

Rice Crop Germplasm Committee

The 24th meeting of the Rice Crop Germplasm Committee was held at 1:00 PM on February 29, 2004 at the 30th Rice Technical Working Group Meeting, Rosedown Room, Double Tree Hotel, New Orleans, LA. Members present were Karen Moldenhauer (Chair), James Correll, James Gibbons, Georgia Eizenga, Rick Cartwright, Jim Oard, and Robert Fjellstrom. Ex-officio members present were Harold Bockelman, Mark Bohning, Neil Rutger. Other attendees included Dwight Kanter, Federico Cuevas, Fleet Lee, Gary Cave, Chuck Rush, Molly Fogleman, Noel Yap, Dave Marshall, Kent McKenzie, Anna McClung, Lorie Bernhardt, Kirk Johnson, Donna Mitten, Morris Levy, Maria Levy, Wengui Yan, David Gealy, YiQing Guo, Gene Hookstra, Mark Walton, Yulin Jia, Howard Black, Jeff Oster, Donn Beighley, Anirudha Singh Yadav, Robert Miller, Junda Jiang, Hanlin Du, Mohammad Mostafavi, Chris Greer, Fabrocop Rodrigues, and Lawrence Datnoff.

Minutes of the 23rd meeting of the Rice Crop Germplasm Committee held on November 18, 2003 at Stuttgart, AR were approved as amended. Georgia Eizenga made the motion and Jim Correll seconded.

1. Curator report 1:10 pm – Dr. Harold Bockelman, curator of the National Small Grains Collection in Aberdeen, ID, made a presentation on the status of the Rice Germplasm Collection. He passed out a new list of the PI assignments for rice submitted since 2002 and mentioned that the 1300 backlog accessions released from Quarantine would be increased this year at the RREC in Arkansas by Wengui Yan of the Dale Bumpers National Rice Research Center. The PI assignment list will expand greatly in 2004. Parents of a mapping population were assigned different PI numbers. The second page of the report lists the species of rice involved and the third page GRIN output data. Harold said that assigning the parents new numbers so that you would know exactly the parent for a given mapping population is a compromise as some proposals wanted PI numbers for all members of a mapping population.

2. Genetic Stocks Report 1:25 pm – Neil Rutger, Dale Bumpers National Rice Germplasm Center, Stuttgart, AR. Dr. Rutger passed out a handout. The Genetics Stocks *Oryza* program (GSOR) was established in August of 2003 at the DBNRRRC. Genetic stocks storage has already been done for other crops including maize, tomatoes, barley and wheat. There are 19 entries in GSOR at present and a mapping population containing 353 lines was being grown for inclusion. Last summer, all rice mutants started being collected for inclusion not just "useful" mutants as had been looked for in the past. GSOR can be found at www.dbnrrc.ars.usda.gov/gsor/ on the Internet. Contributed seed will not be regenerated but stored and distributed as long as the original donation holds out. In other words, these stocks will not necessarily be stored in perpetuity. Lorie Bernhardt will be the information specialist in charge of GSOR records.

3. Quarantine Report, Beltsville, MD 1:33 pm – Prepared by John Hartung. Mark Bohning presented this report. Serious staffing problems continue for Rice Quarantine, which have greatly affect the rice quarantine materials. Sarbagh Salih and her technician are both gone now. No one is at the facility to handle rice at the present. The new buildings were finally completed for APHIS in Beltsville and they are moving in now. In 2003, we again had a quarantine grow out in North Carolina with David Marshall. The quarantine grow-outs in the North Carolina

Field Nursery for the past three years are as follow: 1) In 2001, 51 accessions were produced; 2) in 2002, 461 accessions were produced; and 3) in 2003, the nursery was destroyed by Hurricane Isabel.

Future prospects are grim and staffing problems will not allow the production of transplants for the NC nursery in 2004. Everything is on hold at this point.

The GRIN data on all rice accessions which have been grown and harvested thus far should be up to date and accurate. Karen Moldenhauer stated that she will attend the in-depth review for the Fruit Laboratory which includes the Plant Germplasm Quarantine Office with the USDA-ARS in Beltsville to represent rice interests.

Chuck Rush (LSU), Dave Marshall (ARS, North Carolina State University), Jim Correll, Rick Cartwright and James Gibbons briefly discussed eyespot disease that has been observed at the NC nursery. Dave Marshall indicated that fungicide applications (Folicur twice) had virtually eliminated the disease prior to the hurricane.

Neil Rutger noted that 2566 accessions were still in the quarantine queue these include: 1) 422 from Bangladesh – who knows what they are? 2) 318 were from Japan and some we already have. Nourin 20 is probably the same as Norin 20 for example. 3) 860 are from Indonesia and we are still working on these. We have not thrown them out but are working to eliminate any duplication of lines. Neil Rutger said the last 500 lines or so to come through the nursery were from CIAT, Cali, Columbia

4. Foreign Exploration Grants 2:00pm - Karen Moldenhauer, Rice Research & Extension Center, Stuttgart, AR. Guidelines for foreign exploration grants have been received. For more information on these grants contact Karen Moldenhauer. Harold Bockelman noted that the International exchange protocols are becoming very complex for seed exchange, and that scientist to scientist exchanges still work the best in most foreign countries. Exchanges between germplasm collections per se are very difficult.

5. North Carolina Quarantine Transplant Nursery Report 2:02 pm – Dave Marshall presented this report. He past out a handout and made a PowerPoint presentation. Basically the 2003 nursery was wiped out by Hurricane Isabel. Tom Mew's report indicated that if you run the plants through culture media that you do not see any incidence of disease on disease free seedling grown on media. Anna McClung asked how much contamination has been found on the seedlings in the culture tubes. The group still favored running the plant through a quarantine green house if at all possible.

Dave Marshall suggested that maybe some of the states with permits generate seedlings for transplanting in the NC nursery and bypass the Beltsville problem. Kirk Johnson (Bayer) wondered about the proposal to bypass quarantine greenhouse requirements by transplanting clean seedlings into the field anywhere. Neil Rutger stated that in the late 60s or 70s, UC and the

California rice industry supported an effort to establish a transplant nursery near El Centro, California.

Jim Correll made the motion to encourage Dave Marshall to pursue tissue culture at Raleigh given the circumstances at Beltsville. Georgia Eizenga seconded the motion, Motion carries by acclamation. Dave Marshall then reminded us that funding for support of the nursery has come from ARS, Peter Bretting, and that he would write to Peter requesting more funding to do this work. Anna McClung suggested that we should write a letter of support for increased funding for this nursery, and for the tissue culture if it moves to Raleigh and for the needed changes to the current permit that Dave Marshall has to allow this.

Chuck Rush stated that one of the big problems in changing the quarantine regulations is that no research has been done on seed disinfestation, etc. We need to obtain funding and do the work that would support any changes to the current regulations and not just make the changes based on assumptions. He also stated that breeders should be careful to only bring in what is potentially useful, not just everything. (Unknown) Breeders in the past often did not send in materials to GRIN because it was not useful or they did not have permission from the country of origin to deposit in a gene bank.

Harold Bockelman was concerned because the NC nursery has a limitation in that it cannot handle photo period sensitive or extremely long-season lines. Basmati types are all photo period sensitive and right now they have to go to Puerto Rico for seed increase. Don't rely solely on the NC nursery but continue to send remnant seed to other permit holders for special needs. Robert Fjellstrom also pointed out that we need a procedure for moving the non-performing line seed to a greenhouse somewhere. Fleet Lee suggested that we could use the UA Fayetteville facility for running these lines through quarantine, but numbers must be kept low because of limited staffing.

Kent McKenzie wondered if we could have someone go through the old backlog and test the seed for germination then throw out everything that is dead? Harold Bockelman said he suspected that you will still find most accessions still alive. They have been held under good storage conditions.

6. The CAP Project 2:45 pm – Jim Correll, University of Arkansas, Fayetteville, AR, presented the following:

USDA has requested a proposal to fund a broad-based Applied Genomics Project in rice and has indicated that \$5 million will be available over the 4 year life of the project. Dr. Correll was selected as Project Manager and have requested input from all rice scientists in the U.S. to construct the proposal which is due March 15.

7. RiceTec PRA to import rice seed from Argentina (3 pm) – Federico Cuevas, RiceTec, Alvin, TX

The PRA has been completed and was submitted to APHIS in November of 2003 where it is being reviewed. Dr. Morris Levy, Purdue University will present an overview of his findings with regard to Rice Blast Pathogen Diversity in Argentina, Uruguay and South Brazil.

Dr. Levy found lineage A on tropical rices in Argentina, etc. This lineage is not currently present in the U.S. and is avirulent on Pi-ta. Other lineages are found in the U.S. Lineage H = IG-1 in California are present is one I believe was once in the southern U.S. then was sent to Uruguay (possibly other S.A. areas) and returned to the U.S. in California in the 1990s. In the meantime, it had disappeared from the U.S. over time. I do not believe the rice blast lineages present in Argentina pose any new risk to U.S. rice cultivars. There was considerable discussion about this topic among the researchers present.

Federico Cuevas told us that the tracking number for the PRA is 637 and it is listed on the APHIS website as active. Dr. Gary Cave with APHIS is here and will discuss the process. Dr. Gary Cave said that APHIS currently has two requests to amend the rice seed importation regulations. One from RiceTec and one from the government of Brazil. A scientific review must be completed by 12/31/04 then regulation aspects will be examined. Any changes would require modification of the current quarantine, replacing it with a new quarantine. Input from rice scientists, the rice industry and the general public will be directly solicited by APHIS. APHIS will contact critical people for input, thus it will not just be a passive solicitation process as so often happens.

8. Nominating Committee Report – Rick Cartwright.

The nominating committee proposes that:

The committee accept Thomas Tai's resignation from the CGC and that Farmin Jodari (CCRF) finish the balance of Thomas Tai's 4 year term on the RCGC.

The committee accept Barry Tillman's resignation for the CGE and that Fangming Xie (RiceTec) finish the balance of Barry Tillman term as the industry representative to the RCGC.

The committee also proposes that Dwight Kanter (Mississippi State University), Mo Way (Texas A&M University), Jim Oard (Louisiana State University), and Karen Moldenhauer (University of Arkansas) be confirmed as new members, replacing other members rotating off in 2004.

The committee also proposes Karen Moldenhauer be re-elected for another term as Chair of the RCGC.

James Gibbons made a motion to accept the Nominating Committee Report and its recommendations for membership. Seconded by Georgia Eizenga and Jim Correll. Motion Carried by Committee Vote.

9. GRAMENE report presented by Noel Yap

Gramene can be accessed at www.gramene.org on the Internet. Cornell University does the biological part of the database and Cold Spring Harbor handles the computing and software part. The database is updated every three months. Details on how to use Gramene followed using a PowerPoint presentation.

A motion to adjourn was made at 5 pm by Rick Cartwright and seconded by Georgia Eizenga. Motion carried and the meeting adjourned at 5:02 pm, February 29, 2004.

Minutes submitted by Rick Cartwright and Karen Moldenhauer.

Appendix I. CGC members as of Feb 29, 2004 with year term ends in parentheses.

<p>Dr. Karen Moldenhauer, Chair (2010) Rice Research and Extension Center University Of Arkansas 2900 Hwy 130 E Stuttgart, AR 72160 kmolden@uark.edu rrec_kmolden@futura.net</p>	<p>Dr. Farmin Jodari (2008) Rice Experiment Station P.O. Box 306 Biggs, CA 95917 fjodari@crrf.org</p>
<p>Dr. Dwight Kanter (2010) MAFES Delta Branch Experiment Station P.O. Box 197 Stoneville, MS 38776 dgkanter@DREC.MSSTATE.EDU</p>	<p>Dr. Jim Oard (2010) Louisiana State University M.B. Sturgis Hall Department Of Agronomy Baton Rouge, LA 70803 joard@agctr.lsu.edu</p>
<p>Dr. Fangming Xie (2006) RiceTec, Inc. PO Box 1305 Alvin, TX 77512 fxie@ricetec.com</p>	<p>Dr. Mo Way (2010) Texas Ag Exp. Stat. 1509 Aggie Drive Beaumont, TX 77713 moway@aesrg.tamu.edu</p>
<p>Dr. James Correll (2006) Plant Pathology Dept. University of Arkansas Fayetteville, AR 72701 jcorrell@comp.uark.edu</p>	<p>Dr. James Gibbons (2006) Rice Research and Extension Center University Of Arkansas 2900 Hwy 130 E Stuttgart, AR 72160 jgibbon@uark.edu</p>
<p>Dr. Georgia Eizenga (2006) Dale Bumpers National Rice Research Center PO Box 1090; 2890 Hwy 130 E Stuttgart, AR 72160 geizenga@spa.ars.usda.gov</p>	<p>Dr. Robert Fjellstrom (2008) USDA-ARS 1509 Aggie Drive Beaumont, TX 77713 r_fjellstrom@tamu.edu</p>
<p>Dr. Harold Bockelman, Ex-officio Ex-Officio USDA, ARS, PWA, NSGC PO Box 307 Aberdeen, ID 83210 nsgchb@sun.ars-grin.gov</p>	<p>David S. Marshall, Ex-Officio USDA, ARS, Plt Sci Res Unit 1419 Gardner Hall North Carolina State University Box 7616 Raleigh, NC 27695 david_marshall@ncsu.edu</p>
<p>Dr. Allan K. Stoner, Ex-officio Research Leader/CGC Coordinator USDA, ARS, BA, NGRL Bldg. 001, Room 127 BARC-WEST Beltsville, MD 20705 ngrlas@sun.ars-grin.gov</p>	<p>Dr. J. Neil Rutger, Ex-officio USDA, ARS, SPA Dale Bumpers National Rice Research Center PO Box 1090 Stuttgart, AR 72160 jnrutger@spa.ars.usda.gov</p>
<p>Dr. Kay Simmons, Ex-officio Grain Crops National Program Leader USDA, ARS, NPS, PS 5601 Sunnyside Avenue Beltsville, MD 20705 kws@ars.usda.gov</p>	<p>Mr. Mark A. Bohning, Ex-officio CGC Facilitator USDA, ARS, BA, NGRL Bldg. 003, 4th Floor Beltsville, MD 20705 dbmumb@sun.ars-grin.gov</p>