

**GEORGIA  
SOYBEAN  
COMMODITY  
COMMISSION**



***Farmers  
Putting  
Soybean  
Checkoff  
Dollars to  
Work for  
You***

**INSIDE THIS ISSUE**

|                                   |   |
|-----------------------------------|---|
| Prevent fungicide resistance      | 2 |
| Soybean planting checklist        | 3 |
| Weed control in every season      | 4 |
| Soybean irrigation smartphone app | 4 |
| Asian soybean rust                | 5 |
| Framework of farm sustainability  | 6 |



# Georgia Soybean News

**SPRING 2019**

## **Georgia Soybean Commission Announces 2019 Funding**

Earlier this year, the Georgia Agricultural Commodity Commission for Soybeans approved over \$200,000 in funding for thirteen separate research and extension projects as well as promotional activities.

The research projects funded included: soybean production research, the continuation of soybean IPM sentinel plots, support of the statewide variety testing program, development of high yielding soybean varieties, soybean improvement via insect resistance, development of irrigation strategies specific to soybeans, sponsorship of the annual soybean & small grain expo and continued support of the Georgia Automated Weather Network.

Like producers of other commodities, such as corn, cotton and peanuts, Georgia's soybean farmers collectively invest a portion of their revenue to fund research and promotion efforts. This investment is called a checkoff. The soybean checkoff is a nationwide effort supported entirely by soybean farmers with individual contributions of 0.5% of the market price per bushel sold each season.

Success for soybean farmers in today's market takes more than just a good harvest. Increasing demand for soybeans is an essential part of the equation. The soybean checkoff helps facilitate market growth and creation by funding research at land-grant universities as well as promotional efforts. In Georgia, 76% of checkoff funds collected go to fund research – which is crucial in the development of new varieties, improvements in production efficiency, and advancements in insect, weed and disease management.

By investing in research and building demand, the U.S. Soybean Checkoff helps ensure a sustainable and profitable future for soybean farmers in Georgia and across the nation. For more information on the soy checkoff or to receive the Georgia Soybean News, contact Billy Skaggs at [gasoybean@gmail.com](mailto:gasoybean@gmail.com). For more information on the soybean checkoff, visit [www.unitedsoybean.org](http://www.unitedsoybean.org).

## Five tips to help you prevent fungicide resistance

After the glut of rain brought by Hurricane Michael last fall to the wet winter and early spring, excess has been on the minds of many over the course of the past few months. Hopefully, we will have more normal conditions during the coming planting season. However, if the rains return, be mindful of another challenge – fungal diseases. Prolonged wet weather increases the odds that you'll see fungal diseases in your fields, which could require fungicide applications.

What makes these diseases even more of a challenge is that the pathogens that cause some of the most common soybean diseases are developing resistance to the fungicides currently available. The Plant Management Network offers assistance to help you protect your operation against fungicide resistance. Consider these five tips:

**Plant disease-free seed** – Many diseases can be spread by seed-borne infections.

**Scout fields for potential problems** – Identification of challenges before immediately taking action helps protect from chemical resistance.

**Apply fungicide only when necessary** and at the appropriate stage of development, correct application rate and as part of tank- or pre-mixes with multiple modes of action. Automatic spray increases rate of resistance, so creating variation and identifying when they're needed helps prevent resistance.

**Rotate crops** – Certain diseases are more prone to affect one crop over another, and rotating crops helps to reduce risk of disease mutations.

**Rotate chemistry types** – Using the same mode of action repeatedly speeds up resistance development. Proactively protecting your operation against fungicide resistance is a great practice. One specific pathogen that concerns farmers in the South is *Cercospora*, which causes purple seed stain and *Cercospora* leaf blight diseases.

However, concerns over the development of resistance in *Cercospora* extends well beyond the South, says Trey Price, Ph.D., Assistant Professor at the Macon Ridge Research Center with the Louisiana State University Ag Center.

“*Cercospora* leaf blight and purple seed stain are economically important diseases throughout the United States,” he says. “Losses in the United States vary from year to year, but on average, about 5 million bushels are lost to this disease annually”.

*(Adapted from an article originally appearing on [www.UnitedSoybean.org](http://www.UnitedSoybean.org)).*

## Soybean planting checklist

*By: Dr. Reagan Noland, former Extension Specialist for Corn, Soybeans & Small Grains*

Soybean planting season is upon us, and establishing a good stand is the first key to a productive crop. Here are a few important notes to consider before heading to the field, and as you set up the planter:

### Land preparation

Beware of compaction. This is a common challenge in the sandy soils of the Coastal Plain. Running a deep ripper or subsoil shank beneath the row will generally improve the root-growth environment when a compaction layer is present. Keep in mind that soybeans can produce well in no-till and minimum-till environments **if compaction is not an issue**.

### Inoculate

Inoculation is often the most cost effective input in soybean production, especially if soybeans have not been grown in the field in the past 2 or 3 years. Remember that **peanut inoculant will NOT work for soybeans**. These crops require different species of bacteria for proper nodulation. Buy fresh inoculum and store it in a cool or refrigerated place until use.

### Timing

Determine planting time according to soil temperature and moisture. The absolute optimum conditions for soybean germination are planting into moist soil at 77°F. If planting earlier maturity groups such as MG IV, the ideal planting time could be sooner due to changes in day length. In Georgia, this early planting window generally falls in late-April and early-May. Soybeans will germinate with soil temperatures as low as 54°F, **but emergence will be very slow**. Overall, it is recommended that growers in Georgia wait until soil temperatures are at least near 70°F before planting.

### Planter setup

Target plant populations should be in the range of 85,000 to 100,000 plants per acre. Remember **this is not planted seeds per acre**. Actual seeding rates should be higher to compensate for germination rate. Seeding rates should also be increased if planting into cool soils, heavy residue, or dry conditions. Planters should be set 1.0 to 1.25 inches deep in moist soil. Soybeans can be planted deeper (~1.5") to reach good moisture if needed. Also, take time to ensure your planter is distributing single seeds, **not doubles**. Seed is the greatest input cost for soybean production. Excess planted seed will only increase your cost per acre and production cost per bushel, reducing profitability.

*Dr. Reagan Noland is the former Extension Specialist for Corn, Soybeans and Small Grains at the UGA.*

*UGA CAES administration is currently conducting a search for Dr. Noland's replacement.*



# WEED CONTROL BY THE SEASON

## WINTER

**EXAMINE UNIVERSITY RESEARCH**

**STUDY HERBICIDE OPTIONS**

**DEVELOP YOUR WEED-MANAGEMENT PLAN**

**PREVENT SEED PRODUCTION**

## SPRING

**KNOW WHICH WEEDS ARE PRESENT**

**BURN DOWN WEEDS BEFORE PLANTING**

**SPRAY WEEDS WHEN THEY ARE SMALL**

## SUMMER

**APPLY POST-EMERGENT HERBICIDES**

**MONITOR HERBICIDE EFFECTIVENESS**

**CONTROL UNPLANTED AREAS**

**ERADICATE WEEDS THAT SURVIVED**

**HERBICIDE APPLICATION**

## FALL

**SCOUT FROM COMBINE SEAT**

**DRAW MAPS OF WHERE WEEDS ARE WORST**

**SPRAY WINTER ANNUALS**

FOR MORE INFORMATION, VISIT

[WWW.TAKEACTIONONWEEDS.COM](http://WWW.TAKEACTIONONWEEDS.COM)



## Soybean Irrigation Smartphone App

In 2018, soybean farmers in Colquitt and Wilcox counties trialed a new app to forecast and generate their irrigation schedule straight from their smartphones. The app developers are now recruiting soybean farmers in the southeastern U.S. for a region-wide evaluation during 2019. The app, available for iOS and Android, was developed with support from the Southern Soybean Research Program, the Georgia Soybean Commodity Commission, the South Carolina Soybean Board and the Alabama Soybean Producers.

The app will be publicly available in the Apple and Google Play app stores later this spring. Learn more about it by going to [www.smartirrigationapps.org](http://www.smartirrigationapps.org) or contact Dr. George Vellidis at the University of Georgia ([yiorgos@uga.edu](mailto:yiorgos@uga.edu)).

## Threat of Asian Soybean Rust Heightened in 2019

*By: Dr. Bob Kemeraït, UGA Extension Plant Pathologist*

Asian soybean rust is potentially one of the most damaging diseases to affect soybean production in Georgia and elsewhere in the southeastern United States. When environmental conditions are favorable and when the disease occurs by early-to-mid reproductive growth stages, significant damage can occur that will result in yield loss unless the crop is protected with fungicides. Though significant effort in breeding soybeans for resistance to this disease continues, our commercial varieties planted now are susceptible to rust.

I use the phrase “potentially one of the most damaging” because, unlike other diseases and nematodes affecting our soybean crop, the spores of the soybean rust pathogen often do not survive the winter months between cropping seasons. The fungus that causes soybean rust is an “obligate parasite” which means that the fungus must survive on a living host (plant). During most winters in Georgia, temperatures dip low enough, long enough, to kill the plants where the rust disease would survive, most typically kudzu and volunteer soybeans. Because of this, soybean rust will not be present in Georgia until A) kudzu or another susceptible host re-emerges after the winter months and B) spores of the rust pathogen are reintroduced into Georgia, perhaps from southern Florida or the Caribbean. Through our UGA Soybean Rust Sentinel Plot Monitoring Program, funded by the Georgia’s soybean producers and the Georgia Commodity Commission for Soybeans, it has been found that soybean rust is typically not detected in the state until June and even into July in some years. Later introduction of soybean rust back into Georgia reduces the risk that growers face to this disease.

Temperatures during the winter of 2018-2019 were fairly mild and there were no prolonged periods of freezing weather or “hard freezes”. While such may have helped to reduce our electric bills, it did have unfortunate consequences for our soybean producers. Primarily, mild conditions last winter allowed kudzu to survive where it would have normally been killed back. As early as February, soybean rust had been detected on kudzu growing in Gainesville, Florida and Mobile, Alabama. By 7 April 2019, soybean rust was found on kudzu that survived the winter in Tattnall County, Georgia. This was earliest post-frost period detection of soybean rust in Georgia since 2004.

Early detection of soybean rust in Georgia does not guarantee that the disease will be a significant problem in the coming season; however it is a strong indication that it COULD be a problem and that soybean producers should plan accordingly. The most significant yield loss and damage occurs when infection of the crop occurs earlier, rather than later in the season. Given that the disease is already known in the state, growers should carefully follow further reports from the UGA Sentinel Plot program of the development and spread of the disease in the state. Depending on weather during the season (wetter or drier), rust may develop quickly or very slowly. As a minimum, growers should be prepared to make a fungicide application to their crop as early as the R1 (bloom stage). The crop remains susceptible until the R6 (full seed size) stage. Your local UGA Extension agent can provide information both on the spread of the disease and on fungicides programs that can best protect your soybean crop.

## Commission Members

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## GEORGIA SOYBEAN COMMODITY COMMISSION



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## A FRAMEWORK FOR SUSTAINABLE FARMING



1 PRECISION CHEMICAL APPLICATION  
2 CONSERVATION RESERVE PROGRAM  
3 TERRACES  
4 SCOUTING

5 COVER CROPS  
6 CROP ROTATION / DIVERSITY  
7 NO-TILL / CONSERVATION TILLAGE  
8 PRECISION NUTRIENT MANAGEMENT

9 REDUCING FUEL USE  
10 IRRIGATION  
11 WATER-STORAGE PONDS