



TWF/45/2 Add.
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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
Geneva

TECHNICAL WORKING PARTY FOR FRUIT CROPS

Forty-Fifth Session
Marrakesh, Morocco, May 26 to 30, 2014

ADDENDUM TO DOCUMENT TWF/45/2

MOLECULAR TECHNIQUES

Document prepared by an expert from France

Disclaimer: this document does not represent UPOV policies or guidance

1. The annex to this document contains a presentation made by an expert from France at the forty-fifth session of the Technical Working Party for Fruit Crops, on "Molecular tools on fruit trees at GEVES France".

[Annex follows]

ANNEX

Molecular tools on fruit trees at GEVES France

E. Baud SEV GEVES - A. Bony Bio GEVES

Description of reference collections & identity control

- Genotypes as supplementary tools
- Evaluation of genetic diversity
- Looking for synonymous varieties
- Establishment of a core collection
- Renewal of reference samples
- Comparison of samples
- ...



Already available on peach and apricot + strawberry

R&D in progress on apple and pear

R&D planned on cherry and raspberry



Molecular tools on fruit trees

Peach

OCVV R&D project from 2008 to 2011


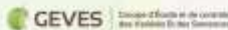
Routinely used in the lab since 2012

16 SSR

Molecular database of ~ 850 varieties (european varieties)

Description of new varieties every year

GEMMA database : DUS description + numeric datas + DNA identification + DNA storage
in a federative system for DUS examinateur cooperation

Molecular tools on fruit trees

Apricot

Collaboration between INRA Avignon and GEVES


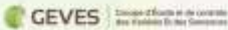
Routinely used in the lab since 2013

25 SSR

Molecular database of ~ 250 varieties varieties

Description of new varieties every year

GEMMA database

Molecular tools on fruit trees

Apple & Pear

Collaboration between INRA Angers and GEVES



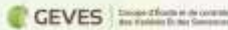
First experimentation in 2014 in BioGEVES

= 16 SSR

Description of the french collection

= 700 varieties of apple and = 160 varieties of pear

GEMMA database

Molecular tools on fruit


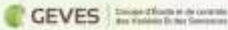
Strawberry

Development in GEVES

Routinely used since 2000 + Service to entreprises

First with 2 ISSR and now with 5 SSR

Description of the french collection (40 varieties)

Molecular tools on fruit

Perspectives:

Development of molecular tools

- on raspberry
- on cherry

Development of a molecular strategy to predict the Gametophytic Self-Incompatibility

- on apricot
- on other Prunus, Malus and Pyrus

Use in DUS description ?

Use for VCU and description : an important trait for fruit variety user.

