

**S-009 Regional Technical Advisory Committee
Minutes of Annual Meeting August 26, 2020
Virtual Meeting via Zoom**

S-009 Members Present:

Administrative Advisor (University of Georgia)
Alabama (Auburn University)
Georgia (University of Georgia)
Kentucky (University of Kentucky)
Mississippi (Mississippi State University)
North Carolina (North Carolina State University)
Oklahoma (Oklahoma State University)
Puerto Rico (University Puerto Rico)
South Carolina (Clemson University)
Tennessee (University of Tennessee)
Texas (Texas AgriLife Research)

Bob Stougaard, bob.stougaard@uga.edu
Charles Chen, cyc0002@auburn.edu
Soraya Bertoli, sbertoli@uga.edu (Secretary)
Tim Phillips, tphillip@uky.edu
Brian Baldwin bsb2@pss.msstate.edu
Carlos Iglesias, caiglesi@ncsu.edu
Yanqi Wu, yanqi.wu@okstate.edu
Carlos Flores, carlos.flores3@upr.edu
Rick Boyles, rboyles@clemson.edu
Virginia Sykes, vsykes@utk.edu (Chair)
John Cason, j-cason@tamu.edu

Plant Genetic Resources Conservation Unit Members Present:

Melanie Harrison, melanie.harrison@usda.gov
Shyam Tallury, shyam.tallury@usda.gov
Ming Li Wang, mingli.wang@usda.gov
Tiffany Field, tiffany.fields@usda.gov
Brad Morris, brad.morris@usda.gov
Bob Jarret, bob.jarret@usda.edu
Nicholas Stigura, nicholas.stigura@usda.gov
Brandon Tonnis, brandon.tonnis@usda.gov

Other Attendees

Peter Bretting (USDA, National Program Leader), peter.bretting@usda.gov
Stephen Kresovich (National Genetic Resources Advisory Council), skresov@clemson.edu

Welcome and Introductions

The meeting was called to order on Aug. 10, 2021 at 9:00 am EDT by S-009 Regional Technical Advisory Committee (RTAC) Chair Virginia Sykes.

Participants introduced themselves, and Virginia Sykes introduced the new member: Carlos Iglesias (NC).

Presentations

After introductions, there were three invited presentations, representing the perspective from university breeders, perspective from the home gardeners, and a presentation on GRIN Global database. First talk was by Dr. Sachin Rustgi (Clemson University, SC, srustgi@clemson.edu): "Germplasm screening and allele recycling to breed crops with novel traits". In this talk, Dr Rustgi showed examples of utilization of germplasm for reduction of peanut allergy and wheat gluten and breeding of annual cotton. The second presentation, by Dr. Natalie Bumgarner (University of Tennessee, nbumgarn@utk.edu): "Plant germplasm from a gardener's perspective". In this talk she described garden trials organized by the University of Tennessee that have the involvement of local communities; in this way, trial data can be obtained from private gardeners, assets of "citizen science". The third talk

was by Nicholas Stigura (nicholas.stigura@usda.gov), the GRIN Global data manager for S009, Griffin, GA. He gave an overview of the GRIN Global database website, showed how to navigate the website and how to use specific functions.

There were three update presentations by Peter Bretting, Bob Stougaard and Melanie Harrison:

Peter Bretting - made a presentation "The National Plant Germplasm System: 2021 Status, Prospects and Challenges". He gave a yearly update with the status of the system. He mentioned the partnership USDA x Griffin, the increase of number of NPGS accessions and slow but consistent decrease in funding, effects of COVID, successes and key challenges for the NPGS. Training initiative gave rise to courses by Gayle Volk (ARS-Ft. Collins, CO) and Patrick Byrne (Colorado State University-Ft. Collins, CO) created an online course "Plant Genetic Resources: Genomes, Genebanks, and Growers" offered by the Colorado State University (<http://pgrcourse.colostate.edu>). He also mentioned that the role of the NPGS is to provide germplasm for research, not home gardeners, and there is a video for educating public on it, led by Barbara Hellier (<https://youtu.be/uHOcIGNELuw>). Richard Boyles asked if the decrease of funds reflects the ability of the germplasm systems to improvise and adjust, doing the same job with less budget. Bretting mentioned that the decrease is constant and insidious, but fortunately, Congress is aware of it and charged him to develop a plan to deal with the backlog in germplasm maintenance and characterization. A comprehensive plan has been developed for the next 10 years, so by this time next year we should have distributed this plan and discussed the plan. Yanqi Wu asked if there is funding for germplasm acquisition, and Bretting said there are specific grants for collections mainly in the USA but also in some overseas nations. But the acquisitions are targeted, increasing genetic diversity with the minimum number of collections. Charles Chen – is there a budget to increase employee number? Dr Bretting replied "Yes". Dr Bretting finalized by thanking the S009 committee that they have been strong supporters and contributed greatly over the years to the Griffin gene bank and the NPGS as a whole.

Bob Stougaard - gave an update on the National Plant Germplasm Coordinating Committee. In the June meeting there were extensive discussions on how COVID impacted everybody. Both Peter Bretting and Melanie Harrison presented updates on their respective areas. He mentioned discussions about hemp and noted that there appears to be a lot of genetic diversity. Within the southern region, Texas and Kentucky are working a lot with it. The Southern Association of Ag Experimental Station Directors meeting was held virtually in April and the main points of interests were a discussion about the potato genebank project in Sturgeon Bay Wisconsin (NRSP6) - these types of projects operate for five years and are supposed to generate their own income and that hasn't happened, so funds for the potato gene bank have been recommended to be terminated. They will be receiving funding for one year and will shut down. He presented a report on the S-009 committee to the directors. The directors appreciate the importance of the work done in Griffin. GA legislators increased salaries of some employees, so the budget had to be amended. He sees a reluctance of the directors to increase their contribution to the S-009 project, so Peter Bretting will present to the directors in the next spring meeting at Texas on the importance of S-009 committee and try to get the directors to hold a meeting in Griffin so they can see the facilities.

Virginia Sykes asked: last year in the business meeting we discussed if we are only supposed to report our use of germplasm that comes from S-009, or do we also report the use of germplasm from the other NPGS facilities? Stougaard said this will need to be brought up at the National Plant Germplasm Coordinating Committee. Soraya asked what the consequences to the potato germ bank in Wisconsin would be. Stougaard and Bretting said that the cut in budget will significantly reduce their capabilities and they will need to look for other federal resources to keep them on board, probably for research and

evaluation. The gene bank itself is not in danger of closing. They both added that changes in philosophy and priority were the reasons for this budget cut.

Melanie Harrison – gave an overview on “Plant Genetic Resources Conservation Unit Update”. The presentation described the history of PGRCU, that started in 1949 at UGA, Griffin campus, as a collaborative effort between USDA and the Southern State Agricultural Experiment Stations (S-009), with 811 accessions. Now it is the second largest site with numbers of accessions. All the yearly reports can be accessed on the PGRCU and the NIMSS (National Information Management and Support System) websites. The genebank in Griffin preserves over 100,000 accessions of over 1600 species. In 2020, due to pandemic, regenerations and distributions were reduced. Genetic and phenotypic characterization were done for several crops. A lot of the evaluation were done outside, with the help of collaborators. The employees have been very creative and determined to make sure the jobs get done despite the constraints of the pandemic. There have been some new hires. She also described some upgrades on equipment and buildings. There is a proposed site for a new addition for a new cold room and freezer, and a new land lease proposal ~6 acres for regenerations. There should be increased capacity for storage.

Afternoon – general business

Welcome and Overview by Virginia Sykes, S-009 Chair

- Reading of 2020 Minutes

Virginia reviewed the minutes of 2020.

<https://www.ars.usda.gov/southeast-area/griffin-ga/pgrcu/docs/s-009-multistate-research-project/>

State Reports

Representatives summarized the state activities, numbers of requests, distributions, utilization, acquisition strategies, and, in some cases, reported new hires and retirements, publications, cultivar releases, germplasm releases and patents – (Georgia, Kentucky, South Carolina, Tennessee). Carlos Iglesias, the new representative for North Carolina introduced himself.

Nominations for 2021 officers and meeting location

Soraya is the incoming president. Rick nominated Carlos Iglesias as incoming secretary; Soraya seconded. All approved. After discussions, Virginia proposed to have next year the meeting in Griffin, Carlos Iglesias seconded. All approved. Virginia mentioned that the meeting location should be in the state of the current chair.

Discussions on the reporting/role of secretary

Rick clarified that he sent an email to everyone that requested germplasm and encouraged them to provide general feedback. That helped him compile the report.

What is the role of the secretary? Virginia mentioned that maybe it would be helpful to have a document with the job descriptions of the committee members, the secretary, and the chair. There was a general feeling and agreement that the state representatives step into the job not knowing exactly what they are supposed to do, what is the format of the report, where to get information from. Melanie did not find any guidelines in the NIMSS website. Stougaard offered to check with Gary Thompson (executive director of the Southern Association of Agricultural Experiment Station) to see if there is anything available. Soraya questioned if the information that is provided in the reports is enough and sufficient. Melanie mentioned that the reports she receives from the state representatives are very

diverse. Melanie will put together a template with suggestions on what to present and share with Soraya and Rick to work on this. Shyam mentioned that some states are reporting on crops that are not included on the S-009, but the NPGS (like soybean, wheat).

Bretting conformed that the reports from the other committees are also very variable and suggested that Stougaard conferred with counterparts from other stations to see how they do it. Virginia questioned who the end users for these reports are. Bretting: traditionally, some of the SAES representatives would get the information and give feedback. It is a way to enabling the directors each year to continue to fund the PI stations. This shows return of investment, a way to show how the NPGS is benefiting the state ag of the region. Tim: this is how he did for several years, and it was quite helpful. Rick asked Melanie if sorghum germplasm utilization is being properly covered by either S-009 or other regions. Yes. Rick: Is there a way to increase the visibility of what the Unit is doing? How can we make it better? Melanie said that the committee evolved from being inquisitive to being supportive. She welcomes constructive criticisms and ideas for improvements.

Peter said that he sees the role of the committee evolved from the one of referees to being coaches. Soraya: how can we make the reports in a way that will make a difference, valuing the work of the germplasm banks? Melanie suggested for the state representatives to get in touch with the authors of the publications and ask about what is the specific accessions, their characteristics. This would be valuable to link the germplasm and product. This can be used for other reports and to communicate with congress, stakeholders etc. Rick: we need to put some information/guidelines so we can contact the right people who requested germplasm years back and what are the results from it? Stougaard added that information on dollar value of the income for the state is very important. Virginia mentioned that a lot of breeding programs already have that information. Melanie said that normally we don't get the information of economic impact, but this could be very helpful. And having the state reports standardized would be very helpful. Carlos Iglesias asked about learning materials or courses for graduate students. Peter mentioned the course from Colorado State (plant genetic resources) and there are a lot of online materials, including YouTube videos. Melanie: UGA has a semester long course on genetic resources, by Cecilia McGregor, who takes students touring the unit. Peter offered to share his PowerPoint presentation by email. Soraya, as the new chair, adjourned the meeting.