

NC140 Minutes 2-3 November 2022

NC140 member states (14 total) and persons (23 total) in attendance: AL (4), CA, IA (2), ID, KY, MA, MI, NJ, NM, NY (4), SC, UT, WA (3), WV

The meeting was called to order at 8:30 am by Dr. Elena Coneva, with welcoming statements by Auburn University administrators (College of Agriculture Associate Dean Arthur Appel and Horticulture Head Desmond Layne), followed by NC140 Administrative Advisor, Carolyn Lawrence-Dill.

Administrative business followed:

- the agenda and 2021 meeting minutes were approved (moved by E. Fallahi, seconded by J. Clements, with one revision, that the 2015 apple trial is no longer led by Wes Autio)

- guests were welcomed and new members were approved (Astrid Volder, UC-Davis; Jason Londo, NY; Suzanne Slack, IA)

- future meeting sites were discussed:

- 2023: Michigan (Greg Lang and Todd Einhorn) will host and meet in conjunction with the SCRI Armillaria project annual meeting, tentatively the week of 6-10 November

- 2024: New Mexico (host: Shengrui Yao), Georgia (host Dario Chavez), and Vermont (host: Terence Bradshaw) were nominated; results of a “straw poll” vote were: 2024 – NM, 2025 – VT, 2026 - GA

- Dr. Lawrence-Dill provided an administrative report, noting “people feel they belong when they understand how things work and what the rules are.”

- Jon Clements provided the website report on behalf of co-website manager Win Cowgill. Brent Black requested that public slides on trials be archived on the website for group use. Lee Kalcsits noted that we need to address where is the NC140 project data if archived.

Trial Reports were provided as follows:

- 2010 sweet cherry – Greg Lang - the final paper is to be written this winter

- 2013 pear – Todd Einhorn - Rachel Elkins has completed and will be sending shortly

- 2014 Fuji, Honeycrisp apple – John Cline - no report

- 2015 Organic Apple rootstock trial – Terry Bradshaw – no report

- 2017 Peach Rootstock trial – Ioannis Minas - data being analyzed, needs some 2020/21 data (Jan 15, 2023 deadline or sooner), plans for 2023 spring JAPS paper with 6 years of data

- 2017 Tart Cherry rootstock trial – Greg Lang, data sets being analyzed for 5-year paper

- 2017 Sweet cherry systems X rootstock trial – G Lang, data sets being analyzed for 5-year paper

- 2019 Buckeye Gala Apple rootstock trial - Todd Einhorn - no report

- 2022 Pear and Quince rootstock trial – Todd Einhorn – no report

- Discussion on responsibilities for accepting peach (and other) new trials, funding sources, labor and timeliness commitments (cooperators shouldn't accept if they can't keep up)
- Soon Li Teh – Noted that Phase 1 pear breeding selections are being tested in WA with Anjou, but still a few years away for considering any coordinated regional trials

Future Trials were discussed:

- 2022 Cider Apple rootstock trial - Greg Peck – no update
- 2023 Peach rootstock/training system – Ioannis Minas – 7 rootstocks, trees from SierraGold: 4 training systems: SSA, Bi-Axe U and V, Quad-Axe; 1 leader trees with Rootpac20, MP-29; 2 leader trees with Controller 6 and 8; 4 leader trees with Guardian and Krymsk 86; spacing will be proportional to leader number at 3 ft/leader; need to plan for target crop load per leader (not per TCSA or LCSA at maturity)
- future peach trial scions were discussed: Cresthaven (higher chill, cold hardy, “buttons” in warm locations) vs JulyPrince (lower chill, adequate cold hardiness)?
- 2024 Apricot rootstock trial – Kathryn Carter/OMAFRA/Greg Lang – no report
- 2024 Cherry rootstock trial – Kelsey Galimba/OSU (sweet cherry) and Brent Black/USU (tart cherry) – interest expressed by Kalcsits for WA, Volder for CA, Hao for BC
- Gennaro noted 3 new apple rootstock releases: G.66 (CG.6006, M26 size), G.484 (CG.4004, M26 size), G.257 (CG.5257, between M26 and M7 size)
- discussion of potential future physiology-focused apple rootstock trials (e.g., water use, productivity) – would be very regional in objectives due to climatic characterizations
- Astrid Volder noted roots are very influenced by local climate and soils, so that needs to be taken that into account; potential for a new coordinated trial that would be excavated (e.g., by air spade and Bobcat) every year to examine season-by-season root development
- discussion of dwarfing mechanisms that may vary by species – root hydraulic conductivity, graft union transport, earlier terminal budset, GA metabolism, shift in CHO partitioning to reproductive growth
- Jason Londo noted that weather data should be reported and archived for each trial and site for potential later analysis – he will work on a template or protocol

State reports were presented.

The meeting concluded at 11:30 am on 3 November, with expressions of appreciation to hosts Elena Coneva, her team, and Des O'Rourke, followed by a group lunch and an afternoon of orchard tours.