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## **Grain Crop Insect Control**

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**Grain Weevils in Corn.** Most corn will be harvested within the next 6 weeks. In Georgia, the stored grain pest, maize weevil, will infest corn in the field as it dries down. Timely harvest will greatly aid in minimizing infestations. It is not feasible to control infestations with insecticides before harvest. Instead, grain to be stored should be treated with a grain insecticide as it is placed in storage.

Stored grain pest control has been handled by Dr. Steve Brown. Due to his new administrative position, he is no longer available for county meetings, newsletters articles, or site visits concerning stored grain insect control. But fortunately he has agreed to answer phone calls on the subject from Georgia county agents until someone else can be assigned this area.

Dr. Kathy Flanders, who has worked with Dr. Brown in the past on stored grain insect training, has develop an excellent web site that contains much useful information and training modules on stored grain insect control: <http://www.aces.edu/dept/grain/StoredGrainInformation.php>

**Check for Midge in Grain Sorghum.** Late-planted grain sorghum is at enhanced risk of damage by sorghum midge. Midge is a very small, yellow, gnat-like fly. It lays eggs in the individual flowers and the larva feeds in and destroys the seed. Fields should be scouted when bloom begins and every 3-5 days. Treat when an average of 1 adult midge per head is found after 25-30% of the heads are in bloom. Check 3-5 days later and re-treat if 1 midge per head is found. Spray treatments are directed at killing adults before eggs are laid. Once egg laying occurs midge cannot be controlled. Numerous insecticides are listed in the Pest Management Handbook. Most can be used at the lowest labeled rate. If stink bugs also are present the pyrethroid insecticides are the best choice but they should be use the rate listed for stink bugs. The publication 'Sorghum insect pests and their management' has more information on sorghum midge biology and control and a photo of the adult midge. It can be found at the CAES Grain Crop web page and at: <http://pubs.caes.uga.edu/caespubs/pubcd/B1283.htm>

**Select Hessian fly Resistance Varieties for Fall Planting.** It is not too early to start thinking about wheat planting for fall. The very short seed supply last fall created problems in selecting well adapted wheat varieties with good resistance to Hessian fly. The seed supply of resistant wheat varieties should be adequate this fall. Along with the increase in wheat acreage last season, we also had a large increase in the number of fields planted with varieties susceptible to Hessian fly. Consequently, numerous fields had substantial Hessian fly damage this spring.

The 2008 Statewide Variety Test Bulletin will have table in the front section of recommended varieties for Georgia and a table of characteristics of these varieties with resistance rating to Hessian fly. The following table is a more complete list of varieties and their resistance rating for Hessian fly based on ratings of the State variety trials at Plains and Griffin. However, not all varieties are recommended for Georgia due to agronomic problems. Varieties rated as ‘fair’ can tolerate low to moderate infestations but may have significant fly damage under large infestations.

Farmers planting varieties rated as poor (susceptible) or fair resistance should consider using an insecticide seed treatment, Gaucho 600 or Cruiser 5FS. The Gaucho 600 should be applied at the equivalent rate of 1.6 fl. oz or more per 100 lb of seed. Cruiser 5FS should be used at the maximum label rate of 1.33 fl. oz per 100 lb of seed. For best seed coverage farmers should order seed treated for seed dealers, but Bayer CropScience has an on-farm treatment option for Gaucho.

Hessian fly resistance of winter wheat varieties in Georgia.

<b>Poor (Susceptible)</b>	<b>Fair</b>	<b>Good</b>
<b>AGS 2031</b> <b>AgriPro</b> Panola Chesapeake <b>Coker</b> 9511, 9553, 9663, 9700 <b>Pioneer Brand</b> 26R15, 26R22, 26R24, 26R87 Neuse, Pat, Roberts, Sungold <b>SS</b> 518R, 520, 524, 535, 560, 8404 <b>USG</b> 3295, 3477, 3555, 3592, 3725, 3910 <b>Vigoro</b> Dominion, McIntosh, Tribute	<b>AGS</b> 2020, 2055(?) <b>AgriPro</b> Crawford Fleming, Gore <b>Novartis NK-Coker</b> 9152 <b>Pioneer Brand</b> 26R12, 26R31 <b>SS</b> 8308 <b>USG</b> 3209, 3350, 3665	<b>AGS</b> 2000, 2010*, 2026*, 2485, 2060 <b>AgriPro</b> Magnolia <b>Pioneer Brand</b> 2580, 26R38, 26R61* <b>Roane</b> <b>SS</b> 8641 <b>USG</b> 3592, <b>Vigoro</b> Oglethorpe*

\*Contains Biotype L resistance.

# Recommended Wheat Varieties for Fall Planting, 2008

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One of the most important decisions that growers make in growing wheat is choosing the right variety or varieties to plant. Many differences exist among the varieties and therefore it is important to assess what characteristics are most important for their production area. Growers should choose several varieties to plant to reduce risk and improve their chances of success every season. The following information is provided to understand the differences in each of the varieties that are recommended in Georgia. Table 1 is attached to provide comparative information on wheat.

## **AgSouth Genetics (AGS)**

**AGS 2000** is considered one of two standard wheat varieties grown in Georgia. The other is Pioneer 26R61. AGS 2000 requires the use of a fungicide to maximize yields but is resistant to Hessian fly. It is widely adapted to many different environments and remains very competitive.

**AGS 2031** is a new variety that has excellent yield and good test weight. It has the highest three year average across the Tifton, Plains and Midville locations. It has excellent leaf rust resistance ratings however **it is susceptible to Hessian fly** and must be treated with an at-plant insecticide.

In addition it is rated moderately susceptible to powdery mildew. This variety has the excellent straw strength.

**AGS 2060** is one of a handful of early maturing varieties with excellent yield potential. It has very good leaf and stripe rust resistance, fair powdery mildew resistance and very good Hessian fly resistance and test weight. It has a short vernalization requirement and matures earlier than AGS 2000 or 2031. It will lodge with high N rates.

**AGS 2010** is an early maturing variety that has a longer vernalization requirement than AGS 2000 and therefore should only be planted within the recommended planting period. Its yield is equal to Fleming, another early maturing variety. AGS 2010 has very good disease and Hessian fly resistance. It will lodge with high N rates.

**AGS 2020** is a new AGS variety recommended for Georgia. It is approximately four days earlier than AGS 2000 and has excellent disease resistance, yield, test weight and straw strength.

It also has very good soil borne mosaic virus resistance. AGS 2020 has only **fair tolerance to Hessian fly** and therefore should be treated with an at-plant insecticide.

**AGS 2026** is a new AGS variety recommended for Georgia. While this variety has slightly less straw strength than AGS 2020, it is an excellent variety with very good disease resistance and Hessian fly resistance. In addition, it is one of a very few varieties with Biotype L Hessian fly resistance. It has good soil borne mosaic virus resistance. This variety requires more vernalization than AGS 2000.

## **UniSouth Genetics (USG)**

**USG 3209** has been sold in Georgia for several years. It demonstrates some susceptibility to certain biotypes of Hessian fly and therefore should be treated with an at-plant insecticide. It is an early maturing variety and well suited for the upper coastal plains. This variety responds well

to a fungicide. It has very good yield.

**USG 3295** is equal in yield to AGS 2000. It is similar in maturity but has better disease resistance and unfortunately **is susceptible to current biotypes of Hessian fly** and therefore must be treated with an insecticide.

**USG 3592** in Georgia is earlier than USG 3295 and yields slightly less than 3295 but similar to Fleming. It is susceptible to stripe rust but resistant to leaf rust and powdery mildew. It has some resistance to certain biotypes of Hessian fly. It will lodge with high N rates. **It is recommended for north Georgia only.**

### **Pioneer**

**Pioneer 26R61** is considered one of two standard wheat varieties grown in Georgia. The other is AGS 2000. Pioneer 26R61 still has good resistance to stripe rust and soil borne mosaic virus but is susceptible to most other wheat diseases (mildew, leaf rust, glume blotch) and therefore responds well to a fungicide treatment. It has good yield and test weight. Its four year average yield is equaled to AGS 2000. Currently, it is the only Pioneer line recommended for Georgia

### **Syngenta Seeds**

**Coker 9553** is a medium maturing variety with yield equal to Pioneer 26R61 and AGS 2000. It is slightly susceptible to leaf rust and glume blotch and therefore responds well to a fungicide. **It is susceptible to Hessian fly.**

**AgriPro Panola** has slightly less yield than Coker 9553 but has better disease resistance. It matures a few days later than Coker 9553 and is **similarly susceptible to Hessian fly except for Race O**. Panola will be dropped from the recommended list in 2009.

### **Crop Protection Services (Vigoro Seeds)**

**McIntosh** is similar in yield to Fleming and USG 3592. It has good rust, powdery mildew and soil borne mosaic virus resistance. It has a long vernalization requirement similar to Coker 9553 and SS 520 and should be planted in the early portion of recommended planting periods only. **It is recommended for north Georgia only.**

**Oglethorpe** has above average yield in both north and south Georgia. It has good resistance to leaf and stripe rust but only fair tolerance to powdery mildew. This variety has Biotype L Hessian fly resistance. Care should be taken with nitrogen applications as it only has fair straw strength.

**Dominion** is recommended for **north Georgia only**. It has very good powdery mildew resistance and yield but **is susceptible to Hessian fly** and should be treated with an insecticide.

### **Southern States**

**Southern States (SS) 8641** is a good yielding wheat with excellent disease and Hessian fly resistance. It has good straw strength and test weight. It matures later than AGS 2000 and Pioneer 26R61 and should not be planted past the recommended planting window in Georgia.

### **Public varieties:**

**Fleming** is the earliest maturing wheat in Georgia. It has very little vernalization requirement and, therefore, should be planted in the later ¼ portion of the recommended planting period. In late plantings in Georgia (after recommended planting periods), Fleming provides some of the highest yields of all the varieties tested. **Caution:** Fleming has a physiological spotting that is

easily mistaken for leaf disease. All lesions should be carefully examined to make sure a proper diagnosis is made when considering a fungicide.

**Roberts** is one of the oldest public varieties still recommended however it is recommended for **forage production only**. It has good resistance to glume blotch but is susceptible to all other foliar diseases and requires a fungicide for adequate seed production. It is a late maturing variety that has a long vernalization requirement.

**Table 1. Characteristics of Recommended Varieties of Wheat**

Variety	Planting Area <sup>1</sup>	Resistance										Vernal Req
		Leaf Rust	Stripe Rust	Glume Blotch	Powder y Mildew	BYD	SBWM <sup>2</sup>	Hessian Fly	Test Weight	Maturity	Straw Strength	
AGS 2000	S	fair	poor	fair	fair	fair	poor	good	good	medium	fair	short
AGS 2031	S	good	good	good	fair	fair	good	poor	good	medium	good	medium
AGS 2010	C	good	good	good	good	fair	good	good	good	medium	fair	med.long
AGS 2060	S	good	good	fair	fair	fair	good	good	good	early	fair	short
AGS 2020	S	good	good	good	good	fair	good	fair	good	early med	good	short
AGS 2026	S	good	good	good	good	fair	good	good	good	medium	fair	medium
Fleming	C	good	good	fair	good	poor	poor	fair	good	early	fair	Very short
McIntosh	P,M	good	good	fair	good	fair	good	poor	good	med.late	fair	med.long
Panola	C	fair	good	fair	fair	fair	good	poor	good	med.late	good	med.long
Pioneer 26R61	S	fair	good	fair	fair	fair	good	good	good	medium	good	medium
Roberts**	P.M.	poor	very poor	good	good	fair	good	poor	good	late	fair	long
SS 8641	S	good	good	fair	good	fair	good	good	good	medium	fair	med long
USG 3209	S	fair	good	fair	good	fair	good	poor	fair	medium	good	medium
USG 3592	P,M	good	poor	good	good	fair	good	fair	good	medium	fair	medium long
USG 3295	S	good	good	fair	good	fair	good	poor	good	medium	good	medium
Ogelthorpe	S	good	good	good	fair	fair	good	good	good	medium	fair	medium
Coker 9553	S	good	good	fair	good	fair	fair	poor	good	early	good	medium long
Dominion	P,M	good	good	good	good	fair	good	poor	good	late	good	long

\*\*Recommended for use as forage only.

Please be aware of all rules and regulations regarding certified seed and patented or PVP varieties.

Consider using varieties tagged with an official certification tag. Certified seed ensures the highest quality seed available with good germination and freedom from noxious weeds. Contact the Georgia Crop Improvement Association regarding any questions with certified seed at 706-542-2351.

The University of Georgia Grain Crops web page can be found at the following url:  
<http://www.georgiagrains.com>