



TWV/50/6 Add. Rev.

ORIGINAL: English

DATE: July 7, 2016

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

REVISED ADDENDUM TO

VARIETY DESCRIPTION DATABASES

Document prepared by an expert from France

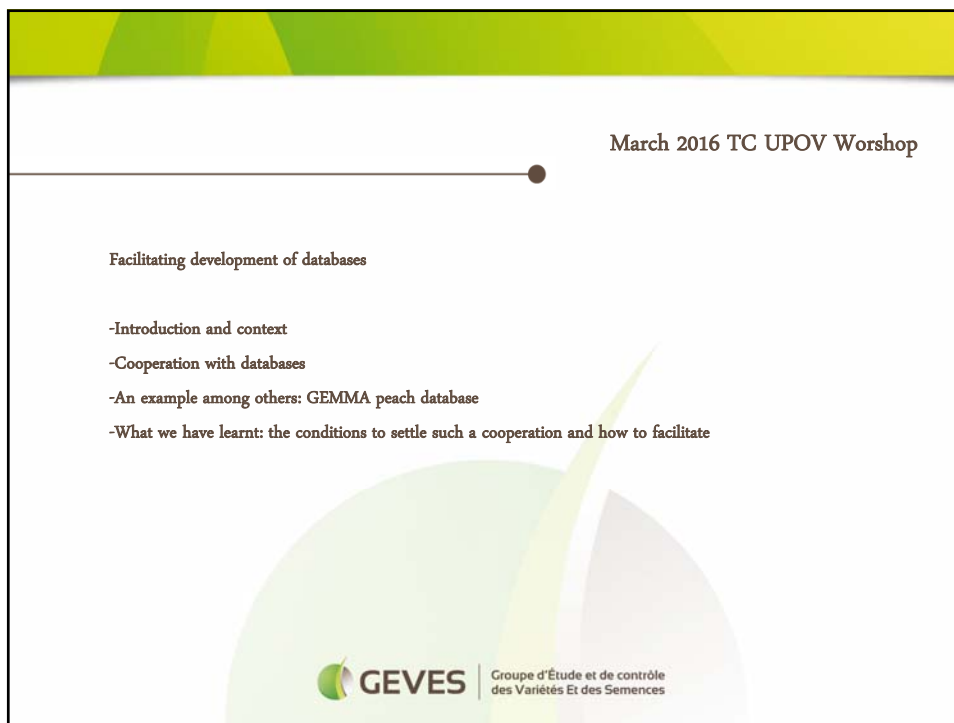
Disclaimer: this document does not represent UPOV policies or guidance

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

[Annex follows]

ANNEX

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




Facilitating development of databases Introduction and
context

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

Centralize the DUS examination


Cheaper, easier
Monopole, concentration of information,
Lack of interactions and global expertise less interactive



Work with an organized network of DUS examination offices

Requires organization ,
Technical and political agreements to cooperate

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

 **GEVES** | Groupe d'Etude et de contrôle des Variétés Et des Semences

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 Database managed by EOs, collaborating to share data and to check the Distinctness together

→ A community of EOs sharing the same approach of the Distinction criteria in terms of tools through

common rules, an agreement and a commitment of each partner

Thanks a **common database**, shared on the internet, covering (i.e.)

PHENOTYPE + PICTURES + MOLECULAR DATA[+ DNA]

 **GEVES** | Groupe d'Etude et de contrôle des Variétés Et des Semences

Facilitating development of databases

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

To commonly validate:

- The **framework** (UPOV-TG or CPVO – TP), and its **understanding**
 - define a **calibration book** with **previous ring tests** if needed
- The **content**: all DUS characteristics / only the most reliable ?
- The procedures to **collect, introduce, store** data ,

But also...

- A **procedure to check the Distinctness**
 - based on an agreement on « **How to check the Distinctness** » :
 - inside **its own reference 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.



Facilitating development of databases

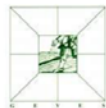
An example among others : **GEMMA peach database**

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/>



Facilitating development of databases

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

● **A data model**

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

● **A web site approach**

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

Facilitating development of databases

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

● Preliminary aspects:

- 1/ phenotypical **ring test**, some calibrations between partners
- 2/ **common set of DUS characteristics**
- 3/ a common **calibration book**, based on CPVO- TP 53/1

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

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

● A **common agreement: technical, managerial and political aspects**

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

Work and collaboration are still in progress,

Not easy and not quick to build !

Facilitating development of databases

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


The screenshot displays the Gemma database interface. At the top, there are navigation tabs: Accueil, Variétés, Administration, and Aide. Below this is a search form with fields for Espèce (PRUNUS_PER), Pays (FR), N°variété, and Inscr. Below the search form is a table titled 'Liste des variétés [506]' with columns: Pays, Id. unique, Id. variété, Dénomination, Inscript., Obtenteur, and Référence obtenteur. Below this table is a section for 'Données' with a dropdown for 'Type de données' (Données qualitatives) and a 'Guideline' (CPVQ-TP (53/1)). Below this is another table titled 'Liste des caractères [69]' with columns: Code, Num, Regroup., Type description, FR, IT, ES, and HU. At the bottom of the interface are buttons for 'Image', 'Rafraîchir', and 'Liste Caractères'.

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 each EOs
- Preliminary calibration book and ring tests
- 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


GEVES | Groupe d'Étude et de contrôle des Variétés Et des Semences

Thank you
for attention

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



[End of Annex and of document]