

MINUTES
31th RICE CROP GERMPLASM COMMITTEE MEETING
Thursday, 3 February 2011
Beaumont, Texas

The 31th meeting of the Rice Crop Germplasm Committee was held Monday 3 February 2011 in Beaumont, Texas. Members in attendance were Georgia Eizenga (Chair), Dwight Kanter, Anna McClung, Karen Moldenhauer, Wengui Yan. Member participating via conference call were Mark Bohning, Harold Bockelman, Peter Bretting, Clarissa Maroon-Lango and Jack Okamoto. Members not present were James Correll, James Gibbons, Farmin Jodari, Jim Oard, Xueyan Sha, M.O. Way and Billie Woodruff. Guests in attendance were Jason Bonnette, Mickey Frank, Walter Solomon, Rodante Tabien, Chuck Wilson, Zongbu Yan and Qijun Zhang.

Billie Woodruff, the committee member representing industry, resigned from RiceTec, Inc. and asked to be replaced. Qiming Shao, Bayer Crop Science, was nominated to complete Billie's term by Wengui Yan. All committee members supported the nomination. Subsequently, Georgia contacted Qiming asking him to serve on the committee and he accepted the invitation.

The minutes of the 30th Rice Crop Germplasm Committee held 22 February 2010 in Biloxi, Mississippi were read and approved by a motion from Karen Moldenhauer and seconded by Dwight Kanter.

Harold Bockelman (USDA/ARS NSGC) reported that 2,900 samples had been distributed from the collection to 150 requesters which is about average for a given year. There were 31 PI assignments in the past year, for a total of 18,726 *Oryza* accessions in the collection of which 18,475 are *O. sativa* accessions and these originate from 116 countries including the USA.

The Brazilian rice core collection consisting of 383 accessions was obtained from Brazil with an SMTA and is currently in cold storage in Fort Collins, CO. Discussion commenced regarding how to bring these accessions through quarantine and it was decided that Clarissa could bring 200 accessions through the quarantine facility in Beltsville this year. John Guerber, Univ. of Arkansas-Fayetteville initially said that he could handle 150 accessions but later had other accessions come through for quarantine grow-out and had to decrease the number that he could grow. Harold Bockelman agreed to coordinate the seed distribution of these accessions for quarantine grow-out.

Harold mentioned that GRIN-Global will be able to take molecular marker data (more in Mark Bohning's report below). Wengui Yan stated 72 SSRs have been run on the NSGC core collection of 1,790 accessions and 155 SSRs on the mini-core collection consisting of 217 accessions. This data could be added to the GRIN-Global database. This led to a discussion of where to store the enormous amount of SNP data that is being generated because GRIN cannot handle this large amount of molecular data. Currently this data is being stored in other databases like Gramene (www.gramene.org) for rice and Soybase for soybeans. This becomes an even bigger issue as even more genotypic data is generated with improved molecular technologies and the genotyping becoming less expensive. Most likely, GRIN will just provide links to the appropriate databases.

Peter Bretting and Jack Okamuro (USDA/ARS NPS) reported on the status of National Plant Germplasm System (NPGS) and highlights of this report related to rice follow. The USDA/ARS-NPGS is partnering with GCDT (Global Crop Diversity Trust) and Bioversity to transform GRIN into GRIN-Global. The monies from the stimulus package addressed high priority repair and maintenance tasks. The FY10 budget provided some modest increases and substantial increases were proposed in the FY11 budget. National Program 301 which includes the Plant Genetic Resources group is up for renewal in 2013 so the background work will be started in the upcoming year and extent through 2012. The National Plant Germplasm Coordination Committee seeks to promote a stronger, more efficient, widely recognized and better utilized NPGS.

The following is taken from the report since it details the status of the FAO International Treaty and the Nagoya Protocol which Peter reviewed at length. “The FAO Treaty (IT) for Plant Genetic Resources for Food and Agriculture came into force on 29 June 2004, and beginning in 2007 its standard material transfer agreement (SMTA) for plant genetic resource exchange was adopted by Parties to the IT and the CGIAR Centers for distributing plant genetic resources. On 7 July 2008, the White House transmitted the IT to the Senate; ratification would require the advice and consent of a 2/3 majority of the Senate. The Senate Foreign Relations Committee (SFRC) held hearings on the IT on 10 November 2009. During their last Business Meeting of the 111th Congress (30 November 2010), the SFRC voted the IT out of committee, for consideration by the full Senate. Unfortunately, the Senate adjourned on 22 December 2010 without voting on the IT. The SFRC plans to schedule new hearings on the IT during 2011, and move it to the full Senate for a vote for consent (or not) to IT ratification.

Concurrently, the Convention on Biodiversity (CBD) adopted the voluntary, non-binding Bonn Guidelines on Access and Benefit-Sharing during the sixth Conference of Parties (COP-6) of the CBD at The Hague in April 2002. Starting in 2006, Parties to the CBD began negotiating what became the legally-binding Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization. Adopted by the COP-10 on 29 Oct. 2010, the Nagoya Protocol is quite complicated, with many ambiguous components; its ramifications are currently under analysis (see <http://ictsd.org/downloads/2010/11/abs-protocol.pdf> for the text).

The preceding developments at FAO and with the CBD will substantially affect international exchange of plant genetic resources, and the NPGS, whether or not the U. S. is ultimately a Party to either or both treaties. Precisely how these treaties will affect U. S. users of germplasm depends on their implementation. ”

Clarissa Maroon-Lango (APHIS, PPQ) reported that she completed the grow-out of the remaining 121 accessions from Bangladesh. This seed should be shipped to Harold by May 10, 2011. A few of the accessions appeared to be photoperiod sensitive and were slow to flower. Suggestions were given as to how to ratoon the plants and hopefully get additional seed from new tillers/panicles in the greenhouse at Beltsville. Also, completed was the quarantine grow-out of the accessions from Indonesia.

Mark Bohning (USDA/ARS GRIN DBMU) reported highlights from the National Germplasm Resources Laboratory report. These items were Dr. Gary Kinard started as research leader in

January 2009; the plant exploration and exchange program complies with the Convention on Biological Diversity (CBD) which includes sharing the resources collected; in 2010 the Plant Exchange Office assisted with distribution of 861 shipments to scientists in 77 different countries; the taxonomic data in GRIN is continually updated and is the most requested item by the public; plant introduction (PI) numbers are assigned by Mark and are sequential for all species; and the National Agriculture Library completed digitization of the PI book. All germplasm accessions acquired by the NPGS since the CBD are flagged and the appropriate disclaimers and MTA included. The new SMTA issued under the International Treaty is also tracked and included when seed is mailed out. GRIN-Global is a cooperative effort between the GCDT, USDA/ARS and Biversity International to develop a powerful plant genetic information system that is freely available to any country. The web site for the beta version is <http://test.grin-global.org>. GRIN was enhanced to handle molecular data. To date, SSR data was uploaded on seven species and AFLP data on one species.

The CGC Chairs 13th biennial meeting was held in Geneva, NY July 27-28, 2010 in conjunction with the Plant Germplasm Operations Committee and the Regional Technical Advisory Committees. Georgia Eizenga attended this meeting which included a demo and discussion of the new GRIN-Global, updates on present status of plant germplasm exchange, international issues, preservations and utilization, interaction between curators and CGC chairs. One action item discussed at the meeting was updating the Crop Vulnerability reports which are used for several other reports. The suggestion made was to update the Crop Vulnerability report the same year the RTWG (Rice Technical Working Group) meeting is held because much of the information needed for this report is updated for RTWG. Other suggestions were given as to where to find the needed data. Karen Moldenhauer made the motion to update the Rice Crop Vulnerability report on RTWG years, Dwight Kanter seconded the motion and the motion was supported by all members.

Anna McClung reported that all greenhouses associated with the Southern public breeding programs out of quarantine for rice panicle mite except Beaumont, Texas.

The next Rice CGC meeting will be held in conjunction with the Rice Technical Working Group meeting scheduled for Feb. 27- March 1, 2012 at the Hot Springs Convention Center/Embassy Suites in Hot Springs, Arkansas.

Karen Moldenhauer made the motion to adjourn, Dwight Kanter seconded the motion and the motion was supported by all members.

Appendix I. CGC members as of Feb 4, 2011 with year term ends in parentheses.

<p>Dr. Georgia Eizenga, Chair (2012) USDA-ARS Dale Bumpers National Rice Research Center 2890 Hwy 130 E Stuttgart, AR 72160 Georgia.Eizenga@ars.usda.gov</p>	<p>Dr. Farmin Jodari (2014) Calif. Coop. Rice Res. Foundation P.O. Box 306 Biggs, CA 95917-0306 fjodari@crrf.org</p>
<p>Dr. Dwight Kanter (2016) MAFES Delta Branch Experiment Station P.O. Box 197 Stoneville, MS 38776 dgkanter@drec.msstate.edu</p>	<p>Dr. Jim Oard (2016) Louisiana State University M.B. Sturgis Hall Department of Agronomy Baton Rouge, LA 70803 Joard@agcenter.lsu.edu</p>
<p>Dr. Qiming Shao (2012) Bayer Crop Science 676 County Rd 324 El Campo, TX 77437 qiming.shao@bayer.com</p>	<p>Dr. M.O. Way (2016) Texas Ag Exp. Station 1509 Aggie Drive Beaumont, TX 77713 moway@aesrg.tamu.edu</p>
<p>Dr. James Correll (2012) Plant Pathology Dept. University of Arkansas Fayetteville, AR 72701 jcorrell@uark.edu</p>	<p>Dr. James Gibbons (2012) Rice Research and Extension Center University of Arkansas 2900 Hwy 130 E Stuttgart, AR 72160 jgibbon@uark.edu</p>
<p>Dr. Karen Moldenhauer (2016) Rice Research and Extension Center University of Arkansas 2900 Hwy 130 E Stuttgart, AR 72160 kmolden@uark.edu</p>	<p>Dr. Xueyan Sha (2014) Rice Research Station LSU Ag Center 1373 Caffey Road Rayne, LA 70578 XSha@agcenter.lsu.edu</p>
<p>Dr. Harold Bockelman, Ex-officio USDA-ARS National Small Grains Collection 1691 S 2700 W Aberdeen, ID 83210 Harold.Bockelman@ars.usda.gov</p>	<p>Dr. Anna M. McClung, Ex-officio USDA-ARS Dale Bumpers National Rice Research Center 2890 Hwy 130 E Stuttgart, AR 72160 Anna.Mcclung@ars.usda.gov</p>
<p>Mr. Mark A. Bohning, Ex-officio CGC Facilitator USDA-ARS National Germplasm Resources Room 400 10300 Baltimore Ave. Bldg. 003, BARC-West Beltsville, MD 20705-2350 Mark.Bohning@ars.usda.gov</p>	<p>Dr. Clarissa J. Maroon-Lango, Ex-officio Lead Plant Pathologist USDA, APHIS, PPQ, PHP, PSPI Plant Germplasm Quarantine Program (PGQP) Bldg. 580, BARC-East, Powder Mill Road Beltsville, MD 20705 Clarissa.J.Maroon-Lango@aphis.usda.gov</p>
<p>Dr. Jack Okamura, Ex-officio USDA-ARS, NPS Nat. Prog. Leader, Gen'l Biological Sci., Plant Physiology & Cotton 5601 Sunnyside Avenue Beltsville, MD 20705-5139 Jack.Okamura@ars.usda.gov</p>	<p>Dr. Wengui Yan, Ex-officio USDA-ARS Dale Bumpers National Rice Research Center 2890 Hwy 130 E Stuttgart, AR 72160 Wengui.Yan@ars.usda.gov</p>