April 1, 2007

**Commercial Horticulture:**
*Future Cooperative Extension Programs, Business Planning and Crop Production Issues & Alternative Crops*

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**

**April 4, 2007 - The Effective Use of Plasticulture and Drip Irrigation for Small Farms Workshop.** 9 AM – 12:30 PM. Center for Environmental Farming Systems (CEFS), Goldsboro, NC. Contact Dr. Keith Baldwin at (919) 513-0954 for more information.


**April 12-13, 2007 - Developing a New Food Business Workshop.** Lenoir County Extension Center, Kinston, NC. 8:30 AM – 3 PM. Contact Tammy Kelly at (252) 527-2191 to register, and to get more information.

**April 16, 2007 - Backyard Organic Gardening.** 6 PM – 8 PM. CEFS, Goldsboro, NC. Contact Ken Fager at (919) 513-0954 for more information.

**April 21, 2007 - Onslow County Farmers Market Season Opening.**

**June 9, 2007 - Onslow County Farmers Market 2007 Grand Opening.** The NCDA ‘Big Cart’ and the 2007 NC Watermelon Queen Stephanie McLamb will attend. Call Larry Kent, Onslow County Farmers Market Manager at (910) 340-0009 for more information.

**June 23, 2007 - 4th Annual NC Blueberry Festival.** Burgaw, NC. Contact Wayne Batten, Pender County Cooperative Extension Center at
June 27, 2007 - Southeast Cooperative Extension Region 4-H District Activity Day at Jones Senior High School. Volunteers are needed to help organize and move 400+ kids from room to room as they give talks about projects they are working on. Call Erin Morgan at the Jones County Extension office at (252) 448-9621, or any other area Cooperative Extension office in southeast NC, for more information.

General Information
Farmers Markets
New Bern Farmers Market opened March 17, 2007, and is doing well.

The Onslow County Farmers Markets opens on April 21, 2007. Sale days are Tuesday and Saturday from 9 AM to 3 PM.

The Kinston Farmers Market is open Monday – Saturday all year when produce is available.

Stop by and support the vendors at all these markets. If you are interested in selling at any of these markets contact me and I will help you get in touch with the people that handle the day-to-day activities.

Business Planning & Management
Customers: What do they buy? What do they want?

Everyone receiving this newsletter is involved in the food business in some way. You are either farming, selling or managing markets in the area. For this reason knowing what products consumers want and in the form they want it is a critical piece of knowledge for your business or market.

There are many ways to gather consumer information. You can conduct primary research – research your do yourself through personal conversations or by surveying customers. Or you can rely on secondary research which is data collected by someone else. The Internet is a fantastic source of secondary data available at your fingertips. Everything from retail grocery sales data to demographic data can be found online.

One source of secondary consumer information is available to you through the Food Marketing Institute (FMI) website: www.fmi.org (greater access is available if you are a member). FMI represents retail grocers across the US and collects market data from thousands of consumers every day. This data is collected every time you use a customer discount card. With every use a computer records demographic data about you and what you purchased. This data is then tabulated and analyzed to categorize what consumers are buying.

While most roadside marketers cannot compete with the volume sold by large retail grocers, take advantage of the data they collect. The amount of information available is limited unless you are an FMI member but there is a fair amount available to the public that is available.

Mid-Atlantic Direct Marketing Conference

In February 2007 I traveled to Solomons, Maryland to attend the Mid-Atlantic Direct Marketing Conference. This conference focused on agritourism, farmers markets and roadside marketers. There were two sessions that I thought were very interesting and I wanted to share some of it with you. One was led by Odonna Mathews; President, Odonna Mathews Consulting. Mrs. Mathews has been in the retail food industry for over 30 years and served as the marketing director for Giant Foods. Today she is president of her own consulting business. I wanted to share Mrs. Mathew’s comments and thoughts with you with the hope you might find something of value out of them.

Odonna Matthew’s comments:

✦ Do you do customer surveys? It does not matter if you are selling retail or wholesale – knowing what your customer’s perception
Listen to your customers. Why? Because they pay the bills, it shows you care, it helps you provide them with the products they want.

**Ask questions!** This helps you generate new ideas and it makes the customer feel important.

**Follow up.** After listening to your customers comments let them know what you CAN do and then take the appropriate action to make it happen.

**Word of mouth.** This is THE single most influential and cost-effective marketing tool you have.

**91% of customers recommend their supermarket to other people!** You need to be sure your roadside market or farmers market or your wholesale business is the one your customers are talking about. What have you done lately for your customers to keep them talking about you?

**Know how much your average customer spends each time they visit your market.** Is this average $15 per visit? $20 per visit? $50 per visit? Communicate this to all of your employees so they understand the financial importance of every single customer that visits your business.

**Businesses lose 15%-20% of their customers annually.** If you have 1,000 customers each year, one upset or angry customer can cost you as many as 200 customers. If their value to your business is $20 per person, can you replace $4,000 in income?

**73% of consumers say signs pointing to nutritional information helped them make a decision to purchase that product!** Seventy three percent!? Does that tell you what information should be on the signs in your market?

**28% of all consumers buy produce from a local farm stand.** How many customers do this in your county? Do you know? Do consumers know where you are? Do you have maps available to your market or sales location? Do you have directions printed on your register tapes? Are your name, address and phone on that tape?

**15% of all consumers STOP eating a product after a food safety recall!** It does not matter if you were the producer of that crop, people will stop eating a product after hearing about food safety problems with a particular item.

**Educate your staff about food safety issues.** Educate your staff about the recent food safety recalls. Teach them what you do on your farm to prevent those problems from happening. Remember if 15 out of 100 of your customers never come back through no fault of your own, you have to find 15 to replace them; an additional 1 to surpass last year; 3 to keep up with inflation; 5 or more to really grow your business!

**Is there a flow at your checkout register?** Does your staff share the same sense of urgency at the checkout that your customers have? Remember, people in today’s world are busy and they want to feel like they are the most important person in that line! They want to feel like they are the only one being served. If you are on the cell phone or working with another customer, simply take a second to acknowledge they are there. Convey to them that you will be right with them. Be polite. Be hospitable. Be responsive.

**Be informed.** Use a variety of customer service activities to help you collect information and make your customers feel good. One store gave buttons to all their employee’s that read, “I’m listening and so is… (Joe, Sue, Gene, Fred - owner/manager’s name).” This approach got customers in Giant grocery stores to stop and ask, “Who’s Joe?” Getting your customers to stop and ask a question starts a conversation and gives you a chance to ask one and find out what they want, what they like, what they don’t like.

The second session marketing session I attended at the MADMC was taught by Mr. John Berry, Pennsylvania State University Agricultural Marketing agent. Due to the length of Mrs. Matthew’s comments I will share Mr. Berry’s comments in my May 2007 newsletter.
Bottom line - there are countless methods available to get information from your customers and ways to make their visit to your farm, roadside market or farmers market, a memorable one. The biggest challenge for you pick one, use it to get information from them and then figure out what you are going to do with that information when you get it.

Sources:

Odonna Mathews, President Odonna Mathews Consulting.

Food Marketing Institute (FMI). www.fmi.org/facts_figs/superfact.htm

Crop Production

(This article was written by Dr. Tom Glasgow, Craven County Extension Director and published in his monthly Horticulture Newsletter.) It was so good, that I decided to share it with you rather than try to ‘reinvent the wheel’.

Tomato Spotted Wilt Virus Update

Extension Plant Pathologist Dr. Frank Louws recently provided several Extension agents with some good current information on Tomato Spotted Wilt Virus (TSWV) on tomatoes. Cultural practices, and cultivar selection, being the more important of the two.

First, since weeds harbor both the virus and the thrips, which move the virus around, try to reduce weed growth around fields or gardens where tomato or pepper will be planted. A recent study in North Carolina identified dandelion, annual sowthistle, chickweed, buttercup and plantain as the most important overwintering hosts for TSWV and thrips.

Attention to planting dates [as a way to reduce thrips pressure and virus transmission] may also be of some help. Dr. Louws suggests that in a normal year early planting helps avoid major problems since in most years early set plants will be more mature when typical thrips peak flights occur. Tomatoes have a ‘mature resistance’ to thrips feeding and/or TSWV infections and a lower percentage of plants will become infected if they are more mature.

Late planting also avoids the peak thrips flight and since there is little to no secondary spread within fields and gardens, late planting avoids TWSV pressure. A second planting, if the first is wiped out, or waiting until after peak thrips flights, are reasonable strategies (I’ve harvested tomatoes into the first week of November, sour our season is quite long here in Craven County).

You may have heard of the use of reflective mulch, which can confuse thrips in flight. This seems to be of some value, assuming you can locate the material.

Second, resistance… according to Dr. Louws, TSWV resistance in tomatoes is based on the SW5 gene, and in the southeast US resistance has held up so far (however, breakdown of resistance over time has been widely reported in Spain, Italy, Hawaii and other regions where SW5 has been routinely used). In a 2006 commercial production study conducted in Florida, named cultivars with good resistance included varieties such as Quincy, Amelia and Crista.

The complete results from this study can be found online at:
http://thrips.ifas.ufl.edu/thripsweb/Tomato.htm

Strawberries: Bacterial Angular Leaf Spot

The information in this section was reprinted from an email sent Thursday, March 29, 2007 by Dr. Barclay Poling. Dr. Frank Louws provided the disease identification and control information. The full version of this advisory, with color photos and the figures referenced in this article may be found at:
http://www.smallfruits.org/SRSFC_News/index.htm

Angular Leaf Spot disease of strawberry, caused by the bacterium Xanthomonas fragariae, is often confused with common leaf spot and leaf scorch diseases. Once infection is
established, little can be done until the wet cool conditions subside.

**Symptoms and Signs**

Water-soaked lesions first appear on the lower surface of the leaf, becoming angular as they enlarge and usually delineated by veins (Figure A). When conditions are very moist, lesions may exude a viscous yellow substance that is actually a mass of bacteria. Upon drying, a characteristic white film is left on the leaf surface. In time, lesions will also be visible on the upper leaf surface as irregular, reddish brown spots that may be surrounded by a yellow halo. These symptoms are difficult to distinguish from common leaf spot and leaf scorch.

One identifying characteristic is the translucent nature of lesions when leaves are held up to a bright light; looking from the backside, light will pass through the angular lesions. Entire leaves and major veins may become infected, giving the leaves a ragged appearance (Figure G). Berry caps may become infected, darkened, have angular lesions and are unappealing (Figure C). Vascular infection and wilting by _X. fragariae_ may lead to plant death, but this is not as common as leaf spot. This systemic infection may be confused with wilt of anthracnose or Phytophthora crown rot; however, crown tissue infected by _X. fragariae_ does not become discolored. Infected material will typically ooze bacterial cells when dissected and viewed under a compound microscope (Figure F).

**Disease Cycle**

_X. fragariae_ primarily enters the field via infected planting stock, and may persist in the field by over-wintering or over-summering in infected plants and dead leaves. In the Southeast, problems have not persisted from one year to the next in annual plantings due to soil inoculum. The pathogen cannot survive freely in the soil, but can survive on transplants in cold storage for one year and on plant debris through long dry periods. Bacteria become active and are splash-dispersed to healthy leaves in wet weather or with irrigation water. _X. fragariae_ favors low day (60F) and night temperatures (near freezing) and high relative humidity.

Favorable conditions for disease development occur during transplant establishment and when frost protecting. Cool wet weather during flowering and fruit formation can cause loss of fruit (Figure B & D) or lead to a discolored calyx – rendering the fruit unmarketable. Healthy plant tissues are more likely to become diseased than stressed tissues. In most cases, yield losses due to angular leaf spot are not common but may occur when severe systemic infection occurs. Losses can be substantial if a large portion of the fruit calyces are infected and unsightly.

**Control**

1. **SITE SELECTON**
   Choose a site with good air circulation and sun exposure to promote drying of foliage.

2. **USE DISEASE-FREE PLANTS**
   Use certified plant material. Be aware that infected transplants may not exhibit signs of infection until exposed to a more favorable climate, such as exists in the southern states. Resistance to angular leaf spot exists in some genotypes, yet no commercially desirable cultivars contain high levels of resistance, especially for annual production systems.

3. **MONITOR AND MANAGE**
   Control weeds to allow air to circulate freely around plants. Remove infected leaf debris by hand, raking or vacuuming. DO NOT remove infected debris if anthracnose is suspected to be present. Avoid using overhead irrigation if possible. Under serious disease conditions, ensure all strawberry debris is soil incorporated to optimize tissue break down. Rotation is not essential. A change in weather patterns from cool and wet to warm and drier results in disease decline.

4. **CHEMICAL CONTROL**
   No bactericides are labeled for use nationally against angular leaf spot. Early
application of registered copper materials prior to rapid growth may reduce disease, but fungicides are not very effective in managing angular leaf spot because the bacteria can reside within the plant tissue. Caution should be taken when using copper fungicides because accumulations can be phytotoxic. Angular (bacterial) leaf spot can be a serious problem during cool, wet conditions. Registered copper compounds provide some control of the peduncle and calyx infections. In fields with a known problem, apply copper fungicides when flowers and fruit are present and when cool wet weather is predicted. Repeat applications at 7 to 10 day intervals. Discontinue when phytotoxicity appears, usually after 4-5 applications.

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.

Mark Seitz
Extension Area Specialized Agent
Agriculture – Commercial Horticulture