**Small Fruit Crop Germplasm Committee *Minutes***

Thursday 29 November 2018 from 1:00 pm EST

Teleconference

**1-888-844-9904**

**Access: 8421683#**

1. CGC Administrative
   1. Roll Call

**Present:**

Kim Lewers

Chad Finn

Kim Hummer

Mark Ehlenfeldt

Penelope Perkins-Veazie

Gina Fernandez

Massimo Iorizzo

Juan Zalapa

Beatrice Amyotte

Jill Bushakra

Gary Kinard

Tim Rinehart

Patrick Moore

Courtney Weber

Michael Dossett

Lise L Mahoney

Nahla Bassil

Jason Zurn

Vance Whitaker

**Absent:**

James Olmstead

Barbara Smith

Phil Stewart

Nicholi Vorsa

Kyle VandenLangenberg

Patrick Edger

Hamid Ashrafi

Dimitre Mollov

Jeffrey D. Carstens

Martin Reisinger

Roy Scott

Jack Okamuro

* 1. Minutes from 2017 already approved and posted on-line. Need someone to take 2018 minutes.
     1. *Jill Bushakra to take minutes*
  2. Web site: <https://www.ars-grin.gov/npgs/cgclist.html#Small>
     1. Check minutes, evaluation priority lists, vulnerability statements, descriptor lists
     2. Check your membership information
  3. Membership
     1. No memberships are up for renewal (every three years)
     2. *Lise Mahoney introduced as new member*
     3. *Margaret Worthington proposed as new member – please get her c.v. to Kim L*.
  4. Next Meeting Venue (with NCCC212 or conference call?)
  5. Mary *Rogers* (University of Minnesota) is hosting in 2019
     1. *Group suggestion of in-person meeting with NCCC212 with call-in option.*
     2. *Mary has proposed combining the NCCC212 meeting with the NE1720 meeting this year Nov 4-6 (see email at end of minutes)*

1. CGC germplasm evaluation grants
2. Report received from Kelly Ivors (2015): “Screening the Strawberry Super Core Collection within the National Plant Germplasm System (NPGS) for Resistance to Crown and Root Diseases”
3. Report received from Stringer, Sampson (2014, 2016): “Screening Small Fruit Germplasm for Resistance to Southern Populations of Invasive Spotted Wing Drosophila, SWD (*Diptera: Drosophilidae*)” He says, “We’re nearly finished with the manuscript for the SWD resistance study. We’re shooting for early 2019 to submit the manuscript, since Blair is still putting together some data on other small fruit species to include as comparisons.
4. Report from Bassil (2017): “Assessing genetic diversity in the cultivated strawberry (*Fragaria* ×*ananassa*) collection at the National Clonal Germplasm Repository”
   1. *Proposal is subsequent to Steve Knapp genotyping and phenotyping of ~100 Fxananassa from NCGR for disease resistance. DNA was extracted from 332 accessions of F. x ananassa accessions from the NCGR collection and normalized to ≥20ng /µL and shipped to Steve Knapp’s group to genotype with the new iStraw49K Axiom Array. This new array was developed using the new ‘Camarosa’ reference and included 6,000 SNPs from the previous arrays (iStraw35K and iStraw90K). The remaining F. x ananassa accessions in our collection have been genotyped with the iStraw35K array. We are awaiting genotypic data for analysis next.*
5. Report received from Bassil, Zurn, Mahaffee, and Dossett (2018): “Characterizing Resistance to Powdery Mildew in Red Raspberry”
   1. *A detached leaf protocol used to phenotype grapes was adapted for raspberries and 30 R. idaeus accessions with genotypic data at the MLO locus were chosen for evaluation. In short, the protocol consisted of disinfesting R. idaeus leaves collected from a PM free greenhouse at the NCGR. Leaves were placed in isolation chambers and inoculated by dislodging PM spores from infected plants into a settling chamber. The spores were allowed to settle on the leaves. The isolation chambers were maintained in a growth chamber and observed at 10 and 12 days post inoculation. Whole plant inoculations were conducted by briefly washing the leaves of the plant with water and allowing them to dry followed by inoculating in the same manner as previously described. The pathogen was found to grow best on whole plants and detached leaves at a 19 °C temperature. Inoculum was produced readily on the young leaves of whole plants. For the detached leaf assay, a total of 8 of the 30 accessions were found to be susceptible to powdery mildew. Inconsistent results were observed with the susceptible check suggesting further protocol/environment optimization is needed.*
6. New proposal (FY2019): Hummer and Bassil “Phenotyping diverse strawberry cultivars”

*The plants for this study, 332 Fxananassa, are planted in the field at the NCGR North Farm. Funding will provide for a student to perform phenotyping. Feedback from the groups suggests that a few quantitative traits be selected for in-depth evaluation to pair with genotype data. Additional traits can be evaluated for breeder information if funding is available. Kim H. will send the list of traits to the group to get feedback on which traits are most valuable. Kim H. and Nahla are already in contact with Pat Edger about collaborating on fruit metabolomics. Vance is happy to help with analysis. Chad Finn, Michael Dossett, Massimo Iorizzo, Lise M. and Tim Rinehart all agree that this study is valuable and has far reaching applications. Kim L. notes that the Hummer & Bassil 2019 proposal was submitted prior to the call for proposals. She will send an email out polling the committee to see if any other groups were planning on submitting a proposal (suggested by Courtney Weber.) and also to check about not putting out a call for proposals and funding this project. The committee has the option to decide internally about sending out calls.*

1. Please include in the acknowledgements, “Partial funding for the evaluations were provided by the USDA/ARS National Plant Germplasm System.”

*Kim L. notes that she is not sure when/if funding will be available. Anyone submitting proposals should keep in mind that if funding is granted it needs to be spent by the end of September 2019.*

1. Evaluation Research Priority List – Anything to add or give higher priority?
   1. *Kim H. asks for the latest Evaluation Priority List to be added to the website. Kim L. will do that.*
   2. *Chad notes that climate change issues are increasing in priority*
2. Small-Fruits Breeding Programs – Any at risk?
   1. *WSU - Pat Moore will be retiring in 13 months. The Washington Red Raspberry Commission is committed to funding the breeding position and have increased their assessment to pay for it. Pat says that the short-day strawberry breeding will be ending; day-neutral strawberry and red raspberry breeding will continue.*
   2. *NCSU – Gina Fernandez has spoken to growers about where to put her focus and limited resources. Kim H. will make room at NCGR if Gina wants to send plants.*
   3. *Rutgers, NJ – The strawberry breeding program could be at risk. The breeder has shared material with Gina and Courtney.*
3. Crop Vulnerability Statements and “Quad Charts” *Gary Kinard notes that the quad reports were developed for informing secretaries and undersecretaries and that the SFCGC has been doing well in keeping these updated. Keeping the quad sheets or Vulnerability Statements up to date is necessary to apply for some types of funding.*
   * + 1. *Fragaria* – (revised 2017 + Quad Chart 2018) will add UNH program, maybe *C. gloeosporioides* update. *Kim L*. *will ensure timely updating*
       2. *Vaccinium*
     1. Blueberry – (revised 2016 + Quad Chart 2018) *Mark Ehlenfeldt will ensure timely updating*
     2. Cranberry – (revised 2017) *Kim L. will contact Nick Vorsa and Juan Zalapa about ensuring timely updating and creating a Quad Chart*
        1. *Rubus* – (revised 2015 + Quad Chart 2018) Michael Dossett: progress on dividing into two:  *Michael did not generate two Vulnerability Statements, but just drafted a Raspberry Vulnerability Statement, leaving a lot of work to then draft a Blackberry Vulnerability Statement. So, we will use the Rubus Vulnerability Statement as the Blackberry Vulnerability Statement for the present.*
4. Raspberry *Michael D. will ensure timely updating and a Quad Chart*
5. Blackberry *Kim L. will contact Chad F. (or Margaret) about drafting a Blackberry Vulnerability Statement and Quad Chart and ensuring timely updating of both.*
   * + 1. *Ribes* – (revised 2018) *Since there are no known Ribes breeders, Kim H. will ensure timely updating and a Quad Chart. Kim H will check her list for requestors. Kim L. remembered a private breeder in New Hampshire. It would be good to get a Ribes person on our committee.*
6. National reports–
   1. Office of National Programs (ONP) report - note education effort
      1. *No comments on this report*
   2. National Germplasm Repository Lab Beltsville (NGRL) report – *Gary’s report*
      1. *Melanie Schori has succeeded John Wiersma and is doing a fantastic job.*
      2. *Recruitment for an IT specialist is in the works to succeed Quinn Sinnott.*
      3. *New GRIN-global public interface will be released early next year.*
   3. National Clonal Germplasm Repository - Corvallis (NCGR) - *Kim H. report*
      1. Staffing changes at the NCGR
         1. *TC lab has been shuttered for 1-2 years as funding and resources are not available to maintain and staff. Jeanine DeNoma has been moved to greenhouse/screenhouse staff to take care of the hop and mint collections*
      2. Plant exploration
7. Summary for West Virginia/Virginia collecting trip in August 2018
   1. *64 new accessions collected for Vaccinium, Rubus, Ribes, Gaylussacia, Gaultheria, Fragaria, Sambucus.*
8. Have recently obtained *Fragaria chiloensis* from Adak Island, Alaska
9. Hummer suggestions small fruit gaps to collect the following
   * + - 1. Strawberries from further south in Chile
         2. Work with Mexico, Columbia, Ecuador to obtain *Rubus* species samples and compare with SE US Rubus species: re phylogeny
         3. Red raspberries and strawberries from across Canada
         4. *Vaccinium* species from Siskiyou Mts., Oregon
         5. Heritage strawberry cultivars from Europe

*The plants were destroyed by aphis because of pathogens.*

* + - * 1. *140 herbarium vouchers from the 2015 Vietnam trip were submitted to the National Arboretum. Manuscripts are in progress.*
        2. *Please add the 2017 Vietnamese-led collection of seeds to the exploration list.*
    1. Virus quarantine, testing, and elimination (Actually inserted in the meeting before Plant Exploration, because it was relevant to staffing changes.): *Jeanine DeNoma is capable of TC work but was shifted to field work. Foreign requestors ask for TC plants because of their import requirement and are concerned about fungal or bacterial pathogens or endophytes. Kim H. will send plants to a nursery that TCs the plants and then sends them on to the requestor. Plants also can be tested for certain diseases. Other countries expect us to provide testing. Each test has a cost. Requestor can pay for the test. The process doesn’t absolutely require TC. The TC collection also had been used as a secondary backup of germplasm. Michael D. favors maintaining the core collection and letting TC have less emphasis for now. Kim H. still has the facility and trained people. Cold treatment allows years of storage. Kim H. can still test for diseases including viruses and free the accessions from viruses.*

1. Other: *Tim Rinehart and Massimo note that the descriptor lists also should be updated.*
2. Adjourn *1 hour 50 min*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email from Mary Rogers

On Tue, Nov 27, 2018 at 5:35 PM Mary Rogers <[roge0168@umn.edu](mailto:roge0168@umn.edu)> wrote:

Hi all,

I am serving as host for the NCCC 212: Small Fruit & Viticulture Research meeting to be held in the Twin Cities in 2019.Dr. Matthew Clark is our UMN grape breeder and will host the 2019

NE1720: Multi-state Coordinated Evaluation of Winegrape Cultivars and Clones meeting also to be held here. For planning purposes, we have decided it would be easier if we held these meetings concurrently. We could still have our separate business meetings but perhaps this would allow an opportunity for more collaboration and save some travel time and money for those who attend both meetings. However, these meetings are typically held at different times of the year. NCCC 212 meets in late October while NE1720 meets in mid-November. Therefore, we are proposing that if both are held concurrently, the meeting should take place the first week of **November, the 4th-6th**. Matt proposed this at the NE1720 meeting a couple of weeks ago and had positive response from that group. I'd like to survey this group and get your thoughts. Can you fill out [this poll indicating your preference](https://goo.gl/forms/WTgVvqOz9xfaMCqB2)? It would be great to get your feedback within the next week or so, say by end of day Dec. 11th.

The one downside is holding the meeting later may make for brisk field trips--however our fall weather is increasingly unpredictable here so there are no guarantees either way...

best,

Mary Rogers

Assistant Professor

Sustainable & Organic Horticultural Food Production Systems

Department of Horticultural Science

University of Minnesota

305 Alderman Hall

1970 Folwell Avenue

Saint Paul, MN 55108

612-624-8871

Website: <https://rogerslab.cfans.umn.edu>