

# Office Of Communications

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Portfolio of Work '13 - '14

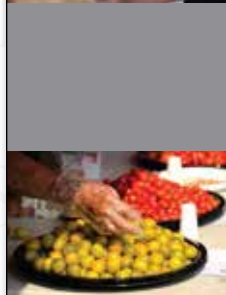
# Office Of Communications

Portfolio of Work



**RUTGERS**  
New Jersey Agricultural  
Experiment Station

## NEW JERSEY AGRICULTURAL EXPERIMENT STATION



2013 Annual Report

## New Jersey Agricultural Experiment Station (NJAES) Annual Report Re-Design.

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**Did you know?**  
Rutgers Cooperative  
Extension has been serving  
New Jersey for over  
100 years.

### Our Mission

To enhance the vitality, health, sustainability, and overall quality of life in New Jersey by developing and delivering practical, effective solutions to current and emerging challenges relating to agriculture; fisheries; food; natural resources; the environment; public health; as well as economic, community and youth development.

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### Commercial Agriculture

Farming in a densely populated, highly regulated, high land-value state like New Jersey requires a resourcefulness that characterizes our tradition of mostly small, independent family farms whose yields rank high in productivity and profitability. The breadth and scope of its research and outreach ensure that the Rutgers New Jersey Agricultural Experiment Station plays a key role in preserving agriculture for future generations. Its county-based extension agents form the first line of response in areas like invasive species, integrated pest management, and wildlife damage control. NJAES is at the center of meaningful discussions around new revenue streams for agriculture, equine management, alternative energy sources, land and resource conservation, and continual improvements to food safety and biosecurity. NJAES focuses its resources in commercial agriculture to meet the needs of a new generation of farmers and business operators and a more engaged consumer.

[njoes.rutgers.edu/ao](http://njoes.rutgers.edu/ao)

### MEETING GROWER PEST MANAGEMENT NEEDS

In 1963, the IR-4 Project was established by the directors of the state agricultural experiment stations and the USDA to assist growers of fruits, vegetables, herbs, and other specialty crops with their critical pest management needs. In 2013, the IR-4 project celebrated 50 years at Rutgers. The research performed by IR-4 scientists has facilitated more than 30,000 registrations of conventional pesticides and biopesticides for food and ornamental crops. The majority of these registrations were approved by the U.S. Environmental Protection Agency in the last 10 years, with most classified as reduced risk. IR-4 research also addresses new invasive species that challenge existing pest management protocols. Two new pests of specialty crops that are of major concern are the brown marmorated stink bug (BMSB), which has severely affected New Jersey and the Mid-Atlantic states, and the Spotted Wing Drosophila, which has national impact. In New Jersey and elsewhere, IR-4 is coordinating with state, regional, and national experts to provide growers with pest management products to manage these destructive pests of food and ornamental crops. Scientists in the Rutgers Department of Entomology are also actively engaged in investigating new protocols to manage stink bugs. Anne Nielsen, assistant extension specialist in entomology, has focused her research on developing integrated pest management solutions in peaches, which require increased use of insecticide to control BMSB. Nielsen's goal is to identify the most effective time to apply compounds to eradicate stink bugs, as their susceptibility changes seasonally. This allows compounds under use restrictions to be applied when they are most effective. Nielsen, along with Dean Polk, fruit IPM coordinator, and other colleagues completed a two-year grower collaborative project that evaluated insecticide application to orchard borders to manage BMSB in peaches. This results in approximately a 75% reduction in insecticide use and protects non-target insects while providing equal BMSB control.

### BREEDING BETTER BERRIES

NJAES has made significant investment in helping small fruit growers develop better strawberries and cranberries. Many years of breeding by Professor Emeritus Goljo Jelenkovic led to new selections of strawberries with unique characteristics, and these are being further evaluated by Agricultural Agents Peter Nitzsche and Bill Hubak on 10 New Jersey farms, including two organic farms. Hubak and Nitzsche also started two replicated research trials in New Jersey and developed cooperative research partnerships with North Carolina State University, the University of Maryland, and The Ohio State University. Research and farm trials are identifying strawberry lines with superior fruit flavor and adaptability to local environmental conditions. The goal is to help expand markets for commercial strawberry growers and provide new, improved choices for consumers and home gardeners. Another small fruit with extensive focus at NJAES is the cranberry. Early cranberry breeding efforts centered on varieties with enhanced yield potential and high fruit anthocyanin content, which is the flavonoid that gives cranberries their rich color and is a dietary antioxidant. The increase in disease and insect pressure in recent years has focused the cranberry breeding program at the Marucci Blueberry and Cranberry Research and Extension Center in Burlington County on developing varieties with increased resistance to fruit rot diseases and insects. Entomology specialist Cesar Rodriguez-Saona is screening cranberry germplasm to identify insect resistance. In addition, cranberry breeding for enhanced phytonutrients is also being explored. Nichol Vorsa, director of the NJAES Marucci Center, was named a 2013 NJ Inventor of the Year by the New Jersey Inventors Hall of Fame for his scientific research and monumental contributions to disease-resistant cranberries and the cranberry industry.



Robert M. Goodman  
Executive Director of NJAES

NJAES continues to thrive and do its important work on behalf of New Jersey residents, despite deepening fiscal constraints. Our commitment to cranberry improvement has remained a high priority, even in Wisconsin and New Jersey and now acreage in North and South America. This is but one recent example of how NJAES has long-term investments with more immediate emerging needs such as invasive pests and pathogens.



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## New Jersey Agricultural Experiment Station (NJAES) Annual Report Re-Design (continued).



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[njoes.rutgers.edu/og](http://njoes.rutgers.edu/og)

### MEETING GROWER PEST MANAGEMENT NEEDS

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**Robert M. Goodman**  
Executive Director of NJAES

NJAES continues to thrive and do important work on behalf of New Jersey residents, despite deepening fiscal constraints. Our commitment to cranberry improvement has resulted in a high-bog season in Wisconsin and New Jersey and America in North and South America. This is but one recent example of how NJAES balances long-term investments with more immediate, emerging needs such as invasive species and pathogens.

### BREEDING BETTER BERRIES

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### Home, Lawn, and Garden

#### VOLUNTEERING WITH RUTGERS MASTER GARDENERS

An integral part of the **Rutgers Master Gardener program** is the volunteer component. All across the state, master gardeners are helping to "green" their communities. In Newark, Branch Brook Park is home to the largest collection of flowering cherry trees in the country. In 2013 alone, Rutgers Master Gardeners from Essex County undertook a significant part in the pruning of 700 of the park's 4,500 trees, contributing more than 300 hours of volunteer labor. Until the master gardeners developed a pruning team, the trees in the park had not been well maintained, but since March 2012, close to 1,800 trees in total have been pruned. The Rutgers Master Gardeners of Essex County have also restored flower beds at Clement, the former home of inventor Thomas Edison in the Edison National Historic Park. When the master gardeners began the project in the spring of 2009, the Edison National Historic Park had only one full-time worker responsible for maintaining the grounds, and only remnants of the extensive gardens remained. The Rutgers Master Gardeners reviewed a large bed of canas at the rear of the house, created a companion bed of perennials and annuals, filled an antique concrete planter, and designed and planted a prominent oval flower bed along the main drive, which had been bare for years. These plantings, great visitors through three seasons of the year with a colorful mix of flowers. The Rutgers Master Gardeners of Monmouth County drew on skills acquired from their local rain garden projects to help create a maritime barrier forest, which forms a useful natural storm barrier for lakes, at Fletcher Lake in Bradley Beach, which had been filled with debris and flooded during Superstorm Sandy. The master gardeners provided supervision, knowledge, and labor over three days of installing sand dune berms and vegetative barriers of pines, cedars, junipers, maples, 15 different native shrubs, and 7,500 plugs of beach grass. The Rutgers Master Gardeners of Monmouth County proved invaluable to the project, advising more than 150 novice volunteers, carefully planting 200-pound trees, and staging thousands of other plants in 10 different sections. The one-acre site transformed a compacted parking lot into a beautiful mini-park that functions to reduce damage from storms, which cause stormwater and sand surges that clog the coastal lake drainage systems.

[njoes.rutgers.edu/garden](http://njoes.rutgers.edu/garden)

#### YOUTH HYDROPONICS PROGRAM

**School gardens are fun and educational**, but can present pest and other problems that school personnel are not equipped to handle. "Growing with Water" is a hydroponic program developed to maximize the benefits and minimize the challenges that school gardens pose for educators. To this end, the goals of the project were to teach students to use a hydroponic system to grow healthy foods, as well as to increase their knowledge, skills, abilities, and positive attitudes towards science without encountering the challenges of weather, maintenance, and pest control. More than 120 students in the Lakewood Middle School participated in 14 hours of instruction as part of the Ocean County 4-H "Growing with Water" program. The diverse group of students, ranging from grades 6-8, who were in regular, advanced, or remedial-level science classes. Experimentation and youth-led inquiry were integral parts of this program as they developed experiments to address questions and solve challenges posed to inspire learning. From germination to bounty, youth participated in long-term and short-term experiments each week. Very few students had any previous gardening experience and none of them had ever used a hydroponic unit. The unit and diverse teaching style inspired many of the students, as evaluations showed notable growth in a number of scientific areas including documentation, graphing, measuring, and designing experiments, plus communication and being comfortable playing the role of scientist. In addition, evaluation results showed that youth were now more likely to eat healthy foods and choose to garden in an environmentally friendly manner.

**Did you know?**  
The first Rutgers Master Gardener program was established in 1984, with over 8,000 residents trained since then.



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#### Acknowledgments:

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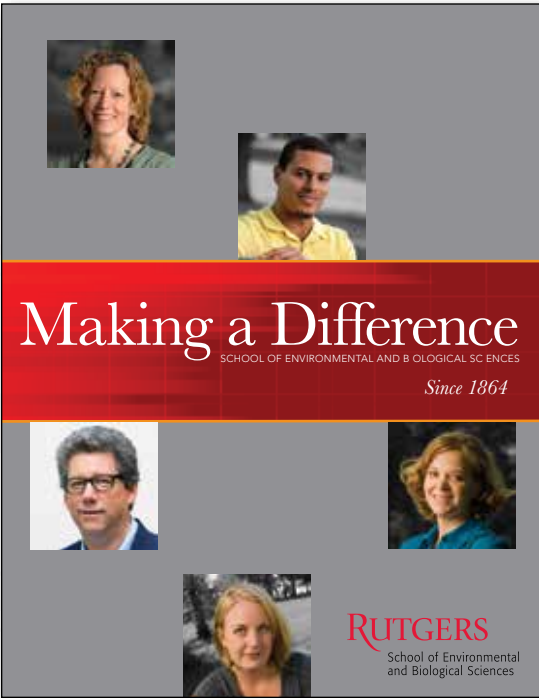


Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County of Essex, New Jersey, and the Rutgers Office of the Executive Dean of Agriculture and Natural Resources, Office of Communications.

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## School of Environmental and Biological Sciences (SEBS) 'Making a Difference' Brochure Concept.



ing a Difference...



sebs.rutgers.edu

Jersey Roots, Global Reach

- 2 EXECUTIVE DEAN ROBERT M. GOODMAN
- 4 DEAN OF ACADEMIC PROGRAMS RICHARD D. LUDSCHER
- 5 AT GEORGE H. COOK CAMPUS
- 6 WITH OUR FACULTY
- 8 IN OUR RESEARCH
- 10 BECAUSE OF OUR STUDENTS
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Making a Difference

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Clubs



SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES

**L-R:** Jennifer Martinez, Ryan Ullmann, Rachel Iannuzzi, Allison Kari, Neve Worrell-Cleason and Johnny Voong

**SEEING EYE DOG PROGRAM**

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**MONSTER MASH**

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Making a Difference

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Around the World



SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES

**INTERNATIONAL PROGRAM RECRUITS**

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**Photo:** Community Day


**JOHN SMITH'S ADVENTURE ACROSS THE GLOBE**

Ultricies viverra a suscipit nulla urna, amet volutpat vitae, fermentum at elefend non. Ultricies orci placerat dictum mauris, quis nostra litora imperdiet mauris pretium urna, ipsum pharetra, sit et, vitae eros in variis porta. Vestibulum pellentesque felis wisi non, turpis vitae per wisi, nulla wisi. Pede omnis, consetetur turpis sagittis, morbi euismod scelerisque amet eu ante, elementum quam semper commodo sed, maecenas orci habitant. Metus magnis nisl. Nonummy est wisi quam nullam mi, sapien mattis turpis, mattis libero non frugiat luctus veli, dictum mattis orci wisi. Neque duis repellendus, mus lacus volutpat ullamcorper, tortor quis eu. Carabatur nec velit toror diam venenatis, donec accumsan at fringilla integer, leo sit. It odio amet vivamus faucibus ut, nunc suspendisse consetetur eros donec. Vivamus diam augue, massa elefend sit volutpat mattis, urna ad. Enim vitae aliquam a praesent sollicitudin, elefend nulla dignissim. Varius riuus neque, diam metus, facilis massa elit malesuada dis et amet. Morbi maecenas, nunc ut nonummy luctus, lobortis veli euismod vulputate, in lobortis nunc libero sed in. Nunc id interdum libero lectus dui, lorem elit, congue eu eget urna feugiat amet pellentesque, sed mauris neque reprehenderit ligula sem, vitae cum inceptos molestie elefend ac aenean. Lorem sapien, eget massa justo enim, pharetra interdum id cursus tincidunt suspendisse lobortis. Sapien taci etiam. Vivamus diam augue, massa elefend sit volutpat mattis, urna ad. Enim vitae aliquam a praesent sollicitudin, elefend nulla dignissim. Morbi maecenas, nunc ut nonummy luctus, lobortis veli euismod vulputate. Vivamus diam augue, massa elefend sit volutpat mattis, urna ad.

Making a Difference

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Office of Academic Programs



1726 Average SAT Scores  
400 Student Clubs and Organizations  
3,600 Undergraduate Students  
25 Undergraduate Programs  
12 Graduate Programs  
227 On-Campus Faculty  
14:1 Student to Faculty Ratio  
8 Centers and Institutes  
184 SPIN Internships

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## My Research Makes a Difference



### Laura Lawson

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***Jersey Roots, Global Reach***

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Laura Lawson

LANDSCAPE ARCHITECTURE

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## Nutritional Metabolomics Core Facility

The Nutritional Metabolomics Core Facility is part of the Rutgers Center for Lipid Research at the New Jersey Institute for Food, Nutrition, and Health. It was established to provide researchers with data on the identities and amounts of small molecules in biological samples.

The facility specializes in the analysis of lipids, including phospholipids, cholesterol and cholesteryl esters, acyl coAs, endocannabinoids, and mono-, di-, and triacylglycerols. Often, data for multiple lipid classes can be obtained from a single sample injection. We plan to increase our offerings to include other metabolite classes as we expand into a full-fledged metabolomics laboratory.

Our services are available on a fee-for-service basis to researchers both inside and outside Rutgers. Preference is given to those undertaking studies related to the Institute's main objectives: obesity, especially in children, and related conditions such as diabetes, metabolic syndrome, cancer, and cardiovascular disease. However, we will also consider other projects as time permits.

The facility is equipped with an AB SCIEX 4000QTrap triple quadrupole-linear ion trap mass spectrometer interfaced with a Dionex UltiMate 3000 liquid chromatograph. This system has the flexibility to do many types of analyses, and as a triple quadrupole instrument is well suited for quantitative work. Additional instruments will be acquired as the core facility expands its capacity and moves into the Institute's new building in 2015.

For more information, please contact:

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Rutgers Climate Institute, 'State of Climate: New Jersey 2013' Report.

## State of the Climate: New Jersey

2013

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*State of the Climate: New Jersey* provides an overview of recent climate events and trends, their impacts, and their implications for the future of New Jersey. The changes that we are experiencing in New Jersey will be examined in the context of human-induced climate change, an important driver of recent and future climate trends.

Because the climate of any locality is influenced by global patterns and trends, the report begins with a discussion of the state of the climate on a global scale. This is followed by an analysis of local climate trends and recent extreme or unusual events and their impacts. Hurricane Sandy is the most noteworthy of these events, with estimated damages of approximately \$50 billion in the region. The implications of future climate change for high-impact events such as Sandy will also be discussed. Much of the concern about future climate change involves its consequences for people, ecosystems, and the natural and built environments. Sidebars in this report discuss selected impacts of climate change on New Jersey's residents and resources.

References and links are provided to direct the reader toward further information about global and local climate trends.



In New Jersey, transportation is the leading cause of greenhouse gas emissions.

### GLOBAL CLIMATE

#### Greenhouse Gases:

Gases present in the atmosphere that have the ability to absorb and emit infrared radiation are called greenhouse gases. Greenhouse gases keep the earth's surface warmer than it would be otherwise by making it harder for the heat energy the earth receives from the sun to escape to outer space. Human activities have raised the concentrations of some of these gases well beyond natural levels. The primary greenhouse gas that humans contribute is carbon dioxide (CO<sub>2</sub>), which enters the atmosphere through the burning of fossil fuels and deforestation. Other important greenhouse gases emitted by human activity are nitrous oxide, methane, and chlorofluorocarbons (CFCs). Measurements of atmospheric concentrations of greenhouse gases are made by the National Oceanic and Atmospheric Administration's (NOAA) Earth System Research Laboratory [esrl.noaa.gov/gmd/](http://esrl.noaa.gov/gmd/). The atmospheric concentration of CO<sub>2</sub>, the greenhouse gas with the largest effect on climate, has been measured continuously since 1958 at Mauna Loa in Hawaii. These measurements show increases in concentrations of CO<sub>2</sub> each year with an acceleration in growth rate over the course of the time series (Figure 1). At the time of this writing, 12-month average concentrations of CO<sub>2</sub> reached a value of 397 parts per million

(ppm), having increased from 315 ppm when direct measurements began in 1958. To put that value in perspective, the analysis of the composition of ancient air bubbles preserved in ice cores indicates that CO<sub>2</sub> concentrations in the 18th century prior to industrialization were between 270 and 280 ppm. Longer ice core records indicate that current CO<sub>2</sub> concentrations are the highest in the past 800,000 years.

#### Global Temperature:

Global average temperature analyses indicate that 2012 was the eighth or ninth warmest year based on records dating back to the late 19th century. The exact ranking varies slightly depending on which of the four major global temperature compilations is used. In all four compilations, 2012 was 0.25-0.3 °F above the average for the period 1981-2010 (16). Global temperatures have risen approximately 1.5 °F since the late 19th century. In its 2013 report, the Intergovernmental Panel on Climate Change (IPCC) concluded that it is extremely likely (i.e., greater than a 95% probability) that more than half of the warming in the second half of the 20th and early 21st centuries was caused by increasing greenhouse gas concentrations (3). This long-term trend is expected to continue or accelerate throughout the coming decades as greenhouse gas concentrations are projected to increase. Year-to-year variations in global temperature that occur within the long-term warming

trend are primarily a result of natural climate variability. The most influential source of such variability is the El Niño Southern Oscillation (ENSO) phenomenon, which relates to the temperature of the tropical Pacific Ocean. ENSO can be in a warm phase ("El Niño"), a cold phase ("La Niña") or neutral. Warm events are associated with warmer global temperatures and cold events with colder global temperatures due to the breadth of global ocean area that ENSO affects. After beginning 2012 in its cold phase, ENSO transitioned to an incipient warm phase in the middle of the year before returning to a relatively neutral state. Consistent with these variations, global temperature in 2012 was slightly higher than in 2011, when La Niña conditions prevailed, but not as warm as 2010 when ENSO was in its warm phase.

#### Arctic and Antarctic Sea Ice:

Arctic sea ice extent has declined over the period of modern satellite observations, which dates back to 1979. Each year the areal extent of Arctic sea ice reaches a maximum in March and a minimum in September. In September 2012, Arctic sea ice reached its lowest extent during the satellite record, covering an area of about 1.3 million square miles (sq. mi.) on the 16th. This broke the previous record of just over 1.6 million sq. mi. set in 2007 and was almost 50% lower than the average minimum sea ice extent for the period 1979-2000 (10). Sea ice recovered somewhat in 2013, with a minimum extent of 2.0 million sq. mi. on September 13. This was the sixth lowest on record and well below the 1979-2000 average [nsidc.org/arcticseaicenews](http://nsidc.org/arcticseaicenews).



Long-term monitoring: Sampling for larval fish in Great Bay, New Jersey

### Impacts on Coastal Fisheries

Scientists are unraveling relationships between climate change, water temperature, and distribution, behavior and survival of fish in Northeastern coastal systems. Rutgers faculty research shows hundreds of coastal marine fish and invertebrates are shifting their distributions as temperature changes (12). Waters off the Northeastern U.S. have been warming at close to twice the global rate in recent years; many Mid-Atlantic species have been shifting into the Gulf of Maine. Particularly vulnerable are marine species that spawn either at sea or in fresh water but rely on estuaries for juvenile growth (2). Overwintering survival of juvenile Atlantic croaker, a fish species common to New Jersey waters, has been linked to warmer winters (8). Water temperature data from the late 1980s to early 2000s, collected at Rutgers University Marine Field Station, demonstrate milder winter temperatures in recent years while in this same period larvae of multiple fish species of southern origin became more abundant and those of northern species declined in richness and abundance. Not clear is whether these will be permanent shifts in faunal composition, as the number of southern juveniles did not follow the same pattern. Reduced abundance

of juveniles may result from their inability to successfully overwinter on the East Coast due to low temperature, predation, or food scarcity in their first winter. Rutgers Professor Kenneth Able suggests Atlantic croaker population dynamics in which winter temperature, influenced by climate forcing, controls recruitment to the fishery and subsequent population fluctuations, may be applicable to these other fish species. Graduate student, Jamie Canidat, studies climate change implications of larval fish ingress into Great and Barnegat bays to identify trends in species composition and abundance and shifts in community assemblages. Professor Able notes there are additional complex habitat responses including increased precipitation resulting in runoff and chemical changes in the estuary, variation in larval supply that could result from rising sea level and inability of marshes to naturally migrate inland (1). These factors will continue to have implications for fisheries management. Impacts are already being observed in many important fisheries for New Jersey and the region, landings from the summer flounder fishery have shifted northward as temperatures have warmed, complicating attempts to allocate fishery quota among Mid-Atlantic States (11).

[Click here to enlarge.](#)

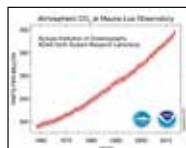


FIGURE 1

Atmospheric carbon dioxide concentrations measured at Mauna Loa. Red: monthly values; Black: 12-month running average.  
[NOAA Earth System Research Laboratory]



## Rutgers Climate Institute, 'State of Climate: New Jersey 2013' Report (*continued*).



Climate change in polar regions has been especially dramatic.

Many meteorological factors influence the year-to-year fluctuations in Arctic sea ice extent (such as wind direction and strength); however the overall trend in the annual mean Arctic sea ice extent has been downward, with a rate of 185,000 sq. mi. per decade during the period 1979-2012 (3). The thickness and age of Arctic sea ice has also been changing with an increasing tendency towards young and thin ice. Older ice (i.e., four years old or greater) has decreased from 26% of the ice in 1988 to 7% in 2012 (10). In the Antarctic, sea ice extent has been above average, with record high values in the past two years. The upward trend in annual mean Antarctic sea ice extent has been 64,000 sq. mi. per decade, which is only about one-third as large as the Arctic trend (3).

Sea ice is highly reflective, causing it to have a cooling effect on the planet. The melting of sea ice will expose less-reflective ocean waters that can absorb more solar energy and store it as heat rather than reflect the energy directly back to space. As a result, this will lead to further warming, allowing the decline in sea ice extent to have significant impacts on the climate of the entire planet.

**Northern Hemisphere Snow Cover:** Data compiled at the Rutgers University Global Snow Lab [climate.rutgers.edu/snowcover](http://climate.rutgers.edu/snowcover) indicates that annual average

snow cover extent averaged 9.5 million sq. mi. in 2012, which is below the 43-year average and the 12th least extensive snow cover on record. Annual mean snow cover has declined since observations began in the late 1960s, but the decrease has been especially rapid in the spring and summer months. Every month from April through August 2012 reported snow cover that was among the four lowest values for that calendar month, with June and July reporting all-time low values.

### NEW JERSEY CLIMATE

The Office of the New Jersey State Climatologist [climate.org](http://climate.org), located at Rutgers University, serves as the State's primary resource for statewide weather and climate data. New Jersey climate data are also archived at NOAA's National Climatic Data Center [ncdc.noaa.gov](http://ncdc.noaa.gov).

### Temperature:

The statewide average temperature in 2012 was the highest in 118 years of records. The 56.0 °F average for 2012 is 2.8 °F above the 1981-2010 mean. Nine of the ten warmest calendar years on record have occurred since 1990 and the five warmest years have occurred since 1998, consistent with the long-term upward trend of 2.2 °F per century (Figure 2). Abnormal warmth was common through much of the year, with only one month (November) recording temperatures below the 1981-2010 average. The year

2012 featured the warmest spring (March, April and May) on record and the sixth-warmest summer (June, July and August) on record. Unusual summertime warmth has been noteworthy in recent years, with six of the ten warmest summers on record occurring since 2005. So far in 2013, temperatures have been slightly above the 1981-2010 average, but not as warm as 2012.

The past 25 years have been characterized by many more unusually warm months in New Jersey than unusually cold months. If unusually warm and cold months are defined as the five warmest and coldest, respectively, for each calendar month, the period from 1988-2012 included 32 unusually warm months and only 5 unusually cold months. The disparity has been even greater since 2000, as unusually warm months have outnumbered unusually cold months by 25 to 2. The trend toward higher temperatures is expected to continue in the decades to come as greenhouse gas concentrations continue to increase. Rising temperatures are expected to occur in all seasons, but the trend is likely to be more noticeable in summer when year-to-year variability is smaller. One study has projected that by the middle of the 21st century approximately 70% of summers in this region will be warmer than what would now qualify as the warmest summer on record and that the frequency will rise to 90% by the end of the century (4).

### Precipitation:

After the wettest year on record in 2011, precipitation during 2012 was slightly below normal, averaging

Ragweed's season is getting longer and its allergen content increasing with increased emissions of CO<sub>2</sub>.



### Impacts on Public Health

Climate change can have multiple public health impacts ranging from imminent danger and long-term stress from flooding to decreased lung or heart function from increases in particulate matter, to respiratory effects from increases in ozone, carbon dioxide and temperature. Climate change has caused an earlier onset of the spring pollen season in the United States, including birch and oak pollen and increases in ragweed season (2, 17, 19). Rising temperatures and carbon dioxide concentrations also increase pollen production, while the allergen content of ragweed increases with increased concentrations of carbon dioxide (15, 13). An earlier pollen season that is lasting longer in higher latitudes like New Jersey, is putting more people at risk of allergies, including asthma; while allergic reactions to pollen may become more severe as allergen content of pollen increases with increasing CO<sub>2</sub> concentrations. These risks are particularly significant for vulnerable populations such as children, where in New Jersey pollen increases children's asthma hospital admissions (7). Rutgers University scientists from the

Environmental and Occupational Health Sciences Institute and the Center for Environmental Prediction, have been developing a model to predict pollen emissions, distribution, dispersion and human exposures in a changing climate. Estimates from worldwide birch pollen data predict expected increases in annual pollen production and peak pollen values ranging from 1.3 to 8.0 and 1.1 to 7.3 times higher, respectively, under various emissions scenarios for the years 2020 to 2100 compared to 2000, with the onset and peak date of pollen season advancing two to four weeks earlier (17).

Rutgers Professor Annmarie Carlton has shown a direct relationship between high energy demand days, typically a consequence of high stagnation periods, and increases in both particulate matter and ozone. Expected increases in energy use will undoubtedly result in both increased volatile organic carbon and nitrogen oxides which form ozone and particulate matter. Citing studies demonstrating the link between excess mortality and increases in fine particulates Professor Carlton notes, "Ozone can make you sick, but particulates can kill you."

[Click here to enlarge.](#)



FIGURE 2

New Jersey statewide annual average temperature. (NOAA National Climatic Data Center)

3



Hurricane Sandy damage in Mantoloking near Rt 35 Nov. 2, 2012.

The greatest surge affected the areas to the right of storm track, including the central and northern New Jersey coast, Raritan Bay, New York Harbor and adjacent estuaries, and the coast of western Long Island. The storm surge reached 9-10 feet above normal high tide levels in many of these locations, causing extensive damage and loss of life. Numerous homes were destroyed or damaged, and a new inlet was temporarily opened across the Barnegat Peninsula in Mantoloking.

An important question for coastal planners and residents is whether climate change will increase the likelihood of events similar to Sandy. A determination of past changes in tropical cyclone activity in the North Atlantic is complicated by the changes in observing methods that have occurred as new technologies have been introduced. Recent studies find little evidence of an increase in the number of hurricanes and tropical storms in the North Atlantic during the past century, but there is evidence of an increase in the frequency and intensity of intense tropical cyclones during the period since 1970. Projecting future changes in tropical cyclone activity remains an area of active research. Recent studies suggest that the global frequency of tropical cyclones will either decrease or change little as a consequence of global warming. Their average intensity is likely to increase, in terms of

both maximum wind speed and rainfall, and the frequency of the most intense storms is expected to increase (8). Regional projections of tropical cyclone activity cannot be made with great confidence, however, making it difficult to quantify future changes in tropical cyclone risk in New Jersey.

Despite the uncertainties in future changes of tropical cyclone activity, there is high confidence that the impacts of future storms are likely to be more severe because of rising sea levels. Sea level rise will raise the baseline for flooding events, making severe coastal flooding events more frequent in the future. A recent NOAA study projects that the return period for coastal inundation equivalent to that from Sandy would decrease to less than 20 years by the end of the century if sea level rise in New Jersey is at the high end of the expected range (14).

### REFERENCES

1. Able, K. 2012. Personal communication. Professor, Rutgers Institute for Marine and Coastal Sciences. Rutgers University.
2. Able, K. W. and M. P. Fahay. 2010. Ecology of Estuarine Fishes. Temperate Waters of the Western North Atlantic. Baltimore: The Johns Hopkins University Press.
3. Alexander, L. and Coauthors. 2013. Summary for policymakers. Climate Change 2013: The Physical Science Basis, Working Group I Contribution to the IPCC Fifth Assessment Report, available online at [climatechange2013.org/images/uploads/WG1AR5-SPM\\_Approved\\_7Sep2013.pdf](http://climatechange2013.org/images/uploads/WG1AR5-SPM_Approved_7Sep2013.pdf).
4. Battisti, D. S., and R. L. Naylor. 2009. Historical warnings of future food insecurity with unprecedented seasonal heat. Science, 323, 240-244.
5. Confalonieri, U., B. Menne, R. Akhtar, K.L. Ebi, M. Haugue, R.S. Kovats, B. Revich and A. Woodward. 2007: Human health. Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson, Eds., Cambridge University Press, Cambridge, UK, 391-431.
6. Hare, J. A. and K. W. Able. 2007. Mechanistic links between climate and fisheries along the east coast of the United States: explaining population outbreaks of Atlantic croaker (*Micropogonias undulatus*). Fisheries Oceanography, 16(1), 31-45.
7. Im, W. and D. Schneider. 2005. Effect of weed pollen on children's hospital admissions for asthma during the fall season. Archives of Environmental & Occupational Health 60(5):257-265.
8. IPCC. 2012: Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change [Field, C.B., V. Barros, T.F. Stocker, D. Qin, D.J. Dokken, K.L. Ebi, M.D. Mastrandrea, K.J. Mach, G.-K. Plattner, S.K. Allen, M. Tignor, and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, UK, and New York, NY, USA, 582 pp.
9. Miller, K. G., R. E. Kopp, B. P. Horton, J. V. Browning, and A. C. Kemp. 2013. A geological perspective on sea-level rise and impacts along the U.S. mid-Atlantic coast, submitted to Earth's Future.
10. Perovich, D. K., and Coauthors. 2013. [Arctic] Sea ice cover [in "State of the Climate in 2012"]. Bull. Amer. Meteor. Soc., 94 (8), S121-S123.
11. Pinsky, M.L. and M. Fogarty. 2012. Lagged social-ecological responses to climate and range shifts in fisheries. Climate Change 115, 883-891.
12. Pinsky, M.L., B. Worm, M.J. Fogarty, J.L. Sarmiento and S.A. Levin. 2013. Marine taxa track local climate velocities. Science 341, 1239-1242.
13. Singer, B.D., L.H. Ziska, D. Frenz, D.E. Gebhard and J.G. Straka. 2005. Increasing Amb a 1 content in common ragweed (*Ambrosia artemisiifolia*) as a function of rising atmospheric CO<sub>2</sub> concentration. Functional Plant Biology 32:667-670.
14. Sweet, W., C. Zervas, S. Gill and J. Park. 2013. Hurricane Sandy inundation probabilities today and tomorrow [in "Explaining Extreme Events of 2012 from a Climate Perspective"]. Bull. Amer. Meteor. Soc., 94, S17-S20.
15. U.S. Global Climate Change Research Program (USGCRP). 2009. Global Climate Change Impacts in the United States. Accessed 25 September 2013 at [ccc2009.globalclimatechange.gov/human-health](http://ccc2009.globalclimatechange.gov/human-health).
16. Willett, K. M., A. J. Dolman, B. D. Hall, and P. W. Thorne. Eds. 2013. Global Climate [in "State of the Climate in 2012"]. Bull. Amer. Meteor. Soc., 94, S111-S146.
17. Zhang, Y., L. Bielory and P.G. Georgopoulos. 2013. Climate change effect on Betula (birch) and Quercus (oak) pollen season in the United States. Int.J. Biometeorol. DOI 10.1007/s00484-013-0674-7.
18. Zhang, Y., S.S. Isakapalli, L. Bielory and P.G. Georgopoulos. 2013. Bayesian analysis of climate change effects on observed and projected airborne levels of birch pollen. Atmospheric Environment 68: 64-73.
19. Ziska, L. K., K. Knowlton, C. Rogers, D. Dahan, N. Tierney, M.A. Eder, W. Filley, J. Shropshire, L.B. Ford, C. Hedberg, P. Fleetwood, K.T. Howanik, T. Kavanaugh, G. Furlford, R. F. Vitis, J.A. Patz, J. Portnoy, F. Coates, L. Bielory and D. Frenz. 2011. Recent warming by latitude associated with increased length of ragweed pollen season in central North America. Proceedings National Academy of Sciences 108(10): 4248-4251.

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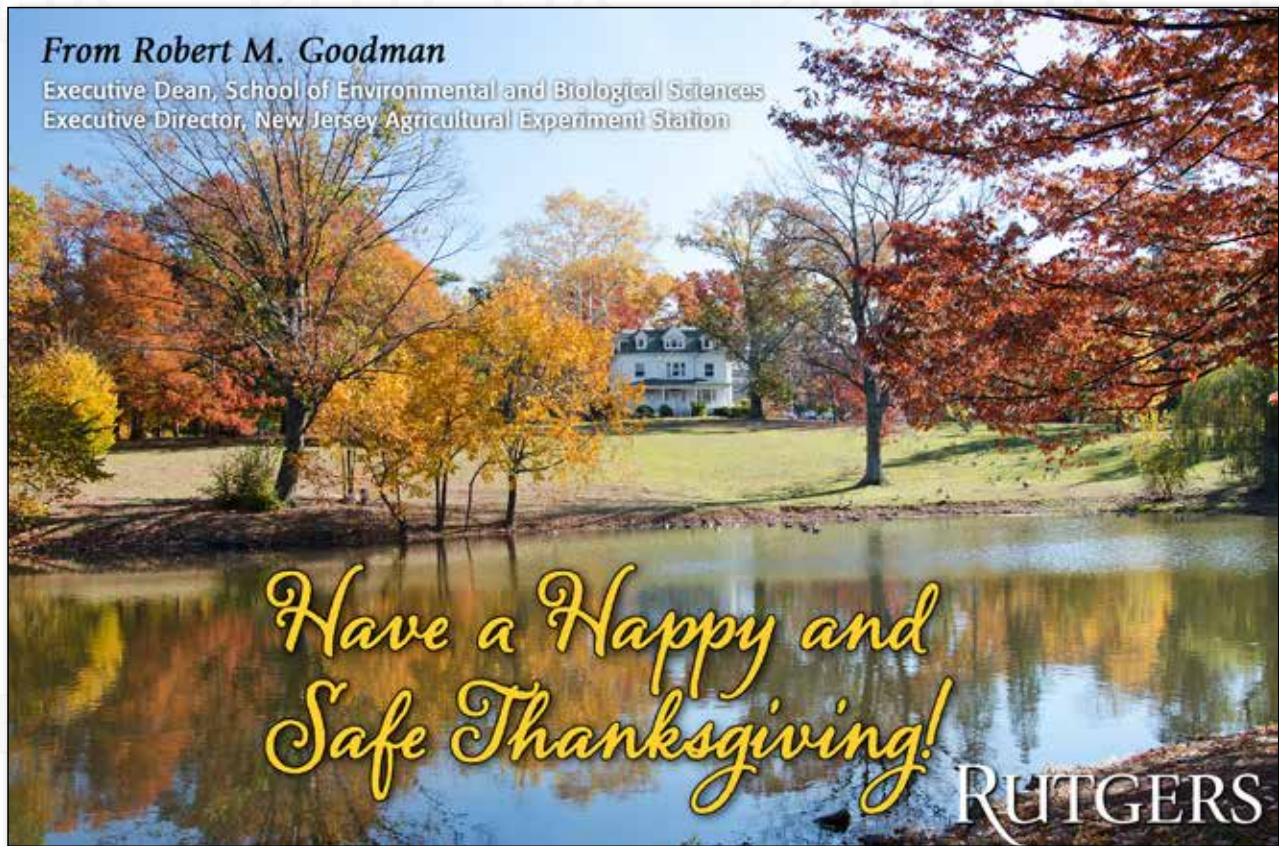
7

8

# Office Of Communications

Portfolio of Work

Thanksgiving Holiday Email Card.





# Office Of Communications

Portfolio of Work

## Office of Communications, Services Brochure.



**Paula Walcott-Quintin,**  
Exec Communications Specialist  
848-932-4204  
quintin@aesop.rutgers.edu

Paula Walcott-Quintin is responsible for internal and external communications related to the Office of the Executive Dean, including speeches and presentations as well as content, input, and feedback on major Office of Communications publications, including annual reports. She also provides writing and editorial support for web spotlights and the Newsroom.



**Bonnie Wasielewski, Web Designer**  
848-932-4203  
wasielewski@aesop.rutgers.edu

Bonnie is responsible for core school and experiment station website development and maintenance; Dreamweaver template development and support; and Wordpress support. She is the main contact for school and experiment station social media questions.



**Phil Wisneski, Web Designer**  
848-932-4202  
wisneski@aesop.rutgers.edu

Phil is responsible for core school and experiment station website development and maintenance; web application development and maintenance; Dreamweaver template development, support, and training; and database development and maintenance. He is the main contact for online calendar issues.



Office of Communications staff participating in Community Day 2013.

visit [oc.rutgers.edu](http://oc.rutgers.edu)

## THE OFFICE OF Communications

The Office of Communications for the Rutgers School of Environmental and Biological Sciences and the Rutgers New Jersey Agricultural Experiment Station is an organizational support unit of the Office of the Executive Dean. We partner with the faculty and staff to meet wide-ranging communication needs. Our aim is to utilize organizational information in multiple formats, venues, and media. These include:

- Marketing, promotion, and recruitment materials
- Website development
- Legislative and advocacy efforts
- Executive Dean's Office communications (speeches and presentations)
- Departmental identity, awareness, and branding
- Reports (annual reports, monthly and topic/audience-specific)
- Internal communications (dean's monthly message, email broadcasts)
- Event Planning
- Public and media relations
- Publication development (fact sheets, newsletters, curricula, reports, etc.)
- Social media presence for the school and experiment station

Although most of our work is done in-house, we work with many internal and external partners to produce a wide range of products, outputs, and tools to satisfy the information and communication needs of our organization.

We will work closely with you to find the right communication tools and vendors to meet your specific goals and budget.

Please note: Clients are responsible for all production costs. For more details, please contact Mike Green at 848-932-4201.

[oc.rutgers.edu](http://oc.rutgers.edu)  
[sebsnjaesnews.rutgers.edu](http://sebsnjaesnews.rutgers.edu)



**RUTGERS**  
New Jersey Agricultural  
Experiment Station

## GRAPHIC DESIGN, PRINTING & PHOTOGRAPHY . MEDIA & PUBLIC RELATIONS

Below are some of the many resources available through our website:



### GRAPHIC DESIGN, PRINTING & PHOTOGRAPHY

[oc.rutgers.edu/resources/print.asp](http://oc.rutgers.edu/resources/print.asp)

- Fact Sheet and Bulletin Review Form
- Guidelines for Photo Subjects
- How to Hire a Photographer
- Model Release Forms
- Poster Production Order Form and Guidelines
- Sources for Stock Photography



### MEDIA & PUBLIC RELATIONS

[oc.rutgers.edu/resources/pr.asp](http://oc.rutgers.edu/resources/pr.asp)

- How to Get a Newspaper Article Added to the In the News Email
- How to Get a Seminar Added to the Seven-Day Seminar Calendar
- How to Set Up a Rutgers Calendar Account
- Media Relations Policy and Tips
- Press Release Basics
- Style Guide for the School and the Experiment Station
- Style Guide for the University
- What to Submit to the Newsroom



### PROGRAM EVALUATION

[oc.rutgers.edu/resources/evaluation.asp](http://oc.rutgers.edu/resources/evaluation.asp)

- Constant Contact (for custom email newsletter templates, event registration, and online marketing)
- Program Evaluation Resources
- Qualtrics (a cloud-based survey-builder)



### SOCIAL MEDIA

[oc.rutgers.edu/resources/social-media.asp](http://oc.rutgers.edu/resources/social-media.asp)

- Guidelines for Rutgers Social Media Accounts
- Facebook FAQ
- How to Post on Facebook as Yourself
- Mashable.com Resources for Facebook, LinkedIn, and Twitter
- Rutgers Social Media Directory
- SEBS and NJAES Social Media Channels
- YouTube Resources



visit [oc.rutgers.edu](http://oc.rutgers.edu)

## PROGRAM EVALUATIONS . SOCIAL MEDIA . WEBSITES AND COMPUTING

### WEBSITES AND COMPUTING

[oc.rutgers.edu/resources/web.asp](http://oc.rutgers.edu/resources/web.asp)

- CTAAR Computer Workshops
- Email Issues
- Google Analytics (for tracking website traffic)
- How to Get Website Templates
- How to Set Up a Website in Dreamweaver
- University Web Policy
- Writing for the Web



Google Analytics

### PERSONNEL



**Mike Green, Director**  
848-932-4201  
green@aesop.rutgers.edu

Mike is responsible for the day-to-day operation of the office. He ensures that organizational communication needs are met and new communication tools are developed, implemented, evaluated, and reengineered as necessary to meet our clientele's needs. As part of the executive dean's office, Mike works with university units, the school, and the experiment station to provide greater organizational coordination, consistency, and clarity.



**Gary Huntzinger, Assistant Director**  
848-932-4200  
huntzinger@aesop.rutgers.edu

Gary manages the computer hardware and software infrastructure of the Office of Communications. He handles all poster printing requests, special projects, and assists in the management of the office in the areas of operations and personnel.



**Lori Casciano, Senior Graphic Designer**  
848-932-4207  
casciano@aesop.rutgers.edu

Lori is the head graphic designer for Office of Communications publications, print materials, templates, and other graphic outputs. She ensures that all publications projects adhere to Rutgers visual identity standards. She also provides graphic design support for web services as required.



**Cindy Rovins, Agricultural Communications Editor**  
848-932-4208  
rovins@aesop.rutgers.edu

Cindy provides writing and editorial support for the Newsroom, web spotlights, and monthly and annual reports, with focus on Rutgers Cooperative Extension content. As the communications editor for NJAES, she publishes a newsletter highlighting New Jersey agriculture, and is the contact for the RedDiscover the Jersey Tomato project.



**Kristen Rumolo, Administrative Assistant**  
848-932-4206  
rumolo@aesop.rutgers.edu

Kristen manages all financial administration and support activities for the office, prepares newsletters, fact sheets, and bulletins, and works with other staff members to create content for websites and print materials. She also assists in the organization of campus events such as Community Day and Rutgers Day.

visit [sebsnjaesnews.rutgers.edu](http://sebsnjaesnews.rutgers.edu)



# Office Of Communications

Portfolio of Work

Gardens Gala Email Invitation.

The graphic features a blurred background of a garden with people. In the foreground, there is a clear glass vase filled with purple and blue flowers, including hydrangeas and tall purple spikes, sitting on a silver tray. The text is overlaid on the top half of the image.

**7th Annual Gardens Gala**  
A BENEFIT FOR RUTGERS GARDENS HONORING  
*Roy H. DeBoer & Duke Farms*

*Proceeds raised through the Gala help to preserve and maintain Rutgers Gardens. Thank you for your support!*

*Please join us to honor*

**Roy H. DeBoer**

Hamilton Award for Dedication  
and Outstanding Commitment

*presented by*

Kent Hiteshew, CC '76

*and*

**Duke Farms**

Distinguished Achievement in  
Horticulture Award

*presented by*

Francis Barchi, Ph.D.

**Thursday, September 12, 2013**  
**5:00 - 9:00 p.m.**

Log Cabin and Pavilion  
112 Ryders Lane  
New Brunswick, NJ 08901

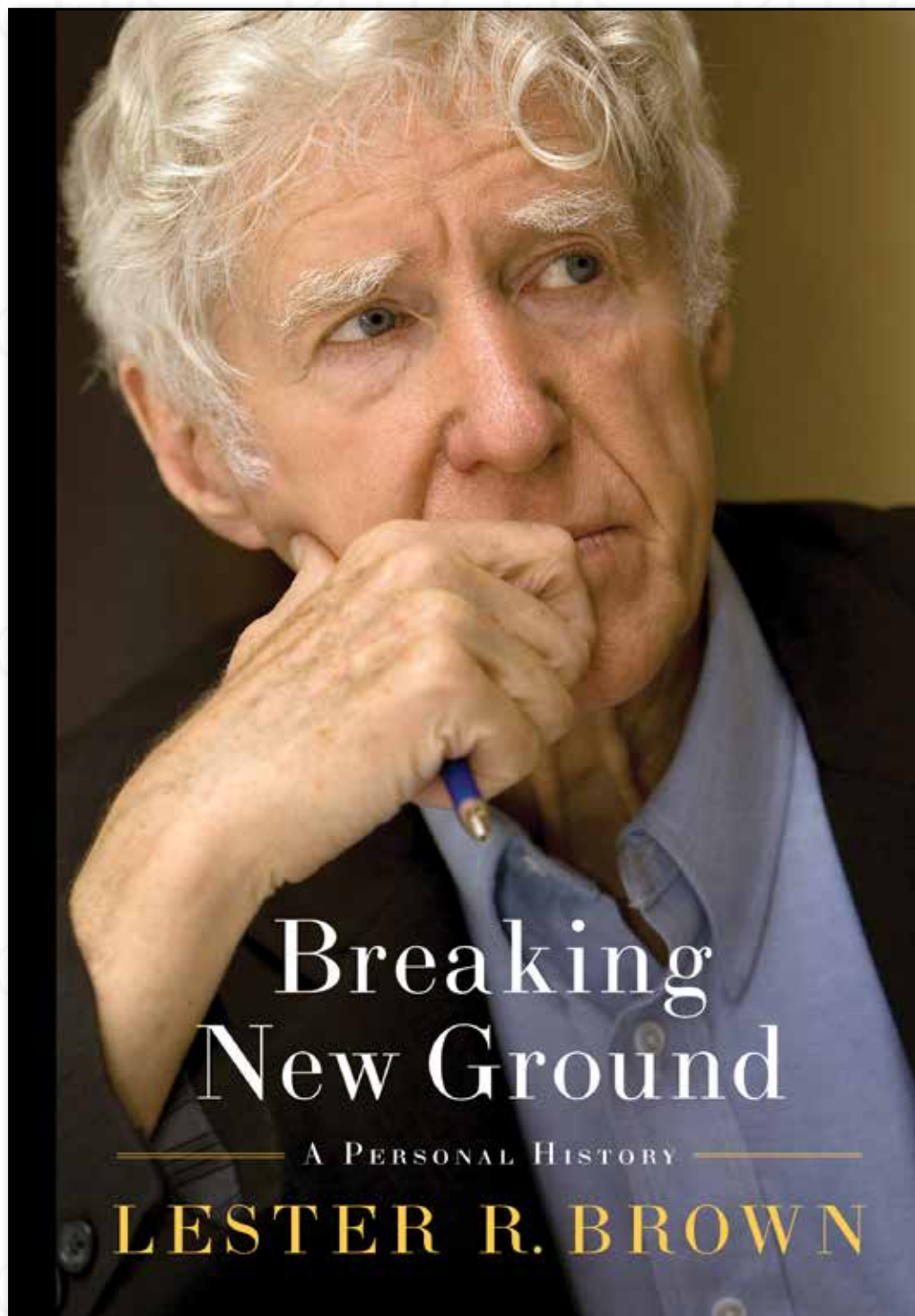
*Jersey Fresh wines and cuisine  
from our weekly market  
will be a part of this  
evening's menu.*

**RUTGERS**  
Gardens

# Office Of Communications

Portfolio of Work

Office of Community Engagement Guest Speaker Email Invitation.



**Date:**

Thursday, October 24, 2013

**Time:**

6:00 PM

moderated Q&A

with Lester, followed by  
book signing and receptions  
(with light refreshments)

**Place:**

Neilson Dining Hall,  
Rectangle Room

**To register:**

An Evening with Lester Brown

Or by phone 848-932-3572

**Deadline to register:**

October 14, 2013

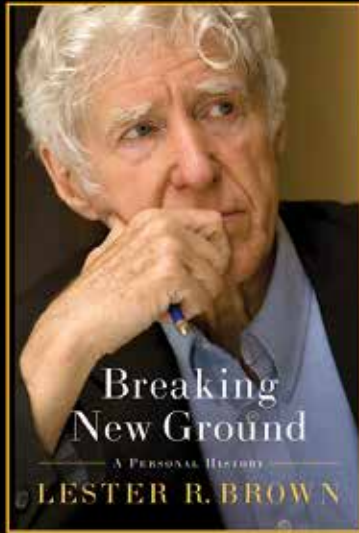


# Office Of Communications

Portfolio of Work

Office of Community Engagement Guest Speaker Poster.

## *You're Invited to an Evening with* **LESTER BROWN** (AG 1955)



Author of:  
*Breaking New Ground*  
*A Personal History*

Thursday  
October 24, 2013  
6:00 p.m.

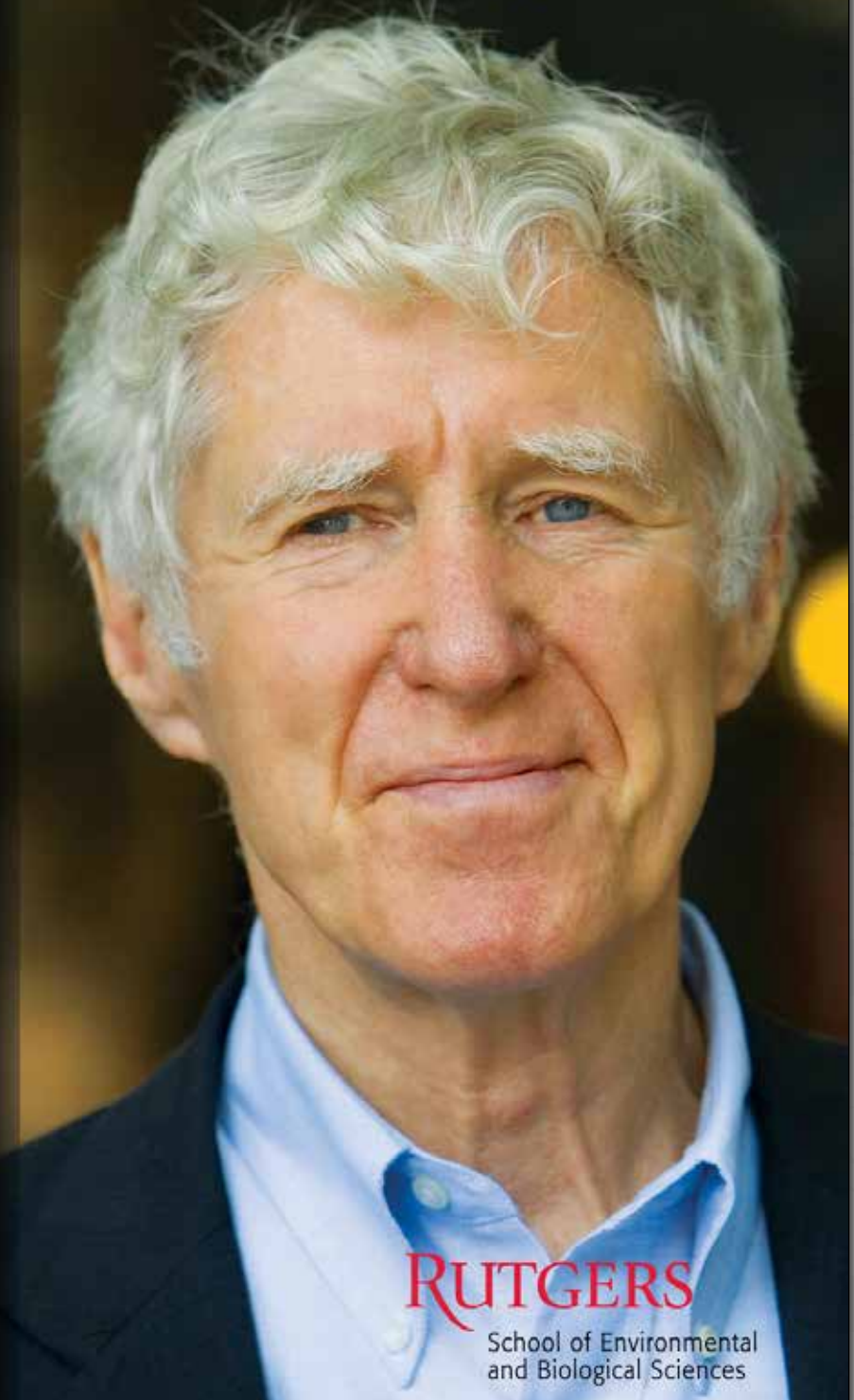
Neilson Dining Hall,  
Cook/Douglass Campus

Renowned environmentalist and Rutgers Distinguished Alumnus Lester Brown will share his life and times in a "fireside chat" with interviewer Joseph Seneca, professor of environmental economics and policy at the Edward J. Bloustein School. A book-signing and reception will follow. This event is open to the public, and free of charge.

**ONLINE REGISTRATION**

*by October 14, 2013*

**OR PHONE 848-932-3572**



**RUTGERS**  
School of Environmental  
and Biological Sciences



# Office Of Communications

Portfolio of Work

RCE 'Rutgers Cooperative Extension 100th Year Anniversary' Icons.



[njaes.rutgers.edu/extension100years](http://njaes.rutgers.edu/extension100years)

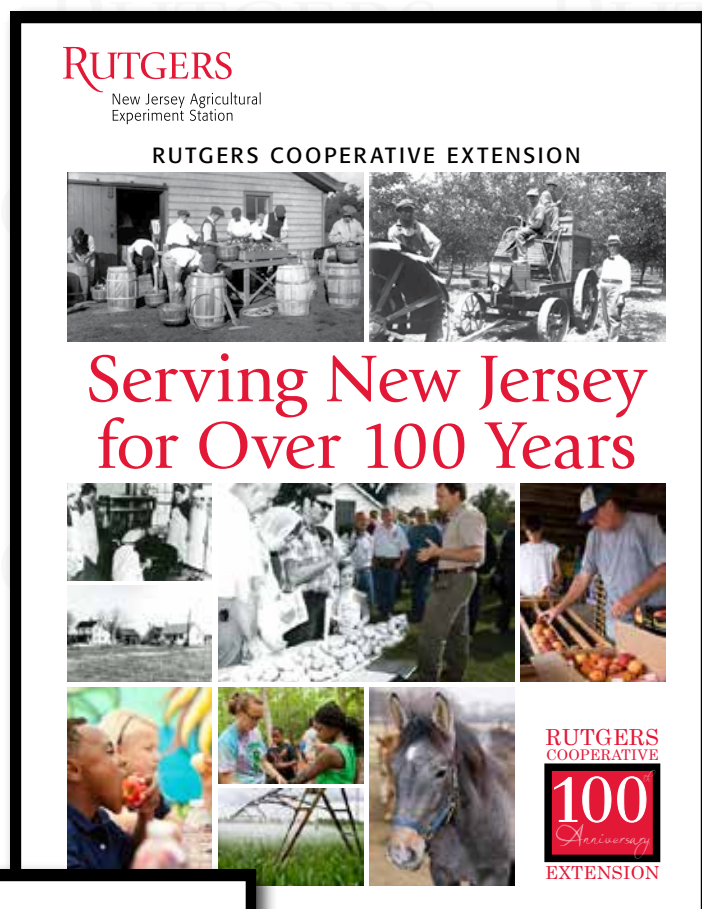
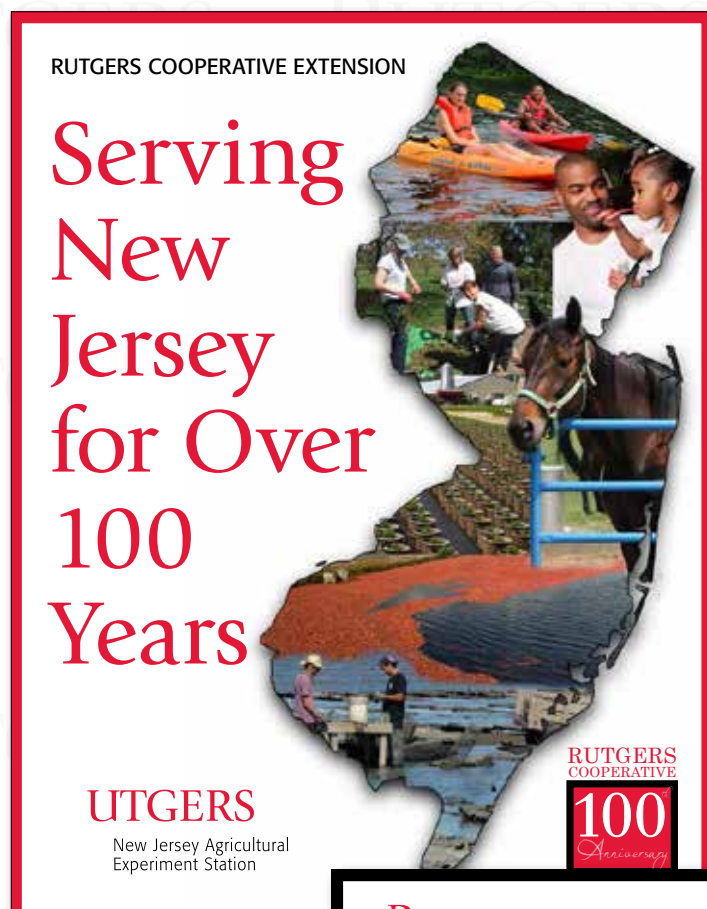


[njaes.rutgers.edu/extension100years](http://njaes.rutgers.edu/extension100years)

# Office Of Communications

Portfolio of Work

RCE 'Serving New Jersey for Over 100 Years' Posters.



# Office Of Communications

Portfolio of Work

RCE 100 Years Name Badge and County Mesh Banner.





New Brunswick Community Farmers Market Flyer.



# \$10

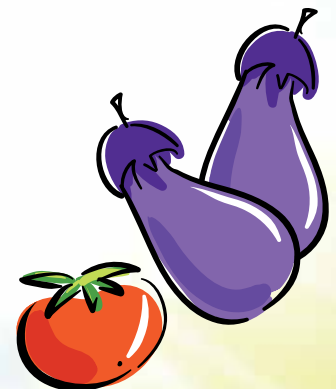
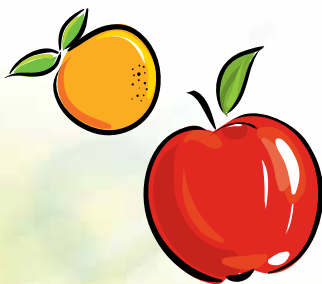
IN BENEFITS

## WIC, FMNP, SNAP, and Senior Farmers Market Checks

**BUYS YOU**

# \$15\*

in fresh, local New Jersey  
Fruits, Vegetables, and more!



**new!**

WEDNESDAYS 11-3  
**108 ALBANY STREET**

at KILMER SQUARE PARK  
at the corner of George Street and Albany Street

THURSDAYS 11-4, SATURDAYS 10-4  
**178 JONES AVENUE**

at FARMERS MARKET PAVILION AND GARDENS  
off of Georges Road next to Pine Street

WE ALSO ACCEPT CASH, CREDIT/DEBT



follow us on **facebook**

**[www.facebook.com/nbcfarmersmarket](http://www.facebook.com/nbcfarmersmarket)**

\*While funds are available – Minimum \$5 purchase per vendor buys \$7.00 of qualified produce. Subject to the terms and limitations of each benefit program. Cash and Credit/Debit purchases not eligible for incentives.

Johnson & Johnson



**RUTGERS**  
THE STATE UNIVERSITY  
OF NEW JERSEY

New Brunswick Community Farmers Market Door Tag.





We bring **healthy foods**  
and more from **local NJ farms**  
and local businesses to  
New Brunswick residents  
and families.



*Now accepting SNAP, WIC, FMNP, & SFMNP*

**new!** WEDNESDAYS 11-3  
**108 ALBANY STREET**  
at KILMER SQUARE PARK  
*at the corner of George Street and Albany Street*

---

THURSDAYS 11-4, SATURDAYS 10-4  
**178 JONES AVENUE**  
at FARMERS MARKET PAVILION AND GARDENS  
*off of Georges Road next to Pine Street*

# Office Of Communications

*Portfolio of Work*

New Brunswick Community Farmers Market Wind Banner.





# Office Of Communications

Portfolio of Work

New Brunswick Community Farmers Market Mesh Banners.



# Office Of Communications

Portfolio of Work

New Brunswick Community Farmers Market 5" x 7" Information Card in English and Spanish.

# Now Open!



We bring **healthy foods** and more from **local NJ farms** and local businesses to New Brunswick residents and families.

Featuring nutrition and health information and fun, exciting kids' activities!

[nbcfarmersmarket.com](http://nbcfarmersmarket.com)

## new location!

Wednesdays\* 11-3  
**108 Albany Street**

at Kilmer Square Park

at the corner of George Street and Albany Street

**Off street parking available**  
**Easy access from bus lines**

follow us on **facebook**

[facebook.com/nbcfarmersmarket](https://facebook.com/nbcfarmersmarket)

Thursdays\*\* 11-4, Saturdays\*\*\* 10-4  
**178 Jones Avenue**

at Farmers Market Pavilion and Gardens  
off of Georges Road next to Pine Street

We Proudly Accept  
**WIC, FMNP, SNAP,** and  
for Farmers Market Checks



**RUTGERS**  
THE STATE UNIVERSITY  
OF NEW JERSEY

## our new location!

### Albany Street

corner of George Street and Albany Street



### Jones Avenue

Gardens off of Georges Road next to Pine Street



## Abierto Ahora!



Traemos **comida saludable** y más de **granjas locales de NJ** y negocios locales a residentes y familias de New Brunswick.

Tenemos información sobre la salud y nutrición y actividades divertidas para niños!

[nbcfarmersmarket.com](http://nbcfarmersmarket.com)

## nueva ubicación!

Miércoles\* 11-3  
**108 Albany Street**

en Kilmer Square Park  
en la esquina de George Street y Albany Street

Jueves\*\* 11-4, Sábados\*\*\* 10-4

**178 Jones Avenue**

en el Pabellón del Mercado y el Jardín  
al lado de Pine Street desde Georges Road

**Tenemos estacionamiento**  
**Somos fácilmente accesible desde el autobús**

Siganos en **facebook**

[facebook.com/nbcfarmersmarket](https://facebook.com/nbcfarmersmarket)

Orgullosamente  
aceptamos **WIC, FMNP, SNAP,**  
y Cheques de FMNP para la  
población mayor

Johnson-Johnson



**RUTGERS**  
THE STATE UNIVERSITY  
OF NEW JERSEY

\* Hasta el 23 de setiembre \*\* Hasta el 29 de agosto \*\*\* Hasta el 26 de octubre

# Office Of Communications

Portfolio of Work

New Brunswick Community Farmers Market, 'Market Bucks'.



010001

# MARKET BUCKS

accepted by all market vendors • not redeemable for cash  
*aceptado por todos los vendedores; no se puede cambiar por efectivo*

# \$1

\_\_\_\_\_  
(authorized signature)

EXPIRES NOVEMBER 2013  
SE EXPIRA NOVIEMBRE 2013



050001

# MARKET BUCKS

accepted by all market vendors • not redeemable for cash  
*aceptado por todos los vendedores; no se puede cambiar por efectivo*

# \$5

\_\_\_\_\_  
(authorized signature)

EXPIRES NOVEMBER 2013  
SE EXPIRA NOVIEMBRE 2013



100001

# MARKET BUCKS

accepted by all market vendors • not redeemable for cash  
*aceptado por todos los vendedores; no se puede cambiar por efectivo*

# \$10

\_\_\_\_\_  
(authorized signature)

EXPIRES NOVEMBER 2013  
SE EXPIRA NOVIEMBRE 2013



B&S010001

# MARKET BUCKS

accepted by all market vendors • not redeemable for cash  
*aceptado por todos los vendedores; no se puede cambiar por efectivo*

# \$1

\_\_\_\_\_  
(authorized signature)

EXPIRES NOVEMBER 2013  
SE EXPIRA NOVIEMBRE 2013

# MARKET BUCKS

accepted by all market vendors • not redeemable for cash  
*aceptado por todos los vendedores; no se puede cambiar por efectivo*

# \$5

\_\_\_\_\_  
(authorized signature)

EXPIRES NOVEMBER 2013  
SE EXPIRA NOVIEMBRE 2013

# MARKET BUCKS

accepted by all market vendors • not redeemable for cash  
*aceptado por todos los vendedores; no se puede cambiar por efectivo*

# \$10

\_\_\_\_\_  
(authorized signature)

EXPIRES NOVEMBER 2013  
SE EXPIRA NOVIEMBRE 2013



# Office Of Communications

Portfolio of Work

## 4-H 'Design It!' Program Form.

New Jersey's Partnership for Afterschool Science and Engineering presents...

### Design It!

An Afterschool Engineering Program for Ages 8-12

Now enrolling afterschool sites for 2013-2014.  
An enrollment form and deposit are due **June 7**.

**Check out our website below for more information and a description of enrollment options and packages.**

Rutgers Cooperative Extension 4-H Youth Development and NJSACC - The Network for New Jersey's Afterschool Communities, are proud to offer **Design It!**, an engaging, inquiry based, and fun STEM program designed specifically for afterschool. This comprehensive program was developed by the Education Development Center, Inc. (EDC) in Boston through the support of the National Science Foundation.

Rutgers and NJSACC will provide:

1. materials kits
2. curricula
3. professional development
4. ongoing support to school and community based afterschool organizations who enroll by June 7.

This is a full-year program that includes six engineering projects. Each of the six projects lasts approximately one month, with youth meeting in their "Junior Engineer" club once a week for the duration of the program.

Selected **Design It!** projects for 2013-2014 include:

- Balls and Tracks
- Rubber Band-Powered Cars
- Gliders
- Straw Rockets
- Paper Bridges
- Trebuchets.

Youth work in teams to design, build, and test their models - repeating the process as they optimize their design.

[nj4h.rutgers.edu/designit](http://nj4h.rutgers.edu/designit)

"If you have not taken advantage of these trainings - ~~waiting longer~~ I have been to several and they are fantastic. They are focused, hands-on, and professionally run. You also leave with all of the materials you need to share these projects with your youth afterschool programs, and summer programs."

Email: \_\_\_\_\_  
New Jersey NPASS2 Participant  
2009-2012

#### Enrollment Form

Name of Organization: \_\_\_\_\_

(school, 21st CCLC, youth organization, etc.)

Address of Organization: \_\_\_\_\_

Contact for this Program: \_\_\_\_\_

Email: \_\_\_\_\_ Phone: \_\_\_\_\_

#### ☐ Full Package

\$1,800 (October, 2013 - June, 2014)

Curricula, Materials, and Workshops for All Six Projects

Balls & Tracks, Paper Bridges, Gliders, Rubber Band-Powered Cars, Trebuchets, and Straw Rockets

_____ Full Package(s)	X	\$1,800	=	_____
_____ # of additional staff beyond 3 (if any)	X	\$150	=	_____
_____ # of additional sets of materials kits	X	\$500	=	_____

#### ☐ Partial Package (Four Project Pack)

\$1,350 (October, 2013 - March, 2014)

Curricula, Materials, and Workshops for Four of the Six Projects

Balls & Tracks, Paper Bridges, Gliders, and Rubber-Band Powered Cars

_____ Partial Package(s)	X	\$1,350	=	_____
_____ # of additional staff beyond 3 (if any)	X	\$100	=	_____
_____ # of additional sets of materials kits	X	\$350	=	_____

TOTAL \_\_\_\_\_

**50% deposit (or full payment) is due by June 7, 2013. Final payment is due no later than September 19, 2013.**

Send payment (checks payable to NJSACC) and enrollment form to:  
NJSACC, Attn: **Design It!** 231 North Avenue West #363, Westfield, NJ 07090.

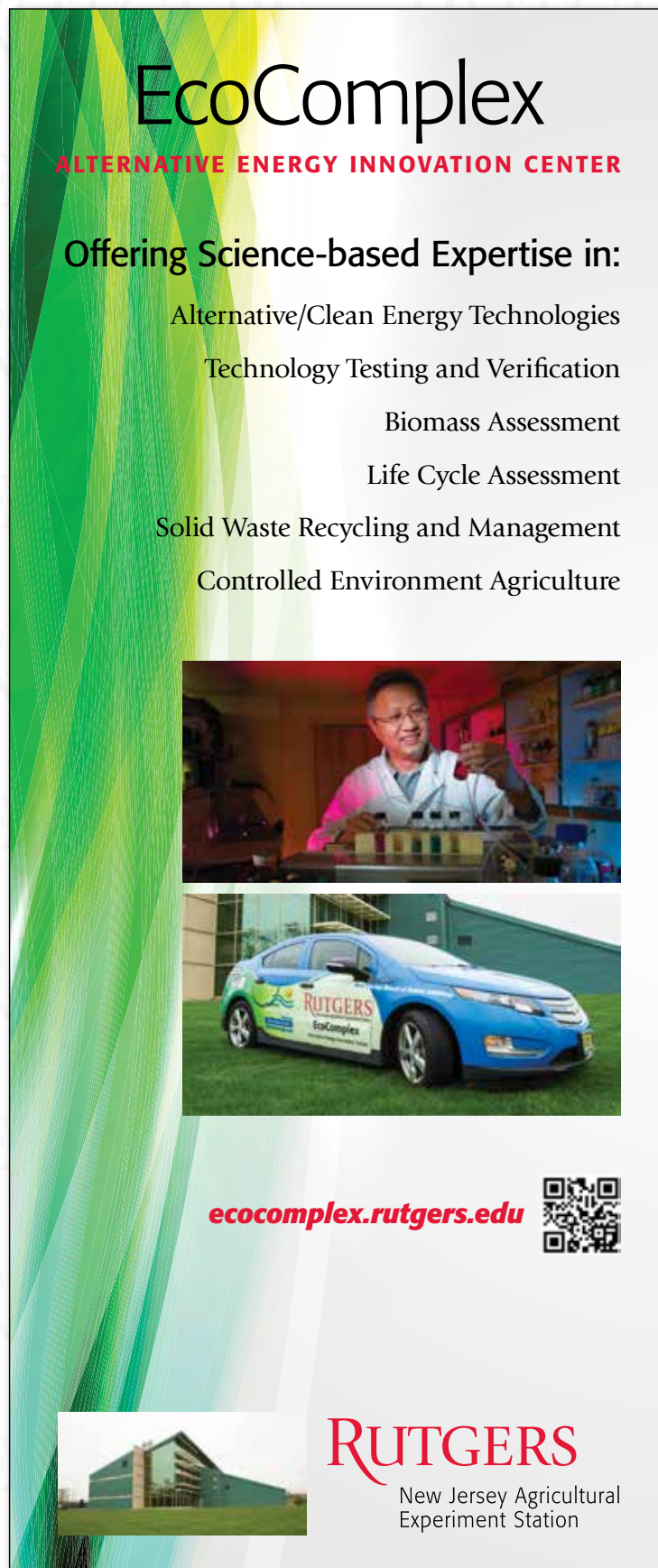
Purchase Orders and credit cards are accepted - contact Mike MacEwan at 856-701-3960 for questions regarding payment. Over the summer, additional information will be emailed to your organization's primary contact.

\$1,800 is an investment of \$90 per youth for approximately 6-months of afterschool science and engineering for a group of 20 meeting in a "Junior Engineer" club once a week. This is \$15 per youth per project and includes three full-day workshops for up to three staff, all curricula guides for each workshop attendee, all needed materials for each project, and ongoing support.



[nj4h.rutgers.edu/designit](http://nj4h.rutgers.edu/designit)

EcoComplex, 'Offering Science-based Expertise' Pull-Up Banner.


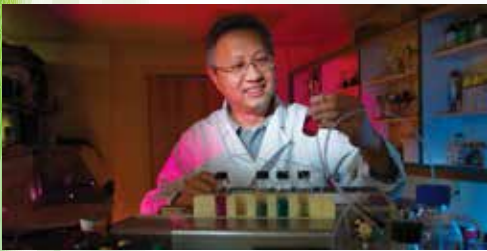


## EcoComplex



**ALTERNATIVE ENERGY INNOVATION CENTER**

**Offering Science-based Expertise in:**

- Alternative/Clean Energy Technologies
- Technology Testing and Verification
- Biomass Assessment
- Life Cycle Assessment
- Solid Waste Recycling and Management
- Controlled Environment Agriculture



**[ecocomplex.rutgers.edu](http://ecocomplex.rutgers.edu)**



**RUTGERS**  
New Jersey Agricultural  
Experiment Station

# Office Of Communications

Portfolio of Work

EcoComplex, 'Supporting New Business Concepts' Pull-Up Banner.



The pull-up banner features a green and yellow abstract background on the left side. The main content area is white with the following elements:

## EcoComplex

ALTERNATIVE ENERGY INNOVATION CENTER



The top row contains two images: on the left, a man in a white shirt and tie pointing at a diagram with labels like 'SOLAR', 'WIND', 'HYDRO', 'BIOMASS', and 'GEOTHERMAL'; on the right, a large greenhouse filled with rows of green plants. The bottom row contains a single image of a large conference room with many people seated at long tables, facing a screen at the front.

### Supporting New Business Concepts:

- Office, Lab, and Greenhouse Space
- Business Development Assistance
- Marketing and Branding
- Technical Assistance
- Research and Development
- Demonstration and Commercialization
- Research Partnerships
- State-of-the-Art Conference Facilities

[ecocomplex.rutgers.edu](http://ecocomplex.rutgers.edu)



**RUTGERS**  
New Jersey Agricultural  
Experiment Station



EcoComplex, 'NJ CERN Database' Pull-Up Banner.

## NJ CERN

### THE NEW JERSEY CLEAN ENERGY RESOURCE NETWORK

EcoComplex  
Alternative Energy Innovation Center

### NJ CERN DATABASE:

Designed to Assist RE & EE Companies to  
Grow and Prosper in New Jersey

Flexible, Easy to Navigate Website  
Provides up-to-date Information to the  
Clean Energy Community



### INFORMATION ABOUT:

State and Federal RE & EE Incentives  
Business Financing Opportunities  
Policies and Permitting Information  
Business Development Assistance  
Green Job Training

[njcern.rutgers.edu](http://njcern.rutgers.edu)



**RUTGERS**

New Jersey Agricultural  
Experiment Station

# Office Of Communications

Portfolio of Work

## The Russell Nutrition Symposium Event Program.

This symposium is sponsored in part by  
The Office of the Executive Dean for the School of Environmental and  
Biological Sciences, The Department of Nutritional Sciences,  
The New Jersey Institute for Food, Nutrition and Health and  
by unrestricted educational grants from PepsiCo and Campbell's.

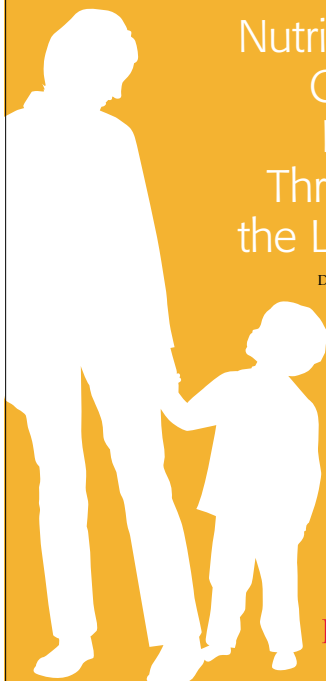


We gratefully acknowledge the contributions of all speakers  
involved in this program.

## The Russell Nutrition Symposium

### Nutrition and Cognitive Function Throughout the Life-Span

Douglass Campus Center  
October 24th, 2013



### Purpose and Scope

The Russell Nutrition Symposium is one of the highlights of the Rutgers Department of Nutritional Sciences academic calendar. Previous symposia in the series focused on the long-term health implications of nutrition in childhood (2011) and maternal-infant nutrition (2012). In this year's third annual Russell Symposium, the topic is how nutrition affects the brain and cognitive function. The presentations by leading international experts in their respective fields span a range of topics from cognitive development in early childhood to preservation of cognitive function in old age.



**9:00-9:30** Registration - Continental Breakfast

#### **9:30-9:45** Welcome & Introductions

Robert M. Goodman, Ph.D., Executive Dean and Director School of Environmental and Biological Sciences, Rutgers University  
Joshua W. Miller, Ph.D., Chair, Department of Nutritional Sciences, School of Environmental and Biological Sciences, Rutgers University

#### **9:45-10:30** Hidden Hunger in America

**Maureen M. Black, Ph.D.**, Professor Department of Pediatrics, University of Maryland School of Medicine, Baltimore, Maryland

#### **10:30-11:15** Macro and Micronutrient Deficiencies and Development in Children

**Sally Grantham-McGregor, MBBS MD DPH FRCP** Emerita  
Professor of International Child Health, UCL Centre for International Health and Development, Institute of Child Health, University College, London

#### **11:15-12:00** Brain and Behavior in Early-Life Iron Deficiency

**Betsy Lozoff, M.D.**, Professor, Department of Pediatrics and Communicable Diseases & Research Professor, Center of Human Growth and Development, University of Michigan, Ann Arbor, Michigan

**12:00-1:30** Lunch

#### **1:30-2:15** LCPUFA Supplementation and Developmental Outcomes

**John Colombo, Ph.D.**, Professor, Department of Psychology, University of Kansas Director, Schiefelbusch Institute for Life Span Studies, Lawrence, Kansas

#### **2:15-3:00** Synapse Survival in Alzheimer's Disease - The Battle between Insulin and the Toxins that Cause Dementia

**William L. Klein, Ph.D.**, Professor, Department of Psychology, University of Kansas Director, Schiefelbusch Institute for Life Span Studies, Lawrence, Kansas

#### **3:00-3:45** Protecting The Brain from Alzheimer's Disease with High-dose B Vitamins

**A. David Smith, FMedSci**, Professor Emeritus Department of Pharmacology, University of Oxford, Oxford, United Kingdom

**3:45- 4:00** Discussion/Adjourn

### Speakers



**Maureen M. Black, Ph.D.** is the John A. Scholl MD and Mary Louise Scholl MD Endowed Professor in the Department of Pediatrics and the Department of Epidemiology and Public Health at the University of Maryland School of Medicine. She also has appointments as Adjunct Professor in the Center for Human Nutrition at the Johns Hopkins Bloomberg School of Public Health and the Department of Psychology at the University of Maryland Baltimore County. Dr. Black's research includes intervention trials to promote children's health, nutrition and development among low income families in Maryland and in low and middle-income countries. Her work focuses on preventing both undernutrition and overweight.

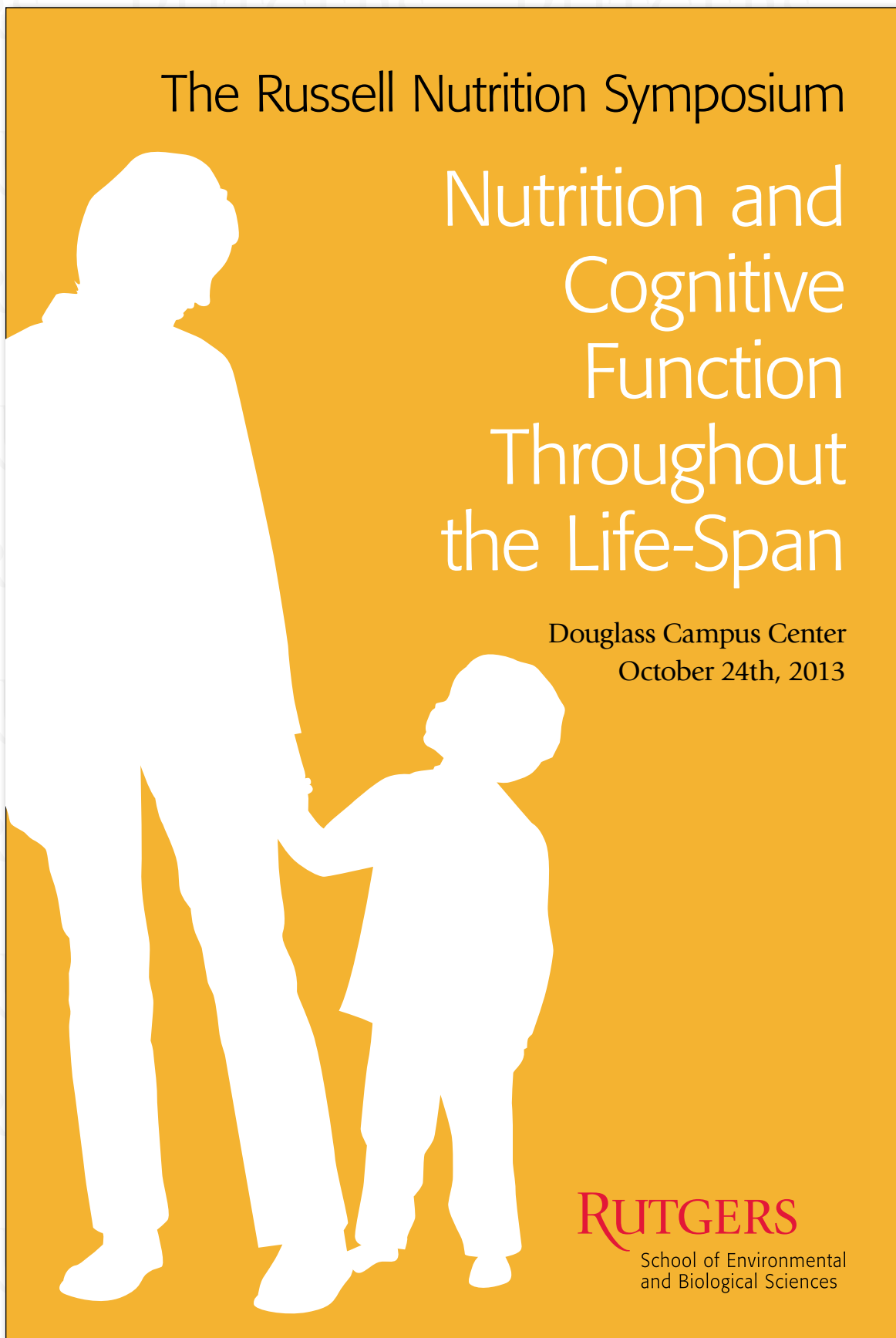


**Sally Grantham-McGregor, MBBS MD DPH FRCP** trained in medicine at St Marys Hospital, London University and worked at the Tropical Metabolism Research Unit at the University of the West Indies from 1974 until joining the Institute of Child Health, University College London in 1995. She chaired the Steering Committee for the Lancet series on Child Development in Developing Countries published in 2007. She has published over 200 peer reviewed articles and book chapters on factors affecting child development in developing countries. She previously chaired the subcommittee on Nutrition and Mental Development of IUNS and was a member of the Task Force on Iron for the UK Scientific Advisory Committee on Nutrition. She is on the Advisory Board for Early Childhood Program for Open Society Foundation, and a member of the Advisory Panel on Early Childhood and Readiness to Learn for the Inter-American Development Bank, Washington and on the Global Child Development board. She contributed to the recent series in the Lancet on Maternal and Child Nutrition.



**Betsy Lozoff, M.D.** a developmental-behavioral pediatrician, received a BA from Radcliffe College in 1965 (Social Relations) and MD from Case Western Reserve University School of Medicine in 1971. She was Director of the University of Michigan Center for Human Growth and Development for 11 years and is currently Professor of Pediatrics and Communicable Diseases in the Medical School and Research Professor at the Center. Lozoff's research focuses on the effects of iron deficiency on infant behavior and development, a widespread concern since iron deficiency is the most common single nutrient disorder in the world. Her research has received uninterrupted support from NIH for the last 33 years, and NICHD recognized her outstanding contributions by a MERIT Award, 1999-2009. She was a member of the National Research Council/Institute of Medicine of the National Academies Board on Children, Youth, and Families from 2006-2009.

The Russell Nutrition Symposium Event Poster.

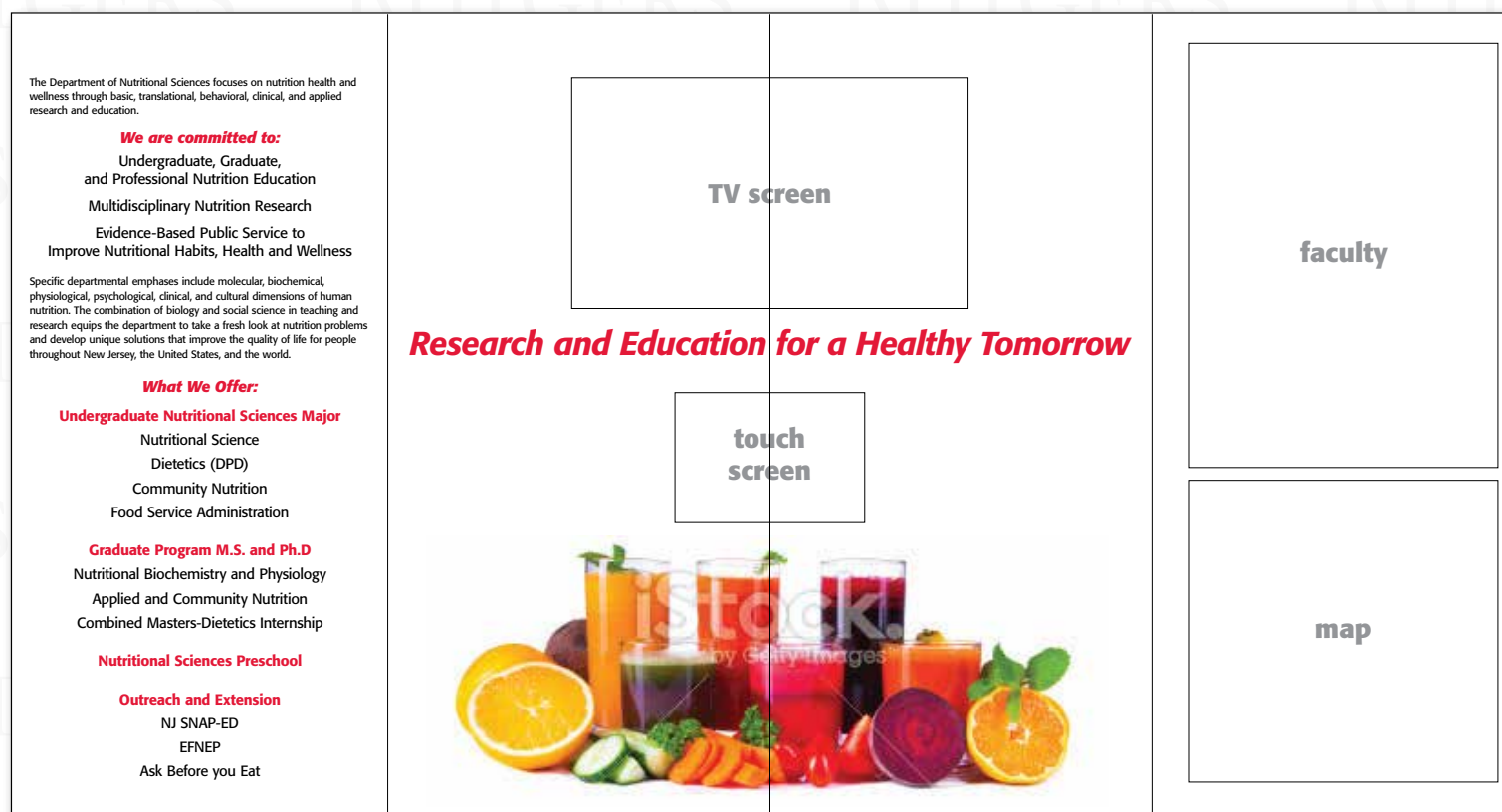




# Office Of Communications

Portfolio of Work

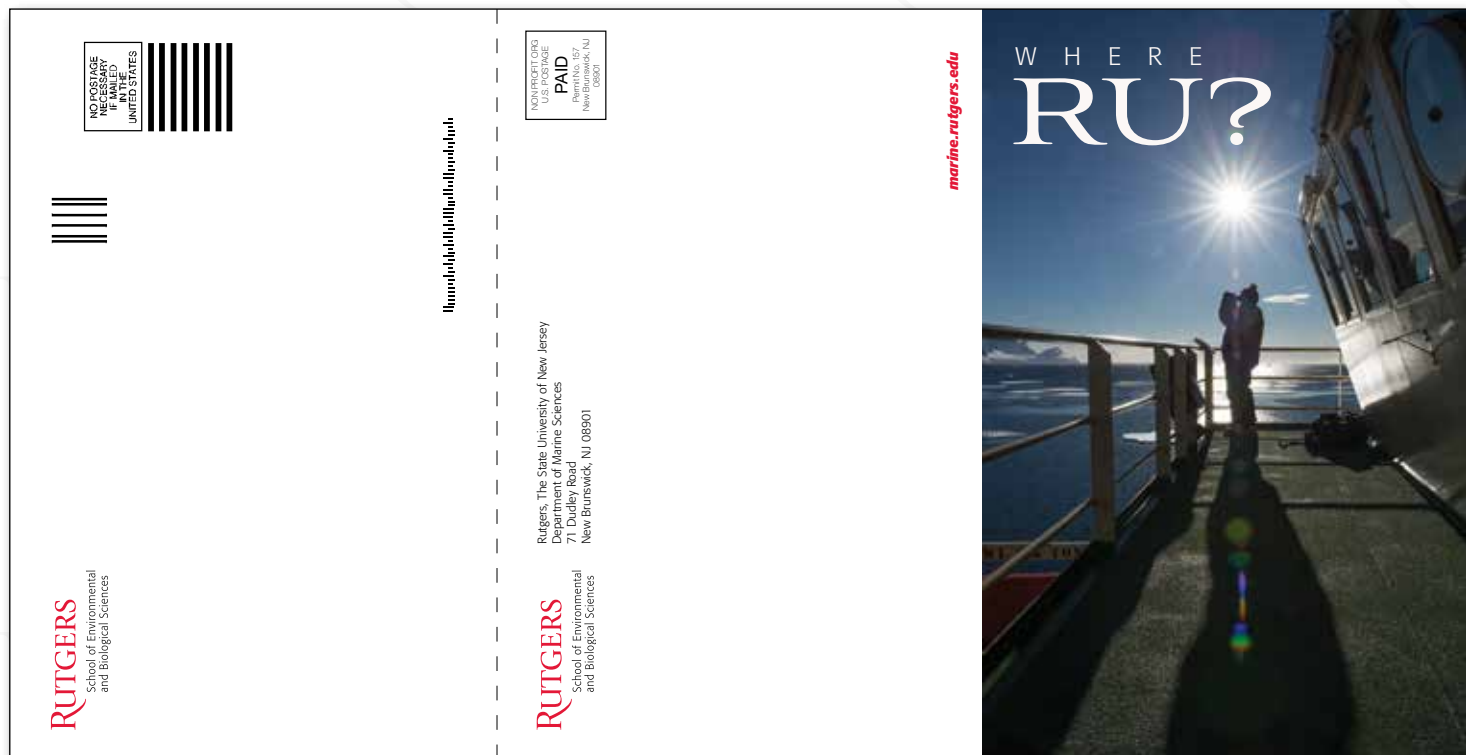
The Department of Nutrition, 4 Panel Wall Display.



# Office Of Communications

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## Marine and Coastal Sciences Self Mailer Tri-Fold.



The Rutgers Marine Science family has grown dramatically over the last two decades and to celebrate our growing alumni family we are focusing on strengthening our wider community. Please share any updated information so we can keep you informed about exciting happenings here in NJ and around the world, lectures by Rutgers people in your local communities, and to better coordinate the growing social network of Rutgers Marine Science alumni. We want to invite you back to campus to interact with current students and faculty as our doors are always open!

*We look forward  
to seeing you!*



marine.rutgers.edu

For more information contact us at:  
848-932-3408 or email us at:  
kasule@marine.rutgers.edu

Name: \_\_\_\_\_  
Spouse: \_\_\_\_\_  
Address: \_\_\_\_\_  
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**RUTGERS**  
School of Environmental  
and Biological Sciences

IFNH Ground Breaking Ceremony Email Blast Invitation.

The graphic features a background image of a large, modern building under construction. A large, golden shovel is positioned diagonally across the lower right portion of the image. The text is overlaid on the image in various colors and fonts. The main title 'Ground Breaking Ceremony' is in a large, bold, brown font. The date 'Friday, August 30, 2013' is in a smaller, bold, black font. The location 'NEW JERSEY INSTITUTE FOR FOOD, NUTRITION, AND HEALTH' is in a red, sans-serif font. The Rutgers University logo is in the bottom left corner. The event details, including the time '10:00 a.m.', the building name 'Food Science Building', the address '63 Dudley Road', and the location 'New Brunswick, NJ 08901', are in a black, sans-serif font. The RSVP information 'RSVP by August 15' and the link '[Click here to respond](#)' are in a red, sans-serif font.

Please join us **Friday, August 30, 2013** for the

**NEW JERSEY INSTITUTE FOR FOOD, NUTRITION, AND HEALTH**

# Ground Breaking Ceremony



10:00 a.m.  
Food Science Building  
63 Dudley Road  
New Brunswick, NJ 08901

RSVP by August 15  
[Click here to respond](#)



# Office Of Communications

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'3rd ReConnect with Rutgers Food Science' Post Card.



You are cordially invited to attend the *3rd ReConnect with Rutgers Food Science* event on Friday April 25, 2014 at the Cook Campus Center.

Enjoy reconnecting with friends, alumni, faculty and colleagues of the Department of Food Science at Rutgers University. Friday's event will begin in the afternoon with a networking mixer, including alumni, students, current and retired faculty, and guests, followed by a sit-down dinner and a fun filled evening.

Stay the night, and come back Saturday morning for a continental breakfast followed by an optional tour of the Food Science building. You can also enjoy *Rutgers Day* activities including barbeques and Food Science ice cream.

**For more information and registration visit us at: [foodsci.rutgers.edu](http://foodsci.rutgers.edu)** or contact Irene Weston at 848-932-5432 or [weston@aesop.rutgers.edu](mailto:weston@aesop.rutgers.edu).

A \$55 per person contribution is kindly suggested to defray the cost of the event. I look forward to seeing you in April!

- Mukund Karwe, Chair, Department of Food Science

Department of Food Science  
Rutgers University  
65 Dudley Road  
New Brunswick, NJ 08901

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# Office Of Communications

*Portfolio of Work*

FCHS 'Working Well in New Jersey' Logo Design.



# Office Of Communications

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FCHS 'Working Well in New Jersey' 52 pg Toolkit Online PDF with Live Links.



## Introduction

The *Working Well in New Jersey Toolkit* was made possible by a grant from CDC to the New Jersey Department of Health – Office of Chronic Disease Prevention. The Office of Chronic Disease Prevention sub-contracted the grant to Rutgers University/Rutgers Cooperative Extension/Department of Family and Community Health Sciences (FCHS) and Employees Association of New Jersey. Joanne Kinsey, FCHS Educator in Atlantic/Ocean Counties, and Kathleen Morgan, Chair, Family and Community Health Sciences and John Sarno, Employees Association of New Jersey developed the *Working Well in New Jersey Toolkit* for implementation in the 21 counties of New Jersey as part of the grant. The goal is to have the *Working Well in New Jersey Toolkit* be the New Jersey State Worksite Wellness Toolkit.

Heart disease and stroke, the principal components of cardiovascular disease (CVD), are among the nations leading causes of death and disability. Heart disease is a leading cause of permanent disability among working age adults. The emphasis of this toolkit is to prevent heart disease and stroke by addressing risk factors that can eventually lead to heart disease. The risk factors include physical inactivity, high blood pressure, poor nutrition, obesity, high blood cholesterol, tobacco addiction, and other health-related behaviors. It will take the active involvement of public and private partners to bring about change in employee and community behaviors. Together, we can improve the healthy lifestyles of our employees and their families while at the same time reducing the burdens of obesity, heart disease and stroke, and high employer/employee health care costs.

Special thanks to the following New Jersey employers for participating in the pilot of the *Working Well in NJ Toolkit*:

AAA South Jersey	Michael Foods, Inc.
The Arc Atlantic County	Miele
Association Headquarters	New Point Behavioral Health Care
Cape Counseling Services, Inc.	Northstar Travel Media
Eastern Propane	Novadent
Circle of Care for Children & Families	Preferred Behavioral Health of NJ, Inc.
Passaic County	QualCare, Inc.
Employment Horizons	Robert Wood Johnson Hospital- Rahway
Cedar Crest/Erickson Living	Solix, Inc.
Fellowship Village	Township of Montclair
Groupe SEB USA	Flight Centre USA, Inc.
Integrity House, Inc.	Wakefern Food Corporation
James Alexander Corporation	

## What is a Worksite Wellness Program?

A worksite wellness program is an organized approach to begin to make necessary changes that will support employee health like environment, policies, and programs that encourage healthy lifelong behaviors like, healthy eating, increased physical activity, reduced tobacco exposure, and reduced stress.

## Why Have a Worksite Wellness Program?

The average employee spends more time in the work setting than any other setting in an average day. Of most places, the work setting (like schools) lends itself to policy and environmental changes that encourage healthy habits. Worksites provide a strong environment to change behavior with healthy habits than can lower the number of health risk factors. When employers invest in worksite health promotion, healthy motivated employees are vitally important to a workplace and can have a significant impact on an employer's bottom line related to health care costs. An investment in worksite wellness:

- Improves employee health, morale and quality of life
- Increases productivity, while creating a desirable environment
- Provides a return on investment
- Reduces absenteeism

Employees spend 36% of their total waking hours at work. Many employees are becoming overweight due to poor eating habits, and physical inactivity. Heart disease and stroke are linked to common risk factors associated with poor eating habits, physical inactivity, and tobacco use.

The worksite environment is ideal for increasing employee knowledge and skills needed to address healthy lifestyle behaviors. Together, employers and their employees can boost employee morale, potentially increase productivity by decreasing absenteeism, and improve attention to physical fitness. In addition, the healthy lifestyles of employee's families, and communities can be improved, while at the same time reducing the burdens of obesity, heart disease and stroke.

The emphasis of the *Working Well in New Jersey Toolkit* is to prevent heart disease and stroke by addressing risky behaviors that can eventually lead to chronic disease. The risk factors include physical inactivity, high blood pressure, poor nutrition, obesity, high blood cholesterol, tobacco addiction, and other health-related behaviors. It will take the active involvement of public and private partners to bring about change in employee and community behaviors.

## Video! Why Worksite Wellness

<http://youtu.be/73s2B-Slaw>  
<http://vimeo.com/69475645>



Today's employers are wise to invest in worksite health promotion. Motivated, healthy employees are the vitality of a workplace as a whole and have a major impact on an employer's bottom line. An investment in *Working Well in New Jersey* health promotion programs:

- Improve employees' health, productivity and contribute to an improved quality of life.
- Reduce missed workdays due to chronic illness related to heart disease and stroke – reducing the cost to employers for downtime and temporary help.
- Decrease absenteeism, employee turnover and health-care costs.
- May reduce the management of health care, and the cost of benefits and insurance.
- Create a culture of wellness in the work environment.

## The Burden of Heart Disease and Stroke for New Jersey


- More than 1 out of 4 deaths in NJ were due to heart disease (National Vital Statistics Report, 2009).
- 19,548 New Jersey residents died from heart disease in 2006 (27.8% of total deaths in NJ). (National Vital Statistics Report, 2009).
- 3,468 New Jersey residents died from a stroke in 2006 (4.9% of total deaths in NJ). (National Vital Statistics Report, 2009).
- According to 2007 Behavioral Risk Factor Surveillance System (BRFSS) survey results, adults in NJ reported the following risk factors for heart disease and stroke:
  - 28.2% had high blood pressure
  - 38.6% of those screened reported having high blood cholesterol
  - 9.2% had diabetes
  - 17.1% were current smokers
  - 62.3% were overweight or obese (BMI greater than or equal to 25.0)
  - 51.9% reported no exercise in the prior 30 days
  - 72.5% ate fruit and vegetables less than 5 times a day

Risk Factor	New Jersey	Nationwide (States and D.C.)
Eat fruits and vegetables less than 5 times/day	72.5	75.6
Overweight or obese	62.3	62.9
No moderate or vigorous physical activity	51.9	50.5
High total blood cholesterol	38.6	37.6
High blood pressure	28.2	27.8
Cigarette smoking	17.1	19.8
Diabetes	9.2	8.0



FCHS 'Working Well in New Jersey' 52 pg Toolkit Online PDF with Live Links (*continued*).

## Creating a Healthier Workplace



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### Steps to Creating a Healthier Workplace

Health promotion and disease prevention can add up to healthier work culture including: improved employee health, the reduction of healthcare costs, and higher productivity. In order to support improved practices in the worksite a simple step-by-step process can be used. The following steps will ultimately determine the success of a worksite wellness program:

- Create a Culture of Wellness in the Worksite
- Gain Support of Management
- Create a Wellness Committee
- Assess the Needs and Interest of Employees
- Develop a Realistic Plan to Achieve Your Goals
- Marketing Your Program
- Recruit Community Partners
- Low, Medium, and High Cost Resources
- Topics of Interest to NJ Employees
- Legal Issues
- Evaluate the Program
- Sustaining Your Wellness Program

In some cases worksites may need to adjust their strategic plan to effectively accomplish a healthier worksite. Others may encourage employees to increase their physical activity by outlining a walking path around the inside of the facility or outdoors in a safe well-lit area. Some employers may establish a series of educational workshops to best suit the needs of their employees. Even the placement of bilingual posters could encourage employees to adopt healthy lifestyle strategies. In all, a worksite wellness program must become part of the organization to develop a culture of wellness that will ultimately impact the health of the individuals and the organization.

Do you need technical assistance? Please note the 25 technical assistance webinars available to help you develop your program.  
Visit our website: [gnghnj.rutgers.edu/webinars](http://gnghnj.rutgers.edu/webinars)

Working Well in NJ Online Webinar Training: [Technical Assistance](#)


### Voices From the Field

We are very excited and committed to this program! Have brought in fresh fruit on a weekly basis and it was well received so they are now expanding the budget for this. We are going to brand this project and make it known to the employees. We have started conversations with our health care provider about premium discount for employees participating in our wellness programs. Some employees are not in the health care program so we are thinking about incentives for them to become engaged.

*Northstar Travel Media*

We are working on getting healthier foods in our vending machines (and the company offsetting the cost of those, so they are more affordable). We have changed serving birthday cupcakes each month to either fresh fruit or yogurts. We have started a weight watchers club and meet weekly, and we are looking into a smoking cessation program. We would also like to have a local farmer come here once a week this summer to sell fresh vegetables to our employees as they leave work - we could offset the cost a bit.

*James Alexander Corporation*

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### Create a Culture of Wellness in Your Organization

A culture of wellness does not happen overnight because a cultural shift in an organization is more than a few haphazard activities. A culture of wellness must be sustainable to be effective. A few barriers to the organizational shift may include confusions about where to start your efforts, or lack of participation among employees. Start small and build success into your program and soon your organization will be on your path to wellness.

A culture of wellness includes programs that educate employees about nutrition and making healthy food choices and avoiding diet trends. It might include providing healthy choices while limiting or eliminating high sugar/fat/sodium options in vending machines in the worksite. Perhaps offering and identifying healthy options in the cafeteria will be part of your culture of wellness.

Emotional health issues should also be addressed in a culture of wellness. Consider programs about stress management, anxiety and depression for your employees. Reducing the incidence of those issues will increase your organization's bottom line. Preventative care is a part of managing employee health. Participate in programs that encourage annual physicals and age-appropriate screenings.

It is important for employers to be supportive and encourage opportunities for increased physical activity. Encourage employees to participate in community events such as wellness walks for local charities. Employees, as individuals or in interdepartmental teams can participate in the Walk NJ Point-to-Point online challenge to increase physical activity (see Walk NJ Point-to-Point in the Resources section of this toolkit). Some employers find it useful to designate a walking path on-site in the building or on company property. Employees will be motivated to take a walk during break or lunch times if a walking path is accessible and safe.

Working Well in NJ Online Webinar Training: [Develop a Culture of Wellness](#)

**Video! Create a Culture of Wellness**  
<http://youtu.be/aKAKCR2XYio>  
<http://vimeo.com/69476050>

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### Voices From the Field

One thing that shows our success - is now I have employees offering ideas and suggestions for the program. It's great to see people joining the gym or walking more or just plain learning more about nutrition. We had very positive feedback to all of the programs we have offered. We currently have 36 people out of 103 employees participating in a walk program. We have 10 - 15 people each week participating in our weight watchers club. When we have parties, people are bringing more healthy items to share. Hopefully the smoking cessation program will be next and then maybe a smoke free site.

*James Alexander Corporation*

We are taking small steps, but wellness seems to be catching on. The response to the weekly Get Moving Get Healthy NJ Workforce newsletters has been good. Develop a plan for regular (monthly or every other month) presentations and "hands on" experiences for staff, researching offering Zumba classes, starting a walking club, forming sports teams to participate in local leagues, developing guidelines for healthy refreshments for meetings.

*Preferred Behavioral Health of NJ*

We have taken the feedback we've received from our employee population and have begun to implement a multitude of programs so that we tap into the broad demographic population versus isolated programs that generally cater to a segment of the population. We are now measuring the success of our wellness initiatives by way of defined metrics.

*Robert Wood Johnson Hospital Rahway*

Everyone is pleased and accepting our wellness initiatives. Our next goal is to get everyone involved with organizing activities. Getting on site yoga instruction and putting meditation videos on the portal.

*Employment Horizons*

Started the discussion on increasing the physical activity tasks at work as well as at home.


*Michael Foods*



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## FCHS 'Working Well in New Jersey' 52 pg Toolkit Online PDF with Live Links (*continued*).

### Gain Support of Management



It is essential to gain the support of management to conduct an effective worksite wellness program. For a successful wellness initiative, the employer and those administering the initiative must share the vision of the program. In some cases the CEO will be the driver of the health promotion work and in other instances a human resources leader or wellness champion within the worksite may lead the effort. The most effective programs may be the result of including wellness as part of the company mission. The level of buy-in from senior level management will be critical to a successful program. A good indication may be that management participates in wellness practices and activities to improve their personal health.

Before approaching management be prepared to answer these questions:

- How will this initiative improve our workplace?
- How much will it cost to run this program or bring about the desired change?
- How can we persuade workers to participate?
- How will we know if this was meaningful use of time and resources?

Tips for gaining management support:

- Find out if management participates in wellness activities and practices healthy lifestyle habits.
- Tailor the health promotion strategies to meet the goals and mission of the organization.
- Share worksite health care claims data if it is available.
- Use the Burden of Heart Disease & Stroke for NJ, and the Chronic Disease & Health Promotion in America sections of the *Working Well in NJ Toolkit*.
- Share the CDC Worksite Health Promotion website: [cdc.gov/workplacehealthpromotion](http://cdc.gov/workplacehealthpromotion).
- Talk about the Return on Investment (ROI) of worksite health promotion programs.
- Recruit local partnerships with the American Heart Association and the American Cancer Society.
- Seek out cost-free or low-cost programs to get started.
- Encourage managers lead teams.

Working Well in NJ Online Webinar Training: [Gain Support of Management](#)

#### Voices From the Field

QualCare has established a Wellness Committee inclusive of the organization's President, Medical Director, CEO, Director of Benefits and staff level employees. This top-down approach assists our organization in achieving its objectives. *Robert Wood Johnson Hospital Rahway*

A member of our Administrative Team participates on wellness committee and serves as liaison. *Preferred Behavioral Health of NJ*


Our management is totally on board! *Flight Centre USA*

A presentation was done for the executive team to get their buy-in. *Northstar Travel Media*

We created a "LiveRight" Calendar outlining all Health and Wellness events and handed out a copy to each Executive at Executive Staff Meeting. *Wakefern Food Corporation*

**Video! Gain Management's Support**  
<http://www.youtube.com/watch?v=qU3HPm0tU20>  
<http://vimeo.com/69475647>

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### Steps to Develop a Wellness Committee

The wellness committee plays a large role in the effectiveness of a worksite wellness initiative. Gathering interested, or experienced employees, positive role models, and wellness champions on the committee will ensure its effectiveness. Even a small team of dedicated employees can lead an effort that gets the ball rolling toward a culture of wellness in the worksite. In large organizations the committee can include a cross-section of employees, management, human resources, and other interested employees. The committee's charge will be to explore and identify worksite wellness programs that are most appropriate for the institution. Below is a step-by-step process:

**Step 1: Design the Committee**

Invite representation from various aspects of the organization. It is important to include employees who work in departments that impact staff health, including human resources and benefits, work in departments that impact environment and policy change. Designate a wellness champion who will help lead the charge to improved health and facilitate regular meetings.

**Step 2: Start Discussions About Worksite Wellness**

Develop a Work Plan that is realistic for the organization and the employees. Work toward making changes, one at a time, showing an impact on the work environment. At each meeting review the tasks to be done and those that have been completed. Invite new members to keep the conversation fresh. If meeting refreshments are served, make sure they are healthy choices! Start small!!!!

Once the Wellness Committee has defined an implementation plan it is time put the plan into action. If your worksite is new to the idea of health promotion it will be best to take one step at a time. Select one or two achievable goals to work toward, then evaluate your progress before moving on to additional goals. If your worksite has already made progress towards earlier goals to develop the next plan to reach a higher goal.

A culture of wellness will encourage a sense of belonging, self-confidence, sense of accomplishment and increased morale among employees. The healthier environment may also lead to higher productivity on the job and reduced absenteeism. Tangible items to reinforce a culture of wellness may include some of the following changes:

- Company policy to eliminate or restrict smoking on the worksite
- Healthier menu choices in the cafeteria
- Opportunities for employees to increase their level of physical activity (walking path)
- Time for employees to participate in informational workshops or lunch and learn programs
- Discounts at a local fitness center
- Recognition in company communications
- Individual or team awards

- Cash awards or gift cards
- Merchandise awards
- Reduction in health insurance costs

Working Well in NJ Online Webinar Training: [The Importance of a Wellness Committee](#)

#### Voices From the Field

Our organization created a Wellness Group then distributed surveys to staff for their input. So far we have removed vending machines and started offering fresh fruit and vegetables once a month to staff. We also developed a points system for wellness rewards for organized activities and on-site in service wellness programs (nutritionist). *Employment Horizons*

We established an employee wellness committee, and then installed state-of-the-art water coolers to encourage more water consumption. In addition we implemented the Get Moving Get Healthy NJ Workforce online wellness newsletter series with Rutgers Cooperative Extension. We screened documentary "Hungry for Change" and sampled fruit/vegetable juices and healthy salads. Now we are working with vending machine company on offering healthier options, and establishing an organic produce co-op. *Preferred Behavioral Health of NJ*

We are in the process of finalizing our wellness committee. The plan is to bring in three speakers this year: cancer prevention, diabetes prevention, and heart health. Next we will execute a no tobacco policy. *Eastern Propane*

Our wellness committee plan was to introduce biometric readings, lunch & learns, considering plan changes that will support wellness. *Integrity House*



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# Office Of Communications

Portfolio of Work

## FCHS 'Working Well in New Jersey' Tri-Fold Brochure.

Additional technical assistance features of the *Working Well in NJ Toolkit*:

- Chronic disease and health promotion in America
- The burden of heart disease and stroke in New Jersey
- Links to 25 brief webinar trainings plus 10 informational videos on YouTube and Vimeo
- Information about HIPAA and Non-HIPAA issues
- Walk NJ Point-to-Point online tracking tool
- Employer and employee pre and follow-up assessments
- Wellness Committee Prioritizing Tool
- Wellness Committee Work Plan
- Resource directory for employers

For more information find us at:

[nj.gov/health/fhs/chronic/stroke.shtml](http://nj.gov/health/fhs/chronic/stroke.shtml)

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New Jersey Agricultural  
Experiment Station  
■ Cooperative Extension



**EANJ**



**WORKING**  
**Well**  
In New Jersey

## New Jersey's Worksite Wellness Program



For more information contact:

Joanne Kinsey  
Family and Community Health Sciences Department  
Rutgers Cooperative Extension Atlantic & Ocean Counties  
6260 Old Harding Highway  
Mays Landing, NJ 08330  
609-625-0056  
jkinsey@njaes.rutgers.edu  
gmghnj.rutgers.edu/workforce



Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.



### The New Jersey Worksite Wellness Toolkit

The average employee spends more time in the work setting than any other setting in an average day. Of most places, the work setting (like schools) lends itself to policy and environmental changes that encourage healthy habits. Worksites provide a strong environment to change behavior with healthy habits that can lower the number of health risk factors. When employers invest in worksite health promotion, healthy motivated employees are vitally important to a workplace and can have a significant impact on an employer's bottom line related to health care costs. An investment in worksite wellness:

- Improves employee health, morale, and quality of life
- Increases productivity, while creating a desirable environment
- Provides a return on investment
- Reduces absenteeism

Employees spend 36% of their total waking hours at work. Many employees are overweight due to poor eating habits, and physical inactivity. Heart disease and stroke are linked to common risk factors associated with poor eating habits, physical inactivity, and tobacco use.

### Toolkit Components:

- Create a culture of wellness in the worksite
- Gain support of management
- Create a wellness committee
- Assess the needs and interest of employees
- Develop a realistic plan to achieve your goals
- Marketing your program
- Recruit community partners
- Low, medium, and high cost resources
- Topics of interest to NJ employees
- Legal issues
- Evaluate the program
- Sustaining your wellness program

### What employers are saying about the toolkit:

Survey to staff gave us a lot of input as to what they wanted.

*Employment Horizons*

We used the section on employee survey to help us interpret the data and use that as our starting point. We had about 45% participation and were able to prioritize our areas of focus.

*Preferred Behavioral Health NJ*

The employee survey was very helpful and has given us a direction with our programming. We found that our employees were mostly sedentary and were interested in having more healthy foods/snacks at work. Thanks for the online tools and trainings, they are helpful and motivating!

*Northstar Travel Media*

We were able to find speakers to come in to speak with our group. We had good success finding vendors for our health fair and found the community willing and able to help us.

*Are Atlantic*

The toolkit is an awesome tool for employers to reference whether they are starting from scratch or had a wellness plan in place.

*Robert Wood Johnson Hospital Rahway*

The toolkit has some great resources and links that I use for my wellness bulletin board. The toolkit makes the wellness part of my job go smoother and I spend less time searching for resources.

*James Alexander Corp*

Although our wellness committee was already established before the toolkit, we are now a little more concrete, more focused, more results driven.

*Flight Centre USA*





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FCHS 'Working Well in New Jersey' Post Card.

## ***Attention New Jersey Employers!***

Announcing New Jersey's comprehensive worksite wellness toolkit, created for employers interested in:

Improving employee health

Improving employee morale and quality of life

Increasing productivity in a desirable environment

Reducing absenteeism

WORKING  
**Well**  
In New Jersey



*Rutgers Cooperative Extension is an equal opportunity program provider and employer. Contact your local Extension Office for information regarding special needs or accommodations.*

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FCHS 'Get Moving-Get Healthy WORKFORCE' Logo.

Get Moving-Get Healthy  
**WORKFORCE**



Retired Faculty Luncheon Email Invitation.

*Warmest Greetings...*

The fall semester is off to a great start, with a record enrollment for the School and many new developments on campus.

For instance, it is fascinating to watch the rapidly rising "home" for the Institute for Food, Nutrition, and Health under construction next to the Department of Food Science building on Dudley Road. This is the first new academic building construction on campus in decades.

Also, if you attended last year's Retired Faculty Luncheon, you heard about the new Rutgers Retired Faculty and Staff Association and the plan to create a center as a gathering place for all University retirees. You will be pleased to learn that the new Rutgers Retired Faculty and Staff Center now exists and soon will be open for business with a full-time staff person. It is located off the lobby of Administrative Services Building 2 on Route 1 on the Cook Campus.

Once again this year, Executive Dean Bob Goodman will be hosting the Retired Faculty Luncheon. Here are the details:

#### **2013 Retired Faculty Luncheon**

Tuesday, December 3, 2013 – 11:30 a.m. to 2 p.m.

University Inn and Conference Center

178 Ryders Lane, New Brunswick, New Jersey 08901

Come visit with your colleagues as well as some of our deans and directors, alumni representatives, and students who will be on hand to greet you. Lou and Fran Iozzi are planning to be back this year and will perform a musical interlude as part of the day's festivities, and we will have several varieties of poinsettia as gifts to brighten your holiday season.

We are asking that you register by November 22. If you have access to the Internet, please visit [www.discovery.rutgers.edu](http://www.discovery.rutgers.edu) where you will find the link to the registration page. Or you may phone me at 848-932-4215, or email [orban@aesop.rutgers.edu](mailto:orban@aesop.rutgers.edu). As always, the luncheon is free for each retired faculty member and his/her guest.

Looking forward to seeing you and having a chance to catch up.

Best regards,

*Diana*

Diana M. Orban Brown

Director, SEBS/NJAES Office of Community Engagement





RCE Mercer County 'NJ EFNEP and NJ SNAP-Ed' Poster.

## NJ EFNEP NJ SNAP-Ed

### Mercer County

The New Jersey Expanded Food and Nutrition Education Program (NJ EFNEP) and the New Jersey Supplemental Nutrition Assistance Program – Education (NJ SNAP-Ed) are Rutgers Cooperative Extension programs aimed at **reducing hunger**, **preventing obesity**, and **increasing physical activity** among limited-resource adults and youth.



Our behaviorally-focused, research-based lessons include topics such as:

- MyPlate/MyPyramid
- Eating More Vegetables and Fruits
- Healthy Eating on the Go
- Eating Less Sugar
- Eating Less Fat
- Reading Food Labels
- Meal Planning
- Stretching Food Dollars
- Food Safety

For more information on these topics, visit our interactive one-on-one learning site:

**[snaped4me.org](http://snaped4me.org)**

We work with community-based programs and schools to deliver classes in English and Spanish at no cost to you.

To start a class series, call 609-989-6835.

RCE Mercer County 'Master Gardeners' Poster.

## Master Gardeners

### Mercer County



Trained by the County Horticulturist and Rutgers faculty, Master Gardeners host free horticultural programs throughout the year.



Year-round advice on horticultural matters including

- Plant identification
- Plant disease
- Pest identification and management

#### Mercer Educational Gardens

- Learn about backyard composting
- Garden inspiration for your home
- Open daily, dawn to dusk



#### Events

- Spring garden symposium
- Plant sale
- Insect Festival
- Monthly educational programs

### Become a Master Gardener

Do you want to excite, inspire, and encourage the residents of Mercer County to participate in the rewarding experience of responsible gardening and pest management? Ask for an application today.



Helpline  
609-989-6853



**RUTGERS**  
New Jersey Agricultural  
Experiment Station



[mercernjaes.rutgers.edu](http://mercernjaes.rutgers.edu)

RCE Mercer County 'FCHS Grow Healthy' Poster.

## Family and Community Health Sciences



### Mercer County

#### *Promoting Healthy Families, Schools and Communities*

##### Focus Areas

- Chronic Disease Prevention
- Nutrition and Physical Activity for a Healthy Lifestyle
- School Wellness
- School Gardens
- Farm to School
- Food Safety
- Food Allergy
- Food Security

##### Nutrition and Health Education For Youth and Adults

Programs available for people with developmental disabilities, their families, teachers, and caregivers.

- Schools
- Child Care Settings
- Workplaces
- Senior Centers
- Community Centers
- Houses of Worship
- Health Fairs
- New Parents Groups

Family & Community Health Sciences, a part of Rutgers Cooperative Extension, promotes health and wellness through education, research and collaboration, with outreach in food, nutrition, and healthy lifestyles.



### Volunteers Wanted!

Become an FCHS Wellness Champion

[mercercnjacs.rutgers.edu](http://mercercnjacs.rutgers.edu)





RCE Mercer County '4-H Youth Development' Poster.

## 4-H Youth Development

Mercer County



Afterschool Programs  
Camps, Day and Overnight  
Community Clubs  
County 4-H Fair  
Teen Programs



School Enrichment  
Educator Workshops

The 4-H Youth Development Program uses a learn-by-doing approach to enable youth to develop the knowledge, attitudes and skills they need to become competent, caring and contributing citizens of the world.



[mercerc.njaes.rutgers.edu](http://mercerc.njaes.rutgers.edu)

**RUTGERS**  
New Jersey Agricultural  
Experiment Station



**Volunteers Wanted!**

RCE Mercer County 'Agriculture' Poster.

## Agriculture

Mercer County

Commercial Agriculture  
Ornamental Horticulture  
Residential Horticulture  
Integrated Pest Management



Environmental Resource  
Management  
Farm Risk Management  
Pesticide Safety



We work with commercial and governmental agencies to offer educational outreach, conduct relevant research, and improve public understanding of the agricultural community in Mercer County.

**RUTGERS**  
New Jersey Agricultural  
Experiment Station



[mercerc.njaes.rutgers.edu](http://mercerc.njaes.rutgers.edu)



# Office Of Communications

Portfolio of Work

4-H 'Steps to Becoming a 4-H Volunteer & Starting a 4-H Club' Brochure (in progress).

## Essential Elements

*I pledge my head to clearer thinking*

### INDEPENDENCE

In order to develop their self-confidence, youth need to feel and believe they are capable. They also need to experience success at solving problems and meeting challenges.

*I pledge my heart to greater loyalty*

### BELONGING

Youth need to feel that they are able to influence others through active decision-making. A growing ability to think, feel, make decisions and initiate action represents the sense of responsibility and discipline that comes with increased independence and self-reliance.

*I pledge my hands to larger service*

### GENEROSITY

Youth need to feel their lives have meaning and purpose. By participating in 4-H community service and citizenship activities, youth can connect to communities and learn to give back to others. Youth learn that they do not live in a secluded world, but instead it is indeed a global community, which requires awareness and compassion for others.

*I pledge my health to better living*

### MASTERY

Youth need a sense of physical and emotional safety. They need to feel connected to others in their group. Research shows that it is important for youth to have opportunities for long-term, consistent relationships with adults other than their parents. A sense of belonging may be the single most powerful factor that promotes positive youth development.



Find the contact information for your local county 4-H program at [nj4h.njaes.rutgers.edu](http://nj4h.njaes.rutgers.edu) or call the NJ State 4-H Office at 848-932-3700.

**RUTGERS**  
New Jersey Agricultural  
Experiment Station

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

1" x 2 5/8" label



## Steps to Becoming a 4-H Volunteer



## Starting a 4-H Club

**RUTGERS**

New Jersey Agricultural  
Experiment Station



## 8 Steps to Becoming a 4-H Volunteer



### CONTACT YOUR LOCAL 4-H OFFICE

Apply to be a volunteer through your county's Rutgers Cooperative Extension office. Each county has 4-H staff members who can help you get started. Find the contact information for your local 4-H office at [nj4h.rutgers.edu](http://nj4h.rutgers.edu)



### FIND THE RIGHT FIT

Talk with your county 4-H staff person to learn about the current volunteer opportunities available. Be sure to share your interests and skills. Together you will determine the best volunteer role for you!



### APPLY TO BE A 4-H VOLUNTEER

Complete the NJ 4-H Application form and return it to the county 4-H office.



### COMPLETE THE SCREENING PROCESS

For the protection of 4-H members & volunteers, all applicants must be screened prior to their acceptance for the volunteer position.



### COMPLETE THE ONLINE ORIENTATION

While your application is being processed, begin to familiarize yourself with the 4-H program by completing the online orientation. Your county 4-H staff will direct you to the training site.



### COMPLETE TRAINING

In-person training sessions take place locally and are led by county 4-H staff. Your Extension office will contact you for available training dates. Complete the 4-H Volunteer Registration form.



### AGREE TO SERVE

Your 4-H staff will review the 4-H Volunteer Appointment Agreement with you. You will become an official 4-H volunteer when both you and your 4-H staff have signed the Appointment Agreement.



### MAKE A DIFFERENCE

Make a difference in the lives of 4-H members by serving as a caring adult volunteer.

## 8 Steps to Starting a 4-H Club



### RECRUIT MEMBERS

Tell family & friends.  
Recruit at least 5 youth from 3 different families.  
4-H staff can help you with recruitment strategies.



### HOLD YOUR FIRST MEETING

Organize your first club meeting.  
• Arrange location  
• Define your project area  
• Work with your members to name your club



### REGISTER YOUR CLUB MEMBERS

Distribute registration forms to members.  
Make sure they are completed for every member and sent to your county 4-H office.



### HOLD ELECTIONS

Members hold elections.  
• Members nominate club officers  
• Nominated members give speeches  
• Elections are held



### OBTAIN A CHARTER

Complete application for obtaining a Charter.  
• Complete Charter application  
• Create Club by-laws with members



### SCHEDULE YOUR 4-H YEAR

Create a meeting schedule and calendar for the year with your members, including dates, times, and places.



### ORDER SUPPLIES

Coordinate with your county 4-H office to order 4-H project materials. (ex. Project record books, entry forms).



### INSPIRE YOUR MEMBERS

Inform your club members about upcoming county, regional, and State events.



4-H 'Connect and Share' Poster 1 of 2.



4-H VOLUNTEERS

## Connect and Share

TO BE A 4-H VOLUNTEER IS TO **CONNECT.**

- Connect with your community
- Share your talents and knowledge with kids
- Network with other adults with similar interests

TO BE A 4-H VOLUNTEER IS TO **SHARE.**

- Share experiences that you will never forget
- Give back in a meaningful way
- Positively impact youth in your community

IN 4-H, YOUTH AND ADULTS **CONNECT & SHARE.**

- Make new friends
- Learn new skills
- Spend time together
- Develop hidden talents

## RUTGERS

New Jersey Agricultural  
Experiment Station

The role of a 4-H volunteer is to help youth feel they can  
**BELONG, BELIEVE AND ACHIEVE.**



## Connect Today, become a 4-H Volunteer!

For more information contact your county Rutgers Cooperative  
Extension office or visit us at [www.nj4h.rutgers.edu](http://www.nj4h.rutgers.edu)

Like us on  
facebook at   
[facebook.com/NewJersey4-H](https://facebook.com/NewJersey4-H)

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

4-H 'Connect and Share' Poster 2 of 2.



4-H VOLUNTEERS

## Connect and Share

TO BE A 4-H VOLUNTEER IS TO **CONNECT.**

- Connect with your community
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New Jersey Agricultural  
Experiment Station

The role of a 4-H volunteer is to help youth feel they can  
**BELONG, BELIEVE AND ACHIEVE.**



## Connect Today, become a 4-H Volunteer!

For more information contact your county Rutgers Cooperative Extension office or visit us at [www.nj4h.rutgers.edu](http://www.nj4h.rutgers.edu)

Like us on  
facebook at   
[facebook.com/NewJersey4-H](https://facebook.com/NewJersey4-H)

Cooperating Agencies: Rutgers, The State University of New Jersey, U.S. Department of Agriculture, and County Boards of Chosen Freeholders. Rutgers Cooperative Extension, a unit of the Rutgers New Jersey Agricultural Experiment Station, is an equal opportunity program provider and employer.

4-H 'Connect and Share' 4" x 9" Card



4-H VOLUNTEERS

## Connect and Share

### **TO BE A 4-H VOLUNTEER IS TO CONNECT.**

- Connect with kids and share your talents and knowledge.
- Network with other adults with similar interests.
- Build career experience.
- Choose a flexible schedule that fits your lifestyle.

### **TO BE A 4-H VOLUNTEER IS TO SHARE.**

- Share experiences that you will never forget.
- Give back in a meaningful way.
- Share a spirit of generosity with others.
- Positively impact youth in your community.

**RUTGERS**

New Jersey Agricultural  
Experiment Station

**The role of a 4-H volunteer is to help youth feel they can BELONG, BELIEVE AND ACHIEVE.**





4-H 'Connect and Share' Postcard.



4-H VOLUNTEERS

## Connect and Share

**TO BE A 4-H VOLUNTEER IS TO CONNECT.**

- Connect with your community
- Share your talents and knowledge with kids
- Network with other adults with similar interests

**TO BE A 4-H VOLUNTEER IS TO SHARE.**

- Share experiences that you will never forget
- Give back in a meaningful way
- Positively impact youth in your community



## Connect Today!

### RUTGERS COOPERATIVE EXTENSION OFFICES

**Atlantic County**

609-625-0056

**Bergen County**

201-336-6785

**Burlington County**

609-265-5052

**Camden County**

856-216-7130

**Cape May County**

609-465-5115

**Cumberland County**

856-451-2800

**Essex County**

973-353-1338

**Gloucester County**

856-307-6450

**Hudson County**

973-353-1338

**Hunterdon County**

908-788-1341

**Mercer County**

609-989-6833

**Middlesex County**

732-398-5261

**Monmouth County**

732-431-7260

**Morris County**

973-285-8300

**Ocean County**

732-349-1227

**Passaic County**

973-684-4786

**Salem County**

856-769-0090

**Somerset County**

908-526-6644

**Sussex County**

973-948-3040

**Union County**

908-654-9854

**Warren County**

908-475-6502

**IN 4-H, YOUTH AND ADULTS  
CONNECT AND SHARE:**

- Develop hidden talents
- Make new friends
- Learn new skills
- Spend time together

or visit us at [nj4h.rutgers.edu](http://nj4h.rutgers.edu)

**RUTGERS**

New Jersey Agricultural  
Experiment Station

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Ag Field Day 'Lunch With the Dean' Flyer.



## Ag Field Day

Second Annual

Let's Do Lunch With the Executive Dean!

**Saturday, April 26 12-1:30**

With Executive Dean Bob Goodman

*Calling all Ag, CAES, Cook and SEBS Alumni!*

Come to the Ag Field Day Lunch with the Executive Dean  
at Cooper Dining Hall on the Cook/Douglass Campus  
Spouses/partners and your children are welcome!

Come meet classmates, friends, favorite faculty members, and students  
for a tasty barbecue, beer garden, music and camaraderie.

Weather permitting, the barbecue and tables will be set up outdoors so that all can enjoy the sunshine.  
Bad weather? No problem – we'll enjoy the festivities inside charming Cooper Dining Hall.

**The lunch is free, but you will need admission tickets, so registration by April 18 is required.**  
**Please visit [tinyurl.com/ExecDeanLunch2014](http://tinyurl.com/ExecDeanLunch2014) to register.**

**See you on the 26th!**

Questions? Contact Diana Orban Brown at [orban@aesop.rutgers.edu](mailto:orban@aesop.rutgers.edu) or 848-932-4215.



'Community Day' Flyer.

## Cook/Douglass Campus Community Day 2013

**September 17, 2013, 4:00 p.m. - 7:00 p.m.**

at Passion Puddle on Red Oak Lane

(rain date: September 19)



**Raffle Every Hour!**  
**for a Kindle Fire HD Tablet**  
(student I.D. required, must be present to win)



# Free!

**t-shirt**

(first come, first serve)

**barbecue**

**information booth giveaways  
and live music!**

# RUTGERS

*If you would like to reserve a table for your student club, visit:*  
[ghcookcampus.rutgers.edu/communityday](http://ghcookcampus.rutgers.edu/communityday)



# Office Of Communications

Portfolio of Work

'Community Day' Save the Date.



# Office Of Communications

*Portfolio of Work*

'Community Day' Tee Shirt.



# Office Of Communications

Portfolio of Work

'Community Day' 5 x 7" Recruitment Card, Design and Layout.

**Your student club is invited  
to participate at the**

**Cook/Douglass Campus**

**Community Day 2013**

**September 17, 2013, 4:00 p.m. - 7:00 p.m.**  
at Passion Puddle on Red Oak Lane  
(rain date: September 19)



*To reserve a table for your student club, contact Kristen Rumolo at*  
**[rumolo@aesop.rutgers.edu](mailto:rumolo@aesop.rutgers.edu)**

*For more information visit us at*  
**[ghcookcampus.rutgers.edu/communityday](http://ghcookcampus.rutgers.edu/communityday)**

**RUTGERS**



'Community Day' Signage, Design and Layout.

## RUTGERS



## Check-in Here to Win a Kindle Fire HD Tablet

Drawing Times:

**4:30 P.M.**

**5:30 P.M.**

**6:30 P.M.**

Must have a student ID and be present to win.

sponsored by:

Offices of:

The Executive Dean of the School of Environmental  
and Biological Sciences

The Executive Dean of the School of Arts and Sciences

The Dean of Mason Gross School of the Arts

The Dean of Students and the Cook Campus Dean

## Community Day

# Office Of Communications

Portfolio of Work

'Community Day' It's Not to Late Flyer, Design and Layout.

**Your student club is invited to**  
**It's Not to Late!** **participate at the**  
**Cook/Douglass Campus**  
**Community Day 2013**

**September 17, 2013, 4:00 p.m. - 7:00 p.m.**

**at Passion Puddle on Red Oak Lane**

**(rain date: September 19)**



To reserve a table for your student club, contact Mike Green at  
**[green@aesop.rutgers.edu](mailto:green@aesop.rutgers.edu)**

For more information visit us at  
**[ghcookcampus.rutgers.edu/communityday](http://ghcookcampus.rutgers.edu/communityday)**

**RUTGERS**

# Office Of Communications

Portfolio of Work

Challenger Glider Mission Icon (unfinished).

1



2



3



4



5





Marine and Coastal Sciences Hurricane Information Sheet.

## Rutgers Institute of Marine and Coastal Sciences

### THE IMPACT OF OCEAN OBSERVATIONS ON HURRICANE INTENSITY FORECASTS: LESSONS LEARNED FROM IRENE AND SANDY

Scott Glenn, Oscar Schofield & Josh Kohut  
Rutgers Institute of Marine and Coastal Sciences



**THE NEED.** The stability of New Jersey beaches and the viability of our coastal communities were significantly challenged by the damaging hurricanes Irene and Sandy. The National Hurricane Center's list of costliest hurricanes in United States history ranks Sandy second at over \$60 billion and Irene eighth at over \$15 billion in damages. Despite the epic scale of these two storms, the loss of life was greatly minimized due to accurate forecasts of the tracks of the hurricanes days in advance. However, forecasts of hurricane intensity were less accurate, reducing the ability to proactively minimize damage.

Rutgers Coastal Ocean Observation Laboratory (COOL) within the Institute of Marine and Coastal Sciences (IMCS) was able to accurately simulate Irene and Sandy's intensity as they slammed into New Jersey's coast. This was possible using an advanced and expansive array of ocean observing technologies from satellites that can measure ocean temperatures, high frequency shore radar that can measure the ocean surface currents, and autonomous underwater gliders that can measure the ocean's interior conditions. For Irene, the hurricane intensity was significantly over-predicted where for Sandy, the rapid acceleration and intense force just before landfall were under-predicted. Over-predicting Irene's intensity led to skepticism about storm surge warnings for Sandy. By under-predicting Sandy's intensity and storm surge, the result was insufficient preparation.

Twenty years of global atmospheric model development have significantly reduced errors in hurricane tracking forecasts but the predictive skill for hurricane intensity forecasts has remained essentially flat. The progress of IMCS' COOL action-oriented research on predicting hurricane intensity is providing insights into the oceans' influence on hurricane intensity.

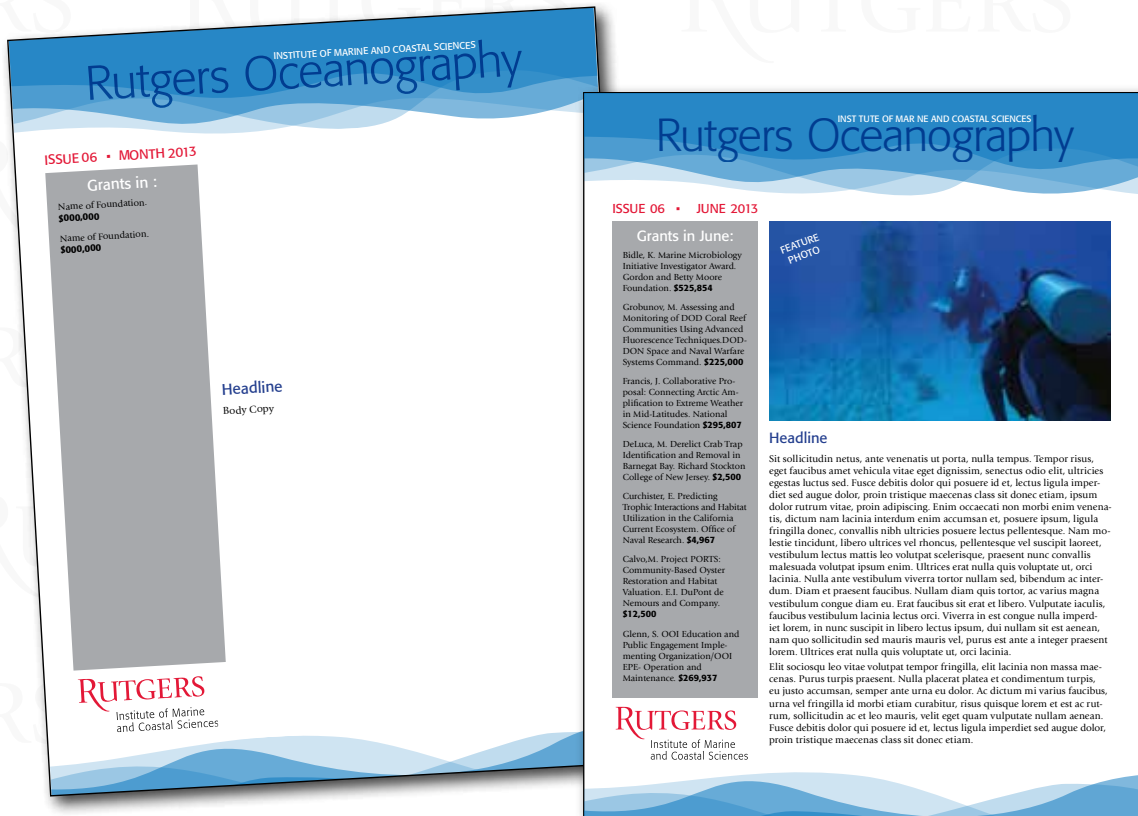
**LESSONS LEARNED.** Here is a summary of what happened during Irene and Sandy. Summertime conditions in the Mid-Atlantic are much like a backyard swimming pool, with a warm water layer on top and a colder layer of water on the bottom.



# Office Of Communications

Portfolio of Work

Marine and Coastal Sciences Newsletter Template.



'Essex County 4-H Sustainable Communities Sustainable Commons' Logo and Banner.



ESSEX COUNTY 4-H

# Sustainable

COMMUNITIES . COMMONS



ESSEX COUNTY 4-H

# Sustainable

COMMUNITIES . COMMONS

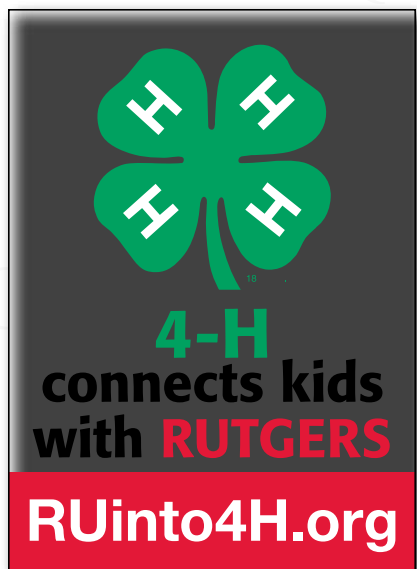
[www.essex.njaes.rutgers.edu/4h](http://www.essex.njaes.rutgers.edu/4h)



# Office Of Communications

*Portfolio of Work*

'4-H Connects Kids with Rutgers' Magnets.



# Office Of Communications

Portfolio of Work

Office of Community Engagement Event Invitation.

## Big Ten Ag Alumni Reception

Monday, March 3, 2014

6:00–8:00 PM

Washington, D.C.

**NEW!** National Press Club

529 14th St., NW

Washington, D.C. 20045

(Metro Center stop—13th St. Exit)

# BIG



Register online: [bitly.com/bigten-ag](http://bitly.com/bigten-ag)

In the spirit of institutional cooperation, the Big Ten schools with agricultural programs are once again gathering our alumni and friends in the Washington, D.C., area for a special event—this year at a new location, the National Press Club! Now in its fourth year, the reception has been a great success with alumni and friends networking across institutions and enjoying one another's company. We are looking forward to seeing everyone again (and some new faces!).

**New location:** National Press Club



your alma mater. Learn how our colleges are working cooperatively on behalf of land-grant institutions.

**Please join us** for a reception and enjoy the fellowship of alumni and friends from the colleges of agricultural sciences and natural resources representing Michigan State University, The Ohio State University, The Pennsylvania State University, Purdue University, Rutgers University, University of Illinois, University of Maryland, University of Minnesota, University of Nebraska, and the University of Wisconsin. Reconnect with college deans, administrators, faculty, and staff from

**Cost is \$20 per person.**

Heavy hors d'oeuvres and beverages

**Register online by visiting [bitly.com/bigten-ag](http://bitly.com/bigten-ag).**

**Registration deadline is February 24, 2014.**

For questions or assistance, contact the Penn State College of Agricultural Sciences Alumni Office at 814-865-2717.

For directions, visit [press.org/about/visit-us](http://press.org/about/visit-us).

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3.3M1/13mpc CODE 5089 U.Ed. AGR 14-48

**We look forward to seeing you there!**

Office of Community Engagement Guest Speaker Event Email Blast.

## You're Invited to

**Jim Alampi**, alumnus  
Rutgers School of Ag 1969  
*Former Mercer County 4 H Member*

Author of:

***Great To Excellent;  
It's the Execution!***

**Wednesday  
May 7, 2014  
3:00 p.m.**

Phillip Alampi Room  
Marine and Coastal Sciences Building

Jim Alampi is the eldest son of the late Phillip Alampi. His father instilled leadership skills in him and he has spent his career leading companies, from a \$325 million auto auction business (NASDAQ: IAAI) to a \$1.5 billion chemical distribution business (NYSE: UVX).

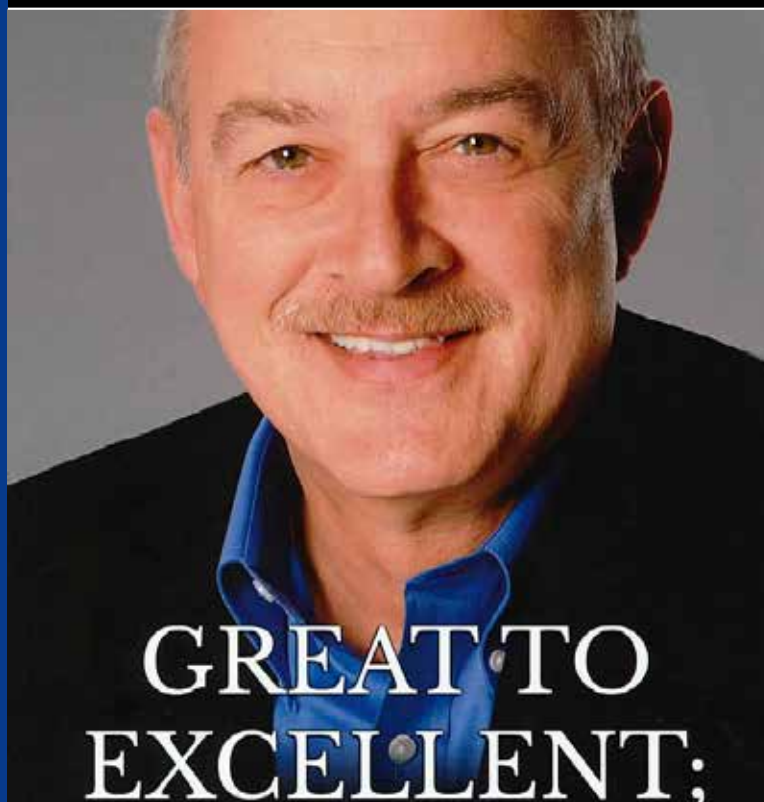
For the past twelve years he has helped entrepreneurs in the areas of leadership, strategy and execution. He has been a director on 20 boards and has chaired four of them.

On May 7th, he is donating his time to present us with a faculty and staff professional development seminar to help us:

- overcome barriers
- set and execute critical priorities
- remain focused
- create accountability
- create and communicate vision and goals

This seminar comes at a critical time for Rutgers and will address strategic planning to execute tactical bite size pieces.

***Click Here to Register***



## GREAT TO EXCELLENT;

### It's the Execution!

*Overcoming the Natural Barriers  
to Profitable Company Growth*

J I M A L A M P I

***Hurry space is limited!***

RSVP by April 30.

**RUTGERS**  
School of Environmental  
and Biological Sciences



# Office Of Communications

*Portfolio of Work*

Rutgers Dining Services, 'Connect to Success' Event Web Banners.




# Office Of Communications

Portfolio of Work

## '21st Annual Celebration of Excellence' Program

**RUTGERS**

*21<sup>st</sup>* Annual  
Celebration of Excellence



Welcome  
Richard D. Ludescher  
School of Environmental and Biological Sciences  
New Jersey Agricultural Experiment Station

**Presentation of Awards**  
*Awards Ceremony Reception*

**Teaching Excellence Award**  
Rebecca Jordan  
Department of Animal Science

**Research Excellence Award**  
Phyllis Lepucki  
Department of Marine Science

**Outreach Excellence Award**  
Michael Haberland  
Department of Agricultural Resource Management Agents

**International Excellence Award**  
Carl Pray  
Department of Agriculture, Food and Resource Economics



**Staff Excellence Award**  
Alison Cariveau  
Department of Ecology, Evolution and Systematics

**Team Excellence Award**  
Asian Tiger Mosquito Project

**Closing**  
Richard D. Ludescher

Thursday, April 24, 2014  
Nelson Dining Hall

Excellence	A Celebration of Excellence
	<b>Team Excellence Award Members</b>
	<b>Philip Armstrong</b> Connecticut Agricultural Experiment Station
	<b>Kristen Bartlett-Healy</b> Department of Entomology, LSU
	<b>Gary Clark</b> USDA-ARS, Gainesville
	<b>Taryn Crepeau</b> Monmouth County Mosquito Control
	<b>Peter DeChant</b> Valent BioSciences, Inc.
	<b>Ary Farajollahi</b> Mercer County Mosquito Control
	<b>Dina Fonseca</b> Center for Vector Biology
	<b>Kenn Fujioka</b> San Gabriel Valley Mosquito Control, CA

A Celebration of Excellence	
<b>James McNelly</b> Volusia County Mosquito Control, FL	<p>SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES NEW JERSEY AGRICULTURAL EXPERIMENT STATION</p> 
<b>Roger Nasci</b> CDC, Atlanta	
<b>Dominick Ninivaggi</b> Suffolk County Mosquito Control	
<b>Peter Obenauer</b> United States Navy	
<b>George O'Meara</b> University of Florida	
<b>Jeff O'Neil</b> Central Life Sciences, Inc.	
<b>Charles Palmisano</b> St. Tammany Parish Mosquito Control, LA	
<b>Mark Robson</b> Department of Plant Science	
<b>Don Shepard</b> Department of Entomology, Brandies University	
<b>George Schoeler</b> United States Navy	
<b>Dan Strickman</b> USDA-ARS, Beltsville	
<b>Isik Unlu</b> Mercer County Mosquito Control	
<b>Dawn Wesson</b> Tropical Medicine, Tulane University	
<b>Greg Williams</b> Hudson County Mosquito Control	
<b>John Worobey</b> Department of Nutritional Sciences	
<b>E. Zielenski-Gutierrez</b> CDC, Fort Collins	

'Scholarship Appreciation Dinner' Invitation.

*You're Invited...*



SCHOOL OF ENVIRONMENTAL AND BIOLOGICAL SCIENCES

## Scholarship Appreciation Dinner

November 4, 2013

**RUTGERS**

This year, your support  
enabled us to award \$690,000  
in scholarship funds



to the students enrolled in the School of Environmental and Biological Sciences. For most students, your scholarship allows them to focus less on how to pay for college and more on excelling in their studies. It also allows our School to continue to attract and reward our best and brightest students, who we fully expect will do great things later in life with the knowledge and experience they've gained in our programs.

Please join us for this year's dinner and a brief program where you will meet and get to know our outstanding scholarship recipients.

We look forward to having you join us.

**MONDAY, NOVEMBER 4, 2013**

Trayes Hall, Douglass Campus Center  
(on the Cook/Douglass Campus)

100 George Street, New Brunswick, New Jersey 08901

<b>5:00 – 6:00 p.m.</b>	Meet and Greet with students and the School of Environmental and Biological Sciences faculty
<b>6:00 – 7:00 p.m.</b>	Dinner
<b>7:00 – 7:30 p.m.</b>	Program

Dinner Choices:

Chicken Breast with Apple Craisin Chutney

or

Pistachio Crusted Halibut

(Special dietary selections available by request.)

Please RSVP your attendance, along with your dinner choice, by October 21, 2013, by emailing [Carden@aesop.rutgers.edu](mailto:Carden@aesop.rutgers.edu) or by calling 848-932-3572.

**RUTGERS**  
School of Environmental  
and Biological Sciences



# Office Of Communications

Portfolio of Work

Department of Food Science Banner and Lawn Signs.



# Office Of Communications

Portfolio of Work

## 'Scholarship Appreciation Dinner' Program.



Dear Friends:

As Executive Dean of the School of Environmental and Biological Sciences, it is my privilege to interact with our students almost daily. These interactions reinforce to me how truly bright and engaged our students are. I am also constantly reminded of the extraordinary opportunities available to our graduate and undergraduate students alike to pursue research with world-class faculty. I applaud their hard work and dedication, especially in the highly competitive environment of a modern research university like Rutgers.

When our students graduate from the School, they are poised to make significant and indelible marks on society.

Armed with a Rutgers education that balances both classroom and practical, hands-on experience, many of these students are recognized for their scholastic and research achievements both locally and around the world. They are awarded prestigious fellowships to study abroad and internships right here at home that enable them to apply what they have already learned and reach to the next level. They are an impressive group of young people and I am pleased you have the chance to meet them tonight at this annual Scholarship Appreciation Dinner.

This year, more than \$690,000 in scholarship awards help make it possible for our students to give their full attention to learning and less time to worrying about how they will pay their tuition bills. I am proud that these students are mindful of the investment our donors have made in them and that they pursue their studies with vigor and enthusiasm.

Your role as donors in supporting the educational endeavors of our students both here on campus and around the world is indispensable to this cycle of learning at Rutgers. Thank you so much for your generous giving to the School of Environmental and Biological Sciences and for your support of the promising young men and women who entrust their education and their futures to us.

Sincerely

Robert M. Goodman  
Executive Dean of Agriculture and Natural Resources  
Executive Dean of the School of Environmental and Biological Sciences  
Executive Director of the New Jersey Agricultural Experiment Station

### Program

#### Reception

5:00-6:00

#### Dinner and Gro

6:00-8:00

#### Master of Cerem

Dr. Richard Ludescher  
Dean of Academic Prog  
Professor, Food Science

#### Welcoming Rem

Robert M. Goodman  
Executive Dean Rutgers

#### Donor Remarks

Professor Bonnie J. McC

#### Student Speaker

Jordan Foreman, 2014  
Christopher Smith, 2014

## RUTGERS SCHOLARSHIP APPRECIATION DINNER

MONDAY, NOVEMBER 4, 2013



DOUGLASS CAMPUS CENTER  
School of Environmental and Biological Sciences  
**Jersey Roots, Global Reach**

RUTGERS  
School of Environmental  
and Biological Sciences

SCHOLARSHIP APPRECIATION DINNER 2013

DONOR: Dr. Kyle R. Barbentini

STUDENTS: Abigail Cohen, Nicole Guzman, Tina Harrison, Rebecca Noah

#### Linda Rudolph Burns Memorial Scholarship

DONOR: Mr. Frank R. Burns

STUDENTS: Courtney Kaiser, Hannah Totoro, Alexis Uram

#### George M. Carman Prize in Lipids

DONORS: Dr. and Mrs. George Carman, Ms. Grace Hu, Dr. He Mu and Jonathan Yun

STUDENT: John Douglass

#### Dr. Kenneth and Mrs. Jane Charlesworth Endowed Scholarship in Teacher Education

DONORS: Dr. Kenneth and Mrs. Jane Charlesworth

STUDENT: Sabedo Argueta

#### Dr. Kenneth and Mrs. Jane Charlesworth Endowed Scholarship

DONORS: Dr. Kenneth and Mrs. Jane Charlesworth

STUDENT: Rahul Ghosal

#### Norman F. Childers Scholarship

DONORS: The Professor Norman F. Childers Family

STUDENT: Samantha Lee

#### Cipriano "Keeping It Green" Foundation Scholarship

DONOR: Mr. Christopher Cipriano

STUDENTS: Amy Brown, Ryan Daddio, Arturo Hernandez, Nathaniel Kelly

STUDENT: Luke Beentz

#### Cook Community Alumni Association Scholarship

DONORS: Cook Community Alumni Association, Mr. and Mrs. Roger Downey III, Mr. and Mrs. David Earl, David J. Singer, Esq., Mr. Lucas J. Visconti, Ms. Laurel Van Leer and Dr. Charles Weibel

STUDENTS: Sara Lepard, Madison Little, Christopher Smith, Rodney Valverde, Konrad Wahle

#### Daun Family Endowed Graduate Student Prize in Food Science

DONORS: Dr. and Mrs. Henryk Daun

STUDENT: Mingqian Wang

#### Roy H. DeBoer Travel Prize in Landscape Architecture

DONORS: Professor Roy H. and Mrs. Joan DeBoer, Mr. and Mrs. David Earl, Mr. Bruce R. Katona

STUDENTS: Rebecca Cook, Ben Granovsky, Gwen Heerschap, Jonathan Jack Peters

#### Dr. Richard T. Dewling Scholarship

DONOR: Dr. Richard T. Dewling

STUDENTS: Kevin Geiger, Thomas Wang

#### Joseph DiConzo Memorial

DONOR: Mrs. Madeline DiConzo

STUDENT: Qi Zhang

#### Kevin Dorko Memorial Award

DONORS: Mr. Paul A. Dorko, Mr. and Mrs. David Earl, Ms. Linda Hancox

STUDENTS: Ryan Goodstein, Gwen Heerschap

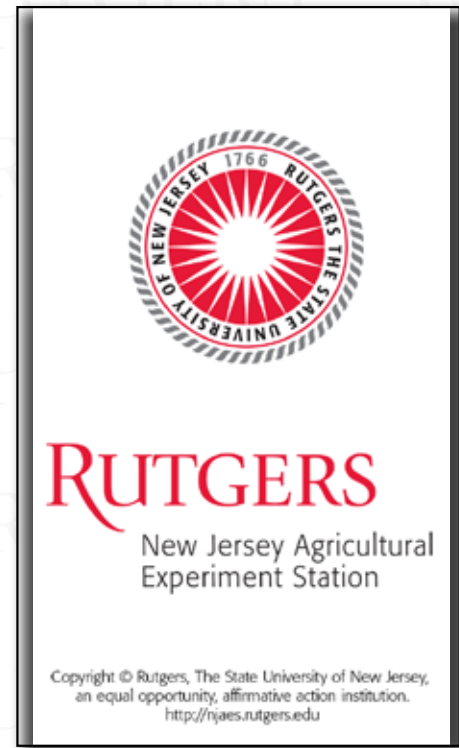
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SCHOLARSHIP APPRECIATION DINNER 2013

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