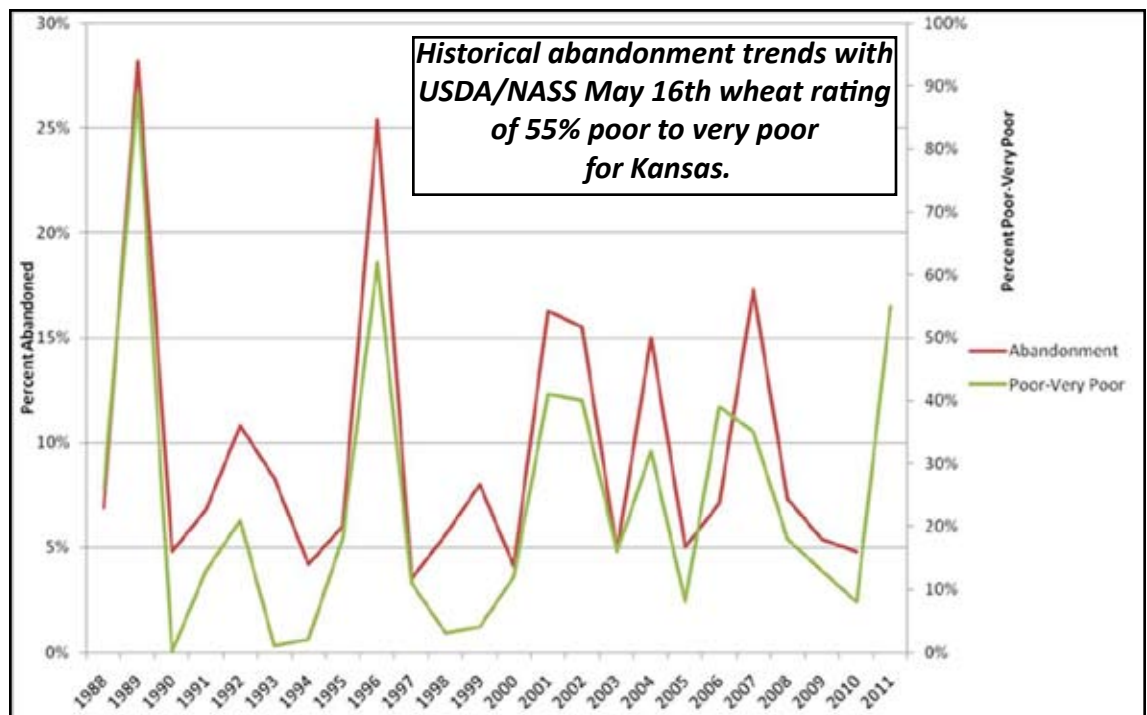


**Gove County Wheat**

On May 11, Kansas Agriculture Statistics released its own forecast of the 2011 wheat crop. It estimates farmers will grow 261.8 million bushels, down 27% from last year and the lowest production since 1996. The KAS predicts farmers will harvest 7.7 million acres, down 300,000 acres from last year and the smallest area harvested since 1957. The agency forecasts an average yield of 34 bushels per acre, down 11 bushels from last year and the lowest yield since 2007.

Dean Stoskopf, a Hoisington farmer on his 10th Hard Wheat Tour, says this year's crop is the most difficult to estimate in the last five years. "With ideal weather, the crop could increase dramatically," he says. "However, if dryness persists, the crop could decrease significantly, too."

Kansas Wheat Chief Executive Officer Justin Gilpin, who participated in the Wheat



Quality Council tour, said this year's tour is notable because of dramatic differences of crop yield potential within the state. He says areas of central, north central and eastern Kansas seem to be faring the best at this point; southwest and west central Kansas farmers are facing difficult harvest prospects.

"I anticipate farmers may abandon as much as 50% of the dryland wheat in extreme southwest Kansas," Gilpin says. "Statewide, I expect a 20% abandonment rate."

David Schemm, president of the Kansas Association of Wheat Growers from Sharon Springs, expects to abandon nearly 40% of his wheat crop due to drought. Insurance adjusters have estimated the yield in those acres at two to three bushels per acre.

The USDA released its estimate for the entire U.S. winter wheat crop on May 11. It is forecast at 1.42 billion bushels from 32 million acres, down 4% from 2010. The yield forecast is 44.5 bushels per acre, down 2.3 bushels from last year.

### **HIGH HEAT AND WINDS COULD HURT YIELDS**

Jim Shroyer, Extension Agronomy, KSU

Wheat in most of Kansas has faced numerous challenges this spring – primarily a severe and ongoing drought. Early last week, temperatures at or near 100 degrees and high winds came just when the wheat needed cool temperatures and rain to recover lost yield potential. How will this heat stress affect wheat that is flowering or in grain fill?

If wheat was flowering at the time of the heat, you will almost surely see some floret sterility or abortion as a result of temperatures at or near 100 degrees. The plants themselves could recover if they receive some rain and cooler temperatures within the next week, but you won't get any new florets. Once they are gone, they are gone. Wheat that was flowering during this period of extreme wheat will very likely have fewer kernels per head than normal. When this happens, the heads do not change in outward appearance and a return to cool weather will still help grain fill in the kernels that remain, but yields will be reduced.



***White heads in Barton County as a result of premature death caused by period of extreme heat on May 8-10, together with drought stress. Photos by Jim Shroyer, K-State Research and Extension.***

Another common effect of both extreme heat and drought is premature death of the heads. This year, the root systems of wheat were shortened by dry conditions, then the period of extreme heat caused enough additional stress that the entire head simply died. When this happens, the heads will turn white – almost overnight in some cases. This is a separate issue from floret sterility, but both situations are occurring this year.

The effects of short periods of high heat at flowering will not be as severe on wheat that was in relatively healthy condition compared to wheat that was under drought stress. The effects also will not be as severe where there was good soil moisture. Plants can cool themselves more easily when soils are moist than under dry soil conditions.

The high winds accompanying the high temperatures will have added to the drought stress of the plants, causing leaves to roll or dry up and turn blue or brown. This will have the same effect on yield as a bad infection of a leaf disease that destroys the flag leaf. If the flag leaf was lost at this stage of growth, whether due to diseases or drought stress, the kernels will not be able to fill adequately.

Aside from the heat, the drought this year has resulted in very short flag leaves in many cases, and reduced the overall photosynthetic potential of the wheat. All of this will have an effect on grain fill, yields, and test weight.

Where wheat had not yet headed at the time of the heat, the drought and heat may have caused tillers to abort, lower leaves to “fire,” and flag leaves to roll. Drought-stressed wheat is already shorter than normal. In some cases, these plants may eventually recover if they get some rain by the boot or early heading stage, but yield potential will be reduced. In severe cases, however, some of these plants have already turned blue and may die.

### **WHEAT FIELD DAY, MAY 31**

Wheat research at Kansas State University will be highlighted at K-State’s Wheat Field Day on Tuesday, May 31. The field day will be held at K-State’s North Agronomy Farm, 2200 Kimball Ave., directly north of the Bill Snyder Family Stadium in Manhattan. Check-in will begin at 4:30 p.m. The tours begin at 5 p.m. A free dinner will be provided after the tours. Part of the tour will be on trailer, and part will be walking. Assistance will be provided to the walking tour stops for those who need it.

Those planning on attending can register online at: <http://2011wheatday.eventbrite.com>

Registrations can also be made by calling Troy Lynn Eckart, Department of Agronomy, at 785-532-5776. The registration deadline is May 26. For more information, call your local county Research and Extension office, or 785-532-5776. Also, see: [www.agronomy.ksu.edu/WheatDay](http://www.agronomy.ksu.edu/WheatDay)

### **DISEASE UPDATE, Erick DeWolf, K-State Extension**

May 13, 2011 - Disease scouting this week reveals that leaf rust is present at very low levels in parts of central Kansas. The most recent find came from McPherson county where leaf rust was found at low levels on the second leaf down within the canopy. The incidence of leaf rust was still less than 5%. Stripe rust was also reported by Joe Martin, KSU wheat breeder, in Ellis county near Hays, Kansas (Central, KS) this week. Clayton Seaman, who works with Martin, reports finding only a single lesion in the mid canopy at this location.

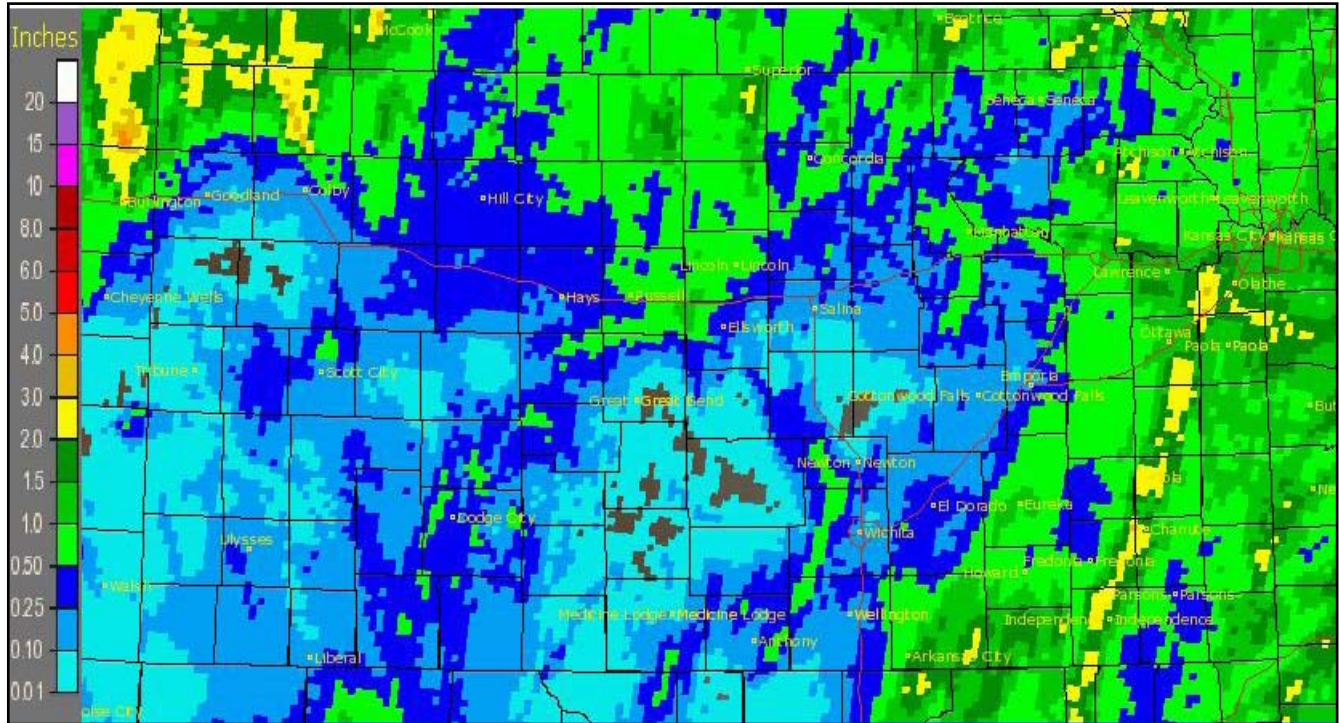
Weather conditions remain dry in most areas of the state with severe drought in western Kansas. Wheat in north central Kansas has been heading and flowering this week and some fields in the south are well into the grain filling stages of growth. The rust diseases may increase near the end of the season, but are not expected to be a major factor in most fields this year.



***Stripe Rust***

**ATTENTION READERS!** *In The Field* subscribers will be added to the e-mail list for Kansas Wheat’s daily harvest reports from mid June through early July. These will take the place of June and July *In The Field* issues.

**14-Day Precipitation Totals Ending May 16.**



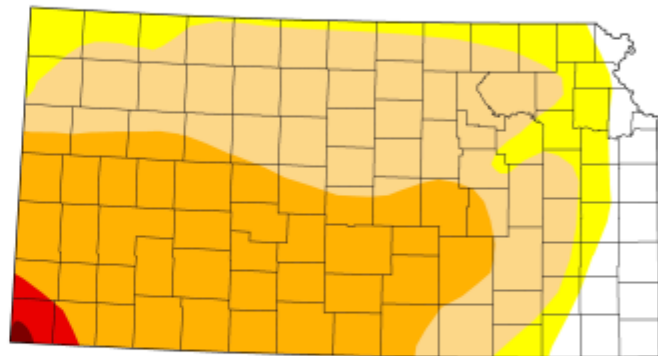
# U.S. Drought Monitor

## Kansas

**May 10, 2011**  
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	8.49	91.51	78.84	40.96	1.44	0.18
Last Week (05/03/2011 map)	10.39	89.61	61.48	17.90	1.41	0.18
3 Months Ago (02/08/2011 map)	17.50	82.50	43.85	3.48	0.00	0.00
Start of Calendar Year (12/28/2010 map)	17.82	82.18	43.85	3.48	0.00	0.00
Start of Water Year (09/28/2010 map)	83.23	16.77	0.00	0.00	0.00	0.00
One Year Ago (05/04/2010 map)	88.26	11.74	0.00	0.00	0.00	0.00



**Intensity:**

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

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

<http://drought.unl.edu/dm>



Released Thursday, May 12, 2011  
Rich Tinker, NOAA/NWS/NCEP/CPC

**In The Field With Kansas Wheat** is a publication of the Kansas Wheat Commission and the Kansas Association of Wheat Growers: 217 Southwind Place, Manhattan, KS 66503, 1-866-75WHEAT  
Contact: Aaron W. Harries, Director of Marketing, [aharries@kswheat.com](mailto:aharries@kswheat.com)