

71th Annual Meeting of the

**Northeastern
Division**

**The
American
Phytopathological
Society**

Program
October 12-14, 2011

The Heldrich
10 Livingston Avenue
New Brunswick, New Jersey

NED-APS 2011 SPONSORS

GOLD SPONSORS

Rutgers, Department of Plant Biology and Pathology
Rutgers, New Jersey Agricultural Experiment Station
Rutgers, Center for Turfgrass Science
Syngenta

SILVER SPONSORS

Bayer Crop Science
FMC
Golf Course Superintendents Association of New Jersey
New Jersey Turfgrass Association
Sciessent

BRONZE SPONSORS

AgraQuest
Dow AgroSciences
DuPont
New Jersey Landscape Contractors Association
UPI

**Northeastern Division Officers
2010-2011**

Russell J. Tweddell, President
Beth K. Gugino, Vice-President
C. Andrew Wyenandt, Secretary-Treasurer
Wade H. Elmer, Division Forum Representative
Norman Lalancette, Immediate Past President

Local Arrangements 2010-2011

Bruce B. Clarke - Chair
C. Andrew Wyenandt
Norman Lalancette
Peter V. Oudemans
Ann B. Gould
Brad Hillman
Don Kobayashi
Stacy Bonos
Rutgers University

On the cover: On-farm alternative mulch by plant spacing trial for the management of bacterial diseases of onion in Lancaster Co., PA (2011)
(Courtesy B.K. Gugino)

Program Design

A. B. Gould

WEDNESDAY, OCTOBER 12, 2011

- 7:30 – 1:00 **Cranberry Harvest Tour** at the New Jersey Pine Barrens - Lobby
(includes box lunch – pre-registration required)
- 9:00 – noon **Ornamental, Turf, and Nut Tree Tour** at Rutgers Horticulture Farms - Lobby
(includes box lunch – pre-registration required)
- 11:00 – 6:00 **REGISTRATION** – Lobby
- 1:30 – 5:00 **EXTENSION / INDUSTRY MEETING** – Segal Room (2nd level) (Continuous refreshments – Segal Kiosk)
Presiding: Henry Van Tuyl Cotter
- 5:00 – 6:00 **NED-APS GRADUATE STUDENT AWARDS COMMITTEE MEETING** –
Parlor Room 406
- 5:00 – 7:00 **Dinner** (on your own)
- 7:00 – 10:00 **DIVISION SOCIAL** – Segal Room (2nd level)

THURSDAY, OCTOBER 13, 2011

- 7:00 **CONTINENTAL BREAKFAST** – Kelly Kiosk (2nd level) (included with registration)
- 7:30 – 5:00 **REGISTRATION** – Lobby
- 8:00 **WELCOME AND OPENING REMARKS** – Merchant Amphitheatre (2nd level)
Russell Tweddell, NED-APS President
- 8:05 – 10:20 **SYMPOSIUM I: THE OOMYCETES: CURRENT AND FUTURE CHALLENGES** – Merchant Amphitheatre (2nd level)
Presiding: Danny Rioux
- 8:05 **Comparative Genomics Opens Up a New Era for Oomycete Taxonomy, Ecology and Diagnostics.**
André Lévesque, Agriculture and Agri-Food Canada, Ottawa, Ontario
- 8:50 **Oomycetes in Irrigation Water: Challenges and Opportunities.**
Gary W. Moorman, The Pennsylvania State University, University Park, PA
- 9:35 ***Phytophthora ramorum*: An Overview of Risks and Research Challenges for Eastern North America.**
Robert Marra, The Connecticut Agricultural Experiment Station, New Haven, CT, USA
- 10:20 – 10:40 **BREAK** – for refreshments - Kelly Kiosk (2nd level) (continuous refreshments all day)

- 10:40 – 11:40 **CONCURRENT CONTRIBUTED PAPER SESSION I: BIOLOGY OF PLANT PATHOGENS** – Merchant Amphitheatre (2nd level)
Presiding: Beth Gugino
- 10:40 **Potyvirus infection of potato may threaten other solanaceous crops.** J. A. LAMONDIA (2), R. L. Wick (1). (1) Department of Plant Soil and Insect Sciences, University of Massachusetts, Amherst, MA, USA; (2) The Connecticut Agricultural Experiment Station Valley Laboratory, Windsor, CT, USA.
- 10:55 **First report of white pine blister rust caused by *Cronartium ribicola* on immune black currant *Ribes nigrum* cv. Titania in Preston, Connecticut.** Z. A. Frederick (1), S. Villani (1), K. D. Cox (1), L. Los (2), J. ALLEN (2). (1) New York State Agricultural Experiment Station, Cornell University, Geneva, NY, USA; (2) University of Connecticut, Storrs, CT, USA.
- 11:10 **Diversity of closteroviruses infecting *Cordyline fruticosa* (L.) in Hawaii.** M. J. Melzer, J. S. Sugano, W. B. Borth, D. M. Sether, K. Dey, J. HU. University of Hawaii, Honolulu, HI, USA.
- 11:25 **Pear trellis rust: A new challenge for ornamental pear in New York State.** S. Kenaley, M. DAUGHTREY, S. Jensen, D. O'Brien, K. Snover-Clift, G. Hudler. Cornell University, Ithaca, NY, USA.
- 10:40 – 11:40 **CONCURRENT CONTRIBUTED PAPER SESSION II: MOLECULAR BIOLOGY** – Segal Room (2nd level)
Presiding: Ning Zhang
- 10:40 **Microsatellite markers reveal a clinal expansion of *Waitea circinata* var. *circinata*.** E. N. NJAMBERE (2), F. P. Wong (1), B. B. Clarke (2), N. Zhang (2). (1) Bayer Environmental Science, Alexandria, VA, USA; (2) Rutgers University, New Brunswick, NJ, USA.
- 10:55 **Utilizing microsatellite markers to explore the genetic diversity of Eastern Filbert Blight (*Anisogramma anomala*).** C. W. LEADBETTER, G. Cai, B. Hillman, T. J. Molnar. Rutgers University, New Brunswick, NJ, USA.
- 11:10 **Draft genome of hazelnut eastern filbert blight pathogen *Anisogramma anomala*.** G. CAI, C. Leadbetter, T. Molnar, B. Hillman. Rutgers, The State University of New Jersey, New Brunswick, NJ, USA.
- 11:25 **Trichothecene mycotoxins inhibit mitochondrial translation- Implication for the mechanism of toxicity.** A. BIN-UMER (2), J. McLaughlin (2), D. Basu (2), S. McCormick (1), N. Tumer (2). (1) Bacterial Foodborne Pathogens and Mycology Unit, National Center for Agricultural Utilization Research, USDA; (2) Department of Plant Biology and Pathology, School of Environmental and Biological Sciences, Rutgers University, New Brunswick.
- 11:45 – 1:00 **LUNCH** – Christopher's Restaurant (included with registration)
- 1:00 – 4:45 **GRADUATE STUDENT AWARD COMPETITION** – Merchant Amphitheatre (2nd level)
Presiding: Ann Hazelrigg

- 1:00 **Anthraco nose severity of annual bluegrass putting green turf as influenced by nitrogen fertilization programming.** C. J. SCHMID, J. A. Murphy, B. B. Clarke. Rutgers University, New Brunswick, NJ, USA.
- 1:15 **Atahualpa's revenge: The spread of quinoa downy mildew.** A. L. TESTEN, P. A. Backman. The Pennsylvania State University, University Park, PA, USA.
- 1:30 **Determining the true identity of the pathogen causing dollar spot disease in turfgrass.** L. A. BEIRN (2), L. P. Tredway (1), M. J. Boehm (3), A. M. Orshinsky (3), I. Carbone (1), B. B. Clarke (2), J. Crouch (4). (1) North Carolina State University, Raleigh, NC, USA; (2) Rutgers University, New Brunswick, NJ, USA; (3) The Ohio State University, Columbus, OH, USA; (4) USDA-ARS, Systematic Mycology and Microbiology Laboratory, Beltsville, MD, USA.
- 1:45 **Identification of factors associated with bacterial diseases of onion: A case study of two Pennsylvania farms.** E. E. PFEUFER (1), M. A. Mansfield (1), J. Stoltzfus (2), B. K. Gugino (1). (1) Department of Plant Pathology, The Pennsylvania State University, University Park, PA, USA; (2) Eastern Lancaster School District, New Holland, PA, USA.
- 2:00 **Counting genes and comprehending processes: How high-throughput sequencing is aiding in piecing together the grass-endophyte symbiosis puzzle** K. V. AMBROSE, F. C. Belanger. Dept. of Plant Biology & Pathology, Rutgers University, New Brunswick, NJ, USA.
- 2:15 **The incidence of seed transmission of Zucchini yellow mosaic virus (ZYMV) over two generations.** H. E. SIMMONS, E. C. Holmes, F. E. Gildow, M. A. Bothe-Goralczyk, A. G. Stephenson. Penn State University, University Park, PA, USA.
- 2:30 **Evaluating fungicides for the control of basil downy mildew.** K. HOMA (1), J. E. Simon (1), C. A. Wyenandt (3), W. P. Barney (2). (1) Dept. of Plant Biology and Pathology, Rutgers, The State University of New Jersey; (2) IR-4 Project Headquarters, Rutgers, The State University of NJ, Princeton, NJ, USA; (3) Rutgers Cooperative Research & Extension, Rutgers Agricultural Research and Ext. Center, Bridgeton, NJ, USA.
- 2:45 **Identification and characterization of fungi associated with black shadow on blueberry.** T. J. WALLER (1), C. C. Constantelos (1), J. J. Polashock (2), P. V. Oudemans (1). (1) Phillip E. Marucci Center, Rutgers, The State University of New Jersey, Chatsworth, NJ, USA; (2) USDA-ARS, GIFVL, Chatsworth, NJ, USA.
- 3:00 – 3:15 **BREAK** for refreshments Kelly Kiosk (2nd level) (continuous refreshments all day)
- 3:15 **Effects of relative humidity on infection, conidia production, and mycelial colonization of perennial ryegrass tissue by *Magnaporthe oryzae*.** Y. LI, W. Uddin. Pennsylvania State University, University Park, PA, USA.
- 3:30 **Assessment of the potential of *Phytophthora ramorum* to infect roots of red oak and balsam fir.** P. K. TSAE (1), D. Rioux (2), M. Simard (2), M. Lagacé (2), R. Wilson (3), T. J. Avis (1). (1) Department of Chemistry, Carleton University, Ottawa, ON, Canada; (2) Natural Resources Canada, Laurentian Forestry Centre, Québec, QC, Canada; (3) Ontario Ministry of Natural Resources, Forest Health and Silviculture Section, Sault Ste. Marie, ON, Canada, P6A6V5.

- 3:45 **Antifungal compounds from *Bacillus subtilis* strain CU12.** C. WISE, L. Novitsky, T. J. Avis. Carleton University, Ottawa, ON, Canada.
- 4:00 **Trafficking of ricin A chain to the vacuole affects its depurination activity and cytotoxicity.** Q. YAN (1), X. Li (2), N. Tumer (2). (1) Department of Plant Biology and Pathology, Rutgers University, New Brunswick, NJ, USA; (2) Rutgers University, New Brunswick, NJ, USA.
- 4:15 **The effect of mechanical injury on anthracnose severity of annual bluegrass turf.** J. W. HEMPFLING, J. A. Murphy, B. B. Clarke. Rutgers, The State University of New Jersey, New Brunswick, NJ, USA.
- 4:30 **Comprehensive analysis of indirect mode of action for potassium phosphite in potato leaves against *Phytophthora infestans*.** S. LIM (5), G. Wang-Pruski (5), D. H. Pinto (3), R. H. Coffin (2), R. D. Peters (1), K. I. Al-Mughrabi (4). (1) Agriculture and Agri-Food Canada, Charlottetown, PE, Canada; (2) Cavendish Farms, Summerside, PE, Canada; (3) National Research Council-IMB, Halifax, NS, Canada; (4) New Brunswick Department of Agriculture and Aquaculture, Wicklow, NB, Canada; (5) Nova Scotia Agricultural College, Truro, NS, Canada.
- 4:45 **NED-APS BUSINESS MEETING** – Merchant Amphitheatre (2nd level)
Presiding: Russell Tweddell, NED-APS President
- 5:30 **GRADUATE STUDENT AWARDS COMMITTEE MEETING** – Parlor Room 406
- 6:30 **SOCIAL** – Segal Room (2nd level)
- 7:30 **BANQUET AND AWARDS** – Johnson Room (2st floor)

FRIDAY, OCTOBER 14, 2011

- 7:00 **CONTINENTAL BREAKFAST** – Livingston Foyer (1st level) (included with registration)
- 7:30 – 10:00 **CONCURRENT CONTRIBUTED PAPER SESSION I: EPIDEMIOLOGY** – Livingston Ballroom III (1st level)
Presiding: Norman Lalancette
- 7:30 **Oomycete diversity in soil samples from asymptomatic soybean fields in Lancaster County, PA.** J. E. BLAIR (1), A. L. Greidinger (1), A. A. Collins (2). (1) Franklin & Marshall College, Department of Biology, Lancaster, PA, USA; (2) Southeast Research and Extension Center, The Pennsylvania State University, Manheim, PA, USA.
- 7:45 **Peach scab sporulation model development and validation.** N. LALANCETTE (1), K. A. McFarland (1), A. L. Burnett (1). (1) Rutgers University, Dept. of Plant Biology and Pathology, Rutgers Agricultural Research and Extension Center, Bridgeton, NJ, USA.

- 8:00 ***Ailanthus altissima* as a model for developing native biocontrols for other invasive species.** R. GARDNER, Bernville, PA.
- 8:15 **Role of drought, flooding, and/or infection by *Fusarium palustre* on *Spartina alterniflora* and the effect on herbivory by the purple marsh crab.** W. H. ELMER. The Connecticut Agricultural Experiment Station, New Haven, CT.
- 8:30 **Influence of *Pythium aphanidermatum*, *P. irregulare*, and *P. cryptoirregulare* on the bacterial community in recycled irrigated water.** M. L. BURGOS-GARAY, J. Edson, G. W. Moorman. The Pennsylvania State University, University Park, PA, USA.
- 8:45 – 9:00 **BREAK** for refreshments - Livingston Foyer (1st level) (continuous refreshments all day)
- 9:00 **Culturable micro-fungal populations of *Smilax rotundifolia* (greenbriar), an abundant native vine of the northeast – aspects of niche, and community structure.** C. B. ZAMBELL. Rutgers University (Graduate Program in Ecology and Evolution), New Brunswick, NJ, USA.
- 9:15 **Plant pathogens of *Trapa natans*, an invasive aquatic weed in the Northeast and Mid-Atlantic United States.** A. BURNETT (2), K. Eisenmann (1), H. T. Cotter (1). (1) APG Global Innovation Organization, Ewing, NJ, USA; (2) FMC APG Global Innovation Organization, Ewing, NJ, USA.
- 9:30 **Metagenomic analysis reveals hidden fungal diversity associated with dogwood (*Cornus*)—A search for origin of dogwood anthracnose and biocontrol agents.** S. J. MILLER (2), H. Masuya (1), N. Zhang (2). (1) Dept. Forest Microbiology, Forestry & Forest Products Research Institute, Matsunosato 1, Tsukuba, Ibaraki 305-8687, Japan; (2) Rutgers University, New Brunswick, NJ, USA.
- 9:45 **Effects of plant growth regulators on a demethylation inhibitor insensitive *Sclerotinia homoeocarpa* population.** K. CAMPBELL-NELSON, J. T. Popko, G. Jung. University of Massachusetts, Amherst, MA, USA.
- 10:00 – 10:15 **BREAK** for refreshments - Livingston Foyer (1st level) (continuous refreshments all day)
- 7:30 – 9:45 **CONCURRENT CONTRIBUTED PAPER SESSION II: DISEASE MANAGEMENT** – Livingston Ballrooms I and II (1st level)
Presiding: Andy Wyenandt
- 7:30 **An overview of the Southern New England Grape Information Network (2008–2011).** F. J. FERRANDINO. The Connecticut Agricultural Experiment Station, New Haven, CT, USA.
- 7:45 **Comparison of yellow chrysanthemum cultivars for *Fusarium* wilt susceptibility in the Northeast.** M. DAUGHTREY (2), J. Komorowska-Jedrys (2), L. Hyatt (2), W. Elmer (1). (1) Connecticut Agricultural Experiment Station, New Haven, CT, USA; (2) Cornell University, Riverhead, NY, USA.

- 8:00 **Control of downy mildew (*Pseudoperonospora cubensis*) in organically-produced cucumber with biopesticides.** M. T. MCGRATH (1), G. M. Fox (2), L. K. Hunsberger (1). (1) Department of Plant Pathology and Plant-Microbe Biology, Cornell University, LIHREC, Riverhead, NY, USA; (2) University of Florida, Gainesville, FL, USA.
- 8:15 **Evaluation of selected pea varieties for resistance to root pathogens in commercial field trials and greenhouse tests.** G. ABAWI (1), K. MOKTAN (1), B.K. GUGINO (2). (1) Dept. of Plant Pathology and Plant-Microbe Biology, NYSAES, Cornell University, Geneva, NY, USA; (2) Dept. of Plant Pathology, The Pennsylvania State University, University Park, PA, USA.
- 8:30 **Controlling postharvest diseases and disorders of apples with bin-top sprays.** D. A. ROSENBERGER, A. L. RUGH, L. R. SUDOL, F. W. MEYER. Cornell University's Hudson Valley Lab, Highland, NY, USA.
- 8:45 – 9:00 **BREAK** for refreshments - Livingston Foyer (1st level) (continuous refreshments all day)
- 9:00 **Update on 2010 & 2011 plant pathology research in the IR-4 Ornamental Horticulture Program.** C. PALMER (4), J. BARON (3), E. VEA (2), E. LURVEY (1). (1) IR-4, Cornell University, Geneva, NY, USA; (2) IR-4, Crownsville, MD, USA; (3) IR-4, Rutgers University, NJ, USA; (4) IR-4, Rutgers University, Princeton, NJ, USA.
- 9:15 **Overexpression of the *BcatrD* homolog from *Sclerotinia homoeocarpa* field isolates which exhibit practical field resistance to propiconazole.** J. HULVEY (1), J. POPKO (1), H. SANG (1), G. JUNG (1). (1) University of Massachusetts Amherst, MA, USA.
- 9:30 **Evidence of reduced suppression of powdery mildew (*Podosphaera xanthii*) provided by resistant muskmelon (*Cucumis melo*) cultivars in New York.** M. T. McGrath (1), S. R. MENASHA (2), G. M. FOX (3), L. K. HUNSBERGER (1). (1) Department of Plant Pathology and Plant-Microbe Biology, Cornell University, LIHREC, Riverhead, NY, USA; (2) Cornell Cooperative Extension-Suffolk County, Riverhead, NY, USA; (3) University of Florida, Gainesville, FL, USA.
- 9:45 – 10:15 **BREAK** for refreshments - Livingston Foyer (1st level) (continuous refreshments all day)
- 10:15 – 12:15 **100TH ANNIVERSARY SYMPOSIUM I: THE CHANGING LANDSCAPE OF PLANT PATHOLOGY** – Livingston Ballroom I and II (1st level)
Presiding: Bruce Clarke, Director, Center for Turfgrass Science and Extension Specialist in Turfgrass Plant Pathology, Rutgers, The State University of New Jersey
- 10:15 **Is Extension Plant Pathology Adapting to the 21st Century?**
Paul Vincelli, University of Kentucky, Lexington, KY, USA
- 10:50 **Rewriting 100 years of History: Systematics and Diagnostics of Fungi Causing Dollar Spot, Anthracnose, Rust and Rhizoctonia Diseases of Cultivated Turfgrasses.**
Jo Anne Crouch, USDA-ARS, Beltsville, MD, USA

- 11:25 **Fungicide Resistance in *Sclerotinia homoeocarpa*: Distribution, Genetics, and Practical Implications.**
Lane Tredway, North Carolina State University, Raleigh, NC, USA
- 12:00 **Questions and Discussion**
- 12:45 – 1:45 **LUNCH** - Christopher's Restaurant (included for morning registrants staying for the afternoon program only)
- 2:00 – 4:30 **100TH ANNIVERSARY SYMPOSIUM II: PLANT PATHOLOGY IN THE 21ST CENTURY: ADVANCES IN PLANT AND HUMAN HEALTH –**
Livingston I and II (1st level)
Presiding: Brad Hillman, Senior Associate Director, New Jersey Agricultural Experiment Station
- 2:00 **Biological Control to Reduce Cancer, Improve Human Development and Increase Farmer Income.**
Peter Cotty, USDA-ARS, Tucson, AZ, USA
- 2:35 **Novel insights into the Emergence of the Sudden Oak Death Pathogen *Phytophthora ramorum*.**
Niklaus Grunwald, USDA-ARS, Corvallis, OR, USA
- 3:10 **Plant Pathologists: Critical Cogs in the Gears of Produce Safety Research.**
Trevor Suslow, University of California, Davis, CA, USA
- 3:45 **Agricultural Plants as Nutraceuticals: Focus on Health Benefits of Cranberries.**
Amy Howell, Phillip E. Marucci Blueberry/Cranberry Research Center, Rutgers, The State University of New Jersey, Chatsworth, NJ, USA
- 4:20 **Questions and Discussion**
- 5:00 **100TH ANNIVERSARY COCKTAIL RECEPTION AND POSTER SESSION–**
Livingston Ballroom III and IV (1st level)
- 6:30 **GALA BANQUET –** Livingston Ballroom I and II (1st level)

SATURDAY, OCTOBER 15, 2011

- 7:30 – 12:30 **Post-Gala Tour:** New Jersey Annual Cranberry Festival at the New Jersey Pine Barrens - Lobby
(includes box lunch – pre-registration required)