First Scientific Meeting of the Global Cassava Partnership GCP-I

Cassava: Meeting the Challenges of the New Millennium

Institute of Plant Biotechnology for Developing Countries

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SP05-05 **D10**

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Implementation of a cryopreservation system to establish a duplicate of the cassava core collection

Cryopreservation is considered an alternative for the establishment of germplasm collection duplicates for long-term storage. This methodology needs to be synchronized with other in-vitro conservation techniques, so they serve as back ups for ex-situ germplasm conservation. The Encapsulation-dehydration technique has been shown to be the optimal method to preserve most of the cassava core collection (approx. 640 clones). Based on their after-freezing response, cassava germplasm has been classified within three groups of response, in which 65% of the core collection has shown up to 30% recovery, in the form of shoot formation after freezing. In the current cryopreserved germplasm we maintain at least 4 tubes per clone in liquid nitrogen. Morphological and molecular monitoring of recovered clones shows no evidence of change compared to no-frozen controls. The logistical aspects for handling a cryopreserved bank, such as the number of beads and tubes per clone, and their position in the tank, are well established. A database has been developed allowing quick identification and location in the tank. Today we focus our attention in improving the response of more recalcitrant clones (35%) to achieve success with the entire collection.

SP05-06 **D11**

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Conception for organizing information on cassava

Cassava is a starch crop known for its ability to grow in diverse environments, ranging from dry to humid climates and acidic to alkaline soils. Further, this crop can grow in nutrient-poor soil and is found worldwide. Cassava is considered an energy source and is used in industries and as food. Therefore, it is thought that cassava is a relatively better energy source than other starch crops, such as corn. In fact, information on cassava, such as published journal articles and sequence registration in public databanks, is increasing, and this increase is associated with high expectations. However, unfortunately, the information is scattered and not organized. Therefore, at present, we are unable to refer to it effectively. Similar to the study of Arabidopsis, comprehensive researches such as a cDNA collection and microarray experiments will be performed for cassava. In fact, we have successfully obtained a cassava full-length cDNA collection. Because it is expected that the volume of information will be generated from such research will be large, organization of the information will be important. The TAIR and GRAMENE portals for Arabidopsis and monocot crops, respectively, play important roles. Hence, I would like to explain our conception for organizing information on cassava.