

Sustainable Agriculture

Looking forward for this generation
and the next...

at **UGA**



Fall 2015

Like many of you, I enjoy growing things. Working in my small garden with that good earthy smell and watching new plants grow is one of the great pleasures in life. This attraction to growing things whether they be plants or animals and a love of the land is a strong motivation for many people to farm. But let's face it, farming isn't gardening.

One of the key differences between gardening and farming is that, fundamentally, farming is a business. In farming your income depends on what you produce and that you produce a high quality product efficiently enough to make more money than you spent trying to produce it. Over the years, I have talked to many people who want to farm and love the growing part, but the business part - recordkeeping, finding places to sell your products, finding labor, recordkeeping, insurance, recordkeeping, food safety, and recordkeeping – that's not so fun. It's the part that tends to get put off, but it is one of the keys to the sustainability of your farm.

It doesn't have to be so intimidating and you can make the business part work for your farm. We have two programs running in October and November to help you get through the intimidation factor and come up with a business plan and recordkeeping ideas that will work for you. Both of these opportunities are perfect for those already farming and wanting to do a better job with their farm business or for those wanting to start a farming operation. Register soon!

See upcoming events for these opportunities!

Julia

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Upcoming Events

Journeyman Farmer Certificate Program -
Small Farm Business Planning

Oct. 15, 2015 - Clarkesville, GA - North GA
Technical College - *AgAware program*

or

Oct. 22, 29, and Nov. 12, 2015
Watkinsville, GA - Oconee County Extension Office

Jan. 8-10, 2016 -SE Fruit and Vegetable Conference
Savannah, GA - Savannah Convention Center

Jan. 27-30, 2016 - Southern SAWG Conference
Lexington, KY - Convention Center

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.

Grower's Corner

October is National Farm to School Month!

At their essence Farm to School (FTS) programs aim to teach school children “where their food comes from” through a wide range of activities—from school gardens and garden-based lessons in the classroom, to local foods into school cafeterias and direct interaction with farmers. Promoted as offering synergistic benefits for students and farmers, and across communities, FTS programs have been touted as a way to improve child nutrition and reduce rates of childhood obesity, provide stable markets for farmers, and promote sustainable community development.

According to USDA's Farm to School Census, US FTS programs have expanded from 400 programs in 22 states in 2004, to over 40,000 schools, serving 23.5 million children, across all 50 states as of the 2011-2012 school year. USDA also estimates that school districts spent over \$385 million on local products that year.

According to the Georgia Department of Education, school nutrition programs in the state served over 1.1 million lunches to school children every day, and another .5 million breakfasts in 2013-2014 – making school cafeterias the biggest “restaurants” in many counties. This can be a great opportunity for farmers interested in serving a local market; however, there are also a number of challenges to getting local foods into schools. Our research on the sustainability of FTS programs in Georgia has revealed some of these challenges, as well as some key strategies for making FTS work.

The most obvious challenge is procurement. School nutrition programs receive federal funds to provide free and reduced price meals for low-income children. As such, they are required to comply with federal regulations governing what they serve and how they purchase food to ensure that children receive healthy, well-balanced meals at affordable prices.

In an effort to ensure the responsible use of tax dollars, the National School Lunch Program requires

that schools use a competitive bidding process to purchase foods served in their nutrition programs. In practice, this means that school districts generally award a contract to a single produce vendor who supplies the vast majority of their fresh produce, often sourced through large-scale national and global food systems.



Habersham County Nutrition Director, Andrea Thomas, and farmer James Franklin from Wide Bottom Farms who supplied squash to the Habersham City schools

Nevertheless, there are routes for schools to purchase directly from farmers. For purchases that fall below a “small purchase” price threshold (which varies at state and local levels), schools can use an informal procurement process in which they draft specifications for their purchase, obtain bids from at least 3 vendors, and then award the contract to the “responsive and responsible bidder” with the lowest price. Although schools cannot use “local” as a product specification, they can define a “Geographic Preference” for the procurement of unprocessed or minimally processed items. This allows schools to define “local” for particular products (e.g., “within 100 miles” or “within the state”), and award preference points or percentage for that bid. Although the small purchase threshold and geographic preference option certainly help facilitate the direct purchase of local foods by schools, in practice the additional effort required to draft specifications and to obtain and evaluate bids from vendors for each locally procured item can present a challenge for many nutrition directors. As of this summer, schools can use a new ‘micro-procurement’ process, under which schools are no longer required to obtain

competitive quotes for purchases valued below \$3000, as long as they deem the price reasonable. While certain conditions and documentation still must be met, this new micro-threshold can simplify the process of procuring small quantities of local, seasonal produce.

Another key challenge in many school districts is the distribution of local produce to schools—especially when schools are spread across a large geographic area. In many cases, neither farmers nor school nutrition staff are equipped to take on this added burden.

School districts of different sizes and with different needs have solved this problem in a variety of ways. This spring, at a Farm to School “Meet and Greet” for farmers and school nutrition staff in Northeast Georgia, the recommendation from school nutrition directors was clear: Farmers interested in selling to school nutrition programs should work through the vendor that has been awarded the contract to provide fresh produce for schools. Working with the school district’s produce vendor can reduce or eliminate a number of the key problems with getting local produce into schools: First, it eliminates the need to obtain competitive bids for local items, because the produce vendor has already been through the competitive bidding process and has



Andrea and Anthony Holland, the produce distributor in Habersham County, who has stepped up to help bring local produce to Habersham City schools.

been awarded the contract. Second, it reduces distribution barriers, because the produce vendor is already delivering fresh produce to all schools in the district. In other words, purchasing local foods through their produce vendors may streamline the entire process for school nutrition directors, making it less labor-intensive and more feasible for schools.

Of course, this is not the only successful model for getting local foods into schools. Schools have had success procuring local foods directly from farmers, as well as working with farmer cooperatives, food hubs, and farmers markets. However, some vendors may be resistant to working with local farmers.

In this case, farmers and school nutrition directors may need to encourage, or even require as part of their bidding process that produce vendors work with local farmers and communicate which items are from local farmers on their ordering information. This has worked in Northeast Georgia. In response to requests from school nutrition, several produce vendors serving schools in Northeast Georgia have begun working with local farmers to communicate product availability to school nutrition programs, and to supply schools with locally grown produce.

If you are a small farmer interested in getting your harvest into local schools, here are a few tips:

- Keep in mind that, unlike farmer’s market customers, nutrition directors must comply with USDA regulations for purchasing.
- Begin by contacting your local school nutrition directors to gauge their interest in purchasing local produce. Ask them if they would like you to work through their current produce vendor and find out what vendor they use.
- Start small: Work with schools or vendors to supply something fresh, local, and in-season for a school taste test. Show up to the taste test and demonstrate your enthusiasm for farming to the students.

To be sure, the relationships developed between farmers and schools are an essential element of Farm to School programming. Hopefully, efforts

to streamline procurement and distribution will free-up time on the part of nutrition staff and farmers for more direct interaction with students, such as hosting field trips for students or coming to the school for agricultural show-and-tell. In short, meeting farmers directly is key to getting students excited about “where their food comes from.” Nutrition directors who have hosted farmers at schools tell us that their students treat farmers like local celebrities, and they are more willing to try new fruits and vegetables when they have met the farmer who grew them.

Consider getting involved in local Farm to School efforts in your community!

Farm to School Resources:

USDA’s Planning Toolkit: <http://www.fns.usda.gov/farmtoschool/census#/toolkit>.

USDA’s Procuring Local Foods for Child Nutrition Programs guide: http://www.fns.usda.gov/sites/default/files/f2s/F2S_Procuring_Local_Foods_Child_Nutrition_Prog_Guide.pdf.

Georgia Farm to School Toolkit: <http://www.ga-farmtoschool.org>.

Georgia Organics’ Local Food Procurement: <https://georgiaorganics.org/for-schools/local-food-procurement>, includes resources and tips for working with distributors and using geographic preferences.

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¹[http://www.fns.usda.gov/farmtoschool/census#/,](http://www.fns.usda.gov/farmtoschool/census#/) accessed 9/17/2015

²[http://www.gadoe.org/Finance-and-Business-Operations/School-Nutrition/Documents/Facts%20and%20Figures%20SY2014.pdf,](http://www.gadoe.org/Finance-and-Business-Operations/School-Nutrition/Documents/Facts%20and%20Figures%20SY2014.pdf) accessed 9/17/2015

Research

Factors Constraining the Organic Farmers’ Access to Borrowed Capital

The recent decades have witnessed an accelerated growth in consumer demand as more Americans are

shifting their food choices to organic products due to health and environmental considerations. Industry analysts estimate that US organic food sales grew from \$1 billion in 1990 to \$28 billion in 2012. This rapid increase in demand for this niche market, however, has overwhelmed organic farmers in supplying the market. Even though more new organic producers have emerged in recent years, there still exists a supply gap because organic production has been increasing at a much lower rate than the growth in consumer demand. To fill this supply gap more organic farm expansions and start-ups are needed, especially among its small producers. One critical factor in the capacity of a farm to start or expand is the availability of capital funds. Many business owners turn to loans as a practical option for raising capital. Evidence, however, suggests that organic farms usually are less dependent on external loans for their financing needs. In a study conducted by Michigan State University’s C.S. Mott Group for Sustainable Food Systems, organic producers have expressed that they would rather resort to maximizing credit card debt in order to support their business operating needs when their personal cash flow has been depleted.

A University of Georgia study funded by SARE was conducted in 2011 to understand the organic farmers’ reluctance to avail of regular farm loans and probe deeper into the nature of their relationship with farm lenders. Specifically, the study sought to obtain the organic farmers’ opinions and concerns on credit access and the farm lenders’ attitudes or perceptions of organic farming operations that may have influenced borrower-lender relationships.



Small farms have unique loan needs given their farm business environments.

Two focus group discussions were held in 2012 in Fort Valley State University and the UGA Athens campus that were attended by a total of 15 organic farm producers in the state. In these meetings, the farmers raised a number of important issues in their dealings with farm lenders. The major issues are summarized in the following sections.

Production Diversity

Organic farms normally have more diversified operations involving a wide array of farm commodities. While product diversity is a challenge for farmer borrowers in preparing their business projections and plans to support their loan applications, it is an inherently important and desirable business trait, especially in terms of its risk mitigating benefit. Organic farmers, however, point out that farm lenders do not seem to put a premium on the risk mitigating aspect of product diversity of organic farms; some lenders even perceive it as a negative business trait.

Business Size

Most organic farm businesses are significantly smaller than conventional farms. According to the farmer-participants, farm lenders usually employ generic credit risk appraisal models that are more attuned to the farm business conditions of larger, conventional farming systems. The participants argue that lenders must develop separate credit scoring models for small and large farms as well as for small and large loan applications. Some even propose separate models for organic and conventional farm borrowers, given their more differentiated farm business environments that entail different sets of business opportunities, risks, operating strategies and decisions.

The Hobby Farming Stereotype

Organic farmers have shown frustration and disappointment with the usual label that others, including lenders, would ascribe to them. They do not want to be called “hobby” or “lifestyle” farmers. They want lenders to realize that they are serious farmers who do not take their businesses lightly. They also demand to be properly regarded as

socially responsible farmers committed to the promotion of consumer health and environmental stewardship.

Asset Appraisal and Equity Valuation

Organic farms usually invest less on tangible farm assets, such as machineries and large tracts of land, but spend more on intangible assets, such as soil enhancement inputs. In this regard, the farmer participants argue that lenders’ land appraisal methods do not factor into their valuation the farmers’ intangible investments for soil improvement. They contend that lenders assess farmland at face value, calculated the conventional way without any regard on the real quality of the soil.



A diversity of crops grown is great for risk mitigation but is a challenge for borrowers in business projections and plans.

Farmer participants further argue that their soil enhancement investments should be properly regarded as unrealized capital gains that should increase the level of their equity investments as reflected in their balance sheets. This would translate to more favorable financial ratios and better credit risk ratings.

These farmers’ inputs were used as basis for developing a survey on farm lenders in the Southeast region. This survey is intended to clarify whether the farm lenders’ actual credit risk appraisal practices and attitudes towards prospective organic farm borrowers confirm the issues raised by the farmers. The ultimate goal of this research is to identify areas of understanding as well as divergent attitudes and perceptions that need to be reconciled in order to improve the organic

farms' access to borrowed capital needed to stimulate further business growth and expansion in the industry.

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Extension

Tractor and Small Farm Equipment Training Workshop

The right equipment can help small farms improve their efficiency, but you have to know how to use and maintain it. Many beginning farmers don't have experience with machinery and training on small-scale farming equipment can avoid costly mistakes and dangerous use. As part of the Sustainable Ag Program Series in Northeast Georgia, there was an informative workshop last March on tractor and small farm equipment that addressed this need.

The workshop was hosted by Oconee County Extension (Monte Stephens), Madison County Extension (Adam Speir) and Athens/Clarke County Extension (Amanda Tedrow) at the J. Phil Campbell Sr. Research and Experiment Station. The workshop was an introduction to basic equipment selection, led by Bob Westerfield, Extension Horticulturist and experienced small equipment operator. Bob provided detailed information to attendees on maintenance and troubleshooting of small engines like chain saws, mowers, tillers, etc.



Bob Westerfield shows differences in seeder types.

When to upgrade to a small farm tractor is an important topic and which tractor fits your farm size and needs is a common question. Even on a small farm, a tractor can be a wonderful labor-saving device. With many different manufacturers in the market, it may be difficult for producers to make an informed decision. Dr. Westerfield discussed pros and cons, as well as purchasing new or used equipment, and the best attachments and application for each type and size of tractor. The informal classroom session was great; conversation and questions helped each participant narrow the information to their farm specifications. The "What Size Farm Tractor Do I Need?" UGA article is linked below.

After the morning presentations, a locally-made lunch was served and the group went out to the field for an on-farm demonstration at UGArden. JoHanna Biang, UGArden Farm Manager, demonstrated a BCS with rear-tine tiller and rotary plow attachment that that also forms raised beds. For small acreage farms, a powerful walk behind rototiller may be able to do much of the work in place of a tractor, especially tillers that have multiple attachments.



This BCS tiller is making a raised field bed with the rotary plow attachment. Operated by JoHanna Biang, UGArden Farm Manager.

Seeding machines, even the walk behind manual crop planters, can also be useful tools that save time and increase efficiency. They help make seeding row crops easy, maintaining uniform distance and depth and taking the guess work and time out of seeding.. An inventive project out of the Agricultural Research Service (ARS) was an experimental seeding. An inventive project out of the Agricultural

Research Service (ARS) was an experimental attachment to a BCS that helps roll and crimp cover crops for small no-till systems demonstrated by Corey Kichler, an Engineering Technician with USDA ARS in Auburn, AL. This was especially interesting to see since small farms may not be able to use the large equipment typically seen when crimping a cover crop.



Corey Kichler demonstrates an experimental attachment out of ARS helps roll and crimp cover crops for small no-till systems.

Safety is paramount when operating any farm equipment, so take time to familiarize yourself with safe operation of equipment, such as reading the UGA extension guide on Agriculture Safety: Preventing Injuries. The link can be found below.

Hearing protection is also very important when operating any type of noisy machinery. Informative workshops are held all over the state. Your local county extension office will have details on upcoming workshops. These workshops are great opportunities to meet your local agent and other farmers as well as pick up knowledge or get a burning question answered.

What Size Farm Tractor Do I Need?

<http://www.caes.uga.edu/departments/bae/extension/pubs/documents/farm%20tractor.pdf>

Agricultural Safety: Preventing Injuries

<http://extension.uga.edu/publications/detail.cfm?number=B1255#Tractor>

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Research

Grazing For a Better Grass-fed Beef

Over the past decade, consumer interest in the fat content of food has led to an increased demand for forage-finished or grass-fed beef products. This interest in grass-fed beef has primarily been stimulated by reports that grass-fed beef is leaner and has a greater n-3 fatty acid and conjugated linolenic acid concentration (the good kind of fat) than conventional grain-fed beef. In Georgia, consumer preference has led to a niche market for grass-finished beef and many cattle operations have become interested in meeting that demand.

The mild climate and long growing season of Georgia makes it an ideal location for grass-finishing beef. However, the system is not as simple as just growing and grazing grass. The forage must be both highly digestible and nutritious in order for the animal to rapidly lay down both fat and muscle. Although the use of cool season annuals and perennials provide high quality forages for finishing cattle during the fall, winter, and spring months, there are less forage options available for grass-finishing beef during the summer period. Typically, most beef



Four different warm season annual forages will be tested to see which is the most effective at producing grass-finished beef.

operations in the southeast take advantage of the high yields of warm season perennial species such as bermudagrass and bahiagrass, however, these species do not contain adequate nutrient concentrations for producing desired cattle gains for a grass-finishing beef system. Instead, researchers at the

University of Georgia are taking a systematic approach at testing the effects of four different warm season annual forages. The goal of the project is to determine the summer annual that is most effective at producing grass-finished beef from the stand-points of forage yield and quality, animal nutrition and performance, and meat quality.

The four year project includes the use of four summer annual grasses; pearl millet, pearl millet and crabgrass combined and planted together, a sorghum x sudangrass hybrid, and a brown midrib sorghum x sudangrass hybrid. These species were selected for this research due to their known forage quality and drought resistance. In total, there are 32 acres, or 8 acres per species, of summer annual grasses planted each year. The project also includes 32 Angus cross steers that are assigned to one of the four forages and will graze the grass for around 85 days, or from mid-June through mid-September. During this time, average daily gain (ADG) will be monitored and carcass measurements of rib-eye area, backfat thickness, intramuscular fat, and rumpfat will be taken using ultrasound technology. In September, the steers will be harvested at the UGA Meat Science and Technology Center



Steers were just harvested in September and samples will be evaluated for composition and quality. Meat will be for sale at the UGA Meat Science Technology Store.

where samples will be pulled from the carcasses and evaluated for composition and quality. The beef will be available for sale at the UGA Meat Science Technology Store on the main campus in Athens and all proceeds from meat sales will be used to fund this research.

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Mark your calendars:

**Journeyman Farmer Certificate Program
Small Business Planning
Two opportunities to learn and sign-up:**

AgAware One Day Training:
Oct. 15th 9a.m.-4 p.m.
Clarkesville, GA

Three-Night Training:
Oct. 22, 29, & Nov. 12 6:30 p.m.-8:30 p.m.
Watkinsville, GA

UGA Extension is launching the Journeyman Farmer program that provides a comprehensive training for beginning farmers. The program includes a three step training:

- Step 1 - Small Farm Business Planning
- Step 2 - Small Fruit & Vegetable Production or Small Ruminants Production
- Step 3 - Hands-on Production

