

Project Number: S-009

Title: Plant Genetic Resources Conservation and Utilization

Project Duration: From October 1, 2018 to September 30, 2023

Response to Reviewer Comments

Response to Reviewer 1

Comment: I think it could include a paragraph on use of CGCs to assist in prioritizing traits screened for techniques used on each crop, collection prioritization, etc could be included.

Response: The following text has been added to Page 7, Paragraph 3 “Curators consult with CGCs to develop new descriptors and for some crops special subcommittees are formed to handle development of new descriptors and recommend a priority of which descriptors to collect.” And Page 4, Paragraph 1 “Input from by stakeholders during CGC meetings and acquisition priorities outlined in CGC developed Crop Vulnerability Statements provide guidance for crop specific acquisition.”

Comment: A couple of citations on GRIN use could use updated information.

Response: On Page 7, Paragraph 2, GRIN use has been updated to “The information on GRIN-Global is publicly available with approximately 48,000 web page inquiries per day in 2017”

Response to Reviewer 2

Question 1: Targeted acquisitions of new germplasm would seem a priority. But size of the collections will become a limitation, if not already. Prioritizing the acquisitions seems essential. "Gap analysis" is mentioned as a way to prioritize new acquisitions. What is gap analysis and how would it be applied here?

Response: The following text has been added to Page 4, Paragraph 1 – “Gap analysis will be conducted using a similar approach as Castaneda-Alvarez et.al. (2015) where occurrence data gathered from genebank passport data, herbaria, and other sources will be used to model projected geographic distribution of a particular crop. This projection will then be compared with current germplasm holdings and priority will be assigned to relative taxa and areas of collection.”

Question 2: Are there any efforts to develop methods to identify duplicate accessions?

Response: The following text has been added to Page 4, Paragraph 2 “All acquisitions will be screened against current accession passport data to ensure that a duplicate sample is not being deposited in the collection.” And Page 7, Paragraph 2 “Additionally, curators will seek to identify duplicate accessions within particular crops by comparison of passport data paying particular attention to secondary names such as ICRASAT numbers and cultivar names. Identified duplicates will be kept as separate inventories but combined under a single accession to eliminate confusion.”

Question 3: The text would imply that not all requests for germplasm are approved. Whether or not to approve a germplasm request would seem to put curators in an awkward position. What do you do with requests from home owners or non-profits? Are there set guidelines for how requests are approved or not approved?

Response: The following text has been added to Page 8, Paragraph 3 “Approvals of requests are made on a case by case basis using the information provided by the requestor...If a request is denied, the requestor is sent a standard email explaining how their request does not fit the criteria for research/education as outlined in our distribution policy. The requestor is advised to contact the Research Leader if they feel the

request has been unfairly denied, and they wish to provide additional information that may be used to alter the decision to deny.”

Question 4: What sort of follow up is there on germplasm that is distributed to users? Do the users report any data they collect? If so how does that get into the system for other users to access? This process is not clear.

Response: The following text has been added to Page 8, Paragraph 3 “Emails are sent prior to each distribution to notify requestor of shipping details, request receipt confirmation and to request that any data generated be shared with the location.” and Page 8, Paragraph 1 “Curators routinely request that characterization data generated by users of the germplasm be shared and made available on GRIN-Global. These requests are formally made at CGC meetings and informally at other professional meetings where the curator has the opportunity to interact with stakeholders. Curators work one on one with cooperators to have data formatted and properly documented for uploading to the GRIN-Global database.”

Question 5: This is a multi-state project. But from what is described all the activity takes place at Griffin, GA, which is a USDA-ARS facility. Plus the work, (germination tests, regeneration, maintenance, filling orders, etc.) is probably being done by USDA employees. (Some employees may be supported by local or multi-state funds.) It is hard to figure out what the states contribute or do. Representatives from each state are listed in the Appendix, and state representatives are mentioned as being involved in the outreach and governance. But what else to the states do.

Response: The proposed multi-state project provides a service to the states represented in the project by providing easily accessible, high quality germplasm to the stakeholders in these states. Each state representative provides guidance and recommendations to PGRCU curators and staff to ensure that this service is provided as efficiently as possible. To clarify the extent of collaboration of this project with the USDA/ARS, the following text has been added to Page 3, Paragraph 2 “Being a collaborative project, both the USDA and the S-009 Regional Project provide funding for scientific, technical and administrative staff. Both entities also provide funding for supplies related to germplasm preservation, maintenance, distribution, regeneration, and characterization. PGRCU is located on the University of Georgia-Griffin Campus and is housed in both federal and state owned buildings.”