

SMALL GRAIN UPDATES

DISEASES

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The 2013-14 wheat crop was planted under good weather conditions. Rain in November and December aided in good crop establishment. A cold, wet winter was followed by a long, cool and wet spring.

Powdery mildew (*Blumeria graminis*) was observed throughout the state with heavy disease pressure observed in extreme south Georgia. Many growers in that area sprayed early for powdery mildew control.

Fusarium Head Blight (FHB/Scab) (*Fusarium graminearum*) incidences were widespread. In the southwestern part of the state FHB was severe. Research plots at the Southwest Georgia Research and Education Center in Plains had severity ratings that reached up to 50%. Lower infection rates were observed in Tifton and Griffin. This is the first season in decades that FHB was observed at high levels in Georgia. The cool, wet weather at the time of flowering was conducive for FHB infections throughout the state.

Although leaf rust (*Puccinia triticina*) was observed at the research center in Plains, statewide leaf rust was at some of the lowest observed levels in years. This was due in part to the long, cool spring, which does not favor leaf rust, and to many production fields being sprayed earlier in the season with fungicides.

Stripe rust (*Puccinia striiformis*) was observed at Griffin and Plains where plots were artificially inoculated. Stripe rust was not found in locations around the state and was not a problem for growers this season. We are continuing to grow production varieties with good stripe rust resistance which aids in limiting epidemics.

Stagonospora spot blotch, tan spot, wheat streak mosaic, and barley yellow dwarf virus were observed throughout the state and seemed more prevalent than previous years. Soil borne mosaic virus was not an issue for this growing season.

Crown rust (*Puccinia coronata*) on oats was a significant problem in Georgia this year, particularly at Tifton and Plains. Only four out of 20 varieties grown in the Statewide Variety Test had crown rust resistance. As a grower in the southern part of Georgia, the choice of variety grown is critical, however often limited by seed availability.

INSECTS

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The variety tests were sampled for Hessian fly, *Mayetiola destructor*, in late April 2014 at Southwest Georgia Research and Education Center near Plains, at the Bledsoe Research Farm near Griffin, and at the Lang Farm, UGA-Tifton Campus. Early maturing lines were evaluated in a separate test at Tifton. Results are shown in the next tables.

Hessian fly infestations were low at all locations, making definitive ratings difficult. Several wheat varieties showed good levels of Hessian fly resistance. Varieties with good resistance in southern Georgia may not be resistant in northern Georgia because of the presence of biotype L in northern Georgia. Rye and oats also are good Hessian-fly resistant alternatives to wheat for forage production because rye is highly resistant and oats are immune to the insect.

Cold wet conditions in the fall and winter of 2013-2014 caused wheat to develop and mature later than normal. Hessian fly infestations were low in the fall but reached high levels by the time of the spring generation in susceptible varieties in some areas. Aphids caused direct injury to wheat and also transmitted barley yellow dwarf virus (BYDV). Aphid infestations also generally were variable and sometimes large throughout the state. But BYDV infection generally was at low levels throughout most of the state. Systemic insecticide seed treatments and properly timed foliar applications of insecticides can reduce aphid numbers and minimize BYDV incidence. Cereal leaf beetle infestations also caused leaf defoliation in some fields, mostly in central and eastern Georgia. Consult your local county Extension agent and 2014 Georgia Pest Management Handbook for a list of recommended insecticides and for management practices for these and other insect pests of small grains.

Hessian fly infestation in wheat entries in the 2013-2014 Georgia Small Grain Performance Tests, Plains, Griffin, and Tifton, Georgia

Entry name	Plains		Griffin		Tifton	
	% Infested stems	No. Immatures /stem	% Infested stems	No. Immatures /stem	% Infested stems	No. Immatures /stem
AGS 2000	40	0.50	10	0.10	-	-
AGS 2026	5	0.05	0	0.00	5	0.05
AGS 2027	0	0.00	0	0.00	0	0.00
AGS 2035	0	0.00	0	0.00	5	0.05
AGS 2038	40	1.05	0	0.00	0	0.00
AGS 2040	85	3.10	10	0.20	25	0.55
Arcia (triticale)	40	1.50	10	0.25	-	-
Dyna-Gro 9171	77	2.23	45	0.90	-	-
Dyna-Gro Baldwin	5	0.10	15	0.15	30	0.60
Dyna-Gro Oglethorpe	0	0.00	0	0.00	0	0.00
Endurance	35	0.35	25	0.40	75	2.35
FL01008	15	0.20	20	0.40	-	-
FL01143 (triticale)	40	0.65	0	0.00	-	-
FL08128	25	0.50	15	0.15	-	-
Fleming	35	0.55	10	0.10	10	0.15
GA 03185-12LE29	0	0.00	0	0.00	0	0.00
GA 03564-12E6	0	0.00	0	0.00	20	0.25
GA 041052-11E51	10	0.15	10	0.10	0	0.00
GA 041229-13E55	5	0.05	5	0.05	15	0.15
GA 041293-11E54	40	0.90	40	0.85	15	0.15
GA 041293-11LE37	30	0.30	25	0.30	20	0.35
GA 04417-12E33	0	0.00	0	0.00	0	0.00
GA 04434-11E44	55	0.35	5	0.05	10	0.10
GA 04434-12LE28	60	1.60	5	0.05	0	0.00
GA 04434-13E52	50	0.70	25	0.25	20	0.25
GA 051033-13LE14	55	2.15	20	0.40	10	0.15
GA 051102-13LE43	45	0.70	30	0.35	15	0.40
GA 051335-13E13	40	0.60	20	0.30	10	0.10
GA 051335-13LE19	50	1.50	25	0.30	20	0.20
GA 05304-12E35	15	0.25	10	0.10	0	0.00
GA 06033-13EE18	10	0.30	0	0.00	35	0.60
GA 061082-13E24	55	1.35	35	0.50	25	0.60
GA 06112-13EE16	45	0.90	10	0.15	10	0.10
GA 061151-13EE26	20	0.50	15	0.20	0	0.00
GA 061349-13E4	20	0.30	10	0.15	15	0.25
GA 061349-13E5	10	0.25	30	0.40	25	0.30
GA 061349-13LE29	§	§	10	0.15	30	0.30
GA 061349-13LE31	30	0.40	40	0.80	10	0.10
GA 06344-13EE21	0	0.00	0	0.00	10	0.10
GA 06474-13EE13	15	0.35	5	0.20	5	0.05
GA 06478-13E23	40	1.00	20	0.30	0	0.00
GA 06493-13LE6	35	0.50	40	0.55	5	0.15
GA 07163-12LE9	0	0.00	15	0.15	0	0.00
GA051754-12LE13	0	0.00	0	0.00	0	0.00
GA-Gore	70	1.60	45	0.65	55	1.45
Jamestown	40	0.70	35	0.40	20	0.05
LA3200-E2	0	0.00	15	0.15	0	0.00
LA3200-E23	5	0.25	0	0.00	0	0.00
LA5032D-136	30	0.50	25	0.40	10	0.10
LA5130D-P5	10	0.20	30	0.55	15	0.35

**Hessian fly infestation in wheat entries in the 2013-2014
Georgia Small Grain Performance Tests,
Plains, Griffin, and Tifton, Georgia (Continued)**

Entry name	Plains		Griffin		Tifton	
	% Infested stems	No. Immatures /stem	% Infested stems	No. Immatures /stem	% Infested stems	No. Immatures /stem
LA5145D-118	35	2.40	30	0.60	5	0.05
LA6146E-P4	60	1.30	5	0.05	15	0.20
LA754	45	1.30	40	0.65	10	0.10
LA821	69	2.62	20	0.30	50	1.20
LA841	15	0.30	35	0.80	20	0.40
L-BRAND-343	75	1.80	5	0.05	20	0.25
Monarch (triticale)	25	0.60	0	0.00	-	-
NC07-1031	25	0.40	20	0.20	-	-
NC07-1088	20	0.20	5	0.10	-	-
NC08-26	30	0.45	0	0.00	-	-
NC09-22402	65	1.90	25	0.55	25	0.45
NF 95134A	56	1.25	20	0.20	75	2.55
NF 96210	75	2.90	10	0.25	-	-
NK-Coker 9700	90	2.80	35	0.50	25	1.00
P 125	58	2.75	25	0.30	25	0.25
P 185	75	3.00	5	0.05	45	1.40
P 357	55	1.60	55	0.90	100	5.65
P 870	55	1.45	55	1.25	55	1.50
PGX 13-1	35	0.55	5	0.30	75	3.80
Pioneer 26R10	10	0.15	10	0.10	20	0.35
Pioneer 26R20	5	0.10	0	0.00	0	0.00
Pioneer 26R41	0	0.00	0	0.00	0	0.00
Pioneer 26R53	45	0.80	40	0.60	25	0.65
Pioneer 26R61	0	0.00	20	0.25	-	-
Pioneer 26R94	10	0.25	5	0.15	0	0.00
Roberts	40	1.80	10	0.20	-	-
SS 8340	70	1.80	30	0.40	90	4.85
SS 8360	10	0.15	0	0.00	20	0.25
SS 8412	65	1.60	20	0.20	20	0.50
SS 8415	5	0.05	0	0.00	10	0.10
SS 8629	0	0.00	0	0.00	0	0.00
SS 8641	20	0.35	25	0.35	30	0.45
SS Triticale 1414	10	0.15	0	0.00	-	-
SX101	45	0.90	20	0.45	70	3.50
Trical 342 (triticale)	40	0.60	5	0.05	-	-
TV8525	35	1.15	20	0.25	45	0.95
TV8535	80	6.00	50	1.00	40	1.40
TV8848	0	0.00	0	0.00	0	0.00
TV8861	15	0.15	10	0.10	25	0.45
USG 3024	75	2.15	15	0.20	20	0.25
USG 3120	10	0.20	0	0.00	5	0.05
USG 3201	85	6.00	45	0.85	50	1.30
USG 3404	90	3.40	40	0.60	65	2.20
USG 3694	40	1.40	20	0.25	35	0.55
VA08MAS-369	80	1.95	10	0.15	20	0.35
VA10W-123	35	0.85	10	0.10	70	1.85

Results at Griffin and Tifton were from one sample of 20 stems.
§ Sample lost.

**Hessian fly infestations* of entries in the late-planted
(early maturing lines) wheat trial,
Tifton, Georgia, 2013-2014**

Entry name	Tifton	
	% Infested stems	No. Immatures/stem
Coker 9700	20	0.40
Fleming	10	0.30
GA 06033-13EE18	20	0.40
GA 06112-13EE16	0	0.00
GA 061151-13EE26	5	0.05
GA 06344-13EE21	0	0.00
GA 06474-13EE13	35	0.95
LA3200-E23	15	0.35
LA5032D-136	10	0.10
LA513OD-P5	45	1.30
LA5145D-118	60	3.25
LA6146E-P4	10	0.65
P 125	20	0.40
Pioneer 26R94	25	0.30
SX101	30	0.40

* Results from single non-replicated block of 20 stems per plot.