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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
Geneva

TECHNICAL WORKING PARTY FOR VEGETABLES

Fiftieth Session
Brno, Czech Republic, June 27 to July 1, 2016

ADDENDUM TO

VARIETY DESCRIPTION DATABASES

Document prepared by an expert from France

Disclaimer: this document does not represent UPOV policies or guidance

The Annex to this document contains a copy of the presentation "Facilitating development of databases for DUS examination" to be made by an expert from France at the fiftieth session of the Technical Working Party for Vegetables (TWV).

[Annex follows]

TWV/50/6 Add.

ANNEX

Please see the pdf version

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ANNEX

FACILITATING DEVELOPMENT OF DATABASES FOR DUS EXAMINATION
BY AN EXPERT FROM FRANCE

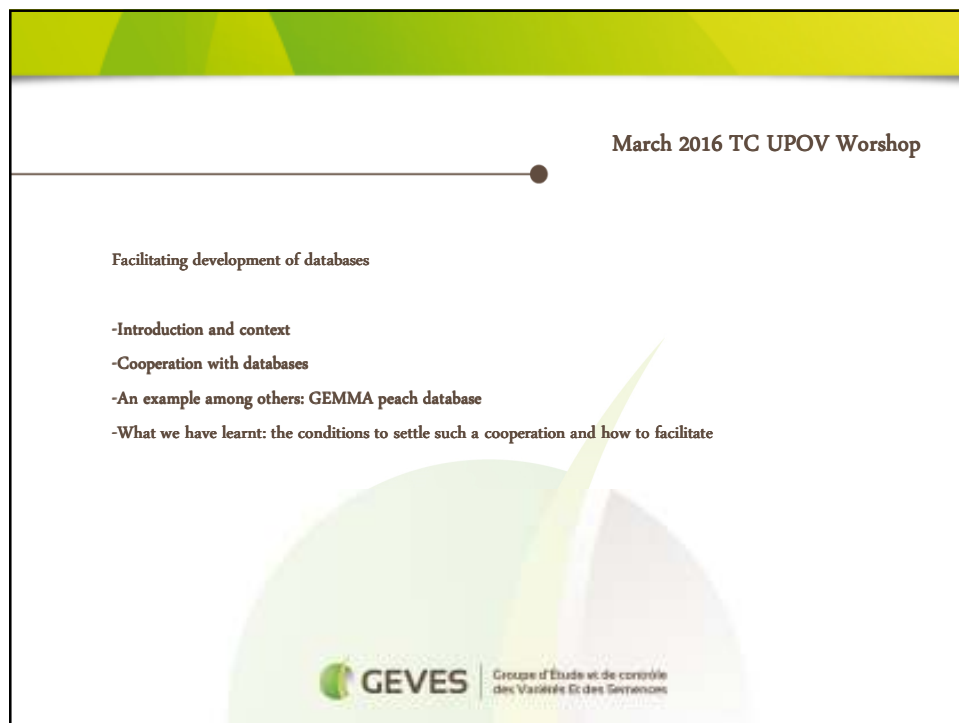


Facilitating development of databases
for DUS examination

UPOV TWV/50
FR - GEVES proposal



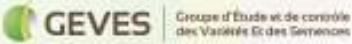
GEVES
Expertise & Performance



March 2016 TC UPOV Workshop

Facilitating development of databases

- Introduction and context
- Cooperation with databases
- An example among others: GEMMA peach database
- What we have learnt: the conditions to settle such a cooperation and how to facilitate



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des Variétés et des Semences

Facilitating development of databases Introduction and context

- DUS is based on worldwide reference collections
→ Distinctness = **the key point** of the DUS
- Limits: no one can pretend to have a complete worldwide reference collections
- → how to optimize ?

Centralize the DUS examination

cheaper, easier ?
Monopole, concentration of expertise, lack of information?

Work with an organized network of DUS examination offices

Requires organization and agreements to cooperate

In any case, need to strengthen the expertise of the examiner

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Facilitating development of databases

Cooperation with databases - **a solution ? and how ?**

Work with an organized network of DUS examination offices

Requires organization and agreements to cooperate

→ A solution : merge the DUS expertises in a **commun system**, at disposal of each EO

=

International DUS Databases managed by EOs, collaborating to share data and to check the Distinctness together

→ A community of EO's sharing the same approach of the Distinction criteria in terms of tools → **common rules : an agreement and a commitment of the EOs**

- A data base with several data:

PHENOTYPE + PICTURES + MOLECULAR DATA[+ DNA]
into a common database, shared on the internet

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Cooperation with databases - **Common procedure, common rules**


→ **Technical rules :**

- 1. same way to note and to introduce data + all DUS characteristics or only the most reliable= **a calibration book and ring tests if needed**
- 2. common tool for DUS data

**PHENOTYPE + PICTURES + MOLECULAR DATA[+ DNA]
into a common database, shared on the internet**

→ **A procedure to check the Distinctness:**

- an agreement on how to check the Distinctness:
 - . inside its own DUS collection
 - . then, inside the common DUS database to:
 - i) define the set of closest varieties,
 - ii) check D at the end of each DUS cycle.

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An example among others : **GEMMA peach database**

CPVO R&D project – CPV. 8648 (May 5, 2008 – May 4, 2011)
Management of peach tree reference collections

Participants

- GEVES – coordinator (Cavaillon and Le Magneraud, France)
- INRA (Avignon, France)
- MgSzH (Budapest, Tordas, Helvécia Hungary)
- CRA-FRU (Roma, Italy)
- IVIA (Valencia, Spain)
- CITA (Zaragoza, Spain)

GEMMA <http://gem.geves.info/gem/>

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An example among others : **GEMMA peach database**

● **Data model**

- To integrate **different type of data** (Molecular data + Digital pictures) whatever the couple Species/Country
- To support **multi language**
- To define **access rights**
- To manage **different species**

● **Web site approach**

- Easier way to **share data**
- Easier to manage data such as digital pictures
- Possibility to provide some useful tools (ie: sorting, ...) automatically available for all users

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An example among others : **GEMMA peach database**

● 1/ a phenotypical **ring test**.

2/a **common set of DUS characteristics**

3/ a common **calibration book**

● A **common choice of the data to include** in the database : some DUS data, some administrative data, pictures

● A **common tool : a web based database**

● A **common agreement**

- how to feed the database
- how to use the database

Work and collaboration still in progress,

Not easy and not quick to build !

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An example among others : **GEMMA peach database**

The screenshot displays the Gemma database interface. At the top, there is a header with the Gemma logo and navigation options. Below the header, there are search filters for 'Accession', 'Accession number', 'Accession name', 'Accession year', 'Accession country', and 'Accession status'. The main content area is divided into two sections: 'Liste des variétés (206)' and 'Liste des caractères (84)'. The 'Liste des variétés' section shows a table with columns for 'Code', 'N. access.', 'N. variétés', 'Description', 'Origine', 'Région', and 'Référence bibliographique'. The 'Liste des caractères' section shows a table with columns for 'Code', 'Nom', 'Système', 'Type description', 'FB', 'ET', 'AA', and 'NB'. The interface includes a 'Rechercher' button and a 'Liste Caractères' button.

Facilitating development of databases

What we have learnt: The conditions to settle such a cooperation and how to facilitate

Many questions to be tackled in advance

- Technical AND political commitments of the Eos
- Preliminary calibration book and ring test
- Agreement to share PHENOTYPICAL data + PICTURES + [MOLECULAR DATA + DNA], in a common tool
- Common agreement to feed the database
- Common agreement to use the database
- Common decision rules

Thank you
for attention

UPOV – TWV/ 50
June 27 to July 1, 2016 (*Brno, Czech Republic*)



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