

# Sustaining the Future of Plant Breeding

*Plant Breeding  
Coordinating  
Committee*

<http://www.nimss.org/projects/17576>

**SCC80 PBCC State Representatives Work Session**

**August 7, 2018**

**Plant Breeding Coordinating Committee  
Southern Coordinating Committee 80 (SCC80)**

The **Plant Breeding Coordinating Committee** is the USDA-sponsored advisory group of reps from land grant universities

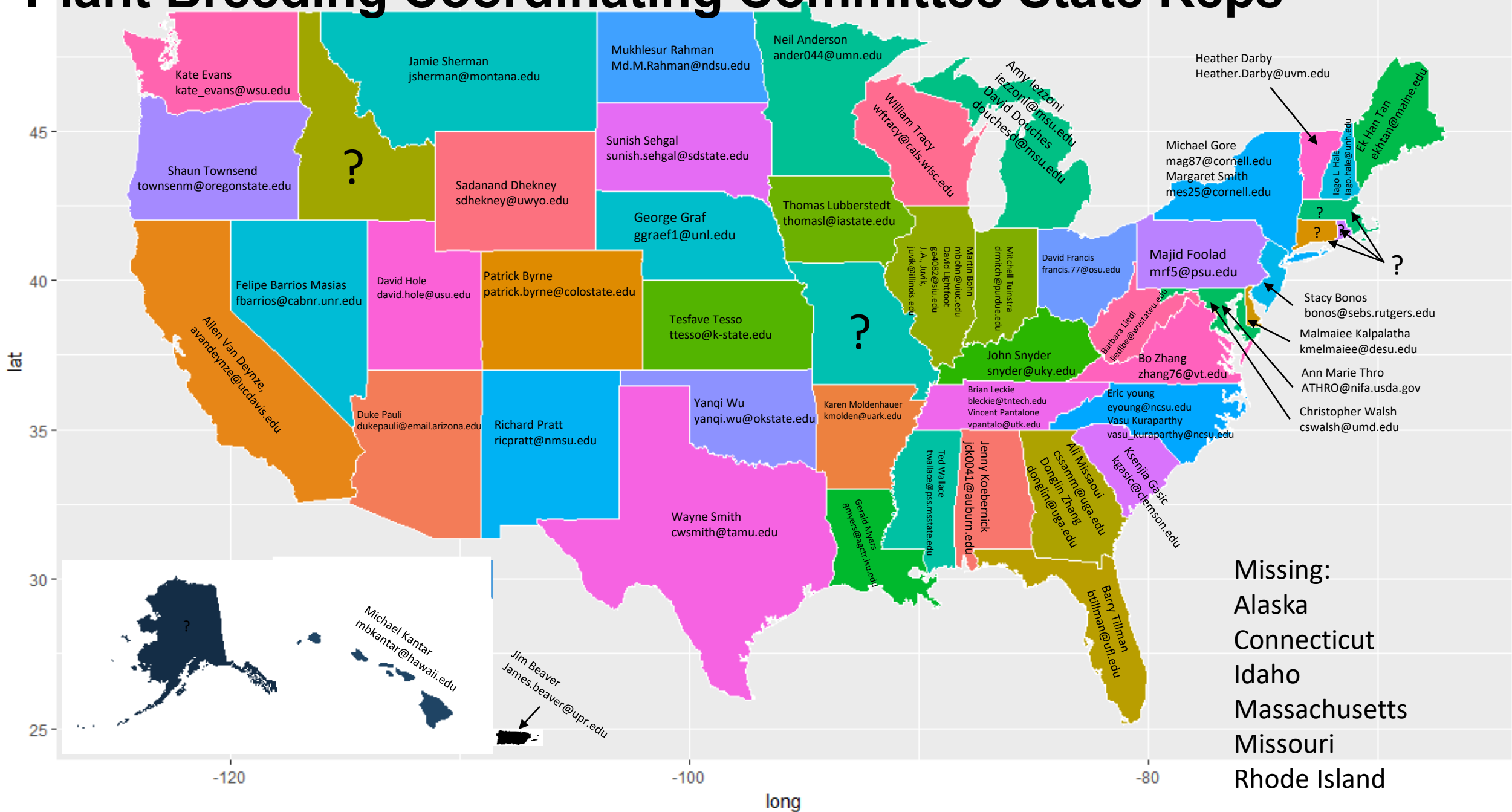
### PBCC

- Kate Evans – *Chair*
- Ksenija Gasic – *Vice Chair*
- Mikey Kantar – *Secretary*
- Rich Pratt - *Incoming 2018 Secretary*
- Mike Gore – *Past Past Chair*
- Thomas Lübberstedt – *Past Chair*

### Representatives

- Eric Young                      *Administrative advisor*
- Anne Marie Thro              *NIFA representative*
- Roy Scott                        *USDA-ARS representative*
- Randy Johnson                *US Forest Service advisor*

# Plant Breeding Coordinating Committee State Reps



# **SCC080: Sustaining the Future of Plant Breeding**

Duration: October 01, 2015 to September 30, 2020

**Writing Committee:** Patrick Byrne (Chair), Neil Anderson, Don Blackburn, Michael Gore, Amy Iezzoni, Thomas Lübberstedt, Karen Moldenhauer, Jamie Sherman, and Wayne Smith

**Administrative Advisor:** Eric Young

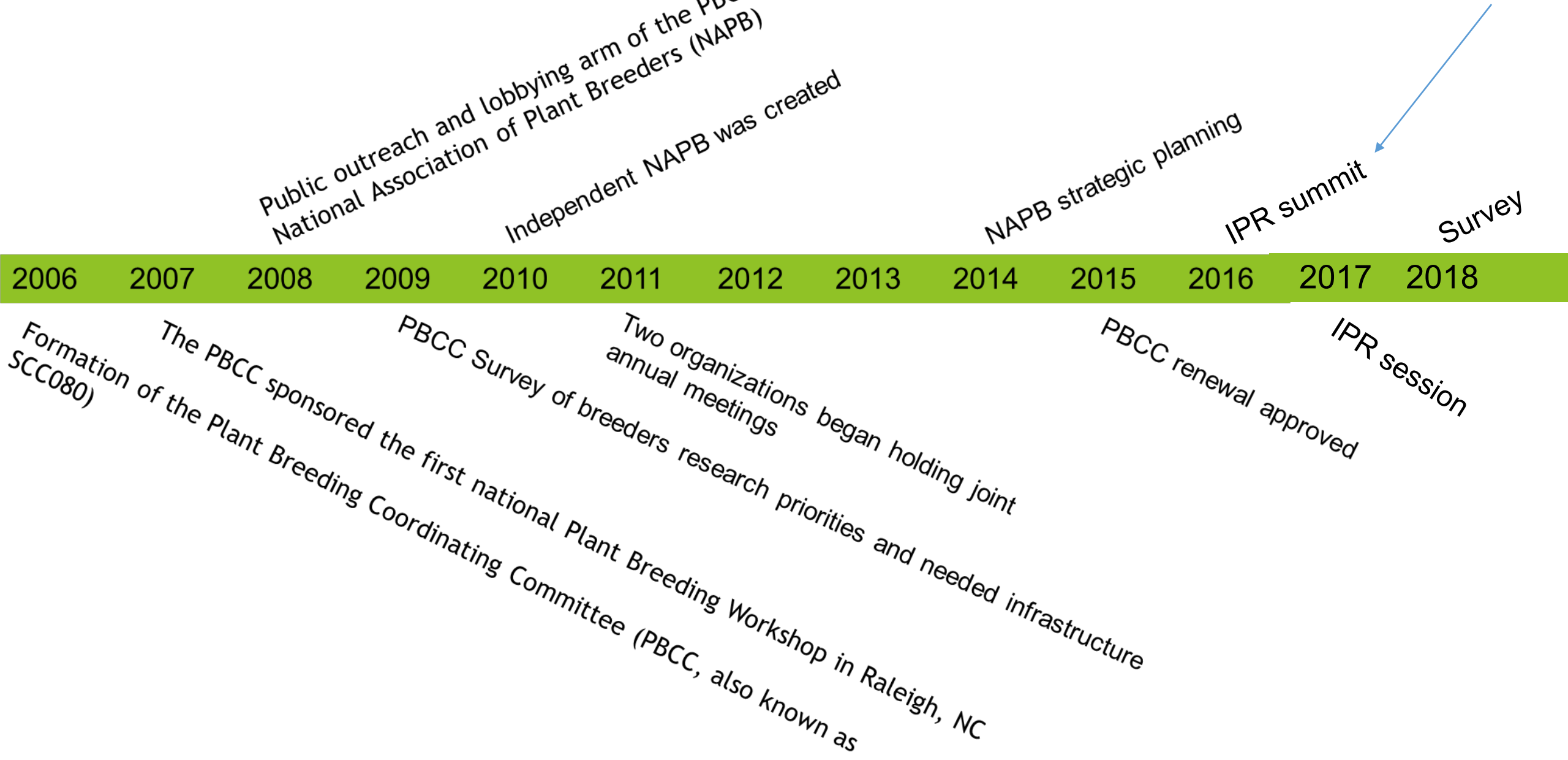
**NIFA Rep:** Ann Marie Thro

Renewal discussion at  
2019 meeting



# Brief History in Time

<https://agronomy.wisc.edu/ipr-summit/>



# Current objectives

1. Collect, analyze, and disseminate information about the U.S. plant breeding effort in both public and private sectors (Kate Evans)
2. Promote the conservation, characterization, and utilization of plant genetic resources and access to them (Pat Byrne)
3. Identify Best Management Practices for public sector IP protection to encourage the creation/distribution of crops (Bill Tracy)
4. Optimize opportunities for public-private collaboration in plant breeding research and education, including continuing education for plant breeders (Thomas Lübberstedt)
5. Foster communication among public plant breeders and federal agencies on policy issues, including alerts to threats to agricultural security that are relevant to plant breeding (Mikey Kantar)

# 2018 updates

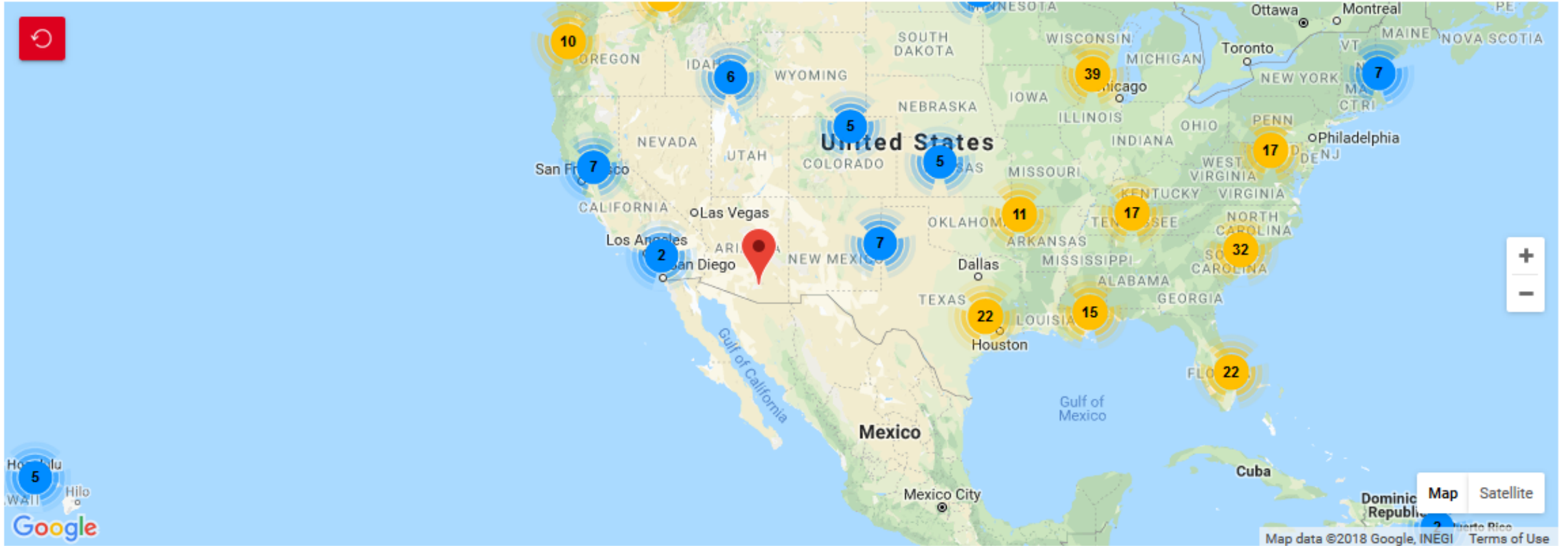
NAPB providing up to \$6000 funding per annum!

**Objective 1:** Collect, analyze, and disseminate information about the U.S. plant breeding effort in both public and private sectors

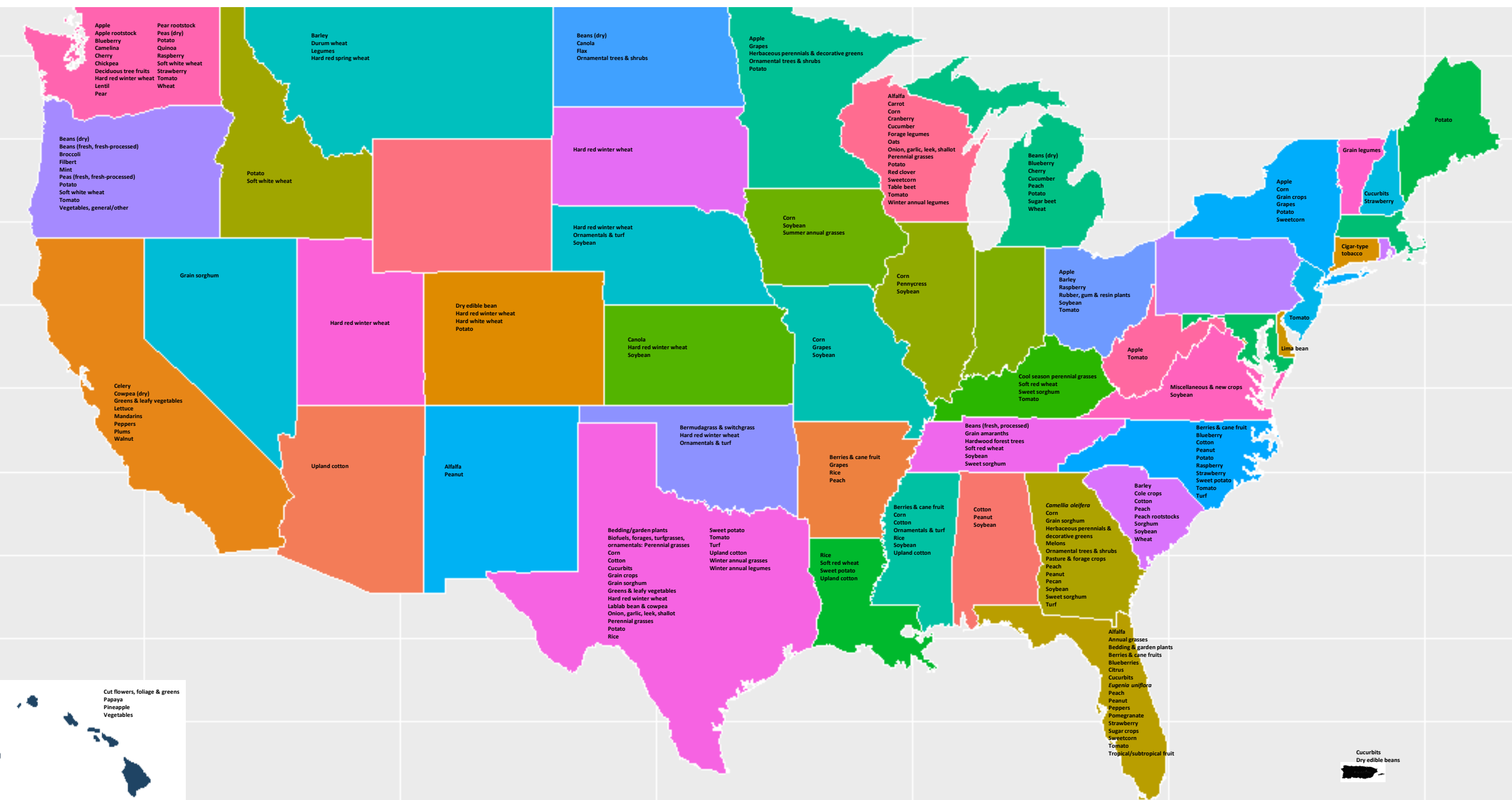
**Subcommittee lead:** Kate Evans

- Initial focus on public programs
- Survey committee: Kate Evans, Ksenija Gasic, Mikey Kantar, David Francis & Sarah Kostick
- Teamed up with Dorrie Main's NIFA NRSP10 and NSF PGRP projects
  - Long term database support
  - Funding for Michael Coe, Cedar Lake Research Group LLC, for survey design and analysis
- Attempted to align with earlier surveys
- Thank you for your help!





# Crops represent completed surveys from 289 programs: breeding research, germplasm enhancement and/or variety development



# Obj #1 continued

- Analysis just started → aim to publish results
- How to proceed with long-term capacity surveys?
  - Re-issue the survey every 5 years with the PBCC renewal & update map
  - Registered account holders can log in and update rather than start from scratch
- What should we do with those programs that want to be on the map but missed the survey?
  - Allow unrepresented programs to register and then be added to map
  - Start a 2<sup>nd</sup> map with the additions to distinguish it from those that completed the survey
  - How to deal with programs that close?

**Next steps:** Private breeder survey (Ksenija Gasic)

**Objective 2:** Promote the conservation, characterization, and utilization of plant genetic resources and access to them

**Subcommittee lead:** Pat Byrne



**Sustaining the Future of Plant Breeding:  
The Critical Role of the USDA-ARS  
National Plant Germplasm System**

P. Byrne, G. Volk, C. Gardner, M. Gore, P. Simon, S. Smith

Crop Science 58:451–468, 2018

**Genebank Training Workshop**  
**Co-Hosted by NLGRP and Colorado State University**  
**April 24-26, 2018, Fort Collins, Colorado**

Funded by a USDA-NIFA Conference Grant

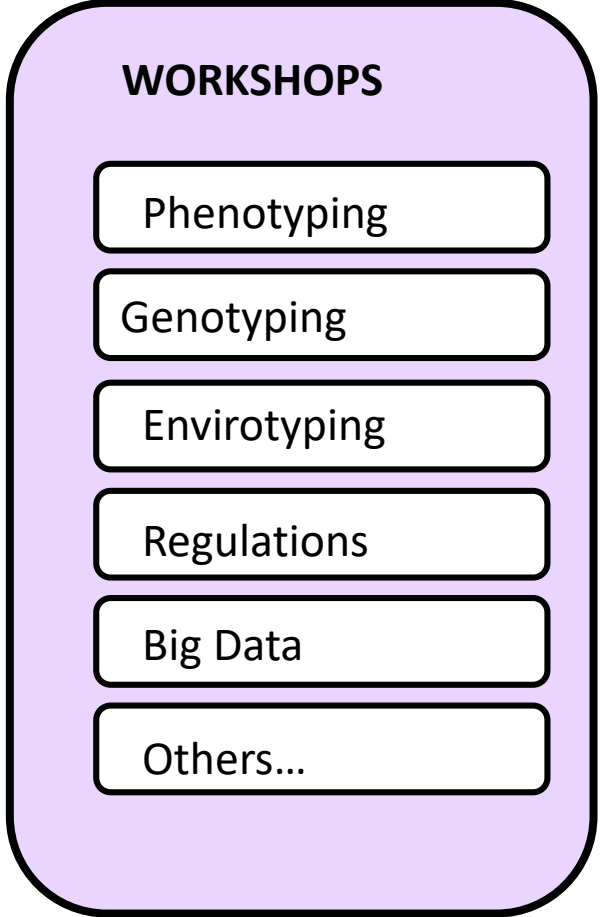
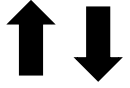
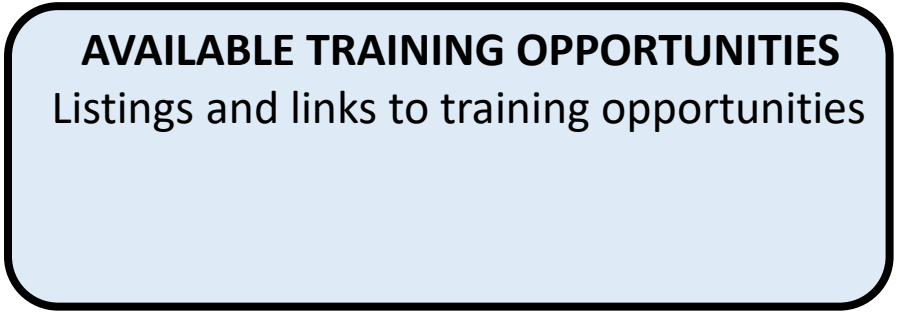
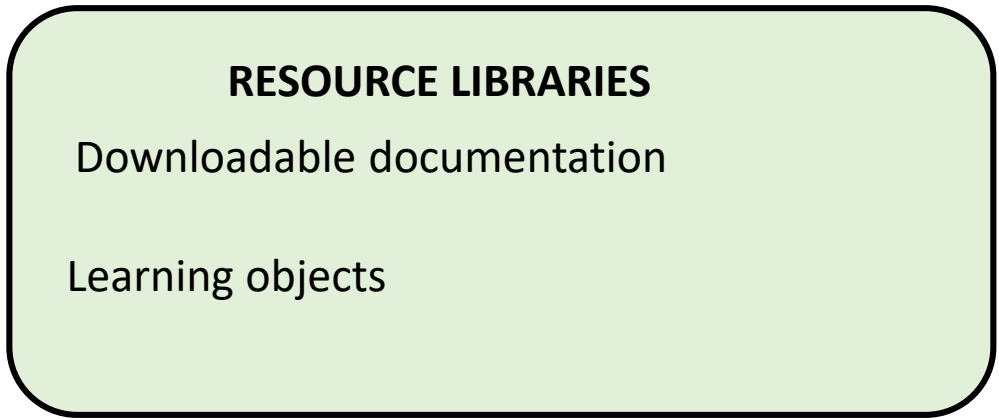
- 33 attendees representing USDA-ARS, USDA-NIFA, land-grant universities, seed industry, Mexico's and Canada's genebanks, a botanic garden, and The Crop Trust
- Objective: Design a strategy to develop, deliver, and sustain a plant genetic resources management training program.
- 30% of current National Plant Germplasm System staff may retire in the next 5 years.



Gayle Volk



Peter Bretting



# **Planning Activity for A Multi-Institution Genebank Training Program**

Proposal submitted to USDA-NIFA Higher Education Challenge Grant Program

**PI's:** Pat Byrne, Colorado State Univ., Silvia Cianzio, Iowa State Univ.

Objectives include

1. Explore existing PGR educational resources
2. Investigate alternative administrative frameworks to coordinate materials developed by multiple universities
3. Identify the best options for delivering training on specific topics (e.g., online courses, “learning objects”, webinars, workshops)
4. Develop a prototype 1-credit online module on a high-priority PGR topic

**Objective 3:** Identify Best Management Practices for public sector IP protection to encourage the creation/distribution of crops

**Subcommittee lead:** Bill Tracy

<https://agronomy.wisc.edu/ipr-summit/>

- Continuing to educate
  - Recently tech transfer professionals



**Objective 4:** Optimize opportunities for public-private collaboration in plant breeding research and education, including continuing education for plant breeders.

**Subcommittee lead:** Thomas Lübberstedt

**Expected Outcomes and Impacts: Public-private collaboration**

- Number and quality of plant breeding graduate students maintained or improved
- White paper or journal publication produced on core competencies for plant breeding students
- Public-private collaborative research proposals funded

**Objective 5:** Foster communication among public plant breeders and federal agencies on policy issues, including alerts to threats to agricultural security that are relevant to plant breeding

**Subcommittee lead:** Mike Gore, Mikey Kantar



## **Points for discussion**

- Top 20 most impactful varieties for each Land grant (Allen)
- Expanding the PBCC exec
  - Genetic resources
  - Communication
- 2019 annual meeting
  - Ideas for renewal