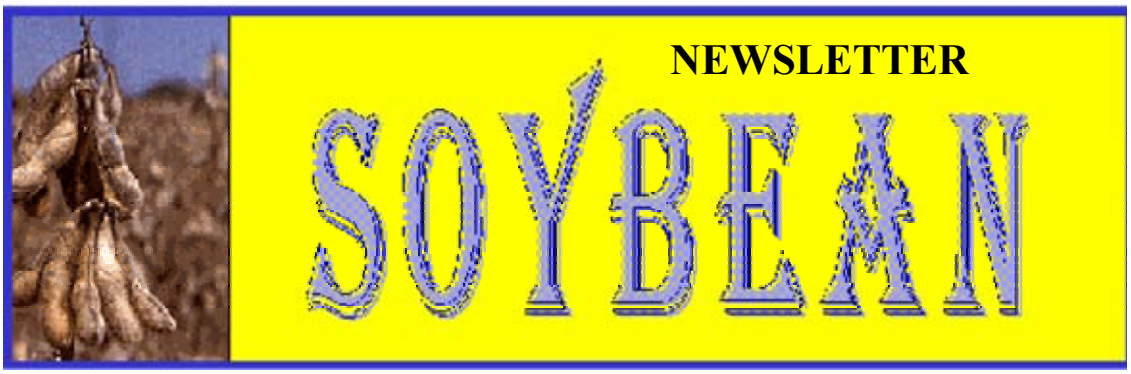
The University of Georgia
Cooperative Extension Service
College of Agricultural and Environmental Sciences



April 6, 2005 http://www.griffin.uga.edu/caes/soybeans

THE SOYBEAN RUST BATTLE BEGINS (*Jost*) Indications from the various county meetings conducted are that soybean acreage will be way down in the state of Georgia in 2005. No doubt the fear of fungicide sprays potentially costing $25-30/A as well as lower prices are the culprits. Much will be learned about dealing with the disease this year.

Due to the recent and abundant rains our attempts at establishing sentinel plots have been delayed, but will be put in the ground ASAP. After multiple iterations, our current plan is to establish approximately 20 plots across the state which will consist of primarily of very early-maturity group beans (groups II-IV) with some consisting of alternate hosts such as kudzu. These plots will be located from Attapulgus to Effingham County across the southern region of the state. There will also be locations in the middle portion of the state and in the more northern regions. Again the goal is for these plots to serve as monitors for the disease. If rust is detected in any of these plots, which will scouted at least weekly, agents and the media will be notified immediately.

There is also a very interesting web site available which projects spore movement from its current location in Florida. This site is updated several times a week and can be accessed at the following URL. http://www.ces.ncsu.edu/depts/pp/soybeanrust/

ASIATIC SOYBEAN RUST UPDATE (*Kemerait*) Since being identified in Georgia and the southeastern United States late in 2004, the Asiatic soybean rust has caused a flurry of activity

wherever soybeans are produced in this country in anticipation of its return. Below are important notes for growers in Georgia preparing to manage soybean rust in 2005.

1. In February and then again in late March, 2005, active soybean rust was found on kudzu surviving in Florida. The first case was from Paso County, located on the Gulf coast just north of Tampa. The second case was identified in Hernando County, just north of Pasco County.
2. It has been reported that spores from the Asiatic soybean rust pathogen, Phakopsora pachyrhizi, can travel up to 300 miles in a single day IF weather conditions are favorable. Hernando County, Florida is within 300 miles of Georgia's southern border, so it is clear that spores could reach our state fairly quickly, if they have not already done so.
3. Growers need to understand that just because conditions may favor the introduction of spores into the state does not necessarily mean that disease will immediately follow. For example, wind patterns in the upper atmosphere may favor the spread of spores; however the spores may not survive the trip because of harsh environmental conditions, such as freezing temperatures. Second, even if the spores do survive the travel from Florida, no disease will develop unless the spores land on a suitable living host. As many of the alternative hosts and weeds begin "green" and grow with the return spring, the chances of a successful introduction of soybean rust greatly increases.
4. Anyone who is interested in following a model from North Carolina State University that predicts the movement of rust spores from Florida should use the website http://www.ces.ncsu.edu/depts/pp/soybeanrust/ Originally developed to forecast the movement of spores for blue mold of tobacco, this system has been nicely modified to forecast the movement of rust spores as well.
5. From the rust forecast website at North Carolina State University, it appears that weather patterns have been favorable to carry spores of the soybean rust to the Coastal Plain of Georgia during the first week of April in 2005. However, the threat to the state from soybean rust remains low at this time, primarily because of a lack of suitable host tissue.
6. Although we cannot know for sure, I strongly believe that soybean rust will affect producers in Georgia early enough in the season that they will need to use fungicides to manage the disease. Sentinel plots are being established around the state at this time to allow for early detection of the disease.
7. Because soybean rust presently exists so close to our production areas and because early detection of the disease difficult to achieve but is critical for successful management, growers must anticipate the need for a first fungicide application around the time of first bloom of their crop. If it is fairly certain that the disease has not reached their fields yet, then a strobilurin fungicide, or a triazole fungicide, or a mixture of both can be used. If the disease is in the field, or may have reached the field but remains undetected, then the grower should choose a triazole fungicide or a combination triazole/strobilurin fungicide. A second fungicide application (triazole or triazole/strobilurin) should follow in 2-3 weeks.
8. Note: The Cooperative Extension Service is not yet calling for an AUTOMATIC fungicide application at the R1 (bloom) growth stage as it is still very early in the season and there will be much more information on the spread of the disease in the near future. However, the current situation suggests that it is very likely that growers will need to spray their crop as it enters reproductive growth.

9. Presented below is a table containing the fungicides that should be available to soybean growers in Georgia in 2005. Note that the rates for Domark have been adjusted since the last newsletter.

Table 1. Fungicides for use on Asiatic soybean rust in Georgia.

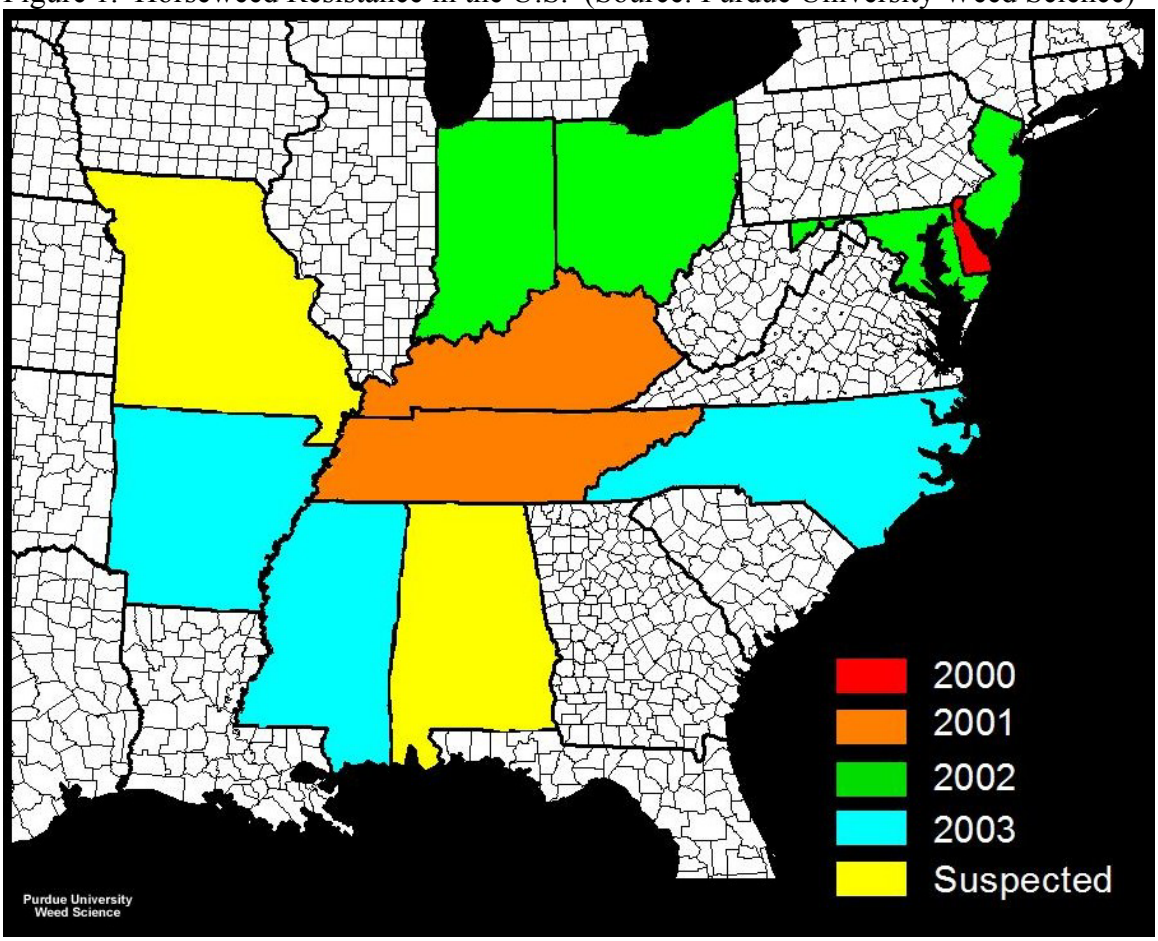
Product	Ingredients	Class	PHI*	Rate/A
Bravo	Chlorothalonil		42 days	16-36 fl oz
Echo	Chlorothalonil		42 days	16-32 fl oz
Tilt	Propiconazole	Triazole	28 days	4-8 fl oz
PropiMax	Propiconazole	Triazole	28 days	4-8 fl oz
Bumper	Propiconazole	Triazole	28 days	4-8 fl oz
Domark	Tetraconazole	Triazole	21 days	4-6 fl oz
Laredo	Myclobutanil	Triazole	28 days	4-8 fl oz
Folicur	tebuconazole	Triazole	21 days	3-4 fl oz
Quadris	Azoxystrobin	Strobilurin	14 days	6.2-15.4 fl oz
Headline	Pyraclostrobin	Strobilurin	21 days	6-12 fl oz
Quilt	Propiconazole + azoxystrobin	Triazole + strobilurin	21 days	14-20 fl oz
Stratego	Propiconazole + trifloxystrobin	Triazole + strobilurin	21 days	5.5-10 fl oz
Headline + tebuconazole	Pyraclostrobin + tebuconazole	Triazole + strobilurin		

*Pre-harvest interval.

BIOLOGY AND MANAGEMENT OF HORSEWEED: A NEW PUBLICATION *(Prostko)*

In response to the increase in glyphosate-resistant horseweed around the country (Figure 1), weed scientists from the Mid-western region have put together a new publication about the management of this weed in soybeans. The title of the publication is ***"The Biology and Management of Horseweed"*** and it can be viewed or downloaded from the following web-site: http://www.weeds.iastate.edu/mgmt/Horseweed%20management%20publication%20from%20Illinios,%20Indiana,%20and%20Ohio.pdf

Figure 1. Horseweed Resistance in the U.S. (Source: Purdue University Weed Science)



SOYBEAN PRODUCTION GUIDES (*Jost*) There are production guides available at my office. Please contact me if you need any.

Your local County Extension Agent is a source of more information on these subjects

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