Greenhouse Management Workshop: Root-zone optimization in hydroponics and substrate-based culture systems
January 17-18, 2019
OARDC/OSU, Wooster, Ohio

AGENDA

Thursday January 17
8:00-8:30 am: Registration
8:30-8:45 am: Welcome and announcements

Session I: Fundamental/general session
8:45-9:30 am: Talk I-1 Basics of plant nutrition (Uttara Samarakoon, OSU)
9:30-10:15 am: Talk I-2 Introduction to root-zone dynamics (Chieri Kubota, OSU)
10:15-10:30 am: Break
10:30-11:15 am: Talk I-3 Substrate basics (James Altland, USDA)
11:15-12:00 pm: Talk I-4 How to get the most out of your fertigation system (Peter Ling, OSU)

Tour & Lunch-
12:00-1:00 pm: Tour to OARDC & ATI? greenhouses
1:00-2:00 pm: Lunch and exhibitor presentations

Session II: Concurrent Nutrient and Water Sessions (choose 1 track)
2:00-4:00 pm:

<table>
<thead>
<tr>
<th>Time</th>
<th>Track 1 Hydroponics/soilless culture for food crops</th>
<th>Track 2 Container culture for ornamentals</th>
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<td>2:00-2:45 pm</td>
<td>II-1-1. Root-zone management for leafy greens (Chieri Kubota and Dan Gillespie, OSU)</td>
<td>II-2-1. Irrigation management – when and how much to water (Peter Ling, OSU)</td>
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<td>2:45-3:30 pm</td>
<td>II-1-2. Root-zone management for high-wire crops (Mark Kroggel, OSU)</td>
<td>II-2-2. Root-zone nutrient management for annuals (Uttara Samarakoon, OSU)</td>
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<td>3:30-4:15 pm</td>
<td>II-1-3a. Research update on EC/pH management for lettuce (Uttara Samarakoon, OSU) II-1-3b. Research update on pH management for basil (Dan Gillespie, OSU)</td>
<td>II-2-3. Irrigation water and substrate chemistry in container culture: how do the chemical properties of your water and substrate affect plant nutrition? (James Altland, USDA)</td>
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Session III: Panel Discussion
4:15-5:00 PM:

Dinner (TBA)
Friday January 18

Session IV: Biostimulants
8:00-8:45 am: Talk IV-1 Getting the most from composts: nutrients, humates, microbes, and more for greenhouse professionals (Brian McSpadden Gardener, Sustane Inc.)
8:45-9:30 am: Talk IV-2 Types and benefits of beneficial microbe products according modes of action (Matthew Krause, BioWorks Inc.)
9:30-9:45 am: Break
9:45-10:30 am: Talk IV-3 Enhancing plant growth and stress tolerance using biostimulant (Michelle Jones, OSU)
10:30-11:15 am: Talk IV-4 How to evaluate beneficial microbes in your own operation (Matthew Krause, BioWorks Inc.)
11:15-12:00 pm: Talk IV-5 Microbiome – its description and optimization for controlling pathogens (Chris Taylor, OSU)

Bus tour
12:00-5:00 pm: Buckeye Fresh (TBC)