ESSENTIALLY DERIVED VARIETIES (EDV) IN THE AREA OF ASEXUALLY REPRODUCED ORNAMENTAL AND FRUIT VARIETIES

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CIOPORA
International Community of Breeders of Asexually Reproduced Ornamental and Fruit Varieties

Essentially Derived Varieties (EDV)
in the area of asexually reproduced ornamental and fruit varieties
CIOPORA Position January 2008

Two Groups of EDV

CIOPORA has identified two groups of EDV of different characteristics and of different preconditions and methods
- Mutations, GMO and Apomicts
- Me-too-varieties

Mutations, GMO and Apomicts are EDV
without a limit to the number of phenotypic differences to the initial variety.

CIOPORA has determined a general threshold of 0.90 Jaccard for the shift of burden of proof
The 0.90 threshold is no differentiator between EDV and non-EDV
It serves only for the shift of burden of proof
Mutants …

1. **Step:** DNA-Analysis and comparison of the genomes of the two varieties in dispute
2. **Step:** Jaccard Index between 0.90 und 1.00 furnishes *prima facie* proof for the existence of a mutation or GMO
3. **Step:** The breeder of the supposed EDV has to prove that his variety is not a mutation / GMO of the initial variety but a product of cross selection.

If the threshold of 0.90 does not fit for a given species, the breeders of the species may agree on a different threshold. Failing this, the general threshold shall be used.

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**Me-too-variety**

- Varieties which
  - may be a result of crossing and selection (by using the initial variety)
  - are clearly distinguishable from the initial variety
  - are predominantly derived from the initial variety
  - retain all essential characteristics of the initial variety

**Mee-too-variety**

Must be clearly distinguishable from the initial variety

A variety which does not meet the “minimal distance” cannot be an EDV
Me-too-variety

Must be predominantly derived from the initial variety?

The threshold of “predominant derivation” has to be determined by the breeders of the species in question on the basis of the genome.

Predominant derivation

Variety A Variety B

Predominant derivation

Variety A Variety B

Me-too-varieties

Must retain all essential phenotypic characteristics of the initial variety (in terms of exploitation)
Me-too-varieties

- The essential characteristics are being selected from the list of botanical characteristics of the UPOV Test Guideline.
- The breeders have to decide on what are the essential characteristics and what not.

Up till now no group of breeders has proposed a crop-specific threshold for the shift of burden of proof for mutations.
- For some crops breeders have asked CIOPORA to facilitate a discussion about a threshold for predominant derivation and essential characteristics.

Thank you for your attention.