Planning Activity for A Multi-Institution Genebank Training Program

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The genetic diversity available through the USDA-ARS National Plant Germplasm System and similar facilities is an essential resource for crop improvement and food security. However, there is a lack of accessible, high-quality training materials on management and use of plant genetic resources (PGR). Our long-term goal is to expand the agricultural workforce that is well trained in subjects relevant to PGR acquisition, preservation, distribution, evaluation, and utilization. The specific objectives of this planning activity are (1) to explore existing PGR educational resources and determine subject areas that are lacking or need enhancement or improved accessibility; (2) to investigate alternative administrative frameworks for coordinating training materials developed by multiple universities; (3) to identify the best options for delivering training on specific topics (e.g., online courses, a resource library of "learning objects", webinars, hands-on workshops); (4) to convene a meeting in early 2019 to decide on administrative framework, specific content/format of training materials, responsibilities, and budget; and (5) to develop a prototype 1-credit online module on a high-priority PGR topic. Leadership development will be addressed through the participation of two graduate students to aid in the development of engaging training materials. These efforts are in preparation for an HEC Collaborative 2 grant submission in 2019 to complete implementation of the training program. This proposal addresses HEC program goals by enhancing the quality and availability of instruction on PGR for bachelor's and master's degree students, and by developing learning materials that appeal to audiences beyond the standard student population in the agricultural sciences.