

American Phytopathological Society
Potomac Division
Program

Atlantic Sands Hotel and Convention Center, Rehoboth Beach, Delaware
March 15th - 17th, 2006

Meeting Notes:

1. Speaker or Presenter name is in **Bold**
2. Slide Preparation Wednesday evening and Thursday morning (Swan Ballroom A)
3. Posters: set up Thursday morning, take down Friday at noon (Sandpiper Room)
4. **Thank you for TURNING OFF your cell phone during the meeting.**

Wednesday, March 16, 2005

- 11:00 AM -- 5:00 PM **Registration** (Swan Ballroom Lobby)
- 1:30 PM -- 3:30 PM **Eco and Historical Tour of Cape Henlopen State Park/Fort Mills**
(meet at the hotel lobby at 1:00 PM or at the park gate at 1:25 PM)
- 4:00 PM -- 4:05 PM Welcome: Jay Norelli, APS Potomac Division President (Swan Ballroom)
- 4:05 PM -- 5:30 PM **Industry-Extension-Emerging Problems Update**
New exotic diseases; industry highlights (Swan Ballroom) Chair: **Bob Mulrooney**, University of Delaware, Newark, DE
- 5:30 PM -- 8:00 PM **Dinner on your own in Rehoboth Beach** - A list and map to suggested restaurants is available on our meeting registration table.
- 8:00 PM -- 9:30 PM **Symposium I** (Swan Ballroom): *APS Potomac Division: Outstanding Research and Extension Programs in Plant Pathology.* Chair: **Jay Norelli**, USDA-ARS, Kearneysville, WV
- 8:00 PM Extension Plant Pathology: Sometimes a "bad bedside manner" helps. **Arvydas Grybauskas**, University of Maryland, College Park, MD
- 8:30 PM Using Arabidopsis to understand defense signal transduction. **John McDowell**, Virginia Polytechnic Institute and State University, Blacksburg, VA
- 9:00 PM Exotic pathogens, people and the perfect storm: the crisis in the citrus industry. **John Hartung**, USDA-ARS, Beltsville, MD



Thursday morning, March 17, 2006

8:30 AM -- 12:00 PM **Symposium II** (Swan Ballroom). *Impact of Plant Pathology on Technology and Human/Animal Health*. Chair: **Chris Dardick**, USDA-ARS, Kearneysville, WV

8:30 AM Structure-based engineering of a plant virus for nano-materials and medicine. **Tianwei Lin**, The Scripps Research Institute, La Jolla, CA

9:00 AM Deep sequencing for parallel gene expression analyses of host and pathogen genomes. **Blake Meyers**, University of Delaware, Newark, DE

9:30 AM Advances in plant based pharmaceutical production. **Vidadi Yusibov**, Fraunhofer Inc., DE

10:00 AM -- 10:15 AM **Break**

10:15 AM – 11:45 PM **Symposium II** (continued)

10:15 AM Plant chimeric receptor kinases: tools for sensing chemicals and biological agents in the environment? **Ramesh Raina**, Syracuse University, Syracuse, NY

10:45 AM CATERPILLER: A novel gene family important in immunity, cell death, and diseases in animals. **Beckley Davis**, University of North Carolina, Chapel Hill, NC

11:15 AM Evolution of pathogen recognition receptor kinases. **Chris Dardick**, USDA-ARS, Kearneysville, WV

Thursday afternoon, March 17, 2006

11:45 PM -- 1:30 PM **Lunch** (buffet, included with registration) **and Business Meeting** (Hotel restaurant, Atlantic Seafood Grill, ocean front)

1:30 PM -- 3:30 PM **Symposium III** (Swan Ballroom). *Socio-Economic Impact of the Methyl Bromide Phase Out*. Chair, **Inga Zasada**, USDA-ARS, Beltsville, MD

1:30 PM Introduction. **Inga Zasada**. USDA-ARS, Beltsville, MD

1:35 PM The methyl bromide critical use exemption process. **Colwell Cook**. Office of Pesticide Programs, EPA, Washington, DC

2:10 PM The impact on horticultural trade and production location on the ban of methyl bromide. **Lori Lynch**, University of Maryland, College Park, MD

2:45 PM Integrated systems approaches as replacements for methyl bromide. **Joe Noling**, University of Florida, Lake Alfred, FL

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3:30 PM -- 3:45 PM **Break**

**Thursday afternoon, cont'd**

3:45 PM -- 4:45 PM **Session I** (Swan Ballroom). *Contributed Papers, Oral.* Chair, **Kate Everts**, University of Maryland, Salisbury, MD

- 3:45 PM Epidemiology of Aspergillus crown rot epidemics in peanut. **S. L. Rideout** and T. B. Brenneman. Virginia Polytechnic Institute and State University, Painter, VA and University of Georgia, Tifton, GA
- 4:00 PM Mandipropamid: a new fungicide for the control of lateblight and downy mildews. **R. Lins**, T. Harp, G. Cloud, B. Minton, and Alex Cochran. Syngenta Crop Protection, Clayton, DE, Vero Beach, FL, Tallahassee, FL, Cypress, TX, and Visalia, CA
- 4:15 PM First report of QoI fungicide resistance of grape downy mildew in North America. **A. Baudoin**, and M. Baldwin. Virginia Polytechnic Institute and State University, Blacksburg, VA
- 4:30 PM Toxicity of *Plantago* spp. extracts to root-knot nematode and to selected microbes. **S. L. F. Meyer**, I. A. Zasada, D. P. Roberts, B. T. Vinyard, D. K. Lakshman, J. -K. Lee, D. J. Chitwood, and L. K. Carta. USDA-ARS, Beltsville, MD and Korea National Institute of Agricultural Science and Technology, Korea

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- 4:45 PM -- 5:30 PM A perspective on Plant Pathology: origin, status and future prospects. **John Andrews**, APS President
- 6:00 PM -- 7:00 PM **Poster Session / Social** (Sandpiper Room). Poster titles listed at the end of the program
- 7:00 PM -- 9:00 PM **Banquet** (Swan Ballroom), with awards and guest speaker, **Ed Okonowicz** – “Haunted Delmarva”

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**Friday morning, March 18, 2006**

8:00 AM -- 10:00 AM **Symposium IV** (Swan Ballroom). *New Technologies in Molecular Biology.* Chair: **Kristi Bottner**, USDA-ARS, Beltsville, MD

- 8:00 AM Introduction. **Kristi Bottner**, USDA-ARS, Beltsville, MD
- 8:05 AM Genome Sequencer 20. **Karin Fredrikson**, Roche Applied Sciences, Ijamsville, MD

- 8:25 AM Dynabeads and Qdots. **Vandi Bharucha**, Invitrogen, Rockville, MD
- 8:45 AM Real-time PCR. **Jeff Strain**, Applied Biosystems, Rockville, MD
- 9:05 AM Real-time PCR master mix. **Jessica Johnson**, Eurogentec, San Diego, CA
- 9:25 AM ARMEC – a procurement vehicle. **Mrinal Khosla**, Cambridge Systems, Chantilly, VA
- 10:00 AM -- 10:15 AM **Break**
- 10:15 AM -- 11:15 AM **Session II** (Swan Ballroom). *Contributed Papers, Oral.* Chair: **Chuck Johnson**, Virginia Polytechnic Institute and State University, Blackstone, VA
- 10:15 AM Access to web-based information about fungal geographic distribution, host range, and scientific names using the USDA-ARS Systematic Botany and Mycology databases: what can SBML do for you? **E. Cline** and D. Farr. USDA-ARS, Beltsville MD
- 10:30 AM Expression analysis of genes involved in Rpp1-resistance and susceptibility to soybean rust. **K. T. Schneider**, J. J. Choi, N. W. Alkharouf, N. L. Lum, D. J. Munroe, B. F. Matthews, and R. D. Frederick. USDA-ARS, Fort Detrick, MD, USDA-ARS, Beltsville, MD, and Laboratory of Molecular Technology, Frederick, MD
- 10:45 AM Development of a computer-simulated 16S rDNA restriction fragment length polymorphism analysis system for classification of phytoplasmas. **W. Wei**, Y. Zhao, I. -M. Lee, R. E. Davis, and Q. Sun. USDA-ARS, Beltsville, MD
- 11:00 AM *In planta* functional screening of phytoplasma genes: toward identification of effector proteins involved in pathogenesis. **W. Wei**, Y. Zhao, R. E. Davis, C. -J. Chang, and X. Shi. USDA-ARS, Beltsville, MD and University of Georgia, Griffin, GA
- 11:30 PM - 12:30 PM **Executive Committee Meeting** (Swan Ballroom)

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We thank Applied Biosystems, Arysta LifeScience, BASF, and Dow AgroSciences for their sponsorship of the Wednesday evening Social.

Posters

Integrated management of foliar diseases of watermelon by green manure and biofungicides alternated with chlorothalonil. **X. G. Zhou** and K.L. Everts. University of Maryland, Salisbury, MD and University of Delaware, Georgetown, DE

Detection of *Phytophthora ramorum* chlamydospores in soil. **G. C. Colburn**, N. Shishkoff. USDA-ARS, Ft. Dietrick, MD

Whatman® FTA cards as a viable long-term storage mechanism for viral RNAs. **D. J. Sherman**, A. L. Stone, V. D. Damsteegt and W. L. Schneider. USDA-ARS, Ft. Dietrick, MD

Improved PCR of single copy Hsp90 using multiple displacement amplification of genomic DNA from single nematodes. A. M. Skantar, L. K. Carta and **M. N. Hult**. USDA-ARS, Beltsville, MD

Detection of *Phytophthora ramorum* chlamydospores in soil using real-time PCR. **K. E. Sechler**, G.C. Colburn, and N. Shishkoff . USDA-ARS, Ft. Dietrick, MD

Direct observation of infection of *Viburnum* roots by *Phytophthora ramorum* using a Petri dish rhizotron. **N. Shishkoff**. USDA-ARS, Ft. Dietrick, MD

Discovery of *Cercospora* leaf spot on Russian knapweed from Montana. **F. M. Eskandari**, W. L. Bruckart, J. Littlefield, M. B. McMahon, and D. G. Luster. USDA-ARS, Ft. Dietrick, MD and Montana State University, Bozeman, MT

Host range determination of *Colletotrichum gloeosporioides* (CG) from Russian thistle. **C. A. Cavin**, and W. L. Bruckart. USDA-ARS, Ft. Dietrick, MD

Genetic transformation of pear cultivar 'Old Home' and regeneration of transgenic plant for potential disease resistance. **Q. Sun**, W. Wei, R. W. Hammond, R. E. Davis, and Y. Zhao. USDA-ARS, Beltsville, MD

An *Acholeplasma* genome encodes enzymes with the potential to degrade and utilize plant cell wall components. **R. E. Davis**, R. Jomantiene, I. -M. Lee, Y. Zhao, R. W. Hammond, J. Shao, E. L. Dally, A. Dawe, K. Davis, and D. Nuss. USDA-ARS, Beltsville, MD, Institute of Botany, Vilnius, Lithuania, New Mexico State University, Las Cruces, NM, and University of Maryland, College Park, MD

Genes clustered in sequence-variable mosaics: a unique phenomenon in the genomes of phylogenetically diverse phytoplasmas. **R. Jomantiene**, and R. E. Davis. Institute of Botany, Vilnius, Lithuania and USDA-ARS, Beltsville, MD

Development of an interactive web-based resource center for phytoplasma research. **J. Shao**, I. -M. Lee, Y. Zhao, W. Wei, R. Jomantiene, and R. E. Davis. USDA-ARS, Beltsville, MD and Institute of Botany, Vilnius, Lithuania

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**Program Committee:**

Jay Norelli - Chair  
Kristi Bottner  
Dave Clement  
Christopher Dardick  
Robert Davis  
Tom Evans  
Kate Everts  
Chuck Johnson  
Jim Kotcon  
Talo Pastor-Corrales  
Inga Zasada

**Local Arrangements Committee:**

Tom Evans - Chair  
Kate Everts  
Nancy Gregory  
Bob Mulrooney  
Nikki O'Neil  
Dan Roberts  
Xin-Gen Zhou