



Plant Pathology Society of North Carolina Newsletter

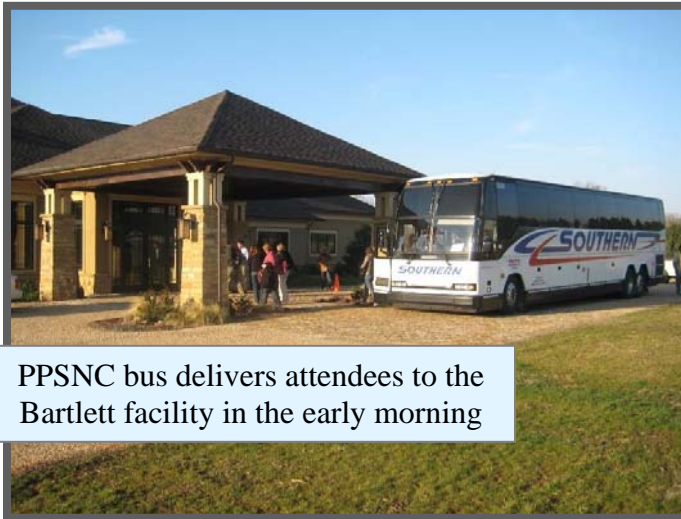
www.cals.ncsu.edu/plantpath/activities/societies/ppsnc/

Summer 2008

PPSNC ANNUAL MEETING RECAP

PPSNC members who were able to attend this year's annual meeting held in Charlotte, NC will agree it was a fabulous day. Great weather and speakers graced the beautiful facility at Bartlett Tree Research Laboratory and made for an enjoyable and informative event. The program on "Vertical Plant Pathology: Managing Tree and Shrub Diseases" was complemented with an outdoor tour of Bartlett's facilities and demonstrations of tree care techniques by Bartlett employees. Over a third of the attendees utilized the chartered bus from the Triangle area, funded by the PPSNC with assistance from the NCSU Department of Plant Pathology, BASF, Bayer CropScience, and Syngenta. Another twist to this year's event was a post-meeting light dinner option. This option was provided to help attendees avoid the Charlotte rush-hour traffic. Many of the diners enjoyed the additional time to interact. Many thanks again to Bartlett Tree Research Laboratory for being such wonderful hosts.

Here are a few snapshots from the event, courtesy of Gerald Holmes and Weimin Ye.



PPSNC bus delivers attendees to the Bartlett facility in the early morning



Mr. Bartlett welcomes PPSNC!



A captivated audience in Bartlett's great facility



We had sunny skies for outdoor eating



PPSNC Industry Representative and Bartlett employee, **Eric Honeycutt**, demonstrate some of Bartlett's tree care techniques



Dr. Bruce Fraedrich, also an employee of Bartlett, shows the tour the aftermath of a machine that quickly exposes the crown and root flare of trees

2009 Annual Meeting

The new PPSNC board members met in July to discuss venues and themes for next year's annual meeting. The thoughts of holding the meeting concurrently with the Georgia Association of Plant Pathologists (GAPP) in Savannah, Georgia next year were ruled out due to the high cost of travel and accommodations in the Savannah area. Currently, the board is still considering accepting the offer from the USDA to hold the meeting at the Center for Plant Health Science and Technology on Centennial campus in Raleigh; however, other options are still being discussed.

PPSNC TRAVEL AWARD WINNERS

In the fall, the PPSNC solicits student travel award applications from graduate students working on research in or related to plant pathology at universities in North Carolina. The PPSNC Student Travel Award Committee reviews the applications and selects the winners, who at the PPSNC

Annual Meeting receive a plaque and \$500.00 to be used to present their research findings at the scientific meeting of their choice. This year two awards were given. **Thomas Chappel** of Duke University is studying co-evolution and ecology in the *Coleosporium-Ipomoea* pathosystem. **Andrea Lynn Dolezal** of North Carolina State University is researching the genes expressed during the infection of maize by *Aspergillus flavus*. The call for applications for the 2009 Student Travel Award should come out sometime in the fall.



BUZZING OUR WAY INTO BUGFEST AGAIN!

Last year, the PPSNC booth at the annual BugFest celebration was a great success. It was a lot of fun for both the booth volunteers and visitors. Since our efforts were so well received we are planning to fire up our Bug Bus again and vector plant pathology at the 2008 BugFest.



The planning committee is made up of PPSNC student representative, **Faith Bartz**, and PPSNC members **Lisa Kohl**, **Betsy Randall-Schadel**, and **Heather Hartzog**. The 2008 booth will have activities similar to last year (the stamping game, specimens, and posters) but with some adjustments to emphasize the bee theme of the 2008 festival, while keeping our focus on insect-vector plant diseases. If you are interested in volunteering for this great event, contact Faith Bartz at: febartz@ncsu.edu



Date: Saturday September 20, 2008

BugFest is held at the North Carolina Museum of Natural Sciences in downtown Raleigh. The festival caters to both the young and curious at heart who want to learn more about the insect world around us. More than 20,000 people attended the event last year. More information can be found on the bugfest website (<http://www.bugfest.org/>).



INDUSTRY UPDATE

by Eric Honeycutt

SYNGENTA Crop Protection, Greensboro, NC

Syngenta Crop Protection received U.S. Environmental Protection Agency registration for three new fungicides including Inspire[®] Super MP, Revus[®], and Revus Top[™].

Inspire Super MP multipack, consists of Inspire Super MP fungicide (difenoconazole) and Vanguard[®] WG fungicide (cyprodinil). The combination of these two active ingredients protects against diseases of pome fruit and can be incorporated into a resistance management program.

The translaminar triazole chemistry of difenoconazole and the systemic activity of cyprodinil enable Inspire Super MP to deliver broad-spectrum disease control.

Revus fungicide offers control of most foliar oomycete pathogens, including late blight, downy mildew, and *Phytophthora* blight in *Brassica* vegetables, bulb vegetables, cucurbit vegetables, peppers, leafy vegetables, and grapes. The active ingredient, mandipropamid, is highly effective at low use rates, and has a short re-entry period and short preharvest intervals. Revus exhibits LOK + FLO™ technology, preventing spore germination and producing a barrier to prohibit further infection. Once applied, mandipropamid sticks tightly to the waxy cuticle of treated leaves, quickly becoming rainfast and establishing a protective barrier to prevent fungi from adhering.

Revus Top fungicide consists of the combination of mandipropamid, a carboxylic acid amide (CAA) fungicide, and difenoconazole, a triazole fungicide (sterol inhibitor). The active ingredients provide control of early blight and late blight, as well as a broad spectrum of other diseases including black mold, black dot, *Septoria* leaf spot, Anthracnose, and other damaging diseases in potatoes and tomatoes.

BASF Corporation

BASF Corporation recently received EPA registration for Pageant Fungicide. Pageant is a broad spectrum fungicide that contains the active ingredients boscalid and pyraclostrobin. Pageant provides control of many ornamental diseases including (but not limited to): *Phytophthora*, *Rhizoctonia*, *Fusarium*, *Monilinia*, *Botrytis*, *Phyllosticta*, etc. Pageant is labeled for use in outdoor nurseries, lathhouses/shadehouses, greenhouses, golf courses, residential and commercial landscapes, interiorscapes, and containers.

The fungicide Stature SC is just now coming into the marketplace. Stature SC contains the active ingredient dimethomorph that provides preventive control of *Phytophthora* and downy mildew diseases that affect ornamentals. Stature SC can be applied as a foliar spray, soil drench, or through chemigation. Stature SC is labeled for use on ornamentals grown in greenhouses, field and container nurseries, shade/lathhouses, and conifer seedling nurseries. Please note that the 50 WP formulation will be discontinued this year except for what is left in distribution.

Bayer CropScience

Bayer CropScience recently received additional EPA registrations on a wide array of crops. Folicur is a broad-spectrum triazole fungicide containing the active ingredient tebuconazole. Folicur has been registered for use in peanuts, grasses grown for seed and new registrations include uses in asparagus, barley, beans (fresh and dry, except succulent shelled), corn (foliar and seed treatment use), cotton, Cucurbit crop group, various onions and shallots, hops, leafy brassica greens, garden beet roots and tops, lychee, mango (post harvest), okra, pecan, soybean, sunflower, turnip (except west of Rockies), and wheat.

New Proline (prothioconazole) registrations were recently approved by EPA for uses in peanut (in-furrow application for *Cylindrocladium* black rot), sugar beet and soybean. Prothioconazole is a highly active triazole from Bayer CropScience and controls a broad-spectrum of important foliar diseases such as leafspots, rusts, and powdery mildew.

Prosaro from Bayer CropScience received registration by EPA in May, 2008 for broad-spectrum disease control in wheat and barley. Prosaro is a mixture of two active ingredients, prothioconazole and tebuconazole, and offers growers superior performance against *Fusarium* head blight, DON reduction in grain and preventative/curative action against leaf diseases such as rust, *Septoria* leaf and glume blotch, tan spot, net blotch, and spot blotch. Together, these features provide for improved grain quality and higher yields.

Trilex 6000 is a new seed treatment system for soybeans that contains six key components. Gaucho 600 (imidacloprid) provides early season insect protection. Trilex (trifloxystrobin) and Allegiance (metalaxyl) provide superb protection against seed and seedling diseases utilizing traditional modes of action. Added disease protection is provided with the biological product Yield Shield Concentrate. Celgard 96487 and red colorant complete the system insuring that treated seed have a finished appearance with excellent planting characteristics. New for 2009, the Trilex 6000 system will replace Trilex FS and Allegiance FS with a newly registered in-can combination called Trilex 2000. The Trilex 6000 system will also be simplified in size to treat 5200 units of seed per system

Adament 50 WG has been approved for use in NC for grape and certain stone fruit. Diseases controlled in grape are powdery mildews, *Botrytis*, *Phomopsis*, and black rot. Disease controlled in stone fruit are brown rot blossom blight, *Botrytis*, shothole, *Alternaria*, anthracnose, powdery mildew, rusty spot, scab, cherry leaf spot, fruit rot, and rust.

Reason 500 has many new crops added to the NC label for improved rotation. Reason is a QoI and is highly active on downy mildew, *Pythium*, white rust, and *Alternaria* diseases in vegetables.

Thanks for Kristen Bear (Gibbs-Soell) and Allison Tally (Syngenta) for providing Syngenta product update information. Thanks to Kathie Kalmowitz (BASF) for providing BASF product update information. Thanks to Mike Schwarz for providing Bayer CropScience product update information.

NEW FACES IN NC PLANT PATHOLOGY

by Michael Munster

Introducing Dr. Peter Ojiambo, new Assistant Professor of Plant Pathology

In January 2008, Dr. Peter Ojiambo joined the North Carolina State University Department of Plant Pathology as a plant disease epidemiologist. A native of Siaya, Kenya, he obtained his Master's degree in Plant Pathology from the University of Nairobi and his Ph.D. from the University of Georgia. Before coming to North Carolina he did post-doctoral work at both the University of Georgia and the



International Institute for Tropical Agriculture (IITA), Ibadan, Nigeria. In Georgia he worked on the development of a Bio-PCR assay for the detection of *Xanthomonas arboricola* pv. *pruni* in peach and on meta-analysis of biological control options for plant disease suppression. At IITA, he worked on several projects including a study on the influence of fallow period on the spatial distribution of cassava root rot complex, the biological control of aflatoxin in maize, and the development of protocols for early and mass screening of banana for resistance to black sigatoka and for screening soybeans for resistance to Asian soybean rust using detached leaves.

Dr. Ojiambo is pursuing two broad lines of research at NCSU. One of these involves the application of epidemiological principles to improve forecast systems for several problems of importance in North Carolina and beyond: *Stagnospora nodorum* of wheat, downy mildew on cucurbits, mummy-berry of blueberry, and aflatoxin production in maize fields in eastern Africa. His second line of research involves improving sampling for low levels of disease incidence within clustered populations. To this end he is theoretically examining the application of adaptive sampling, a procedure that mimics how biologists would like to collect data.

Dr. Ojiambo is on a 100% research appointment, but will also be teaching an advanced plant disease epidemiology course.

For more information, see his web page at:

www.cals.ncsu.edu/plantpath/people/faculty/ojiambo/

CALENDAR of EVENTS



- September 20, 2008: BugFest in Raleigh, NC <http://www.bugfest.org/>
- September 22–26, 2008: 16th Annual Ornamental Workshop on Diseases and Insects in Hendersonville, NC <http://www.cals.ncsu.edu/plantpath/activities/societies/ornamental/>
- February 1–2, 2009: Southern Division APS Meeting, Atlanta, Georgia, in conjunction with the Southern Association of Agricultural Scientists. <http://www.cals.ncsu.edu/plantpath/activities/societies/aps/SouthernAPS.html>
- May 31 – June 4, 2009: 14th International *Sclerotinia* Workshop, Wilmington, NC. http://www.cals.ncsu.edu/sclerotinia_conference

NEW FEATURE

by Michael Munster

Starting with the next edition of the newsletter, we would like to include an annual round-up of new or noteworthy plant diseases observed in the state of North Carolina. An example of the latter would be the tremendous amount of quince rust (*Gymnosporangium clavipes*) that we saw on ornamental pear early this summer. PPSNC members are encouraged to submit anything from

simple diagnoses to those for which Koch's postulates have been completed. Please send an email to mike_munster@ncsu.edu.

If our readership knows of any fungal pathogens or host-fungus combinations that are new for our state, I'd also like to add them to the forthcoming update to "Fungi on Plants in North Carolina", provided we have either (1) a voucher specimen, (2) a record of the diagnosis through the Plant Disease and Insect Clinic, or (3) a peer-reviewed publication of the find.

ERRATUM

In the autumn 2007 edition of the PPSNC Newsletter, in the photograph of new students in the Department of Plant Pathology at NCSU, the individual on the far right was misidentified as Cristiano Caixta Nunes. We apologize for the error. We believe it was a visiting friend of the department.

WHO'S ON BOARD?

The 2008-2009 PPSNC Board Members are:

President: Mike Schwarz

Mike.Schwarz@bayercropscience.com

Vice President: Open

Immediate Past President: Gerald Holmes

gerald_holmes@ncsu.edu

Treasurer: Weimin Ye

Weimin.Ye@ncmail.net

Secretary: Mike Munster

mike_munster@ncsu.edu

Student Representative: Faith Bartz

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Industry Representative: Eric Honeycutt

ehoneycutt@bartlettlab.com

Government Representative: William "Billy" Newton

william.m.newton@aphis.usda.gov

Academic Representative: Steve Koenning

srkpp@unity.ncsu.edu

GOT NEWS?

Do you have news about events, new hires, students, awards, or scientific phenomenon that you feel the PPSNC community needs to know about? If so, we would love to hear about it and consider it for publication in a future PPSNC Newsletter. Please note submissions may be edited prior to publishing. Photos are encouraged. Please send your submissions to Mike Munster at: mike_munster@ncsu.edu



*This edition of the PPSNC Digest is brought to you by the PPSNC editorial staff: Heather Hartzog, Andrea Lemay, and Mike Munster.
Be on the lookout for our fall edition in November!*

DISCLAIMER: The mention of any product or service in this newsletter should not be understood as endorsement by the Plant Pathology Society of North Carolina.