

## Soybean Germplasm Committee Meeting Minutes Feb. 22, 2016

The meeting was called to order by chair Silvia Cianzio

Members present were:

Silvia Cianzio, chair and Public Breeder North (Iowa State University, Ames, IA)

Randall Nelson, *ex officio* Soybean Curator (USDA-ARS, Urbana, IL)

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

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

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

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

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

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

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

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

Members not present:

Kelly Whiting, *ex officio* United Soybean Board representative

Roy Scott, *ex officio* Nation Program Staff representative

Vacant member positions:

Pathologist

Nematologist, entomologist or pathologist

Physiologist, molecular geneticist, biochemist, genomicist, or cytogeneticist

Visitors present:

Shuxian Li, Plant pathologist

Silvia suggested that because it is hard for non-breeder committee members to attend, the committee consider abolishing those positions and perhaps using them as consultants. Another possibility is to conduct more business via emails thru the year. If these positions are dropped, additional breeders could be added to ensure that the committee has enough members to function. This will be left up to the incoming committee members to decide.

Esther Peregrine gave a report on the Soybean Collection. Several people asked why *G. soja* is grown in screen cages in Urbana. Randy Nelson stated that most *G. soja* has apressed pubescence and leaf hoppers attack these plants. Using insecticides does not prevent injury. Screen cages are not needed when plants are grown in Stoneville, MS because the leaf hopper is not present there.

The National Plant Germplasm System GRIN-Global was released in November, 2015. Esther will have poster about GRIN-Global and computer demonstration at the poster session of the Soybean Breeders' Workshop.

There was discussion on adding genetic stocks to the Collection. Randy Nelson said that we cannot meet all of the needs of the research community for preserving genetic stocks but we have begun the process of adding some of these stocks to the Collection. The first to be included will be a selected set of fast neutron mutants from the University of Minnesota. These could be incorporated into the existing Type Collection, put into a separate subcollection, or a new subcollection could be established by combining the old Type Collection with the new genetic stocks. It was recommended that only characterized material be accepted with published data available.

Protocol is being develop by ARS for adding transgenics to National Plant Germplasm System collections. Some of the first transgenics with expired patents are soybean cultivars. Randy envisioned having the seed grown at another location to avoid any contamination of the rest of the Collection. There was some discussion on whether there should just be one line included for each transgene event. The general consensus of the committee was to accept all transgenic varieties as their Plant Variety Protection certificates expire (xPVP) as is currently done with conventional varieties. All xPVP seed requests have a disclaimer stating, "Items have some form of intellectual property rights protection. Recipients are responsible for contacting the developer listed in the GRIN database regarding legal obligations. This material is supplied expressly conditional on acceptance of the terms of these obligations. The recipient's retention of the material constitutes such acceptance."

The committee recommended that all new plant introductions added to the Collection continue to be analyzed with the Illumina 50K SNP markers as has been done with the rest of the Collection. The cost of the 50K chips has decreased and a proposal could be submitted to the United Soybean Board for funding.

In the past all accessions received from outside of the U.S. were pure lined but cultivars, germplasm releases and other entries from within the U.S. or Canada were added to the Collection as received. It was decided that foreign cultivars that have been officially released in their country of origin and have verifiably correct seed source would not be pure lined before adding to the Collection. This would help ensure that the Collection inventory is not genetically different from what is held in the originating country. Foreign accessions that have not been pure lined would be labeled as cultivars in the database and grouped in the "modern" subcollection.

There was a concern that conventional varieties added to the Collection may be contaminated by transgenes. It was suggested that the storage information form submitted with Crop Science registration samples include a statement that the seed has been tested and certified as non-GMO. Randy and Esther will bring the topic up for discussion at the Plant Germplasm Operation Committee (PGOC) meeting in June.

Louise O'Donoghue pointed out that both Ag Canada and Soybase have programs for working with soybean pedigrees and that the two groups benefit from working together.

Zenglu Li was elected as committee chair and Dechun Wang as vice chair. Silvia was thanked for serving a chair and the meeting was adjourned.

Respectfully submitted,

Esther Peregrine,

Assistant Soybean Curator