UPCOMING WORKSHOPS, MEETINGS, TOURS

March 3, 2009. **Hospitality Training.** 8:30 AM – 12:30 PM. Onslow County School Lunch Program Managers. Jacksonville, NC. This is a program designed by NC Cooperative Extension to help people understand their communities, understand the importance of good customer service and how they can benefit their communities in terms of understanding how important tourism can be in their community.

March 5, 2009. **Private Applicator Safety Training.** Craven County Agriculture Building. 9:00 AM – 11:00 AM. V credits – safety. To register call the NC Cooperative Extension office in Craven County at: (252) 633-1477. Please bring your pesticide license with you to the program.

March 5, 2009. **Kinston Farmers Market Board Meeting.** 4:00 PM, at the Lenoir County Extension Center.

March 9, 2009. **New Bern Farmers Market Board Meeting.** 5:30 PM, at the law offices of Sumrell, Sugg, Carmichael, Hicks and Hart on Pollock Street, New Bern.

March 10, 2009. **Hospitality Training.** 8:30 AM – 12:30 PM. Onslow County School Lunch Program Managers. Jacksonville, NC. This is a program designed by NC Cooperative Extension to help people understand their communities, understand the importance of good customer service and how they can benefit their communities in terms of understanding how important tourism can be in their community.
March 10, 2009. **Private Pesticide Applicator Recertification Training.** Onslow County Extension office. Jacksonville, NC. 5 PM – 7 PM. V – safety and X credits are available. Bring your pesticide applicator license with you to the meeting. Call Nita at the Onslow County Extension office at (910) 455-573 to register if you are planning to attend.

March 18, 2009. **Private Pesticide Applicator Recertification Training.** Onslow County Extension office. Jacksonville, NC. 9 AM – 11 AM. V – safety and X credits are available. Bring your pesticide applicator license with you to the meeting. Call Nita at the Onslow County Extension office at (910) 455-573 to register if you are planning to attend.

March 31, 2009. **Private Pesticide Applicator Recertification Training.** Onslow County Extension office. Jacksonville, NC. 5 PM – 7 PM. V – safety and X credits are available. Bring your pesticide applicator license with you to the meeting. Call Nita at the Onslow County Extension office at (910) 455-573 to register if you are planning to attend.

**BUSINESS PLANNING**

How do I keep my cost under control? Where do I buy it?

**High Fertilizer Prices in 2009?**

If you weren’t paying attention you probably missed the incredible rate of price increases for fertilizer in 2008. While fuel prices have come down a bit this winter, do not expect fertilizer prices to follow suit. In a recently published paper by the USDA Economic Research Service titled: *Factors Contributing to the Recent Increase in US Fertilizer Prices, 2002-08*, written by USDA economist Wen-yuan Huang, they are probably going to continue to increase and here are few reasons why.

1) US fertilizer industry does not have the production capacity to keep up with the rising demand. US industry does not have the capacity to meet US demand and increasing global demand drives prices for foreign sources of fertilizers higher.

2) Natural gas – the main ingredient for ammonia fertilizer – production capacity decreased by over 40 percent between 1999 and 2008 due to high natural gas prices and reduced demand in the early 2000s. Some plants closed and US demand now exceeds domestic supply.

3) Rising energy and transportation costs. We all know what gas and diesel fuel prices did in 2008. That price increase had a major impact on fertilizer prices since transportation cost is a significant portion of the cost of fertilizer because of its bulk. When transportation costs rise, fertilizer prices follow.

4) Falling value of the US dollar. Since we now import so much of our fertilizer, if the US dollar’s value is low, it costs us more to buy fertilizer.

5) Competition in the industry. Just as in other industries, consolidation is the name of the game to survive. As fewer survivors are less standing in the market, they are less willing or able to make deals on prices.

6) Global population. More people need more food = rising demand for fertilizer in other countries = more competition and pressure on prices. With the projection of global population going toward 12 billion in the next 40-50 years, it is doubtful fertilizer prices will decline in the long run.

7) Tariffs and trade policy. As countries need more fertilizer, some governments enact tariffs on exports to keep their domestic supplies at home. Let’s hope our politicians can keep things like this to a minimum to keep the free flow of goods around the world going and keep prices low. In purely economic terms (politics aside) tariffs – no matter who imposes them – do nothing but increase cost for everyone involved.
Bottom line. In the short run USDA believes fertilizer prices will be a bit lower this spring but over the long run the factors mentioned earlier are more than likely keep pressure on suppliers and keep prices climbing.

As a fruit and vegetable grower there is little you can do to affect the cost of your fertilizers. Most of you are not farming thousands of acres and therefore are not in the market for thousands of tons of fertilizer. My recommendation to you is to negotiate as much as you can, buy in larger quantities when you can and or make purchases with a neighbor or neighbors to increase the size of your orders. Because of the bulkiness of fertilizer and the cost of transportation, fertilizer companies are more willing and able to deliver large quantities at lower prices.

So do your homework, shop around and make your fertilizer dealer your new best friend. It may pay off in the future.

CROP PRODUCTION:

**Grafting: Is It a Viable Option for You?**

Grafting was first used in Japan in the 1920s to enhance the growth of watermelon by using disease tolerant pumpkin rootstock. Grafting is defined as the process of taking the tissue of one plant and encouraging it to fuse with the tissue of another. It has captured an increasing amount of intention in high value horticulture operations around the world and has shown promise in research done at NC State University.

There are many reasons for grafting: increased yield, greater hybrid vigor, improved disease resistance in the roots or in the fruit, better color, flavor, etc. Grafted plants can also increase yield in cases where fumigation with methyl bromide is no longer available or where crop rotation options are limited.

As with traditional forms of plant breeding, grafting is not perfect. It too has limits whether due to cost or to problems with rootstock compatibility, vigor or disease resistance. However, under the right conditions and circumstances, grafting shows great potential to help tomato, pepper and cucurbit growers in eastern NC deal with the heat and humidity of July and August.

I wanted to share with you the results of a few research studies performed in the US and around the world. This is by no means an extensive literature review on the topic. The world’s horticulture research journals are full of studies done on grafted plants both in fruit and vegetable crops. Some very general, some very specific. My goal is to demonstrate that progress is being made with this technology and that in spite of the potentially higher cost of using grafted plants, it may be something worth trying in your operation.

In Florida, Cushman and Huan (2008) studied the productivity of grafted watermelon. This study showed the number of days to harvest with grafted watermelon increased compared to non-grafted plants and that the plant population for grafted plants was lower without sacrificing yield, suggesting there was greater plant vigor in the grafted plants. This study also showed that fruit firmness increased overall in grafted watermelon compared to non-grafted fruit.

In Oklahoma Taylor, et. al., (2008) looked at the value of grafted watermelon in controlling Fusarium wilt. Fusarium wilt is a disease that affects watermelon late in the life of the crop after most production expenses have been incurred. This study showed grafting was an effective way to control Fusarium wilt but that it increased production cost by $705 per acre. Growers have to decide if the additional expense of using grafted transplants merits the risk of losing an entire crop to a disease that may be avoided using grafted plants.

In the Philippines where tropical temperatures and cyclones create growing conditions for tomato farmers similar to those in eastern NC in July and August, Aganon et. al. (2002) showed grafted tomato plants combined with provisional rain
shelters have the potential for significantly increasing tomato yield.

In Spain where 90% of watermelon are grown on grafted rootstock, Armengol, et. al (2000) reported that six commonly used rootstocks had no resistance to Fusarium solani race 1, which could lead to severe crop loss in the future.

In Italy Minuto et. al., (2005) tests carried out in pots with soil artificially infected with Colletotrichum coccodes demonstrated the susceptibility to this disease of standard tomato plants and interspecific and intraspecific tomato rootstocks. These results show grafting tomatoes on resistant rootstocks cannot be considered the only practice to control soil-borne pathogens in infested soil. A variety of other options: crop rotation, variety selection, planting dates, etc. must be utilized as well.

These are just a few of the hundreds – if not thousands – of research projects published over the years. All of them demonstrate the on-going interest in this production technique. Without some knowledge of the potential benefits, along with the risks of grafting your tomatoes, watermelon or peppers or other crop, depending on your location and circumstances, you might find it difficult if not impossible to produce tomatoes and peppers competitively in the coming years.

References:


If you have questions about any of the information, 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.