This newsletter is intended for people interested in commercial fruit and vegetable production, business planning and North Carolina Cooperative Extension Service meetings throughout North Carolina. For back issues of this newsletter please go to the Jones County Extension website and click on the Commercial Horticulture, Nursery & Turf menu option on the left side of the website. The website address is: http://jones.ces.ncsu.edu

**Upcoming Workshops, Tours & Meetings**

**January 9-10, 2006. 40th NC Blueberry Council, Inc.** This conference offers numerous blueberry production and marketing learning opportunities for blueberry producers or those who are considering adding this crop to your operation. Location is the Sampson Agri-Expo Center, Clinton, NC. Contact Bill Cline at (910) 675-2314 for more information.

**January 18, 2006. Tobacco Grower Meeting.** Jones County Civic Center. 10 AM – 2 PM. Lunch included. Pesticide Credits applied for. Morning program will include tobacco topics, immigration issues and alternative crop options. Contact Mark Seitz or Franky Howard at (252) 448-9621 for more information.

**January 27, 2006. RAIF Producer Grant Application Deadline! $10,000 Grants Available to Growers Affected by Tobacco Buyout.**


**February 2, 2007. AgriCultural Tourism Conference.** Duplin County Extension Center. 8:30 AM – 3:30 PM. Kenansville, NC. (910) 296-2143.

**March 2, 2007. Northern Piedmont Specialty Crops School.** Person County Cooperative Extension Center. Call Carl Cantalupei in the Person County Extension office at (336) 599-1195 for more information.
General Information

Muscadine Grape Production Opportunity:

Reminder: Dole Foods in Kannapolis, NC is interested in speaking to growers who are considering producing fresh market muscadine grapes. Dole has specific fresh market varieties they are looking for. If you are interested in such a venture please contact Peter Gilmore at Dole Foods at (704) 273-1195 for more information.

Business Planning & Management

FACT in Jones County

As of December 1, 2006, only four people have expressed an interest in FACT computer training. This training is FREE (yes that is right – FREE!!) to small farmers! You do NOT have to be in Jones County to attend! When a class is formed it will be held at the branch campus of Lenoir Community College in Trenton. If you are concerned about whether you are a ‘small farmer’ the USDA defines a small farm as “any farm making more than $1,000 per year but less than $250,000 per year”. If you exceed that income level by a few dollars, we can work around it – just sign up!

Once again, classes are free of charge and will begin as soon as a minimum of six people register. You can get more details about this program at the Jones County Extension, LCC – Jones County, or refer to the November 2006 issue of this newsletter.

Grant Opportunities

It is the time of year to be planning your crop options and developing your business plans for 2007 and the never ending question that reaches my desk as once again surfaced… “Where can I get some grant money?”

I recently attended a grant writing program hosted by the USDA office in Raleigh that was designed to show farmers how to apply for USDA grants. This was a very good workshop and I want to share with you some of the comments that came out of that workshop.

First let me say this, believe it or not there is grant money available. But (yes, that word always pops up) as I tell everyone who asks this question, “If you want to play in someone else’s sandbox, you have to be willing to play by their rules!”

USDA has two grant programs that all farmers are eligible for that is funded as part of the 2002 Farm Bill. The two programs are the USDA Value-Added Producer Grant Program (VAPG) and the USDA Section 9006 Renewable Energy and Energy Efficiency Program funds.

According to the US Federal Register there is “$19.475 million available in the VAPG program to help independent producers enter into value-added activities. Of this amount, $1.5 million is available for applicants requesting $25,000 or less.”

The Section 9006 program offered $22.8 million in 2005 grant funds and Sen. Tom Harkin of Iowa (D) has a bill pending that will raise the level of funding for this program to somewhere between $150 and $250 million! With the Democrats now in control of Congress, there is a good chance there will be a significant increase in funds available for this program. These are guaranteed loans and combination grants/loans designed to help agricultural producers and rural small businesses purchase and install renewable energy systems and make energy efficiency improvements in rural areas.

There are distinct differences between these programs both in focus and in the way the funds are paid out. These differences are clearly (as mud?) spelled out in the Federal Register, but in order to be eligible you and your project have to follow the guidelines. In order to be eligible you and your project have to follow the guidelines. In order to be eligible you and your project have to follow the guidelines.
OK. I can already hear (and have already heard) the question, “That’s great information Mark.

How do I get grant money?” Remember what I said earlier? “If you want to play in someone else’s sandbox, you have to play by their rules!” Well the announcement for the VAPG in the US Federal Register is ONLY eleven pages long – does that tell you anything?

The point of all this is that there is a lot of federal grant money available from USDA to help you pay for projects that you want to do on your farms. USDA wants to give away this money! In 2005, 381 applications ‘made the cut’ and 169 were funded. In 2006, 443 applications ‘made the cut’ and 189 were funded. That gives you nearly a fifty percent chance (better than the NC lottery) of getting grant money provided you do your homework. Out of these applications only four projects were funded in NC in 2006. That sounds worse than it is because out of the 189 funded in 2006, 153 of the awards went to Nebraska!

There are a lot of people within USDA and Cooperative Extension who are willing to assist (key word ASSIST) you in going after these funds but these people (including me) do not have time to write the grant application for you. More importantly we do not know your operation in enough detail to fill out the applications and if the announcement is eleven pages long, you can be assured the application is longer! This means you, the producer or business owner, has to sit down and develop a plan, develop a budget with enough detail to convince a reviewer somewhere in the US that you deserve to play in the USDA sandbox.

I know that is probably not what you want to hear but here are a few thoughts from James Matson, professional grant writer and consultant who specializes in writing USDA grants, which came out of the meeting I attended. Hopefully some of his thoughts will help convince you that it is worth your time and effort to dive into this venture.

• “Grants are reviewed for technical merit

• Don’t count on political clout... there is always someone out there with more
• Make sure you and your project are eligible (meet the criteria) for the grant you are applying for
• CAREFULLY follow the instructions
• Grants are NOT free money – you have to play by someone else’s rules to get their money
• In 2005 80% of VAPG and 85% of 9006 eligible applications were funded – key word eligible!
  o Eligible = followed the rules, met application criteria, no misspelled words, met application deadlines, etc.
• Get a list of previously funded grants and see if your idea looks like it will fit the program.
• Turn in the grant early
• Sign all the forms, number all pages, make sure your budgets add up, keep an extra copy, have three or four people review your application
• Use the template outline available on the USDA website – kind of like using Cliff’s Notes or the files at the fraternity/sorority house that has all the old exams and term papers... in this case it is legal!
• Make sure you explain what your business is... if reviewers cannot CLEARLY understand your business from your description your application will not score well
• Follow the 4 W’s:
  o Who are you?
  o What are you proposing?
  o Why should you be funded?
  o What are you going to do with the money (project time line)?
• Understand the grant program
• Say what you are going to do
• CAREFULLY follow instructions
• Follow the KISS rule: Keep it Simple S...

The application deadline for the VAPG program is most likely going to be mid-April 2007 and for the Section 9006 program mid-May 2007. Considering the amount of detail necessary to fill
out these applications, it might be tough to meet the 2007 deadline but there is still time if you start now!

Is this too much to think about or to take on just to get grant money? Maybe. However, keep in mind you have already paid for this grant money when you pay your taxes so why not get some of it back?

I have a notebook full of information on these programs from the meeting I attended. I also have information regarding the Rural Advancement Foundation Institute (RAFI) grant program (application deadline – January 27, 2007) which I have told you about this year and in previous years. I would be happy to sit down with you to talk about your eligibility for these grants.

If you have a project in mind and want some assistance in deciding how or if it can be developed into a proposal, give me or any other County Extension agent a call. Again, we can ASSIST but we do not have time to write your grant for you. Even if you do not think you have time to get an application filled out before April 2007, it is never too early to start working on your 2008 proposal. With $250 million in funding up for grabs why not go after it?

Marketing…

Have you heard enough about marketing yet? I suspect you may think that but remember the markets and customers you are pursuing change constantly. Therefore thinking about marketing and your marketing plan should be an on-going, never-ending process.

As a producer and marketer you must always look for new ideas and new ways to send the same message about your product or service to your customers. What is it that you truly offer your customers? Is it sweet potatoes or locally grown, high in Vitamin A, diabetic-diet friendly sweet potatoes? Do you offer collards or locally grown, rich in Vitamin C, fresh cut collards? If you consider the advertising that goes on during the Super Bowl each year, the ads constantly change and the companies that pay for those ads are always looking for that next home run advertisement. Collards and sweet potatoes may not ever generate enough income to pay for a $300 million, 30 second Super Bowl ad but you should think about your advertising the same way.

Your marketing approach should be no different than a Super Bowl advertiser, regardless of the type of business you are running or the products you are selling. If you are a large commercial producer competing in the wholesale market your marketing challenge comes in the form of trying to distinguish your blueberries, sweet potatoes or collards from every other large producer. Your marketing focus might be on better packaging, more consistent deliveries, better handling or better quality to hang on to your brand identity.

If you are a roadside marketer or farmers market vendor, your challenge comes in the form of trying to establish a brand identity (your farm name) with your customers in order to convince your customers that your locally grown produce is fresher and sweeter than what they can buy from the grocery store. Finding out what that marketing ‘twist’ is that increases your sales is one of the keys to a successful marketing plan.

Crop Production

High Tunnel Greenhouses

High tunnel greenhouses are getting a lot of attention in the production of fruit and vegetable crops around the country. High tunnels are being used extensively by growers, to extend their production seasons both early and late, in places like Michigan, Pennsylvania and New York. They are being used as a way to extend a production season without adding the expense of a full scale greenhouse.

There are a number of high tunnel greenhouse designs on the market. Some are built with vertical sides that will allow farmers to utilize small tractors and tillage equipment. Most are 40 feet by 100 feet in length. These straight sided high tunnels (Figure 3) allow the tractor driver to avoid the curved frames of a traditional
greenhouse frame and the cost varies depending on the design, size and manufacturer.

In eastern NC a typical greenhouse frame is the Quonset hut shape. Most are set for production of tobacco plugs in float beds and other small seeded crops such as cabbage and collards. This is a highly effective production method but is not as effective for growing other vegetable crops. The root structures of many vegetable crops are not suited for transplanting or they cannot tolerate the chemical salts that build up in the water of the float bed.

Figure 1. High tunnel greenhouse. Early season sweet corn. L& W Gardens, Onslow County. 2004. Photo by Mark Seitz. With permission from Larry Kent.

As tobacco production volumes change so do the opportunities to put the unused tobacco float-bed greenhouse to use as high tunnels. While the sides are not vertical, they still offer a protective shell that can be an effective tool for fall and winter vegetable production. There are a number of unused greenhouses, such as those in Figures 1 & 2, scattered around eastern NC. The Center for Environmental Farming Systems (CEFS) in Goldsboro, NC, currently has two high tunnel greenhouses and will be adding two more this winter to develop more precise production guidelines using these high tunnel greenhouses in eastern NC. At this time the research and production data that is available comes mainly from Pennsylvania State University but NCSU will be working on this in the coming years to better assist those of you interested in trying this method of production.

Figure 2. High tunnel greenhouse. L&W Gardens, Onslow County. Second crop - pumpkin. August 2004. Photo by Mark Seitz, with permission from Larry Kent.

The high-tunnel in Figures 1, 2 and 3 are based on the Quonset hut greenhouse design. The frames of both types are designed to be mobile. The raised beds in Figures 1 & 2 were formed down the length of high tunnel to allow for drainage in case of heavy rains. Manure was applied to each bed to enhance the soil organic matter and fertility and in the winter the ends are enclosed with 2” x 4” plastic covered frames to trap the daytime heat. While the high tunnel in Figures 1 & 2 is fixed in place, some structures can be designed to be moved every two or three years to new ground for crop rotation or soil fumigation purposes.

In southeast North Carolina the advantage of these high tunnels is the frost protection they offer in late fall and spring that will allow you to extend your vegetable production season. The high temperatures of July and August make vegetable production virtually impossible to sustain. However, high tunnels allow you to ‘flip’ your growing season and work in the cooler months rather than battling the insects, diseases, heat and humidity of mid-summer.
There are numerous examples of the value of high tunnels. An article in the *Detroit Free Press* highlights a grower who built a 30’X100’ high tunnel to produce vegetables for personal consumption and for sales at a nearby farmers market. This grower generated over $10,000 on less than 0.1 acres of land, the equivalent of $145,000 per acre. While $145,000 in gross income may not be achievable, it demonstrates that productive potential of even a small plot of land. Another key point from this story is that this grower covered the $8,000 cost of the tunnel, provided fresh produce for his family and supplied a local farm market with produce in one year of production.

This productive capacity came from a climate much colder than eastern NC, suggesting high tunnels are a perfect fit for eastern NC’s relatively warm climate. The best way to utilize a high tunnel greenhouse is to plan on growing cool season fruit and vegetable crops under these canopies in late fall and early spring. Crops such as collards, beets, carrots, onions, lettuce, garden peas and other cool weather crops are the best suited for this. The high tunnel allows you to protect your crop from frost without having to pay for significant heat bills or worry about ethylene gas build up from poorly operating furnaces.

In extremely cold weather additional row covers can be put used to create a microclimate around the leaf canopy. Row covers will enhance the amount of radiant heat that is trapped as it leaves the soil surface at night. Data collected in 2004 in the high tunnel in Figures 2 and 3 indicated that soil temperatures rarely dropped below 45°F, even when air temperatures dropped below 25°F.

In late November and December and even January in most years, the average daytime temperature in eastern NC is 50°F. When properly enclosed on bright, sunny days, the high tunnel will trap enough solar energy to raise the air temperature inside the high tunnel as much as 20°F to 30°F. This heat will remain well into the evening and promote the growth of these cool weather vegetables.

There are many other management challenges associated with high tunnels and other greenhouse production techniques. To save you some time reading and me doing additional research I will stop with these references.

If you have questions about using high tunnel greenhouses for late season production I encourage you to attend the High-Tunnel Greenhouse session at the 2006 Vegetable Growers Association Conference in Myrtle Beach, SC on December 13-14, 2006 to get more information.

**Blackberry Crop Budgets**

Drs. Gina Fernandez & Charles Safley have recently completed crop production budgets for blackberry production in North Carolina. These budgets are based on someone interested in producing blackberries at a commercial level. In spite of this growers interested in planting blackberries on a small scale can use these budgets as a guide for estimating the cost to produce blackberries. The budgets can be found on the Internet at the following website: [http://www.ncsu.edu/project/berries/extension/extension.html](http://www.ncsu.edu/project/berries/extension/extension.html)

Blackberries are becoming a popular crop for roadside markets and there is an increasing interest in blackberries for processing. Blackberries do grow in eastern NC but their
longevity may be less than blackberries grown in the Piedmont or mountain region of NC because of the heat and humidity in eastern NC.

**Strawberries**

I picked up a number of tips about strawberry production at the NC Strawberry Association Conference at Sunset Beach, NC on November 9-11, 2006. For growers who attended this conference or who are experienced in strawberry producers hopefully this information will be a good reminder for you. For those new to the business or interested in starting, hopefully these tips provide some insight to keep in mind as you move into the winter season and prepare for blossom and harvest season this spring.

These comments are based on notes taken during a session with Dr. Barclay Poling at NCSU.

- Do not give up on overhead irrigation as a frost protection tool. Growers thinking that overhead is no longer necessary with the use of row covers may lose the capability to manage frost during severe freeze events.
- Overhead irrigation offers opportunities to provide evaporative cooling during high temperature events in January and February. Such events may occur at a time when the strawberry plants are not as hardy or tolerant to hot weather after an extended period of cold weather. Evaporative cooling can minimize the impact these warm spells have on the overall health of the plant.
- Frost/freeze damage can occur in temperatures as high as 30°F. Tests done in cold chambers indicate frost crystals formed at 30°F can lead to cell damage in the blossoms that will result in misshaped fruit.
- Methyl iodide has received EUP (experimental use permit) status from EPA for 2007. This will allow commercial field trials of this product as a potential replacement for methyl bromide. Preliminary tests indicate methyl iodide will be as effective as methyl bromide in controlling weeds, diseases and insects in the soil.

**Final Thoughts for 2006…**

I wanted to close this 2006 newsletter with a brief **Thank You** to all of you I have worked with this year. Every year has its ups and downs and 2006 was no different. I was blessed with the opportunity to travel to Ohio, Vermont, Washington, DC, Wilmington and Sunset Beach, NC, to attend conferences, and I hope that I have done a reasonably good job of relaying information I picked up from those trips.

I have tried to keep you posted when I schedule or hear about field trips, educational meetings and conferences that you can participate in. I hope they have met your needs and interests in 2006. If not, I hope you pick up the phone or send me an email note to let me know what kind of assistance you want. That is what I am here for.

All in all, it has been interesting, educational, rewarding and most of all, fun year to be with NC Cooperative Extension. I work with an incredibly talented group of Extension agents in my four assigned counties, as well as throughout southeast NC and across the state. This gives me and you access to all kinds of knowledge, that we can all take advantage of. I enjoy working with all of you, and look forward to the challenges I already know about, and those that I expect will be new and different in 2007. Thank you all again for making my job so much fun, and have a Merry Christmas!

If you have questions about any of the upcoming meetings, business strategies, or crop production management issues, please call me at the Jones County Extension Center at (252) 448-9621. I can also be reached by email at: Mark_Seitz@ncsu.edu.

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