NORTHEAST GREENHOUSE CONFERENCE AND EXPO 2016

November 9 & 10, 2016

HOLIDAY INN Boxborough, Massachusetts

Growing the Northeast's floriculture industry for 44 years!

SCHEDULE AT-A-GLANCE

WEDNESDAY, NOVEMBER 9	
7:00 a.m. – 5:00 p.m.	Event Registration & Information Desk Open
9:00 a.m. – 9:50 a.m.	Concurrent Educational Sessions
10:00 a.m. – 5:00 p.m.	Trade Show Open *(dedicated time from 11:30 a.m. – 1:30 p.m.)*
10:30 a.m. – 11:20 a.m.	Concurrent Educational Sessions
11:30 a.m. – 1:30 p.m.	Harvest Market Lunch
1:30 p.m. – 2:20 p.m.	Concurrent Educational Sessions
2:30 p.m. – 3:20 p.m.	Concurrent Educational Sessions
3:20 p.m. – 4:00 p.m.	Break with Exhibitors
4:00 p.m. – 5:00 p.m.	**Keynote Presentation:** *Connecting People with Flowers*, Kate Santos Dümmen Orange Operations Director
5:00 p.m. – 7:00 p.m.	**Reception** — all welcome to attend

THURSDAY, NOVEMBER 10	
7:30 a.m. – 3:00 p.m.	Event Registration & Information Desk Open
7:30 a.m. – 8:30 a.m.	Breakfast with the Speakers
8:00 a.m. – 3:00 p.m.	Trade Show Open *(dedicated time from 11:30 a.m. – 1:30 p.m.)*
9:00 a.m. – 9:50 a.m.	Concurrent Educational Sessions
10:00 a.m. – 10:30 a.m.	Break with Exhibitors
10:30 a.m. – 11:20 a.m.	Concurrent Educational Sessions
11:30 a.m. – 1:30 p.m.	Harvest Market Lunch
1:30 p.m. – 2:20 p.m.	Concurrent Educational Sessions
2:30 p.m. – 3:20 p.m.	Concurrent Educational Sessions
3:00 p.m.	Trade Show Closes
3:30 p.m. – 4:20 p.m.	Concurrent Educational Sessions

Visit www.negreenhouse.org for program updates and to register online.

THANK YOU TO OUR 2016 SPONSORS!

Wednesday Reception Co-Sponsor	Wednesday Reception Co-Sponsor	Allied Trade Purchased Session	Media Sponsor
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WEDNESDAY, NOVEMBER 9 Trade Show Open 10:00 AM - 5:00 PM

CONCURRENT EDUCATIONAL SESSIONS *(subject to change)*

	Pests/Diseases Moderator: Tina Smith	Greenhouse Management Moderator: Amy Papineau	Business and Marketing Moderator: Sue Adams	Spanish Language Moderator: Rosa Raudales	
SESSION 1 9:00 - 9:50 a.m.	**Thrips Tips, Pot Drips, Mite Blips, and Neonic Hits: Management Matters from 2016** *Dan Gilrein, Cornell University* Thrips, broad mites and chemical sensitivity were hot issues in 2016 for greenhouse growers, who sought information on managing pests with fewer or no neonicotinoids. This presentation will cover these topics and address how to recognize and manage these pests most effectively.	**Water Quality for Irrigation** *Bill Argo, The Blackmore Co.* The goal of this session is to help growers understand their irrigation water. It will include information on how to interpret a water test, different water sources, and how irrigation water influences both pH management and plant nutrition.	**5-5-5 Best Ideas for Marketing** *Grower Panel* *Moderators: Mark Adams & Alicia Rihn* Staying alive in our competitive environment takes quick thinking and good ideas. "5" panelists- 5 minutes each- 5 great ideas each. Sue Adams, Terry Smith, Teri Boardman, and Dustyn Nelson will tell us what worked to attract customers and increase sales. Our fifth panelist is the audience. What have you done that works? Take away innovative ideas from this interactive session to help your business grow.	**Understanding Plants: Why We do What We Do in the Greenhouse** *Carlos Bográn, OHP, Inc.* This presentation will focus on basic concepts of plant health, factors that limit normal plant growth and development, irrigation practices, basic plant nutrition, pH and EC management and other cultural and crop management practices that directly and indirectly affect plant quality and susceptibility to pests and diseases.	**Funcionamiento de plantas: ¿Por qué hacemos lo que hacemos en el invernadero?** *Carlos Bográn, OHP, Inc.* En esta presentación nos enfocaremos en conceptos básicos relacionados a la salud de plantas, factores que limitan el crecimiento y desarrollo, riego, nutrición, manejo de pH y conductividad eléctrica, y otras prácticas culturales y como pueden afectar directa e indirectamente la calidad de la plantas y la susceptibilidad a enfermedades y plagas.
SESSION 2 10:30 – 11:20- a.m.	**Alternatives to Neonicotinoids** *Carlos Bográn, OHP, Inc.* This presentation summarizes the attributes and limitations of neonicotinoid insecticides in floriculture and nursery production, and provides tips on the use of alternative chemistries within integrated pest management programs focused on production of high quality plants.	**Advanced Plant Nutrition: Getting the Most Out of Your Fertilizer** *Bill Argo, The Blackmore Co.* This session helps growers understand how nutrients are applied to their crops. It includes a discussion about how different management factors interact to influence plant nutrition, and shows how to develop an overall fertilizer strategy that minimizes nutritional problems.	**Consumer Preferences for Pollinator-Related Promotions** *Alicia Rihn,* *University of Florida* Declining pollinator insect populations have led to increased consumer interest in aiding pollinators. This session covers pollinator-related promotions including consumer preferences, perceptions, awareness of neonicotinoid pesticides, and pollinator-related marketing strategies.	**Diagnosis: Disease, Abiotic Disorder or Normal? Know Enough to Know the Difference** *Rosa Raudales,* *University of Connecticut* Plants get sick for multiple reasons. To develop an adequate management program it is important to first identify the cause of the problem. Apply diagnosis every time you interact with plants. This presentation discusses how to identify the cause of common plant disorders and diseases.	**Diagnóstico: ¿Enfermedad, desorden abiótico o normal? Sepa lo suficiente para distinguir entre cada uno** *Rosa Raudales,* *University of Connecticut* Las plantas se enferman por múltiples razones. Para aplicar el tratamiento adecuado es necesario identificar la causa del problema. El diagnóstico visual puede implementarse cada vez que interactuamos con las plantas. En esta presentación aprenda a identificar la entre desordenes abióticos y enfermedades causadas por insectos o patógenos.

CHECK OUT **WWW.NEGREENHOUSE.ORG** FOR UPDATES ON **ALLIED TRADE SESSIONS**, INCLUDING **"UPDATES ON GROWING MEDIA"** BY SUN GRO HORTICULTURE — SCHEDULED FOR WEDNESDAY.

WEDNESDAY, NOVEMBER 9 Trade Show Open 10:00 AM - 5:00 PM

CONCURRENT EDUCATIONAL SESSIONS *(subject to change)*

	Pests/Diseases Moderator: Lisa Tewksbury	Greenhouse Management Moderator: Neil Mattson	Business and Marketing Moderator: Amy Papineau	Spanish Language Moderator: Rosa Raudales	
SESSION 3 1:30 – 2:20- p.m.	**Advanced Biocontrol Panel Double Session** *Suzanne Wainwright-Evans, Buglady Consoluting* *Ron Valentin, Bioline Agrosciences Inc.* *Jeff Marstaller, Cozy Acres Greenhouses* Two consultants who have worked with growers globally to develop effective biocontrol programs, and a grower from our region with extensive experience with these, will share what is most important for you to know. They'll go beyond the basics to cover specifics of what works, and doesn't. Learn what's required to get the most value and control from biological agents and products.	**Switching to Organic-based Fertilizers** *Neil Mattson, Cornell University* Many organic fertilizer products are on the market, but how do you know which to choose for your container-grown plants, what rates to use, and what the costs will be? Learn how to use several granular and liquid organic fertilizer products for your ornamental and vegetable plants. Learn how these fertilizers can reduce nutrient leaching and affect insect and disease pressure.	**Cutting Edge PGRs** *Brian Whipker, North Carolina State University* Research at NC State has focused on optimizing PGR performance and determining additional benefits of PGRs. Learn about the latest updates on PGR combinations, increasing foliar spray efficacy by leaf rewetting, adherence of PGRs to plastic pots, overcoming low doses in irrigation water, and how the use of PGRs increases profit by reducing water and fertilizer use.	**Identifying the Good and the Bad Bugs** *Carlos Bográn, OHP Inc.* This presentation provides tips on detecting and identifying common pests and their natural enemies and methods for conserving and augmenting biological controls of whiteflies, aphids, thrips, mites, and leaf miners.	**Identificación de insectos buenos y malos** *Carlos Bográn, OHP Inc.* En esta presentación proveeremos consejos de cómo identificar plagas y sus enemigos naturales para mantener programas de control biológico, incluyendo mosca blanca, áfidos, trips, ácaros y minadores de hojas y sus enemigos.
SESSION 4 2:30 – 3:20- p.m.		**Being a Plant Diagnostic Detective** *Brian Whipker, North Carolina State University* Nutritional and irrigation problems, chemical burn, and environmental issues can damage greenhouse crops in ways that mimic pathogen and pest damage. Learn the symptoms associated with these problems, and strategies to identify and avoid them in the future.	**Saffron: A Golden Opportunity for Crop Diversification** *Margaret Skinner, University of Vermont* Saffron sells for $5,000/lb retail, and has culinary and medicinal value. UVM research on saffron production in unheated greenhouses produced yields greater than those in other saffron-growing regions, demonstrating its potential as a high-value specialty crop.	**Work Safely in the Greenhouse** *Anna Meyerhoff, New York Center for Agricultural Medicine* This session in Spanish will provide information on how to stay safe while working in greenhouses. Topics covered will include pesticide safety and the Worker Protection Standard (WPS), avoiding physical injuries, and use of personal protective equipment.	**Trabaje con seguridad en los invernaderos** *Anna Meyerhoff, New York Center for Agricultural Medicine* Esta sesión en español proveerá información sobre cómo mantener la seguridad cuando trabaja en los inverna deros. Mencionaremos la seguridad con los pesticidas y la Guía para Trabajadores Agrícolas (WPS, por sus siglas en inglés), cómo evitar lesiones, y el uso de equipo de protección personal.

4:00 – 5:00- p.m.

Keynote Presentation: *Connecting People with Flowers*

Kate Santos, Operations Director, Dümmen Orange

The horticulture industry and its customers are constantly changing. Understanding each generation's similarities and differences allows businesses to be active participants in customers' decisions about purchasing plants. Kate Santos shares what the global firm Dümmen Orange is doing to understand who are those industry customers, how those customers impact company activities, and what the company is doing to help connect people with flowers.

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THURSDAY, NOVEMBER 10 Trade Show Open 10:00 AM - 3:00 PM

CONCURRENT EDUCATIONAL SESSIONS *(subject to change)*

	Pests/Diseases Moderator: Tina Smith	Greenhouse Automation Moderator: Mandy Bayer	Growing Vegetables in the Greenhouse Moderator: Neil Mattson	Hands-on Workshops Moderator: Rosa Raudales	Perennials Moderator: Leonard Perry
SESSION 5 9:00 - 9:50 a.m.	**What's New and How Do We Stop It: Disease Management on Flowers and Herbs in the Greenhouse** *Margery Daughtrey, Cornell University* It seems there are more downy mildews to deal with every time you turn around, and a different virus attacking your bedding plants every year. And we still haven't licked Pythium, Thielaviopsis, Botrytis or Xanthomonas. Learn to recognize the most important diseases of flower and herb crops, and how to best control them with IPM practices.	**Commonsense Greenhouse Mechanization: Lower Labor Input** *John Bartok, University of Connecticut* With labor the greatest cost in producing plants, growers need to evaluate their methods to see where savings can be made. Efficient methods and low cost equipment can improve production and lower labor input. Learn some simple techniques and devices and take a look at some of the latest technology.	**Yield Response to CO_2 Enrichment** *Tom Manning, Rutgers University* Carbon dioxide (CO_2) is essential for photosynthesis and crop growth. Crop response to elevated CO_2 depends on many factors, including species, stage of growth and light levels. Learn about responses of different crops, and considerations and recommendations for supplying and controlling CO_2 levels in greenhouses.	**Monitoring the Greenhouse Environment** *Chris Currey, Iowa State University* Light and temperature have a great impact on greenhouse crop growth and development. Knowing how to effectively monitor your greenhouse environment can help you produce high-quality crops reliably. Learn about some tools that measure and monitor light and temperature.	**Proven New Perennials** *Sinclair Adam Jr., Pennsylvania State University* Which of the many new perennials on the market are good landscape and garden plants? See the best new performers in the region--plants that have shown promise in trials at Penn State University's Flower Trials.
SESSION 6 10:30 – 11:20- a.m.	**Mealybug Management: How to Deal with this "Fuzzy-Sucking" Insect Pest** *Raymond Cloyd, Kansas State University* Mealybugs are among the most difficult insect pests to deal with in greenhouse production systems. Learn about the biology, behavior, and damage associated with mealybugs, and the most effective management strategies to prevent outbreaks. Results will be shown from recent efficacy trials associated with evaluating insecticides against mealybugs.	**Sensor Based Irrigation for Height Control** *Mandy Bayer, University of Massachusetts* Soil moisture sensor controlled automated irrigation can increase irrigation efficiency and reduce water use during plant production. The precise control possible with this technology provides the potential to control plant growth with deficit irrigation. Learn about the systems and their impacts on plant growth.	**Yield Responses to Supplemental Lighting** *Celina Gómez, University of Florida* Supplemental lighting (SL) technology is typically used to deliver moderate light to increase photosynthesis and growth of greenhouse crops. This review covers appropriate conditions for using SL, suitable light sources, important aspects of using SL, and current research on different types of SL for greenhouse-grown vegetables.	**Monitoring Growing Media: pH and EC** *Rosa Raudales, University of Connecticut* Learn how to properly collect samples from plugs and larger containers, how to measure pH and EC of the growing media, and how to interpret the results to make decisions. Come ready to be an active participant!	**Trends From the Trenches** *Stephanie Cohen, Collegeville PA* The "Perennial Diva" returns to our conference to highlight the latest trends with perennials, and how to use these trends and particular plants in your marketing.

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THURSDAY, NOVEMBER 10 Trade Show Open 10:00 AM - 3:00 PM

CONCURRENT EDUCATIONAL SESSIONS *(subject to change)*

	Pests/Diseases Moderator: Tina Smith	Greenhouse Engineering Moderator: Rosa Raudales	Hydroponic Vegetables Moderator: Neil Mattson	Hands-on Workshops Moderator: Lisa Tewksbury	Perennials Moderator: Leonard Perry
SESSION 7 1:30 – 2:20- p.m.	**The Ins and Outs of Using Biopesticides to Manage Diseases of Greenhouse Flowers and Herbs** *Margery Daughtrey, Cornell University* Can we fight fire with fire? Bacteria with bacteria? Fungi with fungi? Yes, we can! Learn about opportunities for biological control of some of the major diseases affecting floral and herbal crops. Increase your understanding of Trichoderma, Bacillus and Streptomyces, and learn what they can do for you.	**Energy Efficient Greenhouse Design** *Tom Manning, Rutgers University* Energy represents a significant portion of greenhouse operating costs. Greenhouse designs can incorporate many different energy efficiency measures. Learn about available options and their applicability in different types of greenhouse operations and structures.	**Growing Basil Start to Finish** *Chris Currey, Iowa State University* Basil is the most popular culinary herb grown hydroponically. Are you interested in beginning production or improving your current production? This session covers production from selecting cultivars and hydroponic production systems, to managing light, temperature, and nutrient solutions to maximize production.	**How to Get the Most From Your Beneficial Insects** *Suzanne Wainwright- Evans, Buglady* Most greenhouse operations incorporate some form of biological control into their operations these days. Get tips and recommendations on how to get the most out of these beneficials so you are running the most efficient program possible.	**Plants with Style: A Plantsman's Choices for a Vibrant, 21st Century Garden** *Kelly Norris, Greater Des Moines Botanical Garden* Gardeners need chic, sustainable, thriving plants for modern lifestyles. Join 20-something plantsman Kelly Norris for a spirited provocative call for a garden revolution: out with boring plants and in with stylish alternatives that captivate and enthrall. For every environment, structure and season, he shines a spotlight on A-list plants — plants that will thrive, not merely survive.
	Marketing Moderator: TBD	**Greenhouse Engineering** Moderator: Rosa Raudales	**Hydroponic Vegetables** Moderator: Neil Mattson		**Perennials** Moderator: Leonard Perr
SESSION 8 2:30 – 3:20- p.m.	**Social Media for Greenhouse Growers and Garden Centers** *Kathy Kelley, Penn State University* As overwhelming as it might be, social media (Facebook, Twitter, Instagram, etc.) can be used by both retailers and wholesalers to reach customers. Learn about the various social networks, messages, posts, and images you can use to engage consumers.	**Net Zero Energy Greenhouse: Growing with Zero Emissions** *Jeff Marstaller, Cozy Acres Greenhouses* In 2014, after growing conventionally in double poly greenhouses for 15 years, Cozy Acres Greenhouses added a 3,000 sq ft Conley greenhouse which has its electricity produced from the sun and its heat from the earth, with emissions at zero. Learn about the facility, grant sourcing, tax credits and accelerated depreciation.	**Managing Nutrient Solutions for Hydroponic Leafy Greens and Herbs** *Neil Mattson, Cornell University* Hydroponic greens and herbs are produced in systems with recirculating nutrient solution. In order to maintain productive high-quality crops, it is important to know how to properly maintain your nutrient solution. Learn strategies for managing pH and EC, formulating nutrient solutions, and identifying common nutrient disorders.		**Ornamental Grasses: Plants and Combinations That Sell** *Stephanie Cohen, Collegeville PA* Don't overlook ornamental grasses in your sales and marketing, as these multifunctional perennials are aesthetic, easy to grow, and provide habitat for wildlife. Learn from a plant pro which are best, and how to combine them effectively.
SESSION 9 3:30 – 4:20- p.m.	**Gardening with a Y** *Kelly Norris, Greater Des Moines Botanical Garden* With all the discussion around the issue of Generation X and Y gardeners, some might wonder what the future holds for horticulture. Confounding the issue is a general lack of demographic data and inaccurate perceptions of young or beginning gardeners. Why not talk to a Gen Y horticulturist about the needs, wants and interests of new gardeners under 40?				**Perennials for Pollinators: Choosing the Best, Using Them Effectively** *Annie White, Nectar Landscape Consulting* Pollinator-friendly landscaping is a trend in our industry. Learn about some of the top perennial picks for pleasing pollinators, and hear about creative and effective ways to use these plants in the landscape to help support a diversity of pollinators.

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