Maybe It’s Time to Try a Different Kind of Agriculture

Daniel E. Mullins
Extension Agent IV Commercial Horticulture
Santa Rosa County Extension Service
danm@santarosa.fl.gov

The best producers of traditional agricultural crops consistently apply cultural practices and marketing techniques aimed at realizing every cent of profit from every acre farmed. In today’s economy, such careful management is more important than ever. The traditional crops being grown in a particular region do, however, have their limits. There is only so much profit that can be squeezed per acre even after the best production practices and economics have been applied. Unfortunately, acres in production and profit per acre on a particular farm sometimes fail to “pencil out” at a level of sustainability. For those who have been farming on the edge of survival, maybe it’s time to consider a different kind of agricultural operation. There are many with the potential to produce a much higher profit margin per acre.

A local farmers’ market is a good place for small farmers to sell their produce.

Photo Credits: Dan Mullins
The production and marketing of these specialty crops, agricultural experiences or entertainment is often called “alternative agriculture.” There are several popular buzz words associated with these establishments including sustainable agriculture, small farms, agri-tourism, value added and specialty crop production. Essentially it means doing something that is agriculturally related, but is different from the usual agricultural activities in a county or region.

During a recent six month professional development leave, I was able to travel and study over 100 of these unique agricultural establishments. The study tour included operations in 14 eastern states and two Canadian provinces. The businesses studied included:

- Agri-tourism and entertainment
- Value added products
- Internet plant and fruit sales
- Cut flowers
- Roadside produce markets
- Direct farm sales of fruits and vegetables
- Farmers’ markets
- Specialty nurseries
- U-pick sales
- Organic produce
- Hydroponic production of vegetables and cut flowers
- Compost production and marketing
- Community supported agriculture
- Wineries

At the end of the tour it was obvious that the most successful agricultural establishments exhibited similar characteristics or have some things in common:

- They establish and maintain the business from the customers’ perspective, responding to their desires and needs. In other words, they have the ability to think like the general public, not strictly like farmers.
- They are all good to excellent marketers, even if not always the best producers.
- They provide a product, experience or service that is unique or needed.
• They set goals and stick to them, yet are able to adapt to changing conditions.

• They are good people and money managers

• They network, cooperate and collaborate with customer groups, agricultural organizations and even competitors.

This farm has been transformed into an agri-tourism destination featuring a bed and breakfast, viewing of goat milkings, special meals and events. Photo Credits: Dan Mullins

Some are visionary – they see their goals clearly and most of the steps necessary to accomplish them. Some producers of conventional crops are already beginning to diversify by transitioning to these alternative enterprises, while people new to agriculture are also entering the business. Whether an experienced agriculturist or not, it is very important that serious “homework” be done prior to making a monetary investment.

These alternative crops or experiences which offer high potential profit per acre generally require a higher dollar per acre investment, more intensive cultural practices and more hand labor when compared to conventional agronomic and livestock based agriculture. In most cases there will not be an organized, ready market for the products of a particular alternative enterprise. Since marketing is the key to success, it is important that well organized plans for marketing be made prior to beginning the operation.

Fortunately, there are several good sources of information related to alternative agriculture. Perhaps the best is the IFAS Small Farms website at http://smallfarms.ifas.ufl.edu. This site contains a wealth of information, consisting of selected resources that Florida Extension Agents, specialists and researchers have developed for small farms and alternative agriculture. The Virtual Field Day is also a feature of this web site. It allows visitors to see new crops and enterprises featured at field days and workshops. The National Sustainable Agriculture Information Network (ATTRA) at http://www.attra.org/ should also be on your list of favorite web sites for obtaining alternative crop information. It contains the latest in sustainable agriculture and
Organic farming news, events and funding opportunities. In-depth publications on production practices and innovative marketing techniques are also available.

Watch for local field days, workshops and seminars related to alternative crop production. These are being provided on a more consistent basis in response to increasing interest in this subject. Specialty crop vegetable information will be provided in the Panhandle during early summer of 2009. The Twilight Specialty Crops Field Day will be offered in late June at the West Florida Research and Education Center and will feature new vegetable varieties grown in the field, shade house and greenhouse. The location, date, time and other information, when finalized, will be provided on the IFAS Small Farms and the Santa Rosa County Extension websites or, contact me directly for the latest information.

Citrus Fertilization for North Florida

Lester Muralles
Commercial Agriculture and Community Resource Development Extension Agent, Gadsden County FAMU/CESTA
lesterm@ufl.edu

Proper nutrition is essential for any plant crop production and citrus is not an exception. Good fertilization practice is necessary for successful citrus production whether backyard landscape or commercial orchard. A proper nutritional plan should start with a soil sample. Only a soil analysis can determine accurately the levels of nutrients and the acidity (pH) of the soil, and based on those levels, then a fertilizer recommendation is prepared. This article is intended to give general fertilization guidelines for citrus plants. Soil testing to determine the soil nutritional status and liming requirements should be carried out before the end of winter. As a general recommendation, fertilization should start after signs of plant establishment appear. Examples of plant establishment include, new plant flushes and leaf bud formation, which should be two to three weeks after planting in most cases. (See image of Satsuma tree)

It is impossible to talk about fertilization without talking about soil acidity first. It is essential to know the soil pH (soil acidity or alkalinity) in order to determine what adjustments are needed before you start adding fertilizer. The soil pH will greatly influence nutrient availability as well as the ability of plants to absorbed soil nutrients. The soil pH ranges from 1 to 14, for which 7 is considered neutral, measurements below 7 are considered acid and measurements above 7 are considered alkaline. The soil pH range for citrus is between 5.5 and 6.5, which is slightly acid (see below). Adequate corrective measures should be taken into consideration in advance to adjust the pH before adding fertilizer.

For small plants a minute amount and frequent applications of fertilizer are highly recommended. After planting, add a citrus fertilizer frequently every four to six weeks through September. Due to the high cost of fertilizer placement is a very important consideration. Place the fertilizer in a three-foot diameter circle around the tree, where the drip line is, as shown in image of Satsuma tree. For the first two to three years, it is recommended to use low concentration of fertilizer such as 6-6-6 or 8-8-8. Once trees are three to four years old increase the concentration of fertilizer formulations. Do not fertilize citrus plants during the winter months (October to February) and avoid fertilization during flowering, especially high nitrogen fertilizer as it may cause flower abscission. Fertilization should start with the new flushing of leaves in the spring or after planting as mentioned above.

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Table 1. General citrus fertilizer recommendations

<table>
<thead>
<tr>
<th>Tree age (Years)</th>
<th>Applications per year</th>
<th>Lbs of Nitrogen per tree/Year</th>
<th>6-6-6</th>
<th>8-8-8</th>
<th>10-10-10</th>
<th>13-13-13</th>
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</table>

General fertilizer recommendations for citrus are listed in Table 1. A good rule of thumb is to spread the fertilizer in a 2 foot band around the drip line. Fertilizer near or in contact with the truck should be avoided. As part of a complete fertilization plan a complete fertilizer with trace elements, or a foliar fertilizer spray is recommended specifically for plants with deficiency symptoms in poor sandy soils.

Use of Fertilizers to Enhance Pine Straw Production

Pat Minogue, Ph.D.
Forestry Extension Specialist
North Florida Research and Education Center,
Quincy
pminogue@ufl.edu

The sale of pine straw has grown to be as economically important as pine pulpwood in Florida, and fertilization to enhance pine straw production is generally a good investment. Early spring is the best time to apply fertilizers in pine stands to enhance tree growth and more commonly now, to increase pine straw production. Prior to fertilization a soil test should be made to identify inherent fertility and nutrient needs. Growers typically apply 150 to 200 pounds of nitrogen (N), 50 pounds of phosphorus (P), and 50-80 pounds of potassium (K) per acre using mineral fertilizers such as diammonium phosphate (N+P), ammonium nitrate and urea (N), triple super phosphate and ground rock phosphate (P), and muriate of potash or potassium sulfate (K) (Morris et al. 1992).

Nutrient use efficiencies for fertilization of southern pines are typically about 50%, but are expected to be less on sandy, excessively drained sites which do not
hold nutrients well. Water deficits generally limit pine productivity and responses to fertilizers on excessively drained soils like those of the Florida Sand Ridge (Jokela and Long 2000). Additionally, when fertilizing these soils the potential for leaching and groundwater contamination is a concern. Morris and Jokela provide specific fertilization recommendations for old field or cutover sites, different stand ages, raking frequencies, and various site types, but they do not recommend fertilization for Sandhill sites characterized by soils with sandy surface horizons greater than 40 inches deep without fine textured subsoils.

Pine straw plays an important role in supplying nutrients and each year a large portion of the nutrients absorbed by trees is returned to the soil via pine needles. There are concerns that its removal can have detrimental effects on tree growth. Nutrients can be replaced by fertilization, but pine straw also has an important effect on soil moisture, improves water infiltration and reduces evaporative water loss from the soil in much the same way as it does when used in ornamental applications as mulch. As these needles decompose they provide nutrients for uptake by tree roots and thus, are a part of the nutrient cycle in forest stands. Decomposing pine needles add to soil organic matter and thus improve nutrient availability and soil water holding capacity. Removing pine straw can increase tree water stress on dry sites and can also increase soil bulk density.

In the Sand Ridge region silvicultural practices should strive to maintain soil organic matter, thus providing better soil moisture availability and tree nutrition. Pine litter also protects the soil from erosion, improves water infiltration, insulates against rapid temperature changes, and provides habitat for some animals. Because of these important benefits of pine litter in the forest, it is recommended that pine straw should not be removed more than five times during the stand’s life.


Cogongrass Identification and Control

We’ve all probably seen it, but do we really know how bad a weed cogongrass really is? Cogongrass (*Imperata cylindrica* (L.) Beauv.) is one of the top 10 worst weeds of the world. A native of Japan, it was introduced as packing material, forage, and soil conservation in the early 1900s and has quickly spread throughout the Southeast.

The weed is easily identified, especially during this time of year when it is forming creamy white, wispy-looking seed heads. These seed heads are often described as featherlike and the seeds are easily dispersed by wind, animals, and farm machinery. The leaves of cogongrass are very distinctive— the midvein is off-center, and the margins of the leaf are sharp when one runs a finger down the side. Cogongrass has a light green hue and is discernible because it usually grows in colonies. The plant is propagated by rhizomes, broken pieces of rhizomes, and by seed.

Note the offset midrib in the cogongrass leaf.

Now that we can recognize cogongrass, how can it be destroyed? For many, one method may not work totally so an integrated pest management approach will be necessary.

**Fire** can be used to reduce above-ground vegetation, but managers must be prepared to return to the colony and treat new growth with herbicides. *Caution*: When using fire on cogongrass— it burns very hot, and the rhizomes are tolerant of the fire. If you have cogongrass in a pine stand, contact your local county forester before burning.

**Mowing** can be used to reduce the above-ground vegetation, but chemical treatment be necessary for eradication. *Caution*: Mowing can move the seedheads to other parts of your property. Be wary of the time of year you mow.

**Disking** the area and then planting crops can be utilized, but it may take several years, and it is best if you use a round-up ready crop in the summer so you can continue the chemical treatments on the affected area. All of these methods are much more effective if you some type of herbicide control.

Cogongrass often starts from a small clump and continues to spread by rhizomes and by seed.
Two active ingredients have proven to be useful in the fight against cogongrass: glyphosate and imazapyr. Glyphosate is the active ingredient in Roundup®Pro, Razor Pro®, or Accord®XRT II and many other products, while imazapyr is the active ingredient in Arsenal AC®, Chopper® Gen2, E-Pro® 4, or Polaris® AC. These products can be used alone or in conjunction with one of the previously mentioned methods. The best time to treat the cogongrass stand is in the early Fall (September/October) when the leaves are still green. For very dense and established colonies, a second treatment in April/May before the plants start to flower will be helpful. To treat, thoroughly wet the leaves with glyphosate (2% solution, 8 oz. of product per 3 gallon mix) or imazapyr (1% solution, 4 oz. product per 3 gallon mix), or a combination of these herbicides. Always include a surfactant to improve herbicide absorption by the cogongrass foliage. When using imazapyr or imazapyr glyphosate combinations, include 1 to 3 percent methylated seed oil (MSO) in your mixture. MSO improves herbicide uptake by plants, which is important in the management of difficult grasses such as cogongrass. Finally, if the cogongrass problem is in pines or near hardwoods, contact the local county forester or Extension agent. Young pines cannot tolerate glyphosate treatment, and hardwoods (like oak and pecan) will not tolerate imazapyr products.

This summer, when traveling around Florida, Georgia, or Alabama, you have a new way to pass the time in the car- you can pick out burgeoning stands of cogongrass. This is a sure way to keep the kids entertained. The topic of cogongrass is a sure icebreaker- you’re sure to be a hit with landowners throughout the southeast now.

Pearl Millet Can Boost Summer Forage Production

Jed Dillard
IFAS Extension Livestock Agent
Jefferson County
dillardjed@ufl.edu

No matter how wonderful spring is, there always seems to be a forage gap somewhere. Warm season perennial grasses that get off to a slow start due to dry or cool weather can be slow to recover, and feeding hay to save pastures can be an expensive and frustrating proposition. High yielding, fast starting pearl millet allows producers to fill these gaps. The forage yields from 2.5 to 5 tons per acre and responds particularly well to rotational grazing.

There are several other summer annual grasses including foxtail and browntop millet, forage sorghum, sudan grass, and sorghum-sudan grass hybrids. All perform well on drier soils, can establish rapidly and provide high yields. However, sorghum, sudan and their hybrids present a higher risk of prussic acid poisoning in cattle, according to University of Florida forage specialists. These species cause cystitis in horses and foxtail millet can cause digestive, kidney and bone diseases in horses. Pearl millet has a much lower of prussic acid poisoning compared to the sorghum and sudan species.

Although pearl millet has a much lower risk of prussic acid poisoning, it can accumulate nitrates and cause nitrate poisoning. Nitrate accumulation is most likely to occur in drought stressed plants that have been highly fertilized. Accordingly, producers are encouraged to withhold grazing after nitrogen fertilization until there has been adequate precipitation to produce growth in the forage.
Management Considerations

**Planting** - Pearl millet is adapted to well drained sandy loam soils with a pH of 5.5 to 7.0. Plantings may be made in North Florida from April through June. Seeding depth should be 0.25 to 0.50 inch and the recommended seeding rate is 12 to 15 pounds per acre in rows or 30 to 40 pounds per acre broadcast. Seed costs are currently around $0.70 per pound which gives a seed cost per acre of from $8.40 to $28.00 per acre. Blocking every other seed delivery spout of a conventional grain drill allows a lower seeding rate and takes advantage of millets’ natural tendency to tiller. Millet can use up to 150 units of nitrogen; if the total N applied is greater than 50 units per acre, split applications are recommended.

**Grazing** - Like all forages, pearl millet should be kept in the vegetative state to provide optimum quality. Because of its rapid growth, rotational grazing is highly recommended. If large acreage is needed, staggered plantings will help manage the crop across the grazing period. Grazing can begin when the plant reaches a height of fourteen to twenty-four inches and should be grazed to a six to eight inch stubble in one to three days. Plants should be allowed to return to a fourteen to twenty-four inch height before being regrazed. Temporary electric fencing is the most effective way to provide this intensity of grazing management.

**Pests** – Monitor pearl millet for army worms and chinch bugs!

If you have further questions about pearl millet and its suitability for your operation, contact your UF/IFAS extension agent.

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**AgriVine**
*Items of Interest, Calendar of Events, CEU Opportunities & More*

**Florida Small Farms and Alternative Enterprises Conference**

**August 1 & 2, 2009**

"Sustaining Small Farms; Strengthening Florida’s Communities"

**Osceola Heritage Park, Kissimmee Florida**

The vast majority of Florida’s nearly 47,463 farms are classified as small farms. Calculated on an area or on an economic basis, nearly 90% of all Florida farms are small farms. Recent increased efforts to meet the educational needs of small farmers in Florida became visible through the work of the University of Florida/IFAS and Florida A&M University Small Farms Focus Team. Efforts have included the development of an extensive website specifically targeted at small farmer needs. The site (http://smallfarms.ifas.ufl.edu) receives over 70,000 hits monthly and includes a calendar of small farms events. A series of regional small farms conferences were initiated in 2006. At least a dozen regional conferences are held annually and in addition, many other county or local programs are being held now. These programs are being attended by a few thousand people annually. Topics presented at this year’s conference will be about Alternative Energy, Business & Marketing, Horticulture, Livestock, Organic & Sustainable Farming, and Policy & Regulations. For more details please visit http://smallfarms.ifas.ufl.edu/floridasmallfarmsconference/index.htm#Intro, or call Mandy Stage, Conference Coordinator, at 352-392-5930.
Rooted in Ancient Mythology

From http://en.wikipedia.org/wiki/Main_Page

The word cereals derive from Ceres. In Roman mythology, Ceres is the goddess of growing plants (particularly cereals). Ceres was worshipped in Ancient Roman religion. Statues of Ceres top the domes of the Missouri State Capitol and the Vermont State House serving as a reminder of the importance of agriculture in the states' economies and histories. There is also a statue of her on top of the Chicago Board of Trade Building, which conducts trading in agricultural commodities.

Works of art depicted Ceres conventionally with a scepter, a basket of flowers and fruit, and a garland made of wheat, barley, or some other old world food grain. Ceres had twelve helpers who were in charge of specific aspects of farming: "Vervactor who turns fallow land, Reparator who prepares fallow land, Imporcitor who plows with wide furrows," "Insitor who sowed, Obarator who plowed the surface, Occator who harrowed, Sarritor who weeded, Subruncinator who thinned out, Messor who harvested, Conuector who carted, Conditor who stored, and Promitor who distributed."

Florida Farmlink

From http://www.floridafarmlink.org/

Launched on May 13, 2008, Florida Farmlink is designed to work for anyone connected with the local food system. In this website you can post anything related to local food and also search postings. Florida Farmlink was developed by Florida West Coast Rural Conservation & Development (RC&D) in response to the need for networking within the local food system. The site is designed to be a tool for local businesses and consumers to connect and grow and eat more local food. This also strengthens the area economy through food-related commerce.

What can you do on Florida FarmLink?

- Find a grower to farm a piece of your land? Post in Land category
- Want a local farmer to grow specifically for your restaurant or store? Post under Growing
- Offer your agricultural land for sale or lease? Post in Land category
- Looking for job opportunities in local agriculture? Post your listing in Jobs
- Want to find workers? Post your job openings here – for free, under Jobs!
- Want to be in a community-supported agriculture (CSA) in your area? Local Food section!
- Searching for services tailored to your needs as a grower – Find them in Services & Suppliers
- Ready to advertise yourself as a resource to growers, restaurants, and the local food community? Post here under Services & Suppliers
- Want to sell your produce through on-linemarkets or make sure customers know you are a source for locally-grown food? Check the Connections for resources

This Farm CARES - County Alliance for Responsible Environmental Stewardship (CARES), Florida Farm Bureau

From http://www.thisfarm\ich\af0\dbc\af31501\loch\f0\cares.org/

The CARES program was implemented in 2001 to promote environmentally sound and economically viable farming. It focuses on recognizing producers who have voluntarily implemented BMPs on their operations. CARES was first introduced in conjunction with the Suwannee River Partnership and later extended into the Santa Fe River Basin. Florida Farm Bureau is develop-
ing similar CARES initiatives in other areas of the state where it is important that agricultural producers are positively recognized for their environmental stewardship. It also serves as a public relations tool demonstrating to the public that the agriculture industry is actively involved in utilizing sound environmental management. CARES brings agricultural associations, public agencies, institutions and farmers together to increase environmental awareness. CARES is a county-based program open to all farmers. It is completely voluntary and industry participation may help avoid more stringent regulation. Florida Farm Bureau believes that this program will demonstrate that voluntary BMP programs are an effective means of improving water quality.

What CARES Can Do For You

• Protect your land while maintaining your profits.
• Document positive environmental practices on your farm.
• Reduce your input expenses.
• Protect ground water from contamination.
• Give you access to financial and technical assistance.
• Improve relations among farmers, your neighbors and communities.
• Enhance wildlife habitats.

For more information about the CARES Program, please contact Andrew Walmsley, Environmental Services Coordinator, at 352-378-8100 ext. 1108

Southern Pine Beetle Prevention Cost-Share Program To Accept New Applications

Tallahassee -- Florida Agriculture and Consumer Services Commissioner Charles H. Bronson today announced that the department’s Division of Forestry is reoffering the Southern Pine Beetle Prevention Cost-Share Program to eligible non-industrial private forest landowners.

The sign-up period will run from July 1, 2009 through August 12, 2009.

The goal of the program is to minimize southern pine beetle damage in Florida by helping forest landowners reduce the susceptibility of their pine stands to this destructive insect pest.

Periodic southern pine beetle outbreaks in Florida have resulted in millions of cubic feet of pine timber killed on thousands of acres. Forest management practices -- such as thinning, prescribed burning, other competition control, and use of less-susceptible pine species -- can improve the health of pine stands and decrease the likelihood of developing southern pine beetle infestations.

The program offers partial cost reimbursement for pre-commercial thinning, prescribed burning, planting longleaf pine, and mechanical underbrush treatments, and an incentive payment for landowners who conduct a first pulpwood thinning.

The program is limited to 44 northern Florida counties located within the range of the southern pine beetle.

Qualified landowners may apply for no more than two approved practices per year. The minimum tract size requirement is 10 acres and funding requests may not exceed $10,000.

Application forms and more information on program requirements and procedures can be obtained from a local Division of Forestry office or visit http://www.fl-dof.com to obtain application materials and contact information for county forester offices. All qualifying applications received during the sign up period will be evaluated and ranked for funding approval. The program is
supported through temporary grants from the USDA Forest Service and limited funding is available.

**USDA FARM SERVICE AGENCY NEWS:**

*For more information about any of below, visit your local FSA office, or visit us online.*


**DCP Sign-up Extended**

Sign-up for the 2009 Direct and Counter-cyclical Payment (DCP) Program continues until **August 14, 2009**. The August 14, 2009 deadline is mandatory for all participants. FSA will not accept any late-filed applications.

FSA computes DCP Program payments using base acres and payment yields established for each farm. Eligible producers receive direct payments at rates established by statute regardless of market prices. For 2009, you may request to receive advance direct payments based on 22 percent of the direct payment for each commodity associated with the farm. FSA began to issue advance direct payments in December 2008. Counter-cyclical payment rates vary depending on market prices and are issued only when the effective price for a commodity is statutorily set below its target.

Producers eligible for the DCP Program are also able to enroll in the Average Crop Revenue Election (ACRE) Program or the Counter-cyclical Program. The enrollment period for the ACRE Program will begin April 27, 2009. You may first enroll in the DCP Program, receive advance direct payments and then later modify your enrollment to the ACRE program or you may wait and elect to enroll in DCP and ACRE at the same time in spring 2009.

**2009 Crop Wheat National Average Loan Rates by Class Notice LP-2120:**

The 2009 crop wheat loan availability date began April 1, 2009. The CCC will determine and publish an average posted county price (PCP) based on average market prices during the preceding 30 calendar days. For wheat, the method will reflect a 30 calendar-day moving average of all terminal market prices for the specific class, adjusted by the difference between the applicable national average loan rate by class and county loan rate by class.

The following table shows the 2009 national average loan rates for wheat by class.

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<th>Wheat Class 2009</th>
<th>National Average Loan Rate (per Bushel)</th>
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<tr>
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<tr>
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**The University of Florida IFAS Extension Needs You!**

The University of Florida IFAS Extension works towards agricultural, environmental, and economic sustainability in our rapidly growing state and communities.

We accomplish this through research-based educational programs, publications, and opportunities provided to you locally.

Please consider donating to the UF IFAS County Extension office in your county. Your monetary gift is greatly appreciated, and will be used to continue our efforts at providing information and education you want and need.

To find out more about making donations and endowments to University of Florida IFAS Extension, please contact your County Extension Agents listed below, or Joe Mandernach, IFAS Development Office, at 352-392-5457, jmandern@ufl.edu.

**Thank You!**