WHEAT PRODUCTION NEWSLETTER

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What a difference a week makes!

By Jeff Edwards, Brad Tipton, Curtis Bensch, and Rick Kochenower

At the time of our last report on February, 22 only one variety at one location (AgriPro Fannin at Stillwater) had reached first hollow stem. The warm weather, however, has caused things to progress quickly and many of our earliest varieties are at or past first hollow stem (Table 1).

Curtis Bensch reports no movement in first hollow stem among the early varieties at Goodwell. He will continue to monitor these varieties over the next week and we will let you know as soon as hollow stem develops.

The delay in the onset of first hollow stem in our no-till plots at El Reno is interesting, to say the least. When we initiated these no-till vs. conventional till plots our working hypothesis was that there would be no difference in development of first hollow stem between the conventional till and no-till variety plots.

According to these preliminary data, our hypothesis was wrong. The no-till plots are about one week behind the conventional till plots in terms of first hollow stem. The most likely reason for the delayed development in the no-till plots is cooler soil temperatures. We will continue this work over the next few years to see if this trend is a one-hit wonder or if it holds true across environments.

Table 1. Hollow stem measurements on February 26 at Stiillwater and February 28 at El Reno, OK. Varieties currently at the first hollow stem stage of growth are shaded. A variety is at First Hollow Stem when 1.5 cm of hollow stem is present.

VARIETY	Stillwater	El Reno Conv. Till	El Reno No-Till
	Feb. 26	-----Feb. 28----	
OKFIELD	0.4	0.3	0.5
CENTERFIELD	0.3	0.3	0.2
PROTECTION CL	2.2	3.5	1.4
OVERLEY	1.5	2.3	1.1
FULLER	2.3	2.9	1.4
JAGALENE	1.8	0.9	0.3
JAGGER	1.9	2.2	0.8
OK BULLET	1.1	0.5	0.3
SANTA FE	1.6	1.5	1.3
SHOCKER	1.4	2.2	0.9
2174	0.3	0.2	0.2
ENDURANCE	0.3	0.2	0.1
TAM 111	0.2	0.3	0.3
DOANS	0.3	0.7	0.2
CUTTER	1.8	2.3	1.3
FANNIN	2.7	2.3	0.8
DUSTER	0.5	0.8	0.2
DELIVER	0.5	0.8	0.2
JEI 110	0.4	0.7	0.2
DANBY	0.2	0.4	0.2
GUYMON	0.6	-	-
INTRADA	0.5	-	-
IKE	0.2	-	-
LAKIN	0.2	-	-
TREGO	0.1	-	-
STANTON	0.5	-	-
TAM 110	0.9	-	-
AVALANCHE	0.2	-	-
2145	1.2	-	-
NEOSHO	1.1	-	-
TAM 112	2.6	-	-
Ok101	0.3	-	-
Ok102	0.3	-	-
CUSTER	0.8	-	-
	0.9	**1.3**	**0.6**

Wheat disease update

By Bob Hunger

Wheat Soilborne Mosaic Virus (WSBMV) & Wheat Spindle Streak Mosaic Virus (WSSMV)

WSBMV and WSSMV symptoms are just starting to be clearly expressed in wheat in test plots around Stillwater. With the milder temperatures this past week, the wheat has started to grow and "green-up" considerably, so the symptoms of these two diseases should begin to become more and more apparent in susceptible varieties.

Wheat foliar diseases

Yesterday I did not find any leaf rust in any of the susceptible varieties in Dr. Jeff Edwards (Wheat Extension Agronomist at Oklahoma State University) variety-demonstration here at Stillwater. In contrast, actively sporulating powdery mildew was heavy on the lower leaves of susceptible varieties.

Powdery mildew

Here are a few additional foliar disease reports I received today:

OKLAHOMA – 01 Mar 2007

Dr. Brett Carver; Wheat Breeder

Still no rust showing up in SW OK, based on a breeder-plot tour from El Reno to Ft. Cobb to Hobart today. Nothing to get excited about, save for some old powdery mildew Pm at Lahoma (north central Oklahoma). Early risers are coming out, while late breakers are still laying low.

TEXAS – 28 Feb 2007

Dr. Dave Worrall; Agripro Wheat Breeder

Ross visited Castroville and Luling last week. He didn't find any rust at Castroville but found really heavy seedling rust on susceptibles at Luling. He couldn't find any stripe rust at either of the locations nor at Hillsboro. We have a little bit of leaf rust at Lockett but you really have to search to find any active pustules. I looked at commercial fields in southwest Oklahoma last week and found about the same level of leaf rust there as wheat we are seeing here. Now that it's warming up, maybe things will start to pop.

LOUISIANA 28 Feb 2007

Dr. Stephen Harrison; Plant Breeder

Dr. Boyd Padgett (LSU AgCenter plant pathologist) visited the variety trial location in Alexandria, LA this morning.

Boyd reports that there is stripe rust present at low levels in the variety trials and noted that he observed stripe rust on AGS 2000. AGS 2000 has some stripe rust resistance but is quite susceptible to some races. It had 80% stripe rust at Winnsboro in 2005, the last year stripe rust was a major problem.

This may indicate that a virulent race is present in the state (or may not). Our stripe rust epidemics usually develop the first half of March and peak by early April when temperatures surpass the optimum for stripe rust development. Growers, consultants and agents should scout wheat fields for the presence of stripe rust and be prepared to apply fungicides if warranted.

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