

MINUTES
41th RICE CROP GERMLASM COMMITTEE MEETING

Wednesday, February 24, 2021
Virtual meeting

The 41st Rice Crop Germplasm Committee meeting was held on Wed., February 24, 2021 as a virtual meeting via zoom due to Covid19 restrictions. Members in attendance were Georgia Eizenga (Chair), Brijesh Angira, Nick Bateman, Teresa DeLeon, Ed Redoña, Omar Samonte, Xueyan Sha, Paul Sanchez, Shane Zhou, Bishwo Adhikari, Harold Bockelman, Peter Bretting, Travis Huggins, Gary Kinard, Anna McClung and Jack Okamuro. Member Qiming Shao was unable to attend, thus guest NanYen Chou, attended. Other guests in attendance were Virgilio Andaya, Matt Calloway, Joe Kepiro, Karen Moldenhauer, Shannon Pinson, Shyamal Talukder, and Ted Wilson.

The meeting was called to order. Georgia noted the minutes from the 40th Rice Crop Germplasm Committee meeting held on Feb. 24, 2020, in Orange Beach, Alabama were approved on by email on July 8, 2020. The minutes were included in the Proceedings of the 38th Rice Technical Working Group.

Peter Bretting USDA/ARS Office of National Programs, reported on the status of the National Plant Germplasm System (NPGS) which highlighted there being 597,400 accessions in the collection and the budget being relatively flat when adjusted for inflation. Distribution of accessions was down 20% due to covid restrictions which affected the work schedules of those involved in seed distribution and some shipments. GRIN-Global has functioned normally throughout covid. There is a focus on acquiring and conserving additional germplasm especially accessions of crop wild relatives and there has been growth in the genetic stocks collections. Virtual training for Plant Genetic Resource (PGR) managers is under development. This is especially important considering 1/3 of the PGR managers are near or at retirement age. Budget increases in FY20-FY21 included \$190,000 for Small Grains Genetic Resources at Aberdeen, ID. (As background, the National Small Grains Collection located at Aberdeen distributes rice, wheat, barley and oat accessions.) A video describing the National Plant Germplasm System operations is accessible from the ARS YouTube site: <https://youtu.be/uHOclGNELuw>.

Gary Kinard, USDA/ARS National Germplasm Resources Lab, highlighted the new version of the on-line information and germplasm ordering system, GRIN-Global, which has additional enhancements. Crop wild relatives (CWR) can be queried through the weblink (<https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomysearchcwr.aspx>) which currently includes 241 major and minor crops from 120 genera and CWR from 4013 taxa with others in progress. A Botanist position with the lab was scheduled to open for applications in late January 2021. Guidelines for developing plant exploration and exchange proposals will be distributed to CGC chairs in February 2021 and the proposals are due July 30, 2021 to Karen Williams.

Joseph Foster, USDA/APHIS Plant Germplasm Quarantine Program (PGQP) reported the position for the Lead Plant Pathologist & Program Manager for the *Poaceae* Quarantine Program was advertised and they were reviewing the candidates. Twenty-seven rice accessions from the

International Rice Research Institute (IRRI) which had no endornavirus were released from quarantine and sent to Arkansas.

The policy of not distributing seed that had endornavirus was discussed and the need for a PCR test to detect the virus in the seed. Martha Malapi-Wight was examining if the virus was still present after a grow-out before she left for another position. (Bishwo Adhikari is now serving in Martha's former position.) The APHIS policy group is currently reviewing this situation.

Harold Bockelman, Curator of the National Small Grains Collection, reported 15 new *O. sativa* accessions were added to the collection and all had PVP on them. There were 1,052 rice accessions (seed packets) distributed in 91 separate requests since January 2020. Currently there are 19,127 accessions in the *Oryza* collection with 18,915 being *O. sativa* accessions. The "Crop Vulnerability Update for Rice" information slide was reviewed. It was noted that Bayer Crop Science rice breeding had merged into Nutrient Ag Solutions, thus Bayer Crop Science was removed.

Trevis Huggins, USDA/ARS Dale Bumpers National Rice Research Center (DBNRRC), reported that from 2015 to Feb. 2021, the Genetic Stocks *Oryza* (GSOR) collection shipped 837 orders of 123,907 accessions within the USA, and 140 international orders of 8,398 accessions to 70 countries. To reduce the redundancy in the NSGC rice collection, a new set of NSGC accessions that are "Redundant by Name", in other words, accessions with the same name, are being phenotyped together under field conditions and genotyped to identify those that are the same accession. Of the 190 accessions in the collection listed as *O. glaberrima* accessions, 146 were determined to be *O. glaberrima*, 30 were *O. sativa* and 14 were *O. glaberrima* derivatives based on markers and the passport data. A detailed "Operations and Management Guide" for rice rejuvenation protocol was developed.

Trevis recommended adding six new descriptors 1) apiculus color, 2) long sterile lemma, 3) awn color, 4) leaf blade pubescence, 5) daylength sensitivity and 6) shattering to the characterization of the *Oryza* accessions. This was approved by all committee members.

The Crop Science publication describing genotyping of the rice collection and the U.S. Advanced Variety Panel, a set of 97 rice varieties in the US pedigree, is now available at McClung et al. (2020; Crop Science 60:3191-3211; <https://doi.org/10.1002/csc2.20256>).

Georgia reported the Rice CGC minutes from 1984 to present were scanned with only a few missing.

Motion to adjourn by Anna McClung, Paul Sanchez seconded the motion, and the motion was supported by all members.

Addendums:

October 13, 2021 approved the following by email:

- 1) Request from Adam Famoso to have Brijesh Angira complete the rest of his term
- 2) Extending the term for all members an additional year to coincide with the 39th Rice Technical Working Group meeting being postponed to Feb. 20-23, 2023 and subsequent RTWG meetings being held in odd numbered years.

Yulin Jia became Acting Director of the Dale Bumpers National Rice Research Center (DBNRRC) on Oct. 24, 2021, after Anna McClung stepped down as the DBNRRC director, thus Yulin is now an *ex-officio* member of the committee.

Appendix I. CGC members updated June 24, 2021 with year term ends in parentheses.

<p>Dr. Georgia Eizenga, Chair (2024) USDA-ARS Dale Bumpers National Rice Research Center 2890 Hwy 130 E Stuttgart, AR 72160 Georgia.Eizenga@usda.gov</p>	<p>Dr. Nick Bateman (2022) Rice Research and Extension Center University of Arkansas 2900 Hwy 130 E Stuttgart, AR 72160 nbateman@uada.edu</p>
<p>Dr. Teresa De Leon (2026) California Cooperative Rice Research Foundation P.O. Box 306 Biggs, CA 95917-0306 Tdeleon@ccrrf.org</p>	<p>Dr. Adam Famoso (2022) H. Rouse Caffey Rice Research Station Louisiana State University 1373 Caffey Road Rayne, LA 70578 AFamoso@agcenter.lsu.edu</p>
<p>Dr. Edilberto (Ed) Redoña (2024) Delta Branch Experiment Station Mississippi State University 82 Stoneville Rd. P.O. Box 197 Stoneville, MS 38776 ed.redona@msstate.edu</p>	<p>Dr. Stanley (Omar) Samonte (2024) Texas A&M AgriLife Research Center 1509 Aggie Drive Beaumont, TX 77713 stanley.samonte@ag.tamu.edu</p>
<p>Dr. Paul Sanchez (2022) Lundberg Family Farms 5311 Midway P.O. Box 369 Richvale, CA 95974 psanchez@lundberg.com</p>	<p>Dr. Xueyan Sha (2026) Rice Research and Extension Center University of Arkansas 2900 Hwy 130 E Stuttgart, AR 72160 xsha@uada.edu</p>
<p>Dr. Qiming Shao (2024) Nutrien Ag Solutions 676 County Rd 324 El Campo, TX 77437 qiming.shao@nutrien.com</p>	<p>Dr. Xin-Gen (Shane) Zhou (2024) Texas A&M AgriLife Research Center 1509 Aggie Drive Beaumont, TX 77713 xzhou@aesrg.tamu.edu</p>
<p>Dr. Harold Bockelman, Ex-officio USDA-ARS National Small Grains Collection 1691 S 2700 W Aberdeen, ID 83210 Harold.Bockelman@usda.gov</p>	<p>Dr. Peter K. Bretting, Ex-officio USDA-ARS, NPS Nat. Prog. Leader, Plant Germplasm and Genomes 5601 Sunnyside Avenue Beltsville, MD 20705-5139 Peter.Bretting@usda.gov</p>
<p>Dr. Bishwo Adhikari, Ex-officio Lead Plant Pathologist & Program Manager, Poaceae Quarantine Program USDA-APHIS Plant Germplasm Quarantine Program Bldg. 580, BARC-East Beltsville, MD 20705 Ph: 301-313-9297 bishwo.n.adhikari@usda.gov</p>	<p>Dr. Trevis D. Huggins, Ex-officio USDA-ARS Dale Bumpers National Rice Research Center 2890 Hwy 130 E Stuttgart, AR 72160 Trevis.Huggins@usda.gov</p>

<p>Dr. Gary Kinard, Ex-officio Research Leader USDA-ARS National Germplasm Resources Laboratory Beltsville, MD 20705 Gary.Kinard@usda.gov</p>	<p>Dr. Anna M. McClung, Ex-officio USDA-ARS Dale Bumpers National Rice Research Center (DBNRRC) 2890 Hwy 130 E Stuttgart, AR 72160 Anna.Mcclung@usda.gov</p>
<p>Dr. Jack Okamuro, Ex-officio USDA-ARS, NPS National Program Leader, Plant Biology 5601 Sunnyside Avenue Beltsville, MD 20705-5139 Jack.Okamura@usda.gov</p>	