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SMALL GRAIN UPDATES

VARIETY RELEASES

Jerry W. Johnson
Department of Crop and Soil Sciences
Griffin Campus, Griffin, GA 30223-1797

AGS 2038 (GA 001138-8E36) is a high grain yielding, awned, medium late maturing, good test weight, medium-tall height line with moderate straw strength. It was derived from the cross of GA 961581 / PIO26R61. Its maturity averages about 4 days later than AGS 2000 in Georgia. Juvenile plant growth is semi-erect. At the boot stage, it is blue-green color with waxy stems; flag leaves are erect and not twisted. It is resistant to races of leaf rust and stripe rust in Georgia and the Southeast, current biotypes of Hessian fly in Georgia and wheat soil-borne mosaic virus. It is moderately-resistant to glume blotch, moderately susceptible to fusarium head blight (scab), and has good milling and baking quality as a soft red winter wheat.

DISEASES

James W. Buck and John D. Youmans
Department of Plant Pathology
Griffin Campus, Griffin, GA 30223-1797

Each growing season has its own unique story. The 2011-12 growing season was no exception. The warmer temperatures of late December through March generated excessive top growth and delayed vernalization in cold hardy varieties. While the warmer winter temperatures promoted excessive growth, diseases were held in check somewhat by reduced rainfall. The exception to this is powdery mildew. Most wheat varieties were very early in maturing.

Powdery mildew was observed at high levels in south Georgia on susceptible varieties in producers' fields. Powdery mildew was observed at moderate levels at the Tifton, Plains and Calhoun stations.

Stripe rust (*Puccinia striiformis)* was observed at Griffin and Plains where plots were artificially inoculated. Stripe rust was found at low levels at Tifton and Calhoun but no widespread epidemics were observed in the state.

Barley Yellow Dwarf Virus (BYDV) was observed at moderate levels across the state. State wheat trials at Tifton, Plains and Griffin all had some disease. There is no doubt that the warmer winter favored increases in the aphid populations. BYDV is an elusive disease that has the potential in any given year to greatly reduce wheat yields.

Leaf rust (*Puccinia triticina*) was observed at moderate levels across the state and could have proved much worse had the spring not been as dry as it was.

Leaf and glume blotch (*Stagonospora nodorum*) were observed at low levels across the state again due to the lack of rain in the spring.

(Bipolaris sorokiniana) or *(Drechslera sorokiniana),* helminthosporium spot blotch, was also observed at low levels across the southern part of the state as well as *(Pyrenophora tritici-repentis),* tan spot. Both diseases were observed due in part to the warmer winter.

INSECTS

G. David Buntin
Department of Entomology
Griffin Campus, Griffin, Georgia 30223-1797

The variety tests were sampled for Hessian fly, *Mayetiola destructor*, in late April, 2011 at the Southwest Research and Education Center near Plains, the Bledsoe Research Farm near Griffin and at the Southeast Research and Education Center near Midville, Ga. Early maturing lines were evaluated in a separate test at Midville. Results are shown in the following tables.

Several wheat varieties showed good levels of Hessian fly resistance, including AGS 2026, AGS 2035, AGS 2060, Pioneer brands 26R20 and 26R61, USG 3592, Oglethorpe, TV8848, TV8861 and a number of experimental lines. Varieties with good resistance in southern Georgia may not be resistant in northern Georgia because of the presence of biotype L in northern Georgia. The only currently available varieties with biotype L resistance are AGS 2026 and Oglethorpe. Rye and oats also are good Hessianfly-resistant alternatives to wheat for forage production, because rye is highly resistant and oats are immune to the insect.

Warm, dry conditions in the fall and winter of 2011/2012 caused wheat to develop and mature earlier 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 cause direct injury to wheat and also transmit 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. True armyworm infestations were present in cereal grain fields in central portions the state, which required insecticide control in some cases. Consult your local county Extension agent and current *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 2011-2012 Georgia State Small Grain Variety Test, Plains, Griffin and Midville, Ga.

	Plains		Griffin		Midville	
Entry name	% Infested	No./stem	% Infested	No./stem	% Infested	No./stem
AGS 2026	2.5	0.03	0	0	0	0
AGS 2035	15.0	0.33	15	0.15	0	0
AGS 2038 (GA001138-8E36)	27.5	0.65	0	0	0	0
AGS 2060	7.5	0.10	10	0.30	0	0
Arcadia	60	2.38	5	0.35	5	0.05
Coker 9553	80	2.05	0	0	10	0.15
Coker 9700	42.5	1.08	0	0	0	0
Dyna-Gro 9053	65	0.70	20	0.50	-§	-
Dyna-Gro 9171	57.5	3.48	25	0.70	-	-
Dyna-Gro Baldwin	17.5	0.33	0	0	0	0
Endurance	57.5	1.48	55	0.80	-	-
Exp 32110	7.5	0.08	5	0.15	10	0.10
Exp 32111	60	2.10	5	0.05	0	0
Exp 32112	0	0	0	0	0	0
Exp 32113	100	3.70	0	0	65	1.90
Fleming	30	0.53	0	0	5	0.10
GA021245-9E16	30	0.80	0	0	0	0
GA021338-9EE11	67.5	3.58	20	0.20	10	0.35
GA021773-9EE21	0	0	0	0	0	0
GA031086-10E26	5	0.23	0	0	0	0
GA031134-10E29	0	0	0	0	0	0
GA031238-10LE33	50	1.68	15	0.15	10	0.30
GA031257-10E41	40	0.98	0	0	5	0.10
GA031257-10LEL34	45	1.05	0	0	15	0.20
GA03136-10EEL9	42.5	0.85	30	0.65	0	0
GA031389-10EEL18	57.5	2.10	5	0.05	-	-
GA031421-11E57	0	0	0	0	0	0
GA03580-10EEL15	0	0	20	0.50	-	-
GA041052-11E51	7.5	0.15	0	0	0	0
GA041293-11E54	15	0.23	0	0	0	0
GA041293-11LE37	17.5	0.30	0	0	0	0
GA041296-11LE39	62.5	2.43	15	0.35	15	0.20
GA041323-11E63	12.5	0.18	0	0	0	0
GA041418-11EE16	7.5	0.25	0	0	-	-
GA04151-11E26	27.5	1.08	5	0.10	0	0
GA04244-11E1	55	1.63	5	0.05	10	0.10
GA04417-11E21	20	0.43	0	0	0	0
GA04434-11E44	10	0.23	0	0	0	0
GA04444-11LE25	55	2.10	0	0	15	0.20
GA04494-11E49	20	0.28	5	0.05	0	0
GA04500-11LE11	2.5	0.05	0	0	0	0
GA04510-11LE24	35	0.88	5	0.20	5	0.05
GA04570-10E46	2.5	0.03	0	0	0	0
GA-Gore	75	3.25	10	0.10	5	0.15
Jamestown	35	0.50	0	0	0	0
LA01110D-150	35	0.75	0	0	0	0
LA02015E201	85	2.88	10	0.15	15	0.15
LA02015E58	82.5	2.05	0	0	20	0.30
LA02024E12	7.5	0.20	0	0	0	0
LA04110D-7	50	1.15	5	0.05	0	0

Hessian fly infestation* in wheat entries in the 2011-2012 Georgia State Small Grain Variety Test, Plains, Griffin and Midville, Ga. (Continued)

	Plains		Griffin		Midville	
Entry Name	% Infested	No./stem	% Infested	No./stem	% Infested	No./stem
LA821	32.5	0.98	10	0.20	0	0
LA841	45	0.93	0	0	5	0.10
NC08-21273	90	2.35	0	0	50	1.00
NC08-23089	25	0.38	0	0	0	0
NC08-23323	62.5	2.15	0	0	0	0
NC-Cape Fear	82.5	1.88	10	0.10	35	1.30
NC-Yadkin	70	1.68	20	0.65	60	3.50
NF95134A	47.5	1.55	0	0	-	
NF96131	42.5	0.85	0	0	-	-
Oglethorpe	0	0	0	0	0	0
PGX 11-8	57.5	1.98	40	0.45	15	0.30
PGX-11-14	80	2.85	0	0	65	1.40
Pioneer 26R10	7.5	0.08	0	0	15	0.15
Pioneer 26R20	2.5	0.03	0	0	0	0
Pioneer 26R61	0	0	0	0	0	0
Pioneer XW10T	2.5	0.05	5	0.10	0	0
Progeny 117	37.5	1.45	0	0	0	0
Progeny 125	52.5	2.48	10	0.35	0	0
Progeny 185	47.5	0.93	5	0.05	20	0.40
Progeny 357	80	3.40	20	0.30	40	0.75
Progeny 870	100	4.68	50	1.05	50	4.60
Roberts	100	3.30	5	0.05	-	-
SS 520	17.5	0.48	0	0	25	0.40
SS 5205	90	3.10	10	0.10	5	0.05
SS 8308	12.5	0.25	5	0.05	0	0
SS 8340	90	3.85	35	0.80	5	0.15
SS 8404	55	0.98	0	0	15	0.45
SS 8500	2.5	0.05	15	0.15	5	0.05
SS 8641	25	0.43	5	0.05	0	0
Trical 342 (triticale)	2.5	0.13	0	0	-	-
TV8525	67.5	2.23	20	0.25	80	3.75
TV8535	65	2.53	20	0.90	10	0.15
TV8626	62.5	2.28	10	0.15	5	0.45
TV8848	0	0	0	0	-	-
TV8861	10	0.25	0	0	-	-
USG 3244	67.5	1.88	30	0.45	20	0.85
USG 3251	37.5	1.85	15	0.25	45	1.35
USG 3409	7.5	0.15	5	0.05	5	0.10
USG 3438	77.5	3.75	15	0.15	60	5.80
USG 3555	77.5	2.90	15	0.15	30	0.85
USG 3562	85	2.47	5	0.05	70	2.75
VA05W-151	2.5	0.03	30	0.30	0	0
VA06W-412	45	1.25	0	0	0	0
VA07W-415	2.5	0.03	0	0	0	0
VA08W-176	52.5	1.40	0	0	5	0.05
VA08W-294	22.5	0.35	0	0	5	0.05

* Results from two samples with 20 stems per sample except at Midville where results are from one sample of 20 stems.

§Entry not included at Midville.

Hessian fly infestation* of entries in the 2011-2012 late planted (early maturing lines) wheat trial at Midville, Ga.

Entry name	% Infested	No./Stem
AGS 2060	0	0
Arcadia	5	0.05
Coker 9553	25	0.45
Coker 9700	0	0
Fleming	0	0
GA021773-9EE21	0	0
GA03136-10EEL9	0	0
GA03580-10EEL15	0	0
GA041418-11EE16	5	0.10
Jamestown	0	0
Progeny 117	15	0.15
Progeny 125	0	0
SS 520	10	0.30
USG 3409	0	0
USG 3555	35	0.40
USG 3562	50	3.00

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