**USDA Higher Education Challenge Grant Project**

**‘Enhancing Educational Outcomes for Plant Genetic Resources Conservation and Use’**

**Notes for November 6, 2023, 9 am MST (via Teams)**

**Participating:**

**Advisory Council members**

Stephen Amoah Kwame Nkrumah University of Science and Technology, Ghana

Dave Bubeck Corteva Agriscience

Clare Coyne USDA-ARS, Pullman, WA

Luigi Guarino Global Crop Diversity Trust

Roger Levy Consultant, Seed technology and plant breeding

Thomas Lubberstedt Iowa State University

Tara Moreau Univ. of British Columbia Botanical Garden

**Project personnel**

Pat Byrne, CSU Soil and Crop Sciences

Gayle Volk, USDA-ARS, Fort Collins

1. Tara announced a conference September 17-19, 2024 at Denver Botanic Gardens on the roadmap for conserving crop wild relatives. This is a follow-up to the meeting in Des Moines in 2019.

2. HEC project status: USDA-NIFA project is in the final stretch, till May 31, 2024. Kat Chen’s employment has been extended for a couple of years with internal USDA funding provided to CSU through an agreement.

3. Project accomplishments of last 6 months (Gayle). See attached PDF file.

4. Activities at CSU’s Spur campus (Pat)

* High school curriculum on crop biodiversity: 27 Colorado high schools participating this semester.
* Osher course (for adults 50+) by Pat and Gayle in Spring, 2024 offered in both Denver and Fort Collins.
* All About Beans: daylong event Dec. 9 on breeding, agronomy, pathology, nutrition, and cooking of beans
* Thomas suggested sharing information on Spur activities with other organizations. Pat and Tara will discuss sharing through the American Public Gardens Association.

5. How should this effort go forward without funding from the USDA grant?

* Potential collaboration with Crop Trust, which intends to develop a knowledge hub, including training materials, for genebanks. Gayle will follow up with Luigi, Nelissa, and others at the Trust.
* Tara described some of her efforts to capture user experiences and impact.
* Options for the online courses. Geoff Morris may not be able to continue teaching the courses, given his other responsibilities. Can we find another instructor at CSU? Can the content be posted online for anyone to access asynchronously? Thomas said that Iowa State Univ. made all the course content from Plant Breeding E-learning in Africa available online as ebooks (<https://iastate.pressbooks.pub/molecularplantbreeding/front-matter/about/>). Stephen commented how useful that content was for his teaching and hoped that the PGR material could also be posted online. Gayle, Pat, and Geoff will meet in January to discuss the options.
* Apply for another Higher Education Challenge grant. In the past these have been due in May. We would need a new PD (non-USDA-ARS) and possibly another university partner. Discussed the possibility of funding a program manager to help with administrative tasks.
* Discussed the need for training content relating to gene editing in a future proposal.
* Thomas shared a Dear Colleague Letter from NSF on ‘Future Proofing Plants to a Changing Climate’. <https://www.nsf.gov/pubs/2023/nsf23096/nsf23096.jsp?WT.mc_ev=click&WT.mc_id=>
* Tara mentioned the Global Environment Facility and shared a GEF document in a follow-up email.
* Pat will convene a dedicated meeting of this Advisory Council early in the New Year to explore the possibilities for continued funding.

6. Impact: Evaluation of online courses and GRIN-U learning materials (Pat)

Jill Zarestky of CSU is conducting separate evaluations of students in the online courses and users of GRIN-U. She will connect with Nelissa, the Crop Trust evaluation specialist, to coordinate evaluation of the Crop Trust-funded students. Tara suggested aggregating usage data from all the various products (videos, ebooks, etc.) and to explore how users are searching for information.

7. Impact: At our previous meeting, we discussed a survey of private seed companies about their use of plant genetic resources. We thought it would also be useful to survey public plant breeders, and decided that the National Association of Plant Breeders (with both public and private breeders) would be a logical sponsoring organization. Dave emphasized the importance of an anonymous and confidential survey. Pat and Dave will start drafting questions for the survey and will share with the Advisory Council. Clare suggested that she could compile information about distributions based on data in GRIN-Global.