



Agent's Overview

What a wild and weird summer season we've had with relatively cool days and very cool nights through August.



No 100 degree or even 90 degree days compared to the previous five years of scorchers. I'm not complaining but this off-season really slowed early crop growth and quality (except for the leafy greens, herbs and cole crops which prospered).

Hopefully, an "Indian Summer" will allow a longer harvest of late planted sweet corn, tomato, peppers and squash which are finally coming into excellent quality and quantity. Even Mobile, Alabama was historically cool with very pleasant weather when we held our National Association of County Ag Agents conference in late July!

Our Rutgers climatologists continue to generate data that shows an even greater acceleration of climate change and sea level rise related to carbon dioxide emissions from human activity which causes global warming. Apparently this trapped heat in the atmosphere has greatly increased melting of the polar ice caps and the glaciers are "calving" into the arctic waters. These disturbing events have cooled the northern seas while the southern oceans are warmer than ever. Only recently did

deep diving probes reveal that this heat effect was even greater at 5,000 feet down than the typical measurements at only 50 and 500 feet depth. Apparently, surface heat is transferred to the ocean floor by warmer and heavier fresh water sinking below the salt water.

It's not just about polar bears. The resultant clash between cold and warm water systems creates turbulent winds which have destabilized the Jet stream current that has produced our recent abnormal weather and more severe storms. For example, our northeastern region has recently received incredible deluges (13" in Long Island, 6" in Belmar and 8" rainfall in southern Jersey in half a day). On the left coast, California is in a severe long-term drought. Their desert-like conditions are making agriculture quite difficult and making our recent dry spells look tolerable. As a whole, the ramifications of climate change for agriculture are immense in this very century. There are new and numerous southern pests invading, new crops to consider cultivating and new market opportunities. Changing Times.

Bill Sciarappa

The North American Blueberry Researchers Workshop



Born Again: Rebirth of the Jersey Tomato

Everyone pays lip service to the juicy Jersey tomato. Now three Rutgers scientists are close to recreating the greatest Jersey tomato of them all.

Posted July 28, 2014 by [Paula Span](#)



On a sunny afternoon in May, the contenders, each plant about 4 inches tall, were growing in a greenhouse in a rural stretch of Cumberland County. A hanging thermometer said the temperature indoors had reached 85 degrees. “This is about as warm as you want it to get,” said Tom Orton, the plant

breeder here at the [Rutgers Agricultural Research and Extension Center](#) farm in Upper Deerfield, looking protectively over his seedlings. Orton has a PhD. in plant genetics and tends to talk like a scientist, but he can speak tenderly, almost anthropomorphically, about tomatoes.

It’s not yet clear which of these 250 little plants in their plastic trays, now starting to branch into the familiar serrated leaves, will triumph in this genetic competition to recreate the Rutgers tomato, touted as the greatest Jersey tomato of all. Orton and his two compadres on this quest have been diligently hybridizing and selecting for four years. These are F-6’s, the sixth generation selected from the two parents Orton began cross-pollinating in 2011.

“We’ll start harvesting in mid-July and then evaluate the heck out of them,” Orton went on. Which meant that he and Jack Rabin, who would deserve the title State Tomato Guru if there were one, and Pete Nitzsche, the Morris County extension agent, will look at every aspect of their recreated classic tomato: the size and shape of the fruit; the smoothness of its skin and whether it develops scars or cracks; the leaves and whether they provide enough shade to prevent unappetizing white patches called sunscald; the tomato’s resistance to insects and diseases; and most crucially, its flavor.

They’ll fold in the opinions of the tomato-loving public, too, which is invited to the Open House and Great Tomato Tasting at Snyder Farm on August 27. It’s the public, after all, that has complained for years that Jersey tomatoes don’t taste the way they used to, and Nitzsche

hopes at least a hundred visitors will join in the blind taste test.

Then Orton will grow another generation of the plants deemed most desirable. Finally, in 2016, when Rutgers University celebrates its 250th anniversary, the triumvirate plans to unveil the, um, fruit of their long labor. They might call the hybrid the Rutgers250 or Rutgers Rediscovered or maybe the RetroRutgers—because while other tomatoes bearing the name Rutgers are still sold, they probably bear little resemblance to the 1934 original.

Whatever they name it, this tomato will be the latest and potentially greatest in an ongoing effort to allow home gardeners and farmers-market shoppers—and who knows, maybe locavore-minded foodies in neighboring states—to revisit the golden age of Jersey tomatoes.

When these guys talk about the golden age, they’re referring to a period from the early 1950s through the mid-1980s. Before then, Jersey tomatoes were what we now call heirlooms, a category that plant scientists view with disdain. “They had all kinds of horticultural defects,” Rabin sniffs. Early tomatoes cracked, turned to mush in heavy rain, fell prey to fungus and other diseases. “Farmers had to throw a quarter to a half of them into the woods because they were crap.”

But after World War II, modern plant genetics, promoted by scientists at Rutgers and elsewhere, led to hybrid tomato plants that resisted blight and bugs and produced lots of big, round, red fruit that ripened on the vine and could be trucked to nearby processing plants. Those tomatoes had the moderate sugar and high acid content (plus a complex brew of volatiles, chemical compounds that add to the allure) prized for juice, ketchup and soup. Some also sold at farm-stands and supermarkets. Tart, sweet and tender, they are the Jersey tomatoes that induce nostalgia.

What happened to them? Blame interstate highways, which enabled produce to be trucked longer distances more quickly, but also encouraged plant scientists to produce firmer hybrids with thicker skins and interior walls (and less taste) for improved “shippability.” “That’s when produce ceased to be local,” Orton says glumly.

It didn’t help that Gardner bred tomatoes for growing conditions in North Carolina, not New Jersey. Or

that production largely shifted to Florida, California and Mexico, where supermarket tomatoes are picked green and gassed into ruddiness with ethylene, then refrigerated for shipping.

Their first resurrected classic was the Ramapo. Developed at Rutgers in 1968 and known for its succulence and shapeliness, the Ramapo disappeared from commercial production in only about a decade. But the agriculture professor who'd bred it had retained some seeds after he retired, so the team only had to tinker for a year or so before reintroducing the Ramapo, to much media fanfare, in 2008. In a survey of 1,200 gardeners who grew it that first year, nearly three-quarters said the Ramapo met or exceeded their expectations of "what a Jersey tomato should taste like."

But the Ramapo, frustratingly, doesn't ripen until August. So the following year, the team reintroduced the Moreton, a 1953 variety that matures in July. "A tomato of moderate sweetness and a discernible acidity," Rabin calls it. "You get this tingly-ness on your gums." Last year brought the KC-146, which dates to 1956 and was developed by and grown for Campbell Soup. Together, those new-old varieties have established a beachhead among home gardeners. More than 10,000 customers have bought mail-order seeds from Rutgers, and greenhouses across the state sell seedlings. Some farmers sell the tomatoes themselves in season. [Alstede Farms](#), for instance, will harvest about 2,500 pounds of Ramapos this year for sale at its Chester market and at 11 weekly farmers' markets from Morristown to Elizabeth. "It's a great-tasting tomato," says Kurt Alstede.

But the Rutgers tomato is different—not merely a local favorite, but an international superstar. Rutgers professor Lyman Schermerhorn spent six years crossbreeding and field testing before releasing it in 1934, when about 36,000 New Jersey acres were planted with tomatoes. (Today's total: around 4,100.) "Through the 1940s and early '50s, it grew to become the number one tomato in the world," Rabin says.



It reigned for about two decades. Then, on top of interstates and Randy Gardner, came farm-labor shortages in California. Growers there turned instead to the newfangled mechanical harvester, and "that pretty much drove the Rutgers out of the market," Orton says. "It couldn't be mechanically harvested. It was too soft."

Growing successive generations in fields and greenhouses and selecting for desirable characteristics, Orton winnowed the contenders from several hundred plants in the second generation (called F-2, as in "filial") to 16 selections in the fourth generation to five now. One will become—ta-da!—the

real Rutgers tomato reborn. It will have many of the qualities contemporary farmers and gardeners value, but it will taste like summer. I think they're terrific," says Orton. "We've got something here."

And what if the Rutgers or the Ramapo begins to catch on in food circles? If some influential chef—a Thomas Keller, a Bobby Flay, a Scott Anderson—starts ballyhooing them on his menu: salad of sliced Rutgers tomato with burrata, drizzled with extra virgin olive oil and aged balsamic vinegar, garnished with organic basil? Might that not create a small but intense wave of demand? These varieties are still too soft to travel long distances, but you could truck them, carefully, within a reasonable radius: New York, Philadelphia, Baltimore, maybe Boston or D.C.

"They'd have to be bubble-wrapped on the bottom, and people would have to spend a fair amount more for them, but it could be done," says Greg Donaldson, who grows Ramapos for sale at [Donaldson Farms in Hackettstown](#) and the farmers market in Westfield. "Maybe the Rutgers will be the one that takes off."

Maybe. Meanwhile, consider this: By 2016, New Jersey gardeners and farmers will be able to grow the Rutgers, the ultimate in nostalgic tangy tomato-ness. But the team's work may not yet be done.

"Paula Span writes [The New Old Age blog for the New York Times](#) and teaches journalism at Columbia University.

Rutgers Cooperative Extension Welcomes Back Retirees to Celebrate 100th Anniversary—July 16, 2014 by Office of Communications



Former & current RCE directors
John Gerwiz (L) and Larry Katz

This year, as Rutgers Cooperative Extension (RCE) celebrates the 100th anniversary of the signing of the **Smith-Lever Act of 1914** that created the Cooperative Extension Service, what better way to commemorate its history than to invite back those who were part of its past? A luncheon for RCE retirees was held on the Cook campus on June 20.

The retirees were former faculty and staff that represented all

facets of RCE administration, its extension specialists and the ARMA, FCHS and 4-H departments. Current RCE department heads were on hand to provide updates on institutional activities while **Executive Dean Bob Goodman** and **RCE Director Larry Katz** discussed extension's

anniversary and the current state of affairs. While the retirees appeared to enjoy active and fulfilling retirements, a few never strayed far from Rutgers, continuing work in their respective fields. Retired **Extension Specialist in Vegetable Crops Mel Henninger** coordinates the educational program for the annual NJ Vegetable Meeting in Atlantic City and is also working with Agricultural **Agent Dave Lee** on corn and soybean trials at Rutgers Snyder Farm. Recently retired **Agricultural Agent Rich Obal** (GSNB '77) teaches courses for the Rutgers Office of Continuing Professional Education and continues the Rutgers Master Gardeners.

Monmouth County will host its own celebration on **Tuesday, September 16 at 6:30 PM**, at the Monmouth County Ag Building on Kozloski Rd., just before the 7:30 BOA meeting. **Freeholder Director Lillian Burry** will be attending the ceremony and will present a Proclamation recognizing the success of the Rutgers Extension. We will be planting a **Red Beauty Holly**—a hybrid holly that is also an excellent deer resistant selection.

Light refreshments will be served. Please RSVP to Dorey or Joanne at 732-431-7260 X7261.

NEW MEMBERS TAKE SEATS ON STATE BOARD OF AGRICULTURE

Jones, Wagner Sworn in to 4-year terms, Kumpel Fills Vacant Seat

(TRENTON) - The New Jersey State Board of Agriculture installed three new members on July 23 during its reorganization meeting held in Ewing - **Mitchell Jones** of Harmony Township, representing the hay and grain industry, **Steven B. Wagner** of Franklinville representing the horticulture industry, and **Roger Kumpel** of Southampton, filling an unexpired term.

"Mitchell Jones, Steve Wagner and Roger Kumpel are well-respected and already have long resumes of accomplishment in serving the state's agricultural industry," said New Jersey **Secretary of Agriculture Douglas H. Fisher**. "Now, they bring their vast knowledge and experience to the State Board of Agriculture, which sets policy for the industry throughout the entire state. We look forward to working with them on important issues."



Also during the reorganization meeting, **Richard Norz**, a Somerset County hay, grain and vegetable grower, was selected to serve as Board President and **Robert Swanekamp**, the immediate Board past-president and a Monmouth County flower and plant grower, as Vice President.

The State Board of Agriculture comprises eight members who serve for four years, with two members being replaced each year. By law, at least four of its members must represent the top commodity groups in the state. Members serve without salary. For more information, visit www.nj.gov/agriculture/about/sba or <http://www.nj.gov/agriculture/about/sba>.

40th Monmouth County Fair - 2014

July 23, 2014 at 5 P.M. marked the opening of the 40th Monmouth County Fair at East Freehold Showgrounds. The Fair actually dates back more than 150 years, probably even earlier. You can read about the history of the Fair in the *Monmouth County Park System Green Heritage—Summer 2014*. http://co.monmouth.nj.us/documents/132%5Cgreen_heritage_summer_2014.pdf The Monmouth County Freeholders and Administration were present for the official opening (photo top right). The Monmouth County Board of Agriculture's display consisted of vegetable plants and if they were correctly identified, a strawberry plant was the prize (bottom left and center). The Monmouth County Vocational School's FFA organization once again had the very popular farmer's market (bottom left). V. Quinn



North American Blueberry Research & Extension Workers Conference


An International Blueberry Workshop was hosted by Rutgers Cooperative Extension & USDA on June 23-26, 2014 at the Sheraton Atlantic City Convention Center Hotel, Atlantic City, NJ. Every 4 years, research and extension workers from throughout North America and abroad meet to exchange ideas and research results on current blueberry issues. Representatives from Mexico, Chile, Canada, China, New Zealand and more are seen on page 1.

New Jersey is "Where it all began" – as highbush blueberries were first bred and cultivated. In addition to updates on current extension and research activities, there were tours of a winery, blueberry production areas and packing facilities. Our group traveled to Whitesbog where farmer Elizabeth White and USDA's Dr. Fred Coville began our Garden State industry. The program highlighted new varieties, the management of diseases and invasive pests like spotted wing drosophila (SWD). Program information <http://www.group-res.com/NABREW/default.aspx>

AGENCY UPDATES

Rutgers Cooperative Extension supports
Open Space & Agriculture


Congratulations
Dr. Karyn Malinowski, Grand Marshall
Director Rutgers Equine Science Center



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"Extending Knowledge & Changing Lives"



Rutgers, The State University of New Jersey

Rutgers is Revolutionary

The university's new 30-second television spot marks a big moment for Rutgers: joining the Big Ten, with new opportunities for academic collaboration and athletic competition, as we head into a major milestone -- the university's 250th anniversary.

View the spot and learn about the people and stories behind "[Revolutionary](http://revolutionary.rutgers.edu)," which celebrates the university's past, present, and future.

RUTGERS Revolutionary for 250 Years

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Rutgers Television Spot: "Revolutionary"

<http://revolutionary.rutgers.edu/2014tvspot.php>



Equine Scholarship Offered

Lynne Richmond

The New Jersey Equine Advisory Board is offering a \$1,000 scholarship to help 4H and FFA members pursue their equine activities. Members of organizations represented on the New Jersey Equine Advisory Board also are eligible. Applicants must be New Jersey residents between the ages of 13 and

Ilex x 'Red Beauty'

This Red Beauty Holly was planted in commemoration of the 100th Anniversary of Cooperative Extension

Legendary plant breeder and Rutgers professor Dr. Elwin Orton took 22 years to develop this hybrid, known for its compact, pyramidal habit, low maintenance, dense dark green foliage, and bright red berries. Also known to be deer proof, 'Red Beauty' has become a standout among hollies.



www.rutgers.edu/extension/100years

Rutgers Cooperative Extension of Monmouth County
100th Anniversary of Extension Tree Planting. 9/16

RUTGERS
New Jersey Agricultural
Experiment Station

**Horticultural and FIELD CROP
Research Twilight Meeting**

WHERE: Rutgers Snyder Research Farm
140 Locust Grove Rd, Pittstown, NJ 08867
Hosted by The Garden State Crop Insurance
Education Initiative

This years meeting will focus on:

- Crop insurance
- Tour of corn & soybean plots
- Control of White Mold
- Soybean weed/fungal control
- Farm pond algae control
- Pesticide safety update

***Pre-Registration is required for dinner - by calling Jennifer at (908) 788-1338, RCE of Hunterdon County

**Save The Date!!!
September 9th
5:00-8:45PM**



Questions?
Call 856-769-0090 or visit:
<http://saalem.rutgers.edu/cropinsurance>

NEW JERSEY **RMA**
Rutgers, The State University of New Jersey

CALENDAR

September 2014

9 - Horticultural & Field Crop Research Twilight Mtg.
Crop Insurance Updates and Fruit Variety Showcase, Snyder Farm, Pittstown, NJ. (See p. 6). Call Jennifer 908-788-1338 or Dave Lee 856-769-0090 for more info.

16 - Rutgers Cooperative Extension of Monmouth County 100th Anniversary of Extension Tree Planting.
Ag Building, Freehold, 6 PM. Light refreshments. RSVP Dorey or Joanne 732-431-7260 X7261.

20 - Open Space Pace - Freehold Raceway. County Fair & Parade of Horses. www.OpenSpacePace.org

October 2014

13 - Emergency Pesticide Recertification Seminar - Rutgers Continuing Ed; Pesticide credits 5 in 3B; 2 in 3A and PP2; 4 in CORE & 6B. More info 732-932-9271 or www.cpe.rutgers.edu

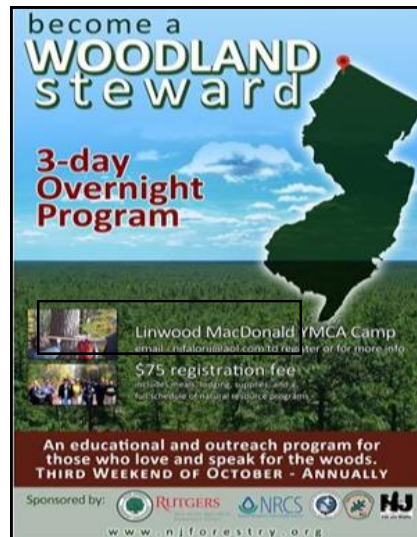
20 - Pesticide Calibration - 9 am-1pm; Rutgers Continuing Ed. Pesticide credits 8 CORE (see info above).

20 - RCE Annual Conference - Cook College—9:30 - 4:00

21 - Emergency Pesticide 1/2 day classes in 3A & 3B - 10/21
9 am-noon (3A with 6 credits) and 10/21 1 pm-4 pm (3B with 6 credits) Rutgers Continuing Ed. (see info above).

November 2014

17-18 - NJ Farm Bureau Annual Conf. Westin Hotel, Forestal Village, Princeton. Contact Liz or Lisa at Farmhouse 609-393-7163.



http://www.state.nj.us/dep/parksandforests/forest/woodland_steward.html

Rutgers Crops on line Vegetable Resources Center
<http://njveg.rutgers.edu/>


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*Changing Times is produced and edited by Bill Sciarappa and Vivian Quinn
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Past Issues on the web <http://www.visitmonmouth.com/page.aspx?id=3078>*

MONMOUTH COUNTY BOA
9-16, 10-21, 11-18, 12-16
BASIC PESTICIDE TRAINING
CORE 9 am - 1 pm— 9-16, 10-7, 11-18, 12-16
3B - 9-23, 10-14—9 AM—3 PM
7B—10-8, 10-9—9 AM—3 PM
To register call 800-524-9942
Held at Rutgers Cooperative Extension Ag Bldg.
4000 Kozloski Rd. Freehold, NJ
732-431-7260

RUTGERS COOPERATIVE EXTENSION MONMOUTH COUNTY
New Jersey Agricultural Experiment Station
PO Box 5033, 4000 Kozloski Rd., Freehold, NJ 07728

Rutgers Cooperative Extension—Agriculture, Family and Community Health Sciences, 4-H Youth Development, Resource Management, and Marine Studies—welcomes this opportunity to send you the enclosed materials for your information and use. Educational programs and information are provided to all people without regard to sex, race, color, national origin, gender, religion, age, disability, political beliefs sexual orientation, or marital or family status.



Bill Sciarappa, County Agricultural Agent
Extension Department Head

Photos: NJ Dept. of Agriculture, Rutgers Univ. B. Sciarappa, , V. Quinn

New Jersey Agricultural
Experiment Station

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