

# Rutgers New Jersey Agricultural Experiment Station Cooperative Extension of Gloucester County

## ANNUAL REPORT 2007

### Primary Goals Include:

- **Preservation of farmers, farmland and the allied infrastructure of agriculture.**
- **Preservation and conservation of the environment and natural resources.**
- **Empowerment of youth to reach full potential through interaction with knowledgeable and caring adults.**
- **Improving knowledge and life skills of residents in the area of horticulture, food, nutrition and leadership.**



### Introduction:

Rutgers New Jersey Agricultural Experiment Station (NJAES) Cooperative Extension of Gloucester County improves the lives of residents through programs delivered by faculty and staff. As an integral part of the State University of New Jersey, we utilize research, science-based, non-bias, factual information for our educational and outreach programs. We reach clientele through educational seminars, field demonstrations, home-study courses, school enrichment programs, camping experiences, the 4-H fair and NJ Peach Festival, telephone inquiries, newsletters, fact sheets, and web-based information. We are funded by the Cooperative Research Education and Extension Service of the US Department of Agriculture, The State University of New Jersey, and the Gloucester County Board of Chosen Freeholders. The 3 program areas include Agriculture and Resource Management, 4-H Youth Development, and Family and Community Health Sciences.

### AGRICULTURE AND RESOURCE MANAGEMENT

This program area works closely with commercial farms and allied industries in the county on issues related to crop production, agricultural product marketing, and interpreting regulations for this important industry. Two Agricultural Agents are employed to provide extension education, applied research, and service to this significant industry in the county. A Master Gardener and Home Horticulture Program Associate is funded by the Gloucester County Board of Chosen Freeholders.

**Soil Fertility Recommendations:** Approximately 240 soil samples were analyzed at the Rutgers NJAES soil testing laboratory and faculty and staff in Gloucester county provided written recommendations on proper soil fertilization practices. The recommendations resulted in proper application of nitrogen, phosphorus and potassium fertilizers on farm fields, athletic fields, recreational areas, home lawns and landscapes in Gloucester County to prevent over fertilization and reduce environmental impacts of nitrates and phosphates.

### **Master Gardeners and Home Horticulture:**

Twenty-three Master Gardener (MG) interns completed a 21 week educational program in 2007. Fifteen individuals received their MG Title. 105 active MGs volunteered 6,212 hours in 2006. Total volunteer hours since 2000 are over 21,000 for a value of over \$441,000 in volunteerism Master

Gardeners have given to the citizens of Gloucester County. Community beautification and service projects included; regular meetings with residents of Shady Lane, the county nursing home, for horticultural therapy services; developing and maintaining 3 historic gardens and operating a greenhouse to provide plants for projects and other volunteer programs. A new project the MGs undertook was to redesign and help to maintain the gardens at the Gloucester County Veterans Cemetery (*right*). Master Gardeners also assisted the 4-H program with school enrichment programs on water conservation and trees.

Over 3,000 clients were served this year through the home and garden helpline staffed by MG volunteers. MGs also reached over 38,000 people at public educational outreach events.

**\$441,000 in volunteerism Master Gardeners have given to the citizens of Gloucester County.**



## Vegetable Extension and Research Programs

Gloucester County ranks 2nd in the state for vegetable production with annual sales exceeding \$50 million. A strong and progressive extension education and research program is necessary to assist this important industry in our county.

**Squash Research:** Squash and other cucurbit crops are widely produced by vegetable farmers in the county. Research in cooperation with 5 seed companies and breeders was conducted to determine disease resistance of zucchini and yellow squash cultivars to update variety recommendations for squash growers. Additional research on pest control methods for squash and pumpkin fields was conducted to recommend best management practices for



Squash research on varieties that are disease tolerant and unique

producers for quality and cost savings. The use of perimeter trap crops to attract cucumber beetles away from the harvested squash crop was demonstrated on a commercial farm and showed 85% reduction in insecticide use when using this sustainable system.

**Tomato Research:** Tomato cultivars were tested for yield, quality, and taste to provide recommendations for commercial growers and homeowners on the best varieties to choose. A tomato tasting field day was held and tomatoes were also taste tested at 2 county fairs.

*Perimeter trap crop research for butternut squash showed 85% reduction in insecticides*

**Vegetable Integrated Crop Management Educational Programs:** Six evening educational programs on general vegetable issues were organized and conducted. A state-wide 3-day Vegetable Growers Convention was organized and held for 600 farmers. Producers gained information on the latest pest management, fertility, cultivar selection and marketing strategies to improve farm practices and economics at educational events, via newsletters in print and on the web, and through individual farm consultations.

## Fruit Extension and Research Programs

**Wine Grapes:** Wine grape educational information has been delivered at three workshops, conferences and twilight meetings to 97 interested growers along with information via newsletters and on the Rutgers NJAES web site. Sixteen wine grape growers and wineries are now in operation with 13 in the new American Viticultural Area for New Jersey Outer Coastal Plane soils.

**Peach Varieties:** The testing and evaluation of peach varieties by Rutgers NJAES faculty has resulted in the introduction of four new yellow fleshed peaches NJ 350, 351, 352, and 353; one white fleshed nectarine NJ 100, and four flat peaches with white and yellow fleshed NJ F15, NJ F16, NJ F17, and NJF18. Growers have planted approximately 9000 of trees to improve the quality of peaches for marketing as a result of tree fruit research and variety development by faculty at Rutgers NJAES.

**Peach Marketing:** A peach buyers guide was written and 1,200 copies



published and distributed to buyers and retailers. Peach media day was coordinated and held with New Jersey Peach Promotion Council (NJPPC).

The peach educational exhibits and the peach pak competition were coordinated for the New Jersey Peach Festival. Over 16 major newspaper articles and additional radio and TV spots across New Jersey and Philadelphia resulted from these efforts. Peach Marketing Summit II with 65 shippers and buyers agreeing to focus on local marketing and improved food safety. Wholesale peach prices increased by approximately 11 cents per pound in 2006.

**Integrated Pest Management (IPM):** The Rutgers NJAES Fruit IPM program continues to provide field scouting and pesticide recommendations. Over 1200 tree fruit acres were enrolled in the program in 2007 statewide. The IPM program

works with 12 tree fruit growers in Gloucester County. In addition, the IPM program helps growers with commercial application of insect mating disruption on 387 acres in Gloucester County. This represented 30% of the peach and apple acreage in Gloucester County. RCE specialists demonstrated "Reduced Risk" insect pest management practices on 45 acres of tree fruit. This program employs mating disruption and "Reduced Risk" insecticides to control key apple and peach pests, lowering pesticide usage and costs.



*Mark Robson, Director of NJAES drives a tour group at an evening educational program for tree fruit.*

## Irrigation Water Allocation Education & Technical Assistance

The NJDEP- Water Allocations Program has been one of the most demanding legislated programs for agriculture agents and farmers. More information about agricultural water use is being demanded from DEP and regulations are changing to require additional information. This program takes a tremendous amount of time and resources to complete and manage. In most areas of the Gloucester County NJDEP is not allocating new permits or increases in existing permits for agriculture. We currently have 252 water allocation files in Gloucester County for the DEP Water Allocations Program. For more information see at <http://www.nj.gov/dep/watersupply>.

Water supply information for the NJDEP was calculated and recommended for farmers on 18,000 acres of farmland. Research and education programs have resulted in the use of 4,780 acres of low water use micro irrigation by farmers; the highest in the state. Programs on ground cover management, water recycling, soil moisture monitoring, and the use of tail water recovery ponds has reduced water usage on 14,250 acres of overhead irrigated land.

### Rain Garden Program

A How to Build a Rain garden Workshop was held for 27 teachers to provide guidance in constructing a rain garden at local schools and to provide lessons to integrate the rain garden into existing curriculum. Rain gardens collect rain water in landscapes to allow for percolation to reduce runoff into storm drains and surface waters. Three demonstration rain gardens have been built in the County with 3 others planned. The program will be expanded to homeowners and landscapers in 2008.



Competition for water with farms and development is a reality. Farmers use new irrigation practices to conserve this resource.

### Rural/Urban Interface

With a growing non agricultural population and the preservation of 11,000 acres of farm land, educational programs have been effective in heading off 65 disputes challenging agricultural management practices while expert information has been given on 6 conflicts brought before the agricultural development board. Questions from the public are answered regularly on Right to Farm issues to educate citizens on activities that are necessary management practices for industry existence.

## FAMILY AND COMMUNITY HEALTH SCIENCES

### Seeds to Success: Gloucester County's Youth Farmstand Project

*Seeds to Success* prepares at-risk youth for the workforce through classroom and on-the-job training. *Seeds to Success* teaches a variety of lessons in the Woodbury, Paulsboro, Glassboro and Bank-bridge Regional Schools. During the summer, students apply this knowledge at our Woodbury, Paulsboro and Glassboro youth farmstands, where youth experience the day-to-day operations of a retail entrepreneurial enterprise.

#### *The project has four key goals:*

- Provide workforce preparation to teens from Woodbury, Paulsboro and Glassboro
- Create retail outlets that bring affordable, nutritious foods to consumers
- Teach teens valuable life skills
- Offer service learning and economic development opportunities to 3 at-risk communities

#### *This year:*

- RCE collaborated with 70+ community groups, agencies, municipalities and school districts to make this project a reality
- 11% of farmstand sales were attributed to consumers who redeem WIC and Senior Citizen Farmer Market Nutrition Program (FMNP) free produce vouchers
- The agribusiness community benefited by the farmstands purchasing 19,595 pounds of produce from six local farmers/growers
- 230 youth participated in *Jersey Fit*, an 8-week healthy lifestyle practices intervention
- 168 youth participated in the 4-week financial education program called *FUNDamental Finance*



*Teens at the Paulsboro Youth Farmstand unload sweet corn to sell to local residents*

**Seeds to Success brings jobs, economic development and life skills/job training to low-income communities**

Participating youth demonstrated improved skills and competencies in such areas as money management, food and nutrition knowledge and skills, customer service, safe food handling techniques, knowledge of local food systems and a significant number of workplace skills.

## Expanded Food and Nutrition Education Program

EFNEP combats America's obesity epidemic by attacking nutritional literacy among low-income populations. Through the program, individuals and families learn to improve their diets and increase physical activity. Now in its fifth year, Gloucester County EFNEP reached 163 families and 1500 children this year. EFNEP's evaluation and reporting system showed that among this year's program graduates:

- 86% improved nutrition practices such as making healthy food choices and reading labels;
- 74% improved food resource practices such as meal planning and budgeting;
- 32% now offer 5 fruits and vegetables to their families each day;

*EFNEP and FSNEP provide nutrition education to limited resource families to increase the food security of Gloucester County's residents*



Freeholder Helene Reed teaches a nutrition class with FSNEP Program Associate Sylvia Waters

## Food Stamp Nutrition Education Program (FSNEP)

FSNEP is a collaboration of public and private business, non-profit organizations, schools County agencies and faith-based organizations whose mission is to provide nutrition education to increase the food security of Gloucester County's limited resource population. Nutrition education is defined as education designed to improve:

- Food Security
- Food Safety
- Dietary Quality
- Food Resource Management/Shopping Behaviors

The Gloucester/Salem County FSNEP project works primarily in schools, providing classroom education to youth and their caregivers. In 2007, FSNEP worked with 863 youth in grades K-6 to provide 8 weeks of educational instruction. Youth participated in hands-on, behaviorally focused lessons on increasing fruit and vegetable, low-fat dairy and whole grain foods consumption. After-school programming reached another 233 youth, presenting them with 8 weeks of hands-on activities designed to increase physical activity.

## From Our Farms

*From Our Farms* is an educational program that promotes improved nutrition and consumption of locally grown foods (which will, in turn, sustain the economic viability of local farms) through a series of childcare-based programs and learning boxes. In 2006, *From Our Farms* taught 1,164 youth how to eat more nutritiously by increasing consumption of fruits and vegetables, which is linked to decreases in incidence of heart disease, diabetes, obesity and some cancers. Surveys report that families who participate in *From Our Farms* programs demonstrate the following behavior changes:

- **75% report that their child tried a new fruit or vegetable**
- **34% prepared/cooked locally grown foods with their children**
- **75% learned how fruits/vegetables grow**
- **83% learned which fruits/vegetables grow in New Jersey**



From Our Farms field trips and hands on activities make learning about nutrition fun.

## New Jersey Living Well

Family and Community Health Sciences offered a variety of workshops and presentations throughout the year, reaching 563 consumers with information on school wellness, making healthier fast food choices, women's health and child nutrition.

*Visions* newsletter is delivered three times annually to 2,500 consumers. *Visions* provides Gloucester County residents with research-based health and wellness information on a variety of topics, including nutrition, asthma education, food safety, exercise and more.

# 4-H YOUTH DEVELOPMENT

The 4-H Youth Development Program uses a “learning-by-doing” approach in providing non-formal, educational experiences to young people in 1<sup>st</sup> grade through one year out of high school. This target audience is learning leadership, citizenship and life skills under the guidance of caring adults. The 4-H club is the foundation of the program. In Gloucester County, more than 700 4-Hers in one or more of the 52 clubs meet on a regular basis, work together on community service projects and learn about their project areas through experiential education and gain valuable life skills helping to prepare them for their futures.



“Feathered Friends Exotic Bird 4-H Club” member teaching other children about her project area

Part of the 4-H mission is to help young people become contributing members of our society and world. 4-H programs engage youth in leadership, community service, and citizenship activities that connect them to their communities. The 29 teen members of Gloucester County 4-H Senior Council completed several notable community service projects this year, including *Bands Battling Cancer* and *the Washington Township Relay for Life* in September to raise funds for worthy causes and an invitational *4-H Holiday Dance* in December at which teens were admitted by bringing a donation to *Toys for Tots*.

As part of their 4-H responsibilities, all members prepare and deliver public presentations at their club meetings during the year. At the county **4-H Public Presentations** event held at Gloucester County College, 45 young people presented a prepared talk in a public forum. Nine senior (grade 8 – 13) 4-Hers qualified for the state contest in June.

**more than 700 4-Hers in  
one or more of the 52  
clubs meet on a regular  
basis**

## 4-H Teen and Volunteer Leadership

Gloucester County 4-Hers, Amber Hoolahan and Amber Fisher were two of only six exemplary teens chosen to represent NJ at the **National 4-H Conference** held in Washington, DC in March. Three Gloucester County 4-H teens were selected to represent NJ at **Citizen Washington Focus**, a national 4-H leadership program. Our representatives will spend July 8 – 14 at the National 4-H Youth Conference Center just outside Washington, DC. Nineteen 4-H teens completed service projects will attending 4-H Winter Camp in early February. Twenty-four Gloucester County teens went “*Back to the Future with 4-H*” at the 2007 **South Jersey Teen Conference (SJTC)** held in Atlantic City in March. Educational programs held at this event gave participants tools to live long, healthy and productive lives. Also at SJTC, Katie Rigley from Gloucester County was elected the 2007 South Jersey Teen Representative, Rutgers Cooperative Extension 4-H and agricultural events held regionally and in the state.

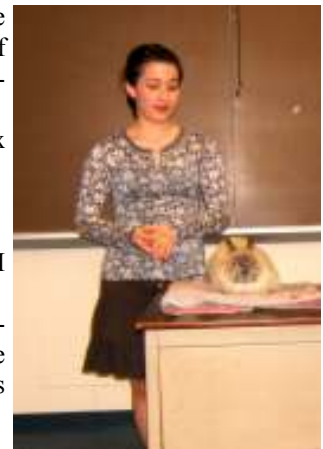
Caring adult volunteers serve as partners with youth and make a difference in their lives by building a foundation

of assets that will help them avoid high risk behavior so they can become responsible, successful, and caring citizens. Twenty five new volunteer leaders were recruited and trained during 2006 – 2007 bringing the 4-H club total in Gloucester County to 52. Several 4-H clubs exhibited at community days throughout the year, including Elk Township Day, Earth Day at Washington Lake Park, Glassboro Unity Day and Franklin Township Day thus helping to recruit youth and volunteers for 4-H.

The adult volunteers donate an average of 220 hours per year in preparing for club meetings and teaching youth. More than 150 registered adult 4-H volunteers are involved in 4-H club work in Gloucester County. In addition, more than 50 4-H youth volunteers, teens shared their skills with younger 4-H members and with other youth in their communities. At least 50 additional adult volunteers provide support at events and other special activities. According to research of the Independent Sector, the value of volunteer time in New Jersey is \$22.35/hour. This equates to more than \$735,000 in time being donated to Gloucester County 4-H. Wally Warren, a 45-year 4-H volunteer

was honored in April with the 2007 Gloucester County Rutgers Cooperative Extension Award of Excellence.

With the support of the 4-H Association, through six workshops offered countywide, 184 4-H members learned important life skills such as Record Keeping, Officer Training, Public Speaking and *Making an Effective Poster*. Twenty 4-H’ers created posters for the annual contest interpreting “*4-H – The Magic Of Nature*” in a variety of creative ways. The posters were exhibited for two days at Gloucester County College during the Public Presentations event.



All Ears 4-H Bunny Club member speaks on “Wry Neck in Rabbits” at the County Public Presentations event.

## Faculty and Staff

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