



BMT/13/28

ORIGINAL: English

DATE: November 8, 2011

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

**WORKING GROUP ON BIOCHEMICAL AND MOLECULAR
TECHNIQUES, AND DNA-PROFILING IN PARTICULAR**

Thirteenth Session
Brasilia, November 22 to 24, 2011

USE OF DNA AS REFERENCE SAMPLES OF PROTECTED VARIETIES IN BRAZIL

Document prepared by experts from Brazil

1. The National Plant Variety Protection Service – SNPC on the Ministry of Agriculture, Livestock and Food Supply (MAPA) in Brazil, is the national authority for the examination of applications and for granting Plant Breeder's Rights. The Laboratory of Analysis, Characterization and Differentiation of Plant Varieties - LADIC is the unit of SNPC which supports the activities related to plant variety protection.
2. In Brazil, DUS tests are conducted by the breeders (Breeder Testing System). Reference samples of candidate varieties are stored on LADIC throughout the period of protection with identification and post verification purposes.
3. Since 2009, through Normative Instruction No. 58 of MAPA, the procedures for the reception of genomic DNA samples of protected varieties were settled by SNPC. With that regulation, DNA samples of vegetatively propagated species or from other species whose storage in cold chamber is not technically feasible, such as some species with recalcitrant seed, should be sent, when requested, to LADIC for maintenance.
4. The objective of this paper is to report how SNPC/LADIC conserves the genetic information of those species in DNA banks in order to identify varieties, when necessary, by using molecular data tools, such as molecular markers. DNA samples should be clearly identified with their integrity preserved and addressed along with relevant information such as

the methodology of DNA extraction, date and results of qualitative and quantitative analysis of the samples.

5. After the reception of the DNA samples, LADIC performs a check of the quality and quantity through the measurement of this parameters using a spectrophotometer (Nanodrop ® 2000) or by the photo documentation of the DNA analysis on agarose gel electrophoresis. If the sample satisfies the quality and quantity minimum requests, it is stored in a Ultrafreezer (IULT ® 335D) with temperatures around -80 ° C.

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