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Extension Agronomy

eUpdate

03/22/2017

These e-Updates are a regular weekly item from K-State Extension Agronomy and Steve Watson, Agronomy e-Update 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 Steve Watson, 785-532-7105 swatson@ksu.edu, or Curtis Thompson, Extension Agronomy State Leader and Weed Management Specialist 785-532-3444 cthompso@ksu.edu.

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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 [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 of 20 different commonly grown wheat varieties and experimental lines in Kansas. The varieties are in a September-sown replicated trial at the South Central Experiment Field near Hutchinson, in cooperation with Gary Cramer, Agronomist-in-Charge of the Field.

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

Table 1. Length of hollow stem measured March 20, 2017 of 20 wheat varieties and experimental lines sown mid-September 2016 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).

Variety	Hollow stem length (cm), 2017							
	2/17	2/22	3/3	3/5	3/19	3/13	3/16	3/20
1863	0.02	0.26	0.42	0.95	1.58	-	-	-
Bentley	0.03	0.17	0.25	0.44	0.44	0.59	0.71	1.31
Doublesto p CL Plus	0.02	0.16	0.20	0.51	0.59	0.77	0.99	2.36
Everest	0.04	0.23	0.38	0.83	1.30	2.20	-	-
Gallagher	0.05	0.33	0.58	0.97	1.53	-	-	-
IBA	0.03	0.31	0.38	0.72	1.01	1.57	-	-
KanMark	0.04	0.22	0.34	1.00	0.87	1.39	2.01	-
KS061193K -2	0.03	0.33	0.34	1.02	1.04	1.30	1.67	-
KS080448 C*102	0.01	0.06	0.33	0.51	0.57	0.77	0.62	1.55
Larry	0.03	0.16	0.18	0.57	0.56	0.70	0.76	2.08
OK11D250 56 ¹	0.02	0.18	0.44	0.76	0.99	1.74	-	-
OK12716	0.03	0.20	0.27	0.66	0.77	1.11	1.29	2.86
OK12DP22 002-042	0.03	0.19	0.40	0.89	1.30	1.56	-	-
Ruby Lee	0.02	0.20	0.27	0.82	1.16	2.02	-	-
Stardust	0.02	0.34	0.53	1.01	1.13	1.57	-	-
SY Flint	0.03	0.30	0.46	0.96	1.12	1.48	1.58	-

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SY Grit	0.02	0.22	0.48	1.06	1.53	-	-	-
SY Llano	0.01	0.38	0.60	1.39	2.67	-	-	-
Tatanka	0.03	0.18	0.35	0.50	0.51	0.95	1.07	2.29
Zenda	0.04	0.30	0.36	1.02	0.93	1.90	-	-

¹ OK11D25056 will be released as “Smith’s Gold”

Five varieties reached first hollow stem between March 16 and March 20 (Table 1), demonstrating how fast this stage can be reached (within only a few days). Varieties that reached first hollow stem within the last few days include DoubleStop CL Plus, KS080448C*102, Larry, OK12716, and Tatanka. Only one variety had not yet reached this stage at time we took these measurements (Bentley), but it is also rapidly approaching this stage. Producers grazing wheat in south central Kansas should have already removed cattle by now regardless of variety, unless intending to graze out the crop (please see article on wheat grazeout decision [here](#)).

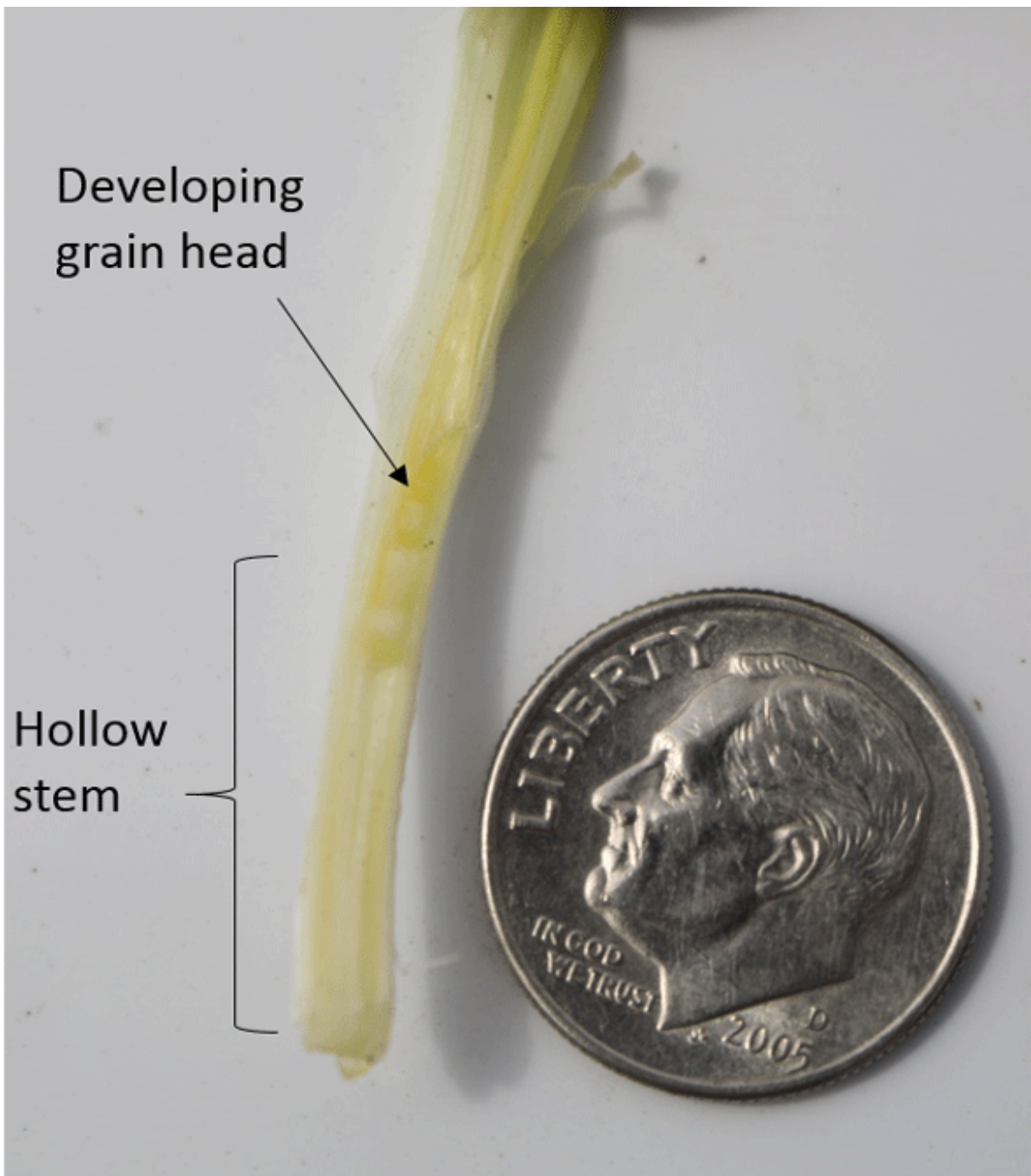


Figure 1. Depiction of the first hollow stem stage or growth in wheat. Photo by Romulo Lollato, Extension wheat specialist with K-State.

The intention of this report is to provide producers a weekly 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.

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