



TWC/32/7

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# INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

## TECHNICAL WORKING PARTY ON AUTOMATION AND COMPUTER PROGRAMS

### Thirty-Second Session Helsinki, Finland, June 3 to 6, 2014

#### EXCHANGEABLE SOFTWARE

*Document prepared by the Office of the Union*

*Disclaimer: this document does not represent UPOV policies or guidance*

1. The purpose of this document is to report on developments concerning exchangeable software and to present a proposal concerning the development of a new information document.

2. The following abbreviations are used in this document:

CAJ: Administrative and Legal Committee  
 TC: Technical Committee  
 TWC: Technical Working Party on Automation and Computer Programs  
 TWPs: Technical Working Parties

3. The structure of this document is as follows:

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#### I. NEW INFORMATION DOCUMENT

4. The CAJ, at its sixty-eighth session, held in Geneva on October 21, 2013, agreed with the conclusions of the TC, at its forty-ninth session, that the title of document UPOV/INF/16 "Exchangeable Software" and the text of Section 1 "Requirements for exchangeable software" should remain unchanged on the basis that the document concerns software that had been developed or customized by a member of the Union for UPOV purposes; and that it would be useful for the TC to seek to develop a separate information document that

would allow members of the Union to provide information on the use of non-customized software and equipment (e.g. data loggers) that was used by members of the Union (see document CAJ/68/10 "Report on the Conclusions", paragraph 30).

5. The TC at its fiftieth session, held in Geneva, April 7 to 9, 2014, and the CAJ, at its sixty-ninth session, held in Geneva, April 10, 2014, agreed to propose new information document (UPOV/INF/22 "Software and equipment used by members of the Union") for adoption by the Council at its forty-eighth ordinary session, to be held in Geneva on October 16, 2014, on the following basis (see document TC/50/8, paragraph 6, TC/50/36 "Report on Conclusions", paragraph 110, and CAJ/69/12 "Report on Conclusions", paragraph 39).

Title	"Software and equipment used by members of the Union" (document UPOV/INF/22)
1. Requirements	<p>1.1. Members of the Union are invited to provide information on software/equipment for inclusion on the basis that it has been used for the purposes of plant variety protection.</p> <p>1.2. Information on the following should be provided by any member of the Union proposing software/equipment for inclusion in this document:</p> <p style="padding-left: 40px;">Title of software/equipment Function (brief summary) Source and contact details Category(ies) of use (see section 3, below)</p>
2. Procedure for inclusion of software/equipment	<p>2.1 Software/equipment proposed for inclusion in this document by members of the Union is, in the first instance, presented to the TC.</p> <p>2.2 The TC will decide whether to:</p> <p style="padding-left: 40px;">a) propose to include the information in the document; b) request further guidance from other relevant bodies (e.g. CAJ and TWPs); or c) propose not to include the information in the document.</p> <p>2.3 In the case of a positive recommendation by the TC and, subsequently by the CAJ, the software/equipment will be listed in a draft of the document, to be considered for adoption by the Council.</p>
3. Categories of software/equipment	<p>To assist users, information on software/equipment is provided in the following categories:</p> <p style="padding-left: 40px;">Administration of applications On-line application systems Variety denomination checking DUS trial design and data analysis Data recording and transfer Image analysis Biochemical and molecular data</p>
4. Information on use by members of the Union	<p>4.1 A circular is issued to members of the Union on an annual basis, inviting them to provide information on their use of the software/equipment included in this document.</p> <p>4.2 The information on software/equipment use by members of the Union is indicated in the columns "Member(s) of the Union using the software/equipment" and "Application by user(s)". With regard to the indication of "Application by user(s)", members of the Union can indicate, for example, crops or types of crop for which the software/equipment is used.</p>

6. Subject to adoption of document UPOV/INF/22 by the Council, the Office of the Union will issue a circular to the designated persons of the members of the Union in the TC, inviting them to provide information regarding non-customized software and equipment used by members of the Union for inclusion in the document.

7. *The TWC is invited to note that:*

(a) *document UPOV/INF/22 “Software and equipment used by members of the Union” will be presented for adoption by the Council at its forty-eighth ordinary session, to be held in Geneva on October 16, 2014, as set out in paragraph 5; and*

(b) *subject to adoption of document UPOV/INF/22 by the Council at its forty-eighth ordinary session, a circular will be issued to the designated persons of the members of the Union in the TC, inviting them to provide information regarding non-customized software and equipment used by members of the Union, as appropriate.*

## II. REVIEW OF DOCUMENT UPOV/INF/16 “EXCHANGEABLE SOFTWARE”

### Software proposed for inclusion in document UPOV/INF/16 “Exchangeable software”

#### *SIVAVE software*

8. The TWC, at its thirty-first session, held in Seoul, June 4 to 7, 2013, considered the SIVAVE software proposed by Mexico, which allows for the real-time dissemination of the status of proceedings concerning applications for breeders’ rights. It agreed that the SIVAVE software was suitable for inclusion in document UPOV/INF/16 (see document TWC/31/30, Annex page 7, and TWC/31/32 “Report”, paragraph 72).

9. The TC, at its fiftieth session, and the CAJ, at its sixty-ninth session, agreed that a draft revision of document UPOV/INF/16/3 concerning the inclusion of the SIVAVE software should be presented for adoption by the Council, at its forty-eighth ordinary session, to be held in Geneva on October 16, 2014, as reproduced in Annex I to this document (see document TC/50/36, paragraph 114, CAJ69/12, paragraph 41 and 42).

#### *SISNAVA software*

10. The TWC, at its thirty-first session, considered the SISNAVA software developed by Mexico, which computes difference in characteristics between varieties. It requested Mexico to provide further information on the SISNAVA software to clarify the method of determination for the crop specific limits of acceptance (sum of differences), including the role of the crop experts in this process, to be presented to the TWC at its thirty-second session (see document TWC/31/30, Annex page 1, and TWC/31/32 “Report”, paragraph 73).

11. Annex V to this document presents further information on the SISNAVA software “SISNAVA as an exchangeable software proposed by SNICS, from Mexico”, prepared by an expert from Mexico.

12. *The TWC is invited to:*

(a) *note that a revision of document UPOV/INF/16/3 concerning the inclusion of the SIVAVE software will be presented for adoption by the Council at its forty-eighth ordinary session, to be held on October 16, 2014, as prepared in Annex I of this document; and*

(b) *consider the presentation to be made by Mexico on the SISNAVA software, as presented in Annex V to this document.*

### Information on use by members

13. The TC approved the revision of document UPOV/INF/16 concerning the inclusion of information on the use of software by members of the Union to include the information received by the Office of the Union (see document TC/50/36 paragraph 116, and TC/50/8 Annex III as reproduced in Annex II to this document).

14. The CAJ agreed the proposed revision of document UPOV/INF/16 concerning the inclusion of information on the use of software by members of the Union as a basis for its adoption by the Council at its forty-eighth ordinary session, to be held on October 16, 2014 (see document CAJ/69/12 paragraph 44).

15. *The TWC is invited to note that the TC and CAJ agreed with the proposed revision of document UPOV/INF/16 concerning the inclusion of information on the use of software by members of the Union, as presented in Annex II to this document.*

### III. TRANSLATION OF SOFTWARE IN DOCUMENT UPOV/INF/16/3

#### AIM software

16. The user interfaces and user manual of the AIM software have been translated into English by the Office of the Union and have been verified by the expert from France.

17. The TC, at its fiftieth session, and the CAJ, at its sixty-ninth session, noted that an expert from France would make a presentation on the AIM software at the thirty-second session of the TWC, based on the English translation of the software requirements (see document TC/50/36 "Report on the Conclusions", paragraph 118, and CAJ/69/12 "Report on the Conclusions", paragraph 45).

18. It is recalled that an expert from France presented the AIM software at the thirtieth session of the TWC (see document TWC/30/31). Annex III to this document contains the cover page, preface and the contents of the user manual of the AIM software in English. A complete copy of the user manual is available from the UPOV website at: [http://upov.int/meetings/en/details.jsp?meeting\\_id=31703](http://upov.int/meetings/en/details.jsp?meeting_id=31703).

#### Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation

19. With regard to the possible translation of the "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation", it was agreed by the CAJ, at its sixty-eighth session, held on October 21, 2013, that the Office of the Union should arrange a telephone meeting in Russian with the IT expert of the Russian Federation in order to clarify translation requirements (see document CAJ/68/10 "Report on the Conclusions", paragraph 32).

20. A telephone meeting in Russian with an IT expert of the Russian Federation was organized by the Office of the Union on December 3, 2013, in order to clarify translation requirements for the "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" software. It was concluded from the meeting that the translation of the user interfaces of the software would be technically very difficult as the software is designed only to deal with data written in Russian language and, therefore, it would be necessary to rewrite the entire program of the software in order to create an English version of the user interfaces. It was also reported that a user manual that would be suitable for translation did not exist. However, it was proposed by the IT expert from the Russian Federation that some English screenshots be created for presentation to the TWC at its thirty-second session, in order to explain how the software works.

21. The TC, at its fiftieth session, agreed that selected screenshots in English of the software "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" be presented to the TWC at its thirty-second session, in order to explain how the software worked requirements (see document TC/50/36 "Report on the Conclusions", paragraph 120, and CAJ/69/12 "Report on the Conclusions", paragraph 46). The selected screenshots in English of the software "Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation" prepared by an expert from the Russian Federation are attached as Annex V of this document.

22. *The TWC is invited to note:*

*(a) the availability of the AIM User Guide in English; and*

*(b) the explanation of the software “Information System (IS) used for Test and Protection of Plant Varieties in the Russian Federation”, as provided in Annex IV of this document.*

[Annexes follow]

**DRAFT**

SOFTWARE PROPOSED FOR INCLUSION IN DOCUMENT UPOV/INF/16 "EXCHANGEABLE SOFTWARE"  
(Information provided by Mexico on February 25, 2013)

(a) Administration of applications

Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
SIVAVE	Database: Mysql 5.1  PHP Version 2.5.9 Ajax. Javascript.  Routines are integrated with Java Applets and several Java Archives (JARS).  Complements: Zend Optimizer 3.3  Compilers: Zend Studio ScriptCase	Allows for the real-time dissemination of the status of proceedings concerning applications for breeders' rights in Mexico.	Mexico: E-mail: <a href="mailto:enriqueta.molina@snics.gob.mx">enriqueta.molina@snics.gob.mx</a> / <a href="mailto:eduardo.padilla@snics.gob.mx">eduardo.padilla@snics.gob.mx</a>	Written application and justification of need for use.	MX	All crops

[Annex II follows]

PROPOSED REVISION TO DOCUMENT UPOV/INF/16 "EXCHANGEABLE SOFTWARE"

(Information regarding the use of the software provided by Croatia and Kenya in reply to Circular E-14/014: appears highlighted)

(a) Administration of applications

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	ZAJVKA	SQL Windows	Information on applications (name and address of applicants, proposed denomination, date of application etc) and registration (denomination, date of registration)	Russian Federation: State Commission of the Russian Federation for Selection Achievements Test and Protection, Valentin Sherbina, Chief of IT Department E-mail: <a href="mailto:gossort@gossort.com">gossort@gossort.com</a>	Only available in Russian	RU	all crops

(b) On-line application systems(c) Variety denomination checking

(d) DUS trial design and data analysis

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	DUSTNT	FORTRAN 90	General program for analysis of data from DUS trials. Includes facilities for COY analysis and a wide range of multivariate analysis techniques	United Kingdom: Dr. Sally Watson Email: <a href="mailto:sally.watson@afbini.gov.uk">sally.watson@afbini.gov.uk</a>		GB	Herbage, Pea (Field & Veg), Parsnip, Swede, Onion, Brussels Sprout, Winter Oilseed Rape, Sugar Beet, Faba Beans, Spring Oilseed Rape, Kale, Linseed
						CZ	Oilseed Rape, Grasses and Luzerne
						EE	Grasses and Legumes
						VN	Maize, Flowers, Rice, Tomato, Potato, Soybean, Vegetables, and other species
						KE	Maize
	GAIA	Windev	Computes comparisons of varieties for management of reference collections	France: Email: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oat, Rape, Sunflower, Triticale, Pea
						HR	Barley, Maize, Wheat, Soybean
						CZ	Maize, Wheat, Barley, Oat, and Pea

(e) Data recording and transfer

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	SIRIUS	Windev	Hand-Held Data Capture Software	France: Email: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	Sorghum, Sugar Beet, Maize, Wheat, Barley, Oat, Rape, Sunflower, Triticale, Pea, Herbage



(f) Image analysis

Date added	Program name	Programming language	Function (brief summary)	Source & contact details	Condition for supply	Member(s) of the Union using the software	Application by user(s)
	AIM	Windows	Image processing software	France: E-mail: <a href="mailto:christophe.chevalier@geves.fr">christophe.chevalier@geves.fr</a>		FR	rapeseed, sunflower, hydrangea, flax, peas, carrot, maize, winter wheat, orchids

(g) Biochemical and molecular data

[Annex III follows]

AIM USER GUIDE



**A.I.M.**

**User Guide**

*Image Analysis*

## Preface



**AIM facilitates** the processing of images, using third-party software (ImageJ).

**AIM enables** you to: establish a framework for your studies (date, client, species, device);  
 carry out processing operations and obtain results (in one click);  
 archive the following in a database:

- your series of images;
- your processing operations (ImageJ macros);
- your results files;
- your individual measurements;
- your clustered measurements (grouped by variety, image, etc.).

calculate new measurements (for example: convert pixels to millimeters);  
 cluster results (by variety, image, series) and to present them (filtered, in table format, in the form of a graph, for export into Excel,...).

**AIM simplifies** processing operations for users by encapsulating them (automatic execution, one click) through the integration of history functions (traceability), rights management (user or super user), color management (UPOV, RHS, ..... ) and by displaying results in the form of a graph (curve, histogram).

**AIM facilitates** multi-user, multi-workstation usage of the same project (study), as well as the sharing of processing operations (ImageJ macros) or results between partners (bodies, companies,).

The field of imaging is becoming an increasingly integral part of our studies and professional projects on a daily basis. The tools available on the market are frequently expensive and too specialized.

AIM will facilitate the processing of images, performed using ImageJ software, while offering significant flexibility with regard to the subjects studied (plant, medical, spatial, industrial,...).

Some examples of image processing performed using series of GEVES images:

- *Surface measurements, height and width of grains.*  
*(back-lit table, corn, 2009)*
- *Surface spread of fungus on leaves.*  
*(scanner, wheat, 2010)*
- *Surface measurements, height and width of leaves.*  
*(scanner, rape seed cotyledons, 2010)*
- *Surface measurements, height and width of flower petals.*  
*(scanner, flax, 2010)*
- *Ground coverage of plants.*  
*(camera in field, peas, 2011)*
- *Kinetics of seed imbibition and germination.*  
*(Jacobsen table, multiple species, 2011)*
- *Surface and perimeter measurements to define the thickness of leaves.*  
*(scanner, carrot tops, 2011)*
- *Quantification, labeling of colors on leaves and flowers.*  
*(back-lit table, peas and orchids, 2012)*

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[Annex IV follows]

INFORMATION SYSTEM (IS) USED FOR TEST AND PROTECTION OF SELECTION  
ACHIEVEMENTS IN THE RUSSIAN FEDERATION  
(Information provided by Russian Federation on April 25, 2014)

UPOV TWC/32, June 3 to 6, 2014 (Helsinki, Finland)




**INFORMATION SYSTEM (IS) USED FOR TEST AND PROTECTION OF SELECTION ACHIEVEMENTS IN THE RUSSIAN FEDERATION**



Valentin Scherbina  
Head of IT Department

State Commission of the Russian Federation for Selection Achievements  
Test and Protection (State Commission)  
Ministry of Agriculture of the Russian Federation



State Commission

**PROGRAMM COMPLEX "ZAJAVKA"**

**The program complex "Zajavka" is intended:**

**for registration and information support of applications for selection achievements, including decisions making on them and,**

**also for provision of experts by the various supplemental information concerning crops, selection achievements, various types of the subjects and other information submitted both on the monitor screen, and in a hard-copy form.**



## MAIN FORM

The main form is functionally subdivided into **five areas**.

We name them:

«Menu», «Crop», «Variety», «Application», «Subject».

The area «**Crop**» is the area for choice of a crop and for placing of applicable information concerning the crop (**Crop Type, Protection Starting Date, Total Number of the Crop Varieties, etc.**).

There is also switch modes for application operation (**NEW - EXISTING**) and action button

“**Registration of Appl.**” on the area to register in the database information concerning entering applications submitted at the first time.



## MAIN FORM

The next area «**Variety**» is used to register **varieties** submitted firstly and to display the **information** concerning existing varieties.

The area contains the following fields:

**Breeder's reference (BR)**

**Full Variety Denomination**

**Short Variety Denomination (not more than 20 symbols) and Action button 'Variety' to control Full Variety Denomination Identity/Uniqueness within specified crops group when writing new varieties.**


When working with applications registered, area «**Variety**» is used to **display information** in respect of a variety for what application chosen had been filed:

**Start Testing Year (STY),**

**Entering in PBR List (P),**

**Year of Excluding from PBR List or Year Tests Stopping (YTS) in case the variety has not been entered in PBR List before.**





**MAIN FORM**

The area «**Application**» contains information concerning application:


- **Type**
- **Reference Number**
- **Application Origin Country**
- **Registration Date and**
- **Newsletter (Bulletin) Issue where it has been published firstly.**

The area «**Subject**» (the lowermost part of the form) is intended for accomplishment of operations with subjects of the application.

**Subjects are:**

- **Applicants**
- **Representatives**
- **Maintainers and**
- **Breeders.**

They can be deleted and added. In the meanwhile, information about change of subjects' composition of the application is saved in the database.



**MAIN FORM**


The area «**Subject**» (the lowermost part of the form) is intended for accomplishment of operations with subjects of the application.

**Subjects are:**

- **Applicants**
- **Representatives**
- **Maintainers and**
- **Breeders**

They can be deleted and added.

In the meanwhile, information about change of subjects' composition of the application is saved in the database.




State Commission

## MAIN FORM

**Options of the area «Menu» located in the top part of the form are intended for servicing of selection achievements and applications for them:**

**Varieties Denomination Service**  
**Charge and Control of Fees**  
**Preparation of Documents**  
**Record of Decisions Making in respect of applications etc.)**  
**and, also**

**for forming of inquiries of the various help information from the database (concerning crops, varieties, applications, subjects) and for data submission in hard-copy form.**



State Commission

## Main Form

REGISTRATION OF SELECTION ACHIEVEMENTS ( repl )

File Variety Application Fees Licenses Documents Information Services

Application  New  Existing Crop varieties -  Registration of Appl.

---

**Variety**  Denomination   
 SX  Short name   
 Type


---

Application  for Administrative  for PBR No.  Date of Registration   
 Appl. Country  Publication No.

---

Choice of Application Subject

T O	Applicant	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	T O
A D D	Representative	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	D E L E T E
	Maintainer	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Breeder	<input type="text"/>	<input type="checkbox"/>	<input type="checkbox"/>	



**REGISTRATION OF APPLICATION  
FOR A NEW SELECTION ACHIEVEMENT**

**Order of Registration of new Application:**

- 1. Set the switch of operating modes with applications in mode 'New ' and choose a crop.**
- 2. Complete fields: Breeder's reference, Variety Denomination, Variety Short Denomination, Variety Type (Variety Type is chosen from a list)**
- 3. Check variety denomination identity – press button ' Variety'. Variety Denomination Identity checking is made in array of varieties denominations of crops group specified.**

The crop for which new application is registered belongs to the very group.

If varieties with similar denominations are detected when checking, new application data input is stopped and applicant's agreement should be seek in respect of denomination proposed. If no denomination repetitions were detected, new application data input may be continue.



**REGISTRATION OF APPLICATION  
FOR A NEW SELECTION ACHIEVEMENT**

**Order of Registration of new Application:**


- 4. Write country of application origin. Than in menu 'Variety' choose option 'Breeding Country'.**
- 5. Set type of application (Usage Admittance – PBR): set switch 'for Admittance' / 'for PBR' of the area "Application" and press button 'Application'.**

In the meanwhile the application is assigned its reference number and date of the application registration is written in field 'Date of Registration'.

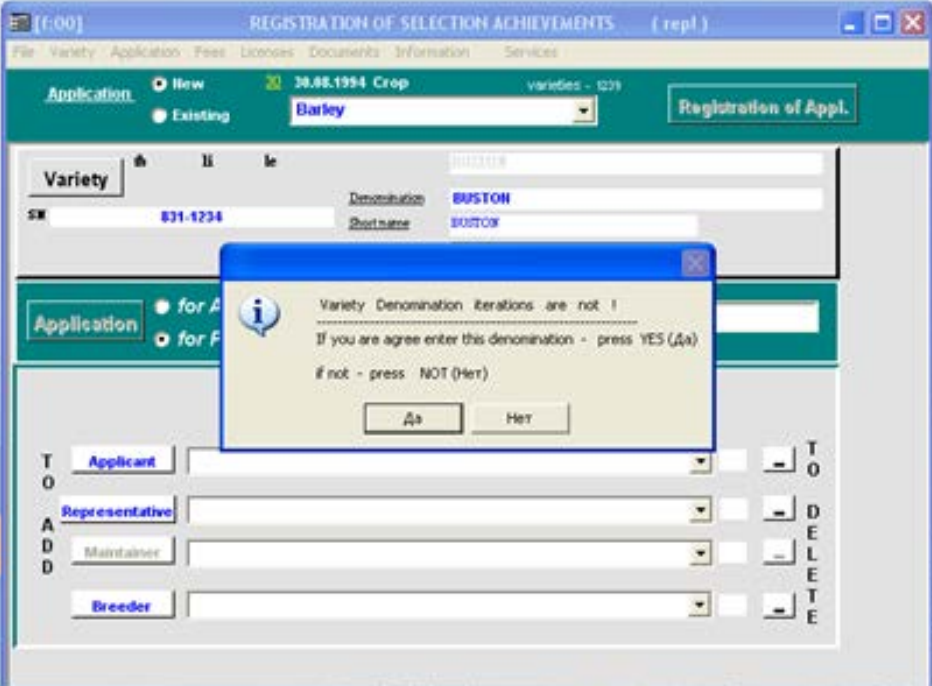
- 6. Write subjects of the application (Applicants, Maintainers, Breeders and Representatives).**

On slide "Registration of Application for New Selection Achievement – Record of Subjects of the Application" the status of the program is shown after the subject choosing and button pressing 'Applicant '. In the absence of the subject required in the database it can be added in the base at once.

- 7. All information prepared about the new application will be saved after button pressing 'Registration of Appl.' (located in the right top corner of "Crop" area) and will be available for experts to work with the application in future.**

 **Registration of Application for a New Selection Achievement Variety Denomination Registration**

State Commission



REGISTRATION OF SELECTION ACHIEVEMENTS ( repl )

File Variety Application Fees Licenses Documents Information Services

Application  New  Existing 30.08.1994 Crop varieties - 1279 Barley Registration of Appl.


Variety SR 831-1234 Denomination BUSTON Shortname BUSTON

Application  for A  for P

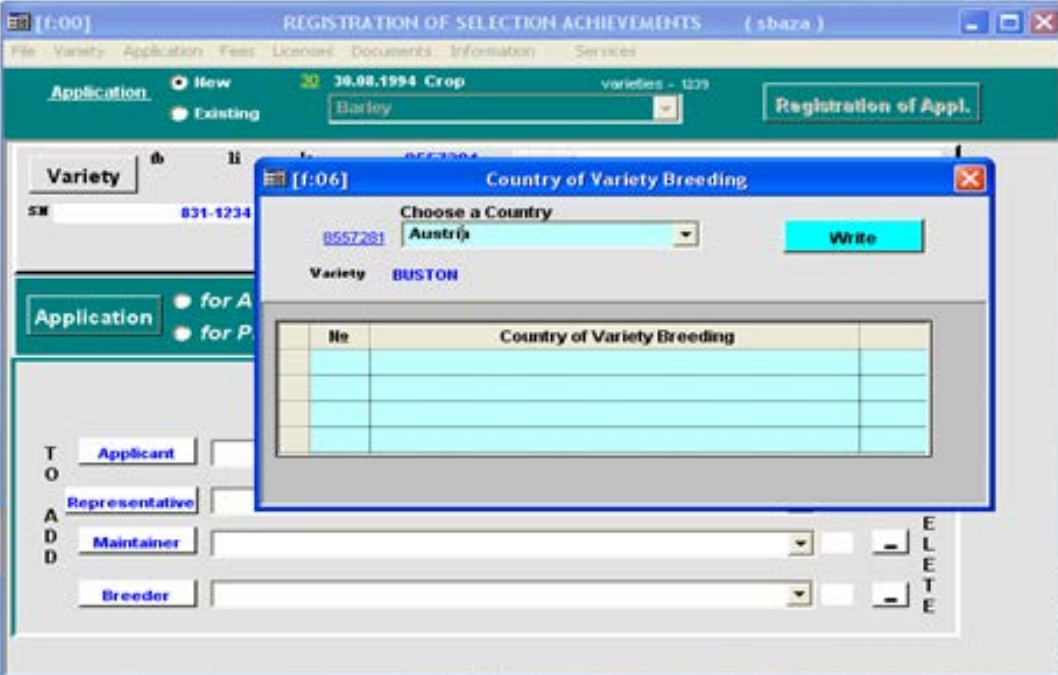
T Applicant O Representative A Maintainer D Breeder DELETE

Variety Denomination iterations are not 1  
If you are agree enter this denomination - press YES (Δα)  
if not - press NOT (Her)

Δα Her

 **Registration of Application for a New Selection Achievement Breeding Country Registration**

State Commission



REGISTRATION OF SELECTION ACHIEVEMENTS ( sbaza )

File Variety Application Fees Licenses Documents Information Services

Application  New  Existing 30.08.1994 Crop varieties - 1279 Barley Registration of Appl.

Variety SR 831-1234

Application  for A  for P

T Applicant O Representative A Maintainer D Breeder DELETE

Country of Variety Breeding

Choose a Country Austria Write

Variety BUSTON

№	Country of Variety Breeding

**Registration of Application for a New Selection Achievement Type Application Registration**

State Commission

REGISTRATION OF SELECTION ACHIEVEMENTS ( repl )

File Variety Application Fees Licenses Documents Information Services

Application:  New 20 30.08.1994 Crop varieties - 1271  
 Existing Barley Registration of Appl.

Variety:    
 Denomination: BUSTON  
 Shortname: BUSTON  
 Type:

Application:  for Admittance No 63903 Date of Registration 07.04.2014  
 for PBR Appl. Country Publication No

**Choice of Application Subject**

T	<input type="text" value="Applicant"/>	<input type="text"/>	<input type="text"/>	T
O	<input type="text" value="Representative"/>	<input type="text"/>	<input type="text"/>	O
A	<input type="text" value="Maintainer"/>	<input type="text"/>	<input type="text"/>	A
D	<input type="text" value="Breeder"/>	<input type="text"/>	<input type="text"/>	D
D				E
				L
				E
				T
				E

**Registration of Application for a New Selection Achievement Subject Application Registration**

State Commission

Choice (write new) Subject

Country: AUSTRIA Write  
 Area:  Update the subject information  
 Status: Legal person Clear fields

Number: 10065  
 Name: IWKA BARFEYSEN WARE AUSTRIA  
 Address: WIMBERGSTRASSE 3 A 1100 WIEN, AUSTRIA  
 Tel: 43 1 695 15 3522 Property type:  state  
 Fax:   private  
 E-mail:

Find the Subject

**Alert:** Applicant has been added

T	<input type="text" value="Applicant"/>	<input type="text"/>	<input type="text"/>	T
O	<input type="text" value="Representative"/>	<input type="text"/>	<input type="text"/>	O
A	<input type="text" value="Maintainer"/>	<input type="text"/>	<input type="text"/>	A
D	<input type="text" value="Breeder"/>	<input type="text"/>	<input type="text"/>	D
D				E
				L
				E
				T
				E



REGISTRATION OF APPLICATION  
FOR A NEW SELECTION ACHIEVEMENT

**Order of Registration of new Application:**

Thus, we have registered the following application for selection achievement:

**Crop - Barley**  
**Type of Application: PBR (the application has been assigned with reference number: 63793)**  
**Date of Registration: 20.03.2014**  
**Denomination: BUSTION (code assigned: 8556976)**  
**Short Denomination: BUSTION**  
**Breeder's reference: 841-1234**  
**Breeding Country: Austria**  
**Applicant: RWA RAIFFEISEN WARE AUSTRIA**  
**Representative: POPOV PAVEL**  
**Breeder: ALBER DELAVER**



New Subject Registration

**New Subject Registration** [Close]

Country [Dropdown]

16677

**Name** [Text Field]


**Address** [Text Field]

Legal person  
 Physical person

**Property Type**  
 State  
 Private

**Tel.** [Text Field]  
**Fax** [Text Field]  
**E-mail** [Text Field]

**Write**




**MENU OF THE PROGRAM COMPLEX "ZAJAVKA"**

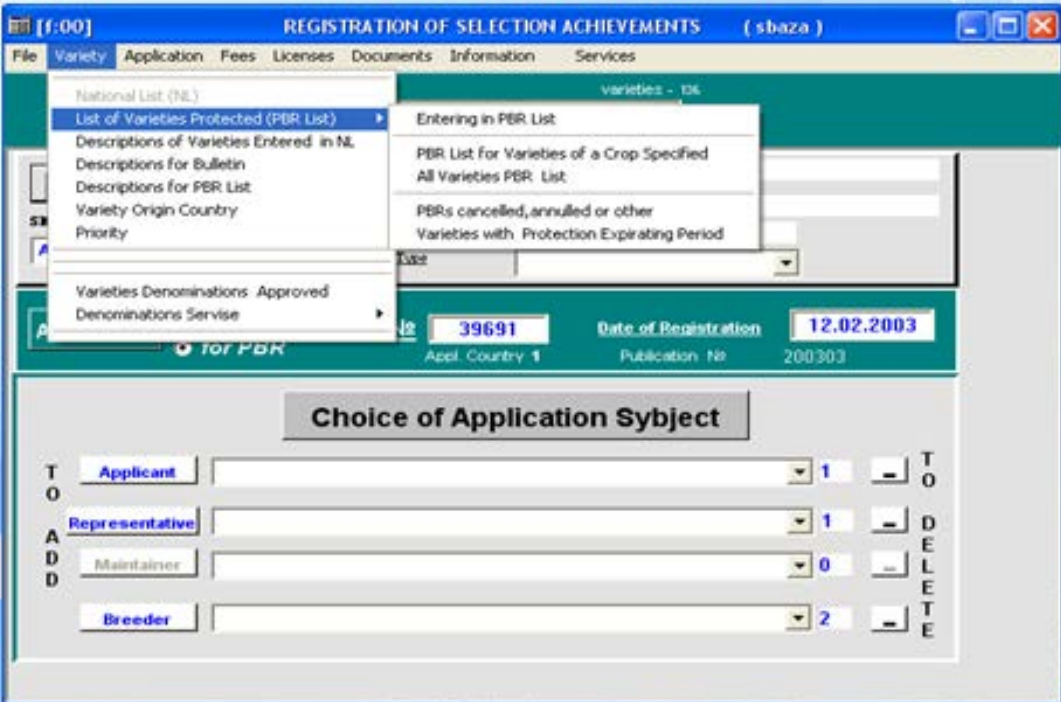
**Menu «Variety»**

Menu «Variety» is intended for a work with varieties. Options included in the menu make possible, for example:

- to determine Date of Variety Entering in/ Exclusion from Regions Specified of the varieties entered in the NL
- to determine Date of Protection Starting
- to develop descriptions for periodic bulletins and PBR List
- to monitor changes concerning Varieties Denominations and Priority and, also
- to save these changes in databases
- to make lists of the varieties satisfying set conditions



**Selection Achievements Service- menu "Variety"**



**Choice of Application Sybject**

T	Applicant		1	-	T
O	Representative		1	-	O
A	Maintainer		0	-	A
D	Breeder		2	-	D
D					E
					L
					E
					T
					E




**MENU OF THE PROGRAM COMPLEX "ZAJAVKA"**

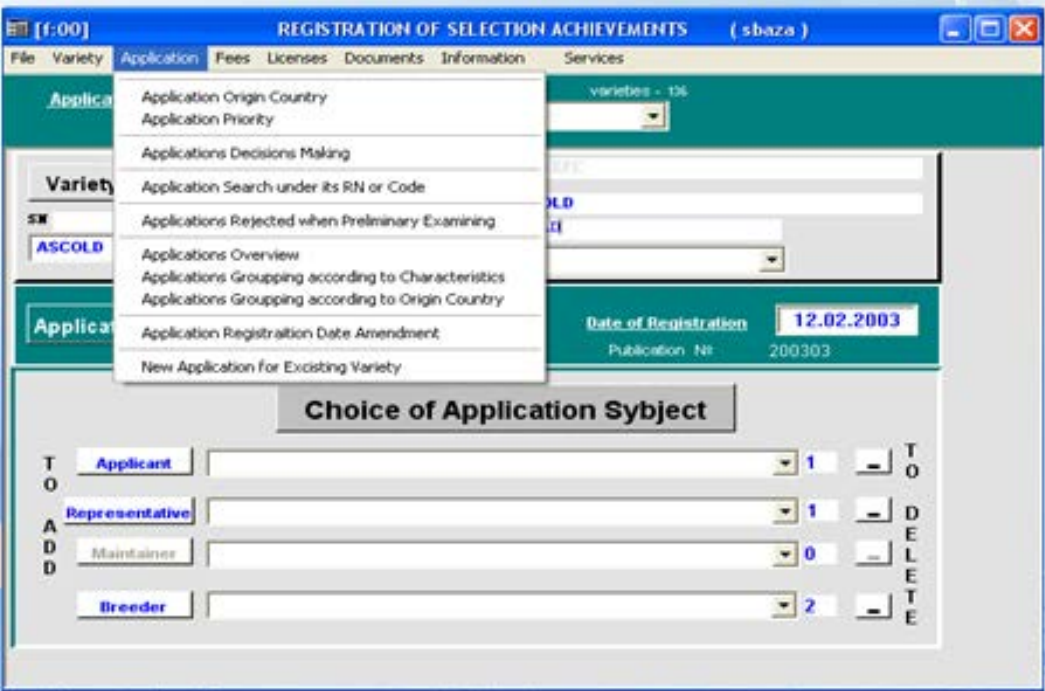
**Menu «Application»**

Menu «**Application**» is intended for a work with applications for selection achievements. The menu options make possible:

- to monitor and correct applications priorities
- to decide about applications (entering in/exclusion from Registers (NL, PBR List), tests stopping, etc.)
- to carry out a fast search of application required in database
- to make lists of applications satisfying set conditions
- to correct parameters of applications saving amendments made before



**Applications Service - menu "Application"**



REGISTRATION OF SELECTION ACHIEVEMENTS ( sbaza )

File Variety Application Fees Licenses Documents Information Services

Application Origin Country  
Application Priority  
Applications Decisions Making  
Applications Search under its RN or Code  
Applications Rejected when Preliminary Examining  
Applications Overview  
Applications Grouping according to Characteristics  
Applications Grouping according to Origin Country  
Application Registration Date Amendment  
New Application for Existing Variety


varieties - 156

Date of Registration 12.02.2003  
Publication No 200303

**Choice of Application Subject**

T	Applicant		1	-	T
O	Representative		1	-	O
A	Maintainer		0	-	A
D	Breeder		2	-	D
					E
					L
					E
					T
					E






**MENU OF THE PROGRAM COMPLEX "ZAJAVKA"**

**Menu «Fees»**

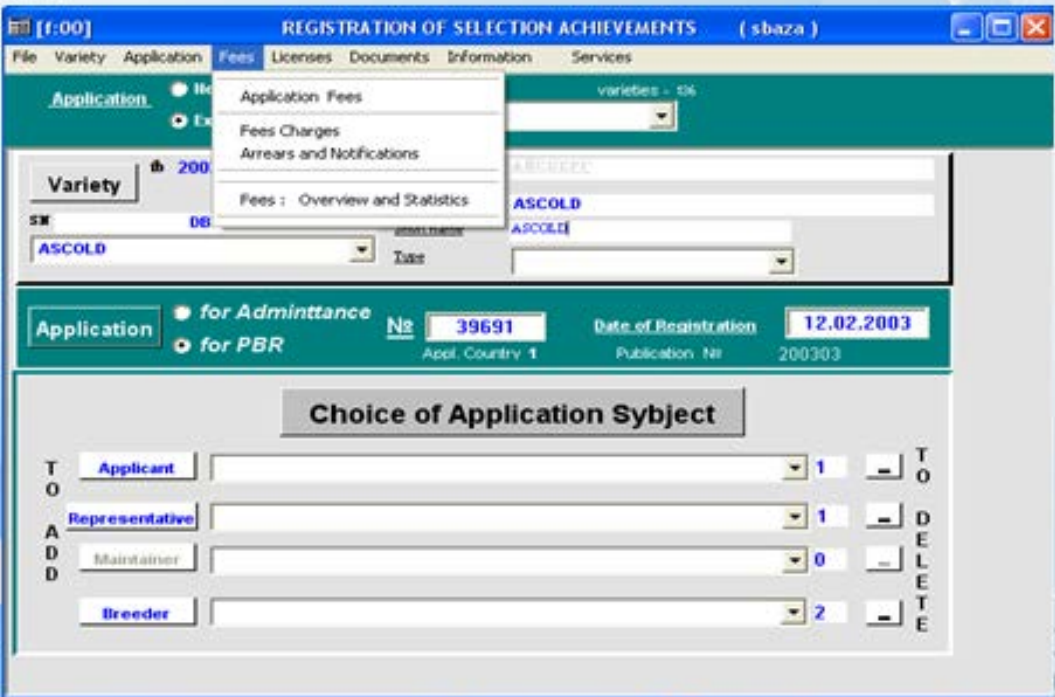
Menu «Fees» is intended for a work with applications for PBR. Options included in the menu make possible:

- to charge fees
- to perform with fees the following operations:
  - to correct fees
  - to delete fees
  - to form notifications for applicants about an underpay of fees
  - to conduct actions on PBR transfer

to charge, using special algorithms, fees for maintenance of selection achievements in PBR List.




**Applications Service - menu "Fees"**



**Choice of Application Subject**

T	Applicant		1	-	T
O	Representative		1	-	O
A	Maintainer		0	-	A
D	Breeder		2	-	D



## MENU OF THE PROGRAM COMPLEX "ZAJAVKA"


### Menu «Licenses»

Menu «**Licenses**» implements, in general, possibilities for receiving various supplemental information for its representation on paper carriers subsequently.

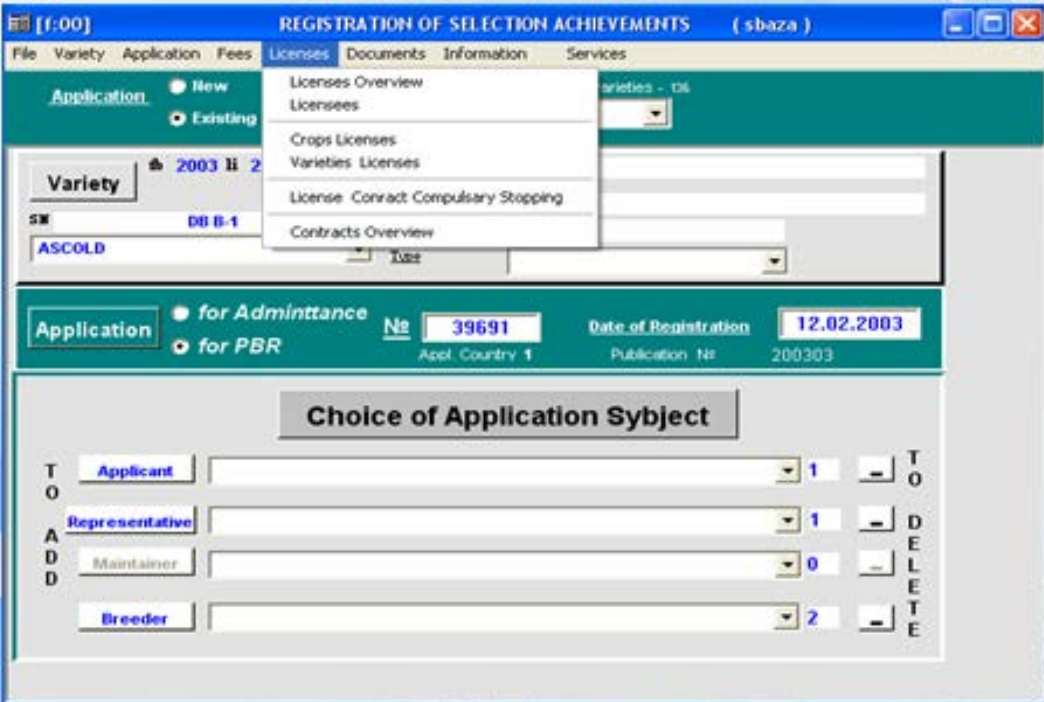
The menu is intended for a work with those varieties only entered in the List of Selection Achievements Protected (**PBR List**).

The menu options make possible to receive:

- information** about **effective** licenses and licensees,
- statistical reports** on licenses proportion depend on types and crops, periods of licenses validity and termination and
- contracts viewing** on transfer of the right for selection achievements **usage**.



## Applications Service - menu "Licenses"



Choice of Application Subject			
T	Applicant	1	T
O	Representative	1	O
A	Maintainer	0	A
D	Breeder	2	D
			E
			E




## MENU OF THE PROGRAM COMPLEX "ZAJAVKA"

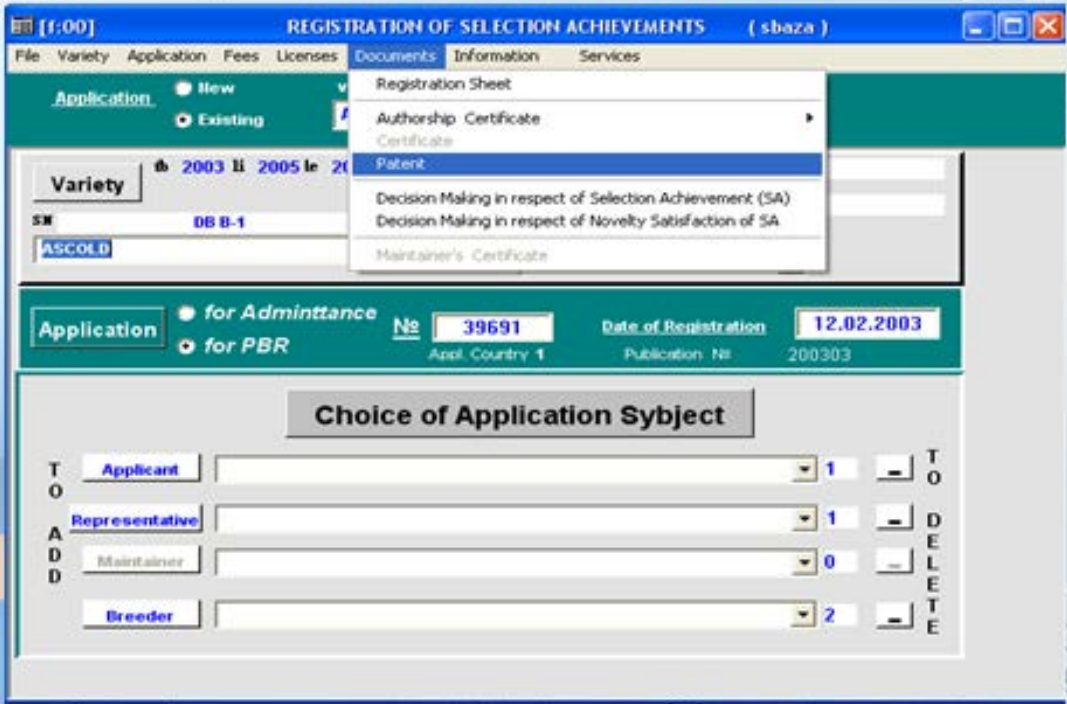
Menu «Documents»

Menu «**Documents**» is intended to make printing forms of documents concerning selection achievements and application. Some of these documents are listed below:

- ' **Registration Sheet** ' - the document on passage of preliminary examination of the application
- ' **Authorship Certificate** ' - the document certifying authorship for a variety
- ' **Notification of Decision-Making in Respect of Selection Achievement** ' - the document informing the applicant about accepting any decision on a variety. For example, concerning entering selection achievement in the National List or in PBR List, etc.
- ' **Patent** ' (=PBR) - the document establishing an exclusive right (PBR) on a selection achievement.



## Applications Service - menu "Documents"



REGISTRATION OF SELECTION ACHIEVEMENTS ( sbaza )

File Variety Application Fees Licenses Documents Information Services

Application:  New  Existing

Variety: 2003 II 2005 Ie 20  
SM: DB B-1  
ASCOLO

Application:  for Admittance No: 39691 Date of Registration: 12.02.2003  
 for PBR Appl. Country: 1 Publication No: 200303

**Choice of Application Subject**

T	Applicant		1	-	T
O	Representative		1	-	O
A	Maintainer		0	-	A
D	Breeder		2	-	D
					E
					L
					E
					T

**Inquiry Information - menu "Information"**

**REGISTRATION OF SELECTION ACHIEVEMENTS ( sbaza )**

File Variety Application Fees Licenses Documents Information Services

Application:  New  Existing **Apricot**

Variety: **2003 li 2005 le 2009 9609**

SM: **DB B-1**

ASCOLD

Application:  for Admittance  for PBR

**Choice of Application Subject**

T	Applicant		1	-	T
O	Representative		1	-	O
A	Maintainer		0	-	A
D	Breeder		2	-	D

**Addition Possibilities - menu "Services"**

**REGISTRATION OF SELECTION ACHIEVEMENTS ( sbaza )**

File Variety Application Fees Licenses Documents Information Services

Application:  New  Existing **Apricot**

Variety: **2003 li 2005 le 2009 9609702**

SM: **DB B-1**

ASCOLD

Application:  for Admittance  for PBR

No: **39691**

Date of Registration: **12.02.2003**

Appl. Country: **1**

Publication No: **200303**

**Choice of Application Subject**

T	Applicant		1	-	T
O	Representative		1	-	O
A	Maintainer		0	-	A
D	Breeder		2	-	D



[Annex V follows]



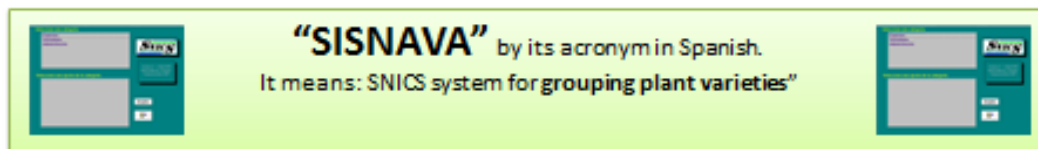
Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food  
National Service of Seed Inspection and Certification (SNICS)

## “SISNAVA as an exchangeable software proposed by SNICS, from Mexico”

Technical Working Party on Automation and Computer Programs (TWC-32)

Helsinki, Finland. June 3 to 6, 2014.

*MSc. Eduardo Padilla Vaca*  
*Director of the Registry of Plant Varieties, SNICS*  
**MEXICO**



### **Relevant considerations:**

1. SISNAVA is based on Microsoft Access.
2. It works based on numerical values stated for the different states of expression for each morphological characteristic. This **information is declared by the applicant** taking into account the specific UPOV TG for the crop of interest.
3. It does not involve **statistical probability levels**, not also date coming from years or replicates.
4. SISNAVA calculates differences in absolute values, so **asterisk and qualitative characters** are specially useful to validate **distinctness**.

Useful features for managing the template for species...

**Seleccione una categoría:**

- Especies / species
- Variedades
- Administración


**Seleccione una opción de la categoría:**

- Consultas de Especies / species query
- Cambios en las Especies / species changes
- Alta de Especies / new species
- Baja de Especies / species removal

**SNICS**

Versión 0.5 2/Abril/2006  
Desarrollado por: Sistemas Computacionales LEST

Aceptar



Useful features for managing the template for species...

**Seleccione una categoría / Choose a category**

- Especie / Species**
- Variedades / varieties
- Administración / DB Maintenance


**Seleccione una opción de la categoría / Choose a subcategory**

"Click on"....


**SNICS**

Versión 0.5 2/Abril/2006  
Desarrollado por: Sistemas Computacionales LEST

Aceptar / Accept



Species: Characteristics and its expression levels should be loaded in this section or template....

**ESPECIE:** 

Nombre Científico:

Nombre Común:

**TABLA DE CARACTERISTICAS DE LA ESPECIE**

Num	Atributo	Aste	Min	Max	Inter
2	Lightsprout: shape	<input checked="" type="checkbox"/>	1	5	<input type="checkbox"/>

Valores posibles de la Característica y su descripción

Valc	Descripción	Ejemplo(s)
1	spherical	
2	Ovoid	
3	Conical	
4	Broad cylindrical	
5	Narrow cylindrical	

Archivo con la Imagen (Característica):

Registro: 5 de 5    Sin filtro    Buscar

Registro: 2 de 56    Sin filtro    Buscar

Useful features for managing the template for varieties...

**Seleccione una categoría:**

- Especies
- Varietades / varieties**
- Administración

**Seleccione una opción de la categoría:**

- Consulta de Varietades / varieties query**
- Cambios en las Varietades / varieties changes
- Alta de Varietades / new variety
- Baja de Varietades / varieties removal
- Tabla Dinámica / Pivot table



Versión 0.5 2/Abril/2006  
 Desarrollado por: Sistemas Computacionales LEST






**Useful features for managing the template for varieties...**

**Seleccione una categoría:**

- Especies
- Variedades / varieties**
- Administración


**Seleccione una opción de la categoría:**

- Consulta de Variedades / varieties query
- Cambios en las Variedades / varieties changes
- Alta de Variedad / new variety
- Baja de Variedades / varieties removal
- Tabla Dinámica / Pivot table



Versión 0.5 2/Abril/2006  
Desarrollado por: Sistemas Computacionales LEST

Aceptar / Accept



**Specific information about applicant, dates, variety denomination, characteristics and its expression levels should be loaded in this section or template...**

Especie: Solarium tuberosum L.  
 Variedad: GRANATE  
 Expediente: 2592      Fecha de Presentación: 13-ene-14  
 Solicitante: INIFAP  
 Status: Examen DHE      Núm. Registro:  
 Notas:  
 Comparar

**VALORES DE LAS CARACTERÍSTICAS:**

Num	Característica	Valor	Descripción
1	Yema: tamaño	3	Pequeña
2	Lightsprout: shape	5	Ovoid
3	Yema: coloración de antocianinas de la br	1	spherical
4	Yema: intensidad de la coloración de auto	2	Ovoid
5	Yema: pubescencia de la base	3	Conical
6	Yema: tamaño de la punta del ápice	4	Broad cylindrical
7	Yema: hábito del ápice	5	Narrow cylindrical
8	Yema: intensidad de la coloración de las	3	Pequeña
9	Yema: intensidad de la coloración de las	3	Intermedio

**SISNAVA**  
Output result:

Option 1

**COMPARACION ENTRE LAS VARIETADES**

Varietal a Grupos: **GRANATE**

Especie: **Solanum tuberosum L.**

Varietal	Suma de diferencias:
ESCORT	47
EXCEL	18
FABULA	31
FELSINA	37
FIANNA	30
FL-2263	29
GIGANT	22
HERTA	42
IRERI	33
IVORY RUSSET	23
JELLY	22
KENITA	30
LUPITA	27
PLATA	45
PREMIERE	35
RAMONA	32
RUBI	<b>3</b>
RUSSET BURBANK	41
SANGEMA (RO SITA)	14
SIFRA	31
SNOWDEN	42
SYLVANA	28
TAURUS	35
TOLLOCAN	40
VERDI	26
VIVALDI	32
VOYAGER	36
ZAFIRO	30

"When a sum of differences is close to zero, we could say that both varieties are very similar and a distinctnesstest could be carried out on field.

**SISNAVA**  
Output result:

Option 2

Especie: **Solanum tuberosum L.**

**COMPARACION ENTRE LAS VARIETADES:**

**GRANATE VS RUBI**


CARACTERISTICA	Diferencia	GRANATE	RUBI
• 2 Yema: forma / Lightsprout: shape	1	<b>(2) Ovoide /ovoid</b>	<b>(1) Estérica /spherical</b>
• 3 Yema: coloración de antocianinas de la base	0	(1) Rojo-violeta	(1) Rojo-violeta
• 4 Yema: intensidad de la coloración de antocianinas de la base	0	(7) Fuerte	(7) Fuerte
• 5 Yema: pubescencia de la base	0	(7) Fuerte	(7) Fuerte
• 17 Tallo: presencia de antocianinas	0	(7) Fuerte	(7) Fuerte
• 22 Hojas compuestas: tamaño	0	(5) Medianas	(5) Medianas
• 25 Hojas compuestas: ondulación del margen	0	(7) Fuerte	(7) Fuerte
• 41 Corola de la flor: color de la cara interna	0	(2) Rojo-violeta	(2) Rojo-violeta
• 42 Corola de la flor: intensidad de coloración de antocianinas de la cara interna en flores coloreadas	0	(7) Fuerte	(7) Fuerte
• 43 Corola de la flor: intensidad de coloración de antocianinas de la cara externa en flores blancas	0	(9) Presente	(9) Presente
• 47 Tubérculo: forma	2	<b>(3) Ovla /oval</b>	<b>(1) Redonda /round</b>
• 50 Tubérculo: color predominante de la cutícula	0	(10) Rojo-púrpura	(10) Rojo-púrpura
• 54 Tubérculo: color de la pulpa	0	(2) Crema	(2) Crema
<b>Suma de diferencias:</b>	<b>3</b>	<b>← sum of differences</b>	


N = Para esa característica, al menos una de las variedades no presentó valor alguno.

A group of experts analyze this differences and validate or not the distinctness. Qualitative characters are specially important for experts.

**SISNAVA**  
Output result:

**Option 3**





Especie: Solanum tuberosum L.

**COMPARACION ENTRE LAS VARIETADES:**

	GRANATE	VS	GRANATE	RUBI
<b>Diferencia 0 (Coincidencia total):</b>				
		<b>Block 1</b>		
• 3 Yema: coloración de antocianinas de la base			(1) Rojo-violeta	(1) Rojo-violeta
• 4 Yema: intensidad de la coloración de antocianinas de la base			(7) Fuerte	(7) Fuerte
• 5 Yema: pubescencia de la base			(7) Fuerte	(7) Fuerte
• 17 Tallo: presencia de antocianinas			(7) Fuerte	(7) Fuerte
• 22 Hojas compuestas: tamaño			(5) Medianas	(5) Medianas
• 25 Hojas compuestas: ondulación del margen			(7) Fuerte	(7) Fuerte
• 41 Corola de la flor: color de la cara interna			(2) Rojo-violeta	(2) Rojo-violeta
• 42 Corola de la flor: intensidad de coloración de antocianinas de la cara interna en flores coloreadas			(7) Fuerte	(7) Fuerte
• 43 Corola de la flor: intensidad de coloración de antocianinas de la cara externa en flores blancas			(9) Presente	(9) Presente
• 50 Tubérculo: color predominante de la cutícula			(10) Rojo-púrpura	(10) Rojo-púrpura
• 54 Tubérculo: color de la pulpa			(2) Crema	(2) Crema
<b>Diferencia en 1:</b>				
		<b>Block 2</b>		
• 2 Yema: forma			(2) Ovoide	(1) Estérica
<b>Diferencia en 2:</b>				
		<b>Block 3</b>		
• 47 Tubérculo: forma			(3) Ovla	(1) Redonda

**Grouping by Blocks:**

Block 1: Characteristics identical in both varieties

Block 2: Characteristics where there are differences in 1 unit.

Block 3: Characteristics where there are differences in 2 units.



**SAGARPA**  
SECRETARÍA DE AGRICULTURA,  
GANADERÍA, DESARROLLO RURAL,  
PECUARIA Y ALIMENTACIÓN



# Thank you very much !

*MSc. Eduardo Padilla Vaca*  
*Director of the Registry of Plant Varieties,*  
*SNICS*

[eduardo.padilla@sagarpa.gob.mx](mailto:eduardo.padilla@sagarpa.gob.mx)