

## High Tunnel Conference Evaluation

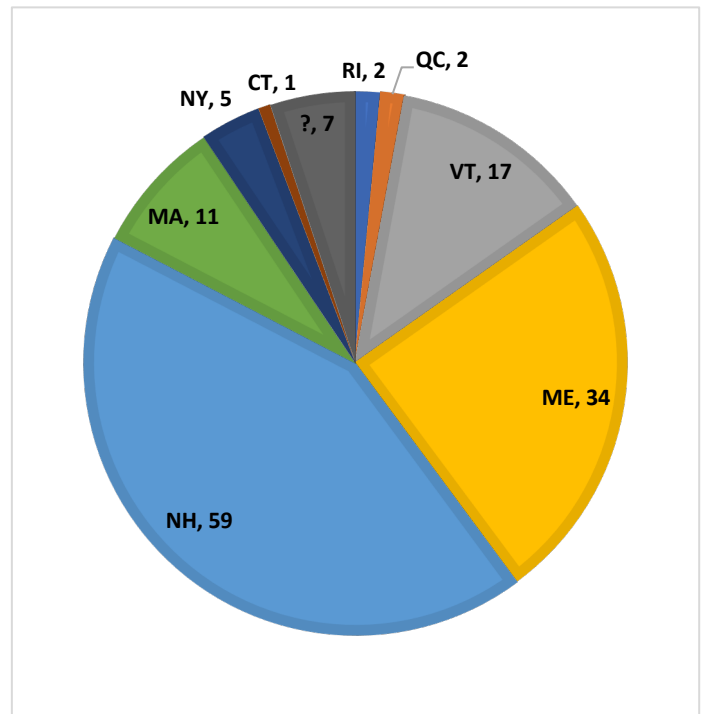
### Manchester, NH 3-4 December, 2018

B Sideman, H Bryant, M Skinner, C Frank Sullivan, M Hutton, B Hoskins and E Sideman  
 UNH Cooperative Extension, UVM Extension, UMaine Extension  
 and the Maine Organic Farmers' and Gardeners Association (MOFGA)

#### Participants

138 participants attended the High Tunnel Conference. Attendees included primarily growers, but also agricultural service providers/extension, and researchers. Attendees came primarily from NH, ME, and VT (see right).

In addition to **123 growers, 15 agricultural service providers from 4 states** attended the workshop. Although we did not track attendance by day, more participants attended the conference on day 2 than on day 1. We estimate that 85 participants attended on day 1, and that all 138 participants attended on day 2.

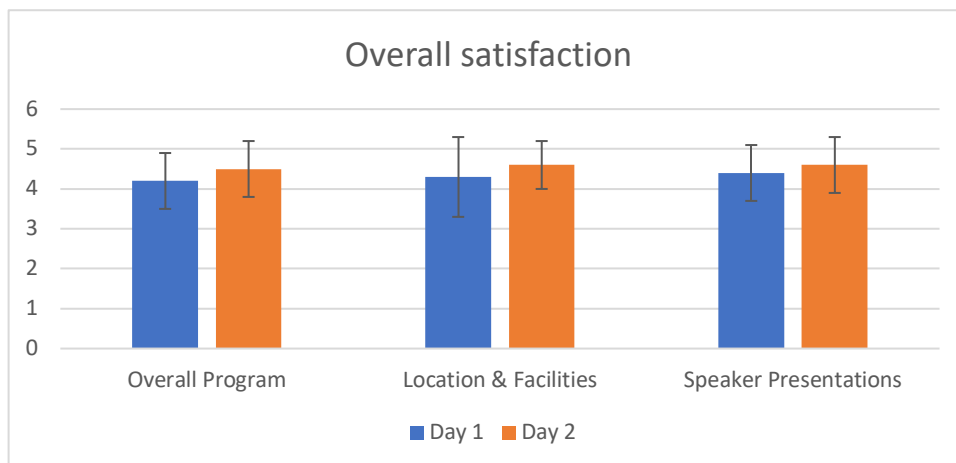


#### Evaluation

Of the 54% of participants that filled out a conference evaluation (45 on day 1, 75 on day 2), the geographical representation was similar to that of attendees.

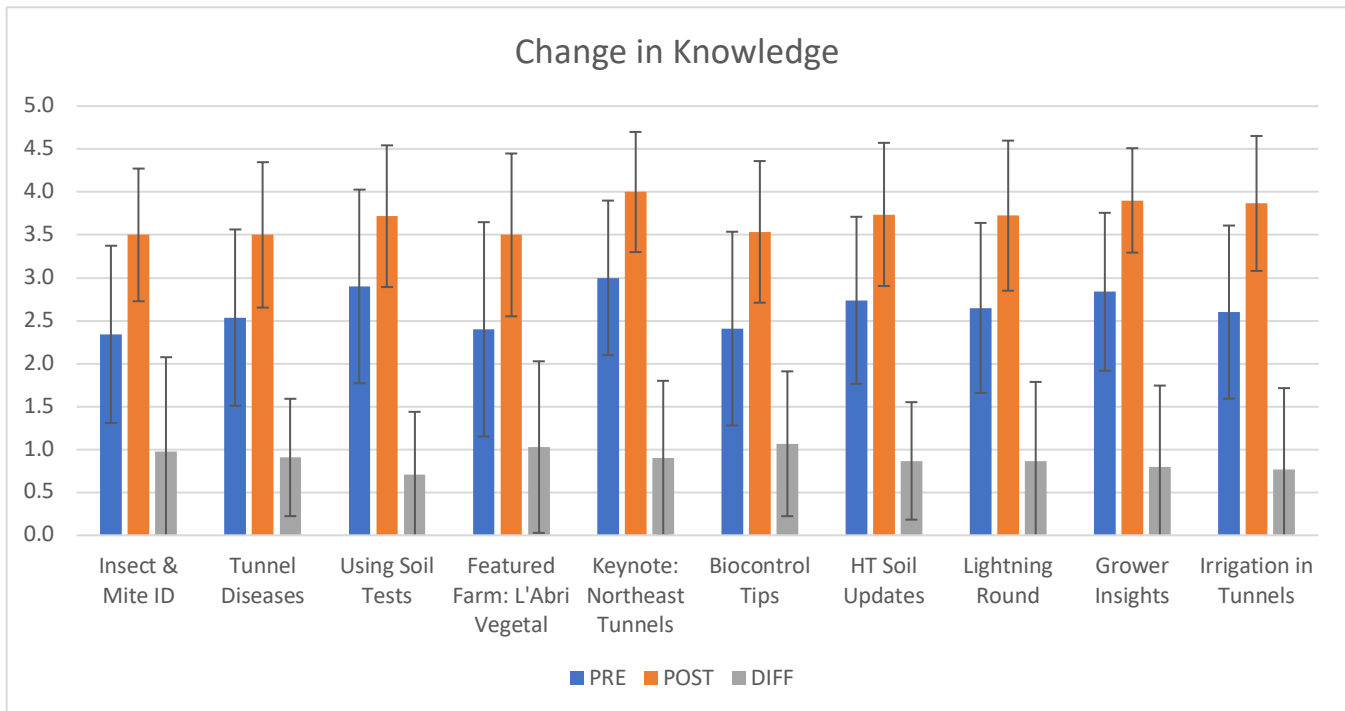
Participants were asked to evaluate the quality of the program, location/facilities, speaker presentations, and Farmer-to-Farmer sessions, using a 1-5 scale. Results are presented below, with mean values ± one standard deviation. In general, participants were very satisfied with the conference.

#### Overall satisfaction with the program.



For each specific topic covered, participants were asked to estimate their knowledge of the subject before and after the presentation, using a 1-5 scale. The mean ± SD for PRE and POST ratings, and the mean difference between them, are provided on the following page.

### Reported gains in knowledge on specific topics.



Participants were also asked, for each topic, whether they intended to make any changes on their farm based on what they learned. A free-form box was provided, where participants could write in intended changes. These changes were summarized and grouped into similar themes.

The most frequently mentioned intended changes included adopting a new practice related to **biocontrol in high tunnels** (38 growers). Growers stated intent to use specific IPM practices such as monitoring more closely and more frequently (11), using guardian, banker or habitat plants in high tunnels (15), purchasing or using new tools to facilitate scouting (9), and starting or expanding use of biocontrols (12). 24 growers said that they would better manage plant diseases in high tunnels, by using sanitation or ventilation (12), or by paying better attention to crop disease status (7) or being more proactive in seeing diagnostic help for diseases or insects (7).

Thirty-five (35) growers said that they had plans to **adjust or fine-tune their high tunnel fertility programs**, with most (20) saying that they intended to apply more, or a different formulation, of potassium fertilizers. Several growers also explicitly stated that they intended to conduct more soil tests (7), follow soil test recommendations carefully (5), or manage soluble salts through tillage or leaching (4). Twenty-three (23) growers reported intent to change their irrigation practices. Most intended to increase frequency of watering (15); but some also intended to consider using moisture sensors (9). Some growers reported that they were still uncertain about how to follow best irrigation approaches (5).

Our featured farm speaker, from Quebec, grows at a somewhat larger scale than many of our growers; and while he is growing in-ground, some growers (3) found his heating system and year-round production system to be not relevant to their systems. However, many growers reported that they got new ideas, and several cited an interest in trying several **new cultural practices including new pruning systems (10) and new watering practices (5)**. One grower summed it up as follows **“Holy smokes that was a learning opportunity!”**.

The keynote lecture was inspirational to many attendees, and several reported intent to make changes based on what they heard in this presentation. Several reported intent to improve their greenhouse structures with

ventilation, sensors, insulation, etc. (17); others aim to improve irrigation techniques (10) or change high tunnel soil management (5) strategies.

Our experimental “lightning round”, which consisted of several rapid-fire short presentations, was favorably reviewed by attendees. It also gave growers ideas. Based on this session, growers said that they wanted to investigate or try new ideas for winter crop covering (8), saffron production (8), use of water sensors (5), use of UV light for control of powdery mildew (4), use netting to keep birds out of tunnels (2) and try new IPM approaches (2).

### Other comments

The overall comments were generally very positive, but there were a few important comments and suggestions that we should consider for future events.

- Noise. At least one participant was frustrated that they could not hear other growers in the audience in the farmer-to-farmer/farmer insights session. Another found the venue noisy, cold and uncomfortable.
- Carpooling. It would be helpful for participants coming from a distance to be able to suggest carpool partners.
- Signage and parking. We should make sure that it is clear where to go, in the hotel, and where growers can park (especially ones with high vehicles that cannot fit in the parking garage).
- Some growers felt some of the concurrent sessions were rushed, too densely packed, and overwhelming.
- Focus discussion groups. One grower suggested compiling questions in advance of the conference, and using these to set focus groups for discussion.

### Documented Impacts from Prior Conferences

This conference was the second high tunnel conference planned by the SARE High Tunnel Group; the first was held in December 2016. Participants were asked directly whether they attended that first conference, and whether they made specific changes in their high tunnel production based on what they learned from the first conference.

Of the 20 respondents that said they DID attend the 2016 conference, 50% (10 growers) described specific changes that they made based on what they learned. These ranged from **soil management** (purchasing and using soil moisture meters, using SME soil testing, testing compost for nutrients) to **cultural practices** (better weed control, experimentation with plant spacing, changing rowcover use to increase winter ventilation) and **pest management** (incorporating banker plants, and building second tunnel to increase crop rotation possibilities).

### Planning for Future Conferences

For the purpose of planning for future educational events, we also asked growers about the most important challenges they face in high tunnel production. The most common responses could be categorized as follows:

- Pests and diseases (13)
- Challenges in optimizing production systems, including crop rotation schemes (11)
- Ventilation (8)
- Soil fertility management (8)
- Insufficient time or labor issues (7)
- Site limitations, including being land-limited, or having poorly drained or compacted soil (6)
- Not enough heat in winter (4)

Participants were also asked the following question about the format of future conferences:

**Question.** *We are contemplating holding a high tunnel conference like this one every other year. Please indicate your preference for such a conference:*

- one-day conference in central location, like this one
- two-day conference in central location, like this one
- one-day conference repeated in three different sites across New England.

On both days, approximately 2/3 of the respondents favored a **two-day conference in a central location**, 1/3 favored a **one-day conference in a central location**, and only one person wanted to have **conferences repeated in different sites**. Of course, our respondents were potentially biased, since they were all people that did in fact travel to a two-day conference in a central location. (It's interesting to note that the evaluation of our 2016 conference gave very different results: those participants favored a one-day centralized conference, then repeated/spread conferences, with a two-day central conference rated last).

**Question.** *Would you prefer that a high tunnel conference be focused on:*

- high tunnel tomatoes, specifically
- high tunnels generally, including other crops

Responses were nearly unanimous – nearly all **respondents** indicated a preference for a focus on high tunnels generally, including other crops. Only one respondent wanted to have a tomato-specific conference.