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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS GENEVA

AD HOC CROP SUBGROUP ON MOLECULAR TECHNIQUES FOR ROSE

Second Session Angers, France, April 18, 2007

ADDENDUM TO DOCUMENT BMT-TWO/ROSE/2/4

DEVELOPMENTS IN UPOV CONCERNING BIOCHEMICAL AND MOLECULAR TECHNIQUES

Document prepared by the Office of the Union

This document is an addendum to document BMT-TWO/Rose/2/4 "Developments in UPOV concerning biochemical and molecular techniques" and contains a copy of the presentation made by the Office of the Union.

AD HOC CROP SUBGROUP ON MOLECULAR TECHNIQUES FOR ROSE

Second Session

DEVELOPMENTS IN UPOV CONCERNING BIOCHEMICAL AND MOLECULAR TECHNIQUES

Peter Button, Technical Director, UPOV

Angers, France, April 18, 2007

PREVIEW

PART I: DUS Examination

PART II: Variety identification

in relation to:

- » enforcement of plant breeders' rights;
- » technical verification; and
 » consideration of essential derivation

PART III: BMT Guidelines

















View of the BMT Review Group, Technical Committee, Administrative and Legal Committee

Option 1(a) for a gene specific marker of a phenotypic characteristic:

Proposal: gene specific marker for herbicide tolerance introduced by genetic modification

was, on the basis of the assumptions in the proposal, acceptable within the terms of the UPOV Convention and would not undermine the effectiveness of protection offered under the UPOV system.

Assumptions for a gene specific marker:

(a) **DUS examination**: same no. of plants, growing cycles, DUS criteria;

(b) Linkage: ensure that the marker is a reliable predictor;

(c) **Different markers** for same gene would be treated as different methods for examining the **same characteristic**;

(d) **Different genes** would be treated as different methods for examining the **same characteristic**;

(e) **Different markers** linked to **different regulatory elements** for the **same gene** would all be treated as different methods for examining the **same characteristic**. (further consideration would be given to this matter at a later stage)

















VARIETY IDENTIFICATION

"The BMT is a group open to DUS experts, biochemical and molecular specialists and plant breeders, whose role is to:

-[...]

"(viii) Provide a forum for discussion on the use of biochemical and molecular techniques in the consideration of essential derivation and variety identification."

BMT Forum

"BREEDERS' DAY" at BMT/11, May 2008, Spain

Use of molecular techniques in:

- variety identification
- essential derivation

VARIETY IDENTIFICATION

(March 2007)

• The Technical Committee invited the **BMT Crop Subgroups to develop proposals concerning the possible use of molecular tools for variety identification** in relation to the enforcement of plant breeders' rights, technical verification and the consideration of essential derivation.



BMT Guidelines

(September 2003)

- BMT concluded that:
 - urgent need to harmonize methodologies for the generation of molecular data in order to ensure that the quality of the data produced would be universally acceptable for use in variety characterization
 - useful to provide guidance on the planning of databases for molecular data based on different types of markers

BMT Guidelines

(Technical Committee: March 2007)

BMT Guidelines to be put forward for adoption by the Council in October 2007

Exchangeable database

practical exercise, involving a small number of crops, in the development of an exchangeable database

- BMT: proposed oilseed rape, potato and rose
- TC:
 - BMT Crop Subgroups for Oilseed Rape, Potato & Rose to consider how to take forward.
 - exercise to consider both the quality and structure of the data

THANK YOU