

Sustainable Agriculture

Looking forward for this generation
and the next...

at **UGA**



Spring 2017

Meeting season is over and production is in full swing. We have already experienced some challenges this growing season with the warm weather, then the freeze and now drought sniffing around. Once a quarter, we try to bring you a snapshot of some of the things happening around the state related to sustainable agriculture. Here in the College of Agricultural and Environmental Sciences we focus on production systems that we know can help farmers increase soil organic matter because there are so many related environmental benefits to improving soil health. As you have heard from me before, cover crops is a great way to do this. So check out the article on our field day in Midville and plan to join us next winter there or somewhere else around the state.

We are ever mindful that sustainability also means profitability and if farmers can't stay in business, they are not sustainable. Value-added can be an important part of profitability for farmers as our farmer profile and the focus on the Flavor of Georgia contest articles illustrate. Sustainability also has to address social issues – quality of life for farmers, farmworkers, and the community, so occasionally we explore those issues as well.

In any case, there is an increasing amount of research, extension, and teaching on sustainable agriculture going on here at the University, more than we can cover. Our mission is to provide you the best science-based information we can to help you meet your own goals for sustainability.

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Upcoming Events

May 16, 2017 - Medicinal Herbs Fayetteville, GA

September, 19-20, 2017 - Georgia Grazing School - Athens, GA

October 5-6, 2017 - Georgia Farm to School Summit - Augusta, GA

October 24-29, 2017 - American Dairy Goat Association Conference - Atlanta, GA

Find more information on these events at www.SustainAgGa.org

Also find basic principles of sustainable agriculture, Extension bulletins, research publications as well as archived copies of this newsletter.

If you have questions, reach out to your local county agent and us. We'll do our best to help.

As always, good growing.

*Julia Gaskin
Sustainable Agriculture Coordinator
University of Georgia*

Extension

Diversity in Agriculture: In-depth look at DaySpring Farms

While Madison County is known for poultry, livestock, and forage production, there are a few unique farms that show the diversity of agriculture in this Piedmont county. Nathan and Murray Brett of Dayspring Farms have established one of those unique farms that has tapped into existing markets and created new ones for itself in the hope of, as they state on their website, “reclaiming a better and more sustainable way of life.”

Murray and Nathan are a father-son team that established the 87 acre DaySpring Farms in 2011 outside of Danielsville. The USDA certified organic farm literally came from nothing, starting out as a cut-over tract of timberland. Out of that has developed a diversified operation that is continuing to develop new markets. Initially, the farm grew produce for local Athens-area farmers’ markets as well as restaurants. Tomatoes, salad greens, potatoes, squash, and various other vegetables were the beginning source of income for the farm. While the Athens farmers’ market continues to be a valuable sale point for the Brett’s, consistency and time commitment has been an issue. Eventually, they joined with a farmer’s cooperative that grew cherry tomatoes and potatoes for Whole Foods. These contracts provided “sure money” for the Brett’s as they continued to build infrastructure and a future on the new farm.

While tomatoes and other vegetables carried the load within the deer-fence enclosed portion of the farm, by 2013, other cropping options started to be pursued. Oilseed crops and grains were specifically looked at as good options for production. While production of these crops is not uncommon in the



Murray Bretts surveying the corn... is it knee high by the fourth of July? (Source: Julia Gaskin)

Piedmont and in Madison County, the Brett’s took a very unique marketing strategy that is starting to show great promise for the sustainability of their farm. In 2014, the Brett’s constructed a seed cleaner and milling facility that would allow the Brett’s to do onsite processing and milling of grain crops to sell directly to consumers, restaurants, and bakeries. By the end of 2014, DaySpring Farms was producing organic wheat flour and cornmeal that was being sold in the Athens and Atlanta area and even in bakeries in North Carolina. This addition to the Brett’s farm showed a large-scale example of the “value-added” mindset that is critical to sustainable farm viability.

When you talk to Murray Brett, he’s quick to point out the goal of the farm has to be profitability. That has resulted in the continued search for crops and markets that will work for their particular farm. As a result, in just a few years, the Brett’s have grown canola, soybeans, corn, wheat, edible beans, tomatoes, potatoes, sweet potatoes, and a variety of other vegetables. Right now, the Brett’s plans are to continue a combination of wheat and corn production for flour and meal, the production of sweet potatoes for restaurants and farmers markets, and the production of some tomatoes for market. Future plans are looking at utilizing the seed cleaning capability to produce organic certified seed for seed companies. This would add yet another facet to DaySpring Farm’s attempt at reclaiming a better and more sustainable way of life.

While the Brett's have made large strides towards economic sustainability of the farm, they will admit that there have been challenges. One challenge has been the issue of maintaining a crop rotation strategy and building soil health while trying to produce profitable cash crops to keep the farm operating. On the highly erodible clay hills of the piedmont, building soil health and preventing erosion has been a learning process. Another issue has been maximizing yields with adequate inputs such as nitrogen and water. One way the Brett's have recently attempted to address this has been the installation of sub-surface drip tape in one of their cropping fields with the help of NRCS cost sharing. The hope is that this more efficient use of water will lead to higher crop yields without contributing to disease pressure with overhead irrigation.



By the end of 2014, DaySpring Farms was producing organic wheat flour in their own milling facility. (Source: DaySpring Farms)

The Brett family is setting roots deep in the red hills of Northeast Georgia. Nathan, his wife, and two young boys all live at the farm, and seeing it from its start to today has been a mix of accomplishment, frustration, excitement, and uncertainty. Yet any farmer understands that making it in this business requires a large amount of determination and never ending optimism.

*Adam Speir
Madison County Extension Coordinator
University of Georgia*

Community Connect

Taste the Sweet Success at the Flavor of Georgia Food Product Contest

“Food is our common ground, a universal experience.” James Beard (1903-1985)

There is something about exceptional food that serves as the universal language – bringing people together, inspiring their dreams, forming communities and commonalities where there might otherwise be none. This holds true in the experience of the Flavor of Georgia (FOG) food product contest, a signature event of the UGA College of Agricultural and Environmental Sciences, hosted and organized by the Center for Agribusiness and Economic Development (CAED). The contest has been held annually since 2007 and was developed as a response to starting or growing food businesses requiring additional exposure to potential buyers and promotion of their food products to get them to the next level of success. Further, FOG helps to showcase the excellence and diversity of the food industry, which is big business in Georgia.

Since its inception, there have been over 1,100 food products submitted for consideration in the contest, with each one receiving a full-color photo and feature in the published directory. Each year the initial submissions are narrowed down to the products making it through to the final round of the contest, traditionally held in conjunction with Agriculture Awareness Week activities. At the final round, a panel of food buyers, brokers, distributors, retail food store owners and other food industry experts gather to make the



Gov. Nathan Deal, from left, congratulates Harry and Jaime Foster and Travis Cole, of Georgia Grinders, who are accompanied by Georgia Agriculture Commissioner Gary Black and College of Agricultural and Environmental Sciences Dean and Director Sam Pardue. Georgia Grinders Premium Nut Butters' Pecan Butter won the grand prize at the University of Georgia's Flavor of Georgia Food Product Contest, March 21, 2017. (Source: Merritt Melancon, UGA/CAED)

selections from each of 11 categories. Finalists make a 3-minute pitch to the panel, from which the scores determine winners for each category. The overall highest scorer takes top honors as the Grand Prize Winner. Products are judged on flavor, texture, and ingredient profile, innovation or uniqueness, consumer appeal and representation of the State. In addition to the directory feature, finalists receive personalized press releases, use of the Flavor of Georgia logo on their label and promotional materials, and a one-year Silver-level Georgia Grown membership from the Georgia Department of Agriculture. The 2017 Grand Prize Winner was awarded complimentary exhibit space at the Georgia Food Industry Association Annual Convention and three consultation sessions from the UGA Food Product Innovation and Commercialization Center (FoodPIC).

For our finalists, the Flavor of Georgia contest goes beyond a culinary adventure, it has become an establishment of business connections with credible results for their bottom line. One effect comes directly from the camaraderie established during the final round and activities surrounding it. Our finalists report that networking opportunities and new business contacts are increased from their participation in the contest. In 2016, nearly a dozen finalists had new business agreements within two weeks of the competition and 92% reported increased business connections just from being named a finalist. Six months following the contest, nearly all reported increases in the following:

- interest in their products
- publicity and exposure
- amount of sales
- business contacts
- new contracts/agreements for product sales



The Flavor of Georgia contest is more than a culinary adventure, it also can help grow business connections.

Our most recent CAED analysis shows that, on average, Flavor of Georgia finalists report an 11% increase in revenues from participation.

Flavor of Georgia Food Product Contest – it's more than great food, it's economic development!

Sharon Kane

Economist

*Center for Agribusiness & Economic Development
The University of Georgia*

Extension

Getting the Most from Cover Crops

The theme of the 2nd Annual Field Day hosted by the Southeast Research and Education Center in Midville was “Don’t Farm Naked”. Good advice I’d say, in a number of ways, but what 80 farmers, county agents, ag professionals and NRCS personnel were focused on was keeping the soil covered with cover crops and the benefits of having a functioning root system in place over the winter when fields are often left fallow.

The group heard from Nick McGhee at the Jimmy Carter Plant Materials Center about particular cover crop varieties that may work best for Georgia conditions. This information helps as farmers focus on getting cover crops to provide specific functions such as increasing soil organic matter or providing nitrogen within a particular window between cash crops. There may be particular varieties that perform best in certain situations. For example, their preliminary data indicates that “Cosaque” black-seeded oat matures 3.5 weeks later than “Wrens Abruzzi” cereal rye, a commonly used cover crop. This characteristic would be one of many a farmer would need to consider when choosing a cereal cover crop to plant before their cash crop.

Dr. Stanley Culpepper emphasized how important cover crops are in terms of managing weed resistance to herbicides. Using cover crops will reduce weed pressure during the wintertime, and if there is a thick mat of cover crop residue (7,000 to 8,000 lbs/ac of biomass), it will reduce the number of weeds

germinating for 4 to 6 weeks during the summer. Cereal rye can most consistently provide this amount of biomass if managed well.

Cover crop residues can also increase the amount of rainfall and/or irrigation that infiltrates into the soil where the crop needs it, according to Dr. Gary Hawkins. This is important for decreasing erosion and maintaining water quality.

Peyton Sapp – Burke County Extension and Pam Sapp – Jefferson County Extension showed the cover crop demonstration plots that had been planted at different dates during the fall with help from Katie Burch – Burke County Extension and Jason Mallard - Jenkins County Extension. The seed was provided by Sunshine Farms. Although the drought and then a very wet period affected the cover crop growth and the biomass was less than the previous year by the first of March, it was clear that the plots planted in October had the best growth and planting early is a must particularly for those who will be growing corn.



Midville cover crop field plots with different treatments. A no cover crop control is on the far left and cover crop mixes make up the rest of the field.

Our friend from NRCS, Nathan Lowder – the Soil Health Specialist, was there to show the rainfall simulator. If you have never seen this exhibit, you should. It is quite eye-opening. We don't often think about how quickly bare ground generates erosion and runoff or how little runoff and erosion takes place from a cover cropped field or well –managed pasture.

After lunch, the highlight of the day was the planters that four farmers brought to the station. We were able to hear from innovative farmers from three generations about why and how they plant into cover

crops. Each of these farmers, Lamar Black, Alton Walker, Burton Heatwole, and Jacob Sandeford, had a slightly different approach. Each had a special tip or idea to share with the group.

Does it sound like a good day? Well it was. We will be doing it again this winter, so stay tuned and plan to join us.

*Julia Gaskin
Sustainable Agriculture Coordinator
University of Georgia*

Journeyman Farmer Certificate Program

This project is funded by USDA NIFA Beginning Farmer Rancher Development Program and includes three training steps:

1. Small Farm Business Planning or AgAware,
2. Small Fruit & Vegetable Production OR Small Ruminants Production,
3. Hands-on Production Training.

Upcoming Events!

Gwinnett County:

Small Farm Business Training

June 2 and 3rd 8-1 p.m.

Cost: 50

Small Fruit and Vegetable Training

June 15, 16, 17 8-3 p.m.

Cost: \$75

TO REGISTER: Gwinnett County Extension Office

Tim Daly

E-Mail: tdaly@uga.edu

Lowndes County:

AgAware Small Business Training

May 25, 9- 4p.m.

Cost: FREE

TO REGISTER: Online at AGGeorgia.com ->AgAware Registration

E-Mail: Josh Dawson dawsonj01@fvsu.edu

Small Ruminant Production Training

June 1, 8, 15, 22, 29 6-8 p.m.

June 23 5:30 8 p.m. (FAMACHA and hands-on)

Cost: \$100

E-Mail: Josh Dawson dawsonj01@fvsu.edu

