

NC-140 Annual Meeting Minutes 7-9 Nov 2023

Holland/Clarksville/Benton Harbor, MI

55 total in attendance, 48 NC-140 members, representing 22 member states AR, CA, CO, IA, ID, KY, MA, MI, NC, NJ, NM, NY, OH, OR, PA, SC, TX, UT, VT, WA, WI, WV and 3 cooperating Canadian provinces BC, ON, and NS

Tuesday, 7 Nov

The meeting was called to order at the MSU Clarksville Research Center (CRC) by Greg Lang (MI) who welcomed the group. Participants introduced themselves.

Brent Black (UT) moved to accept the agenda as presented, Curt Rom (AR) seconded, and the motion was approved.

Essie Fallahi (ID) moved to accept the minutes from the 2022 meeting without revision, Greg Reighard (SC) seconded, and the motion was approved.

Dr. Carolyn Lawrence-Dill (IA), the NC140 Administrative Advisor, provided a report by Zoom that focused on funding and reporting.

Lang reviewed the project objectives and timeline for renewal (2026).

Root biologist Miranda Haus (MSU) was introduced via Zoom, and she gave an overview of her work in root architecture as related to disease. Possible collaborations with the Armillaria project group were mentioned.

New members were then formally approved:

Curt Rom (AR): Fallahi (ID) moved, Stefano Musacchi (WA) seconded; motion passed.

Tim Hartman (TX), stone fruit specialist/extension; Reighard (SC) moved, Astrid Volder (CA) seconded; motion passed.

Brent Arnuldssen (KY), new faculty at UK; Ioannis Minas (CO) moved, Greg Peck (NY) seconded; motion passed.

Shanthanu Krishna Kumar (PA) new faculty at Penn State; Todd Einhorn (MI) moved; Jim Schupp (PA) seconded; motion passed.

Becky Weipz (WI), superintendent of the Univ. of Wisconsin's Peninsular Agricultural Research Station; Schupp (PA) moved; Fallahi seconded; motion passed.

Xiaochen Yuan (IA) as substitute for Suzanne Slack who could not attend; (unknown) moved and seconded; motion passed.

Fallahi (ID) announced plans to retire and asked about the potential to remain interactive with the project as there is currently no other representation for Idaho. He noted the possibility to

oversee new trials that could be hosted by progressive growers if UI does not accept them. The challenges and benefits of such cooperation/collaboration and/or trial hosting with commercial growers was discussed, with members being favorable to such an arrangement in this case as appropriate if a commitment to imposition of planting, management, and data collection protocols can be arranged.

Late introductions were made of Emily Lavelly (MSU extension educator) and Jackie Perkins (MSU tree fruit integrator).

On behalf of Shengrui Yao (NM) who could not attend, Rob Heyduck (NM) discussed the possible meeting sites for 2024 annual meeting in NM. Santa Fe was identified as the most central location for tree fruit tours that also has suitable lodging and meeting facilities, as well as plentiful food options.

The 2025 meeting will be hosted by Terence Bradshaw (VT), with suggested possibilities to meet in 2026 in GA, VA, KY or CA (to be determined in 2024-25).

Jon Clements (MA) gave a website update and asked everyone to talk to their AES director to get on the official multistate list.

New and future trials were discussed:

2023 'Porter's Perfection' cider apple trial was discussed by Peck (NY), planted by 15 institutions @ 16 sites, with 7 rootstocks X 3 trees/rep X 5 blocks. Trees should crop heavily, and fruit size is not a concern for cider production.

2025 Peach rootstock X training system trial was discussed by Minas (CO), with 3 systems (SSA/Bi-axe/Quad-axe) @ 3/6/12 ft spacing, respectively, 150 trees/location. The challenge of tree propagation and shipping to certain areas with differing import regulations, such as Canada (fumigation residues) and California, was discussed, including potential propagation in Canada.

A potential 2025 Apple rootstock/decline/cold hardiness trial was discussed by Clements (MA), Lee Kalcsits (WA), and Jason Londo (NY).

A potential 2025 or 2026 apple rootstock trial was discussed by Kalcsits (WA), comprised of 2 irrigation factors X 5 rootstocks X 5 scions.

Kristi MacCready (MSU, George Sundin lab) discussed microbial ecology, the succession of microbial communities during the lifespan of an orchard, and noted that microbiomes respond to drought stress.

2026 cherry rootstock trial planning was discussed by Black (UT) for tart cherries (potential sites are UT, MI, VT, CO, WI, NY, ON) and Kelsey Galimba (OR) for sweet cherries (potential sites are CO, MI, NY, BC, CA, OR, WA).

A possible 2026 apricot rootstock trial was discussed by Kathryn Carter (ON), with potential sites including ON, TX, UT, MI, CO, BC, NS, VT, WA, NY.

Gennaro Fazio (NY) gave an update on new apple rootstock development. He noted virus effects in G935 and Ottawa 3 as a source of virus; reported G41 is not drought resistant; and discussed differences in root- vs. top-expressed dwarfing genes (DW1 vs DW2). Also new publications in *Fruit Quarterly*.

Musacchi (WA) discussed the coordination of a new apple rootstock trial, with decisions to be made for scion, possibly 'Ambrosia' (potential participants noted were MI, NY, WA, BC).

There was discussion of propagation and nursery challenges, as the nursery industry as a whole is struggling due to cancelled orders and small plants. Discussion included bareroot vs Ellepot propagation and establishment in short season areas, and Spring vs. Fall planting (though Fall dormant shipping is not common now).

During the afternoon, there were field tours of various NC140 and associated tree fruit research plots at the CRC (apple, sweet cherry, pear, peach, plum).

Wednesday, 8 Nov

Lang and Bill Shane (MSU stone fruit extension specialist and peach breeder) welcomed both the NC140 group and the USDA-SCRI Armillaria project group to the SW Michigan Research and Extension Center (SWMREC) before they each convened in separate meeting rooms.

The current status of project trial reports was discussed:

2010 Sweet Cherry rootstocks x training systems: Lang (MI) published the 10-year update in *Acta Horticulturae*, plans to write up for *JAPS* submission in 2024.

2013 Apple rootstocks: Two locations were lost to fire blight. The publication of data from 3 sites is being led by Luis Gonzalez-Nieto (NY).

2014 'Honeycrisp' rootstocks: John Cline (ON, not present) submitted an email note that the paper is in press in *JAPS*.

2015 Organic 'Modi' rootstocks: Bradshaw (VT) took over coordination after Wes Autio retired. The 5-year publication is out, some locations have dropped out.

2017 Peach rootstocks: Minas (CO) noted that a 3 year update was published in *Acta Horticulturae*, as well as two chapters were contributed to the new CABI Peach book. Minas will lead a 2024 proposal to IFTA on behalf of all trial coordinators for annual partial support of data set collection and analysis.

2017 Tart cherry/Sweet cherry rootstocks: Lang (MI)/Black (UT) will be writing up the 5 year data publications in 2024.

2019 'Buckeye Gala' rootstocks: Einhorn (MI) will be compiling the 5-year data for preparation/analysis in 2024.

The NC140 and Armillaria groups met jointly for lunch and dinner, as well as the afternoon field tours of various NC140 and associated tree fruit research plots at the SWMREC (tart cherry, peach).

State reports (NS, VT, MA, NY, NJ, WV, CO, OR, WA, BC, ID, UT, OH, MI, ON, WI, IA) began after the field tour.

Thursday, 9 Nov

State reports (PA, KY, NC, CA, SC, AR, TX, MI) continued during the morning.

The meeting adjourned around 10:30 am, allowing participants to pack and plan before a final lunch at noon.