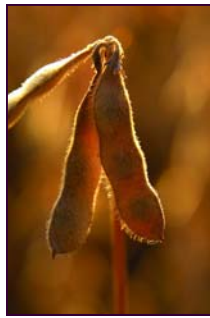




*Farmers
Putting
Soybean
Checkoff
Dollars to
Work for
You*

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Georgia Soybean News

FALL 2022

Roth joins UGA as Extension Corn, Soybean, and Small Grains Agronomist

By: Dr. Richard Roth, UGA Extension Grains Agronomist

My name is Dr. Richard Roth and I joined the faculty at University of Georgia on August 1 as an Assistant Professor and Extension Corn, Soybean, and Small Grains Agronomist. I grew up in Divernon, IL located just south of the state capital city of Springfield. Having grown up and spent my entire life in the Midwest it was tough to say goodbye, but I have loved every minute of my time since moving down to Tifton. I was worried about adjusting to the culture and climate but the weather hasn't bothered me a bit, the food is great, and the crew at the UGA Tifton Campus has really helped me feel at home in South Georgia.



I attended Illinois State University in Normal, IL graduated with a B.S. degree in Crop and Soil Sciences/Agronomy Management and a M.S. in Crop and Soil Sciences with a concentration in Soil Fertility and Conservation Cropping Systems. I then attended Purdue University where I earned my PhD in Agronomy with a concentration in Conservation Cropping Systems and also spent a year as a Postdoctoral Researcher focusing on Conservation Cropping Systems. My work in the Midwest focused on corn and soybean production systems, as those are the primary crops grown in the region. I have extensive experience with cover crops, 4R nutrient management, nutrient use efficiency, and crop physiology and also have an interest in the use of UAVs for both management planning and crop scouting. A unique skillset that I bring to this role at UGA is my background in economics and understanding the risk associated with adopting new practices. I plan to use my economic knowledge to minimize any risk associated with new practice recommendations.

As the UGA Extension Grains Agronomist, my extension and research programs will be driven primarily by producer needs. Since joining UGA and moving forward through the winter, my goal is to get out and meet as many growers and county agents as possible. I want to understand the needs of producers and hear about the research they would like to see coming out of the UGA Soybean Team.

(continued on page 2)

Paying attention to combine details pays off

Where to make minor adjustments for major yield gains

Farmers spend an entire growing season caring for their soybeans with the goal of producing the best possible crop. Whether it's a bumper crop or something less, too much is riding on those soybeans to do an inefficient job of harvesting. To get the most out of your crop, pay attention to the little things.



“The biggest thing is setting up the combine properly so you’re as efficient as you can possibly be,” says Dalton Deling, combine service technician with Martin County Implement in Truman, Minnesota. “For combining soybeans, that means sharp sickles, that concaves and shoe sickles are set right and fans are set properly. If fans are set too high, you’re going to blow beans out the back end so you’re growing to lose profit right there.”

While today’s combines are complex technological wonders, several basic observations make a big difference in harvest efficiency and grain condition.

“The first rule of thumb we tell farmers is you want the front sharp, the center dull and the back end sharp again,” adds Travis Bach, also a combine service technician at Martin County Implement. “You want a sharp sickle. A little bit of wear on your feed accelerator, concaves and threshing elements is better than having them sharp because sharp will damage and break the beans. Then you want the chopper sharp so the residue is getting chopped up and spread across the field.”

Deling says observing grain loss at the sickles, between the header and combine and then again at the tailings elevator will help farmers determine if the combine is properly set.

Regardless of the brand or age of the combine, taking the time to get it set right will increase efficiency and preserve grain quality. Fewer broken beans and fewer pods in the grain means U.S. soy customers will get a high-quality product and farmers will capture more value.

Source: [United Soybean Board](#)

Dr. Richard Roth (continued from page 1)

Richard’s Advice to Producers: Be patient with me! You all face many production challenges and I am still learning some things as I go, but I promise that if you give me the opportunity I will do my absolute best to earn the trust of every grower in the state from north to south and east to west. I think my greatest piece of advice, though, would be to lean on your county agents. The agents are the foot soldiers of the extension system, and without them I would not be able to do my job. Reach out to them with questions and concerns, ask them to visit your farms, tell them your trainings needs, and express to them what kind of research you would like to see done in the state.

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Moisture rates can make harvest timing tricky

Wet conditions can leave many soybean farmers with difficult decisions over when to harvest.

“Varying growing conditions can result in various maturities, with some soybeans at a lower-than-desired moisture content,” says Ken Hellevang, North Dakota State University extension specialist and ag engineer. “We’re typically shooting for a 13 percent moisture rate – lower than that, farmers will have less product to haul to market.”

While it’s often easiest to leave soybeans in the field to dry down to a 13 percent moisture rate, leaving them in the field too long can dry them too much – when this occurs, they are prone to damage. However, soybeans are also susceptible to damage from splits and breakage when running through a dryer, so Hellevang encourages farmers to carefully measure grain moisture to determine whether to dry their soybeans in the field or to invest in high-temperature drying.



“This decision needs to be made on a farm-by-farm, or even a field-by-field bases,” he advises. “Farmers should look at how many beans are in the field and how much damage is occurring, along with looking at their specific dryer’s cost per bushel and per-moisture-removal basis.”

While there is no “one-size-fits-all” tip for drying soybeans to the ideal moisture content, Hellevang does have some other advice for farmers.

“Make sure to test a representative sample,” he says. “Most fields have a variance, and something as simple as dew on the seed could affect the accuracy of the measurement – so sample different locations and get as uniform a product in the moisture metering as possible.”

Source: [United Soybean Board](#)

Renewable diesel projected to turbo charge U.S. biofuel growth

DENVER — By producing fuel using sources with lower carbon intensity than traditional petroleum-based products, the U.S. biofuels sector is well-positioned to play a major role in reducing greenhouse gas emissions. According to a new report from CoBank's Knowledge Exchange, the recent surge of investments in U.S. renewable diesel production capacity is likely to ignite a period of growth and transition for the biofuels industry.

"The outlook for biofuels is favorable as the U.S. and other leading developed countries embrace renewable liquid transportation fuels as a solution to reduce greenhouse gas emissions," said Kenneth Scott Zuckerberg, lead grain and farm supply economist for CoBank. "Renewable diesel offers the most intriguing opportunity in the biofuels space, given the extraordinary growth potential."

As major oil companies have begun embracing renewable diesel, U.S. production is expected to increase exponentially. Several industry stakeholders have announced plans for new soybean crush and refinery facilities over the last two years. Soybean oil is the feedstock most commonly used for producing renewable diesel. Combined, the proposed crush and refinery projects would increase U.S. renewable diesel production capacity six-fold by 2030 to 6.5 billion gallons annually.

However, the expected growth in soybean oil-based renewable diesel requires considerably more soybean bushels for domestic crush. CoBank estimates that U.S. soybean acreage would need to increase by 17.9 million acres to fill the supply gap created by the additional crush and refinery projects that have been announced. Additionally, the U.S. would need to stop exporting whole soybeans.

Alternatives to a massive shift of acres from corn to soybeans would include growing other oilseeds like canola and sunflower on a larger scale, importing other vegetable oils, or using other feedstocks such as beef tallow to produce renewable diesel fuel.

Biofuel production has grown nearly 8% every year over the past 15 years, driven by tax credits and targeted government programs, including the federal Renewable Fuel Standard (RFS) Program and California's Low Carbon Fuel Standard (LCFS). The Inflation Reduction Act of 2022 will increase usage of renewable energy in general, and biofuels in particular.

Biodiesel and renewable diesel are 50%-55% less carbon-intensive than traditional petroleum diesel. Although renewable diesel and biodiesel have similarly low carbon scores, renewable diesel offers the additional benefit of being used as a "drop-in" fuel. That means it does not require additional blending with petroleum diesel, which is required before biodiesel can be used by commercial engines. As a drop-in fuel, renewable diesel does not require any modifications to older engines, a key attribute for increased adoption.

Read the report, [Renewable Diesel Projected to Turbo Charge Biofuel Growth](#).

Source: [CoBank](#)

Post-Harvest Soil Sampling - United Soybean Board

Every farmer knows that fertilizer inputs are one of the biggest crop expenses on the farm and are essential to the vitality of crops. Yet, each year, farmers spend thousands of dollars adding inputs to their fields without sampling their soil first and knowing what those fields need when it comes to fertility.


Without regular soil testing, farmers may be throwing away money on unnecessary inputs or neglecting the soil by not adding essential nutrients that may be deficient in the soil.

Farmers should remember these recommendations to get the best sample and test results:

- Use only stainless steel or other non-reactive metal equipment and clean plastic buckets to gather samples.
- Soil probes or augers are the best tool for sampling because they ensure a consistent depth and the correct amount of soil is gathered.
- Gather core samples at random in a zigzag pattern in the area being tested and mix well.
- In tilled fields, gather soil samples from a depth of six inches. In minimum- or no-till fields, take samples from a four-inch depth. And in pasture and hay fields, take samples from a two-inch depth.
- Consistently sample during the same season from year to year.
- Maintain accurate records with field maps, sampling points and timing, crop and fertilizer history and other management activities.

Check out other [articles](#) for more resources on soil sampling.

The USB Mission: To Maximize Profit Opportunities For All U.S. Soybean Farmers



This is the mission of your soy checkoff. The U.S. soybean industry is coming off several years of record volume soybean production. We've proven that we can be a stable supply of soy. Now we need to make sure we're the best provider of soy globally. Your soy checkoff is working to achieve this by bringing more innovation to the U.S. soy industry than ever before, and making sure that U.S. soybean farmers benefit from it. We're looking at the value of soybeans and the meal and oil inside those beans. We know that our end users want a high-quality sustainable supply of soybeans. Your soy checkoff is making sure that we're meeting these demands and that U.S. soybean farmers will be rewarded for doing so. The 73 volunteer farmer-leaders of the United Soybean Board are dedicated to responsibly investing each checkoff dollar to the greatest return on investment for all U.S. soybean farmers. We are honored by the opportunity to work on behalf of and represent our fellow farmers. Thank you for your continued support of the soy checkoff, and we look forward to a future filled with innovation and opportunities.

For more from the United Soybean Board, [visit www.unitedsoybean.org](http://www.unitedsoybean.org).

5 POST-HARVEST PRACTICES TO BOOST YIELD SUSTAINABLY



Following harvest, collect soil samples to test soil fertility and for nematodes.



Increase the productivity of a poorly drained soil by installing drainage improvements.



Check soil for compaction or rutting to determine need for fall tillage.



Keep soils covered through the winter and during vulnerable times of the year to retain nitrogen and soil on farm fields.



Make fall herbicide applications to control winter annual weeds and scout for weeds that survived herbicide application to prevent resistance.

* Courtesy of Beyond the Bean

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The soy checkoff empowers U.S. soybean farmers with tools that will help them maximize their profitability. Whether it's a database of high-protein-and-oil soy varieties, the results of soy-checkoff-funded research or interviews with experts, the checkoff spreads the word about cutting-edge tips and tricks you can put to use on your farm.

For more information, check out USB farmers resources online at:

www.unitedsoybean.org/farmer-resources/tools/

www.unitedsoybean.org/farmer-resources/beyond-the-bean/

To view past issues of the Georgia Soybean News, visit
www.georgiacrop.com/resources/newsletters/.

