

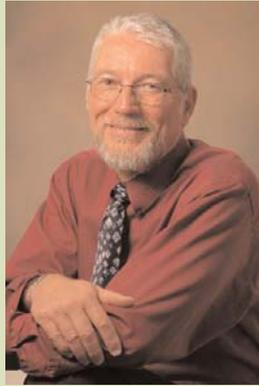


NJ AGRICULTURAL EXPERIMENT STATION
RUTGERS
COOPERATIVE RESEARCH & EXTENSION



*Partnering
for a Better
New Jersey*

Executive Summary



A Message from the Executive Dean

In June, I became the new dean of Rutgers' Cook College, the executive dean of agriculture and natural resources, and the executive director of the New Jersey Agricultural Experiment Station (NJAES). These responsibilities led me to focus a good deal of my time this summer learning about the programs and services that we offer in every county of this state—"we" being NJAES, Rutgers Cooperative Research & Extension (which provides research and outreach funded by NJAES), Rutgers' Cook College and our partners—the numerous organizations, governmental agencies, businesses and institutes of higher learning with which we collaborate.

If this annual report is your introduction to NJAES, I know you will be as impressed as I have been by the breadth and scope of our programs. By working in the areas of food, nutrition and health; environment and natural resources; agriculture and food systems; and human and

community development, we do our part to enhance the health and sustainability of New Jersey's citizens and communities, and our sights are set on providing innovative solutions to problems unique to our state.

For example, NJAES and Cook College have launched a major initiative to improve the health of New Jersey's citizens through proper nutrition. An international search is underway for a nutritional sciences chair who will recruit new faculty, develop new facilities, and foster multidisciplinary research, education and outreach by collaborating with major programs in structural, molecular, cellular and developmental biology; the Stem Cell Institute of New Jersey; the School of Public Health and many others. Today, a greater emphasis is being placed on using food to prevent disease and to promote well-being, whether by better understanding the disease-fighting components already present in some foods, or by formulating new "functional" foods with health benefits. It is also important to understand the behavioral aspects of our food choices. Our vision is to develop an internationally recognized nutritional sciences department whose research will be at the forefront of innovations in human health.

However, our work is not limited to human health. We are also committed to the economic and environmental health of our state. My recent appointment of Keith Cooper as the first executive vice dean of agriculture and natural resources underscores this commitment. Keith will focus on advancing economic, workforce and enterprise development in the agricultural, maritime and environmental sectors and will work to protect that development by directing the activities of Cook College and NJAES in the area of homeland security. He is already hard at work, strengthening and expanding our model of economically and environmentally sustainable initiatives throughout the state.

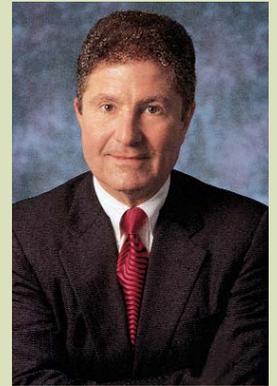
We are committed to serving the diversity of interests in agriculture, community development, maritime, natural resources and many other sectors that characterize the vibrant economy and diverse population of New Jersey. I am certain that as you read this report, you will find us true to our goal to be "synonymous with solutions." I am proud of the many dedicated faculty, staff and partners who make our programs possible and I am especially proud to share the results of their efforts with you.

Best regards,

Robert M. Goodman

Executive Dean of Agriculture and Natural Resources
Executive Director of NJAES
Dean of Rutgers' Cook College

A Message from the University President



At Rutgers, we are committed to becoming one of the nation's top-ranked public research universities while serving the people of New Jersey. Our closest connection to the people of New Jersey is through Rutgers Cooperative Research & Extension (RCRE) at the New Jersey Agricultural Experiment Station (NJAES), which provides an excellent model for the future direction of the university.

NJAES has a long history of delivering beneficial programs to New Jersey citizens and communities. That tradition continues with Robert M. Goodman, the recently appointed executive dean of agriculture and natural resources. Dean Goodman brings his scientific scholarship and technology transfer expertise to NJAES, to Cook College, and to Rutgers. He is fully engaged in Rutgers' mission of solving challenges faced by the citizens of New Jersey by reaching beyond the borders of the university and forming partnerships in teaching, research, and outreach.

One of the many statewide challenges that NJAES is tackling under Dean Goodman's leadership is the improvement of the health and well-being of New Jersey residents. NJAES is addressing these challenges through various partnerships. For example, NJAES has joined with the State Mosquito Control Commission, County Mosquito Control Commissions, and County Mosquito Control Agencies to create one of the most successful mosquito control programs in the world. Given the ongoing threat of West Nile virus, such programs are important to public safety and peace of mind. Other partnerships focus on health and obesity, such as a statewide program to teach school children the basics of good nutrition and another that helps food manufacturers to develop foods that have been proven to prevent or treat diseases.

As Rutgers' closest and most established link to New Jersey, NJAES is positioned to deliver the vast resources of the university to further the health of the people of New Jersey. At the same time, Rutgers has moved to better coordinate its university-wide resources directed to the health of our citizens by appointing Dr. Kenneth Breslauer to a newly created position of vice president for health science partnerships. Dr. Breslauer's appointment helps to streamline the process of delivering the expertise of the university for NJAES and others involved in external partnerships that are focused on health.

The partnerships described in this report illustrate some of the university's research across many academic fields to meet critical challenges. This is my vision for Rutgers' future, one that is both informed and inspired by the long-standing excellence of the New Jersey Agricultural Experiment Station and Rutgers Cooperative Research & Extension.

Sincerely yours,

Richard L. McCormick

President
Rutgers, The State University of New Jersey

NJAES Milestones

1862 *Morrill Act* provides grants to states and territories agreeing to establish public institutions that teach agriculture and mechanical arts. In 1864, Rutgers was designated the land grant college of New Jersey, resulting in the establishment of the Rutgers Scientific School (the predecessor of Cook College) to deliver the land grant mission.

1880 *New Jersey Agricultural Experiment Station* is the third experiment station in the nation to be established. Its two functions are to conduct research and help residents of the state put this knowledge to work.

1887 *Hatch Act* establishes federal funding for agricultural experiment stations at land grant institutions. In 1888, the New Jersey State Legislature established the NJAES with matching funds from the Hatch Act.

1906 *John B. Smith's research* leads to legislation that establishes Mosquito Extermination Commissions in New Jersey.

1914 *Smith-Lever Act* establishes the Cooperative Extension Service at each land grant institution.

1944 *Albert Schatz and Selman Waksman* co-discover streptomycin, the first antibiotic effective against tuberculosis, typhoid, whooping cough and forms of meningitis. In 1952, Waksman won the Nobel Prize.

1953 *Howard Ellison*, regarded as one of the most influential asparagus breeders in history, joins the faculty. He produces several hybrids that are among the most productive and widely adaptable ever developed.

1962 *Reed Funk* establishes one of the world's most extensive turfgrass breeding programs.

1964 *William J. Roberts* develops the first air-inflated double-layer polyethylene greenhouse covering system. Today, approximately 65 percent of all commercial greenhouses in the United States use the air-inflated system.

1965 *Elwin Orton* begins dogwood breeding project that would result in the famous "Stellar Series" of dogwoods.

1978–1979 *Budd Chavoosian's* land use research and *David Fairbrothers'* botany research underpins legislation to protect the New Jersey Pinelands.

1991 *Richard Lutz* witnesses a volcanic eruption during a deep-sea dive on the Pacific seabed. On a return visit in 1993, deep-sea creatures had returned to the site of the eruption. This leads to new discoveries in geology, chemistry, microbiology and marine ecology.

1998 *Randy Gaugler* develops molecular methods for the genetic improvement of entomopathogenic nematodes. This work provides new molecular tools and results in the first reported field release of a nonmicrobial, transgenic "natural enemy" of insect pests.

1999 *Nicholi Vorsa* and *Amy Howell* are investigators of a study that is the first to document the specific components in cranberries that promote urinary tract health.

2002 *MONEY 2000*, a program developed by *Patricia Brennan* and *Barbara O'Neill* is recognized with a USDA Honors Award.

At a glance

The NJAES Mission

To enhance the viability, health, sustainability and overall quality of life in New Jersey by developing and delivering practical and effective solutions to pressing problems relating to agriculture, food, natural resources and the environment, and the well-being of people and communities.

The New Jersey Agricultural Experiment Station delivers programs through Rutgers Cooperative Research & Extension, which has offices in all 21 counties in New Jersey.

PRIORITY AREAS

- Food, Nutrition and Health
- Environment and Natural Resources
- Agriculture and Food
- Human and Community Development

LOCATIONS

- Four extension departments based on Cook campus with faculty in all 21 counties
- Nine off-campus research and extension centers
- 12 academic departments at Cook College
- 13 Centers and Institutes on Cook campus

RESEARCH AND EXTENSION

- NJAES research and extension represent a partnership between the United States Department of Agriculture (USDA), the State of New Jersey and County Boards of Chosen Freeholders.
- NJAES research and extension programs are delivered through Rutgers Cooperative Research & Extension (RCRE). RCRE programs involve nearly two million stakeholders each year.
- Cook College and NJAES employ approximately 370 faculty and 660 staff. All faculty and staff are involved in delivering or supporting teaching, research and extension. In addition, approximately 6,800 volunteers help to deliver RCRE programs each year.

Food, Nutrition and Health

Botanical Initiatives

An \$8 million, five-year botanical research grant from the National Institutes of Health (NIH) will enable plant scientists to collaborate with Pennington Biomedical Research Center at Louisiana State University to form the NIH Center for Botanicals and Metabolic Syndrome. In addition to the metabolic syndrome center, Rutgers is a partner in the NIH Botanical Center for Age-Related Diseases with Purdue University. Yet another botanical initiative is Rutgers' International Cooperative Biodiversity Groups Central Asia Program, funded with a \$3.8 million grant from the NIH. One of this program's objectives is to improve human health through drug discovery based on plants, fungi and bacteria newly collected in the field. Ilya Raskin at the Biotechnology Center for Agriculture and the Environment is Rutgers' principal investigator in these collaborations.

New Jersey Living Well

The RCRE New Jersey-Living Well initiative is focusing on nutrition, health, fitness, food safety and environmental health. The initiative is designed to draw upon cutting-edge research at Cook College, RCRE and Rutgers. Three new programs were piloted this fall, and will be launched statewide early in 2006. "Living Well-It's a Family Affair" teaches families nutrition behaviors and physical activities to help them reduce obesity and enhance health. "Lighten up the Fat" helps consumers to learn how to cut fat intake. "Add Color and Move More" teaches consumers about better nutrition through increased vegetable and fruit consumption.

HEALTH ISSUES FACING NEW JERSEY

- Cardiovascular disease, cancer, chronic respiratory disease and diabetes mellitus are the leading causes of death in New Jersey.
- Heart disease costs New Jerseyans \$6 billion per year, cancer costs \$4.7 billion per year, and diabetes costs \$4.1 billion per year.
- Asthma, the most common reason for hospital admission, accounts for \$48 million in direct hospital costs each year.

Genetically Modified Foods

A study of 1,200 Americans found that, while most Americans say they are interested in genetically modified foods and have opinions about it, most lack the tools and background needed to make an informed assessment. This study is the third in a series of studies, led by the Rutgers Food Policy Institute and funded by a grant from the U.S. Department of Agriculture (USDA), to examine consumer perceptions of agricultural biotechnology. The extensive list of investigators includes researchers from eight different units at Cook College, NJAES and the School of Information and Library Sciences at Rutgers, Texas A&M, Freie Universität Berlin (Germany), Saint Joseph's University and Penn State.

Natural Products Research and Development in Africa

The U.S. Agency for International Development (USAID) awarded a \$2.5 million, five-year contract to support natural products research and development in Africa. The project forms a partnership that includes Rutgers' New Use Agriculture and Natural Plant Products Program, Food Policy Institute, Food Innovation Center, and Center for Advanced Food Technology; Alcorn State University and Southern University; ASNAPP-Southern Africa and ASNAPP-West Africa plus ASNAPP-Rwanda and associated universities, Kwame Nkrumah University of Science and Technology, Stellenbosch University, the National University of Rwanda, the University of Zambia, the nongovernmental organization and private sector communities in Africa and the U.S. private sector.

SOLUTIONS FOR NEW JERSEY

- Health promotion programs save an average of up to \$6 for every \$1 spent.
- By delivering programs that help people to make good lifestyle choices, RCRE's Department of Family and Community Health Sciences has a significant effect on both the health of New Jerseyans and the economy of the state.

Partnering for a Healthier New Jersey

Food Stamp Nutrition Education Program

The New Jersey Food Stamp Nutrition Education Program (FSNEP) was established in 1997 to provide nutrition education to food stamp program participants. It serves those who do not qualify for the USDA's Expanded Food and Nutrition Education Program (EFNEP) or do not have EFNEP available to them. FSNEP is funded through New Jersey's Department of Human Services Food Stamp Program as part of the USDA's Food and Nutrition Service's national Food Stamp Program; it is run as a joint effort between Rutgers' Cooperative Research & Extension (RCRE) and Rutgers' Department of Nutritional Sciences. The majority of FSNEP programming follows EFNEP's teaching model of providing nutrition education through peer educators who are part of the target population. Through collaborations with numerous local, state, and corporate partners, FSNEP teaches adults and school children how to make healthy food and lifestyle choices for themselves and their families. In FY 2004, FSNEP delivered classes to 3,406 adults and 14,900 youth.

Center for Advanced Food Technology

The Center for Advanced Food Technology (CAFT) has a project underway to identify health-promoting compounds in foods and food ingredients, to better understand the way these compounds work, and to quantify the influence of processing operations on the delivery and biological activity of the health-promoting compounds. CAFT researchers are looking into ways to maximize the health promotion effects of lycopene, an antioxidant, through processing, storage and preparation; how arthritic disorders might be helped by anti-inflammatory food substances; and how certain antioxidants in foods work to improve immune function and/or inflammation. To improve quality, CAFT also conducts research under the Combat Rations Network for Technology Implementation, a Department of Defense Manufacturing Technology Program sponsored by the Defense Logistics Agency.

Children's Health Summits

Today's children face great risks to their physical and emotional well-being. In order to better meet the needs of today's children, families need reliable information and professionals need access to quality continuing education courses. To meet these needs, Rutgers Cooperative Research & Extension's (RCRE) Family and Community Health Sciences Department developed Children's Health Summits. Three of these day-long conferences were held in 2005 to provide a variety of workshops and exhibits geared toward providing better nutrition information, family exercise plans, stress management strategies and weight management approaches. These summits attracted more than 350 parents, teachers, school administrators, child care professionals, social workers, nurses, family therapists and community leaders throughout the state. Continuing education credits were available, and national, state and local organizations provided informative exhibits featuring the programs and services they offer.

NJAES Partners

- Pennington Biomedical Research Center at Louisiana State University
- NIH Botanical Center for Age-Related Diseases
- Purdue University
- School of Information and Library Sciences at Rutgers
- Texas A&M University
- Freie Universität Berlin (Germany)
- Saint Joseph's University
- The Pennsylvania State University
- NJ Department of Human Services
- U.S. Agency for International Development
- Department of Defense

Environment and Natural Resources

Equine Environmental BMPs

A major initiative leveraging NJAES funds with funds from the New Jersey Department of Agriculture, the U.S. Environmental Protection Agency Region II, the Natural Resources Conservation Service and Northeast Sustainable Agriculture Research and Education is developing an Environmental Best Management Practices (BMP) Showcase for Equine Facilities on Cook Campus. This showcase, to be created by a multidisciplinary group of RCRE and Equine Science Center faculty and staff, will be the first of its kind in the nation. Educational demonstration programs, including management of stormwater, pasture and manure and testing of different types of grasses will take place at the Ryders Lane Equine Facility.

Controlled-Environment Agriculture

The Center for Controlled Environment Agriculture promotes the interdisciplinary research and technology transfer of controlled environment agriculture and greenhouse technology among industry, growers, and researchers. Members of the center study a range of plant production systems capable of reliably producing high-value products in close proximity to important consumer markets, while minimizing environmental impacts. Collaborations include information exchange and joint research projects with researchers and industry representatives across the United States as well as other countries with active research programs in controlled environment agriculture.

IR-4

IR-4 is a unique partnership between the land grant university system and the U.S. Department of Agriculture to provide pest management solutions to specialty crop growers. Since 1963, the IR-4 Project has cooperated with researchers, producers, the agrichemical industry and federal agencies to secure regulatory clearances that allow chemical companies to register pest-management products for specialty crops. Specialty crops comprise approximately 46 percent of U.S. agricultural production and 89 percent of total crop sales in New Jersey. IR-4 works hard to protect this important economic resource. In 2004 alone, IR-4 obtained 1,014 food use clearances and 216 clearances for ornamental crops. IR-4 support in pushing through emergency-use exemptions saved the United States \$7.5 billion from 1998 to 2003. IR-4 is based at NJAES.

Rutgers EcoComplex

The Rutgers EcoComplex is a high-tech research, demonstration and incubation center for environmentally based businesses. Three start-up companies are housed at the EcoComplex: Acrion Technologies, Garden State Ethanol, and TerraCycle. A fourth company, HydroGlobe, Inc., has already graduated from the center after being acquired by an international water filtration company. The EcoComplex provides access to laboratories, technology scale-up space, office and conference space, research personnel and business development expertise, and it attracts new businesses to New Jersey by offering services and resources not available anywhere else in the United States.

Partnering for a Cleaner New Jersey

Highlands Regional Information System

Land use decisions made now will determine the shape of the Highlands landscape long into the future. The most reverberating of these will be felt at the local level. That is why the Grant F. Walton Center for Remote Sensing and Spatial Analysis (CRSSA) developed a project to provide citizens and participants in municipal government with key pieces of information they need to make the best decisions for their communities: the Highlands Regional Information System (HiRIS). This interactive web site illustrates the status and possible future of the Highlands at the local level. The Highlands Regional Information System is made possible by grants from the Geraldine R. Dodge Foundation and the USDA Forest Service. CRSSA is working with the newly established Highlands Council, along with the Bloustein School, to undertake the environmental and land use assessments needed to develop the Highlands Regional master plan.

Genetically Modified Foods and Farmer Health

Because there is a high incidence of pesticide-related illness in developing countries, such as China, researchers from Rutgers, the Chinese Academy of Sciences in Beijing and the University of California, Davis, were interested in tracking the health effects of insect-resistant genetically modified (GM) rice. Recent results showed that farmers growing genetically modified rice in field trials in China reported higher crop yields, reduced pesticide use and fewer pesticide-related health problems. This study provides China and other nations with objective, research-based information about whether GM food crops can actually improve farmer welfare. The study was funded by the National Natural Science Foundation of China and the Chinese Academy of Science.

Urban Stormwater Management

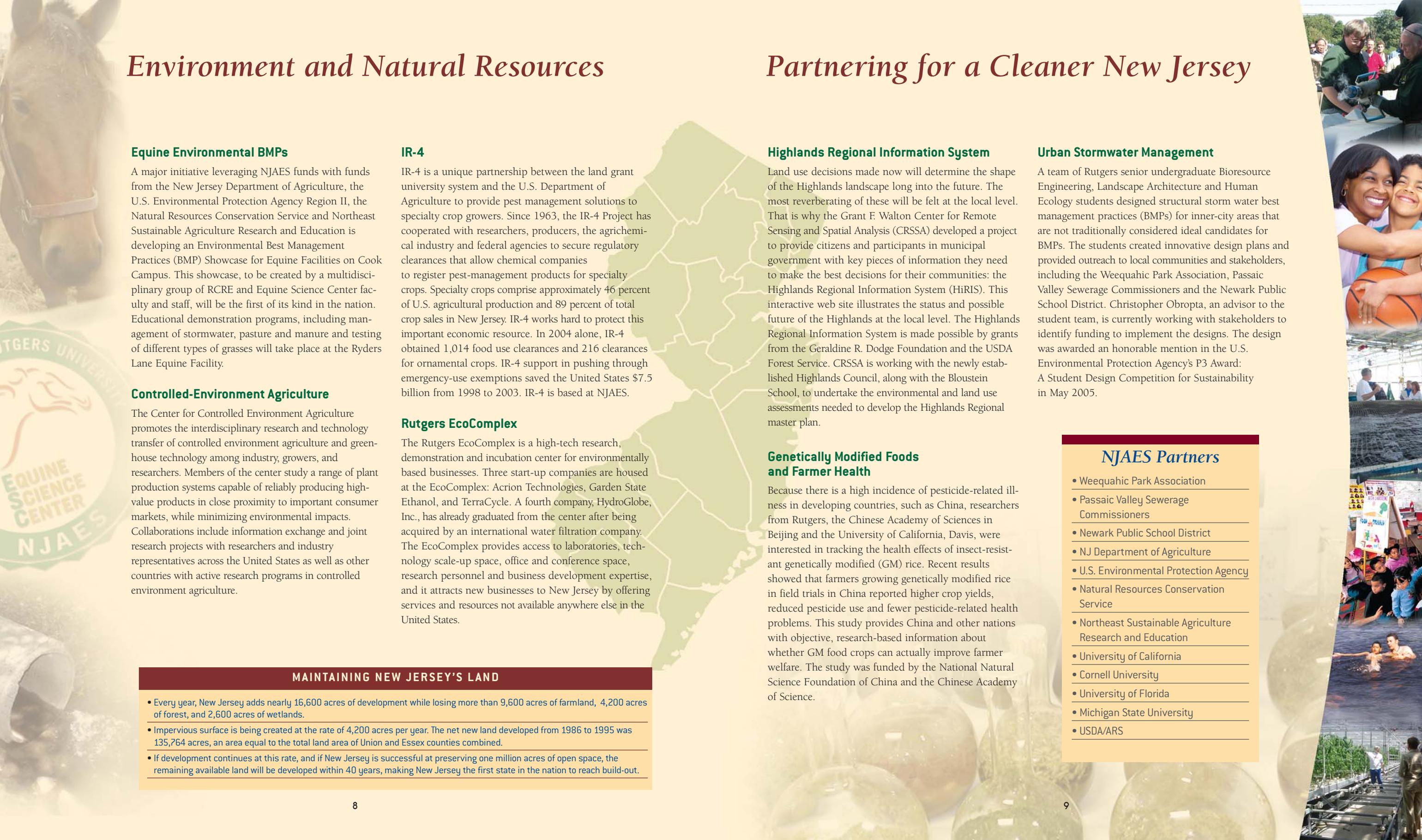
A team of Rutgers senior undergraduate Bioresource Engineering, Landscape Architecture and Human Ecology students designed structural storm water best management practices (BMPs) for inner-city areas that are not traditionally considered ideal candidates for BMPs. The students created innovative design plans and provided outreach to local communities and stakeholders, including the Weequahic Park Association, Passaic Valley Sewerage Commissioners and the Newark Public School District. Christopher Obropta, an advisor to the student team, is currently working with stakeholders to identify funding to implement the designs. The design was awarded an honorable mention in the U.S. Environmental Protection Agency's P3 Award: A Student Design Competition for Sustainability in May 2005.

NJAES Partners

- Weequahic Park Association
- Passaic Valley Sewerage Commissioners
- Newark Public School District
- NJ Department of Agriculture
- U.S. Environmental Protection Agency
- Natural Resources Conservation Service
- Northeast Sustainable Agriculture Research and Education
- University of California
- Cornell University
- University of Florida
- Michigan State University
- USDA/ARS

MAINTAINING NEW JERSEY'S LAND

- Every year, New Jersey adds nearly 16,600 acres of development while losing more than 9,600 acres of farmland, 4,200 acres of forest, and 2,600 acres of wetlands.
- Impervious surface is being created at the rate of 4,200 acres per year. The net new land developed from 1986 to 1995 was 135,764 acres, an area equal to the total land area of Union and Essex counties combined.
- If development continues at this rate, and if New Jersey is successful at preserving one million acres of open space, the remaining available land will be developed within 40 years, making New Jersey the first state in the nation to reach build-out.



Agriculture and Food Systems

Blueberry and Cranberry Research

The Philip E. Marucci Center for Blueberry and Cranberry Research and Extension supports blueberry and cranberry growers by developing and distributing research to ensure the continued production of high-quality products. Researchers develop new cultivars for industry and investigate ways to minimize the use of pesticides in the culture of these crops. The growers have reinforced their partnership with the center by awarding more than \$500 million in the last 10 years. These monies partially support research faculty at the center and have paid for an addition to the center building.

Ornamental Aquatic Plants

The Rutgers Cooperative Research and Extension's (RCRE) Marine Program is helping farmers in New Jersey to grow and market ornamental aquatic plants that are used in residential water gardens. These plants help to fill the void of locally grown aquatic plants in New Jersey's garden centers which are presently importing most of their aquatic plants from out of state. This project will be enhanced by a business feasibility study for ornamental aquatic plants that was funded by the U.S. Department of Agriculture's Northeastern Regional Aquaculture Center. A fact sheet about growing ornamental aquatic plants won a national award in 2005 from the National Association of County Agricultural Agents Communications Program. The fact sheet is available on the RCRE website (www.rcrc.edu/pubs/publication.asp?pid=FS535).

Jersey Grown, Jersey Fresh

Rutgers Cooperative Research & Extension has teamed with the New Jersey Farm Bureau and Rivera Produce to help farmers to bring Jersey Fresh produce to 20 chefs at restaurants in the Princeton and New Brunswick areas, three produce distributors, and the Wegmans, Shop Rite and Kings grocery chains. As Larry Robinson, chef at Mediterra in Princeton, NJ, noted, "This program gives even the smallest farmer access to local chefs and grocery outlets by having Jersey distributors bring their produce into the restaurants and stores that want home-grown fruits and vegetables."

Food Innovation Center

The Rutgers Food Innovation Center (FIC) was created in 2001 to create jobs in Cumberland County and the surrounding region. From 2003 through 2005, FIC served more than 250 clients. Ninety-four percent of these clients are farmers or small business startups, located in every county of New Jersey. The center has partnered with the City of Bridgeton and the Cumberland Empowerment Zone Corporation and has become recognized in the United States, and even internationally, as a model of university-industry-government collaboration that is resulting in regional economic and community development.

Green Industry

The "green" industries, which include nurseries, greenhouses, lawn and garden equipment manufacturers and landscaping services, contribute more than \$4 billion in economic impacts and over 53,000 jobs in New Jersey alone. The New Jersey Agricultural Experiment Station works with landscape and nursery businesses throughout the state to implement the latest technologies, giving these businesses the edge needed to compete in today's marketplace. By taking advantage of Rutgers Cooperative Research & Extension offices, Integrated Pest Management, Soil Testing and Plant Diagnostic Laboratories, short courses offered through the Cook College Office of Continuing Professional Education and more, New Jersey's green industry leaders stay ahead of the game.

Growing Initiatives to Serve New Jersey

Supermarket Emergency Preparation

A program developed by Rutgers' Food Policy Institute and the New Jersey Food Council and made possible by a grant from the New Jersey Department of Health and Senior Services is providing emergency preparedness training for retail food store managers. The four-hour program is designed to stimulate active thinking among management teams in supermarkets, convenience stores and other food retail outlets about emergency preparedness and to empower them to better plan for emergencies of any size and severity. Topics include protecting against disruptions to consumer confidence and to a business' physical operation, communications or supply chain. Training is currently underway and is being delivered in partnership with the Cook College Office of Continuing Professional Education.

Turf Partnership Endures as Industry Grows

The New Jersey turf industry produces annual profits of \$3.2 billion, making it a major player in the New Jersey economy. This year, the Center for Turfgrass Science provided in-depth data on the nature of the industry in a study on the economic impact of the turf industry. The study is the latest "deliverable" in a university/industry partnership that dates back to the 1920s. Both partners have made huge investments in the turf program. Over the past decade, the turf industry has given more than \$3 million toward faculty grants, student scholarships and new facilities, while the college has recently hired six new faculty in this area. This thriving partnership supports the mission of the Center for Turfgrass Science, which is to support the turfgrass industry by generating and disseminating knowledge, training and education in turfgrass science.

New Jersey Wine

New Jersey's 27 wineries produce more than one million gallons of wine each year. In fact, New Jersey is the fifth-largest wine-making state in the nation, with a rich history dating back to the 1700s. The New Jersey Agricultural Experiment Station is well positioned to assist this growing industry. The Rutgers Tree Fruit Research and Extension Center in Cream Ridge conducts and disseminates research applicable to the production of grapes through workshops and articles. The center increases production efficiency and protects fruit crops against environmental and biological hazards, while decreasing production costs and pesticide use. Gary Pavlis, the Atlantic County agricultural agent for Rutgers Cooperative Research & Extension, works closely with the state's wine growers to improve the quality of their fruit. Each spring, Pavlis oversees "Grape Expectations" with the Garden State Wine Growers Association, a viticulture oenological symposium featuring presentations by experts on diseases, insects, grape varieties, root stocks and more. He also monitors the wine industry and conducts a statewide competition to select the best wines produced in New Jersey.

NJAES Partners

- Ocean Spray Cranberry
- New Jersey Department of Agriculture
- Cumberland County
- City of Bridgeton
- New Jersey Food Council
- New Jersey Farm Bureau
- Wegmans Food Markets, Inc.
- Shop Rite/Wakefern Food Corp.
- Kings Supermarkets, Inc.
- The Food Business Innovation Network

Human and Community Development

4-H Afterschool Adventure

Rutgers Cooperative Research & Extension of Mercer County partnered with the Trenton Department of Recreation, Natural Resources, and Culture to provide a 12-week adventure-based learning program to 20 at-risk youth at the Holland Weed and Seed Safe Haven in Trenton. 4-H Afterschool Adventure used a series of group initiative activities and outdoor adventure activities to foster the development of life skills and ultimately the development of character in the inner-city youth enrolled in the afterschool program. As a result of this program, Mercer County 4-H Youth Development is now represented on the Seed Committee of the Trenton Department of Recreation, Natural Resources, and Culture.

Barnegat Bay Shellfish Restoration Program

Rutgers Cooperative Research & Extension's marine extension agents have initiated a Barnegat Bay Shellfish Restoration Program, which now boasts 30 trained and participating volunteers and the planting of over 600,000 clam seed in the bay. The program addresses bay water quality issues and how improving shellfish populations can positively affect Barnegat Bay. Agents are also developing an education program for youth through a grant from the U.S. Environmental Protection Agency's Barnegat Bay National Estuary Program. The agents have also set up a website that addresses the risks and benefits of eating seafood (<http://www.rcrc.rutgers.edu/seafoodsafety>). This effort followed a very successful conference that was offered in 2004.

Teen Russian/American International Leadership

Alayne Torretta, Warren County 4-H Agent has developed a partnership with EdVenture in the United States and Russian youth agencies to develop this program. It is beginning its fourth year. Last summer, Torretta, who is the national 4-H contact for Russia, and three other adults accompanied four American teenagers on a two-week trip to the Altai region of Siberia as part of 4-H Teen Russian/American International Leadership, a program she began in 2003 with the Warren County 4-H Teen Council. This summer, two Russian teens spent a month volunteering at the Lindley G. Cook 4-H camp in Stokes State Forest, with a week-long stint at the Warren County Fair.

New Brunswick Babies and Nutrition

John Worobey, a Rutgers psychologist and nutritional sciences professor, is studying infant nutrition, growth and behavior among lower income, minority families in New Brunswick. Worobey decided to study babies in the city because he realized that many parents living in the neighborhoods surrounding Cook campus had little access to information about raising healthy children. This NIH-funded research project is not an intervention program, but the participating mothers are able to ask questions about their infants' development and to receive advice on how to improve the health of their babies. Worobey hopes to expand outreach to the local community and beyond; he and others at Cook College and NJAES have put together a proposal that focuses on coordinating child nutrition research, education and outreach efforts to New Brunswick and the state of New Jersey.

Partnering for New Jersey's Future

Positive Futures

The Cultivating Youth and Communities for Positive Futures' New Communities Project is designed to help at-risk youth to become healthy and contributing citizens of their local communities. This program utilizes the collaborative expertise of Rutgers Cooperative Research & Extension professionals in the areas of youth development, family and community sciences and agriculture to develop and deliver experiential education programs in partnership with local schools and community-based organizations. This project is part of the national Children, Youth and Families at Risk Initiative and has received funding from the U.S. Department of Agriculture.

The Positive Futures project currently consists of two community site projects: Roots of Knowledge in Atlantic County and Gloucester County's Seeds to Success. Both projects capitalize on the strength of existing partnerships with other youth-serving organizations and also utilize the subject areas of horticulture, gardening, food and nutrition and entrepreneurship in meeting their project goals.

MONEY 2000

MONEY 2000 was begun in 1996 to encourage New Jersey residents to set a personal savings and/or debt reduction goal and to take action to achieve that goal by the end of the year 2000. As of January 2001, over \$7 million in increased savings and reduced debt had been reported by more than 1,800 New Jersey participants. The cost to implement MONEY 2000 in New Jersey was \$192,000; that's a rate of return of \$36.75 for every dollar spent to implement the program in New Jersey. To date, this program has been replicated in over 30 states, and the award-winning website continues to provide personal finance information for consumers. The website can be accessed at <http://www.rcrc.rutgers.edu/money2000/default.asp>.

Urban Gardening

The Rutgers Urban Gardening Program provides technical support to individuals and families in the urban communities of Essex County as they grow vegetables in backyards, containers, vacant lots and community garden plots. Through the outreach efforts of the Master Gardener Program of Essex County, the Urban Gardening Program is now collaborating with the Newark Housing Authority and the City of East Orange to introduce more inner-city residents to the benefits of gardening. Urban Gardening staff members consult with community groups to help organize new community gardens. The Urban Gardening Program has also collaborated with the Oakeside-Bloomfield Cultural Center to introduce at-risk youth from Newark and Bloomfield to organic gardening and the benefits of a fresh fruits and vegetables in their diet.

NJAES Partners

- U.S. Department of Agriculture
- City of East Orange
- Ocean County
- Trenton Department of Recreation, Natural Resources, and Culture
- NJ Department of Environmental Protection
- Newark Housing Authority
- Oakeside-Bloomfield Cultural Center
- EdVenture
- U.S. National Institutes of Health

Helping New Jersey Through Valuable Partnerships



One of my highest priorities as a New Jersey legislator is to help New Jersey to preserve its farmland and to create a sustainable agriculture and food industry. The Snyder Research and Extension Farm has been a critical resource for me. The partnership between science and policymaking has enabled New Jersey residents to enjoy preserved open space, fresh and innovative food products and thriving agriculture and food industries. I applaud the worthy efforts of the New Jersey Agricultural Experiment Station.

— *Senator Leonard Lance*

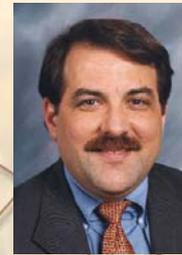
effective



The Edward J. Bloustein School of Planning and Public Policy has had many fruitful and rewarding collaborations with Cook College/NJAES faculty in research, teaching and outreach that address critical issues in New Jersey and the region. Our faculty members partner in such research areas as the state economy, human ecology, nutrition and epidemiology, sustainable buildings, and the use of landscape architecture in community development. Working collaboratively, our faculty members maximize the resources of the state's major research university.

— *Dean James W. Hughes, The Bloustein School*

collaborative



We're proud of our relationship with Rutgers Cooperative Research & Extension. This long-standing partnership between county government and Rutgers is one of the best ways to engage the public and address community needs and issues. We have many examples of great RCRE community outreach in Somerset County — Master Gardeners, 4-H clubs and events, nutrition and health education, support for agriculture, leader and teacher training, and the 4-H Fair. By working together, we maximize resources to benefit the citizens of Somerset County.

— *Freeholder Rick Fontana, Somerset County*



The New Jersey Agricultural Experiment Station is an integral part of the supportive infrastructure of New Jersey agriculture. Through its mission of extension and research, the Experiment Station continues to help advance the industry into the future. The New Jersey Department of Agriculture proudly partners with the Experiment Station in its goal of building a strong agriculture industry in New Jersey and acting as the frontline of support for farmers and other interests.

— *New Jersey Secretary of Agriculture Charles M. Kuperus*



The Food Policy Institute at the New Jersey Agricultural Experiment Station and the Cook College Office of Continuing Professional Education are truly valued partners of the New Jersey Food Council. The Training Program for Emergency Preparedness is a perfect example of how the private sector and university can cooperate to meet the needs of food companies in the state. This program will help management teams in the retail food sector to more effectively prepare for, and if needed respond to, any crisis in the food supply chain and ensure the continued safety and supply of food in our state.

— *Linda Doherty, President, New Jersey Food Council*

...results

Financial Summary

Base funding from government sources provides NJAES with a foundation for program development and delivery, while competitive contracts, grants and gifts increase the scope and impact of applied research and education programs. Total base funding from government sources has declined over the past decade. NJAES does not receive funds from tuition, so tuition increases cannot be used to offset this decline. The NJAES has relied increasingly on other sources of funds, particularly grants and contracts, and will continue to rely on a combination of public and private funds, appropriately balanced and focused, to address critical issues in New Jersey.

NJAES STATEMENT OF REVENUE AND EXPENDITURES – JUNE 30, 2005								
	STATE APPROP.	FEDERAL APPROP.	DESIGNATED FUNDS	GRANTS AWARDS	RESTRICTED FUNDS	ENDOWMENT FUNDS	PLANT FUNDS	TOTAL
REVENUE								
RESEARCH	18,040,846							18,040,846
EXTENSION	8,711,154							8,711,154
HATCH		2,905,611						2,905,611
SMITH/LEVER		3,851,137						3,851,137
SALES			8,482,759		739,987			9,222,746
STUDENT FEE			113,301					113,301
GIFTS			1,482		607,689	83,895	20	693,086
SPONSORED RESEARCH				33,017,388				33,017,388
INVESTMENT						1,037,653	1,814	1,039,467
TOTAL REVENUE	\$26,752,000	\$6,756,748	\$8,597,542	\$33,017,388	\$1,347,676	\$1,121,548	\$1,834	\$77,594,736
EXPENSE								
PERSONNEL	21,043,105	6,077,627	4,367,051	14,843,218	525,574	138,464		46,995,039
SUPPLIES	764,306	110,060	1,559,176	2,120,791	242,350	14,158		4,810,841
SERVICES	1,766,532	569,061	3,565,689	10,021,009	269,717	52,792		16,244,800
MAINTENANCE	149,526		161,372	137,722	20,853	339		469,812
EQUIPMENT	3,028,531		290,732	295,541	11,521	300	493,063	4,119,688
ADMIN.			†(1,021,936)	4,483,413	†(62,379)	28,890		3,427,988
TOTAL EXPENSE	\$26,752,000	\$6,756,748	\$8,922,084	\$31,901,694	\$1,007,636	\$234,943	\$493,063	\$76,068,168

†Includes expense recovery, indirect cost, tuition remission

2005 NJAES & COOK COLLEGE FUNDING BY SOURCE

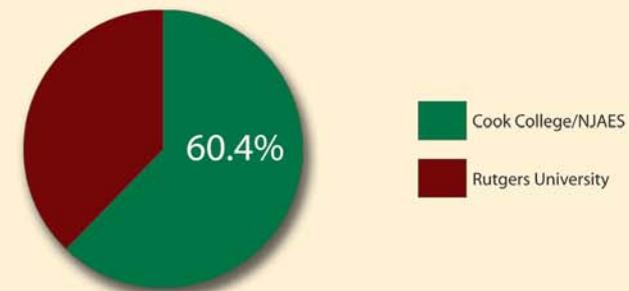
Dollars (Millions)



- Grants and contracts are public and private funds, usually competitively awarded, gained to support specific program initiatives.
- New Jersey funds NJAES through a separate line item in the Higher Education Budget.
- Rutgers University supports Cook College.
- Other funds include fees, gifts, sales and licensing revenues to Cook College and NJAES.
- County Boards of Chosen Freeholders provide support for educational programs offered through RCRE.
- Federal USDA funds support research and extension at NJAES.

1991–2005 NJAES & COOK COLLEGE LICENSING REVENUES

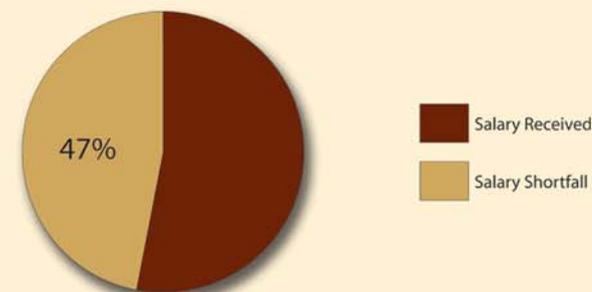
AS A PERCENTAGE OF RUTGERS UNIVERSITY'S TOTAL LICENSING REVENUE



- NJAES industry partnerships date back to the early 1900s. These partnerships have provided a pipeline for innovative technologies that add value to the university, the state and beyond.

2005 NJAES & COOK COLLEGE MANDATED SALARY REQUIREMENT

AS FUNDED BY STATE AND NON-STATE SOURCES



- Total salary need for FY 2005 was \$1.12 million. Salary monies received totaled \$594,000, leaving a shortfall of \$529,000 to be made up through attrition and budget reallocation.

Station Profiles

Director: Dr. John Grande
Email: grande@aesop.rutgers.edu
Phone: 908/730-9419
Fax: 908/735-8290

Clifford E. and Melda C. Snyder Research and Extension Farm; Rutgers Center for Sustainable Agriculture

The Snyder Research and Extension Farm near Pittstown (Hunterdon County) is Rutgers' center for sustainable agriculture. Snyder Farm faculty and staff initiate and disseminate research applicable to the production of a variety of food and fiber products including grain and forage crops, tree and small fruits, turfgrass, ornamentals, and conservation and sustainable agriculture in general. The farm's 390 acres provide a valuable capacity to research soil and climate conditions and crops of northern New Jersey.

Director: Louis Cooperhouse
Email: cooperhouse@aesop.rutgers.edu
Phone: 856/459-1125
Fax: 856/459-3043
Web: www.foodinnovation.rutgers.edu

Food Innovation Center

The Food Innovation Center, based in Bridgeton (Cumberland County), is dedicated to the economic development of the agricultural and food processing industry of New Jersey. Its mission is to stimulate and support sustainable economic growth and prosperity to this industry by providing businesses with innovative research, customized practical solutions, resources for business incubation, and a trusted source for information and guidance.

Director: Dr. Eric N. Powell
Email: eric@hsrl.rutgers.edu
Phone: 856/785-0074 x4309
Fax: 856/785-1544
Web: www.hsrl.rutgers.edu

Haskin Shellfish Research Laboratory

The Haskin Research Laboratory in Bivalve (Cumberland County) has a more than 100-year tradition of disseminating research results and working cooperatively with state and federal agencies and fisheries and aquaculture communities in southern New Jersey and interested public and private sectors. The laboratory generates and disseminates research information directly applicable to all aspects of fisheries and aquaculture science, concentrating on species of commercial importance to New Jersey.

Director: James Tavares
Email: 4hcamp@aesop.rutgers.edu
Phone: 973/948-3550
Fax: 973/948-0735
Web: www.nj4hcamp.rutgers.edu

Lindley G. Cook 4-H Youth Center for Outdoor Education

The Lindley G. Cook 4-H Youth Center for Outdoor Education, operating since 1951, was named for a director of extension who was the driving force behind the construction of New Jersey's first 4-H camp. The camp is located within Stokes State Forest on 1,000 wooded acres in Sussex County. It includes accommodations for 215 people, recreation fields, and an 8-acre lake for fishing, swimming, and boating.

Director: Dr. Nicholi Vorsa
Email: vorsa@aesop.rutgers.edu
Phone: 609/726-1590 x4411
Fax: 609/726-1593
Web: www.njaes.rutgers.edu/~bluecran

Philip E. Marucci Center for Blueberry and Cranberry Research and Extension

The Philip E. Marucci Center for Blueberry and Cranberry Research and Extension in Chatsworth (Burlington County) develops and disseminates research to ensure the continued production of high-quality blueberries and cranberries. The center develops new cultivars for industry and evaluates Integrated Pest Management alternatives for the culture of these crops.

Director: Dr. Bill Nicholson
Email: nicholson@aesop.rutgers.edu
Phone: 856/455-3100 x4106
Fax: 856/455-3133
Web: www.njaes.rutgers.edu/~rarec

Rutgers Agricultural Research and Extension Center

The Rutgers Agricultural Research and Extension Center in Upper Deerfield (Cumberland County) generates and delivers research applicable to the production of high-quality vegetable crops, ornamentals, field crops, and tree and small fruits. The center simulates the production of crops with maximum benefit to the New Jersey economy and minimum risk to the environment.

Executive Director: Dr. Keith R. Cooper
Email: cooper@aesop.rutgers.edu
Phone: 732/932-1000 x574
Fax: 732/932-4176
Web: www.ecocomplex.rutgers.edu

Rutgers EcoComplex

The Rutgers EcoComplex in Bordentown (Burlington County) is a multi-institutional, multi-disciplinary environmental center that harnesses research and education resources toward the development and industrial application of innovative environmental technologies. The mission of the Rutgers EcoComplex is to promote economic development in the environmental arena, including the remediation and protection of environmental quality, and the compatible sectors of food and innovative agriculture.

Director: Dr. William Meyer
Email: wmeyer@aesop.rutgers.edu
Phone: 732/761-9257
Fax: 732/932-9441

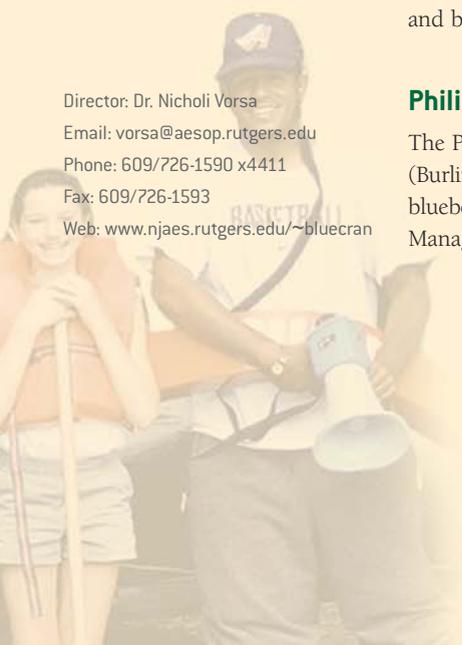
Rutgers Plant Science Research and Extension Farm

The Rutgers Plant Science Research and Extension Farm in Adelphia (Monmouth County) supports research and extension programs directly applicable to turf, field and agronomic crops and to plant and soil interaction. The center's research is used in solving problems related to the production of food, feed and fiber, and to problems related to environmental or aesthetic quality.

Director: Dr. Joseph Goffreda
Email: goffreda@aesop.rutgers.edu
Phone: 609/758-7311 x13
Fax: 609/758-7085

Rutgers Tree Fruit Research and Extension Center

The Rutgers Tree Fruit Research and Extension Center in Cream Ridge (Monmouth County) conducts and communicates research applicable to the production of high-quality tree and small fruits, including apples, peaches, apricots, nectarines, brambles, strawberries and grapes. The center increases production efficiency and protects fruit crops against environmental and biological hazards, while decreasing production costs and pesticide use.



New Jersey Agricultural Experiment Station/Rutgers Cooperative

SKYLANDS REGION

Hunterdon County, RCRE Office, Flemington

- Clifford E. and Melda C. Snyder Research and Extension Farm, Pittstown

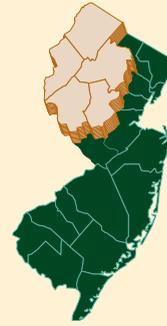
Morris County, RCRE Office, Morristown

Somerset County, RCRE Office, Bridgewater

Sussex County, RCRE Office, Newton

- Lindley G. Cook 4-H Youth Center for Outdoor Education, Branchville

Warren County, RCRE Office, Belvidere



ECONOMIC IMPACT

- Production from Morris County's agricultural, nursery and greenhouse businesses is worth more than \$29 million to the local economy. This economic benefit combined with maintaining more than 22,000 acres of open space adds to the quality of life for local residents.
- Hunterdon County leads the state in hay production, farms with non-racehorses and cattle, total number of beef cows and sheep and Christmas tree farms.

PROGRAMS

- Working with the Somerset County Training Office, Office of Solid Waste, and the community, RCRE presents programs for a healthier Somerset County.
- A 4-H program at Picatinny Arsenal is part of a federal program to support youth and families on installations around the world.
- Landscape classes are presented in Spanish for Spanish-speaking Morris County landscapers.
- RCRE education for producers improves efficiency, develops marketing strategies and promotes management skills.
- A regional livestock agent delivers new innovations, technologies and applications for producers across the region.
- RCRE research in farmland preservation policy helps preserve thousands of acres of open space.
- The Horticultural Program Associate in Sussex County trained 26 Master Gardener volunteers in 2004 who serve on community gardening and outreach projects. To date, 175 volunteers have completed the program.

GATEWAY REGION

Bergen County, RCRE Office, Hackensack

Essex County, RCRE Office, Roseland

Hudson County, RCRE Office, Jersey City

Middlesex County, RCRE Office, New Brunswick

- E.A.R.T.H. Center at Davidson's Mill Pond Park
- State Offices for RCRE, Cook Campus, New Brunswick

Passaic County, RCRE Office, Wayne

Union County, RCRE Office, Westfield



ECONOMIC IMPACT

- Agriculture has diversified to meet changing consumer needs in this region. In addition to apples, peaches and vegetables, farmers grow nursery products and ornamental plants. Farm markets are models of innovative and highly successful direct marketing.

PROGRAMS

- Horticultural Therapy programs in Bergen County are vocational training tools for Bergen County's youth-at-risk.
- The Expanded Food and Nutrition Education program taught thousands of adults and children in Hudson, Essex and Passaic Counties how to choose healthy foods.
- RCRE of Middlesex County worked in cooperation with Freeholders, Parks Department and Public Property to establish the new E.A.R.T.H. Center for public education.
- 4-H in Union County has provided character training for 125 third grade students at Franklin School in Union. The children are learning about trustworthiness, respect, responsibility, fairness, caring, and citizenship.
- Rutgers Urban Gardening collaborated with the Newark Public School District alternative school program to provide internships to Newark youth. They also continued their collaboration with the Trustees of Oakeside-Bloomfield Cultural Center to offer a summer internships.

DELAWARE RIVER REGION

Mercer County, RCRE Office, Trenton

Burlington County, RCRE Office, Mount Holly

- Phillip E. Marucci Center for Blueberry and Cranberry Research and Extension, Chatsworth

- EcoComplex, Burlington

Camden County, RCRE Office, Clementon

Gloucester County, RCRE Office, Clayton

Salem County, RCRE Office, Woodstown



ECONOMIC IMPACT

- Burlington County is the second largest agricultural county with more than 600 farmers in operation. These farms produce more than \$72 million worth of agricultural commodities.
- Gloucester County is the number one tree fruit-producing county in the state.
- Mating disruption for peach insect control saved growers \$80 per acre.

PROGRAMS

- RCRE of Salem County collaborated with the New Jersey Department of Agriculture and the Risk Management Agency to deliver a quality crop insurance education program to more than 9,000 people.
- RCRE of Gloucester County collaborated with the New Jersey Department of Agriculture to present a workshop, "Sudden Oak Death Syndrome," to prepare for a possible quarantine.
- 4-H partnered with the Cook College Office of Continuing Professional Education and the Mercer County One-Stop Career Center to provide a summer workforce preparation program for Trenton youth in the Dropout Prevention Program through Jobs for America's Graduates, Inc.
- The Food Stamp Nutrition Education Program in Burlington County was established this year. They have already taught nutrition to hundreds of children and adults in the county.

Research & Extension (RCRE) Presence in 21 Counties

SHORE REGION

Monmouth County, RCRE Office, Freehold

- Rutgers Plant Science Research and Extension Farm, Adelphia
- Rutgers Tree Fruit Research and Extension Center, Cream Ridge

Ocean County, RCRE Office, Toms River



ECONOMIC IMPACT

- An RCRE redevelopment project in the Port of Belford will foster increased commercial fishing and aquaculture businesses. RCRE is working with the Bayshore Development Group to bring together businesses and technologies that would enhance the port and the fishermen that are already there.

PROGRAMS

- RCRE is developing a process that kills all of the bacteria in shellfish and shucks the meat from the shell.
- RCRE has helped to preserve more than 9,000 acres of agricultural land in Monmouth County.
- RCRE, in cooperation with Monmouth County Watershed Partnership, is teaching residents how to protect their water supply.
- The Asbury Park Useful Hands At Work 4-H Farmers Market was a collaborative project between 4-H and the Food Bank of Monmouth/Ocean counties. Their goal was to enhance workforce development for youth.
- A 4-H Military grant and an Operation Military Kids grant support 4-H clubs and children whose parent(s) have been deployed. This collaboration includes the U.S. Airforce, Army, National Guard, reserves and also includes connections with Boys & Girls Clubs, the Department of Education, veterans groups, and many others.

GREATER ATLANTIC CITY REGION

Atlantic County, RCRE Office, Mays Landing

ECONOMIC IMPACT

- Atlantic County ranks first in the state in blueberry and sweet potato production.
- There are six hard clam hatcheries and 40 growers in the area who supply about 25 percent of the state's harvest of hard clams.
- Atlantic County cuts approximately 13,000 Christmas trees for sale each year.
- Atlantic County has 1,700 field acres plus 1 million square feet under glass for use in greenhouse, nursery and floriculture production.



PROGRAMS

- 4-H's *Roots of Knowledge* program is creating opportunities for Atlantic County youth through programming in food and nutrition, horticulture, workforce readiness and many other areas. More than 433 Atlantic County youth from kindergarten through the first year of college have participated in this project, as have an additional 377 Atlantic County youth through other 4-H Youth Development and Empowerment Programs.
- RCRE of Atlantic County provides opportunities for local farmers and commercial applicators to receive pesticide credits within the county. In 2004, they delivered approximately 450 pesticide re-certification credits on basic pesticide safety.
- RCRE of Atlantic County offers a variety of educational opportunities to residents, featuring general nutrition topics on making healthy food choices that fit families and their lifestyles.

SOUTHERN SHORE REGION

Cape May County, RCRE Office, Cape May Court House

Cumberland County, RCRE Office, Millville

- Food Innovation Center, Bridgeton
- Haskin Research Laboratory, Bivalve
- Rutgers Agricultural Research and Extension Center, Upper Deerfield

ECONOMIC IMPACT

- In 2004, Cape May County added two wineries. The addition of wineries is an important catalyst to the industry as each new winery purchases grapes from several additional vineyards. Since the previous Census of Agriculture, Cape May County has increased the number of commercial vineyards from one to eight.
- The assistance the Food Innovation Center has provided in the past two years to 250 clients will result in an estimated cumulative impact of \$84 million in new revenue.
- Cumberland County is the number one vegetable production county in New Jersey, with sales of approximately \$43 million.



PROGRAMS

- RCRE averted an outbreak of *Phytophthora infestans* in Cumberland County, which had destroyed 30 percent of the processing tomato crop the year before. Intensive scouting of surrounding fields prevented any spread of the disease.
- RCRE of Cape May County conducts an integrated program to educate growers to create Community Farmers Markets.
- One hundred youth from Cumberland County were involved in 4-H Double Dutch clubs. Boys and girls learn about jump-roping techniques, stretching, exercise, food and nutrition, and teamwork. This year, two teams placed in the top 5 in their grade division in the World Double Dutch Competition.
- RCRE of Cape May County presented the first regional Children's Health Summit — Fighting Back Against Childhood Obesity. Eighty-two educators, nurses, dieticians, social workers and other professionals attended.

Who's Who



Robert M. Goodman

Executive Dean of Agriculture and Natural Resources; Dean of Cook College; Executive Director, NJAES

Phone: 732/932-9000, Ext. 500, Email: execdean@cook.rutgers.edu

Goodman leads the NJAES, Rutgers' largest research unit and home to Rutgers Cooperative Research & Extension. He also leads Cook College, the land-grant college of Rutgers.



Timothy M. Casey

Dean of Academic and Student Programs

Phone: 732/932-3000, Ext. 517, Email: casey_c@cook.rutgers.edu

Casey oversees all undergraduate academic programs at Cook College. He also oversees undergraduate student services and all student life activities.



Keith R. Cooper

Executive Vice Dean of Agriculture and Natural Resources; Interim Dean of Research and Graduate Programs; Interim Senior Associate Director of Research

Phone: 732/932-1000, Ext. 574, Email: cooper@cook.rutgers.edu

Cooper is responsible for planning and implementation of partnerships among Rutgers, Cook College, NJAES, state and federal agencies and stakeholders throughout New Jersey.



Karyn Malinowski

Dean of Outreach and Extension Programs and Director of Rutgers Cooperative Extension

Phone: 732/932-5000, Ext. 581, Email: malinowski@rcrc.rutgers.edu

Malinowski oversees all outreach and extension programs. These programs deliver research-based education and assistance to hundreds of thousands of New Jersey citizens each year.



Daniel Rossi

Senior Associate Dean for Administration; Senior Associate Director

Phone: 732/932-9000, Ext. 505, Email: rossi@cook.rutgers.edu

Rossi is responsible for coordination and oversight for all administrative support functions that report to the executive dean, including budget and planning, business and financial affairs, development, information technology services, personnel and human services, and public and alumni relations.



Gail Alexander

Senior Executive Associate

Phone: 732/932-9000, Ext. 501, Email: alexander@cook.rutgers.edu

Responsible for the oversight of the workflow daily management of the Office of the Executive Dean and the creation and oversight of annual advocacy efforts. She also acts as a liaison to university administration, chairs and faculty.

Board of Managers

Atlantic County	Robert Fenton
Bergen County	vacant
Burlington County	Marilyn Russo
Camden County	vacant
Cape May County	Allen Carter
Cumberland County	Philip Neary
Essex County	Frances Kroeckel
Gloucester County	Douglas Zee, Jr.
Hudson County	Frances O. Bowen-Thompson
Hunterdon County	Thomas Michalenko, Vice President
Mercer County	William Perrine
Middlesex County	George Conover
Monmouth County	Michael Puglisi
Morris County	Carol Davis
Ocean County	Jeffrey Adams
Passaic County	David Longo
Salem County	Joel Rudderow
Somerset County	Kenneth Osterman
Sussex County	Leonard Pollara, President
Union County	Richard Montag
Warren County	Mitchell Jones, Secretary - Treasurer

Statewide Advisory Committee

Biotechnology	Ramesh Pandey
Community Resources	vacant
Environment	vacant
Food Science	Pearl Giordano
Marine Science	Stephen Carnahan
Public Policy	vacant

Centers and Institutes

Biotechnology Center for Agriculture and the Environment

www.cook.rutgers.edu/~biotech

Center for Advanced Food Technology

www.foodsci.rutgers.edu/caft

Center for Controlled-Environment Agriculture

www.cook.rutgers.edu/~horteng

Center for Deep-Sea Ecology and Biotechnology

www.cooknjaes.rutgers.edu/centers/quickinfo.asp?cdseb

Center for Environmental Prediction

www.cep.rutgers.edu

Center for Turfgrass Science

www.turf.rutgers.edu

County Offices

Atlantic County	609/625-0056
Bergen County	201/336-6780
Burlington County	609/265-5050
Camden County	856/566-2900
Cape May County	609/465-5115
Cumberland County	856/451-2800
Essex County	973/228-3179
Gloucester County	856/307-6450
Hudson County	201/915-1392
Hunterdon County	908/788-1339
Mercer County	609/989-6833
Middlesex County	732/398-5262
Monmouth County	732/431-7261
Morris County	973/285-8307
Ocean County	732/349-1152
Passaic County	973/305-5742
Salem County	856/769-0090
Somerset County	908/526-6295
Sussex County	973/948-3040
Union County	908/654-9854
Warren County	908/475-6505

**For more information visit
www.rcrc.rutgers.edu**

Center for Urban Restoration Ecology

www.i-cure.org

Food Policy Institute

www.foodpolicyinstitute.org

Grant F. Walton Center for

Remote Sensing & Spatial Analysis

www.crssa.rutgers.edu

Institute of Marine and Coastal Sciences

www.marine.rutgers.edu

IR-4 Project: Center for Minor Crop Pest Management

ir4.rutgers.edu

Rutgers Equine Science Center

www.esc.rutgers.edu

Wildlife Damage Control Center

www.cooknjaes.rutgers.edu/centers/quickinfo.asp?wdcc

Acknowledgments

This publication was designed and produced by the Rutgers' Cook College Resource Center.

Photo credits: Bachrach, Peter Blacksberg, Richard Buckley, Peter Byron, Allen Carter, Bruce Clarke, Keith Diem, John Emerson, Susan Ford, Garden State Wine Growers Association, Alan Goldsmith, Goodshot, Ann B. Gould, Ken Hammond, Gary Huntzinger, James E. Marko, Jr., NJ DHSS, New Jersey Food Council, New Jersey 4-H Youth Development Program, Photo Disc®, Jack Rabin, Nick Romanenko, Jerry Schoonmaker, Dave Specca, Jim Tavares, Sabrina Tirpak, Jeff Tisman, Jim White, Carey Williams

The information on the grant from USAID (pg. 6) was made possible through support provided by the Bureau of Agriculture, Bureau for Economic Growth, Agriculture and Trade, Office of Agriculture, U.S. Agency for International Development, under the terms of Award No. AEG-A-00-04-00012-00. The opinions expressed herein are those of the author(s) and do not necessarily reflect the views of the USAID.