

NEPPSC

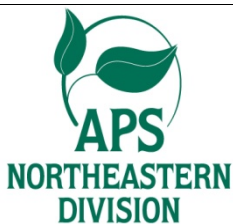
NORTHEASTERN PLANT, PEST AND SOILS CONFERENCE



THE NORTHEASTERN PLANT, PEST, AND SOILS CONFERENCE

2016

A joint meeting of:



Philadelphia, PA; January 3-7, 2016

Participating Societies:

Northeastern Weed Science Society (Host Society)

Entomological Society of America – Eastern Branch

American Phytopathological Society - Northeastern Division

Northeastern Regional Branch of American Society of Agronomy, Crop Science Society of America, & Soil Science Society of America

American Society of Horticultural Science - Northeast Division

Meeting Location

Sheraton Society Hill Hotel
One Dock Street
Philadelphia, PA 19106
(215) 238-6000

<http://www.sheraton.com/SocietyHill>

Directions and Transportation

From Philadelphia International Airport (South)

Take Interstate 95 North to Exit 20 (Columbus Boulevard). Turn left at the traffic light onto Columbus. Turn left at the sixth light, for Dock Street. Turn right at the stop sign. The hotel is on the right-hand side.

From East

Take Ben Franklin Bridge from Camden, stay in the right lane. Take the first right off of bridge to Sixth Street then follow Sixth Street to Market Street and turn left. Follow Market to Second Street and turn right. Follow Second Street to Dock Street and the hotel is on the left.

From North

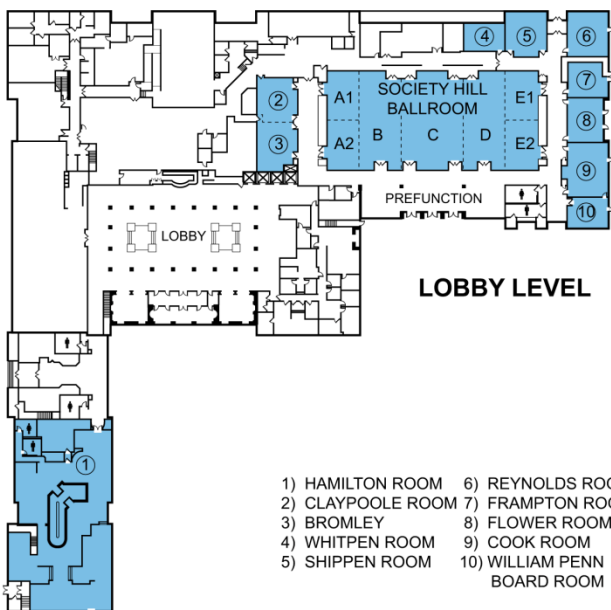
Take Interstate 95 South to Exit 20 (Columbus Boulevard). At the bottom of the ramp, turn left onto Columbus Boulevard. Follow for 3 traffic lights to Dock Street and turn left. Continue to a dead end and turn right. The hotel will be on the right.

From West

Take Pennsylvania Turnpike to 76 East (Exit 326 - Valley Forge). Follow 76 East to 676 East (Exit 344 - Central Philadelphia). Continue on 676 East to Interstate 95 South. Take I-95 South to Penn's Landing (Exit 20). At the bottom of the ramp, turn left onto Columbus Boulevard. Follow to Dock Street and turn left. Continue to the dead end and turn right. The hotel is on the right-hand side.

Sheraton Society Hill Hotel

Floor Plan



SOCIETY PRESIDENTS

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COMMITTEE MEETINGS

For a schedule of individual society committee meetings,
please visit <http://neppsc.org/>

CONDENSED PROGRAM

SUNDAY, JANUARY 3, 2016

1:00 p.m. - 4:00 p.m.	EB-ESA Executive Council Meeting (Cook)
1:00 p.m. - 4:00 p.m.	NEWSS Executive Board Meeting (Reynolds)
1:00 p.m. - 4:45 p.m.	Intro to ARM Workshop (Flower)
4:00 p.m. - 6:00 p.m.	NEPPSC Organizing Committee Meeting (Reynolds)
6:00 p.m. - 7:00 p.m.	NEPPSC Program Committee & Session Chairs Meeting (Reynolds)

MONDAY, JANUARY 4, 2016

7:30 a.m. - 4:00 p.m.	Registration (Ballroom Foyer)
8:00 a.m. - 11:45 a.m.	Statistics Workshop (Shippen)
8:00 a.m. - 11:45 a.m.	Advanced ARM Workshop (Flower)
8:00 a.m. - 12:00 p.m.	Urban & Medical Pests Symposium (Cook)
8:45 a.m. - 12:00 p.m.	Biological Control of Weeds Symposium (Bromley/Claypoole)
10:00 a.m. - 10:20 a.m.	Break (Ballroom C)
11:45 a.m. - 1:00 p.m.	Lunch break
11:45 a.m. - 1:00 p.m.	Student Career Training Workshop with Lunch (Ballroom C)

1:00 p.m. - 4:30 p.m.	Insect Detect., Eval. & Pred. Symposium (Bromley/Claypoole)
1:00 p.m. - 4:00 p.m.	Industry and Extension Roundtable Workshops - Agronomic Crops & Soils (Ballroom E) Fruit, Veg., and Tree Crops (Cook) Turf & Ornamental (Ballroom A)
4:30 p.m. - 5:30 p.m.	NEPPSC Opening Ceremony (Ballroom ABCD)
5:30 p.m. - 6:30 p.m.	NEPPSC Social Mixer (Hamilton)
6:30 p.m. - 8:00 p.m.	Quiz Bowl & Social [ALL SOCIETIES] (Ballroom ABCD)
8:00 p.m. - 10:00 p.m.	Poster Setup for Student Contest Poster Session (Hamilton)
8:00 p.m. - 10:00 p.m.	Commercial Display Setup (Hamilton, Ballroom C, Foyer)

TUESDAY, JANUARY 5, 2016

7:00 a.m. - 7:30 a.m.	NEPPSC Program Committee Meeting (William Penn)
7:30 a.m. – 4:00 p.m.	Registration (Ballroom Foyer)
7:30 a.m. - 9:15 a.m.	Student Contest Poster Session [ALL SOCIETIES] Authors Present (Hamilton)

8:00 a.m. - 12:00 p.m.	Informal Multidisciplinary Discussion Area [PRIORITY TO FRUIT & VEGETABLE] (Whitpen)
9:30 a.m. - 5:00 p.m.	Commercial Displays (Ballroom C, Foyer & Hamilton)
9:30 a.m. – 4:00 p.m.	Student Contest Posters - Authors Not Present (Hamilton)
9:36 a.m. - 12:00 p.m.	AM Student Paper Session EB-ESA PhD (Ballroom DE)
9:36 a.m. - 12:00 p.m.	AM Student Paper Session NE-ASA/CSSA/SSSA (Bromley/Claypoole)
10:00 a.m. - 10:24 a.m.	Break (Ballroom C)
10:24 a.m. - 12:00 p.m.	AM Student Paper Session NEWSS (Ballroom AB)
12:00 p.m. - 1:15 p.m.	Lunch break
1:00 p.m. - 5:00 p.m.	Informal Multidisciplinary Discussion Area [PRIORITY TO TURF & ORNAMENTAL] (Whitpen)
1:24 p.m. - 5:12 p.m.	PM Student Paper Session EB-ESA BS/MS (Ballroom DE)
2:00 p.m. - 5:00 p.m.	PM Student Paper Session NEWSS & NED-APS (Ballroom AB)
3:00 p.m. - 3:24 p.m.	Break (Ballroom C)
4:00 p.m. – 6:00 p.m.	Remove Student Contest Posters (Hamilton)
5:00 p.m. - 6:00 p. m.	NEWSS Awards Ceremony (Bromley/Claypoole)

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| 6:00 p.m. – 9:00 p.m. | Setup Non-contest Posters
(Hamilton) |
| 7:00 p.m. - 9:00 p.m. | EB-ESA Linnaean Games
(Bromley/Claypoole) |
| 9:00 p.m. – 11:00 p.m. | Industry Dessert Social
(Ballroom BCD) |

WEDNESDAY, JANUARY 6, 2016

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| 7:00 a.m. - 7:30 a.m. | NEPPSC Program
Committee Meeting
(William Penn) |
| 7:30 a.m. – 4:00 p.m. | Registration (Ballroom
Foyer) |
| 7:30 a.m. – 9:15 a.m. | Non-contest Poster Session
Authors Present (Hamilton) |
| 8:00 a.m. - 5:00 p.m. | Informal Multidisciplinary
Discussion Area (Whitpen) |
| 8:00 a.m. – 10:00 a.m. | Organic, Beneficial
Organisms, Biocontrol
(Ballroom AB) |
| 8:00 a.m. – 12:00 p.m. | Turf & Ornamentals
(Ballroom DE) |
| 8:00 a.m. – 12:00 p.m. | Biology, Ecology,
Taxonomy, Evolution
(Bromley/Claypoole) |
| 9:00 a.m. – 11:30 a.m. | Vegetation Management
(Cook) |
| 9:30 a.m. – 5:00 p.m. | Research Posters (Authors
not present) and
Commercial Displays
(Ballroom C, Foyer &
Hamilton) |
| 10:00 a.m. - 10:24 a.m. | Break (Ballroom C) |
| 10:36 a.m. – 12:00 p.m. | Agronomic Crops
(Ballroom AB) |
| 12:00 p.m. – 1:15 p.m. | Lunch break |

1:00 p.m. - 5:00 p.m.	Informal Multidisciplinary Discussion Area [PRIORITY TO AG CROPS & SOILS] (Whitpen)
1:24 p.m. - 4:00 p.m.	Fruit Crops (Cook)
1:24 p.m. – 5:00 p.m.	Invasive Species (Bromley/Claypoole)
1:36 p.m. – 4:30 p.m.	Vegetable & Herb Crops (Ballroom DE)
2:00 p.m. – 4:30 p.m.	Soils & Env. Qua. (Reynolds)
3:00 p.m. - 3:24 p.m.	Break (Ballroom C)
5:00 p.m. – 10:00 p.m.	Remove Non-contest Posters (Hamilton)
5:00 p.m. - 6:45 p. m.	Business Meeting Breakouts
	EB-ESA Plenary Session; Student & Society Awards (Ballroom A)
	NEWSS Business Meeting (Ballroom E)
	NE-ASA/CSSA/SSSA Business Meeting (Bromley/Claypoole)
	NED-APS Business Meeting (Cook)
	NE-ASHS Business Meeting (Reynolds)
7:00 p.m. – 9:00 p.m.	NEPPSC General Reception (Ballroom BCD)

THURSDAY JANUARY 7, 2016

6:30 a.m. – 8:00 a.m.	NEWSS Past Presidents' Breakfast (Taste 2)
7:00 a.m. – 8:00 a.m.	Audit Committee Meeting (William Penn)
7:30 a.m. – 10:00 a.m.	Registration (Ballroom Foyer)
8:00 a.m. - 12:00 p.m.	Informal Multidisciplinary Discussion Area (Whitpen)
8:00 a.m. - 9:00 a.m.	EB-ESA Business Meeting (Shippen)
8:00 a.m. – 12:00 p.m.	Agronomic Crops (Ballroom AB)
8:00 a.m. – 12:00 p.m.	Turf & Ornamentals (Ballroom DE)
8:00 a.m. – 10:00 a.m.	Vegetable & Herb Crops (Bromley/Claypoole)
9:00 a.m. – 12:00 p.m.	Joint PD Workshop (Reynolds)
10:00 a.m. - 10:24 a.m.	Break (Ballroom C)

!! IMPORTANT !!

**Deadline for Uploading
Presentations**

**All presentations* must be uploaded by
6:00 PM on the evening before the
appointed presentation time**

@

<http://www.wssaabstracts.com>

**Questions regarding presentation
upload or special formatting, should be
directed to the respective moderator.**

***Note to students: A 10-point penalty
(minimum) will be assessed in contest
scoring for late submissions.**

PROGRAM

MONDAY MORNING JANUARY 4

Urban & Medical Pests Symposium

LOCATION: Cook
TIME: 8:00 AM - 12:00 PM
MODERATOR: Changlu Wang
Rutgers University
New Brunswick, NJ

***SPEAKER**

- 8:00** **Introductory Remarks**
- 8:05** **Overview of current bed bug infestations.** C. Wang*, Rutgers University, New Brunswick, NJ (1)
- 8:25** **Application of field research findings for development of a bed bug management program.** R.A. Cooper* and C. Wang, Cooper Pest Solutions, Lawrenceville, NJ (2)
- 8:45** **Bed bugs as vectors of *Trypanosoma cruzi*, the etiologic agent of Chagas disease.** M.Z. Levy*, R. Salazar, R. Castillo-Neyra, A. Tustin, K. Borrini-Mayori, and C. Naquira, University of Pennsylvania, Philadelphia, PA (3)
- 9:05** **Human networks (cities and highways) drive the rapid evolution of disease vectors.** D.M. Fonseca*, A. Egizi, and N. Fefferman, Rutgers University, New Brunswick, NJ (4)
- 9:25** **Harboring secrets: pathogens and ectoparasites of New York City rats.** M.J. Frye*, Cornell University, Elmsford, NY (5)
- 9:45** **Arbovirus surveillance in New Jersey during 2015, with an emphasis on emerging arboviruses of interest and urban hosts.** E. Williges*, NJ Department of Environmental Protection, Trenton, NJ (6)
- 10:05** **Break**

- 10:25 Lone star ticks and ehrlichiosis in Monmouth county, NJ.** A. Egizi* and R. Jordan, Monmouth County Mosquito Control Division, Tinton Falls, NJ (7)
- 10:45 Role of *Demodex folliculorum* and *Demodex brevis* in parthenogenesis of Blephritis in North India.** N.K. Gill*, Punjabi University, Patiala, India (8)
- 11:05 Overwintering site selection for brown marmorated stink bug: results generated by citizen scientists.** T.J. Hancock*, D. Lee, J. Bergh, W.R. Morrison, III, and T.C. Leskey, USDA-ARS-Appalachian Fruit Research Laboratory, Kearneysville, WV (9)
- 11:25 Spatial and temporal patterns of brown marmorated stink bug movement in an urban landscape.** Y. Park* and J. Goldner, West Virginia University, Morgantown, WV (10)
- 11:45 Discussion/Business Meeting**

MONDAY MORNING JANUARY 4

Biological Control of Weeds Symposium

LOCATION: Bromley/Claypoole
TIME: 8:45 AM - 12:00 PM
MODERATORS: Judith Hough-Goldstein
 University of Delaware
 Newark, DE
 Richard Casagrande
 University of Rhode
 Island
 Kingston, RI

***SPEAKER**

- 8:45 Weed biological control - dead in the water?** R. Casagrande*, University of Rhode Island, Kingston, RI (11)
- 9:00 What is really a risk and what is not?** T. McAvoy* and S. Salom, Virginia Tech, Blacksburg, VA (12)

- 9:20 Demographic modeling in weed biocontrol.** L. Milbrath*, A.S. Davis, and J. Biazzo, USDA-ARS, Ithaca, NY (13)
- 9:40 Weed biocontrol in landscape restoration.** E.C. Lake* and J.A. Hough-Goldstein, USDA-ARS, Fort Lauderdale, FL (14)
- 10:00 Break**
- 10:20 The consequences of photoperiodism for newly introduced insects.** F. Grevstad* and L. Coop, Oregon State University, Corvallis, OR (15)
- 10:40 Transferring West Coast successes to East Coast problems.** L. Tewksbury* and H. Faubert, University of Rhode Island, Kingston, RI (16)
- 11:00 Pathogens in weed biocontrol: opportunities and limitations with the use of biopesticides.** J.C. Neal*, North Carolina State University, Raleigh, NC (17)
- 11:20 Discussion/Business Meeting**

MONDAY AFTERNOON JANUARY 4

Insect Detection, Evaluation & Prediction
Symposium

LOCATION: Bromley/Claypoole
 TIME: 1:00 PM - 4:30 PM
 MODERATORS: Lisa Tewksbury
 University of Rhode
 Island
 Kingston, RI
 Bob Trumbule
 Maryland Dept. of
 Agriculture
 Annapolis, MD

***SPEAKER**

1:00 Introductory Remarks

- 1:10 Emerald ash borer in Connecticut: detection and management.** C.E. Rutledge*, The Connecticut Agricultural Experiment Station, New Haven, CT (18)
- 1:30 Southern pine beetle in the northeast - detection and management of a southern pest at its new northern distribution.** R.M. Cole* and J.A. Cancelliere, NYS Department of Environmental Conservation, Albany, NY (19)
- 1:50 Gypsy moth, its natural enemies and outbreak dynamics.** A.E. Hajek*, Cornell University, Ithaca, NY (20)
- 2:10 Winter moth in the northeast and its associated parasitoids, pathogens, and predators.** H.J. Broadley*, G. Boettner, and J. Elkinton, University of Massachusetts, Amherst, MA (21)
- 2:30 The velvet longhorned beetle (*Trichoferus campestris*): pest status, interceptions, and its potential impact on eastern forests.** J.D. Young*, USDA APHIS PPQ, Baltimore, MD (22)
- 2:50 Break**
- 3:20 Update on spotted lanternfly (*Fulgoridae: Lycorma delicatula* (White)) in Pennsylvania.** S. Spichiger*, Pennsylvania Dept. of Agriculture, Harrisburg, PA (23)
- 3:40 And there's more: other invasive pests of woody plants.** D.O. Gilrein*, Cornell Cooperative Extension, Riverhead, NY (24)
- 4:00 Discussion/Business Meeting**

TUESDAY MORNING JANUARY 5

Student Contest Poster (Authors Present)

LOCATION: Hamilton

TIME: 7:30 AM - 9:15 AM

***PRESENTER † STUDENT POSTER
CONTEST**

†Water relations of trees growing in a green infrastructure (GI) storm water trench. R. Galanti*, S. Olshevski, and S. Eisenman, Temple University, Ambler, PA (25)

†Comparing stomatal conductance of street tree species in traditional tree pits and green infrastructure storm water trenches. S. Olshevski*, R. Galanti, and S. Eisenman, Temple University, Philadelphia, PA (26)

†Assessment of the effect of interspecific hybrid hazelnut pollen on nut set of European hazelnut in New Jersey. M. Muehlbauer*, A. Morgan, J. Capik, D. Hlubik, and T. Molnar, Rutgers University, New Brunswick, NJ (27)

†Hops (*Humulus* spp.): A potential value-added crop for NJ farmers. R. Pyne*, M. Muehlbauer, E. Dager, W. Cowgill, J. Grande, D. Giurleo, and J. Simon, Rutgers University, New Brunswick, NJ (28)

Best management practices for malt barley cultivation in the Northeast. C.R. Wise* and M. Hashemi, University of Massachusetts, Amherst, MA (29)

†Where to sample? An analysis of whole farm Corn Stalk Nitrate Test (CSNT) result variability and how farmers choose fields to sample. R.S. Breslauer*, P. Berenguer, and Q.M. Ketterings, Cornell University, Ithaca, NY (30)

†Determination of optimum nitrogen rates for winter cereals using yield response curves. Q.M. Ketterings, S.E. Lyons, and Z. Tang*, Cornell University, Ithaca, NY (31)

- †**Cover crop mixtures for sustainable no-till sweet corn production.** J.S. Fine* and M. Hashemi, University of Massachusetts, Amherst, MA (32)
- †**Decomposition rate and release of nitrogen from rye, forage radish, or winter peas cover crops under conventional or no-tilling systems.** E. Jahanzad*, A.V. Barker, M. Hashemi, and A. Sadeghpour, University of Massachusetts, Amherst, MA (33)
- †**Antifeedant effects of mineral oil on Colorado potato beetle.** A.K. Galimberti* and A. Alyokhin, University of Maine, Orono, ME (34)
- †**Evaluating a tri-partite IPM program for onion thrips in onion.** A.B. Leach*, S. Reiners, and B.A. Nault, Cornell University, Geneva, NY (35)
- †**Monitoring honey bee exposure to pesticides across a gradient of urbanization.** A.F. Thomas*, LIU Brooklyn, Ridgewood, NY (36)
- †**Effects of host plant resistance and intercropping on potato leafhopper (*Empoasca fabae*) and its vulnerability to predation in alfalfa.** S.W. Vondy* and C.S. Straub, Ursinus College, Collegeville, PA (37)
- †**Cover cropping to support pollinators.** E.D. Treanore*, S. Fleischer, and R.C. Miller, Pennsylvania State University, State College, PA (38)
- †**Relationship of brown marmorated stink bug movement into soybean with surrounding tree borders.** B.L. Aigner*, T.P. Kuhar, and A. Herbert, Virginia Tech, Blacksburg, VA (39)
- †**Planting snap beans, *Phaseolus vulgaris*, on light-reflecting polyethylene mulches protects plants from Mexican bean beetle, *Epilachna varivestis*, feeding injury and increases pod production.** L.B. Nottingham* and T.P. Kuhar, Virginia Tech, Blacksburg, VA (40)
- †**Will the long ovipositor of *Spathius galinae* save big ash?** T. Murphy*, J. Elkinton, J. Gould, and R. Van Driesche, University of Massachusetts, Amherst, MA (41)
- †**Habitat modification for *Ostrinia nubilalis* IPM in New Jersey peppers.** G.C. Condon* and G.C. Hamilton, Rutgers University, New Brunswick, NJ (42)

†**Advances in black light monitoring tools.** J.E. Cambridge* and G.C. Hamilton, Rutgers University, New Brunswick, NJ (43)

†**Bees, wasps, and insecticides; maintaining a healthy mix in cucurbit production.** J.M. Wilson*, T.D. Anderson, and T.P. Kuhar, Virginia Tech, Blacksburg, VA (44)

†**"Green to Brown": Determining trophic shifts in arthropod food webs following plant invasion.** A.B. Mitchell* and D. Tallamy, University of Delaware, Newark, DE (45)

†**Building characteristics relevant to home invasion by the brown marmorated stink bug.** B.D. Chambers*, T.P. Kuhar, A.R. Pearce, T.C. Leskey, and G. Reichard, Virginia Tech, Blacksburg, VA (46)

†**Assessment of carfentrazone for weed control and legume tolerance in forages.** R.S. Randhawa*, M.L. Flessner, and J. Reed, Virginia Tech, Blacksburg, VA (47)

†**Evaluating efficacy of PRE herbicides applied EPOST in sorghum.** W.J. Everman, L. Vincent, and J.T. Sanders*, North Carolina State University, Raleigh, NC (48)

†**Assessing residual benefits of postemergent herbicides used in hayfields.** K.B. Pittman*, M.L. Flessner, and P.L. Burch, Virginia Tech, Blacksburg, VA (49)

†**A literary review evaluating the need for more education and increased monitoring of the urban pest control industry.** D.M. Bailey* and D. Pfeiffer, Virginia Tech, Blacksburg, VA (50)

†**Virginia crop weed management survey.** S.C. Haring* and M.L. Flessner, Virginia Tech, Blacksburg, VA (51)

†**Molecular analysis of glyphosate resistance in giant ragweed (*Ambrosia trifida* L.).** K. Segobye*, K.R. Padmanabhan, B. Schulz, M. Gribskov, and S.C. Weller, University of Maryland, College Park, MD (52)

†**Screening for herbicide resistance in Ohio johnsongrass populations.** A. Lamb*, The Ohio State University, Columbus, OH (53)

†**Crop density effects on interseeded cover crop productivity and weed seed predation.** C.Z. Youngerman*, W. Curran, S. Wayman, and M.R. Ryan, Cornell University, Ithaca, NY (54)

†**Integrating cover crops into mid-Atlantic no-till grain systems to diversify herbicide resistance management.** J.M. Bunchek*, Pennsylvania State University, State College, PA (55)

†**Alternatives for reducing tillage in organic annual grain systems: implications for weed management.** R. Champagne*, W.S. Curran, C. Keene, J. Wallace, and T. Mazzone, Pennsylvania State University, State College, PA (56)

†**Development of species-specific PCR tests for the detection and quantification of *Meloidogyne hapla*.** A.M. Gorny*, X. Wang, and S.J. Pethybridge, Cornell University, Geneva, NY (57)

†**Potential use of GRAS compounds for the control of lettuce bacterial leaf spot and varnish spot.** M. Delisle-Houde*, V. Toussaint, A. Gosselin, and R.J. Tweddell, Université Laval, Quebec, QC (58)

†**Efficacy and economics of fungicides in mid-Atlantic small grain production systems, 2015.** P.N. Sylvester* and N.M. Kleczewski, University of Delaware, Newark, DE (59)

†**Friend or foe: *Fusarium oxysporum* isolates result in contrasting molecular and physiological responses in *Arabidopsis thaliana*.** K. Vescio*, University of Massachusetts, Amherst, MA (60)

†**Identification of candidate genes for study of the sweet basil host response to infection by *Peronospora belbahrii*.** K.S. Allen*, University of Massachusetts, Amherst, MA (61)

†**Evaluating cultivar susceptibility as a potential management tool for center rot of onion.** J.D. Mazzone*, M.A. Mansfield, and B.K. Gugino, The Pennsylvania State University, State College, PA (62)

TUESDAY MORNING JANUARY 5

NEWSS Student Contest Oral
Presentations

LOCATION: Ballroom AB
TIME: 10:24 AM - 12:00 PM
MODERATOR: Steven Haring
Virginia Tech
Blacksburg, VA

***SPEAKER † STUDENT CONTEST**

- 10:24 †Greenhouse evaluation of spray adjuvants and fertilizer additives for grass weed management with Facet** L. L. Vincent, W.J. Everman, and J. Copeland*, North Carolina State University, Raleigh, NC (63)
- 10:36 †Mechanical and biological control methods for Japanese stiltgrass (*Microstegium vimineum*).** S. Nestory* and J.A. Hough-Goldstein, University of Delaware, Newark, DE (64)
- 10:48 †Impact of pre-plant nitrogen rates on wheat following sorghum and corn.** M.K. Bansal*, North Carolina State University, Raleigh, NC (65)
- 11:00 †Cover crop and weed management in an inter-seeded cover crop plus reduced-rate herbicide system in wide-row vegetables.** V. Bhaskar*, R. Bellinder, M. Walter, and A. DiTommaso, Cornell University, Ithaca, NY (66)
- 11:12 †Weed abundance and community composition in a long-term organic cropping systems trial.** A.B. Jernigan* and M.R. Ryan, Cornell University, Ithaca, NY (67)
- 11:24 †Thin paspalum control in cool-season turf.** J.R. Brewer*, S.D. Askew, and S.S. Rana, Virginia Tech, Blacksburg, VA (68)
- 11:36 †Weed suppression in grass-legume summer annual forage intercrops.** K.A. Bybee-Finley*, Cornell University, Ithaca, NY (69)

- 11:48 †Nitrous oxide emissions in long term cropping systems.** A.M. Knight*, W.J. Everman, S. Reberg-Horton, S. Hu, D.L. Jordan, and N. Creamer, North Carolina State University, Raleigh, NC (70)

TUESDAY MORNING JANUARY 5

EB-ESA PhD Student Contest Oral Presentations

LOCATION: Ballroom DE
TIME: 9:36 AM - 12:00 PM
MODERATOR: Carlyle Brewster
Virginia Tech
Blacksburg, VA

***SPEAKER † STUDENT CONTEST**

- 9:36 †A genome wide association study of resistance to entomopathogenic fungi.** J. Wang*, H. Lu, and R. St. Leger, University of Maryland, College Park, MD (71)
- 9:48 †Utilizing herbivore induced volatiles for enhanced biological control: investigating how this idea translates soil interactions.** M.J. Rivera*, H. Alborn, and A.M. Koppenhofer, Rutgers University, New Brunswick, NJ (72)
- 10:00 Break**
- 10:24 †Interspecific larval interactions between *Drosophila suzukii* and *Zaprionus indianus* in four varieties of Virginia wine grapes.** M.E. Shrader* and D. Pfeiffer, Virginia Tech, Blacksburg, VA (73)
- 10:36 †Differential susceptibility of fall armyworm (*Spodoptera frugiperda* Smith) host strains to selected Bt toxins.** D.A. Ingber* and C.E. Mason, University of Delaware, Newark, DE (74)
- 10:48 †Apex predators and ecosystem engineers shape patterns of arthropod diversity and herbivory in mangrove forests.** A.J. Forde*, University of Maryland, College Park, MD (75)

- 11:00 †Injury to apples and peaches at harvest from feeding by *Halyomorpha halys* (Hemiptera: Pentatomidae) nymphs early and late in the season.** A.L. Acebes-Doria*, T.C. Leskey, and J.C. Bergh, Virginia Tech AREC, Winchester, VA (76)
- 11:12 †What do birds eat? Investigating insect prey preferences and their consequences in North American songbirds.** A.C. Kennedy* and D. Tallamy, University of Delaware, Newark, DE (77)
- 11:24 †Differences in fitness traits between E and Z pheromone races of European corn borer, *Ostrinia nubilalis*, on different host plants.** H.L. Walker* and C.E. Mason, University of Delaware, Newark, DE (78)
- 11:36 †Life stage specific predation of *Halyomorpha halys* (Stål).** J.M. Pote* and A.L. Nielsen, Rutgers University, New Brunswick, NJ (79)

TUESDAY MORNING JANUARY 5

NE-ASA/CSSA/SSSA Student Contest Oral Presentations

LOCATION: Bromley/Claypoole
 TIME: 9:36 AM - 12:00 PM
 MODERATOR: Amy Shober
 University of Delaware
 Newark, DE

***SPEAKER † STUDENT CONTEST**

- 9:36 †Soil property effects on arbuscular mycorrhizal fungi (AMF) and dark septate endophyte (DSE) colonization of *Panicum virgatum* L. (switchgrass).** M.R. Bindell* and N. Zhang, Rutgers University, New Brunswick, NJ (80)

- 9:48 †Effect of nitrogen fertilizer application rate on yield and quality of Brachytic Dwarf Brown Midrib (BMR) forage sorghum .** S.E. Lyons*, T. Kilcer, G.S. Godwin, D. Cherney, J. Cherney, and Q.M. Ketterings, Cornell University, Ithaca, NY (81)
- 10:00 Break**
- 10:24 †Dual purpose cover crops for yield increases and manure nutrient management on New England dairy farms.** S. Corcoran*, University of Massachusetts, Amherst, MA (82)
- 10:36 †Using electrical resistivity imaging to characterize subsurface phosphorus movement to drainage ditches.** K.L. Clark*, A. Shober, A. Buda, J. Robinson, and S. Andres, University of Delaware, Newark, DE (83)
- 10:48 †Maximizing the on-farm benefits of cover crops: studying the best matches between management intentions and ecosystem service provisioning.** A.V. Hamilton* and D.A. Mortensen, Pennsylvania State University, State College, PA (84)
- 11:00 †Effect of fertilizer timing and rate on the yield and nutrient use efficiency of irrigated corn in Delaware.** A. Soroka*, University of Delaware, Newark, DE (85)
- 11:12 †Impact of fraze mowing on bermudagrass recovery from spring dead spot.** C.D. Shelton*, D.S. McCall, and G.L. Miller, Virginia Tech, Blacksburg, VA (86)
- 11:24 †Host adaptation and molecular detection of *Sclerotinia homoeocarpa*.** B.A. Aynardi*, M.M. Jimenez-Gasco, and W. Uddin, Pennsylvania State University, University Park, PA (87)
- 11:36 †Trends in soil test phosphorus dynamics following long-term application of poultry litter and commercial fertilizers.** Z. Qin*, A. Shober, and S. Tingle, University of Delaware, Newark, DE (88)
- 11:48 Discussion/Business Meeting**

TUESDAY AFTERNOON JANUARY 5

**NEWSS (continued) & NED-APS Student
Contest Oral Presentations**

LOCATION: Ballroom AB
TIME: 2:00 PM - 5:00 PM
MODERATOR: Kara Pittman
Virginia Tech
Blacksburg, VA

***SPEAKER † STUDENT CONTEST**

- 2:00 A return to normal: legacy effects of Japanese stiltgrass.** D.R. Tekiela* and J.N. Barney, Virginia Tech, Blacksburg, VA (89)
- 2:12 †Weed and crop response to integrated management in a diverse cropping system.** K.E. Caswell*, W.S. Curran, and H. Karsten, Pennsylvania State, University Park, PA (90)
- 2:24 †Autumn olive germination: an unlikely story.** M.E. Franke* and J.N. Barney, Virginia Tech, Blacksburg, VA (91)
- 2:48 Discussion/Business Meeting**
- 3:00 Break**
- 3:24 †Investigating eastern filbert blight response in hazelnut progenies from new sources of resistance.** P. Feldman*, J. Capik, and T. Molnar, Rutgers University, New Brunswick, NJ (92)
- 3:36 †Effects of chemical and biological products on pink rot of potato.** X. Zhang*, H. Jiang, S.B. Johnson, J. Hao, N.F. Marangoni, and X. Zhang, University of Maine, Orono, ME (93)
- 3:48 †Search for molecular markers in potato germplasm for PTNRD expression.** W.L. da Silva*, S. Gray, and W. De Jong, Cornell University, Ithaca, NY (94)
- 4:00 †Abundance of *Scerlotinia homoeocarpa* on organic and conventional turf in Massachusetts.** E. Allan-Perkins* and G. Jung, University of Massachusetts, Amherst, MA (95)

4:12 †Tetracycline resistance genes in epiphytic bacteria collected from Pennsylvania stone fruit orchards. S.J. Bardsley Capasso*, K. Peter, H.K. Ngugi, and M.M. Jimenez-Gasco, Pennsylvania State University, University Park, PA (96)

4:24 Discussion/Business Meeting

TUESDAY AFTERNOON JANUARY 5

EB-ESA B.S./M.S. Student Contest Oral Presentations

LOCATION: Ballroom DE
TIME: 1:24 PM - 5:12 PM
MODERATOR: Yong-Lak Park
West Virginia University
Morgantown, WV

***SPEAKER † STUDENT CONTEST**

- 1:24 †Effect of host plant resistance and intercropping on potato leafhopper (*Empoasca fabae*) in alfalfa.** E.S. Keyser*, Ursinus College, Collegeville, PA (97)
- 1:36 †Pest management of an invasive mango-feeding fruit fly, *Bactrocera dorsalis* (Diptera: Tephritidae), in Senegal: Effect of neem oil and Surround WP on the behavior and mortality of females.** A. Balayara*, Virginia Tech, Blacksburg, VA (98)
- 1:48 †Native bees of Mid-Atlantic woodlands.** G. Savoy-Burke*, D.A. Delaney, and S. Droege, University of Delaware, Newark, DE (99)
- 2:00 †Impact of flea beetle feeding injury on cabbage and eggplant.** J.A. Mason* and T.P. Kuhar, Virginia Tech, Blacksburg, VA (100)
- 2:12 †A novel attract-&-kill technology for oriental beetle (*Anomala orientalis*) control in blueberries.** R.J. Holdcraft* and C. Rodriguez-Saona, Rutgers University, New Brunswick, NJ (101)

- 2:24 †Host plant resistance and pest control: a test of the movement-risk hypothesis.** M.R. Scott*, Ursinus College, Collegeville, PA (102)
- 2:36 †Developing an effective trap-and-kill device for harlequin bug: importance of trap color and semiochemical attractants.** A.S. Dimeglio*, T.P. Kuhar, and D.C. Weber, Virginia Tech, Blacksburg, VA (103)
- 2:48 †Comparing parasitoid performance between two host plants of emerald ash borer, green ash and white fringetree.** J.N. Hoban*, J.J. Duan, and P. Shrewsbury, University of Maryland, Columbia, MD (104)
- 3:00 Break**
- 3:24 †Invasive kudzu bug (*Megacopta cribraria*) in Maryland: the spread and status of a recent invader.** J.I. Grant* and W. Lamp, University of Maryland, College Park, MD (105)
- 3:36 †Parasitoid survey and lab diet trials of *Halyomorpha halys* (Stål).** Z.R. Donais*, University of Connecticut, Storrs, CT (106)
- 3:48 †Cultivars of native plants and their ecological value for pollinators.** O.C. Cass* and D.A. Delaney, University of Delaware, Newark, DE (107)
- 4:00 †Effects of red clover as living mulch on insect communities and bell pepper yield.** H. Kahl* and C. Hooks, University of Maryland, College Park, MD (108)
- 4:12 †What role do native cultivars ("nativars") have in an ecological landscape?** K.A. Nevison*, Longwood Graduate Program in Public Horticulture, Newark, DE (109)
- 4:24 †Winter moth (*Operophtera brumata* L.) parasitoid richness and abundance in infested areas in midcoast Maine.** H.D. Morin*, E. Groden, F. Drummond, C. Donahue, M. Para'k, and R.R. Kula, Department of Entomology, Smithsonian Institution, National Museum of Natural History, Washington D.C., DC (110)

- 4:36 †**Bee diversity and pollen foraging specificity in cultivated highbush blueberry (*Ericaceae: Vaccinium corymbosum* L.) plantings in Rhode Island.** Z.D. Scott* and S.R. Alm, University of Rhode Island, Kingston, RI (111)
- 4:48 †**Investigating the parasitization of invasive drosophilids in Virginia small fruit cropping systems.** J.C. Wahls* and D. Pfeiffer, Virginia Tech, Blacksburg, VA (112)
- 5:00 †**Over the soil, and through the gut, to cucurbit health we go!: Potential biological control of *Erwinia tracheiphila* by *Pseudomonas fluorescens* via cucumber beetle gut interactions.** D.C. Roberts*, S. Fleischer, J. Sakamoto, and J. Rasgon, Pennsylvania State University, University Park, PA (113)

WEDNESDAY MORNING JANUARY 6

Non-Contest Posters (Authors Present)

LOCATION: Hamilton
TIME: 7:30 AM - 9:15 AM
MODERATOR: Barbara Scott
University of Delaware
Georgetown, DE

***PRESENTER**

†**Comparing the use of aggregation pheromone lures with traditional visual sampling of *Halyomorpha halys* in New Jersey peach orchards.** W.P. Woodroffe*, A.L. Nielsen and B.R. Blaauw, Rutgers University, New Brunswick, NJ (114)

A new lure for *Frankliniella tritici* (Thysanoptera: Thripidae). D. Teulon, M. Nielsen, S. Jones, and T.C. Leskey*, USDA-ARS, Kearneysville, WV (115)

Ultra niche crops project. J. Carleo*, R. Brumfield, J. Heckmen, D. Kluchinski, J. Matthews, M.V. Melendez, P. Nitzsche, N. Polanin, K. Reynolds-Allie, R. Van Vranken, and C. Wyenandt, Rutgers University, Cape May, NJ (116)

Using simple sequence repeat markers to confirm the parentage of *Cornus kousa* 'Rutpink' Scarlet Fire™. J. Capik*, M. Muehlbauer, P. Wadl, and T. Molnar, Rutgers University, New Brunswick, NJ (117)

How destructive is brown marmorated stink bug to herbaceous perennial plants? S. Gill*, B. Kunkel, D. Smith-Fiola, K. Rane, V. Rosenkranz, and S. Klick, University of Maryland, College Park, MD (118)

2015 national weed contest. B.A. Ackley*, The Ohio State University, Columbus, OH (119)

Digital book for weed identification. B.A. Ackley*, The Ohio State University, Columbus, OH (120)

Historical perspective of the Northeastern Branch ASA-CSSA-SSSA. M. Fidanza*, Pennsylvania State University, Reading, PA (121)

Adventive populations of *Trissolcus japonicus*, an exotic natural enemy of *Halyomorpha halys*. A. Acebes-Doria, C. Bergh, M. Bon, M. Buffington, M. Cornelius, C. Dieckhoff, E. Fread, M. Greenstone, M. Herlihy, T.C. Leskey, J. Milnes, W.R. Morrison, III, P. Shrewsbury, E. Talamas, K. Tatman, R. Waterworth, D.C. Weber, N. Wiman, and K.A. Hoelmer*, USDA/ARS, Newark, DE (122)

Seasonal variation of littoral zone benthic macroinvertebrates in comparative study of four lakes in southeastern New York. T.M. Cloherty* and J.W. Rachlin, Pennsylvania State University, Abington, PA (123)

Efficacy of kaolinite and essential oils as repellents against brown marmorated stink bugs. J.A. Morehead* and T.P. Kuhar, Virginia Tech, Blacksburg, VA (124)

Development of a regional pollen library to investigate foraging patterns in *Apis mellifera*. J.I. Wolfen*, University of Delaware, Newark, DE (125)

Prevention of Brassica crop losses from new invasive species, swede midge (*Contarinia nasturtii* Keifer) on at-risk small-scale organic farms. C.A. Hoepting* and C.A. Hall, Cornell Cooperative Extension, Albion, NY (126)

Seedbank dynamics of invasive swallowworts (*Vincetoxicum* spp.). A. DiTommaso*, L. Milbrath, S.H. Morris, C.L. Mohler, and J. Biazzo, Cornell University, Ithaca, NY (127)

Range expansion of the invasive pest *Maconellicoccus hirsutus* in the major cocoa producing region of South America. M.P. Culik*, D. dos S. Martins, C. A. S. Souza, M. J. Fornazier, and J. S. Zanuncio, Instituto Capixaba de Pesquisa, Assistancia Tecnica e Extensao Rural (INCAPER), Vitoria, Brazil (128)

Effect of CO₂ concentration and water stress on seedling establishment and growth of invasive swallowworts (*Vincetoxicum* spp.). M.C. Joline, A. DiTommaso*, and S.H. Morris, Cornell University, Ithaca, NY (129)

Traits that matter: meeting farmers needs through improved cover crop performance. S. Mirsky*, USDA-ARS, Beltsville, MD (130)

Long-term agroecological research at the USDA-ARS Farming Systems Project. M. Cavigelli*, J. Teasdale, and J. Spargo, USDA-ARS, Beltsville, MD (131)

Supporting natural enemies and their services with native wildflowers. B.R. Blaauw* and A.L. Nielsen, Rutgers University, New Brunswick, NJ (132)

Enhancing pollinator habitat in New England. A. Papineau*, C. Neal, and R. Maccini, University of New Hampshire, Durham, NH (133)

Post-planting biological management of apple replant disease. T.L. Bradshaw*, University of Vermont, Burlington, VT (134)

Allelochemicals from cereal rye for weed management. B.A. Otte*, S. Mirsky, C.P. Rice, K. Tully, and H. Schomberg, University of Maryland, College Park, MD (135)

Evaluation of different cover crops in interseeded corn. K.E. Caswell*, W.S. Curran, S. Mirsky, G. Roth, M.R. Ryan, and J.M. Wallace, Pennsylvania State University, University Park, PA (136)

No-till organic cover crop performance and weed suppression in Pennsylvania small grains. T.R. Mazzone*, W.S. Curran, and J.M. Wallace, Pennsylvania State University, State College, PA (137)

Cover crop and biocontrol treatment effects in organic vegetable production. R.P. Larkin*, USDA-ARS, Orono, ME (138)

The use of photosynthetic fluorescence measurements as a diagnostic tool to identify glyphosate resistant giant ragweed (*Ambrosia trifida*) biotypes. K. Segobye*, R. Robertson, S.C. Weller, and B. Schulz, University of Maryland, College Park, MD (139)

Vegetative propagation of *Ambrosia artemisiifolia* for rapid resistance testing. B.W. Schrage* and W.J. Everman, North Carolina State University, Raleigh, NC (140)

Given higher yield potentials, is it time to change our nitrogen recommendations for corn? S.N. Swink*, Q.M. Ketterings, K. Czymmek, G.S. Godwin, K. O'Neil, M. Hunter, E. Bever, M. Contessa, J. Lawrence, D. Morse, T. McClelland, P.M. Barney, and A.C. Tagarakis, Cornell University, Ithaca, NY (141)

Glyphosate-resistant weed control and soybean tolerance to PPO-herbicides applied at two different growth stages. J.S. Aulakh*, P.S. Chahal, and A.J. Jhala, Connecticut Agricultural Experiment Station, Windsor, CT (142)

Herbicide banding in corn and associated floral diversity: yield dynamics over a five-year period. R.S. Chandran*, West Virginia University, Morgantown, WV (143)

Occurrence and impact of soybean vein necrosis in Delaware. N.M. Kleczewski*, W.J. Cissel, and J. Whalen, University of Delaware, Newark, DE (144)

Validation of predicted miRNAs in *Phytophthora sojae* and *Phytophthora infestans*. C. Madison and M. Ospina-Giraldo*, Lafayette College, Easton, PA (145)

BOLT™ Technology Soybeans for improved plant-back flexibility after DuPont™ Finesse® herbicide application to wheat. J.R. Bugg*, K.A. Backscheider, L.H. Hageman, J.T. Krumm, S.E. Swanson, V.B. Steward, M.T. Edwards, R.N. Rupp, R.W. Williams, R.M. Edmund, and V.A. Kleczewski, DuPont Crop Protection, Marysville, OH (146)

Enlist™ Corn weed control programs in the Midwest. O. Castello* and D. Simpson, DAS, Lancaster, PA (147)

Evaluating rate and timing effects of Facet L applications on grass species in the greenhouse. L. Vincent, W.J. Everman, and J. Copeland*, North Carolina State University, Raleigh, NC (148)

Evaluation of late season fungicide applications on foliar disease, yield, and silage in corn. A.A. Collins and N.M. Kleczewski*, University of Delaware, Newark, DE (149)

Grain sorghum and Palmer amaranth response to row width, crop density, and weed management strategy. T.E. Besancon*, W.J. Everman, R.W. Heiniger, and J.T. Sanders, North Carolina State University, Raleigh, NC (150)

Evaluating the effect of pre-harvest sorghum desiccation on subsequent winter wheat yield. M.K. Bansal*, North Carolina State University, Raleigh, NC (151)

Historical analysis of corn earworm blacklight and pheromone trap data in New Jersey. J. Ingerson-Mahar* and K. Holmstrom, Rutgers University, New Brunswick, NJ (152)

Post-harvest practices and environmental factors alter the degradation of CRY proteins in genetically engineered corn debris. V.L. Johnson*, G.P. Dively, and C. Hooks, University of Maryland, College Park, MD (153)

Evaluation of the impacts of acid whey on soil pH and liquid manure pH. S.K. Gami*, Q.M. Ketterings, K. Czymmek, and G.S. Godwin, Cornell University, Ithaca, NY (154)

Microbial CO₂ respiration results related to soil health. W.J. Sciarappa*, S. Murphy, V. Quinn, and R. Barresi, Rutgers University, Freehold, NJ (155)

Herbicide and nitrogen applications impact nitrous oxide emissions. A.M. Knight*, W.J. Everman, S. Reberg-Horton, S. Hu, D.L. Jordan, and N. Creamer, North Carolina State University, Raleigh, NC (156)

Developing a new P index for New York with stakeholder input. S. Crittenden*, S. Cela, Q.M. Ketterings, and K. Czymmek, Cornell University, Ithaca, NY (157)

Fall traffic tolerance and spring recovery of bermudagrass cultivars in the transition zone. M. Goatley*, B. Kraemer, S.D. Askew, and W.L. Askew, Virginia Tech, Blacksburg, VA (158)

Mesotrione efficacy and fate in annual bluegrass and Kentucky bluegrass as influenced by growth stage. J. Yu* and P. McCullough, University of Georgia, Griffin, GA (159)

Effects of indaziflam formulation on early postemergence control of *Oxalis stricta*. C. Marble*, A. Chandler, and M. Archer, University of Florida, Apopka, FL (160)

Mitigating PRE herbicide injury in container production of *Hydrangea macrophylla*. J.C. Neal* and C.D. Harlow, North Carolina State University, Raleigh, NC (161)

Powdery mildew management with biopesticides in greenhouse grown zucchini. B.C. Eshenaur* and E.M. Lamb, New York State Integrated Pest Management, Rochester, NY (162)

Novel PCR primers for detecting bacterial rot pathogens of onion. J.E. Asselin*, J.M. Bonasera, and S.V. Beer, Cornell University, Ithaca, NY (163)

Prevalence of male flowers in spring seeded zucchini squash cultivars. M.L. Infante-Casella*, Rutgers Cooperative Extension, Clarksboro, NJ (164)

IR-4 project transitions in the Northeast region and beyond. J. Baron*, M. Ross, and D. Kunkel, IR-4 Project, Princeton, NJ (165)

The IR-4 Project: update on weed control projects (food uses). M. Arsenovic*, J. Baron, D. Kunkel, and R. Batts, IR-4 Project, Princeton, NJ (166)

Broccoli variety trials in Southeast Pennsylvania. T. Elkner* and S. Bogash, Penn State Extension, Lancaster, PA (167)

Single vs split applications of post-emergent herbicides for spreading dogbane (*Apocynum androsaemifolium*) control in wild blueberry fields. J.L. Cote* and D.E. Yarborough, University of Maine, Orono, ME (168)

Effects of abscisic acid (ABA) and gibberellic acid (GA3) applications on cluster loosening in tight cluster var. *Chardonnay* in South Jersey. H. Gohil* and D. Ward, Rutgers University, Clayton, NJ (169)

Evaluation of systemic insecticide and fungicide for protection of sycamore from polyphagous sot hole borer / *Fusarium dieback*. D.M. Grosman* and A. Eskelan, Arborjet Inc., Woburn, MA (170)

Effectiveness of triclopyr-amine basal bark treatment compared with standard triclopyr stem treatments for European alder control. E. Weaver* and A. Gover, Pennsylvania State University, State College, PA (171)

Detection and phylogenetic relationships of *Puccinia emaculata* and *Uromyces graminicola* (Pucciniales) on switchgrass in New York using rDNA sequence information. S.C. Kenaley and G.C. Bergstrom*, Cornell University, Ithaca, NY (172)

Pasture herbicide stewardship: our efforts to reduce off-target damage to sensitive, high value crops. N. Rhodes* and D. McIntosh, University of Tennessee, Knoxville, TN (173)

The effects of roadside habitat on insect traffic mortality. W.A. Keilsohn* and D. Tallamy, University of Delaware, Newark, DE (174)

Protein moonlighting in plant disease: characterization of the dual function of a bacterial type III secreted virulence effector and chaperone as a toxin-antitoxin system. T. Shidore*, Connecticut Agricultural Experiment Station, New Haven, CT (175)

WEDNESDAY MORNING JANUARY 6

**Organic Production, Beneficial Organisms
& Biological Control**

LOCATION: Ballroom AB
TIME: 8:00 AM - 10:00 AM
MODERATOR: Elsa Sanchez
Pennsylvania State
University
State College, PA

***SPEAKER**

- 8:00 Organic versus conventional beekeeping philosophies and their influence on honey bee colony health.** R. Underwood*, D. vanEngelsdorp, B. Traver, and K. Nichols, University of Maryland, College Park, MD (176)
- 8:12 Do management practices impact *Nosema ceranae* levels in honey bee colonies?** B.E. Traver*, R. Underwood, K. Nichols, and D. vanEngelsdorp, Pennsylvania State University, Schuylkill Haven, PA (177)
- 8:24 Integration of pelletized poultry litter into rolled cover crops for organic corn production.** G.M. Zinati*, J. Moyer, R. Atwell, S. Reberg-Horton, and S. Mirsky, Rodale Institute, Kutztown, PA (178)
- 8:36 Cover crops affect weed abundance but not weed community assembly.** B. Baraibar*, M. Hunter, M. Schipanski, and D.A. Mortensen, Pennsylvania State University, State College, PA (179)
- 8:48 Deploying microbes as a seed treatment for protection against soil-borne plant pathogens.** R. Carr*, Rodale Institute, Kutztown, PA (180)
- 9:00 Effects of tillage and nutrient management during the transition to organic grain production.** M.R. Ryan*, M. Ball, B. Caldwell, A. DiTommaso, L. Drinkwater, C. Marschner, and C.L. Mohler, Cornell University, Ithaca, NY (181)

- 9:12 Cover crops, tillage, and pests in eggplant fields.** P. Coffey* and C. Hooks, University of Maryland, College Park, MD (182)
- 9:24 Evaluation of native New York entomopathogenic nematodes for biocontrol of plum curculio (*Conotrachelus nenuphar*) in apple orchards.** T.G. Lessord*, A. Agnello, E. Shields, and K. Wickings, Cornell University, Geneva, NY (183)
- 9:36 Integrating pheromone traps in a trap crop system for managing stink bugs in organic pepper production.** C. Mathews*, B. Blaauw, and A.L. Nielsen, Shepherd University, Shepherdstown, WV (184)
- 9:48 Weed seed suppression using designed compost extracts.** G.M. Zinati*, Rodale Institute, Kutztown, PA (185)

WEDNESDAY MORNING JANUARY 6

Agronomic Crops

LOCATION: Ballroom AB
 TIME: 10:36 AM - 12:00 PM
 MODERATOR: Wesley Everman
 North Carolina State
 University
 Raleigh, NC

***SPEAKER**

10:36 Is an integrated weed management renaissance or fallacy in our future? W.S. Curran*, J.M. Wallace, D. Lingenfelter, D.A. Mortensen, and M.J. VanGessel, Pennsylvania State University, University Park, PA (186)

- 10:48 An integrated weed management approach to addressing the multiple herbicide-resistant weed epidemic in three major U.S. field crop production regions.** S. Mirsky*, A.S. Davis, J. Norsworthy, M. Bagavathiannan, J. Bond, K. Bradley, W. Curran, W.J. Everman, D. Ervin, M.L. Flessner, G. Frisvold, A. Hager, B. Hartzler, N. Jordan, J. Lindquist, B. Schulz, L. Steckel, and M.J. VanGessel, USDA-ARS, Beltsville, MD (187)
- 11:00 Evaluation of dicamba-based systems for control of glyphosate-resistant Palmer amaranth.** C.W. Cahoon*, A.C. York, S. Culpepper, D.L. Jordan, W.J. Everman, and K.M. Jennings, Virginia Tech, Painter, VA (188)
- 11:12 Nutrient management in mid-Atlantic organic grain cropping systems.** V. Ackroyd*, S. Mirsky, M.A. Cavigelli, and J.T. Spargo, USDA-ARS, Beltsville, MD (189)
- 11:24 Effects of larval movement and cross-pollination on the refuge-in-bag strategy in pyramided Bt corn.** G.P. Dively*, University of Maryland, College Park, MD (190)
- 11:36 Postemergence weed control in corn using various rates of atrazine and topramezone.** K.M. Vollmer* and T. Hines, University of Delaware, Georgetown, DE (191)
- 11:48 Discussion/Business Meeting**

WEDNESDAY MORNING JANUARY 6

Turf & Ornamentals

LOCATION: Ballroom DE
 TIME: 8:00 AM - 12:00 PM
 MODERATOR: Katelyn Venner
 BASF
 Raleigh, NC

***SPEAKER**

8:00 IPM in your pocket: the Greenhouse Scout Mobile App. E.M. Lamb* and B.C. Eshenaur, New York State IPM, Ithaca, NY (192)

- 8:12 Politics, plant health & public perception.** J.L. Fetzer*, M-NCPPC, Gaithersburg, MD (193)
- 8:24 Whole genome sequencing: a viable strategy for plant disease diagnosis.** M.M. Malapi-Wight*, C.M. Salgado-Salazar, J. Demers, D. Clement, K. Rane, and J. Crouch, USDA-ARS, Beltsville, MD (194)
- 8:36 Making aecial-telial host connections: new insight into host alternation of the pear trellis and Japanese apple rust fungi in the Northeast.** S.C. Kenaley and M.L. Daughtrey*, Cornell University, Riverhead, NY (195)
- 8:48 Horseweed control in field nursery crops.** J. Altland*, USDA-ARS, Wooster, OH (196)
- 9:00 Dormant applications of Marengo SC and G compared to an industry standard in a nursery overwintering polyhouse.** H.M. Mathers*, Mathers Environmental Science Services, LLC, Gahanna, OH (197)
- 9:12 Fungicide sensitivity in boxwood blight pathogen *Calonectria pseudonaviculata*.** K.A. Maurer* and J.A. LaMondia, The Connecticut Agricultural Experiment Station, Windsor, CT (198)
- 9:24 Curative fungicidal activity against *Calonectria pseudonaviculata*, causal agent of boxwood blight.** J.A. LaMondia*, The Connecticut Agricultural Experiment Station, Windsor, CT (199)
- 9:36 The role of herbicide application timing in efficacy on dormant nursery fields the following spring.** H.M. Mathers*, Mathers Environmental Science Services, LLC, Gahanna, OH (200)
- 9:48 Use of systemic trunk injection for control of black oak gall wasp on Cape Cod, MA.** D.M. Grosman*, M. Davis, and J. Elkinton, Arborjet Inc, Woburn, MA (201)
- 10:00 Break**

- 10:24 Effects of fungicides on spore germination and colony development of *Erysiphe pulchra*, the causal agent of powdery mildew of flowering dogwood.** Y. Li*, M. Windham, R. Trigiano, D. Fare, and W. Copes, The Connecticut Agricultural Experiment Station, New Haven, CT (202)
- 10:36 Susceptibility of *Impatiens* species to downy mildew caused by *Plasmopara obducens*.** J.E. Keach, M.L. Daughtrey*, M.P. Bridgen, and C. Salgado, Cornell University, Riverhead, NY (203)
- 10:48 Effect of new block co-polymer blended wetting agents on wettability of peat-based substrate and on relative phytotoxicity of impatiens and pansy.** M. Olszewski*, J. Pils, and B. Snyder, Temple University, Ambler, PA (204)
- 11:00 Potential options for selective control of liverwort (*Marchantia polymorpha*) in nursery crops.** J. Derr* and A. Rana, Virginia Tech, Virginia Beach, VA (205)
- 11:12 Herbicide tolerance of sedum species grown for green roof installation.** A. Senesac* and N. Catlin, Cornell Cooperative Extension, Riverhead, NY (206)
- 11:24 A new fungicide for ornamental plant protection.** R.J. Keese*, J.H. O'Barr, and K.E. Kalmowitz, BASF Corp., Research Triangle Park, NC (207)
- 11:36 IR-4 Ornamental Horticulture Program: 2015 research highlights and 2016 priorities.** C. Palmer*, E. Veal, J. Baron, and E. Lurvey, IR-4 Project, Princeton, NJ (208)
- 11:48 Discussion/Business Meeting**

WEDNESDAY MORNING JANUARY 6

Biology, Ecology, Taxonomy & Evolution

LOCATION: Bromley/Claypoole
TIME: 8:00 AM - 12:00 PM
MODERATOR: Jacob Barney
Virginia Tech
Blacksburg, VA

***SPEAKER**

- 8:00** **Variation of mandibular gland volatiles in the *Apterostigma pilosum* species group.** C.T. Hogan*, T.T. Jones, M. Zhukova, J. Sosa-Calvo, and R.M. Adams, Virginia Military Institute, Roanoke, VA (209)
- 8:12** **Race structure of *Xanthomonas campestris* pv. *vitians* causing bacterial leaf spot on lettuce.** C.T. Bull* and R. Hayes, Pennsylvania State University, University Park, PA (210)
- 8:24** **Using mitogenomes in phylodynamic studies of *Ixodes scapularis*.** C.E. Khatchikian*, M. Prusinski, M. Stone, L.J. Meehan, P. Backenson, I. Wang, M.Z. Levy, and D. Brisson, University of Pennsylvania, Philadelphia, PA (211)
- 8:36** **Genomic and molecular approaches to investigate glyphosate resistance – Giant ragweed case study.** B. Schulz*, University of Maryland, College Park, MD (212)
- 8:48** **Growth and seed production of glyphosate-resistant and -sensitive Palmer amaranth in the field.** C.W. Cahoon*, A.C. York, D.L. Jordan, P.J. Tranel, and M.D. Inman, Virginia Tech, Painter, VA (213)
- 9:00** ***Phytophthora taxon caryae*, a new woody plant pathogen from the *P. citricola* s.l. complex.** N.J. Braze* , University of Massachusetts, Amherst, MA (214)
- 9:12** **Degradation of CRY proteins and ecological processing of post-harvest Bt and non-Bt corn debris in an agricultural stream.** W. Lamp*, R. Kaji, C. Regan, A. Post, and G.P. Dively, University of Maryland, College Park, MD (215)

- 9:24 Physiological color change in response to mating behavior in *Argia apicalis* (Odonata: Coenagrionidae).** A. Whispell*, Rutgers University, New Brunswick, NJ (216)
- 9:36 New insights into host defense mechanisms following artificial inoculations with the butternut canker pathogen.** D. Rioux*, M. Blais, N. Nadeau-Thibodeau, M. Lagace', P. DesRochers, K. Klimaszewska, and L. Bernier, Natural Resources Canada, Quebec City, QC (217)
- 9:48 Assessing internal decay in trees nondestructively with tomography.** R.E. Marra*, N.J. Brazee, and S. Fraver, The Connecticut Agricultural Experiment Station, New Haven, CT (218)
- 10:00 Break**
- 10:24 Which species traits allow plant species to persist in sown grass-margin strips.** S. Cordeau*, M.R. Ryan, D.A. Bohan, X. Rebound, and B. Chauvel, Cornell University, Ithaca, NY (219)
- 10:36 Priority ratings, based on weed biology, aid in the management of annual and perennial weeds in cranberry.** H. Sandler*, K.M. Ghantous, R. Neron, and J. Deland, University of Massachusetts Cranberry Station, East Wareham, MA (220)
- 10:48 Reflections on weed biology in cranberry.** K.M. Ghantous* and H. Sandler, University of Massachusetts Cranberry Station, East Wareham, MA (221)
- 11:00 Meadow knapweed in the Northeast: Should I know this species?** C. Marschner*, L.R. Milbrath, J.M. Hunn, J. Biazzo, and A. DiTommaso, Cornell University, Ithaca, NY (222)
- 11:12 Discussion/Business Meeting**

WEDNESDAY MORNING JANUARY 6

Vegetation Management and Restoration

LOCATION: Cook
TIME: 9:00 AM - 11:30 AM
MODERATOR: Art Gover
Pennsylvania State
University
University Park, PA

***SPEAKER**

- 9:00 Does sustained weed suppression improve establishment of wildland plantings of sheltered silver maple, sycamore, or pin oak?** A. Gover* and R. Wagoner, Pennsylvania State University, University Park, PA (223)
- 9:12 Using a metronome to standardize backpack sprayer calibration and application ground speed.** B.F. McDonnell* and G. Ciabattoni, National Park Service, Bushkill, PA (224)
- 9:24 Introducing a Windows PC program for pesticide application calculations.** B.F. McDonnell*, National Park Service, Bushkill, PA (225)
- 9:36 A handheld pruning device for systemic injection of herbicides or crop protection chemicals.** S.D. Askew* and T.B. Burch, Virginia Tech, Blacksburg, VA (226)
- 9:48 Can reduced-dilution, bark-applied mixtures of imidacloprid plus dinotefuran control hemlock wooly adelgid and improve productivity?** T.R. Mazzone*, A. Gover, R. Wagoner, D. Schmit, and B. Brantley, Pennsylvania State University, State College, PA (227)
- 10:00 Break**
- 10:24 Management of hydrilla in a free flowing river.** R.J. Richardson*, S. Auell, and S. Hoyle, North Carolina State University, Raleigh, NC (228)

- 10:36 Hydrilla in the Northeast: my perspective on research, management, and the feasibility of eradication.** R.J. Richardson* and M. Netherland, North Carolina State University, Raleigh, NC (229)
- 10:48 Suppression of Japanese hops with early-season herbicide application.** A. Gover*, The Pennsylvania State University, University Park, PA (230)
- 11:00 Bayer vegetation management: new ventures.** D. Spak* and J. Belcher, Bayer CropScience, RTP, NC (231)
- 11:12 Discussion/Business Meeting**

WEDNESDAY AFTERNOON JANUARY 6

Fruit Crops

LOCATION: Cook
 TIME: 1:24 PM - 4:00 PM
 MODERATOR: William Sciarappa
 Rutgers University
 Freehold, NJ

***SPEAKER**

- 1:24 Zeus Prime XC: a new pre-emergent herbicide for grapes, brambles, and pome fruit.** J. Reed*, D. Doohan, B.H. Zandstra, and R. Crassweller, FMC, Philadelphia, PA (232)
- 1:36 Does directed application of glyphosate injure apple trees in one year?** R.S. Chandran*, West Virginia University, Morgantown, WV (233)
- 1:48 Evaluating an "attract and kill" system for the invasive brown marmorated stink bug in commercial apple orchards.** T.C. Leskey*, R. Morrison, B.D. Short, A.L. Nielsen, B.R. Blaauw, J. Bergh, and G. Krawczyk, USDA-ARS, Kearneysville, WV (234)

- 2:00 Relating trap location to spotted wing drosophila captures in highbush blueberries.** D. Polk*, Rutgers Cooperative Extension, Chatsworth, NJ (235)
- 2:12 Differences in the freezing tolerance (LT₅₀) of six cranberry cultivars grown in Massachusetts.** F. Ndlovu*, P. Jeranyama, and C.J. DeMoranville, University of Massachusetts Cranberry Station, Wareham, MA (236)
- 2:24 Ambrosia beetle (*Xylosandrus germanus*) infestations and management trials in high-density apple orchards.** A.M. Agnello*, D. Breth, and J. Vandenberg, Cornell University, Geneva, NY (237)
- 2:36 Spore transport in a vineyard.** F.J. Ferrandino*, CAES, New Haven, CT (238)
- 2:48 Evaluation of fall and spring applications of herbicides targeting resistant weeds in wild blueberry fields.** D.E. Yarborough* and J.L. Cote, University of Maine, Orono, ME (239)
- 3:00 Break**
- 3:24 Invasive spotted wing drosophila "picks" the low hanging fruit: wild infestation rates, mark-release-recapture, and field cage studies in raspberry.** K.B. Rice*, S.K. Jones, and T.C. Leskey, USDA, Kearneysville, WV (240)
- 3:36 Refining decision-support tools for BMSB management in apple orchards.** B.D. Short* and T.C. Leskey, USDA ARS, Kearneysville, WV (241)
- 3:48 Discussion/Business Meeting**

WEDNESDAY AFTERNOON JANUARY 6

Soils & Environmental Quality

LOCATION: Reynolds
TIME: 2:00 PM - 4:30 PM
MODERATOR: Mike Fidanza
Pennsylvania State
University
Reading, PA

***SPEAKER**

- 2:00 Isolating allelochemicals from soil microbiota for weed control.** J.T. Kao-Kniffin*, Cornell University, Ithaca, NY (242)
- 2:12 Evaluation of planting density on soil compaction.** S. Yergeau*, Rutgers Cooperative Extension, Toms River, NJ (243)
- 2:24 Creating acidic compost using elemental sulfur.** M. Taylor* and M. Nndanduleni, Longwood Gardens, Kennett Square, PA (244)
- 2:36 Surveying biological soil health with the Solvita CO₂ Respiration System.** W.J. Sciarappa*, S. Murphy, R. Barresi, and V. Quinn, Rutgers University, Freehold, NJ (245)
- 2:48 Whole farm nutrient mass balances for improvements in agriculture and environmental management of dairy farms.** Q.M. Ketterings*, S. Cela, M. Soberon, C. Rasmussen, S. Crittenden, and K. Czymmek, Cornell University, Ithaca, NY (246)
- 3:00 Break**
- 3:24 Soil test potassium buildup and drawdown in response to manure, compost and potassium application in a corn-alfalfa rotation.** A. Sadeghpour*, Q.M. Ketterings, G.S. Godwin, and K. Czymmek, Cornell University, Ithaca, NY (247)

- 3:36 Canopy reflectance measurements to predict corn yield in response to nitrogen fertilization management.** A.C. Tagarakis*, Q.M. Ketterings, A. Sadeghpour, G.S. Godwin, I.B. Cornell, and K. Czymmek, Cornell University, Ithaca, NY (248)
- 3:48 Assessing soil biological response to hardwood biochar in a temperate climate agricultural soil.** E.J. Cole*, M. Hashemi, B. Xing, and J. Blanchard, Westfield State University, Westfield, MA (249)
- 4:00 Impact of manure injection on soil nitrogen and fate of manure antibiotics.** R. Maguire*, S. Kulesza, K. Xia, K. Knowlton, and P. Ray, Virginia Tech, Catawba, VA (250)
- 4:12 Discussion/Business Meeting**

WEDNESDAY AFTERNOON JANUARY 6

Invasive Species

LOCATION: Bromley/Claypoole
 TIME: 1:24 PM - 5:00 PM
 MODERATOR: Burkhard Schulz
 University of Maryland
 College Park, MD

***SPEAKER**

- 1:24 Comparison of taxonomic and functional diversity indices in research on integrated management strategies for woody invasive species assemblages.** C.H. Douglass*, Trinity College, Hartford, CT (251)
- 1:36 *Rhus typhina* outcompetes *Ailanthus altissima* under different light and density conditions.** C. Huebner*, J. Butnor, and R. Eaton, Northern Research Station, US Forest Service USDA, Morgantown, WV (252)
- 1:48 Dispersal and settling behavior of overwintering brown marmorated stink bug.** J.C. Cullum*, J.C. Bergh, and T.C. Leskey, USDA-ARS, Kearneysville, WV (253)

- 2:00** **Habitat effects on egg parasitism of brown marmorated stink bug and the native spined soldier bug.** M. Herlihy*, D.C. Weber, E. Talamas, and E.L. Fread, USDA-ARS, Beltsville, MD (254)
- 2:12** **Unexpected and substantial predation and parasitism inflicted by native natural enemies of brown marmorated stink bug eggs.** W.R. Morrison, III*, C. Mathews, and T.C. Leskey, USDA-ARS-Appalachian Fruit Research Laboratory, Kearneysville, WV (255)
- 2:24** **Attract & kill: organic management of brown marmorated stink bug using trap crops and Azera.** T.N. Trope* and D. Pfeiffer, Virginia Tech, Virginia, VA (256)
- 2:36** **Individual-based modeling of *Halyomorpha halys* phenology and population dynamics.** A.L. Nielsen*, S. Chen, and S. Fleischer, Rutgers University, Bridgeton, NJ (257)
- 2:48** **Hemlock woolly adelgid: response coordination and biocontrols in New York State.** C. Marschner* and M.C. Whitmore, Cornell University, Ithaca, NY (258)
- 3:00** **Break**
- 3:24** ***Trissolcus japonicus*? Here!** C. Bergh* and A. Acebes-Doria, Virginia Tech, Winchester, VA (259)
- 3:36** **Invasion ecology and classical biological control of the emerald ash borer in the U.S.: recent progresses and challenges.** J.J. Duan* and D.E. Jennings, U.S. Department of Agriculture, Newark, DE (260)
- 3:48** **Major climatic niche shifts in over one thousand invasive species.** D.Z. Atwater* and J.N. Barney, Virginia Tech, Blacksburg, VA (261)
- 4:00** **The invasive vascular flora of sidewalk plots, Brooklyn and Queens, NY, 2007-2011.** R. Stalter*, St. John's University, Queens, NY (262)
- 4:12** **Biological control of mile-a-minute weed (*Polygonum perfoliatum*).** D.R. Ellis* and C. Cheah, University of Connecticut, Storrs, CT (263)

4:24 **IR-4: Overview of research for invasive pathogens of ornamental horticulture crops.**
C. Palmer*, IR-4 Project, Princeton, NJ (264)

4:36 **Discussion/Business Meeting**

WEDNESDAY AFTERNOON JANUARY 6

Vegetable & Herb Crops

LOCATION: Ballroom DE
TIME: 1:36 PM - 4:30 PM
MODERATOR: Katherine Ghantous
University of Massachusetts
Cranberry Station
East Wareham, MA

***SPEAKER**

- 1:36 **Efficacy of fungicides, biopesticides, and resistant varieties for managing downy mildew in basil.** M.T. McGrath*, Cornell University, Riverhead, NY (265)
- 1:48 **Screening for genetic resistance to Fusarium wilt for introgression into sweet basil.** K. Homa*, Rutgers University, New Brunswick, NJ (266)
- 2:00 **Residual activity of new insecticides for European corn borer control in snap bean.** R.A. Schmidt-Jeffris* and B.A. Nault, Cornell University, Geneva, NY (267)
- 2:12 **A push-pull method for the control of Mexican bean beetle in lima beans.** A.W. Leslie*, K.A. Hamby, and C. Hooks, University of Maryland, College Park, MD (268)
- 2:24 **Investigation of the physiological effects of heat stress on lima bean (*Phaseolus lunatus*).** E.G. Ernest*, University of Delaware, Georgetown, DE (269)
- 2:36 **Management of Stemphylium leaf blight of onion with fungicides in New York.** C.A. Hoeping* and S.J. Pethybridge, Cornell Cooperative Extension, Albion, NY (270)

- 2:48** *Dickeya*, a new potato pathogen in Maine and elsewhere. S.B. Johnson*, University of Maine, Presque Isle, ME (271)
- 3:00** Break
- 3:24** Establishing a long-term vegetable systems trial (VST) to integrate soil, plant, human, and planetary health. K.A. Nichols* and J. Moyer, Rodale Institute, Kutztown, PA (272)
- 3:36** ATP swab sampling in fresh produce packinghouses. M.V. Melendez*, Rutgers Cooperative Extension, Trenton, NJ (273)
- 3:48** Epidemiology of *Potato Virus Y* in Northern Maine. A. Alyokhin* and A. Buzza, University of Maine, Orono, ME (274)
- 4:00** Detection and characterization of *Dickeya* species in the outbreak of blackleg disease of potato in Maine. J. Hao*, University of Maine, Orono, ME (275)
- 4:12** Discussion/Business Meeting

THURSDAY MORNING JANUARY 7

Agronomic Crops

LOCATION: Ballroom AB
TIME: 8:00 AM - 12:00 PM
MODERATOR: Wesley Everman
North Carolina State
University
Raleigh, NC

***SPEAKER**

- 8:00** Corn yield response to subsurface banded poultry litter in cover crop-based production. B.W. Davis*, S. Mirsky, and M.A. Cavigelli, University of Maryland, College Park, MD (276)

- 8:12 Winter cover crop strategies for management of horseweed in no-till grain systems.** J.M. Wallace*, W.S. Curran, M. VanGessel, and D.A. Mortensen, Pennsylvania State University, State College, PA (277)
- 8:24 Western corn rootworm resistance to Bt corn in Virginia.** C. Laub* and D. Pfeiffer, Virginia Tech, Blacksburg, VA (278)
- 8:36 Fusarium species moving from head to the root?** R.S. Goswami*, Delaware State University, Dover, DE (279)
- 8:48 Changes in soil quality with increasing time in no-till production.** J. Jemison*, R. Kersbergen, and C. Majewski, University of Maine, Orono, ME (280)
- 9:00 Alfalfa-grass evaluation using NIRS or visual estimation.** E. Karayilanli*, D. Cherney, P.K. Sirois, D.M. Kubinec, and J.H. Cherney, Suleyman Demirel University, Isparta, Turkey, NY (281)
- 9:12 Estimating undigested NDF and rate of digestion in forages.** M. Valentine*, E. Karayilanli, J.H. Cherney, and D. Cherney, Cornell University, Ithaca, NY (282)
- 9:24 Weed control and crop safety with metribuzin in winter wheat.** M. VanGessel*, Q. Johnson, and B. Scott, University of Delaware, Georgetown, DE (283)
- 9:36 Introducing BOLT™ technology: a new herbicide system for cleaner fields and greater management flexibility in soybeans.** S. Strachan*, D. Johnson, H. Flanigan, J. Carpenter, S. Mitchell, A. Trepanier, M. Vogt, and S. Sebastian, DuPont Crop Protection, Newark, DE (284)
- 9:48 New zero-day plant-back options for DuPont™ Basis® Blend and LeadOff® herbicides in BOLT™ technology soybeans.** V.A. Kleczewski*, P. Marquardt, L.H. Hageman, K.A. Backscheider, S.E. Swanson, J.T. Krumm, R.M. Edmund, M. Meyer, K. Diedrick, K. Johnson, and C. Snipes, DuPont Crop Protection, Middletown, DE (285)
- 10:00 Break**

- 10:24 Herbicide programs for marestalk control in dicamba-tolerant soybeans.** D.D. Ganske*, J.R. Bugg, J.T. Krumm, K. Diedrick, K.A. Backscheider, and K.L. Hahn, DuPont Crop Protection, Winchester, VA (286)
- 10:36 Sub-lethal dicamba dose impact on group V soybean growth and yield.** A.M. Growe*, M.K. Bansal, J. Copeland, J.T. Sanders, B.W. Schrage, L. Vincent, and W.J. Everman, North Carolina State University, Raleigh, NC (287)
- 10:48 Palmer amaranth control and soybean tolerance to Balance Bean herbicide.** B.W. Schrage* and W.J. Everman, North Carolina State University, Raleigh, NC (288)
- 11:00 Enlist™ Corn weed control programs in the Midwest.** D. Simpson and O. Castello*, DAS, Lancaster, PA (289)
- 11:12 Authority MTZ alternative burndown tankmixes in soybeans.** J. Reed*, R. Ritter, M.L. Flessner, and M. VanGessel, FMC, Philadelphia, PA (290)
- 11:24 Discussion/Business Meeting**

THURSDAY MORNING JANUARY 7

Turf & Ornamentals

LOCATION: Ballroom DE
 TIME: 8:00 AM - 12:00 PM
 MODERATOR: Katelyn Venner
 BASF
 Raleigh, NC

***SPEAKER**

- 8:00 Annual bluegrass seedhead suppression.** J.A. Borger* and T.L. Harpster, Pennsylvania State University, University Park, PA (291)
- 8:12 Using herbicides to renovate turf dominated by annual bluegrass.** B.S. Park*, C. Mansue, and J.A. Murphy, Rutgers University, New Brunswick, NJ (292)

- 8:24 Challenges associated with measuring the influence of greens canopy anomalies on ball roll consistency.** S.D. Askew*, S.S. Rana, and J.R. Brewer, Virginia Tech, Blacksburg, VA (293)
- 8:36 Comparison of vegetation indices for chlorophyll content and drought stress.** D.S. McCall* and D. Sullivan, Virginia Tech, Blacksburg, VA (294)
- 8:48 Taking the sting out of turf protection: a soil mobile abamectin formulation for nematode control.** K. Greig*, D. Norton, C. Irwin, and M. Coulter, Vive Crop Protection, Toronto, ON (295)
- 9:00 Managing ground ivy and wild violet in turfgrass with flumioxazin.** J. Fausey*, Nufarm Americas, Fremont, OH (296)
- 9:12 Post-emergent crabgrass control in lawns using alternatives to synthetic herbicides.** D. Linde*, S. DeBroux, and S. McDonald, Delaware Valley University, Doylestown, PA (297)
- 9:24 Resistance mechanisms to ACCase inhibitors in goosegrass from Georgia.** P. McCullough*, J. Yu, and P. Raymer, University of Georgia, Griffin, GA (298)
- 9:36 Allegheny blackberry control in reduced-management fine fescue turf.** J.R. Brewer* and S.D. Askew, Virginia Tech, Blacksburg, VA (299)
- 9:48 Triclopyr influences mesotrione efficacy, absorption, and translocation in smooth crabgrass.** J. Yu* and P. McCullough, University of Georgia, Griffin, GA (300)
- 10:00 Break**
- 10:24 Control of false green kyllinga in cool-season turf.** C. Mansue* and J.A. Murphy, Rutgers University, New Brunswick, NJ (301)
- 10:36 False green kyllinga control in cool-season turf.** S.D. Askew*, J.R. Brewer, and S.S. Rana, Virginia Tech, Blacksburg, VA (302)

10:48 Mapping spring dead spot for precision turf management. D.S. McCall*, D. Sullivan, and C.D. Shelton, Virginia Tech, Blacksburg, VA (303)

11:00 Discussion/Business Meeting

THURSDAY MORNING JANUARY 7

Vegetable & Herb Crops

LOCATION: Bromley/Claypoole
TIME: 8:00 AM - 10:00 AM
MODERATOR: Katherine Ghantous
University of Massachusetts
Cranberry Station
East Wareham, MA

***SPEAKER**

8:00 Management of herbicide resistant weeds in New York processing carrot fields. J.R. Kikkert* and R. Bellinder, Cornell Cooperative Extension, Canandaigua, NY (304)

8:12 Parthenocarpic cucumbers for commercial pickle production in the mid-Atlantic. G.C. Johnson*, University of Delaware, Georgetown, DE (305)

8:24 Effect of nanoparticles of CuO on Fusarium wilt of watermelon. W.H. Elmer*, The Connecticut Agricultural Experiment Station, New Haven, CT (306)

8:36 Does pyroxasulfone herbicide have a fit in snap bean production? D. Lingenfelter* and M. VanGessel, Pennsylvania State University, University Park, PA (307)

8:48 Vegetable weed control with pyroxasulfone. B.H. Zandstra*, C.J. Phillipppo, and M.A. Goll, Michigan State University, East Lansing, MI (308)

9:00 Evaluation of herbicide programs in fresh market sweet corn. D.E. Telenko*, Cornell University, East Aurora, NY (309)

- 9:12 Authority MTZ: a new pre-transplant herbicide for tomatoes.** J. Reed*, D. Doohan, B.H. Zandstra, S.C. Weller, and M. Orzolek, FMC, Philadelphia, PA (310)
- 9:24 Bicyclopyrone performance in minor/specialty crops.** M.A. Cutulle*, G. Vail, C. Dunne, T. Beckett, and E. Hitchner, Syngenta, Vero Beach, FL (311)
- 9:36 Discussion/Business Meeting**

Personal Time Schedule

Time	Monday	Tuesday
7:30		
8:00		
8:12		
8:24		
8:36		
8:48		
9:00		
9:12		
9:24		
9:36		
9:48		
10:00	Break	Break
10:24		
10:36		
10:48		
11:00		
11:12		
11:24		
11:36		
11:48		
12:00	Lunch	Lunch
1:24		
1:36		
1:48		
2:00		
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2:48		
3:00	Break	Break
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Personal Time Schedule

Time	Wednesday	Thursday
7:30		
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9:36		
9:48		
10:00	Break	Break
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11:00		
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11:36		
11:48		
12:00	Lunch	Lunch
1:24		
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3:00	Break	Break
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NOTES

NOTES

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