

Facilitating development of databases For DUS examination

UPOV Technical Committee March 2016 - France GEVES



March 2016 TC UPOV Workshop

- (a) Variety descriptions and the role of plant material, including minimum number of growing cycles for DUS examination
- (b) Quality parameters for DUS examination
- (c) **Facilitating development of databases**
- (d) Minimum distance between varieties



March 2016 TC UPOV Workshop


(c) 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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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 expertise in a common 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 Distinctness 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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Facilitating development of databases

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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Facilitating development of databases

An example among others : GEMMA peach database

Partners involved: Hungary, Spain, Italy, France, with CPVO

- **A common tool : a web-based database**
 - To integrate different type of data (Molecular data + Digital pictures) whatever the couple Species/Country
 - To support multi language
 - To define access rights

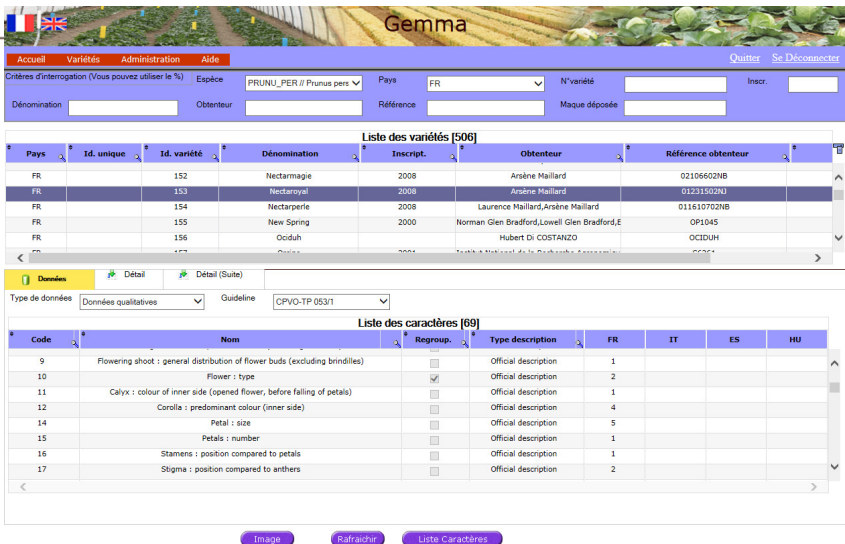
GEMMA <http://gem.geves.info/gem/>



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Facilitating development of databases

An example among others : GEMMA peach database



Gemma

Accueil Variétés Administration Aide Quitter Se Déconnecter

Centres d'interrogation (Vous pouvez utiliser le %) Espace PRUNU_PER // Prunus pers Pays FR N'variété Inscr.

Dénomination Obteneur Référence Marque déposée

Liste des variétés [506]

Pays	Id. unique	Id. variété	Dénomination	Inscript.	Obteneur	Référence obteneur
FR	152		Nectarargie	2008	Arsène Maillard	02106602NB
FR	153		Nectaroyal	2008	Arsène Maillard	01231502NB
FR	154		Nectarperle	2008	Laurence Maillard,Arsène Maillard	011610702NB
FR	155		New Spring	2000	Norman Glen Bradford,Lowell Glen Bradford,E	OP1045
FR	156		Ooduh		Hubert Di COSTANZO	OCIDUH

Données Détail Détail (Suite)

Type de données: Données qualitatives Guideline: CPVO-TP 05/31

Liste des caractères [69]

Code	Nom	Regroup.	Type description	FR	IT	ES	HU
9	Flowering shoot : general distribution of flower buds (excluding brindles)	<input type="checkbox"/>	Official description	1			
10	Flower : type	<input checked="" type="checkbox"/>	Official description	2			
11	Calyx : colour of inner side (opened flower, before falling of petals)	<input type="checkbox"/>	Official description	1			
12	Corolla : predominant colour (inner side)	<input type="checkbox"/>	Official description	4			
14	Petal : size	<input type="checkbox"/>	Official description	5			
15	Petals : number	<input type="checkbox"/>	Official description	1			
16	Stamens : position compared to petals	<input type="checkbox"/>	Official description	1			
17	Stigma : position compared to anthers	<input type="checkbox"/>	Official description	2			

Image Rafraîchir Liste Caractères


Facilitating development of databases

An example among others : GEMMA peach database

Partners involved: Hungary, Spain, Italy, France, with the CPVO

- Work and collaboration still in progress ! Not easy and not quick to build !

- **A common tool : a web based database**
- **A ring test** A common set of DUS characteristics
common calibration book
- A common choice of the data to include in the database : some DUS data, some administrative data, pictures
- **A common agreement** – how to feed the database
- **A common agreement** – how to use the database


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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

Commitment of the EOs
Calibration book and ring test

Share a PHENOTYPE + PICTURES + [MOLECULAR DATA + DNA]
In a common tool
Common agreement to feed the database
Common agreement to use the database – common decision rules


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Thanks for your attention

14 mars 2016, ANGERS

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