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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

WORKSHOP ON DATA HANDLING

organized by
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New Varieties of Plants (UPOV)

in cooperation with
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THE UPOV PLANT VARIETY DATABASE (UPOV-ROM)

Document prepared by the Office of the Union

THE UPOV-ROM PLANT VARIETY DATABASE

I. Main features of the UPOV-ROM Plant Variety Database

1. The origin of the UPOV-ROM Plant Variety Database was to facilitate the exchange and availability of information about variety denominations for the process of examination of applications for plant breeders' rights. The UPOV-ROM Plant Variety Database contains data on plant varieties made available to UPOV by UPOV member States. At present, 38 member States and two organizations submit data for varieties which are

- (a) protected,
- (b) the subject of applications for protection,
- (c) included in national lists of varieties admitted for marketing, or
- (d) the subject of applications for inclusion in such lists.

2. Some States do not yet provide data for all listed varieties while others provide data only for protected varieties. All UPOV member States, however, are working to improve the coverage and the quality of their data. Some States also submit information on varieties which are not protected or national listed. UPOV has also obtained the permission from the Organisation for Economic Co-operation and Development (OECD) to include the OECD List of Cultivars Eligible for Certification in the UPOV-ROM Database. The main information of the List is reproduced in the Database itself while the full text with all footnotes is presented in a "portable document" format (pdf). The Database further includes data on varieties protected by the Community Plant Variety Office of the European Union (CPVO).

3. The Database is a compilation of data submitted by the authorities of UPOV member States and certain intergovernmental organizations, in a standard format. The Office of UPOV processes the data as it is received. It is not responsible for the completeness or quality of the data. For each variety a total of 37 different items of information may be submitted. However, at present most States provide a limited number of items of information (about 10 to 15 or even less in the case of non-protected, non-listed varieties or very old varieties). A list of items of information available in the Database with an explanation is provided in the Annex to this document.

4. The UPOV-ROM incorporates the retrieval software of the JOUVE company (France), called GTITM. The GTITM application is a 16 bits software which was originally designed for Windows 3.11 and Windows 95, but also works in Windows 98 and Windows NT3, 4. This software is not guaranteed for use in Windows 2000 and some users might experience problems. However, JOUVE has been entrusted with the development of a new 32 bits GTITM software which would work under Windows 95, 98, Windows NT and Windows 2000. This new version is planned to be made available in the near future.

5. In addition to the compilation of data submitted by UPOV member States, the UPOV-ROM contains at present

- (a) a Taxon File giving the translation of numerous taxa from English, French, German, Latin or Spanish to any of these languages;

- (b) the unprocessed raw data of the contributing States and organizations; this is password-protected and restricted to the authorities of national governments;
- (c) a variety of texts (in a hypertext database in pdf format) including a guide to the use of the UPOV-ROM, detailed information and explanations on the data and its validity, the texts of the various Acts of the UPOV Convention, the UPOV Recommendations on Variety Denominations with preset classes, the format for the submission of data, an updated list of UPOV member States, the addresses of their national offices, a list of UPOV publications, the full text of the 2003 OECD List of Cultivars Eligible for Certification, the Common Catalogue of Varieties of Agricultural Plant Species (21st complete edition) of the European Communities and three Supplements, the Common Catalogue of Varieties of Vegetable Species (21st complete edition) of the European Communities and 18 Supplements, and a short information flyer on UPOV and its activities.
6. The UPOV-ROM is updated every second month. The subscription price per year for a minimum of six issues is 750 Swiss francs, plus postage. The UPOV-ROM is provided for the exclusive use of the subscriber. If a subscriber wishes to make UPOV-ROM data more widely available, the prior authorization of the Office of UPOV is required.
7. The Office of UPOV will, on request, provide potential users with a trial copy of the UPOV-ROM in order that they can become familiar with its software and user interface.

II. Searching in the UPOV-ROM

8. Information can be searched in the UPOV-ROM via three search modes. Each search mode has a search mask.
- The Simple Search Mode is a tool for users who are not familiar with searching in databases and who do not intend to use all the search indexes available in the UPOV-ROM system. Only five indexes (the most important ones) are available in this search mode.
 - The Assisted Search Mode is the default search mode. Using the mask of the assisted search, almost all questions can be answered.
 - The Expert Search Mode can be useful for users who are already familiar with the command driven on-line search systems and who want to compose complicated search queries based upon Boolean logic. All the indexes are available here. Some fields are indexed twice (e.g. the Latin field has a separate word index and a separate phrase index).
9. The search mask for each of these three search modes is shown in the following example:

Is there any plant variety of the genus *Triticum* mentioned in the UPOV-ROM database either protected by plant breeders' rights (PBR) or included in a national list (NLI) with the name "ARUM"?

(a) Simple search mode mask

This is the search mask of the **Simple Search Mode**.

Press the Display results button to view the four documents found.

(b) Assisted search mode mask

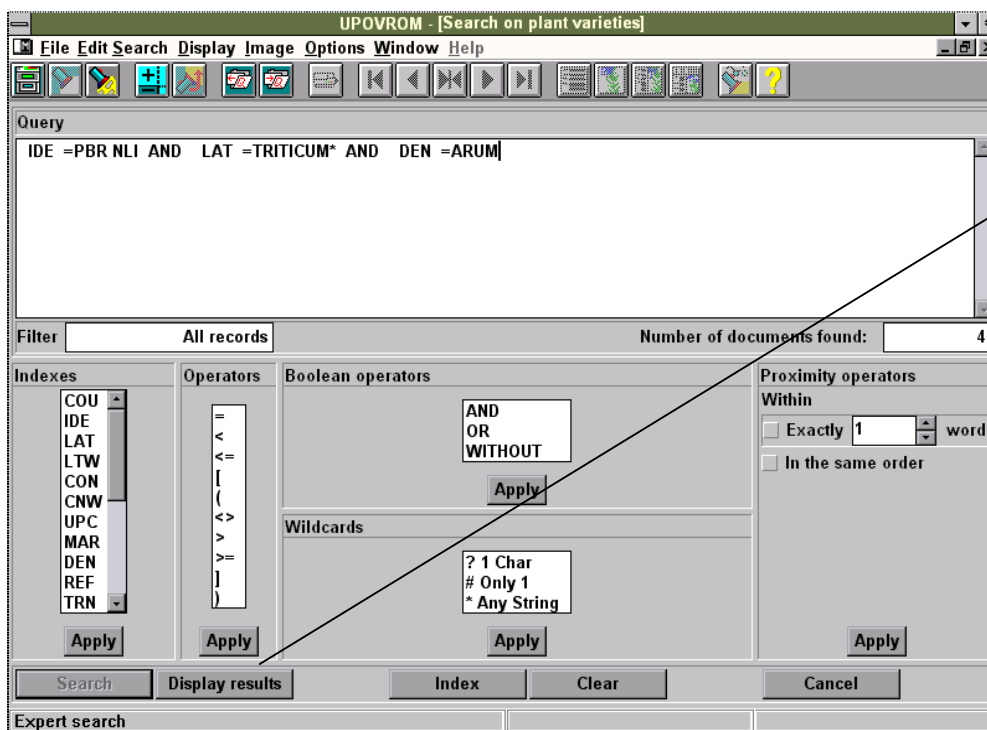
Connectors	Indexes	Search terms	Result
	Identifier/Type	PBR NLI	163660
AND	Latin name	TRITICUM*	12340
AND	Denomination	ARUM	5
AND	Common name		
AND	UPOV code		
AND	Denomination		
AND	Breeders reference		
AND	Trade names		
AND	Start date		
AND	Application/filing number		
AND	Application/filing date		
AND	Expiration date/calc.		

This is the search mask of the **Assisted Search Mode**.

The result information is more detailed than in the Simple Search Mode.

Press the Display results button to view the four documents found.

(c) Expert search mode mask

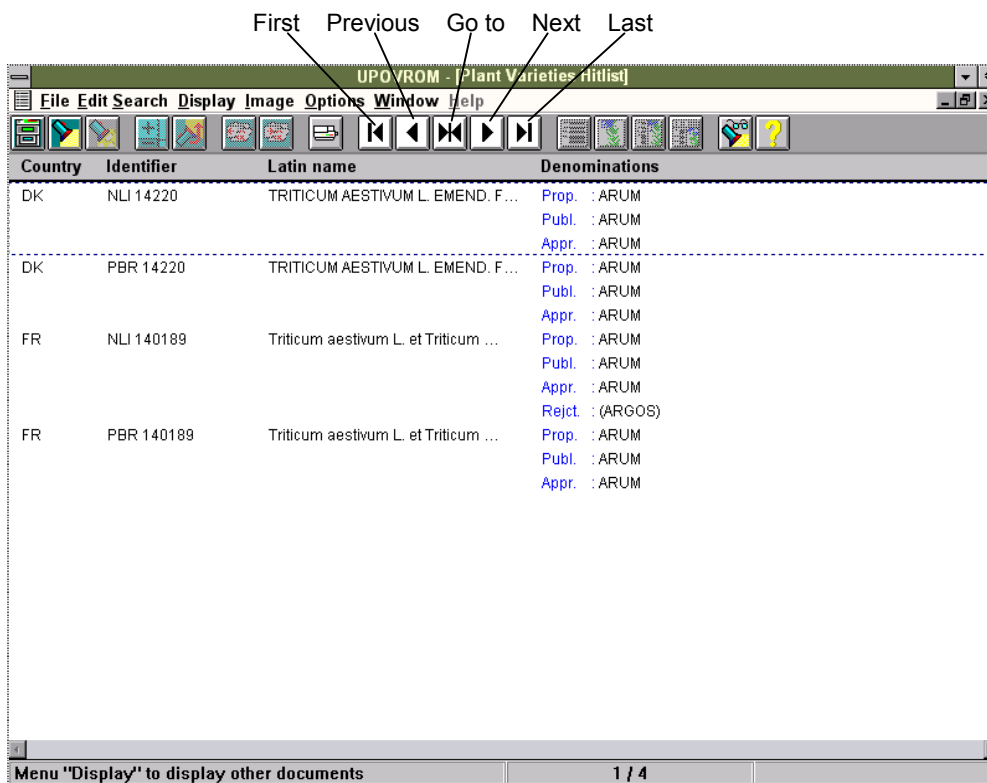


This is the search mask of the **Expert Search Mode**.

Press the Display results button to display the Hit-list with the resulting four documents.

Displaying results

After the search, if more than one document is found, a short hit-list is displayed. The Hit-list is a columnar output with the most important information in summary form. The Hit-list can be navigated by using the paging buttons presented in the icon toolbar.



There are two documents from Denmark (DK) and two others from France (FR).

III. Planned improvement of the UPOV ROM Plant Variety Database

10. UPOV is currently in the process of improving certain aspects of the Plant Variety Database as follows:

Web-based version of the Plant Variety Database

11. UPOV is currently developing a Web-based version of the Plant Variety Database, which will improve accessibility of the database and provide more powerful search tools. The UPOV Website may also be used to create a single point of reference for variety denomination checking purposes by providing links to the appropriate Web pages or contact details of trademark offices and other useful sources of information concerning denominations.

Submission and checking of data

12. At present, data for the Plant Variety Database must be submitted in a specified “TAG” format. However, UPOV is working to enable the submission of data in a simpler form (similar to a spreadsheet or table), thus making it easier for authorities without specialized IT resources to submit data. Electronic checking systems are also planned to be introduced to check the accuracy of the data being transferred into the database, making it possible to identify, for example, unexpected dates for a field or inconsistent formats.

UPOV code system

13. The main purpose of the development of the UPOV code (the “code”) is to enhance the usefulness of the UPOV-ROM Plant Variety Database (the “UPOV-ROM”) by overcoming the problem of synonyms for plant taxa. The code is constructed as follows:

- (a) an alphabetic element of five letters (e.g. XXXXX) indicating the genus;
- (b) a three-letter element (e.g. YYY) indicating the species;
- (c) where relevant, a further element of up to three characters (e.g. ZZ1) indicating a sub-specific unit;

thus,

XXXXX	YYY	ZZ1
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14. In all cases, the five-letter genus code is provided, but the three-letter species code and the sub-specific code are only provided where necessary.

15. As far as possible, the elements try to follow the first letters of the botanical name of that element, e.g.:

<i>Prunus</i>	PRUNU_
<i>Prunus armeniaca</i>	PRUNU_ARM

16. Clearly it is necessary, in some cases, to improvise to ensure that similar taxa have different codes (e.g. *Platycodon* = “PLTYC_” and *Platymiscium* = “PLTYM_”). In cases

where the name is shorter than the code, the last letter of the name has been repeated e.g. *Poa* = POAAA.

17. In the case of the sub-specific unit element, the code is used in a more flexible way to contain more than one level of ranking, thereby avoiding the need for extra elements in the code.

18. The starting point for the development of the database was the ISTA (International Seed Testing Association) List of Stabilized Plant Names (4th edition). This database provided around 2,500 ISTA stabilized names and around 370 recognized synonyms. Codes concerning these taxa are always based on the ISTA stabilized names. For those taxa for which there are no ISTA stabilized names, the preferred basis for the code is the Germplasm Resources Information Network (GRIN) database. The UPOV codes will be maintained in the GENIE database:

THE “GENIE” DATABASE

19. The UPOV codes will be maintained in the GENIE database, which will also contain information from the following documents:

Ref.	Title
C/37/6	List of the taxa protected in the member States of UPOV and in those States and Organizations that have initiated the procedure for acceding to UPOV and which have provided information
C/37/5	Cooperation in examination
TC/40/4	List of species in which practical technical knowledge has been acquired or for which national guidelines have been established

20. The GENIE database, which should be available on the UPOV Website from the end of 2004 or beginning of 2005, will allow users to make an inquiry for a particular taxon, select the appropriate code and then see the following type of information:

UPOV code	DCTLS_GLO
Latin name(s)	*Dactylis glomerata L.
Common English name(s)	Cocksfoot, Orchard Grass
Common French name(s)	Dactyle
Common German name(s)	Knaulgras
Common Spanish name(s)	Dactilo
Family	Poaceae/Gramineae
Countries/Authorities in which protection is provided	AR, AT, AU, BE, BG, BO, CA, CH, CL, CO, CZ, DE, DK, EC, EE, ES, FI, FR, GB, HU, IE, IL, IT, JP, KG, KR, LV, MX, NI, NO, NZ, PL, QZ, RO, RU, SE, SK, US, UY, ZA.
Countries with experience in DUS examination	AR, CZ, DE, DK, ES, FR, HU, JP, NZ, PL, SK, UY, ZA.
Cooperation agreements for DUS testing	DE offers to AT, BE, CH, NO; DK offers to AT, SE; FR offers to GB; SK offers to CZ, SI. DE and DK exchange reports DK and FR exchange reports
UPOV Test Guidelines	TG/31/8
Countries with national test guidelines	AR, CZ, DE, ES, FR, HU, JP, NZ, PL, UY, ZA.

* ISTA stabilized name.

[Annex follows]

ANNEX

States and Organizations contributing to the database

- | | | |
|------------------------------|----------------------------|-------------------------------------|
| ▶ ARGENTINA - <u>AR</u> | ▶ HUNGARY: PLP - <u>HU</u> | ▶ REPUBLIC OF KOREA - <u>KR</u> |
| ▶ AUSTRALIA - <u>AU</u> | NLI - <u>HU</u> | ▶ RUSSIAN FEDERATION - <u>RU</u> |
| ▶ AUSTRIA - <u>AT</u> | ▶ IRELAND - <u>IE</u> | ▶ SLOVAKIA - <u>SK</u> |
| ▶ BELGIUM - <u>BE</u> | ▶ ISRAEL - <u>IL</u> | ▶ SLOVENIA - <u>SI</u> |
| ▶ BRAZIL - <u>BR</u> | ▶ ITALY - <u>IT</u> | ▶ SOUTH AFRICA - <u>ZA</u> |
| ▶ BULGARIA - <u>BG</u> | ▶ JAPAN - <u>JP</u> | ▶ SPAIN - <u>ES</u> |
| ▶ CANADA - <u>CA</u> | ▶ KYRGYZSTAN - <u>KG</u> | ▶ SWEDEN - <u>SE</u> |
| ▶ CHILE - <u>CL</u> | ▶ LATVIA - <u>LV</u> | ▶ UKRAINE - <u>UA</u> |
| ▶ COLOMBIA - <u>CO</u> | ▶ NETHERLANDS - <u>NL</u> | ▶ UNITED KINGDOM - <u>GB</u> |
| ▶ CZECH REPUBLIC - <u>CZ</u> | ▶ NEW ZEALAND - <u>NZ</u> | ▶ UNITED STATES: PLP - <u>US</u> |
| ▶ DENMARK - <u>DK</u> | ▶ NORWAY - <u>NO</u> | PBR - <u>US</u> |
| ▶ FINLAND - <u>FI</u> | ▶ POLAND - <u>PL</u> | ▶ URUGUAY - <u>UY</u> |
| ▶ FRANCE - <u>FR</u> | ▶ PORTUGAL - <u>PT</u> | ▶ OECD - <u>QM</u> |
| ▶ GERMANY - <u>DE</u> | ▶ ROMANIA - <u>RO</u> | ▶ CPVO (EUROPEAN UNION) - <u>QZ</u> |

Items of information available in the database

- Country or organization providing information (ISO code)
- Type of record and (variety) identifier (PBR, NLI, PLP, etc.)
- Species--Latin name
- Species--common name in English
- Species--common name in national language other than English

Denominations

- Date + denomination, proposed, first appearance or first entry in data base
- Date + proposed denomination, published
- Date + denomination, approved
- Date + denomination, rejected or withdrawn
- Breeder's reference
- Synonym to variety denomination
- Trade name
- Application number
- Application/filing date
- Publication date of data regarding the application (protection) / filing (listing)
- Grant number (protection) / registration number (listing)

- Publication date of data regarding the grant (protection) / registration (listing)
- Start date of grant (protection) / registration (listing)
- Start date of renewal of registration (listing)
- Calculated future expiration date
- Date of end of grant (protection) / registration (listing) + type of end

Parties Concerned

- Applicant's name
- Breeder's name
- Maintainer's name
- Title holder's name
- Other party's name + type of party

Information Regarding Equivalent Applications in Other Countries

- Priority application: country, type of record, date of application, application number
- Other applications: country, type of record, date of application, application number
- Other countries: Country, denomination if different from denomination in application
- Other countries: Country, breeder's reference if different from breeder's reference in application
- Other relevant information (phrase indexed)
- Remarks (word indexed)

Explanation of types

Type of Record and (Variety) Identifier

- PBR: Plant Breeders' Rights
- PLP: Plant Patents
- PAT: Patents for Invention
- NLI: National Lists
- BIL: Bilateral Agreements for Testing
- ZZZ: Other (to be defined at a later stage)

The (variety) Identifier given by the originator of data might be identical to application or filing number.

Type of End Date

- REJ: REJection
- DEL: DELEtion
- TER: TERmination
- EXP: EXPIration
- WDR: WithDRawal
- SUR: SURrender (SUR)

Type of Party

- AGT: Agent
- ELH: Exclusive License Holder
- CLH: Compulsory License Holder
- OPN: Other Party Name