

NEPPSC

NORTHEASTERN PLANT, PEST AND SOILS CONFERENCE



THE NORTHEASTERN PLANT, PEST, AND SOILS CONFERENCE

*Conference Theme:
Opportunities for mutual
learning: Pests and pandemics*

2021

A joint meeting of:



January 4-7, 2021

VIRTUAL

NEPPSC2021.us2.pathable.com

IMPORTANT DEADLINES

Lightning Talk uploads (video files):

Non-student judged: December 18, 2020
<http://www.weedscimeetingabstracts.com/>

Student judged: December 30, 2020
<http://www.weedscimeetingabstracts.com/>

Oral Presentations uploads – non student judged (video files):

Dec 18, 2020
<http://www.weedscimeetingabstracts.com/>

Oral Presentations uploads – student judged (PowerPoint slides)

Dec 30, 2020
<http://www.weedscimeetingabstracts.com/>

Abstract Submission:

January 3, 2021
<http://www.weedscimeetingabstracts.com/>

Participating Societies:

Northeastern Weed Science Society (NEWSS)

Northeastern Regional Branch of American Society of Agronomy, Crop Science Society of America, & Soil Science Society of America (NEB-CSA)

American Society for Horticultural Science - Northern Region (NR-ASHS)

SUSTAINING MEMBERS 2021

The societies comprising the NEPPSC would like to thank the individuals and organizations that help sustain our operations.

Platinum:

BASF

Bayer Crop Science

Syngenta

Gold:

Corteva

FMC

Silver:

Amvac

NuFarm

UPL

Valent

Bronze:

Gyilling Data Management Solutions

Sustaining Members for each society are displayed on the virtual platform Exhibit Hall (or click on the logo)

VIRTUAL PLATFORM OVERVIEW

The NEPPSC virtual event experience features:

- Completely immersive event platform that transports you to a realistic virtual event.
- One-stop shop for your entire meeting experience (email and password login for easy entry).
- General session, topical breakouts, live student oral presentation contest, lightning talks, graduate student “luncheon,” past president’s “breakfast,” Ornamental IR-4 working group session and a NEPPSC virtual social featuring pub style trivia and networking.
- Exhibit hall featuring lightning talks, sustaining members, NEWSS photo contest and NEWSS 75th anniversary display.
- Networking area with group and 1:1 video, audio, and chat features throughout the duration of the conference.

Oral Presentations (non-student judged) will be available prior to, throughout and after the meeting in the virtual platform, on-demand. Breakouts sessions (T&O/Vegetation Management, Agronomic Crops and Fruit, Vegetable and Tree Crops) will feature a keynote presentation, Q&A with all authors and a moderated roundtable discussion.

Lightning talks replace posters this year. Pre-recorded, 2-minute, 1-slide presentations will be available prior to, throughout and after the meeting in the virtual platform, on-demand. The Lightning Talk session will feature Live Q&A with the authors in the virtual platform.

SOCIETY EXECUTIVES

NEWSS

Art Gover, President
Caren Schmidt, President-elect
Jacob Barney, Vice President
Dan Kunkel, Past President
Kurt Vollmer, Treasurer

NEB - ASA/CSSA/SSSA (CSA)

Karen Gartley, President
Mike Fianza, Past President
Sydney Riggi, Secretary/Treasurer
Amy Shober, Branch Director

NR-ASHS

Adrienne Kleintop, President
Rebecca Brown, President-elect
Sasha Eisenman, Past President
Megan Muehlbauer – Treasure/Secretary

NEPPSC PROGRAM COMMITTEE

Caren Schmidt, Program Chair, NEWSS
Jacob Barney, NEWSS
Uriel Menalled, NEWSS
Maria Gannett, NEWSS
Karen Gartley, NEB-CSA
Adrienne Kleintop, NR-ASHS
Rebecca Brown, NR-ASHS

CONDENSED PROGRAM

MONDAY JANUARY 4

NEWSS 08:00 AM - 09:30 AM
Board +
NEPPSC
Program
Committee

NEPPSC 10:00 AM - 12:00 PM
Opening
Session

T&O/Vegetation 01:00 PM - 03:00 PM
Management

NEPPSC 03:30 PM - 05:00 PM
Social - Pub
Trivia and
Networking

TUESDAY JANUARY 5

Lightning 08:00 AM - 09:45 AM
Talks
(Authors
Present)

Agronomic 10:00 AM - 12:00 PM
Crops
Breakout

Live Oral 1:00 PM - 02:10 PM
Presentations -
NEWSS
Students,
Group 1

Live Oral 02:30 PM - 03:40 PM
Presentations -
NEWSS
Students,
Group 2

Ornamental 04:00 PM - 05:00 PM
IR-4 Working
Group

WEDNESDAY JANUARY 6

Live Oral 08:10 AM - 09:20 AM
Presentations,
NEWSS
Students,
Group 3

Live Oral 09:40 AM - 11:00 AM
Presentations,
NEWSS
Students,
Group 4

Graduate 11:30 AM - 12:45 PM
Student
“Luncheon”

Live Oral 1:00 PM - 02:10 PM
Presentations,
NR-
ASHS/NEB-
CSA Students,
Group 1

Fruit, 02:40 PM - 04:40 PM
Vegetable and
Tree Crops
Breakout

THURSDAY JANUARY 7

Past 08:00 AM - 09:00 AM
President's
“Breakfast”

NEWSS 09:15 AM - 11:45 AM
Business
Meeting/Awards

NR-ASHS 12:15 PM - 01:45 AM
Business
Meeting/Awards

NEB-CSA 02:00 PM - 03:30 PM
Business
Meeting/Awards

NEWSS 01:00 PM - 04:00 PM
Board
Meeting

PROGRAM

MONDAY MORNING JANUARY 4

**NEWSS Board + NEPPSC Program
Committee**

TIME: 08:00 AM - 09:30 AM
MODERATOR: Art E. Gover
Penn State University
University Park, PA
CO-MODERATOR: Caren A. Schmidt
BASF
Durham, NC

BREAK 09:30 AM - 10:00 AM

MONDAY MORNING JANUARY 4

NEPPSC Opening Session

Virtual Doors Open: 09:50 AM
TIME: 10:00 AM - 12:00 PM

Welcome - Caren Schmidt, President-Elect,
NEWSS
Keynote Speaker - Laura Meyerson, Professor
- University of Rhode Island
Presidential Addresses - Karen Gartley, NEB-
CSA; Adrienne Kleintop, NR-ASHS; Art
Gover, NEWSS

LUNCH 12:00 PM - 01:00 PM
BREAK

MONDAY AFTERNOON JANUARY 4

Turf & Ornamentals/Vegetation
Management and Restoration Breakout

Virtual Doors Open: 12:50 PM

TIME: 01:00 PM - 03:00 PM

MODERATOR: Anthony L. Witcher
Tennessee State
University
McMinnville, TN

CO-MODERATOR: Matthew T. Elmore
Rutgers University
New Brunswick, NJ

- Keynote Presentation – Weed Management Using Artificial Intelligence and Robotics – William Patzoldt, Senior Agronomist, Blue River Technology
- Q&A for all pre-recorded presentation authors
- Roundtable Discussion:
 - Update on herbicide resistant Poa
 - New/updated products from industry
 - New/emerging pests
 - Herbicide drift from agronomic crops
 - Business Meeting

Turf & Ornamentals / Vegetation
Management oral presentations are available
in the virtual platform, on-demand.

***PRESENTER**

Update on 2020 Weed Science Research in the IR-4 Environmental Horticulture Program. CL Palmer*¹, E Vea²; ¹IR-4 - Rutgers University, New Brunswick, NJ, ²IR-4 - Rutgers University, Crownsville, MD (1)

Influence of Substrate Composition and Wetting Agent on Substrate Water Retention and Growth of *Anemone x hybrida* 'September Charm'. A Bayer*; University of Massachusetts, Amherst, MA (2)

Weed Seed Germination Following Up to 9 Months of Submersion in Irrigation Ponds. AR Shiffer*¹, JC Neal¹, A LeBude², J Altland³, C Harlow¹; ¹North Carolina State University, Raleigh, NC, ²NC State University, Mills River, NC, ³USDA-ARS, Wooster, OH (3)

Conventional and Organic Alternatives to Glyphosate. J Derr*; Virginia Tech, Virginia Beach, VA (4)

Pandemic Silver Lining: Online Training Expands Access to Extension Horticulture Programs in Kansas. CR Boyer*¹, FL Miller², BM Garcia¹; ¹Kansas State University, Manhattan, KS, ²Kansas State University, Mcpherson, KS (5)

Factors Affecting the Efficacy of Nonselective Short-chain Fatty Acid Herbicides. AF Senesac*; Cornell Cooperative Extension of Suffolk County, Riverhead, NY (6)

Effect of Mulches and Pre-emergence Herbicides on Growth of Rooted Cuttings After Transplant. AL Witcher, I Poudel*; Tennessee State University, McMinnville, TN (7)

The Water Footprint of a Crop is More Than Water Use Efficiency. RI Cabrera*; Rutgers University, Bridgeton, NJ (8)

Weed and Turfgrass Response to Duration of Direct Flame. S Askew*, CG Goncalves; Virginia Tech, Blacksburg, VA (9)

Antagonistic Mixtures of Herbicides and Fungicides in Turfgrass. JM Peppers*, S Askew; Virginia Tech, Blacksburg, VA (10)

Non-chemical Approaches to Annual Bluegrass Control in Perennial Ryegrass and Tall Fescue. CG Goncalves*, JM Peppers, JM Craft, J Brewer, S Askew; Virginia Tech, Blacksburg, VA (11)

Triclopyr Admixtures for Improved Creeping Bentgrass Response to Topramazone. D Koo*, J Brewer, S Askew; Virginia Tech, Blacksburg, VA (12)

Herbicide and Tall Fescue Interseeding Programs for False-Green Kyllinga (*Kyllinga gracillima*) Control in Turfgrass. MT Elmore*, DP Tuck; Rutgers University, New Brunswick, NJ (14)

Efficacy of Post-emergence Herbicides as Alternatives for Glyphosate. AL Witcher*¹, C Marble²; ¹Tennessee State University, McMinnville, TN, ²University of Florida, Apopka, FL (15)

An Analysis of All US State Noxious Weed Lists: a Patchwork of Approaches and Lots of Regulated Native Species. J Barney*, VT Lakoba, R Brooks, DC Haak; Virginia Tech, Blacksburg, VA (16)

Pre-plant Weed Suppression Can Provide Residual Establishment Benefits for Planted Seedling Trees. AE Gover*, EN Weaver; Penn State, University Park, PA (17)

BREAK 03:00 PM - 3:30 PM

MONDAY AFTERNOON JANUARY 4

Virtual Social – Pub Trivia & Networking

Virtual Doors Open: 03:20 PM
TIME: 03:30 PM - 05:00 PM
MODERATOR: Caren A. Schmidt
 BASF
 Durham, NC
CO-MODERATOR: Jacob Barney
 Virginia Tech
 Blacksburg, VA

Join us for an interactive and dynamic virtual social, featuring Pub style trivia and networking.

TUESDAY MORNING JANUARY 5

Lightning Talks – Authors Present

TIME: 08:00 AM - 09:45 AM
MODERATOR: Anthony L. Witcher
Tennessee State University
McMinnville, TN

Lightning talks replace posters this year. Pre-recorded, 2-minute, 1-slide presentations are available in the virtual platform, on-demand. This session is for Live Q&A with the authors, including the student competitions.

*PRESENTER † NEWSS STUDENT CONTEST
€ NR-ASHS STUDENT CONTEST

†Exploring Fall Mustard Cover Crop, *Brassica hirta*, as a Strategy for Weed Control. JM Berkowitz*; Cornell University, Ithaca, NY (18)

†Characterization of Herbicide Safety in *Brassica carinata* (A.) Braun in the Piedmont and Coastal Plains of North Carolina. SA Ramsey*¹, AR Post¹, T Reinhardt Piskackova², ME Camacho¹, RG Leon¹; ¹North Carolina State University, Raleigh, NC, ²Czech University of Life Sciences Prague, Prague 6 - Suchdol, Czechia (Czech Republic) (19)

†Seed Treatment Safens Pre-Emergent Herbicides in Brassicas. GA Caputo*¹, MA Cutulle²; ¹Clemson University, Clemson, SC, ²Clemson University, Charleston, SC (20)

†Efficacy of Dicamba and Glufosinate Applications on Pervasive Row Crop Weeds of North Carolina. EA Jones*, DJ Contreras, M Fajardo Menjivar, RG Leon, W Everman; North Carolina State University, Raleigh, NC (21)

†**Imaging Analysis to Quantify Leaf Deformation in Response to Sublethal Rates of Dicamba.** M Wasacz*¹, M VanGessel², DJ Mayonado³, TE Besancon¹; ¹Rutgers University, Chatsworth, NJ, ²University of Delaware, Georgetown, DE, ³Hebron, MD (22)

†**Evaluation of Chopped Miscanthus Biomass as a Mulch for Weed Control in Container Grown Nursery Crops.** MH Warren*, JC Neal, CD Harlow; North Carolina State University, Raleigh, NC (23)

†**Evaluation of Sublethal Dicamba Rates Applied to Early and Late Planted Soybean (*Glycine max*).** M Fajardo Menjivar*, EA Jones, DJ Contreras, MA Granadino, DE Salazar, W Everman; North Carolina State University, Raleigh, NC (24)

€**Overview of the Medical Properties of Hops (*Humulus Lupulus L.*).** CC Arnold*¹, M Muehlbauer²; ¹Rutgers University, New Brunswick, NJ, ²Rutgers NJAES Cooperative Extension, Flemington, NJ (25)

€**Evaluation and Selection for Flowering Time in Maize Exotic Germplasm.** J Fucci*¹, S Smith², AE Kleintop¹; ¹Delaware Valley University, Doylestown, PA, ²Roughwood Seed Collection (26)

What Are FSMA PSR Exempt Farms Produce Safety Needs? MV Melendez*¹, WL Kline², C Gunter³, M Danyluk⁴, E Bihn⁵, P Tocco⁶; ¹Rutgers Cooperative Extension, Ewing, NJ, ²Rutgers Cooperative Extension, Millville, NJ, ³North Carolina State University, Raleigh, NC, ⁴University of Florida, Gainesville, FL, ⁵Cornell University, Geneva, NY, ⁶Michigan State University, Jackson, MI (29)

Effect of Selected Biostimulants on Pomegranate Growth. JP Morales-Payan*; UPR, Mayagüez, PR (30)

Breadfruit Response to Nitrogen and Biostimulants. JP Morales-Payan*; UPR, Mayagüez, PR (31)

Avocado as Affected by Nitrogen Application Programs. JP Morales-Payan*; UPR, Mayagüez, PR (32)

***Passiflora edulis* Growth is Affected by Biostimulants.** JP Morales-Payan*; UPR, Mayagüez, PR (33)

Folcystein Effects on Mint. JP Morales-Payan*; UPR, Mayagüez, PR (34)

Influence of Exogenous Gibberellic Acid on 'Semil-34' Late-Season Avocado. JP Morales-Payan*; UPR, Mayagüez, PR (35)

Paclobutrazol Effects on Plant Health and Yield of 'Wilson' Avocado. JP Morales-Payan*; UPR, Mayagüez, PR (36)

Impact of Bioregulators on the Ornamental *Tradescantia zebrina*. JP Morales-Payan*; UPR, Mayagüez, PR (37)

Postemergence Herbicides for Use in Hemp Grown for Cannabidiol. J Fike¹, ML Flessner¹, WC Greene*¹, KW Bamber¹, D Reed²; ¹Virginia Tech, Blacksburg, VA, ²Virginia Tech, Blackstone, VA (38)

Florpyrauxifen-benzyl Applied Post-Bloom in Apples for Canada Thistle Suppression. LM Sosnoskie, EC Maloney*; Cornell University, Geneva, NY (39)

A Survey of At-Harvest Weeds in New York Snap Beans. LM Sosnoskie*; Cornell University, Geneva, NY (40)

Sulfentrazone Applied Pre-Transplanting or POST-Directed for Weed Control in Cabbage. LM Sosnoskie, EC Maloney*; Cornell University, Geneva, NY (41)

Opportunities for Using UAV Sprayer in Golf Course Natural Areas. T Reinhardt Piskackova*¹, A Howell², RG Leon²; ¹Czech University of Life Sciences Prague, Prague 6 - Suchdol, Czechia (Czech Republic), ²North Carolina State University, Raleigh, NC (42)

A Growing Degree-Day Model to Predict Goosegrass (*Eleusine indica*) Emergence in Turfgrass. MT Elmore*¹, M Prorock², DP Tuck¹; ¹Rutgers University, New Brunswick, NJ, ²mesur.io, Chapel Hill, NC (43)

Efficacy of Granular Flumioxazin + Prodiamine on Weeds Common to Container Nurseries. JC Neal*, CD Harlow; North Carolina State University, Raleigh, NC (44)

Development of a Screening Procedure for Identifying New Woody Landscape Shrubs for Kansas. CR Boyer*¹, JR Pool¹, JJ Griffin²; ¹Kansas State University, Manhattan, KS, ²Kansas State University, Haysville, KS (46)

The Effects of Soil Moisture Content on Wheat (*Triticum aestivum*) and Italian Ryegrass (*Lolium multiflorum*) Growth. DE Salazar*, MA Granadino, DJ Contreras, M Fajardo Menjivar, EA Jones, W Everman; North Carolina State University, Raleigh, NC (48)

Preliminary Screening for Herbicide Tolerance in Two Novel Perennial Grain Crops. EP Law*¹, MP Spoth², A DiTommaso³; ¹Cornell University, Ithaca, NY, ²Virginia Tech, Blacksburg, VA, ³Cornell University, Dryden, NY (49)

Competitive and Allelopathic Effects of Tall Fescue on Annual Bluegrass. CG Goncalves*, S Askew; Virginia Tech, Blacksburg, VA (50)

Cover Crop Influences Insect-pest Infestations in Cash Crop. V Singh*¹, H Doughty¹, T Kuhar², M Reiter¹; ¹Virginia Tech, Painter, VA, ²Virginia Tech, Blacksburg, VA (51)

Developing an Integrated Weed Management Efficacy Table. ML Flessner*¹, M VanGessel², KW Bamber¹, TE Besancon³, RS Chandran⁴, T Hines⁵, Q Johnson², D Lingenfelter⁶, CG Rubione², LS Shergill², V Singh⁵, KM Vollmer⁷, JM Wallace⁶; ¹Virginia Tech, Blacksburg, VA, ²University of Delaware, Georgetown, DE, ³Rutgers University, Chatsworth, NJ, ⁴West Virginia University, Morgantown, WV, ⁵Virginia Tech, Painter, VA, ⁶Penn State University, University Park, PA, ⁷University of Maryland, Queenstown, MD (52)

Effective SOA: An App to Facilitate Selection of Diverse Herbicide Sites of Action. ML Flessner*¹, MV Bagavathiannan², K Pittman¹, D Hathcoat³; ¹Virginia Tech, Blacksburg, VA, ²Texas A&M University, College Station, TX, ³Texas A&M AgriLife Research, College Station, TX (53)

Easing Public Fears About Asian Giant Hornet from Media Hysteria in 2020. ML Infante-Casella*¹, W Bamka¹, L Chiariello²; ¹Rutgers University, Rutgers Cooperative Extension, Westhampton, NJ, ²Rutgers University, Rutgers Cooperative Extension, Newton, NJ (54)

Development of an Undergraduate Agricultural Biotechnology Course. AE Kleintop*, R Shedlauskas; Delaware Valley University, Doylestown, PA (55)

BREAK 09:45 AM - 10:00 AM

TUESDAY MORNING JANUARY 5

Agronomic Crops Breakout

Virtual Doors Open: 09:50 AM

TIME: 10:00 AM - 12:00 PM

MODERATOR: John M. Wallace
 Penn State University
 University Park, PA

CO-MODERATOR: Vijay Singh
 Virginia Tech
 Blacksburg, VA

- Keynote Presentation – Paul Neve, Head of Crop Protection and IPM, Agriculture and Horticulture Development Board, Warwickshire, UK
- Q&A for all pre-recorded presentation authors
- Roundtable Discussion:
 - Year in review/look ahead
 - Emerging resistance issues
 - Covid impacts
 - Product updates from industry
 - Business meeting

Agronomic Crops oral presentations are available in the virtual platform, on-demand.

***PRESENTER**

A23372A - A Broad-Spectrum Solution for Superior Weed Management in Soybean. C Austin*, B Miller, TH Beckett, P Eure; Syngenta, Greensboro, NC (57)

Integrated Waterhemp Management in Corn and Soybean. B Brown*¹; V Fernandez²; J Miller³; M Hunter⁴; M Stanyard⁵; ¹New York State Integrated Pest Management Program, Geneva, NY, ²Bayer CropScience, Canandaigua, NY; ³Cornell Cooperative Extension, Oneida, NY; ⁴Cornell Cooperative Extension, Watertown, NY; ⁵Cornell Cooperative Extension, Newark, NY (58)

Framing Critical Control Windows for Winter Grown *Brassica carinata*. T Reinhardt Piskackova*¹, R Tiwari², RG Leon³; ¹Czech University of Life Sciences Prague, Prague 6 - Suchdol, Czechia (Czech Republic), ²University of Florida, Jay, FL, ³North Carolina State University, Raleigh, NC (59)

Acuron GT Launch - T-minus Spring 2021. LL Smith*¹, RD Lins², M Kitt³; ¹Syngenta, King Ferry, NY, ²Syngenta Crop Protection, LLC, Rochester, MN, ³Syngenta, Greensboro, NC (60)

Managing Herbicide Resistant Common Ragweed (*Ambrosia artemisiifolia* L.) in Soybean Through Cover Cropping and Application of Preemergent Herbicide. SM Hirsh*¹, B Beale², M VanGessel³, KM Vollmer⁴; ¹University of Maryland Extension, College Park, MD, ²University of Maryland, Leonardtown, MD, ³University of Delaware, Georgetown, DE, ⁴University of Maryland, Queenstown, MD (61)

Glyphosate Mobility from Transport-Prone Marginal Soils: Ongoing Field-Scale Research. BK Richards*; Cornell University, Ithaca, NY (62)

Survey of Glufosinate Use in Differing Crops and Regions of North Carolina. EA Jones*, CW Cahoon, RG Leon, W Everman; North Carolina State University, Raleigh, NC (63)

Interseeded Cover Crop Establishment and Competitive Ability in Wide Row Corn Grain. TR Mazzone*, JM Wallace; Penn State University, University Park, PA (64)

Management of Large Palmer Amaranth Plants in Soybean. M VanGessel*, BA Scott, Q Johnson; University of Delaware, Georgetown, DE (65)

Soybean, Palmer Amaranth, and Large Crabgrass Growth and Competition Response to Moisture Stress. W Everman*, MA Granadino, DJ Contreras, RG Leon, DE Salazar; North Carolina State University, Raleigh, NC (66)

2020 Survey Results for the Most Common and Troublesome Weeds in Grass Crops, Pasture and Turf. L Van Wychen*; Weed Science Society of America, Alexandria, VA (67)

Acuron XR Herbicide - Residual Weed Control, Crop Safety and Yield in Corn. SE Cully¹, E Hitchner*², TH Beckett³, M Kitt³; ¹Syngenta Crop Protection, Marion, IL, ²Syngenta, Elmer, NJ, ³Syngenta, Greensboro, NC (68)

Evaluating the Performance of Floral Hemp Cultivars Under Plasticulture and Mild Water Stress. RI Cabrera*, C Holton; Rutgers University, Bridgeton, NJ (69)

Evaluation of Pre/Post Herbicides to Manage Palmer Amaranth in Soybeans. B Beale*¹, AW Leslie²; ¹University of Maryland, Leonardtown, MD, ²University of Maryland, College Park, MD (70)

An Evaluation of Industrial Hemp (*Cannabis sativa* L.) Cultivars: Suitability for Production in New Jersey, Agronomic Traits, and Performance Related to Industry and Regulatory Standards. S Komar*¹, W Bamka²; ¹Rutgers University, Milford, PA, ²Rutgers University, Leittown, PA (71)

Evaluation of Novel Herbicide Tolerant Traits in MD Soybean Systems. AW Leslie*¹, B Beale²; ¹University of Maryland, College Park, MD, ²University of Maryland, Leonardtown, MD (72)

Does Cereal Rye Tolerate Grassy Weed Herbicides? D Lingenfelter*, JM Wallace; Penn State University, University Park, PA (73)

Assessing Residue and Herbicide Management Strategies in a Cereal Rye - Corn System. TR Mazzone¹, Z Larson², JM Wallace*¹; ¹Penn State University, University Park, PA, ²Penn State, State College, PA (74)

Efficacy of Drones for In-Season Foliar Application of Pesticides in Corn and Soybean. AA Kness*¹, EN Crowl²; ¹University of Maryland Extension, Street, MD, ²University of Maryland Extension, Cocksessville, MD (75)

How Do Manure Application Timing, Cover Crops and Tillage Affect Corn Yield and Soil Health? JM Jemison*¹, R Kersbergen², H Darby³, C Fitzgerald⁴; ¹University of Maine Cooperative Extension, Orono, ME, ²University of Maine Cooperative Extension, Waldo, ME, ³University of Vermont, St. Albans, VT, ⁴University of Maine Cooperative Extension, Augusta, ME (76)

Critical Period for Italian Ryegrass (*Lolium multiflorum*) Control in Wheat (*Triticum aestivum*) in North Carolina. DJ Contreras*, W Everman, EA Jones, M Fajardo Menjivar, DE Salazar; North Carolina State University, Raleigh, NC (78)

Recent Extreme Weather Events: Animal Deaths Linked to Toxic Plant and Pest Outbreaks. MA Bravo*; Rutgers University, Dept. of Agriculture and Natural Resources, New Brunswick, NJ (79)

Herbicide Efficacy for Termination of Brassica spp. and Control of its Volunteers in Corn. V Singh*¹, T Hines¹, ML Flessner², KW Bamber², M Reiter¹; ¹Virginia Tech, Painter, VA, ²Virginia Tech, Blacksburg, VA (80)

What's New in Industry. SA Mathew*¹, P Eure², DL Bowers², M Kitt²; ¹Syngenta, Germantown, MD, ²Syngenta, Greensboro, NC (81)

NYS Agricultural Weed ID Network: Connections and Resources. A DiTommaso¹, C Marschner*², S Morris²; ¹Cornell University, Dryden, NY, ²Cornell University, Ithaca, NY (82)

LUNCH 12:00 PM - 01:00 PM
BREAK

TUESDAY AFTERNOON JANUARY 5

Live Oral Presentations - NEWSS Student Competition (Group 1)

Virtual Doors Open: 12:50 PM

TIME: 01:00 PM - 02:10 PM

MODERATOR: Maria A. Gannett
Cornell University
Ithaca, NY

Live Student Oral Presentations. 8-minute presentation + 2-minute Q&A with judges. Recorded presentations will be available after the session, on-demand.

***SPEAKER † NEWSS STUDENT CONTEST**

01:00 PM †Renovating Turfgrass with Alternatives to Glyphosate and Effects on Subsequent White Clover and Tall Fescue Establishment. D Koo*, JM Peppers, S Askew; Virginia Tech, Blacksburg, VA (84)

01:10 PM †Multiyear Programs for Bermudagrass Control in Creeping Bentgrass Fairways. JM Peppers*, S Askew, J Brewer; Virginia Tech, Blacksburg, VA (85)

01:20 PM †Herbicide Application Timing Affects Deer-tongue Grass (*Dichanthelium clandestinum*) Control in No-Mow Fine Fescue. KH Diehl*, MT Elmore, DP Tuck; Rutgers University, New Brunswick, NJ (86)

01:30 PM †Effects of Phosphorus Levels on Annual Bluegrass Encroachment in Creeping Bentgrass During Establishment. BC McNally*¹, MT Elmore¹, AR Kowalewski², AB Cain², ET Braithwaite², JA Murphy¹, SL Murphy¹; ¹Rutgers University, New Brunswick, NJ, ²Oregon State University, Corvallis, OR (87)

01:40 PM †A Meta Analysis of North Carolina Weather Conditions and Their Impact on Pesticide Applications. M Fajardo Menjivar*, EA Jones, DJ Contreras, MA Granadino, DE Salazar, CW Cahoon, W Everman; North Carolina State University, Raleigh, NC (88)

01:50 PM Q&A (NEWSS Group 1) with general audience

BREAK 02:10 PM - 02:30 PM

TUESDAY AFTERNOON JANUARY 5

Live Oral Presentations - NEWSS Student Competition (Group 2)

Virtual Doors Open: 02:20 PM

TIME: 02:30 PM - 03:40 PM

MODERATOR: Maria A. Gannett
Cornell University
Ithaca, NY

Live Student Oral Presentations. 8-minute presentation + 2-minute Q&A with judges. Recorded presentations will be available after the session, on-demand.

***SPEAKER † NEWSS STUDENT CONTEST**

02:30 PM †Organic No-till Soybean Seeding Rate and Nitrogen Fertilization Effects on Weed Suppression. UD Menalled*¹, MR Ryan², SJ Pethybridge¹; ¹Cornell University, Ithaca, NY, ²Affiliation Not Specified, Ithaca, NY (89)

02:40 PM †Cereal Rye Seeding Rate Effects on Weed Suppression in Planting Green Soybeans. TS Ficks*, JM Wallace, D Lingenfelter; Penn State University, University Park, PA (90)

02:50 PM †**Strategies for Using Variable Planting for Increased Weed Suppression.** SA Ramsey*¹, DL Jordan¹, W Everman¹, A Locke², RG Leon¹; ¹North Carolina State University, Raleigh, NC, ²USDA, Raleigh, NC (91)

03:00 PM †**Soybean Performance After Chaff Lining at Wheat Harvest.** MP Spoth*¹, ML Flessner¹, V Singh²; ¹Virginia Tech, Blacksburg, VA, ²Virginia Tech, Painter, VA (92)

03:10 PM †**Crop Response to Simulated Dicamba Drift in Field-Grown Snap Beans.** M Wasacz*¹, BL Carr¹, M VanGessel², DJ Mayonado³, LM Sosnoskie⁴, TE Besancon¹; ¹Rutgers University, Chatsworth, NJ, ²University of Delaware, Georgetown, DE, ³Hebron, MD, ⁴Cornell University, Geneva, NY (93)

03:20 PM **Q&A (NEWSS Group 2) with general audience**

BREAK 03:40 PM - 04:00 PM

TUESDAY AFTERNOON JANUARY 5

Ornamentals IR-4 Working Group

TIME: 04:00 PM - 05:00 PM
MODERATOR: Cristi L. Palmer
 IR-4 - Rutgers University
 New Brunswick, NJ

WEDNESDAY MORNING JANUARY 6

**Live Oral Presentations - NEWSS Student
Competition (Group 3)**

Virtual Doors Open: 08:00 AM

TIME: 08:10 AM - 09:20 AM

MODERATOR: Uriel D. Menalled
Cornell University
Ithaca, NY

Live Student Oral Presentations. 8-minute presentation + 2-minute Q&A with judges. Recorded presentations will be available after the session, on-demand.

***SPEAKER † NEWSS STUDENT CONTEST**

08:10 AM †Understanding Stress Adaptation Through DNA Methylation in *Sorghum bicolor*. G Sharma*¹, J Barney¹, J Westwood², S Askew¹, DC Haak¹; ¹Virginia Tech, Blacksburg, VA, ²Affiliation Not Specified, Blacksburg, VA (94)

08:20 AM †Home Climate and Land Use Affect Seed, But Not Rhizome, Cold Tolerance of a Perennial Invader. VT Lakoba*, J Barney; Virginia Tech, Blacksburg, VA (95)

08:30 AM †Soil Carbon Amendments as a Microbially Mediated Weed Management Tool. M Gannett*¹, A DiTommaso², J Kao-Kniffin¹; ¹Cornell University, Ithaca, NY, ²Cornell University, Dryden, NY (96)

08:40 AM †Evaluation of Non-chemical Products and Alternative Compounds for Annual Bluegrass Control and Host Safety in Pennsylvania. K Tang*¹, J Kaminski²; ¹Penn State University, State College, PA, ²Penn State University, State College, PA (97)

08:50 AM †**Evaluating Electrical and Mechanical Methods for Palmer Amaranth (*Amaranthus palmeri*) Control.** LD Moore*, KM Jennings, D Monks, MD Boyette, DL Jordan, RG Leon; North Carolina State University, Raleigh, NC (98)

09:00 AM **Q&A (NEWSS Group 3) with general audience**

BREAK 09:20 AM - 09:40 AM

WEDNESDAY MORNING JANUARY 6

Live Oral Presentations - NEWSS Student Competition (Group 4)

Virtual Doors Open: 09:30 AM

TIME: 09:40 AM - 11:00 AM

MODERATOR: Uriel D. Menalled
Cornell University
Ithaca, NY

Live Student Oral Presentations. 8-minute presentation + 2-minute Q&A with judges. Recorded presentations will be available after the session, on-demand.

***SPEAKER** † **NEWSS STUDENT CONTEST**

09:40 AM †**Characterization of Herbicide Resistant Common Ragweed from the Mid-Atlantic Region.** FJ D'Amico*¹, TE Besancon², LS Shergill³, M VanGessel³; ¹University of Delaware, Newark, DE, ²Rutgers University, Chatsworth, NJ, ³University of Delaware, Georgetown, DE (99)

- 09:50 AM** †**Germination and Herbicide Susceptibility of Offspring from Palmer Amaranth (*Amaranthus palmeri*) Surviving Glufosinate Applications.** EA Jones*, DJ Contreras, M Fajardo Menjivar, DE Salazar, RG Leon, W Everman; North Carolina State University, Raleigh, NC (100)
- 10:00 AM** †**Plant Hormones Reduce Bentazon Injury to Sweetpotatoes, without Impact on Herbicide Efficiency.** GA Caputo*¹, MA Cutulle²; ¹Clemson University, Clemson, SC, ²Clemson University, Charleston, SC (101)
- 10:10 AM** †**Weed Management Programs for Reduced-tillage Sweetpotato.** SC Smith*¹, KM Jennings¹, D Monks¹, DL Jordan¹, MR Schwarz², C Reberg-Horton¹; ¹North Carolina State University, Raleigh, NC, ²Raleigh, NC (102)
- 10:20 AM** †**Integration of Halosulfuron and Anaerobic Soil Disinfestation for Weed Control in Tomato.** G Singh*¹, MA Cutulle², HT Campbell², ¹Clemson University, Clemson, SC, ²Clemson University, Charleston, SC (103)
- 10:30 AM** †**Characterizing Flumioxazin and Imazapic Residual Activity and Soil Fate Using Field and Greenhouse Bioassays with *B. carinata*.** RG Leon, ME Camacho*; North Carolina State University, Raleigh, NC (104)
- 10:40 AM** **Q&A (NEWSS Group 4) with general audience**

LUNCH 11:00 AM - 1:00 PM
 BREAK
 (Non-
 Students)

WEDNESDAY MORNING JANUARY 6

Graduate Student “Luncheon”

TIME: 11:30 AM - 12:45 PM
MODERATOR: Uriel D. Menalled
Cornell University
Ithaca, NY
CO-MODERATOR: Maria A. Gannett
Cornell University
Ithaca, NY

BREAK 12:45 PM - 01:00 PM
(Students)

WEDNESDAY AFTERNOON JANUARY 6

**Live Oral Presentations - NR-ASHS
Competition (Group 1)**

Virtual Doors Open: 12:50 PM
TIME: 01:00 PM - 02:20 PM

Live Student Oral Presentations. 8-minute presentation + 2-minute Q&A with judges. Recorded presentations will be available after the session, on-demand.

***SPEAKER £ NR-ASHS STUDENT CONTEST**

01:00 PM £A Genetic Diversity Study of *Cornus kousa* Cultivars and Wild-Collected Plants. E Pfarr*, J Vaiciunas, C Kubik, J Capik, JA Honig, TJ Molnar; Rutgers University, New Brunswick, NJ (105)

- 01:10 PM** **£Drought Tolerance of Species and Interspecific Hybrids of *Carya* Adapted to Northern Climates.** BM Miller*, NL Bassuk; Cornell University, Ithaca, NY (106)
- 01:20 PM** **£Soil Test Calibration for Nitrogen Needs of Organic Sweet Potato.** A Mayberry*, J Heckman; Rutgers University (New Brunswick), New Brunswick, NJ (108)
- 01:30 PM** **£Sensitivity of *Diaporthe helianthi* and *D. gulyae* Causing Phomopsis Stem Canker of Sunflower to Tebuconazole Fungicide.** R Kashyap*; South Dakota State University, Brookings, SD (109)
- 01:40 PM** **£Comparative Performance of Sanitizers in Reducing the Plant-to-plant Transfer of *Calonectria pseudonaviculata* in Boxwood Using Cutting Tool.** R Bika*, F Baysal-Gurel; Otis L. Floyd Nursery Research Center, Tennessee State University, Mcminville, TN (110)
- 01:50 PM** **Q&A (NR-ASHS Group 1) with general audience**
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BREAK 02:10 PM - 02:40 PM

WEDNESDAY AFTERNOON JANUARY 6

Fruit, Vegetable and Tree Crops Breakout

Virtual Doors Open: 02:30 PM

TIME: 02:40 PM - 04:40 PM

MODERATOR: Thierry E. Besancon
Rutgers University
Chatsworth, NJ

CO-MODERATOR: Kurt M. Vollmer
University of Maryland
Queenstown, MD

- Keynote Presentation – Susan Yoder, Executive Director, Seed Your Future
- Q&A for pre-recorded presentation authors
- Roundtable Discussion:
 - Year in review/look ahead
 - Emerging resistance issues
 - Covid impacts
 - Product updates from industry
 - Business Meeting

Fruit, Vegetable and Tree Crops oral presentations are available in the virtual platform, on-demand.

Fruit Color Improvement in Cranberry Using Different Plant Growth Regulator and Adjuvant Combinations. G Mupambi*; University of Massachusetts Amherst / Cranberry Station, East Wareham, MA (111)

Willingness-to-Pay for Lettuce Labeled as Local, Organic, Pesticide-Free, Indoor-Grown, Outdoor-Grown. M Ezzeddine*; Cornell University, Ithaca, NY (112)

Overlapping Residual Herbicides for Weed Control in No-till Pumpkin. KM Vollmer*¹, K Nichols², D Lingenfelter³, JM Wallace³, M VanGessel⁴, BA Scott⁴; ¹University of Maryland, Queenstown, MD, ²University of Maryland, Derwood, MD, ³Penn State University, University Park, PA, ⁴University of Delaware, Georgetown, DE (113)

Impact of Grafting and Anaerobic Soil Disinfestation on Pest Management and Profitability in Tomato. HT Campbell¹, MA Cutulle*¹, A Keinath², L Zhang³, P Wechter⁴; ¹Clemson University, Charleston, SC, ²Clemson, Charleston, SC, ³Clemson, Clemson, SC, ⁴USDA-ARS, Charleston, SC (114)

Useful Parameters for Judging Compost-based Container Media for Vegetable Seedling Production. A Radin*; University of Rhode Island/ Dept of Plant Science and Entomology, Kingston, RI (115)

Weed Free Duration and Varietal Impact on Hemp (*Cannabis sativa* L.) Bud Yield in Coastal South Carolina. HT Campbell*, MA Cutulle, B Ward; Clemson University, Charleston, SC (116)

Firm-fleshed Peach Varieties Reduce Softening Rates During Cold-storage. HL Gohil*¹, D Ward²; ¹Rutgers University, New Brunswick, NJ, ²Rutgers NJAES, Bridgeton, NJ (117)

Overlapping Napropamide and Mesotrione Applications in Cranberry for Suppressing Carolina Redroot . TE Besancon, BL Carr*, M Wasacz; Rutgers University, Chatsworth, NJ (118)

Varietal Tolerance and Weed Control with Sulfentrazone in Sweet Basil. BL Carr, M Wasacz, TE Besancon*; Rutgers University, Chatsworth, NJ (119)

Seed Germination Ecology of Cranberry (*Vaccinium macrocarpon*). TE Besancon*, BL Carr; Rutgers University, Chatsworth, NJ (120)

Weed Control Efficacy of Weed Slayer Herbicide. LM Sosnoskie*, EC Maloney; Cornell University, Geneva, NY (121)

Weed Suppression with Japanese Millet Cover Crop: Interactions Between Seeding Rate and Nitrogen. RN Brown*¹, R Gheshm²; ¹University of Rhode Island, Kingston, RI, ²The University of Rhode Island, Kingston, RI (122)

Yield Stability in Parthenocarpic Pickling Cucumbers. GC Johnson*; University of Delaware, Georgetown, DE (123)

New Jersey's Response to Growers Questions Regarding Covid-19 and the Impact on Their Fresh Produce Business. WL Kline*; Rutgers Cooperative Extension, Millville, NJ (124)

Characterization of Fatty Acid Derivatives from Blueberry and Cranberry Cuticular Waxes and Their Effects on the Fruit Rotting Pathogen *Colletotrichum fioriniae*. TJ Waller*¹, PV Oudemans²; ¹Rutgers University, Millville, NJ, ²Rutgers University, Chatsworth, NJ (125)

Grow Together: A Burpee-DelVal Plant Trials Internship. AE Kleintop*¹, C Ling², C Tipping¹; G Hughes²; ¹Delaware Valley University, Doylestown, PA, ²W. Atlee Burpee Company, Doylestown, PA (126)

Finding Fungicide Mixtures for Complex Diseases: from Lab to Field. PV Oudemans*; Rutgers University, Chatsworth, NJ (127)

Council for Agricultural Science and Technology (CAST): its Role and Importance to NEWSS and NEPPSC. HA Sandler*; UMass Cranberry Station, East Wareham, MA (128)

Nanotechnology and Plant Pathogens. N Dixit*; University of Maryland Eastern Shore, Princess Anne, MD (129)

Weed Management on New Cranberry Plantings. K Ghanous*¹, HA Sandler²; ¹UMass Amherst, UMass Cranberry Station, East Wareham, MA, ²UMass Cranberry Station, East Wareham, MA (130)

75 Years of the Northeastern Weed Science Society. D Kunkel*¹, AE Gover²; ¹AMVAC, Plainsboro, NJ, ²Penn State, University Park, PA (131)

Co-Cultivation of Saffron and Basil in Rhode Island. R Gheshm*¹, RN Brown²; ¹The University of Rhode Island, Kingston, RI, ²University of Rhode Island, Kingston, RI (132)

Use of Rootstocks for Optimization of Quality, Growth, and Yield of Honeycrisp Apples. M Schwartz*¹, M Muehlbauer²; ¹School of Environmental and Biological Sciences, Rutgers University, Highland Park, NJ, ²Rutgers NJAES Cooperative Extension, Flemington, NJ (133)

Lima Bean Leaf Shape Effects on Canopy Microclimate, Yield and Days to Maturity. EG Ernest*; University of Delaware Cooperative Extension, Georgetown, DE (134)

Update on IR-4 Weed Science Projects - Food Crops. RB Batts*¹, JJ Baron¹, D Kunkel², MP Braverman³; ¹IR-4 Project HQ, NC State University, Raleigh, NC, ²AMVAC, Plainsboro, NJ, ³IR-4 Project Headquarters, Princeton, NJ (135)

THURSDAY MORNING JANUARY 7

Past President's "Breakfast"

TIME: 08:00 AM - 09:00 AM
MODERATOR: Daniel Kunkel
AMVAC
Plainsboro, NJ
CO-MODERATOR: Carroll Moseley
Syngenta
High Point, NC

BREAK 09:00 AM - 09:15 AM

THURSDAY MORNING JANUARY 7

NEWSS Business Meeting/Awards

Virtual Doors Open: 09:05 AM
TIME: 09:15 AM - 11:45 AM
MODERATOR: Arthur E. Gover
Penn State
University Park, PA
CO-MODERATOR: Caren A. Schmidt
BASF
Durham, NC

Meeting Conclusion for NEWSS (except for Board Meeting)

THURSDAY AFTERNOON JANUARY 7

NR-ASHS Business Meeting/Awards

Virtual Doors Open: 12:05 PM
TIME: 12:15 PM - 01:45 AM
MODERATOR: Adrienne E. Kleintop
Delaware Valley
University
Doylestown, PA
CO-MODERATOR: Rebecca N. Brown
University of Rhode
Island
Kingston, RI

Meeting Conclusion for NR-ASHS

THURSDAY AFTERNOON JANUARY 7

NEWSS Board Meeting

LOCATION: Caren's Webex
TIME: 01:00 PM - 04:00 PM
MODERATOR: Caren A. Schmidt
BASF
Durham, NC

THURSDAY AFTERNOON JANUARY 7

NEB-CSA Business Meeting/Awards

Virtual Doors Open: 01:50 PM
TIME: 02:00 PM - 03:30 PM
MODERATOR: Karen Gartley
University of Delaware
Newark, DE

Meeting Conclusion for NE-SCA

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