



Gold Grains

Alabama Small Grains Production - Extension Newsletter

Sep 22 – 2009

Edited by: Brenda Ortiz

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2009 North Alabama Wheat Varieties Performance Summary

Brenda Ortiz

Grain Crops/Precision Ag. Extension Specialist

Below is a description of the performance of some wheat varieties planted this year in Central and North Alabama. The description includes yield information from the Alabama official variety trials (OVT), on-farm trials, as well as production results from the states of Georgia, Mississippi and Louisiana.

AGS 2060: This variety was # 1 in the Tennessee Valley OTV (81 Bu/acre), was slightly above the average in Prattville (66 Bu/acre), performed well in Talladega (1st with 75.8 Bu/acre) and Elmore (4rd with 71.6 Bu/acre). This variety also performed very well in Brewton (75 Bu/acre) and Gulf Coast (73 Bu/acre). In Georgia, it was # 4 - statewide (70.8 Bu/acre). This variety has exhibited the most stable and high yield in the OVTs located in Central Alabama (67 Bu/acre - 3 yr. average). In the OVT planted in Fairhope and another test in Escambia county, this variety showed the lowest Hessian Fly infestation level. In the OVT planted in Headland, this variety exhibited 46% of infested stems. Maturity: Early – Vernalization: Medium-Short. Good resistance to Hessian Fly, leaf rust and stripe rust. Good test weight.

AGS 2031. This variety was # 5 in Elmore (71.3 Bu/acre), # 6 in Talladega (62.9 Bu/acre), and # 9 in Prattville (66 Bu/acre). In Georgia, it was # 5 statewide (71.1 Bu/acre) and # 14 in North Georgia (79.2 Bu/acre). Two years average (08-09) yield in North GA is 85.2 Bu/acre and

statewide is 75.8 Bu/acre. Although this variety has exhibited high yield potential, it is susceptible to Hessian Fly. In 2009, high levels of Hessian Fly infestation were observed in Fairhope (97%), 30% infestation in Escambia county, and 41% infestation in Headland. Last year, data from the UGA showed infestation of 21% in Plains, GA and 25% in Griffin, GA. Maturity: Early/Medium – Vernalization: Medium/Long. Good test weight.

Coker 9553: This variety was # 3 in Elmore (71.9 Bu/acre) and # 2 in Talladega (70.9 Bu/acre). In the Elmore area, this variety has exhibited stable and high yield (08-09 yield = 82.4 Bu/acre and 07-09 yield = 85.9 Bu/acre). During the last three years, this variety has exhibited one of the highest yield in the area. In north GA, this variety was # 16 with a yield of 78.3 Bu/acre. In north Mississippi, it was # 6 in 2009 and has exhibited excellent test weight. Two years average (08-09) yield in North GA is 82.0 Bu/acre and statewide is 71.8 Bu/acre. Susceptible to Hessian Fly infestation. Maturity: Early – Vernalization: Medium . Good test weight.

AGS 2026: Variety released last year. In 2009, this variety was # 2 in Elmore (72.3 Bu/acre), # 4 in Talladega (69.3 Bu/acre) and # 6 in Prattville (74 Bu/acre). In GA, this variety exhibited the lowest yield from the group of all AGS varieties: 62.3 Bu/acre in north GA and 63.5 Bu/acre statewide. Two years average (08-09) yield in North GA is 74.5 Bu/acre and statewide is 72.0 Bu/acre. Low Hessian Fly infestation was observed in Fairhope (32%), 10% infestation in Escambia county, and 7% infestation in Headland. Good resistance to Hessian Fly. Maturity: Medium – Vernalization: Medium. Good test weight.

USG 3555: This variety performed above average in Talladega (69.8 Bu/acre, # 3) but in Elmore (70.8 Bu/acre, # 6) and Belle Mina OVT (62 Bu/acre, 16) was an average variety. In Mississippi, this variety was # 7 with a yield of 59.7 Bu/acre. In Georgia it has exhibited low test weight. Susceptible to Hessian Fly infestation. Maturity: early

AGS 2020. Variety released last year. This variety performed well in Elmore (78.2 Bu/acre, # 2) but in Talladega the yield was below average (57.6 Bu/acre, # 7). In north GA, the yield was 73.8 Bu/acre and statewide was # 3 with a yield of 72.4 Bu/acre. Two years average (08-09) yield in North GA and statewide is 76.0 Bu/acre. High Hessian Fly infestation was observed in Fairhope (70%), 20% infestation in Escambia county, and low infestation in Headland (7%). Data from GA indicate that this variety matures 3 days earlier than AGS 2000. Fair resistance to Hessian Fly infestation. Maturity: Early/Medium – Vernalization: Short. Good test weight.

USG 3295: The yield in Elmore test was below average (67.7 Bu/acre, # 8) and the yield in Talladega was 66.4 Bu/acre. In north Georgia, the yield was 81.7 Bu/acre and statewide was # 4 with a yield of 72.1 Bu/acre. In Mississippi, it was # 9 with a yield of 59.2 Bu/acre. Two

years average (08-09) yield in North GA is 84.2 Bu/acre and statewide is 74.6 Bu/acre. Susceptible to Hessian Fly infestation. Maturity: Medium. Good test weight.

AGS 2000. Highest yield in Elmore (79.1 Bu/acre, # 1) but yield below the average in Talladega (55.9 Bu/acre). During the last three years, this variety has exhibited one of the highest yield in the area (08-09 yield is 84.5 Bu/acre and 07-09 yield is 86.3 Bu/acre). This variety was not included in the AL and GA OVTs. Good resistance to Hessian Fly. Maturity: Early/Medium – Vernalization: Medium. Good test weight.

Pioneer 26R22. This variety performed slightly above the average in Elmore (70.6 Bu/acre) but below the average in Talladega (53.2Bu/acre). However, during the last three years, this variety has exhibited above average yield in the area (08-09 yield is 83.9 Bu/acre and 07-09 yield is 88.3 Bu/acre).

Agri Pro Magnolia, Panola, and Georgia Gore are average varieties for this area. Magnolia exhibits a good resistance to Hessian Fly, but Panola and Georgia Gore are susceptible (see table below).

Location	Georgia Gore		Magnolia		Panola	
	Yield (Bu/A)	Hessian Fly (%)	Yield (Bu/A)	Hessian Fly (%)	Yield (Bu/A)	Hessian Fly (%)
Elmore	62	-	60.9	-	-	-
Talladega	-	-	53.2	-	50.8	-
OVT-TSV	-	-	61	39	-	-
Fairhope	-	100	-	36	-	100
Headland	-	70	-	67	-	75
TSV-Hessian Fly test	-	-	72.8	39.6	-	-
GA-North	-	-	79.6	-	80.4	-

New varieties to evaluate:

USG 3120 (It was GA 991209-6E33): Released this year. One of the varieties with the most stable and highest yield throughout Alabama in 2009. This variety was # 3 in the OVT tests conducted in Belle Mina, Brewton, Gulf Coast, and Prattville. This variety was # 7 in Georgia. In Prattville the yield was 86 Bu/acre. In north GA, the yield was 68.6 Bu/acre and statewide was # 7 with a yield of 69.0 Bu/acre. Two years average (08-09) yield in North GA is 79.1 Bu/acre and statewide is 75.3 Bu/acre. Good resistance to Hessian Fly.

AGS 2035 (It was GA 981622-5E35): Released this year. This variety showed stable and high yield throughout Alabama in 2009. This variety was # 1 in the OVT tests conducted in Brewton and Prattville, # 2 in Gulf Coast, and # 9 in Belle Mina. In Prattville the yield was 87 Bu/acre and test weight was 55 lb/acre. In north GA, the yield was 76.8 Bu/acre and statewide was 71.4 Bu/acre. Maturity: Medium.

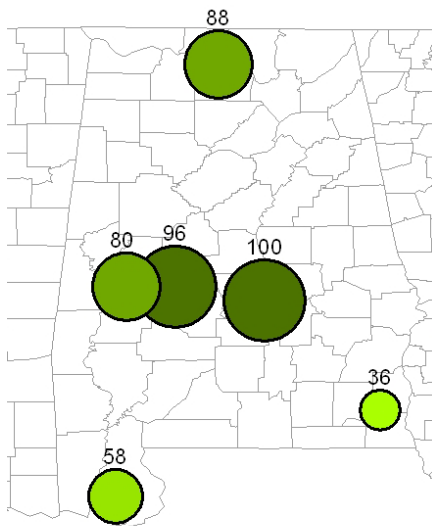
Baldwin (It was a GA 981621-5E34). Released this year. This variety seems promissory for South Alabama. It was # 1 in the OVT test conducted in Gulf Coast, # 4 in Brewton, and # 7 in Prattville. In Prattville, the yield was 70 Bu/acre and test weight was 52 lb/acre. In South GA, the yield was 74.1 Bu/acre and statewide was 68.4 Bu/acre. In Mississippi this variety was # 2 statewide. Good resistance to Hessian Fly. Maturity: Late.

Hessian fly resistant wheat varieties

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Choosing a Hessian fly resistant variety is like shooting at a moving target. Plant breeders incorporate resistance genes into wheat, and then the Hessian flies adapt and overcome that resistance. Based on laboratory testing, all of the populations of Hessian flies in Alabama can overcome the H7H8 resistance gene. In practice, varieties with H7H8 resistance still hold up fairly well in east central and south Alabama, providing the Hessian fly pressure isn't too high. These varieties do not help in the Black Belt and in north Alabama. Based on laboratory testing,



varieties with more advanced Hessian fly resistance, usually the H13 gene, will be partially to completely effective in Alabama. We used to refer to this advanced resistance as "Biotype L" resistance. Recent testing of populations from the Southeast have shown that "Biotype L" populations vary in their ability to overcome various plant resistance genes. So now we try to talk about individual plant resistance genes. The map shows the percent effectiveness of the H13 gene in Alabama, based on laboratory testing at the USDA-ARS lab in West Lafayette, Indiana.

So, what varieties will work? How do you know what resistance gene is in the variety you want to plant? There are several sources of information on resistant varieties. The University of Georgia screens new varieties for resistance to Hessian fly each year, Table 1. The results of their tests in Griffin, Georgia, will be similar (usually) to how a variety will respond in Alabama (see 2009 insects section of "Small Grain Updates" at <http://www.swvt.uga.edu/small.html>).

Table 1. Resistance of Wheat Varieties to Hessian Fly, primarily based on ratings from David Buntin, University of Georgia

Varieties susceptible to most southern strains of Hessian flies	Varieties with fair resistance (non-Biotype L Hessian fly)	Varieties with good resistance to Hessian fly
AGS 2031, 2020 AgriPro Panola, Gore Chesapeake Coker 9511, 9553, 9663, 9700 Pioneer Brand 26R15, 26R22, 26R24, 26R87 Neuse, Pat, Roberts, Sungold Progeny 117, 119, 127, 130, 136, 145, 185 SS 518R, 520, 524, 535, 560, 8404 Terral LA821 LA841, LA842 USG 3295, 3477, 3555, 3725, 3910 Agrium/CPS Dominion, McIntosh, Tribute	AGS 2000, 2055 AgriPro Crawford Fleming, Gore Novartis NK-Coker 9152 Pioneer Brand 26R12, 26R31 Progeny 122, 166 SS 8308 USG 3209, 3350, 3592, 3665	<i>non-Biotype L Hessian flies</i> AGS 2485, 2035, 2060 AgriPro Magnolia Pioneer Brand 2580, 26R38 Roane SS 8641 Terral TV8558, TV8589 UAP Baldwin <i>Biotype L flies</i> Agrium/CPS Oglethorpe* AGS 2010*, 2026* Pioneer Brand 26R61 Crop Land 8302 *believed to have H13 resistance

Source: David Buntin, University of Georgia

Characteristics of Wheat Varieties respect to level of resistance to some of the most common diseases – 2009

Austin Hagan – Extension Plant Pathologist

Wheat Variety	Powdery Mildew	Glume Blotch	Leaf Rust	Stripe Rust	BYDV	SBWM1
AGS 2000	Fair	Fair	Fair	Poor	Fair	Poor
AGS 2010	Good	Good	Good	Good	Fair	Good
AGS 2020	Good	Good	Good	Good	Fair	Very Good
AGS 2026	Good	Good	Good	Good	Fair	Good
AGS 2031	Fair	Good	Good	Good	Fair	Good
AGS 2035	Fair	Fair	Good	Good	Fair	Good
AGS 2060	Fair	Fair	Good	Good	Fair	Good
Coker 9533	Good	Fair	Fair	Good	Fair	Fair
Baldwin	Fair	Good	Good	Good	Fair	Good
Dominion	Good	Good	Good	Good	Fair	Good
Fleming	Good	Fair	Good	Good	Fair	Poor
Jamestown	Good	Fair	Poor	Good	Fair	Good
Magnolia	Poor	Fair	Poor	Good	Fair	--
Oglethorpe	Fair	Good	Good	Good	Fair	Good
Pioneer 26R61	Poor	Fair	Fair	Good	Fair	Good
Roberts (Forage only)	Good	Good	Poor	Poor	Fair	Good
SS 8309	Fair	Good	Poor	Fair	Fair	Good
SS 8641	Good	Fair	Good	Good	Fair	Good
USG 3209	Good	Fair	Poor	Good	Fair	Good
USG 3592	Good	Good	Good	Poor	Fair	Good
USG 3295	Good	Fair	Good	Good	Fair	Good

1. Barley yellow dwarf virus

Economics - Fall 2009 Wheat Early Planning

Bob Goodman, Max Runge, Agricultural Economics

The July 2010 wheat contract peaked this summer, around June 1, at \$7.50 per bushel and has fallen pretty consistently since. Presently, in early September, July 2010 wheat is just over \$5 per bushel on the board. The wheat price outlook is thus several dollars lower than at planting times in recent years, and while the basis may have improved over what we saw two years ago, it appears likely to remain above historic levels. Given that the cost of wheat production has not fallen, in general the wheat profit outlook is reduced for 2010.

The Alabama Cooperative Extension Ag Econ team publishes typical budgets for wheat production in Alabama. However, because the state is so diverse, with many different agricultural production zones, a single example budget cannot be accurate for the entire state. We encourage farmers to use our budget as a guide, and adjust the input levels and costs to reflect local conditions and requirements. Expected yield and price must also be applied in each individual situation. This budget can be found on the ACES website at <http://www.ag.auburn.edu/agec/pubs/budgets/>, along with some helpful graphs and tables.

The “typical” budget cited above shows an \$8 return over variable costs and a \$35 loss over total costs on a 64 bushel per acre crop at \$5 per bushel. These profit levels imply variable expenses in excess of \$300 per acre, a level unheard of just a few short years ago. The days when farmers could turn a profit on 30 bu/ac wheat, even at \$5-6 per bushel, are over. Farmers planning to plant wheat for grain should expect to shoot for high yields and should supply the crop with adequate fertility to support those expectations. Crop protection chemicals should include the herbicides, fungicides, and insecticides to provide a top quality crop as well as good yields. Growing wheat today requires a high level of management that goes with high input cost.

Finally, based on last-year’s experience, farmers should consider the revenue-based insurance products for wheat. Last year many famers in Alabama experienced severe crop damage with commensurate price reductions. Farmers with yield-based insurance were faced with good yields but low revenue due to dockage. Farmers with revenue-based coverage often received an indemnity which at least partially offset their losses.

While fall is a busy time, it’s not too early to think about plans for 2010 and how a potential wheat crop is going to fit into next year’s cropping plans.

For more information you can contact:

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Visit also: www.alabamacrops.com

*Reference Number: **GG-9-09**, Brenda Ortiz, editor

*Use pesticides **only** according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label.*

*The pesticide rates in this publication are recommended **only** if they are registered with the Environmental Protection Agency and the Alabama Department of Agriculture and Industries. If a registration is changed or cancelled, the rate listed here is no longer recommended. Before you apply any pesticide, fungicide or herbicide, check with your county Extension agent for the latest information.*

*Trade names are used **only** to give specific information. The Alabama Cooperative Extension System does not endorse or guarantee any product and does not recommend one product instead of another that might be similar.*

***For more information**, call your county Extension office. Look in your telephone directory under your county's name to find the number.*

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