



PLANT DISEASE AND INSECT ADVISORY

Entomology and Plant Pathology
Oklahoma State University
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Wheat Disease Update

Bob Hunger, Extension Wheat Pathologist

Over the last week, **leaf rust** has become severe on susceptible varieties in plots, trials and fields around Stillwater and other areas of Oklahoma where conditions (moisture and temperature) have favored rust development. One report I received from near Hinton, OK (about 50 miles west of OKC) indicated that leaf rust in unsprayed fields of Jagger was “covering the flag leaves.” Similar reports of severe leaf rust have come from the experiment station at Lahoma (about 15 miles west of Enid), but according to Roger Gribble (Area Extension Agronomist) as you go west from Lahoma the incidence and severity of rust decreases dramatically.

Below are the ratings (1-9 scale with 1-3= levels of resistant; 4-6= intermediate levels; 7-9 levels of susceptibility) I took for leaf rust at the variety-demo strips here at Stillwater on May 5th and then a week later on May 12th.

	<u>May 5th</u>	<u>May 12th</u>
Jagalene	8	9
Jackpot	1	1
Doans	1	1
Fannin	1	1
Overley	1	2
Fuller	1	1
Jagger	6	8
Okfield	4	7
Centerfield	2	5
OK Bullet	2	2
Deliver	1	1
Endurance	1	1
Duster	1	1
Custer	2	3
Tam 111	1	5
Tam 304	1	1
Tam 112	1	2
Tam 203	1	1
Santa Fe	1	1
Shocker	1	1
Guymon	2	4
Danby	4	7
Lakin	6	8





ALSO – Gary Strickland (Extension Educator, southwestern OK) has reported seeing **dryland root rot** showing up in southwestern OK. Several producers from the southwest have indicated the same thing. Isolations from these samples currently are being made, but they do look like dryland root rot.

Wheat tillers killed by the fungus *Fusarium* (dryland root rot). Note the reddish/purplish color present on dead tissue that is consistent with the presence of *Fusarium*.

Samples testing positive for **wheat streak mosaic virus, high plains virus, and barley yellow dwarf** continue to come in from northwestern OK and the panhandle.

Africanized Honey Bees Update

Richard Grantham, Dir., Plant Disease and Insect Diagnostics Lab

The USDA-ARS Carl Hayden Bee Research Center in Arizona was very efficient and we received a quick reply back on the honey bees collected from Payne Co. These are the bees that recently tested positive for Africanized honey bee DNA. After an extensive battery of measurements, the bees were determined to be European honey bees. This result lends more evidence to hybridization occurring between these two groups. The DNA test only indicates that at some point the honey bee collected had an Africanized queen in its lineage.



When this queen breeds with a European drone, Africanized traits may be reduced but the DNA will always indicate Africanized, essentially giving us a false positive. In this case it is always best to err on the side of caution. This can also be a problem when the reverse occurs, a European queen/Africanized drone mating, since we can't detect this with a DNA test. We generally only know about this type when a serious stinging incident occurs or when there are other signs present. We will continue to monitor this situation.

Dr. Richard Grantham, Director, Plant Disease and Insect Diagnostic Laboratory

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