

## **Minutes of the NC140 meetings held in Mills River, North Carolina 14-15, 2018.**

2018 Chair: Dr. Michael Parker, NC State University, Raleigh NC (absent due to health)

Acting Chair and Host: Dr. Tom Kon, NC State University, Asheville, NY

Recording Secretary: Dr. Terence Robinson, Cornell University, Geneva, NY

### **Tuesday November, 14, 2018**

#### **Welcome**

The meeting started with a welcome to the Mountain Crops research and extension center of NC State University by Jessica Edney. She was followed by a welcome and description of NC state University by Dr. David Monks, Associate Director of the North Carolina Agricultural Research Service.

#### **Administrative Business**

- Members and guests were introduced and the agenda for the meeting was approved.
- The project's administrative adviser, Dr. Rich Marini of Penn. State University gave a report of indicating that the headquarters offices of USDA's NIFA group would be moving to a new location outside of the Washington DC area. No federal budget had yet been approved so funding for all ag research was still uncertain.
- The 2017 NC140 meeting minutes prepared by Gennaro Fazio were approved.
- A new member from Summerland Research Station of AgCanada in British Columbia, Canada Dr. Hao Xu was introduced and accepted as an official member of the project by a vote of the members.
- The 2019 meeting site was previously decided at the 2017 meeting for Geneva, NY to be hosted by Dr. Terence Robinson of Cornell University and Dr. Gennaro Fazio of USDA-ARS. The dates for this meeting were selected as Nov. 13, 14 and 15, 2019.
- The site for the 2020 meeting was decided to be in Colorado hosted by Dr. Ionnis Minas of Colorado State University.
- Stefano Musacchi announced that the next ISHS orchards systems and rootstock symposium will be held in Wenatchee WA from July 26-July 31, 2020.

#### **Website Report**

- Jon Clements delivered an update on the NC-140 website. Some university firewalls reject emails from NC140 thus Jon recommended we use the following NC-140 listserv ([nc140@umext.umass.edu](mailto:nc140@umext.umass.edu)). If you know of anyone who should be on (or off) send the information to Jon.
- Emily Hoover added that the rootstock e-Xtension website could use new and revised content. She invited members of NC-140 to do so. The e-Xtension site for apple rootstocks gets 150K hits per year.

#### **Rootstock Trial Coordinator Reports**

- 2009 Peach Rootstock trial – Greg Reighard announced that the final paper was recently sent to cooperators for review. He would like to submit the paper to JAPS before the end of the year.
- 2009 Peach Physiology trial – Rich Marini reported that the final report has been published. The paper shows a negative relationship between crop density and fruit size as expected and also shows a negative relationship between warm springs and fruit size as was shown by DeJong and Johnson in California.
- 2010 Apple Rootstock trial – Wes Autio distributed the final data for this trial and asked

for cooperators to review the data to ensure it is correct. He plans to write the final articles in 2019.

- 2010 Sweet Cherry Rootstock & Training Systems trial – Greg Lang. reported that the trial will terminate at the end of the 2019 season. A report on this trial was uploaded to the NC140 website in the reports folder. He plans to prepare 2 papers in 2020.
- 2013 Pear training/spacing/rootstock trial - Todd Einhorn joined the meeting via video conference and reported that he plans to write and publish the 5 year manuscript in 2019. He also reported that the Oregon trial was lost due to fire blight thus leaving only the NY and CA plots. They will continue on to year 10 with this trial.
- 2014 Apple rootstock trial – John Cline requested that cooperators check the accuracy of their data. Cooperators should collect tree height and spread at the end of 2018. A discussion ensued about the tree size of G.202, the suggested crop load and pruning protocol. Some cooperators reported that G.202 is smaller in this trial than expected. Some cooperators felt that for vigorous trees a crop load of 5 fruits/cm<sup>2</sup> TCA was too low. The discussion continued on the proper pruning protocol for vigorous trees in this trial. It was agreed to continue with the Tall Spindle pruning rules of removing 2-3 branches larger than 2cm diameter. If this is done over 2-3 years all of the large branches will have been removed.
- 2015 Organic Apple rootstock trial – Wes Autio indicated the annual report is online in the reports folder of the NC140 website. He reported that in this trial G.202 is performing as expected in relation to tree size.
- 2017 Peach Rootstock trial – Ioannis Minas distributed the annual report of this project and requested that 2018 data be sent to him by Jan. 2019.
- 2017 Tart Cherry rootstock trial – Greg Lang reported the trial is doing well but some Mahaleb trees are growing weaker than expected. Send the 2018 data to Greg in Jan. 2019.
- 2017 Sweet cherry systems X rootstock trial – Greg Lang reported that due to poor tree quality and poor growth in 2017 the trees had to be restarted in 2018. The trees in MI recovered nicely and are now fine. Send the 2018 data to Greg by Jan. 2019,

### **Future Trials**

- 2019 Apple rootstock trial - Todd Einhorn reported that the propagation of the trees had some difficulties. Some rootstocks (the new ones from New Zealand) had poor survival in the nursery, thus there are not enough trees for all sites. He indicated that the 3 largest apple producing states (WA, NY and MI) will receive all of the rootstocks but other states will not receive the NZ stocks. He. Indicated that he had already sent a preliminary list of rootstocks for each state but would also soon send a final list of rootstocks that each cooperator would receive. The scion cultivar is Buckeye Gala.
- 2021 Pear and Quince rootstock trial – Todd Einhorn reported that he is developing a rootstock trial of Quince rootstocks for pear for the year 2021. Some setbacks from the nursery have pushed the proposed planting date back from 2020 to 2021.
- 2020-2021 Apricot rootstock trial – This trial is in the initial planning stages with no firm list of rootstocks yet.
- 2021 Cherry rootstock trial – Greg Lang is working on assembling another cherry rootstock trial in 2021 to evaluate new Gisela, Weigei, and PiKu rootstocks.
  - Greg Peck of Cornell University is planning to organize a rootstock trial using hard cider varieties. States/Provinces who are interested in this future trial should contact Greg Peck ([gmp32@cornell.edu](mailto:gmp32@cornell.edu)) At the meeting the following locations expressed and interest:

ID-Essie Fallahi  
KY-Dwight Wolfe  
MA- Jon Clements  
MI-Greg Lang  
MO- Michelle Warmund  
NC-Tom Kon  
NJ- Megan Muelbauer  
PA-Rob Crassweller  
VA-Sherif Sherif  
VT- Terry Bradshaw  
WI-Matt Stasiak

In addition UT and WI were interested in a scion variety trial of cider apples with you.

**Tour or Research Plots:**

In the afternoon Tom Kon lead a tour of the rootstock research plots at the MHCREC.

**Wednesday November, 15, 2018.**

**State Reports**

Participants delivered highlights of state reports (24 states/provinces). The reports can be found on the [www.nc140.org](http://www.nc140.org) website.

**Commercial Orchard Tour**

Tom Kon led the group on a tour of high density commercial apple orchards in Western NC.

**Concluding Dinner**

The meeting concluded with a dinner at the Saint Paul Mountain Vineyard in Henderson County, NC.

Respectively submitted,

Terence Robinson, Recording Secretary NC140 project for 2018  
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