

MINUTES

FPS FRUIT AND NUT TREE ADVISORY COMMITTEE MEETING

Tuesday, January 9, 2018 1:00-3:00 pm

Peter Christensen Conference Room,
Trinchero Family Estates Building, UC Davis

Present: Maher Al Rwahnih, Kamyar Aram, Kendall Ash, Tom Burchell, Michael Carriere, Javier Castillon, Alemeh Chaharsoughi, Jerry Dangl, Sean Dayyani, Ted DeJong, John Duarte, Anna-Liisa Fabritius, Kristen Farrar, Deborah Golino, Thomas Gradziel, Joshua Kress, Karl Krist, Brenda Lanini, Carole Lamb, Phuong Lao, Lori Leong, David Marion, Denise Meade, Ann Noble, Jack Poukish, John Preece, Josh Puckett, Tia Russell, Raquel Salati, Sue Sim, YunPing Zhang.

Agenda items:

Welcome and Introductions

Jack Poukish, chair of the Foundation Plant Services (FPS) Fruit and Nut Tree Advisory Committee, called the meeting to order and asked attendees to introduce themselves.

Approve Minutes from December 1, 2016 Fruit and Nut Tree Committee Meeting

John Duarte moved to approve the minutes from December 1, 2016. Tom Burchell seconded the motion and it was approved unanimously.

FPS Tree Program Updates – Joshua Puckett, Production Manager, Foundation Plant Services

Josh Puckett provided an update on the FPS tree program. FPS is currently expanding its collection with imports under the 588 Controlled Import Permit. The tree program is working to expedite and improve testing, optimize tissue culture protocol and media, and expand the *Prunus* online catalog. Introductions in 2017 included: 79 *Prunus* selections (21 proprietary; 58 public), two *Malus* selections, and nine *Pyrus* selections. There were nine 2017 *Prunus* releases; this number is expected to double or triple in future years. Currently in the pipeline, there are 66 selections undergoing testing; 43 have been confirmed positive and therefore require treatment.

Updates from the Peach/Almond breeding program – Dr. Tom Gradziel, UCD Department of Plant Sciences

Tom Gradziel discussed the peach and almond releases for 2017. Kester almond which is optimal in capturing sunlight has performed very dependably under testing for 15 to 20 years. Kader and Vilmos clingstone peaches are good quality processing fruit proving to be resistant to bruising and brown rot and are amenable to a once over harvest in grower mechanization trials. Gradziel continues to investigate the story of Nonpareil bud failure issues. Bud failure is likely to be a single gene inheritance. Therefore, if we can identify the responsible gene, we can use CRISPR methodology to possibly engineer Nonpareil to be bud failure-free; the use of CRISPR technology seems more amenable to the market and regulatory agencies.

News from the USDA Clonal Repository – John Preece, Research Leader, USDA-ARS Clonal Repository

John Preece has repropagated much the repository as it was in very poor condition eight years ago and maintaining an even-aged collection is important. As part of his five-year planning process from 2012 to 2017, there was an increase in accessions in the collection from 7,000 to 8,800 which is an increase of 25%. The main challenge for the repository is land availability. Preece is currently investigating options for land acquisition.

Progress Report on the Activities of the National Clean Plant Network – Deborah Golino, Director, Foundation Plant Services

NCPN was established with funds from the 2008 Farm Bill and is managed by USDA-APHIS in consultation with NIFA. Currently, NCPN has approximately \$5 million per year to distribute to all clean plant centers. NCPN funds seven crops: grapes, fruit trees, roses, hops, citrus, sweet potatoes, and berries.

Since the 1950s the fruit tree industry has relied on materials from Prosser. In recent years, the fruit and nut tree industry expressed interest in the expansion of FPS's fruit and nut tree program to provide services previously provided by Prosser. To accommodate this need, FPS increased tissue culture therapy for all tree crops, which was funded by California Fruit Tree, Nut Tree, and Grapevine Improvement Advisory Board IAB and NCPN. FPS now has a Prunus import permit and is hoping to add pome fruit permit as well. We have a good climate here and can produce a lot of cuttings and buds. Deborah mentioned she was seriously considering a request from John Duarte to have a foundation resource and reliable chain of custody for crops such as pistachio and walnut. John Preece seconds the idea and suggested a possible IAB tax on pistachio. Innovation Access would certainly approve of FPS having the two UC patented walnut rootstocks maintained reliably by FPS.

Goals for improving tree virus detection at FPS – Maher Al Rwahnih, Foundation Plant Services

Maher Al Rwahnih discussed the pome fruit disease regulations in California which are currently being updated by CDFA. He has submitted a proposal to IAB this year to improve qPCR diagnostic methods for apple and pear to reduce chances of false negatives. Other research is focusing on evaluating the hypersensitivity effect of Little cherry virus-1 and Little cherry virus-2 on different cherry rootstocks. A new virus has been reported in Prunus which is a close relative to red blotch, but infected plants do not show symptoms. In addition, a new virus has been reported in pistachio, but infected plants are asymptomatic. Maher reminded us that in this period of high throughput sequencing and increased discoveries of new viruses, it's important to focus on regulated viruses or viruses that have known biological significance that negatively impacts the crop.

Other Business

There was no other business.

Respectfully submitted,

Kristen Farrar
Foundation Plant Services