Minutes of the 2014 Peanut Crop Germplasm Committee Annual Meeting Menger Hotel, San Antonio

Tuesday, July 8, 2014

**Membership**

Peanut Crop Germplasm Committee – 2014

Chair: Dr. Barry Tillman, Univ. of Florida-IFAS

Vice-Chair: Dr. Shyam Tallury, Clemson Univ.

Ex-Officio members: Dr. Noelle Barkley, USDA-ARS

Dr. Peter Bretting, USDA-ARS

Dr. Roy Scott, USDA-ARS

Dr. Karen Williams, USDA-ARS

Members:

Balota, Maria, Virginia Tech

Baring, Michael, Texas Agri Life Research

Burow, Mark, Texas Agri Life Research

Cason, John, Texas Agri Life Research

Chen, Charles, Auburn Univ.

Guo, Baozhu, USDA-ARS

Isleib, Tom, NC State Univ.

Khera, Pawan, ICRISAT

Moore, Kim, ACI Seeds

Ozustun, Mehmet, Polen Seeds, Turkey

Puppala, Naveen, New Mexico State Univ.

Simpson, Charles, Texas Agri Life Research

Stalker, Tom, NC State Univ.

Valentine, Howard, The Peanut Foundation

1. **Call to order:**

* Dr. Barry Tillman, Chair of the Peanut CGC, called the meeting to order at 10 AM. There were 18 people in attendance and due to malfunction of the phone lines in the conference room, NPGS staff couldn’t call in.

1. **Approval of 2013 annual meeting minutes:**

* Minutes of the 2013 annual meeting were distributed. A motion to approve the minutes was made by Dr. Tom Stalker and Dr. Tom Isleib seconded and the minutes were approved as submitted.

1. **Membership review:**

* CGC Membership was reviewed and updated by dropping Dr. Dan Gorbet and adding Dr. Maria Balota to the membership roster. Dr. Tillman indicated that he would be sending an e-mail to remind everyone of preparing the peanut crop vulnerability statement.

1. **NPGS report (Dr. Peter Bretting’s):**

Dr. Karen Williams provided a powerpoint presentation of the National Programs Report

* + - The report indicated that the number of accessions in NPGS have steadily increased over the years from 2000-2013 from about 450,000 to about 550,000 with a corresponding increase in the web page hits as well as in the amount of germplasm distributed from 2007 onwards.
    - During this period, the NPGS budget also grew for most years although the 2013 budget had a cut.
    - The federal government furlough in October impacted the work of NPGS in that the GRIN system was off-line and no germplasm was distributed. The furlough also delayed timely harvesting and shipment of seeds to winter nursery plantings.
    - US seed industry advocated for ratification of the FAO international treaty on plant genetic resources for food and agriculture. Peanut is not on the list of the treaty. Dr. David Bertioli mentioned that the South American countries as well as other developing countries didn’t want peanut included in the germplasm exchange treaty.
    - However, NPGS advocates stronger and more extensive international partnerships and hosted CGIAR genebanks annual meeting and training for international genebanks.

1. **NGRL Report (Dr. Karen Williams):**

* Indicated that Dr. Ned Garvey, CGC Coordinator, retired last year and the position will be replaced soon.
* Plant Exploration Program: Possibilities in countries of native *Arachis* species is ruled out. Explorations in China are possible.
* GRIN Global which was developed in NGRL needs enhancement in the taxonomy section and any comments/suggestions are welcomed.
* Training for GRIN Global is continuing
* Dr. Simpson suggested that access to GRIN Global is needed
* Crop Vulnerability (CV) statement for peanut is needed. The last CV was developed in 2004.
* Dr. Tillman mentioned that the CV will be prepared to present at the 2015 APRES meeting.

1. **Curator report (Dr. Noelle Barkley):**

Regeneration:

* Regeneration priorities include those accessions with low seed counts in cold storage, poor germination and age of the seed.
* Breeders helped out in this process. Dr. Kelly Chamberlin regenerated about 75 Spanish lines in Stillwater and Dr. Tom Stalker helped with regeneration of wild species. Dr. Simpson provided some additional wild species to the collection.
* Additionally, 170 accessions and 10 wild species were planted for seed increase in Citra, FL.
* Entire core collection and the purified mini-core collection in triplicate were also grown in Citra for seed increases to supply to the peanut genomics research users.
* Altogether in 2014, over 1400 lines are being regenerated in Citra.
* The total collection in Griffin is 9,976 of which 9.321 are cultivated and the rest (655) represent wild species accessions. However, the total available are 8,798 of which cultivated are 8,299 and wilds are 499.

Seed Distributions and Processing:

* 1,731 seed requests were fulfilled in 2013. Many seed requests were for school demonstrations, home schooling, organic farming, investigating ancient Andean subsistence patterns and paleo diet, or home gardening.
* Research requests (102) were mainly for evaluation and use of germplasm for breeding, introgression of wild species genes, molecular marker studies, developing assays for Sclerotinia blight, and evaluating for protein and mineral content, for tissue culture and development of ornamental types. Dr. Holbrook raised the issue of prioritizing seed distribution requests as distributions lagged behind due to federal government sequestration. Noelle mentioned that requests are filled in the order they are received to make fair distribution. However, Dr. Tillman raised the question that the first come first serve is a Griffin policy or the USDA distribution policy? Also how to distinguish requests from home gardeners versus breeders or other researchers? Karen Williams indicated that the location can make changes to distribution policy. Dr. Simpson suggested a draft resolution to Dr. Gary Pederson to change policy so research requests get the priority.
* A total of 60 accessions listed in GRIN as unavailable due to low seed counts are being grown in greenhouses as well as in large pots outside to regenerate at least 200 seeds from each. Those with <200 seeds will be planted again for seed increases.
* Germplasm characterizations included phenotyping and genotyping of the core collection and also developing digital images of the core and mini-core accessions. Images included whole plot at mid-season, whole plant after digging, pods, seeds and flower of each core accession. About 2,250 images of seeds of accessions from the collection were taken and will be added to the GRIN database. Formatting of photos and uploading into GRIN global takes a long time and currently only one person is handling all of the IT related issues.
* Germplasm acquisitions included 100 wild species from ICRISAT, five short-season breeding lines from Canada. Additionally, 35 ICRISAT mini-core lines are being processed through quarantine. Any of the quarantined lines tested positive by ELISA for peanut stripe and mottle virus will be destroyed by autoclaving the samples.
* All peanut accessions have been moved to -18C building for long term storage. Each accession is split between new 4C cold storage building (distribution samples) and -18C building for long term storage. Dr. Simpson asked about the type of containers used for storage as he had experienced loss of materials due to a faulty humidity control. Noelle mentioned that coffee type bags that fold down are used for 4C storage and aluminum heat sealed bags for -18C storage.
* Entire cultivated and wild species collection was tested for germination. The data was loaded into GRIN to help make decisions for regeneration. All newly regenerated accessions with over 200 seeds are being tested for seed viability before they are moved to the cold rooms. Wild species rarely have about 200 seeds and hence no germ data on these.
* Dr. Barkely doesn’t have a federally supported technician to help with all operations of the germplasm maintenance and processing. She needs more personnel to help the backlog for shelling and sorting out priorities for regeneration. Howard Valentine mentioned that a resolution from peanut CGC to reconsider personnel help to Noelle with shelling, phenotyping, data collection, and pictures would help him to discuss this issue with Dr. Debra Brannon.
* Dr. Barkley thanked Corley Holbrook for providing 16 lines that were missing from the core collection and Charles Simpson would send 2 missing core lines to Noelle.

1. **Wild Species Report (Dr. Simpson):**

* Mentioned about Dr. Roy Pittman’s passing and acknowledged Dr. Pittman’s contributions with wild species
* Continuing to grow and maintain the wild species collection in Stephenville in greenhouses only
* MTA is being worked on at Texas AgriLife Research to transfer wild species materials to cooperators.

1. **Mini Core Collection Report (Drs. Corley Holbrook/Charles Chen):**

* Mini core was purified in 2010 and all entries were registered with the same accession #.
* Set of all resistant sources from the mini core is made.

1. **Breeder’s Collection Report (Dr. Tom Stalker):**

* Compiling a list of resistance sources and also high-oleic lines to provide one list of germplasm sources with resistance to ELS, LLS, CBR, TSWV etc. for breeders and other researchers.
* Contacted ICRISAT for list of accessions to make up disease nurseries and will also contact the breeders for seed. Will enclose the list to mark out duplicates.

1. **UPPT Update (Dr. Bill Branch):**

* 2013 UPPT results of agronomic data are available and copies can be obtained by e-mailing Dr. Branch.
* Contact Dr. Marshall Lamb for shelling data and Dr. Tim Sanders for quality data.

1. **Winter Nursery Report (Dr. Tom Isleib):**

* The 2013-2014 Puerto Rico Winter Nursery (PRWN) had 1100 plots (12’ long) on an area of 2.5 acres.
* PRWN budget is considered a permanent request each year in The Peanut Foundation.
* Projects were billed for end of season costs in excess of the subsidy for harvest labor or shipping costs.
* Dr. Corley Holbrook mentioned that insects have been an issue this year to ship materials back to the US and materials have to be fumigated before they were shipped.

1. **Crop Vulnerability Statement:**

* Barry Tillman will be contacting the CGC membership for updating the CV statement.

1. **Other business:**

Dr. Simpson announced that he brought copies of the wild species monograph in English for interested individuals.

A motion to adjourn the meeting was made by Dr. Stalker, seconded by Dr. Branch and the meeting adjourned at 11:56 AM.

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