Red Means Go Poinsettias!
NC State introduces the best new poinsettias for 2008

The Science of Santa
There's method behind the magic on Christmas Eve
Some already had names like Eggnog and Red Elf, while others – now called RF 0514 and SK 62 – hope someday to have clever names like Cinnamon Stick or Christmas Angel.

All were poinsettia plants on display at NC State’s Horticultural Field Laboratory and J.C. Raulston Arboretum for the National Poinsettia Trial Program and 2008 Poinsettia Open House.

One hundred and one varieties of the holiday favorite from six international breeders were put through their paces by plant growers and consumers over two days.

Dr. John Dole, professor of horticultural science and the NC State faculty member in charge of both the trial program and open house, says that poinsettias are the nation’s most important potted flowering plant, with an economic impact of about $1 billion. North Carolina is ranked third in the nation in poinsettia production with about 4.9 million plants, trailing only California and Florida.
Although red poinsettias dominate the market – about 70 to 85 percent of the poinsettias in the market are red, Dole says – there’s lots of variety within the category.

Some, like the one called Castor, are so dark that they’re almost purple. Others, like Flame, have an orange-red hue. Some have rounded leaves and some have oak-shaped leaves. There are varieties with leaves that either curl up or curl down, and varieties that flower early, starting in November, and other that flower later, in December. There are white poinsettias with specks of pink or red, and red poinsettias with flecks of white, some of which look like they came straight out of an Impressionist painting.

In short, there’s a poinsettia out there that’s guaranteed to make you smile or crinkle your eyes in wonder.

But, Dole says, it wasn’t always this way.

In the wild, poinsettias are actually woody shrubs that grow to heights of 10 to 15 feet. Native to southern climes, they are adapted for dry weather. They started becoming more popular as cut flowers in the early 20th century, but really gained notoriety in the 1950s and ’60s, beating out popular plants like begonias and azaleas to become the clear consumer choice for the holiday season. Back then, however, there were only a few varieties, and red dominated the scene.

Since then, number of poinsettia varieties has increased exponentially, which brings us back to NC State’s open house and trials. Breeders send their varieties to NC State in the summer. Dole and research technician Ingram McCall grow them in the poinsettia greenhouse, keeping fastidious notes on when they turn color. Their work helps growers decide which varieties to market during the holiday season.

Many of the varieties are tried and true, while some represent new breeding efforts trying to break into named status – from some combination of letters and numbers into the realm of White Christmas or Premium Picasso. Growers and consumers fill out surveys over the two-day period to mark their preferences.

As for Dole, he likes the darker red varieties along with some of the brighter white varieties. But he refuses to choose just one. But really, how could you decide between varieties with names like Ice Punch, Christmas Curl and Freedom Peppermint?
Faculty and Staff Tickets to President Clinton Lecture

Former President Bill Clinton will speak at NC State’s Millennium Seminar/ Harrelson Lecture on Monday, Jan. 26, at 10:30 a.m. in Reynolds Coliseum on campus. This Millennium Seminar is being presented in partnership with the Harrelson Lecture and is free and open to the public.

A limited number of faculty and staff tickets will be available online beginning Wednesday, Dec. 17, on the Millennium Seminars Web site. Faculty and staff will be allotted two tickets per person. Extra parking for the event will not be available on campus. Anyone coming off campus will be transported via shuttle. Parking and bus shuttle will be available on the Dorothea Dix Campus starting at 8 a.m. A ticket is required for shuttle service.

For more information, call 515-2195.

Jingle Bell Jog

Get in the holiday spirit on Friday, Dec. 12, at the Jingle Bell Jog, a non-competitive two-mile fun run (or walk) that is open to students, faculty and staff. Prizes for costumes, largest team, and random participation. Registration and check-in begin at 11 a.m. at the Carmichael Gym. The jog happens at noon.

Generic Medications Announcement Clarified

Blue Cross and Blue Shield of North Carolina (BCBSNC) recently announced plans to waive co-payments for six months for all generic medications, beginning on Jan. 1. This program does not pertain to State Health Plan members because their pharmacy benefits are not administered through BCBSNC. The State Health Plan Pharmacy Benefit Administrator is MEDCO.

State Health Plan members are always encouraged to shop around for their prescriptions and take advantage of one of the many available discounted generic programs. Many national and local retail pharmacies now offer generics at discounted prices. Generic medications may cost only $4 for a one-month supply, or $10 for a three-month supply. Be sure to check the list of discounted generics at each pharmacy, as they often vary.

Construction Update

Due to weather, the Stinson Drive repaving has been rescheduled. Contractors plan on paving and striping Stinson Drive from approximately Boney Drive to Current Drive, on Saturday, Dec. 13. This portion of Stinson Drive will be closed around 5:30 p.m., Friday, Dec. 12, through Sunday, Dec. 14. Road closed signs will be in place.

Powering Down for the Holidays

Between Wednesday, Dec. 24, and Friday, Jan. 2, when the university is closed, Facilities Operations will be setting back the temperature in select buildings across campus to about 55 to 60 degrees. Temperature adjustments will affect mainly classrooms, offices, and teaching labs. In general, research labs and animal facilities will not be included.

You are encouraged to do whatever you can to save energy, including:
• Close laboratory fume hoods and shut down non-essential lab equipment.
• Close windows and shut internal and external doors. Report windows and doors that are left open or unable to be closed to the Service Center at 515-2991.
• Turn off all lights in your office or any shared area (such as conference rooms, break rooms, restrooms, and classrooms).
• Shut down office equipment and unplug (computers, faxes, printers, coffee-makers).
• Do not use space heaters.
• Report any water leaks or improperly operating fixtures at the Service Center at 515-2991.

Facilities staff will provide a courtesy walk through of common areas in each building and shut down standard office equipment in common areas if they were inadvertently left on.

About Those New Buses

Beginning this spring, the Joyner Visitor Center will begin providing bus tours of Centennial Campus as part of the campus visit experience. Guests will begin with a 45-minute information session at the visitor center, then jump on the buses for a driving tour of Centennial Campus. During the drive, a CD will guide the guests through the campus and provide interesting information and facts along the way. The buses will drop guests off at the Talley Student Center, where they will begin a one-hour walking tour of the main campus. After that, it’s back on the buses for the return trip to the visitor center.

Holiday Wolfline Schedule

Regular Wolfline service operates through Tuesday, Dec. 16. WereWolf service ends early at 9 p.m. on Dec. 16. Faculty/staff service operates from Dec. 17 through Dec. 23 with three routes:
• Rt. 6 Carter Finley – service every 30 minutes
• Rt. 7 WolfLink Shuttle – service every 30 minutes
• Rt. 8 Southeast Loop – service every 36 minutes

Faculty/staff service resumes Jan. 5 and Jan. 6 with the same routes and schedules noted above. Regular Wolfline service resumes the first day of classes, Jan. 7.

Wolfline shuttle bus service will be provided from both the Varsity Storage Lot and the Centennial Campus Storage Lots to campus residence halls on Tuesday, Jan. 6, beginning at 5 p.m. and continuing every half hour until 9 p.m.

Holiday Parking

To aid in vehicle safety and security during university closures, NCSU Transportation and Campus Police are partnering to enhance security by allowing “S/EC/DE/DW/F” perimeter parkers to move their vehicles to the West Lot (off Sullivan Drive) during break times, effective noon, Friday, Dec. 12.

Police suggest clustering vehicles in the West Lot (closest to Varsity Drive) for highest visibility and proximity to the Campus Police office, which is staffed during university closures. Vehicles must be returned to Storage Lots by 7 a.m. Wednesday, Jan. 7.

New Year! New Antivirus!

On Monday, Jan. 12, the Office of Information Technology (OIT) will begin offering new antivirus software to campus: Trend Micro OfficeScan 8 for Windows, and Intego VirusBarrier X5 for Mac OS X.

All computers, including personally owned computers, connecting to the NC State campus network require antivirus software. Trend Micro replaces Symantec as NC State’s official provider of antivirus client products and distributes Intego’s Mac products via a separate external agreement.

Trend Micro’s antivirus products offer better virus protection and more reliable updates. Extensive testing has been done to ensure that the transition to the new antivirus software will be as smooth as possible.

No user action is required at this time.

Technology Expo Jan. 13-15

The LITRE (Learning in a Technology-Rich Environment) Expo will be held at the D. H. Hill Library, Jan 13-15. Hear Harvard professor Chris Dede discuss how interactive media are shaping students’
learning styles and the implications of neomillennial learning styles for higher education. Also hear NC State undergraduates discuss their use of technology. Visit faculty exhibits to see the creative ways technology is being used on campus to help students learn better. Faculty will be present at various times to interact with visitors.

Ever wanted to incorporate video podcasts, virtual worlds or problem-solving into your curriculum? Attend LITRE project presentations where faculty will share the results and details of multi-year research projects.

Logic and Cognitive Science Initiative
GlaxoSmithKline’s Semantic Technologies Group, which is based on Centennial Campus, has contributed $20,000 to the Department of Philosophy and Religion in support of its Logic and Cognitive Science Initiative. The grant will fund a conference on Ontology during the 2009/10 academic year. The group has made six grants totaling $142,000 to support the initiative. Among other uses, the grants fund undergraduate internships in knowledge exploration, a lecture series, and an annual award for the best senior pursuing a BS in philosophy with a concentration in logic, representation and reasoning.

Faculty and Staff Notes

Singh Honored as IEEE Fellow
For the past 13 years, Dr. Munindar P. Singh, professor of computer science, has worked to uncover the mysteries of how machines talk to each other. Now he is being honored for his work by the Institute of Electrical and Electronics Engineers, which recently voted to make him an IEEE Fellow. Singh becomes the department’s third IEEE Fellow, following in the footsteps of Drs. Donald Bitzer and Mladen Vouk, who were selected in 1982 and 2001, respectively.

Savage Featured in 2009 Calendar
The work of Dr. Carla Savage, professor of computer science, will be featured in the “12 Theorems by Women Mathematicians” Calendar for 2009. The “Polynomial Coprimality Theorem,” from Savage’s joint paper with Sylvie Corteel, Herbert S. Wilf, and Doron Zeilberger in 1998, is the featured April 2009 theorem.

Antón Named to Future of Privacy Forum Advisory Board
Dr. Annie Antón, professor of computer science, has been named as a member of the Future of Privacy Forum (FPF) Advisory Board. The FPF is a think tank led by privacy experts Jules Polonetsky and Christopher Wolf and includes an advisory board comprised of leading figures from industry, academia, law and advocacy groups. The Future of Privacy Forum’s initial support is provided by AT&T.

Spontak Honored
Dr. Richard Spontak, professor of chemical and biomolecular engineering and materials science and engineering, has been named a fellow of the American Physical Society (APS) for his pioneering contributions in electron microscopy and electron microtomography of multiphase polymer systems. Spontak will be recognized in March at the APS national meeting in Pittsburgh.

Redfield a Visiting Critic at Columbia
Associate Professor of Architecture Wendy Redfield participated as a visiting critic on Nov. 10 for interim reviews at Columbia University’s Graduate Urban Design Program. Called “The Power Studio,” the project involved proposals for rehabilitating Governor’s Island and several small towns in upstate New York, and focused on issues of energy, economy, and ecology.

Graphic Design Profs in Book
Professor of Graphic Design Meredith Davis is cited as a trailblazer in the new book by Bryony Gomez-Palacio and Armin Vit titled “Women of Design: Influence and inspiration from the original trailblazers to the new groundbreakers.” Davis, fellow and the 2005 national medalist of the American Institute of Graphic Arts, currently serves on the AIGA Visionary Design Council to define the designer of 2015. Adjunct Assistant Professor Kathleen Meaney is featured in the book as a groundbreaker. Meaney previously worked at Pentagram.

Townsend in Print
During the last six years Associate Professor of Graphic Design Scott Townsend has created site specific/online projects in Prague, Berlin, Tokyo, Havana, Tijuana, and also in the United States. A 12-page visual essay will be published on this work in the international journal Visual Communication (Sage; London and New York; Theo Van Leeuwen, Teal Triggs, eds) in February 2009.

Chancellor’s Holiday Open House
Join Chancellor James Oblinger and Dr. Diana Oblinger for food and camaraderie at the chancellor’s annual holiday open house on Thursday, Dec. 18 from 11 a.m. to 1 p.m. All university faculty and staff are invited to the festivities at the Chancellor’s Residence, 1903 Hillsborough Street.

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News Services
Campus Box 7504
Raleigh, NC 27695
Phone (919) 515-5863
E-mail bulletin@ncsu.edu
Web www.ncsu.edu/bulletin
Editor: David Hunt
DON'T BELIEVE IN SANTA CLAUS?
Cutting-edge science explains how Santa is able to deliver toys to good girls and boys around the world in one night.

If you’re skeptical of Santa’s abilities to deliver presents to millions of homes and children in just one night, Dr. Larry Silverberg, professor of mechanical and aerospace engineering, can explain the science and engineering principles that allow the Jolly Old Elf to pull off the magical feat year after year.

With his cherubic smile and twinkling eyes, Santa may appear to be merely a jolly old soul, but he and his North Pole elves have a lot going on under the funny-looking hats, Silverberg says. Their advanced knowledge of electromagnetic waves, the space/time continuum, nanotechnology, genetic engineering and computer science easily trumps the know-how of contemporary scientists.

Silverberg adds that letters to Santa via snail mail still get the job done, however.

Silverberg is not so naïve as to think that Santa and his reindeer can travel approximately 200 million square miles – making stops in some 80 million homes – in one night. Instead, he posits that Santa uses his knowledge of the space/time continuum to form what Silverberg calls “relativity clouds.”

“Based on his advanced knowledge of the theory of relativity, Santa recognizes that time can be stretched like a rubber band, space can be squeezed like an orange and light can be bent,” Silverberg says. “Relativity clouds are controllable domains – rips in time – that allow him months to deliver presents while only a few minutes pass on Earth. The presents are truly delivered in a wink of an eye.”

With a detailed route prepared and his list checked twice through the onboard computer on the technologically advanced sleigh, Santa is ready to deliver presents. His reindeer – genetically bred to fly, balance on rooftops and see well in the dark – don’t actually pull a sleigh loaded down with toys. Instead, each house becomes Santa’s workshop as he utilizes a nano-toymaker to fabricate toys inside the children’s homes. The presents are grown on the spot, as the nano-toymaker creates – atom by atom – toys out of snow and soot, much like DNA can command the growth of organic material like tissues and body parts.

And there's really no need for Santa to enter the house via chimney, although Silverberg says he enjoys doing that every so often. Rather, the same relativity cloud that allows Santa to deliver presents in what seems like a wink of an eye is also used to “morph” Santa into people’s homes.

Finally, many people wonder how Santa and the reindeer can eat all the food left out for them. Silverberg says they take just a nibble at each house. The remainder is either left in the house or placed in the sleigh’s built-in food dehydrator, where it is preserved for future consumption. It takes a long time to deliver all those presents, after all.

“This is our vision of Santa’s delivery method, given the human, physical and engineering constraints we face today,” Silverberg says. “Children shouldn’t put too much credence in the opinions of those who say it’s not possible to deliver presents all over the world in one night. It is possible, and it’s based on plausible science.”