

Soybean Germplasm Committee Meeting Minutes Feb. 12, 2018

The meeting was called to order by chair Zenglu Li and those present introduced themselves.

Members present were:

Zenglu Li, Chair and Public Breeder South (University of Georgia, Athens, GA)

Dechun Wang, Vice Chair and Public Breeder North (Michigan State University, East Lansing, MI)

Roy Scott, *ex officio* Nation Program Staff representative

Rusty Smith, *ex officio*, Associate Curator (USDA-ARS, Stoneville, MS)

Esther Peregrine, *ex officio* Assistant Curator (USDA-ARS, Urbana, IL)

Thomas Hoffman, Private Breeder North (Dow Agro Sciences, Indianapolis, IN)

Lilian Miranda, Private Breeder South (Bayer Crop Science, Pikeville, NC)

Qijian Song, Molecular geneticist, genomicist (USDA-ARS, Beltsville, MD)

Anna Locke, Physiologist (USDA-ARS, Raleigh, NC)

Bob Stupar, Genomicist (University of Minnesota, Minneapolis, MN)

Members not present:

Kelly Whiting, *ex officio* United Soybean Board representative

Louise O'Donoghue, Canadian Breeder (CEROM, Saint-Mathieu-de-Beloeil, Quebec)

Teresa Hughes, Pathologist (Monsanto, St. Louis, MO)

Visitors:

Gary Kinard, (USDA-ARS, National Germplasm Resources Lab, Beltsville, MD)

Glen Bowers, (Calyx Inc., New Brighton, MN)

The minutes from 2017; the 2017 Soybean Germplasm Collection Report submitted by Esther Peregrine, and the 2018 National Germplasm Resources Laboratory Report submitted by Gary Kinard were reviewed and discussed.

Crop vulnerability statements (CVS) communicate periodic assessments of the challenges that crops face, particularly from reduced genetic diversity resulting from genetic erosion. Collections of genetic resources are key mechanism for reducing crop vulnerability resulting from genetic erosion and uniformity, and for supplying crop

breeding and research programs with novel traits and underlying genes to satisfy evolving demands. The Crop Vulnerability Statement (CVS) for soybeans has not been updated since 2004. It is recommended that the CVS be reviewed every year, with a more comprehensive assessment of current conditions every 5 years or so. Concise one page CVSs are now recommended.

GRIN Global has been online for 2 years. It is working fairly well but is under constant improvement. Recent improvements include a responsive public web site that adjusts to the screen size and the addition of a crop wild relatives taxonomy web page. The shopping cart feature was used for 72% of the soybean requests in 2017.

The United States is now a part of the FAO International Treaty on Plant Genetic Resources for Food and Agriculture. In the future, the FAO Standard Material Transfer Agreement may be required for all foreign seed requests even though soybean is not a crop listed in Annex 1 of the treaty. The Office of Technology Transfer is still working out the policy for this.

There has been discussion among the soybean research community about the need for a soybean genetic stocks collection to preserve the many lines that are being developed by various mutagens or transgenic procedures. The University of Minnesota has a fast neutron mutant collection developed in 2007 with a total of 20,000 lines. The committee recommended adding a core collection of 500 to 600 lines that have characterized, published data available if there are no material transfer agreements that would restrict seed distribution. Bob Stupar needs to check on what MTAs may be in effect.

Additional chips for genotyping the collection with 50K SNPs have been purchased for Qijian Song to analyze approximately 1400 new accessions that are being pure lined and added to the collection this year or added from expired Plant Variety Protection samples.

The first transgenic soybean variety PVP certificate will expire in May, 2018. ARS has a protocol for handling transgenics. This will include increasing seed in a separate location with separate equipment to avoid contamination of the conventional seed lots.

The curator vacancy left by Randy Nelson was discussed. There is currently a hiring freeze in effect for all USDA ARS positions. The committee stressed the need for this position to be filled as soon as possible.

Zenglu Li rotated off the committee and the new chair is Dechun Wang. The committee needs to choose a new vice chair.

Respectfully submitted,

Esther Peregrine, Assistant Soybean Curator