



September 2008

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North Carolina Specialty Crops Program Newsletter

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Editor

Feature Farmer

***Frank Howell, Howell Farming Company,
Goldsboro, NC***



The North Carolina Specialty Crops Program (NCSCP) newsletter features a farmer each month that has benefited from the program. This month we traveled to Howell Farming Company in Goldsboro, NC and visited with Frank Howell.

Frank resides in Goldsboro with his wife of 25 years Lynette. They have two children Melissa and Garrett. The Howell farm has been in the family since the 1600's. Frank's grandfather farmed and so did his father as a young man; Frank's father started and managed Howell's Construction Company until his retirement. He had hoped Frank would take over the business someday, but Frank wanted to farm. At age 13, his father bought him a tractor and he began growing corn, soybeans and wheat on about 120 acres. After high school, Frank went to the Agricultural Institute at NC State University, helped his father in the construction business and farmed part-time. Although his father was disappointed that he did not want to take over the construction business he made the commitment to do everything he could do to help Frank become a full time farmer. "He realized my heart was in farming" said Frank. In the early 1980's Frank began raising tobacco, corn and soybeans. Later he added pickling cucumbers, banana peppers and fresh market jalapenos

Frank has been cooperating with the SCP since its initiation in 1997. He was looking for a crop to provide cash flow/ income and better utilize his labor between cucumbers and tobacco. When asked how the SCP benefited him most Frank replied "I would not be growing seedless watermelons if the NC Specialty Crops Program and Bill Jester, SCP Coordinator had not convinced me in 1997 to try them as a supplemental income crop between cucumbers and tobacco. The NC Specialty Crops Program had been testing different types of

seedless and had identified many of the superior cultivars in these tests. He started out growing several of their recommended varieties. One of these varieties TriX Shadow was a superior melon as far as quality, but it was difficult to sell because of its dark color. Some of the suggested varieties are still grown in our area."

Frank has completely replaced his tobacco acreage with about 120 acres of seedless watermelons and what was a specialty back in 1997 is now a commodity. Seedless comprise about 85 to 90 % of the industry in 2008.

"Another thing that the Specialty Crops Program did was to develop the Southeastern Growers Association to help small growers grow and market quality produce. This program helped us in many ways by developing a uniform production plan and operating manual, employing the best management and growing practices. SGA had a system for trace back in place in 1998, years ahead of most of the industry. SGA enabled small growers to do business with the large chains directly. The amazing thing is that it is still working" said Howell. When asked, do you think cooperating with the SCP has increased the quality and quantity of your produce? Frank responded, "Yes, a lot of support has come from the SCP and the program has been instrumental in helping make the decision of what varieties of seedless watermelon to grow and the best management practices that have enabled me to grow superior yields and quality"



"The NC Specialty Crops Program has made a difference in my life and the lives of other farmers in my area. Compared to some of the things the University does the program costs little and utilizes many of the resources in extension and research that are already in place. It provided a platform to integrate all the resources of the University, Dept of Ag and industry. The NC Specialty Crops Program has led the way in creating a new vision of what NC quality produce should be and will be. This has translated in to more business for NC growers." said Howell



Foothills Fresh Specialty Vegetable Project



In an effort to provide assistance to local farmers, Kevin Starr, Lincoln County Extension Director, with the help of a Specialty Crops Program Grant, has assisted four farmers in Lincoln and surrounding counties. Some of the assistance was merely providing the farmer with the seed they needed as other assistance came in the form of help covering the cost of irrigation supplies.

Starr says he would like to see more recruitment in farming, along with helping farmers learn more about

season extension and increasing diversity in what they grow.

For additional information about Foothills Fresh, you may visit their website at: <http://www.ces.ncsu.edu/lincoln/foothillsfresh/>

CULTURAL PRACTICES CAN AFFECT PUMPKIN, SQUASH, AND GOURD PRODUCTION

G. D. Hoyt and R. J. Gehl
Soil Science Department, North Carolina State University

An experiment designed to look at *Cucurbita pepo* yield and fruit quality from cultural practices commonly used in the U.S. is currently being conducted at the Mountain Horticultural Crops Research Station, Mills River. The pumpkin cultivars planted in this experiment are Magic Lantern, Field Trip, Knuckle Head, and Goose Bumps. A winter squash, Sweet Dumpling, and a gourd, Gremlins are included in this experiment. Three cultural management systems (Black plastic [no fumigation], Bare ground, and No-till) have been established to evaluate these cultivars for yield and quality at harvest. Field plots for black plastic and bare ground were plowed in May, disked, and remained idle until planting. A small grain cover was grown in the No-till treatment until immature grain heads started to form, at which time the cover crop was killed with an herbicide to desiccate the cover. This treatment also remained idle until planting.

The Black plastic treatment was established by laying black plastic on formed raised beds. Holes were punched through the plastic and seeds planted on June 25. The Bare ground treatment was disked and planted the same day as the other two treatments. The No-till treatment used a John Deere Maxi-merge no-till corn planter to establish pumpkins in that treatment. All pumpkin cultivars were planted at 18 sq. ft. per plant, while the squash and gourd plants were spaced at 9 sq. ft per plant.

Plant counts were taken at two times (5 and 10 ten days after planting) as an indicator for relative germination rates among the different treatments. Five days after planting most of the plant cultivars in the black plastic treatments had germinated, with lower counts in the bare ground and no-till. These results indicate time to germination was reduced by using black plastic mulch, likely a response to increased soil temperature. However, by 10 days after planting all cultural practices had relatively good plant germination (Table 1). Plant petioles were collected 54 days after planting and analyzed for NO₃-N to measure differences imposed by the cultural practices on nitrogen availability. Results of this analysis indicates initially greater nitrogen uptake in treatments with black plastic compared with bare ground and no-till. Field plots will be harvested in late September or early October.

When asked where he would like to see the SCP go from here he responded that he definitely wanted to see the program continue. This will enable the younger generation to explore new crops without risk. Frank has a son that may decide to take over the family farm someday and is glad there is a program that will be of help to him. Frank would also like to see more work done on other specialty crops and, production systems. We need work done on value added produce. We need more weed control research done in many of these new crops and many of the older crops. In all, Frank is very pleased with his experience as a cooperator with the NC Specialty Crops Program Specialty Crops Program.

Current Extension and Research Projects

Foothills Farmers' Market



As part of the Specialty Crops Program Grant, Greg Traywick, Cleveland County Extension Director, was able to establish the Foothills Farmers' Market in Shelby, NC.

The intent was to establish a certified locally grown market that met the needs of growers and consumers. According to Traywick, the market has been a success with most vendors doing very well in profits. Traywick hope in the future to equip the market with an EBT machine so that WIC and food stamp cards can be accepted.

In The News

Carolina Research Improving Niche Vegetables *Aug 13, 2008 8:18 AM, By Roy Roberson* *Farm Press Editorial Staff*

Moving vegetables from east to west was once a pipedream for North Carolina vegetable growers. It's still not common, but thanks to innovative research and marketing efforts from the NC Specialty Crops Program housed at the Cunningham Research Farm in Kinston, N.C., the improbable is beginning to happen.

The Specialty Crops Program is a unique cooperative project among the North Carolina Department of Agriculture, North Carolina State University and local growers. The uniqueness comes from a close working partnership among the three entities.

The first success came from development and marketing of specialty melons. Sprite melons and later canary melons have provided eastern North Carolina growers with a crop option that opens up markets to the west that have never been available to those in the area.

Sprite melons have been so successful this crop is no longer considered a niche crop. For many watermelon and cantaloupe growers in the area sprites are a commonplace crop.

In North Carolina under the "Carolina Specialties" label, the Sprite is carefully harvested, cooled, and shipped under constant quality control. Sprite melons are available in North Carolina from late June through mid-September.

The Sprite melon also has a distinct appearance in which the rind turns from cream to white with yellow mottling when ripe. The flesh is white and crisp much like an apple. The fruit will average from 1 to 1.5 pounds making it a convenient snack size for the consumer.

The melon surface will produce a few brown concentric 'sugar cracks' at the calyx (blossom end) when the fruit has a high sugar content. Sugar content in Sprite melons can reach over 18 percent, which is 25 percent to 30 percent higher than most other melons. One serving provides 150 percent of the daily value of vitamin C and has zero calories from fat.

Canary melons are sometimes known as Spanish, Juan Canary, Jaunes Canaries, and San Juan canary melons. Several varieties of these fruits have been developed at the Cunningham Research Farm.

Among many personal melons currently on the market, canary melons have bright yellow rinds and an oblong shape. Inside, the pale, cream-colored flesh is juicy, and the flavor is very mild.

In 2007, the researchers and marketing specialists with the Specialty Crops Program began a lettuce and cabbage research project that may further the opportunities of eastern North Carolina vegetable growers to ship produce to the west.

Statewide lettuce tests are centered at the Kinston facility and at the Mountain Research Station in western North Carolina. If successful, the project may offer North Carolina growers a crop that can be grown somewhere in the state nearly 12 months out of a year.

Over 30 growers recently attended the first Eastern North Carolina Lettuce Field Tour. The tour featured commercial production and an on-farm Romaine lettuce variety trial at Tull Hill Farm, Hugo, N.C.

The on-farm Romaine lettuce demonstration was supported by a North Carolina Specialty Crops Program grant. The lettuce research at the Cunningham research station in Kinston was supported by a North Carolina Golden Leaf Foundation grant.

Table 1. Percent germination after planting, 2008.

	Pumpkins					Gourd
	Magic Lantern	Field Trip	Knuckle Head	Goose Bumps	Sweet Dumpling	
FIVE DAYS						
	Percentages					
BP	81 a	99 a	73 a	88 a	89 a	79a
BG	54 b	98 a	32 b	33 b	2 b	43b
NT	1 c	39 b	8c	0 c	0 b	10c
LSD(.05)	13	27	11	7	11	26
TEN DAYS						
	Percentages					
BP	98 a	100a	95 a	100a	100a	100a
BG	96 a	100a	95 a	96 a	89a	99 a
NT	87 b	98a	82 b	95 a	58 b	97 a
LSD(.05)	8	3	8	6	26	7

BP= black plastic BG= bare ground NT= No-Till

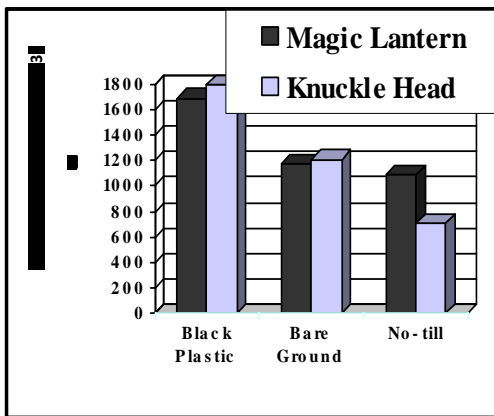


Figure 1. Petiole nitrate-N for Magic Lantern and Knuckle head pumpkin cultivars 54 days after planting.

During the tour, Mark Abney, an entomologist at North Carolina State University gave a presentation on Insect Management in Romaine Lettuce. Abney warned growers that wireworms are a constant threat to high quality, high yielding lettuce and cabbage in eastern North Carolina.

With corn prices topping \$7 per bushel it is no secret many crops will follow corn plantings. For lettuce, following corn is high risk because of corn wireworms. These insects can destroy a lettuce field, and their life cycle of 3-5 years makes them a long-term risk to lettuce planting.

The North Carolina Specialty Crops Program started as a grassroots effort. In 1992, the Alternative Crops Diversification Committee, comprised of 14 farmers from nine eastern North Carolina counties, formulated a blueprint to aid farmers in diversifying into high value crops.

They sought the help of the North Carolina Cooperative Extension Service, the North Carolina Agricultural Research Service, North Carolina State University and the North Carolina Department of Agriculture and Consumer Services.

Well over a decade later the initial program at the Cunningham Research Center in Kinston, N.C., has spread to a satellite specialty crops program at the Mountain Research Station in Waynesville, N.C.

Nick Augostini, marketing director for the program, says, "The key to success of the program is marketing and field research and these are closely linked. One major advantage to our program, compared to many other new crop programs is that marketing research is initiated at the same time as the crop production research," Augostini says. "Information is power, and well-informed growers can better position their products and services if they have the right information about the needs of buyers and consumer. Successful products tend to be those that respond to real consumer and trade needs," according to Augostini.



The Plant and Disease Clinic

The Plant and Disease Clinic at NC State University provides disease diagnostic and insect identification services to help you grow healthy plants and crops. Extension Specialty from Plant Pathology, Entomology, Horticulture, Crop Science and Soil Services diagnosis problems on the samples received. Hours of operation are from 8:00 am – 4:30 pm Monday thru Friday. The clinic director is Dr. Lane Tredway. For disease problems call (919) 515-3619 and for Insect problems call (919) 515-9530. Additional information can be found at www.cals.ncsu.edu/plantpath/extension/clinic/

Upcoming Field Days and Conferences

October 16, 2008 from 2:00 pm-until
Pumpkin/Gourd Field Day
Mountain Research Station, Waynesville, NC

December 2-3, 2008
23rd Annual Southeast Vegetable and Fruit Expo
Myrtle Beach Convention Center, Myrtle Beach, SC
for additional information visit www.ncvga.com

The Marketing Perspective

Specialty Melon Taste Testing

August 13, 2008

Carrboro Farmers Market, Carrboro, NC

Conducted by the NCDA&CS personnel and Debbie Roos, County Agent for Orange County.

Melons taste tested were grown in Chatham County. Over 100 surveys were filled out which provided a good overview of what specialty melon varieties were most liked and least liked.

Recipes taken from:

<http://www.ncagr.gov/markets/commodit/horticult/tomatoes/recipes.htm>



Bruschetta Romatica (6 servings)

1 12" – 16" loaf of Italian or French bread cut into ¼" slices (approx 42 slices)

½ cup grated Pecorino Romano cheese

12 Roma tomatoes (seeded and 1/8" dice)

½ cup sun dried tomato (soak in warm water, drained and coarsely chopped)

8 oz fresh mozzarella (diced in 1/8" cubes)

2 sprigs fresh sweet basil (chiffinade*)

2 springs flat Italian parsley (coarsely chopped)

¼ cup balsamic vinegar

1/3 extra virgin olive oil

salt and pepper to taste

fresh cracked pepper

course ground sea salt

garlic infused olive oil (drizzled over finished bruschetta)

Garlic Infused Olive Oil

Sauté 10 peeled, whole garlic cloves in 2 Tbsp. extra virgin olive oil.

When cloves are golden brown on all sides add ½ cup olive oil.

Allow to infuse for several hours or overnight. Garlic infused olive oil can be kept in an air-tight container and used in your favorite recipes for several weeks.

Bruschette Romatica

To make crostini, Preheat oven to 375. Brush olive oil on both sides of bread slices, sprinkle one side with grated Romano and bake on sheet pan in oven for 7 minutes.

Combine chopped roma tomatoes, sun dried tomatoes, mozzarella, parsley and basil. In a separate bowl, whisk the balsamic vinegar with the olive oil to emulsify, adding salt and pepper to taste. Add to the tomato mixture and stir until blended. Add a well-rounded tablespoon to each crostini, spread mixture to edges of crostini. Sprinkle with freshly cracked pepper and sea salt. Drizzle with garlic infused olive oil.

*To chiffinade basil, take thoroughly washed basil leaves and stack the leaves on top of one another so the edges line up evenly. Roll the stack of leaves lengthwise to resemble a cigar. Thinly slice crosswise to create thin ribbons of basil.

<http://www.airasheville.org/Tomato Provençal>

2 tomatoes- large one about 1 lb.
Bread crumbs- ¼ cup
Herb De Provence- 2 tbsp
Roasted Garlic- 4 cloves
Extra Virgin Olive Oil- 2 tbsp
Fresh Chopped Parsley- 1 tbsp
Fresh Grated Parmesan Cheese- 1/8 cup
Salt and Pepper to taste

Preheat oven to 325 degrees

Mix all ingredients together until thoroughly blended. Mix should hold together when pressed in your hands. Clean, core, and slice tomatoes in half. Cover equal halves with mix. Place on baking sheet or baking pan and cook until soft yet not falling apart. Cooking times depend on tomato ripeness but usually about 30 minutes. Best served hot.

Recipes taken from:

Cleveland County Cooperative Extension "Foothills Farmers Market" <http://cleveland.ces.ncsu.edu/>

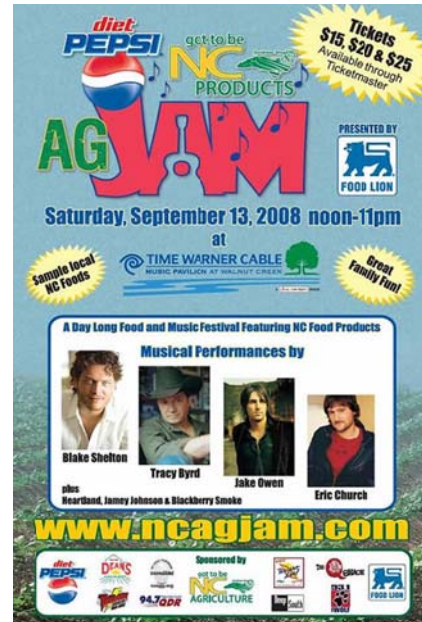


Tomato, Fresh Mozzarella and Basil Salad

4 tomatoes, each cut into 6 slices (about 1 ½ lbs)
½ lbs fresh mozzarella cheese, cut into 12 slices
¼ tsp kosher salt
¼ tsp freshly ground black pepper
1 tbsp extra virgin olive oil
½ cup fresh basil leaves

Preparation:

Arrange 4 tomato slices and 2 mozzarella slices on each of 6 salad plates. Sprinkle evenly with salt and pepper then drizzle with oil. Top evenly with basil.



Ag Jam

The got to be NC Products AG Jam was held on Saturday, September 13, 2008 from noon-11pm. For information visit www.ncagjam.com

If you know others that wish to subscribe to the newsletter email NC Specialty Crops Program at tammy_baysden@ncsu.edu