



**K-STATE**  
Research and Extension

## Extension Agronomy

# eUpdate

---

*04/03/2019*

These e-Updates are a regular weekly item from K-State Extension Agronomy and Kathy Gehl, Agronomy eUpdate 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](mailto:kgehl@ksu.edu), or Dalas Peterson, Extension Agronomy State Leader and Weed Management Specialist 785-532-0405 [dpeterso@ksu.edu](mailto:dpeterso@ksu.edu).

Subscribe to the eUpdate mailing list: <https://listserv.ksu.edu/cgi-bin?SUBED1=EUPDATE&A=1>

---

**1. First hollow stem update: April 1, 2019..... 3**

## 1. First hollow stem update: April 1, 2019

Cattle should be removed from wheat pastures when the crop reaches first hollow stem (FHS). Grazing past this stage can severely affect wheat yields (for a full explanation, please refer to the eUpdate article "[Optimal time to remove cattle from wheat pastures: First hollow stem](#)").

### First hollow stem update

In order to screen for FHS during this important time in the growing season, the K-State Extension Wheat and Forages crew measures FHS on a weekly basis in 36 different commonly grown wheat varieties in Kansas. The varieties are in a September-sown replicated trial at the South Central Experiment Field near Hutchinson.

Ten stems are split open per variety per replication (Figure 1), for a total of 40 stems monitored per variety. The average length of hollow stem is reported for each variety in Table 1.



**Figure 1. Ten main wheat stems were split open per replication per variety to estimate first hollow stem for this report, for a total of 40 stems split per variety. Photo by Romulo Lollato, K-State Research and Extension.**

**Table 1. Length of hollow stem measured March 25 of 36 wheat varieties sown mid-September**

2018 at the South Central Experiment Field near Hutchinson. The critical FHS length is 1.5 cm (about a half-inch or the diameter of a dime). Varieties that already passed first hollow stem are highlighted.

Variety	Hollow stem length (cm)
	(4/1/2019)
<b>AM Eastwood</b>	--
<b>Bentley</b>	<b>2.22</b>
<b>Bob Dole</b>	<b>2.45</b>
<b>Byrd</b>	--
<b>Doublestop CL Plus</b>	<b>1.56</b>
<b>EXP</b>	<b>2.72</b>
<b>EXP 40-1</b>	<b>1.74</b>
<b>Gallagher</b>	--
<b>Green Hammer</b>	--
<b>Iba</b>	<b>2.77</b>
Joe	0.87
<b>Langin</b>	--
<b>Larry</b>	<b>2.02</b>
Lonerider	1.46
<b>NE10478-1</b>	<b>2.51</b>
<b>Paradise</b>	<b>2.61</b>
<b>Ruby Lee</b>	--
<b>Showdown</b>	<b>1.82</b>
<b>Smith's Gold</b>	--
<b>Spirit Rider</b>	--
<b>Stardust</b>	--
<b>SY Achieve CL2</b>	--
<b>SY Benefit</b>	--
<b>SY Grit</b>	--
SY Rugged	1.40
<b>TAM 204</b>	--
<b>Tatanka</b>	<b>3.93</b>
<b>WB4269</b>	--
<b>WB4303</b>	--
<b>WB4515</b>	<b>2.07</b>
<b>WB4595</b>	--
WB4699	1.48
<b>WB4792</b>	--
<b>WB-Grainfield</b>	<b>1.70</b>
<b>Whistler</b>	<b>2.08</b>
<b>Zenda</b>	<b>3.63</b>

As of April 1, 2019, all varieties evaluated except for Joe, Lonerider, SY Rugged, and WB4699 had reached first hollow stem (Table 1). We advise producers to closely inspect their fields and remove cattle from the pastures by this time.

The intention of this report is to provide producers an update on the progress of first hollow stem development in different wheat varieties. Producers should use this information as a guide, but it is extremely important to monitor FHS from an ungrazed portion of each individual wheat pasture to take the decision of removing cattle from wheat pastures.

Contact author:

Romulo Lollato, Wheat and Forages Specialist  
[lolato@ksu.edu](mailto:lolato@ksu.edu)

Co-authors:

Kavan Mark, Undergraduate hourly student

Marden Moraes, Visiting Assistant Scientist

Lohan Oliveira, Visiting Assistant Scientist

Nilo Fernandes Junior, Visiting Assistant Scientist

Caio Rapolla, Visiting Assistant Scientist

Valdir Fogaca Jr., Visiting Assistant Scientist