



This publication has been scanned from a paper copy and may have some discrepancies from the original publication.

---

Cette publication a été numérisée à partir d'une copie papier et peut contenir des différences avec la publication originale.

---

Diese Veröffentlichung wurde von einer Papierkopie gescannt und könnte Abweichungen von der originalen Veröffentlichung aufweisen.

---

Esta publicación ha sido escaneada a partir de una copia en papel y puede que existan divergencias en relación con la publicación original.

# PLANT VARIETY PROTECTION

Gazette and Newsletter  
of the  
International Union for the Protection of New Varieties of Plants (UPOV)

No. 76

February 1995

Geneva

## CONTENTS

Page

### GAZETTE

#### Accession to the 1978 Act of the UPOV Convention

Uruguay .....	2
Argentina .....	3

#### Extension of Protection to Further Genera and Species

Israel .....	3
Italy .....	4
Poland .....	15

### NEWSLETTER

#### Member States

Argentina: Address of the National Office .....	16
Switzerland: Modification of Fees (Corrigendum) .....	16
Uruguay: Address of the National Office .....	17

#### General Studies

Electrophoresis and its Application to the Description of Varieties - A Presentation of the Techniques Used by GEVES (by Mireille Bourgoin-Grenèche and Joëlle Lallemand) .....	17
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----

#### Legislation

Russian Federation: Law on the Protection of Selection Achievements (of August 6, 1993) .....	25
Ukraine: Law on the Protection of Plant Variety Rights (of April 21, 1993) .....	43
Uruguay: Law No. 15.173, Enacting Provisions to Regulate the Production, Certification, Marketing, Export and Import of Seed (Extract) .....	57
Uruguay: Decree No. 84/983, Introducing Law No. 15.173, Regulating the Production, Certification and Marketing of Seed, as amended by Decree No. 418/987 of August 12, 1987, and Decree No. 519/991 of September 17, 1991 (Extract) .....	59

<u>Calendar</u> .....	68
-----------------------	----

---

 GAZETTE
 

---



---

 ACCESSION TO THE 1978 ACT OF THE UPOV CONVENTION
 

---

Uruguay

On October 13, 1994, the Government of Uruguay deposited its instrument of accession to the International Convention for the Protection of New Varieties of Plants of December 2, 1961, as Revised at Geneva on November 10, 1972, and on October 23, 1978, with the Secretary-General of UPOV. The 1978 Act of the Convention entered into force in respect of Uruguay on November 13, 1994. On that date, Uruguay became the twenty-sixth member State of UPOV and the twenty-fourth State bound by the 1978 Act.

According to the notification filed with the Secretary-General together with the instrument of accession, protection is available in respect of the following botanical taxa:

<u>Latine</u>	<u>Español</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Avena spp.	Avena	Oats	Avoine	Hafer
Cichorium intybus	Achicoria	Chicory	Chicorée, Endive	Wurzelzichorie, Salatzichorie
Dactylis glomerata	Dactilo	Cocksfoot, Orchard Grass	Dactyle	Knautgras
Festuca arundinacea	Cañuela alta, Festuca alta	Tall Fescue	Fétuque élevée	Rohrschwengel
Glycine max	Soja	Soya Bean, Soybean	Soja	Sojabohne
Hordeum vulgare	Cebada	Barley	Orge	Gerste
Lolium multiflorum	Ballico italiano, Ray- grás italiano	Italian Ryegrass, Westerwold Ryegrass	Ray-grass d'Italie	Welsches Weidelgras, Italienisches Raygras
Lotus corniculatus	Loto de los prados	Bird's Foot Trefoil	Lotier corniculé	Hornschotenklee
Lotus subbiflorus	-	-	-	-
Medicago sativa	Alfalfa	Lucerne, Alfalfa	Luzerne (cultivée)	Blaue Luzerne
Ornithopus sativus	Serradella	Serradella	Serradelle	Serradella
Oriza sativa	Arroz	Rice	Riz	Reis
Trifolium pratense	Trébol violeta	Red Clover	Trèfle violet	Rotklee
Trifolium repens	Trébol blanco	White Clover	Trèfle blanc	Weissklee
Triticum aestivum	Trigo	Wheat	Blé tendre	Weichweizen

Argentina

On November 25, 1994, the Government of Argentina deposited its instrument of accession to the International Convention for the Protection of New Varieties of Plants of December 2, 1961, as Revised at Geneva on November 10, 1972, and on October 23, 1978, with the Secretary-General of UPOV. The 1978 Act of the Convention entered into force in respect of Argentina on December 25, 1994. On that date, Argentina became the twenty-seventh member State of UPOV and the twenty-fifth State bound by the 1978 Act. Protection is available in respect of all botanical genera and species.

---

EXTENSION OF PROTECTION TO FURTHER GENERA AND SPECIES

---

Israel

By virtue of the Plant Breeders' Rights Orders (Amendments to Schedule) published in the following issues of Kovetz Hatakanot, protection was extended, with effect from the date of the relevant issue, to the following (the Latin names appear in the Orders, whereas the English, French and German common names have been added, without guarantee of concordance, by the Office of the Union):

Kovetz Hatakanot No. 5568, of December 12, 1993

<u>Latine</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Phoenix dactylifera L.	Date, Date Palm	Palmier dattier	Dattelpalme

Kovetz Hatakanot No. 5585, of March 10, 1994

<u>Latine</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Aloë spec.	Aloe	Aloès	Aloe, Bitterschopf
Mandragora officinalis	Mandrake	Mandragore	Alraunwurzel

Kovetz Hatakanot No. 5619, of August 23, 1994

<u>Latine</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Verbena L.	Vervain	Verveine	Verbene, Eisenkraut
Potentilla L.	Cinquefoil	Potentille	Fingerkraut

A list of the other taxa protected in Israel is reproduced in "Plant Variety Protection" No. 73, starting on page 4.

Italy

By virtue of the Ministerial Decree No. 545 of July 31, 1993 (published in the Gazzetta Ufficiale of December 29, 1993), Concerning the Application to Further Botanical Genera and Species of the Decree of the President of the Republic No. 974 of August 12, 1975 (as last amended by Decree No. 391 of April 18, 1994), Containing Standards for the Protection of New Plant Varieties, protection was extended to the following (the Latin and Italian names appear in the Ministerial Decree, whereas the English, French and German common names have been added by the Office of the Union):

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Acer negundo L.	-	Box Elder	Négondo	Eschenahorn
Allium sativum L.	Aglio	Garlic	Ail	Knoblauch
Amorpha fruticosa L.	-	False Indigo	Faux indigo	Bastardindigo
Anthriscus cerefolium (L.) Hoffm.	Cerfoglio	Chervil	Cerfeuil	Kerbel
Arrhenatherum elatius (L.) P. Beauv. ex J.S. et K.B. Presl	Avena altissima	Tall Oatgrass, Fromental, False Oatgrass	Fromental, Avoine élevée	Glatthafer
Aster spec.	Aster	Aster, Michaelmas Daisy	Aster	Aster
Beta vulgaris L. var. cicla (L.) Ulrich	Bietola da coste	Mangel, Leaf Beet, Spinach Beet	Bette commune, Poirée	Mangold
Brassica pekinensis (Lour.) Rupr.	Cavolo cinese	Chinese Cabbage	Chou de Chine, Pé-tsai	Chinakohl
Brassica rapa L. var. silvestris (Lam.) Briggs	Ravizzone	Turnip Rape	Navette	Rübsen
Cannabis sativa L.	Canapa	Hemp	Chanvre	Hanf
Carthamus tinctorius L.	Cartamo	Safflower	Carthame, Safran bâtard	Saflor, Färberdistel
Chamaecytisus palmensis L.F. Link	-	Tagasaste	-	-
Cucurbita maxima Duch.	Zucca	Pumpkin	Potiron, Giraumon	Riesenkürbis
Cynara cardunculus L.	Cardo	Cardoon, Prickly Artichoke	Cardon	Kardone, Gemüseartichocke, Cardy
Delphinium spec.	-	Delphinium, Larkspur	Pied d'alouette	Rittersporn

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Diospyros kaki L. f.	Diospiro o Kaki (Cachi)	Japanes Per- simmon, Kaki	Plaqueminier, Kaki	Kakipflaume
Festuca ovina L.	Festuca ovina	Hard Fescue, Sheep's Fescue	Fétuque durette, Fétuque ovine, Fétuque des moutons, Poil de chien	Schafschwingel
Festuca pratensis Huds.	Festuca dei prati	Meadow Fescue	Fétuque des prés	Wiesenschwingel
Festuca rubra L.	Festuca rossa	Red Fescue, Creeping Fescue	Fétuque rouge	Rotschwingel
Hedysarum corona- rium L.	Sulla	Cock's Head, French Honey- suckle	Sainfoin à bouquets	Italienischer Hahnenkopf, Süssklee
Kalanchoë spec.	-	Kalanchoë	Kalanchoë	Kalanchoë
Lavandula spec.	-	Lavender	Lavande, Lavandins	Lavendel
Lens culinaris Medik.	Lenticchia	Lentil	Lentille	Linse
Lolium x bouchea- num Kunth	Loglio ibrido	Hybrid Rye- grass	Ray-grass hybride	Bastardweidel- gras, Olden- burgisches Weidelgras
Lotus cornicu- latus L.	Ginestrino	Bird's Foot Trefoil	Lotier corniculé	Hornschoten- klee
Lupinus albus L.	Lupino bianco	White Lupin	Lupin blanc	Weisslupine
Medicago arborea L.	-	Moon Trefoil, Mountain Tre- foil	Luzerne en arbre, Amourette jaune	-
Onobrychis vicii- folia Scop.	Lupinella	Sainfoin	Sainfoin, Esparcette	Esparsette
Petroselinum cris- pum (Mill.) Nym. ex A.W. Hill	Prezzemolo	Parsley	Persil	Petersilie
Phaseolus cocci- neus L.	Fagiolo di Spagna	Runner Bean, Kidney Bean	Haricot d'Espagne	Prunkbohne

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Phleum pratense L.	Fleolo o Coda di topo	Timothy	Fléole des prés	Wiesenlieschgras
Raphanus sativus L.	Rafano e Ravanello	Radish	Radis	Radieschen, Rettich
Scorzonera hispanica L.	Scorzonera	Black Salsify	Scorsonère, Salsifis noir	Schwarzwurzel
Valerianella locusta (L.) Laterrade	Valeriana	Cornsalad, Lamb's Lettuce	Mâche, Doucette	Feldsalat
Vicia sativa L.	Veccia comune	Common Vetch	Vesce commune	Saatwicke
Vicia villosa Roth	Veccia vellutata	Hairy Vetch	Vesce velue	Zottelwicke

The Law on Patents for Inventions (Royal Decree No. 1127 of June 29, 1939, as last amended by Decree No. 360 of April 18, 1994), which is the basic legal text governing plant variety protection in Italy, provides in its article 21 that "foreigners may obtain rights for an industrial invention on the same terms and conditions as those fixed for Italian citizens."

Pursuant to Article 4(2) of the Decree of the President of the Republic No. 974 of August 12, 1975, the rights conferred by a patent in respect of a new plant variety "also extend to the production, marketing and introduction on the territory of the State of the products of the patented new variety, in cases where the predominant use of the variety occurs through the sale of plants, parts of plants or flowers to be used for ornamental purposes."

Pursuant to Article 7 of the said Decree, the duration of protection is 15 years from the date of the grant of the patent, except for plants with woody stems such as grapevines, fruit trees and their rootstocks, forest trees and ornamental trees. The effects of the patent run, moreover, from the filing date of the application.

A consolidated list of taxa now covered by plant variety protection legislation is reproduced below.

#### List of Taxa Covered by Plant Variety Protection Legislation in Italy\*

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Acacia Mill.	Acacia	Acacia	Acacia	Akazie
Acacia sellowiana (Berg) Burret or Feijoa sellowiana (Berg) Berg	Feijoa	Feijoa	Feijoa	Feijoa

\* The Latin names preceded by an asterisk have been added by the Office of the Union. / Les noms latins précédés d'un astérisque ont été ajoutés par le Bureau de l'Union. / Die durch ein Sternchen gekennzeichneten lateinischen Namen sind durch das Verbandsbüro eingefügt worden.

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Acer negundo L.	-	Box Elder	Négondo	Eschenahorn
Actinidia Lindl.	Actinidia	Actinidia	Actinidia	Strahlengriffel
Agrostis spec.	Agrostidi	Bentgrass	Agrostis, Agrostide	Straussgras
Allium cepa L.	Cipolla	Onion	Oignon	Zwiebel
Allium porrum L.	Porro	Leek	Poireau	Porree
Allium sativum L.	Aglío	Garlic	Ail	Knoblauch
Alstroemeria L.	Alstroemeria	Alstroemeria, Herb Lily	Alstroèmère, Lis des Incas	Inkalilie
Amorpha fruticosa L.	-	False Indigo	Faux indigo	Bastardindigo
Amygdalus communis L.	Mandorlo	Almond	Amandier	Mandel
Amygdalus communis L. x genus Prunus	Pesco x Prugno	Peach x Plum	Pêcher x Prunier	Pfirsich x Pflaume
Anemone L.	Anemone	Anemone	Anémone	Anemone, Windröschen
Annona cherimola Mill.	Annona o Cerimolia	Annona, Cherimoya	Chérimolier	"Cherimoya"
Anthriscus cerefolium (L.) Hoffm.	Cerfoglio	Chervil	Cerfeuil	Kerbel
Antirrhinum majus L.	Bocca di leone	Common Snapdragon	Mufler, Gueule de loup, Gueule de lion	Löwenmaul
Apium graveolens L.	Sedano	Celery, Celeriac	Céleri, Céleri-rave	Sellerie
Arrhenatherum elatius (L.) P. Beauv. ex J.S. et K.B. Presl	Avena altissima	Tall Oatgrass, False Oatgrass	Fromental, Avoine élevée	Glatthafer
Asparagus officinalis L.	Asparagio	Asparagus	Asperge	Spargel
Aster spec.	Aster	Aster, Michaelmas Daisy	Aster	Aster
Avena sativa L.	Avena	Oats	Avoine	Hafer
Averrhoa carambola L.	Carambola	Carambola	Carambole	Karambola



<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Begonia elatior	Begonia	Begonia	Bégonia	Begonie
Beta vulgaris L.	Barbabietola da foraggio e da zucchero	Fodder and Sugar Beets	Betteraves fourragère et sucrière	Runkel- und Zuckerrüben
Beta vulgaris L. var. cicla (L.) Ulrich	Bietola da coste	Mangel, Leaf Beet, Spinach Beet	Bette com- mune, Poirée	Mangold
Brassica napus oleifera L.	Colza	Swede Rape, including Oilseed Rape	Colza	Raps
Brassica oleracea L.	Cavolfiore, Broccoli	Cauliflower, Sprouting Broccoli, Calabrese	Chou-fleur, Brocoli	Blumenkohl, Brokkoli, Spargelkohl
Brassica peki- ensis (Lour.) Rupr.	Cavolo cinese	Chinese Cab- bage	Chou de Chine, Pé- tsai	Chinakohl
Brassica rapa L. var. silvestris (Lam.) Briggs	Ravizzone	Turnip Rape	Navette	Rübsen
Cannabis sativa L.	Canapa	Hemp	Chanvre	Hanf
Capsicum annuum L.	Peperone	Sweet Pepper, Capsicum, Chili	Poivron, Piment	Paprika
Carica pentagona	Babaco	Babaco	-	-
Carthamus tincto- rius L.	Cartamo	Safflower	Carthame, Safran bâtard	Saflor, Färber- distel
Castanea sativa Mill.	Castagno	Chestnut	Châtaignier	Kastanie
Chamaecytisus pal- mensis L.F. Link	-	Tagasaste	-	-
Chrysanthemum spec.	Crisantemi, Margherite	Chrysanthem- ums, Daisies	Chrysan- thèmes, Marguerites	Chrysan- themen, Margeriten
Cicer arietinum L.	Cece	Chick-pea	Pois chiche	Kichererbse
Cichorium endivia L.	Indivia, Scarola	Endive	Chicorée frisée, Scarole	Winterendivie
Cichorium intybus L.	Cicoria, Radicchio	Chicory	Chicorée, Endive	Salatzichorie, Wurzelzichorie

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
<i>Citrullus lanatus</i> (Thunb.) Matsum. et Nakai	Anguria o Cocomero	Watermelon	Pastèque	Wassermelone
<i>Citrus limon</i> (L.) Burmam	Limone	Lemon	Citronnier	Zitrone, Sauerzitronne, Limone
<i>Citrus paradisi</i> Macfadyen	Pompelmo	Grapefruit	Pomélo	Grapefruit
<i>Citrus reticulata</i> Blanco	Mandarino	Mandarine	Mandarinier	Mandarine
* <i>Citrus reticulata</i> x <i>C. paradisi</i>	Tangelo	Tangelo	Tangélo	Tangelo
* <i>Citrus reticulata</i> x <i>C. sinensis</i>	Tangor	Tangor	Tangor	Tangor
<i>Citrus sinensis</i> (L.) Osbeck	Arancio dolce	Orange	Oranger	Apfelsine, Orange
<i>Codiaeum</i> <i>variegatum</i> L.	Croton	Croton	Croton	Wunderstrauch, Croton
<i>Corylus</i> <i>avellana</i> L.	Nocciolo	Hazelnut, Filbert	Noisetier, Coudrier	Haselnuss
<i>Cucumis melo</i> L.	Melone	Melon	Melon	Melone
<i>Cucumis</i> <i>sativus</i> L.	Cetriolo	Cucumber, Gherkin	Concombre, Cornichon	Gurke
<i>Cucurbita maxima</i> Duch.	Zucca	Pumpkin	Potiron, Giraumon	Riesenkürbis
<i>Cucurbita pepo</i> L.	Zucchini	Pumpkin, Marrow, Courgette	Courge, Citrouille, Pâtisson	Gartenkürbis, Oelkürbis
<i>Cupressus</i> L.	Cipresso	Cypress	Cyprès	Zypresse
<i>Cyclamen</i> <i>persicum</i> L.	Ciclamini	Cyclamens	Cyclamens de Perse	Alpenveilchen
<i>Cynara cardunculus</i> L.	Cardo	Cardoon, Prickly Artichoke	Cardon	Kardone, Gemüse- artischocke, Cardy
<i>Cynara scolymus</i> L.	Carciofo	Globe Artichoke	Artichaut	Artischocke
<i>Cyphomandra</i> <i>betacea</i> (Cav.) Sendtn.	Tamarillo o Pionandra o Solano bietolone	Tamarillo, Tree Tomato	Tomate en arbre	Baumtomate

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Dactylis glomerata L.	Erba mazzolina	Cocksfoot, Orchard Grass	Dactyle	Knaulgras
Dahlia Cav.	Dalia	Dahlia	Dahlia	Dahlie
Daucus carota L.	Carota	Carrot	Carotte	Möhre
Delphinium spec.	-	Delphinium, Larkspur	Pied d'alouette	Rittersporn
*Dianthus spec.	Garofano	Carnation	Oeillet	Nelke
Dieffenbachia spec.	Dieffenbachia	Dieffenbachia	Dieffen- bachia	Dieffenbachia
Diospyros kaki L. f.	Diospiro o Kaki (Cachi)	Japanese Per- simmon, Kaki	Plaqueminier, Kaki	Kakipflaume
Dracaena spec.	Dracena	Dragon Tree	Dragonnier	Drachenbaum
Eriobotrya japonica Lindl.	Nespolo del Giappone	Loquat	Néflier du Japon	Japanische Mis- pel, Loquate
Euphorbia-Milii- Ibridi	Euforbia o Spina di Cristo	Christ's Thorn, Crown of Thorns	Epine du Christ	Christusdorn
Euphorbia pulcherrima	Poinsettia	Poinsettia	Poinsettia	Poinsettie, Weihnachtsstern
Eustoma russellianum (Hook.) G. Don	Rosa del Texas	Prairie Gentian	-	-
Festuca arundinacea Schreb.	Festuca arundinacea	Tall Fescue	Fétuque élevée	Rohrschwengel
Festuca ovina L.	Festuca ovina	Hard Fescue, Sheep's Fescue	Fétuque durette, Fétuque ovine, Fétuque des moutons, Poil de chien	Schafschwengel
Festuca pratensis Huds.	Festuca dei prati	Meadow Fescue	Fétuque des prés	Wiesenschwengel
Festuca rubra L.	Festuca rossa	Red Fescue, Creeping Fescue	Fétuque rouge	Rotschwengel
Ficus carica L.	Fico	Fig	Figuier	Echte Feige
Foeniculum vulgare P. Mill.	Finocchio	Fennel	Fenouil	Fenchel

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Forsythia Vahl	Forsizia	Forsythia, Golden Bell	Forsythia	Forsythie, Goldflieder, Goldglöckchen
Fragaria L.	Fragola	Strawberry	Fraisier	Erdbeere
[Freesia- Hybridi] <sup>1</sup>	Fresia	Freesia	Freesia	Freesie
Gerbera spec.	Gerbera	Gerbera	Gerbera	Gerbera
Gladiolus spec.	Gladiolo	Gladiolus	Glaïeul	Gladiole
Glycine max L.	Soia	Soya Bean, Soybean	Soja	Sojabohne
Gossypium spp.	Cotone	Cotton	Cotonnier	Baumwolle
Hedysarum corona- rium L.	Sulla	Cock's Head, French Honey- suckle	Sainfoin à bouquets	Italienischer Hahnenkopf, Süssklee
Helianthus annuus L.	Girasole	Common Sunflower	Tournesol, Soleil	Sonnenblume
Helianthus tuberosus L.	Topinambur	Jerusalem Artichoke	Topinambour	Topinambur
*Hordeum spec.	Orzo	Barley	Orge	Gerste
Hydrangea L.	Ortenzia	Hydrangea	Hortensia	Hortensie
Impatiens-Nuova- Guinea-Ibridi	Balsamina	New Guinea Impatiens	Impatiente de Nouvelle- Guinée	Neu-Guinea- Impatiens
Iris spec.	Iris	Iris	Iris	Iris
Ixia	Ixia	African Cornlily, Ixia	Ixia	Ixia, Klebschwertel
Juglans regia L.	Noce	Walnut	Noyer	Walnuss
Kalanchoë spec.	-	Kalanchoë	Kalanchoë	Kalanchoë
Lactuca sativa L.	Lattuga	Lettuce	Laitue	Salat
Lavandula spec.	-	Lavender	Lavande, Lavandins	Lavendel
Lens culinaris Medik.	Lenticchia	Lentil	Lentille	Linse
Lilium spec.	Lilium	Lily	Lis	Lilie

<sup>1</sup> Ibridi del genere Freesia / Hybrids from the genus Freesia / Hybrides du genre Freesia / Hybriden der Gattung Freesia.

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Litchi chinensis L.	Litchi	Litchi	Litchi	Litschi
Lolium multiflorum Lam.	Loietto comune, Loietto italico	Italian Ryegrass, Westerwold Ryegrass	Ray-grass d'Italie	Welsches Weidelgras, Italienisches Raygras
Lolium x bouchea- num Kunth	Loglio ibrido	Hybrid Rye- grass	Ray-grass hybride	Bastardweidelgras, Oldenburgisches Weidelgras
Lotus cornicu- latus L.	Ginestrino	Bird's Foot Trefoil	Lotier corniculé	Hornschoten- klee
Lupinus albus L.	Lupino bianco	White Lupin	Lupin blanc	Weisslupine
Magnolia L.	Magnolia	Magnolia	Magnolia	Magnolie
Malus communis L.	Melo	Apple	Pommier	Apfel
Matthiola incana (L.) R. Br.	Violaciocca	Common Stock	Giroflée d'hiver	Levkoje
*Medicago spec.	Erba medica	Alfalfa, Lucerne	Luzerne	Schneckenklee
Medicago arborea L.	-	Moon Trefoil, Mountain Tre- foil	Luzerne en arbre, Amourette jaune	-
Nicotiana tabacum L.	Tabacco	Tobacco (common)	Tabac	Tabak
Olea europaea L.	Olivo	Olive	Olivier	Oelbaum, Olive
Onobrychis vicii- folia Scop.	Lupinella	Sainfoin	Sainfoin, Esparcette	Esparsette
Orchis L.	Orchidea	Orchid	Orchidée	Orchidee
*Oryza spec.	Riso	Rice	Riz	Reis
Passiflora edulis Sims	Passiflora o Frutto della passione	Granadilla	Barbadine	Purpurgranadilla, Passionsfrucht
Pelargonium spec.	Gerani, Pelargoni	Geraniums, Pelargoniums	Géraniums, Pélargoniums	Pelargonien
Pelargonium gra- veolens L'Hér. ex Ait.	Geranio	Geranium, Rose Pelar- gonium	Géranium, Pélargonium malodorant	Rosenpelargonie
Persea americana Mill.	Avocado	Avocado	Avocatier	Avocado

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Petroselinum crispum (Mill.) Nym. ex A.W. Hill	Prezzemolo	Parsley	Persil	Petersilie
Petunia spec.	Petunia	Petunia	Pétunia	Petunie
Phaseolus coccineus L.	Fagiolo di Spagna	Runner Bean, Kidney Bean	Haricot d'Espagne	Prunkbohne
Phaseolus vulgaris L.	Fagiolo	French Bean	Haricot	Gartenbohne
Phleum pratense L.	Fleolo o Coda di topo	Timothy	Fléole des prés	Wiesenlieschgras
Phoenix dactylifera L.	Palma da dattero	Date, Date Palm	Palmier dattier	Dattelpalme
Pistacia vera L.	Pistacchio	Pistache	Pistachier	Echte Pistazie
Pisum sativum L.	Pisello da orto	Garden Pea	Petit pois (potager)	Gemüseerbse
Poa spec.	Poa	Meadow-Grass	Pâturin	Rispengras
*Populus spec.	Pioppo	Poplar	Peuplier	Pappel
Prunus armeniaca L.	Albicocco	Apricot	Abricotier	Aprikose
Prunus avium L.	Ciliegio dolce	Sweet Cherry	Cerisier (cerises douces: guignes, bigarreaux)	Süsskirsche
Prunus cerasifera x Prunus persica	Prunus x Mirabolano	-	-	-
Prunus cerasus L.	Ciliegio <sup>1</sup> acido	Morello, Sour Cherry	Cerisier (cerises acides: griottes, amarelles)	Sauerkirsche
Prunus domestica	Susino europeo	European Plum	Prunier européen	Europäische Pflaume
Prunus persica (Stokes)	Pesco	Peach	Pêcher	Pfirsich

<sup>1</sup> Nello testo originale erroneamente denominato "Susino" / In the original text erroneously designated as "Susino" / Dans le texte original, dénommé par erreur "Susino" / Im Originaltext irrtümlicherweise als "Susino" bezeichnet.

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
<i>Prunus persica</i> x <i>Amygdalus</i> <i>communis</i> L.	Pesco-mandorlo	Peach x Almond	Pêcher- amandier	Pfirsich x Mandel
[ <i>Prunus salicina</i> Lindl.] <sup>1</sup>	Susino giapponese	Japanese Plum	Prunier japonais	Japanische Pflaume
<i>Pyrus communis</i> L.	Pero	Pear	Poirier	Birne
<i>Quercus</i> L.	Quercia	Oak	Chêne	Eiche
<i>Ranunculus</i> <i>asiaticus</i>	Ranuncolo	Garden Ranunculus	Renoncule des jardins	Ranunkel
<i>Raphanus sativus</i> L.	Rafano e Ravanello	Radish	Radis	Radieschen, Rettich
<i>Retama monosperma</i> (L.) Boiss.	Ginestra	-	-	Retamastrauch
* <i>Rosa spec.</i>	Rosa	Rose	Rosier	Rose
<i>Rubus</i> L.	Mora	Blackberry	Ronce fruitière	Brombeere
<i>Rubus idaeus</i> L.	Lampone	Raspberry	Framboisier	Himbeere
<i>Saintpaulia</i> <i>ionantha</i> H. Wendl.	Saintpaulia	African Violet	Saintpaulia	Usambaraveilchen
<i>Salvia</i> L.	Salvia	Sage	Sauge	Salbei
<i>Scorzonera his-</i> <i>panica</i> L.	Scorzonera	Black Salsify	Scorsonère, Salsifis noir	Schwarzwurzel
<i>Secale cereale</i> L.	Segale	Rye	Seigle	Roggen
<i>Sinningia speciosa</i> (Lodd.) Hiern. and/or <i>Sinningia</i> x <i>hybrida</i> hort.	Gloxinia	Gloxinia	Gloxinia	Gloxinie
<i>Solanum</i> <i>lycopersicum</i> L.	Pomodoro	Tomato	Tomate	Tomate
<i>Solanum</i> <i>melongena</i> L.	Melanzana	Eggplant, Aubergine	Aubergine	Eierfrucht, Aubergine

<sup>1</sup> Incroci interspecifici del genere *Prunus* di tipo giapponese con *Prunus* di tipo americano / Interspecific hybrids between Japanese types and American types from the genus *Prunus* / Hybrides interspécifiques entre types japonais et types américains du genre *Prunus* / Interspezifische Kreuzungen zwischen japanischen Typen und amerikanischen Typen der Gattung *Prunus*.

<u>Latine</u>	<u>Italiano</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Solanum tuberosum L.	Patata	Potato	Pomme de terre	Kartoffel
Sorghum vulgare L.	Sorgo	Sorghum	Sorgho	Mohrenhirse
Spinacia oleracea L.	Spinacio	Spinach	Epinard	Spinat
*Trifolium spec.	Trifoglio	Clover	Trèfle	Klee
Triticale	Triticale	Triticale	Triticale	Triticale
*Triticum spec.	Grano	Wheat	Blé	Weizen
Ulmus L.	Olmo	Elm	Orme	Ulme
Vaccinium L.	Mirtillo	Blueberry	Myrtille	Heidelbeere
Valerianella locusta (L.) Laterrade	Valeriana	Cornsalad, Lamb's Lettuce	Mâche, Doucette	Feldsalat
Vicia faba L.	Fava	Broad Bean, Horse Bean, Field Bean, Tick Bean	Fève, Féverole	Dicke Bohne (Puffbohne), Ackerbohne
Vicia sativa L.	Veccia comune	Common Vetch	Vesce commune	Saatwicke
Vicia villosa Roth	Veccia vellutata	Hairy Vetch	Vesce velue	Zottelwicke
*Vitis spec.	Vite e suoi portainnesti	Grapevine and its rootstocks	Vigne et ses porte-greffes	Rebe und deren Unterlagen
Zantedeschia Spreng.	Calla	Calla, Arum-lily	Calla	Zantedeschia, Kalla
*Zea spec.	Mais	Corn, Maize	Maïs	Mais
Ziziphus sativa Gaertn.	Giaggiolo	Jujube	Jujubier	Jujube

### Poland

By virtue of the Decree of the Minister for Agriculture and Food Economy of November 6, 1992, (Statutory Journal of the Polish Republic, No. 83, item 424) protection has been extended to the following:

<u>Latine</u>	<u>Polski</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Agaricus L.	Pieczarka	Mushroom	Champignon de couche	Champignon



---

<u>Latine</u>	<u>Polski</u>	<u>English</u>	<u>Français</u>	<u>Deutsch</u>
Prunus L.	-	-	-	-

A list of the other taxa protected in Poland is reproduced in "Plant Variety Protection" No. 64, starting on page 2.

In the case of Prunus L., protection extends to rootstock varieties for fruit trees. Prunus mahaleb L. (Mahaleb Cherry), Prunus cerasifera var. divaricata Led. (Cherry Plum) and Prunus insititia L. (Damson Plum) have been removed from the list.

---

### NEWSLETTER

---

### MEMBER STATES

---

#### Argentina: Address of the National Office

The address and the telecommunication numbers of the national office responsible for plant variety protection in Argentina are as follows:

Address: Instituto Nacional de Semillas  
Ministerio de Economía  
Secretaría de Agricultura,  
Ganadería y Pesca  
Avda. Paseo Colón 922 - 3. Piso  
1063 Buenos Aires

Telephone: (54-1) 362 39 88  
349 24 17

Telefax: (54-1) 349 24 17

#### Switzerland: Modification of Fees (Corrigendum)

The application fees published in Plant Variety Protection No. 75, on page 42, are to be replaced by the following:

#### Application Fee (under Article 41 of the Ordinance)

- |                                                                   |                  |
|-------------------------------------------------------------------|------------------|
| - where the application is filed with the variety denomination:   | 260 Swiss francs |
| - where the application is filed with a breeders' reference only: | 350 Swiss francs |

---

Uruguay: Address of the National Office

The address and the telecommunication numbers of the national office responsible for plant variety protection in Uruguay are as follows:

Address:      Ministerio de Ganadería,  
                 Agricultura y Pesca  
                 Dirección General - Servicios Agrícolas  
                 Unidad de Semillas  
                 Avda. Millán 4703  
                 12.900 Montevideo

Telephone:    (59-82) 39 79 24

Telefax:        (59-82) 39 78 32

---

GENERAL STUDIES

---

Electrophoresis and its Application to the  
Description of Varieties

A Presentation of the Techniques Used by GEVES\*

by Mireille Bourgoïn-Grenèche and Joëlle Lallemand\*\*

THE PRINCIPLES OF ELECTROPHORESIS

Electrophoresis is a method for separating molecules according to their electric charge. It is particularly widely used for proteins. Proteins at a pH other than their isoelectric pH become charged. When placed in starch or acrylamide gel with an applied electrical field, the proteins (or other charged molecules) will move towards the electrode of the opposite charge. In a given time the distance moved is proportional to the electric charge of the molecule. The distance migrated by the molecules is proportional to the strength and duration of the electrical current, the pH of the medium and the mechanical resistance (or friction) generated by the gel.

Electrophoresis in the presence of SDS (Sodium dodecylsulphate) is a widely used technique. The proteins are coated in the negatively-charged SDS and thus all become negatively charged. Acrylamide is used for the gel and acts as a molecular sieve. The proteins migrate through the gel according to their size: smaller proteins migrate faster than larger proteins.

---

\* Extract from a GEVES publication with the same title issued in September 1993. The publication, which is available in English and French, can be ordered from GEVES, La Minière, F-78285 Guyancourt, Cedex, France. (Tel. +33.1.3083.3000, Fax: +33.1.3083.3629) at a price of 250 French francs.

\*\* Groupe d'Etude et de Contrôle des Variétés et des Semences (GEVES), Laboratoire de biochimie, La Magneraud - BP52, Saint-Pierre d'Amilly, F-17700 Surgères, France.

Once the gel has been run, the positions of the proteins can be revealed by a chemical reaction. The proteins can be stained to give a coloured band corresponding to each type of protein present. The resulting pattern of bands makes up the protein profile, or the zymogram.

Two groups of proteins are generally analysed by electrophoresis:

(i) Enzymes: These are proteins with catalytic properties, responsible for most biochemical reactions: they convert a substrate into a product. They can be specifically identified in a gel: if a substrate is added to the gel, the enzyme converts it into a product, which can then be revealed by a second staining reaction. The stained band will appear at the position in the gel to which the enzyme has migrated.

(ii) Total proteins (storage and structural proteins): Generally present at much higher concentrations than individual enzymes, this group is usually revealed by non-specific methods. All proteins present in large amounts in the gel are revealed through staining.

Electrophoresis experiments are performed in several stages:

- 1 - preparation of extracts by grinding the tissues in a suitable medium
- 2 - preparation of the gels
- 3 - loading the extracts onto the gel
- 4 - migration of the proteins into the gel, by application of an electrical current
- 5 - cutting the gel (starch gels only)
- 6 - staining
- 7 - interpreting the observed banding patterns

## INTERPRETATION OF ELECTROPHORETIC PROFILES

### (1) Interpretation of Zymograms

The banding patterns revealed by specific staining of an enzyme are called zymograms. For any given organ, the zymogram corresponds to the expression of one or more genes. Nevertheless, zymograms generally have few bands.

In most cases, the genetics underlying the production of the enzymes are known. The zymogram can therefore be interpreted in terms of genotype. As the alleles coding for different forms of an enzyme are equally expressed (co-dominance), heterozygous individuals give specific zymograms with a band corresponding to each of the two alleles.

The alleles of a given gene may be named by various different systems. The first is to name each allele according to the distance of the corresponding enzyme form migrates. Newly discovered alleles can be easily incorporated into this nomenclature. Alternatively, the alleles can be labelled 1, 2, 3, etc. (or a, b, c, etc.) from the fastest to the slowest migrating enzyme. Alleles may also be named according to the date of discovery. In some cases, two different systems are used for the alleles of one gene.

Enzymes can be composed of either a single subunit (monomeric enzymes) or of more than one subunit (multimeric enzymes, usually dimers or tetramers). The subunits of a multimeric enzyme can be identical (with the same amino acid sequence) or different.

(2) Representation of ZymogramsSome Examples of DiploidyEnzymes Encoded by a Single Gene:

Take for example an enzyme encoded by a gene with two alleles called a and b. Allele a encodes the subunit A, and b the subunit B. The overall charges of the two subunits A and B are different.

i) Monomeric Enzyme\*

If the enzyme is monomeric, heterozygous individuals will give two bands (one for A and one for B) in the zymogram (fig. 1)



fig. 1: Zymograms of a monomeric enzyme

ii) Dimeric Enzyme\*

In the case of a dimeric enzyme, heterozygous individuals present three bands in zymograms (fig. 2). Bands AA and BB are homodimers, dimers made up of two identical subunits. Band AB is an intragenic heterodimer, a band made up of different subunits corresponding to different alleles of the same gene. The relative intensities of the different bands are proportional to the frequencies of the different associations (A-A, B-B, A-B).

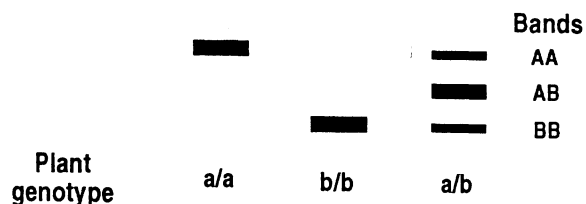


fig. 2: Zymograms of a dimeric enzyme

iii) Tetrameric Enzymes\*

Tetrameric enzymes are made up of four subunits which are randomly associated. Heterozygous individuals can therefore give five bands in zymograms (fig. 3).

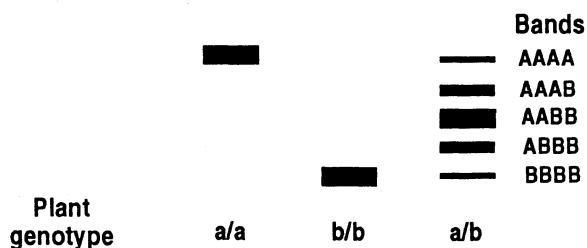


fig. 3: Zymograms of a tetrameric enzyme

\* NB: Capital letters are used for enzymes and their subunits; small letters are used for genes and their alleles.

Bands AAAA and BBBB are homotetramers. Bands AAAB, AABB and AB BB are heterotetramers. The mobilities of the heterotetramers depend on the proportions of subunits A and B; the relative intensity of each band is proportional to the frequency of the corresponding association.

#### Enzymes Encoded by two Different Genes:

We will now consider a dimeric enzyme encoded by two genes, g1 and g2. Each gene has two alleles (a1 and b1, a2 and b2). Alleles a1 and a2 encode subunits A1 and A2 and alleles b1 and b2 encode subunits B1 and B2. The enzyme is constituted by a random association of each of the two subunits.

#### Dimeric Enzymes\*

Bands A1A1, B1B1, A2A2 and B2B2 are homodimers. Bands A1A2, A2B1, A1B2 and B1B2 are intergenic heterodimers made up of two different subunits (one encoded by each of genes g1 and g2). Bands A1B1 and A2B2 are intragenic heterodimers, made up of two different subunits encoded by two different alleles of the same gene (fig. 4).

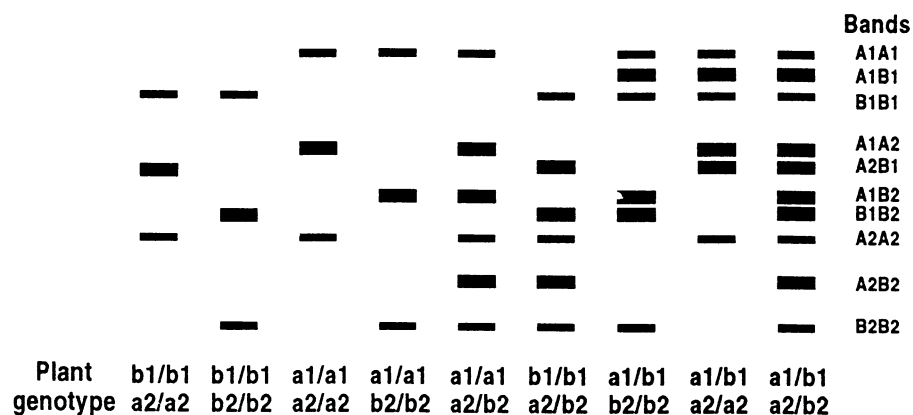


fig. 4: Zymograms of a dimeric enzyme:  
an example of intergenic interactions

#### Some Examples of Tetraploidy

Consider an enzyme which is encoded by a gene with three alleles a, b, and c. The allele a codes for subunit A, allele b for subunit B and allele c for subunit C.

#### Monomeric Enzymes\*

Bands A, B and C are monomers. The zymograms of digenic plants (with two different alleles, for example aaab and aabb) contain two bands; zymograms of trigenic plants (for example aabc or abbc) give three bands (fig. 5).

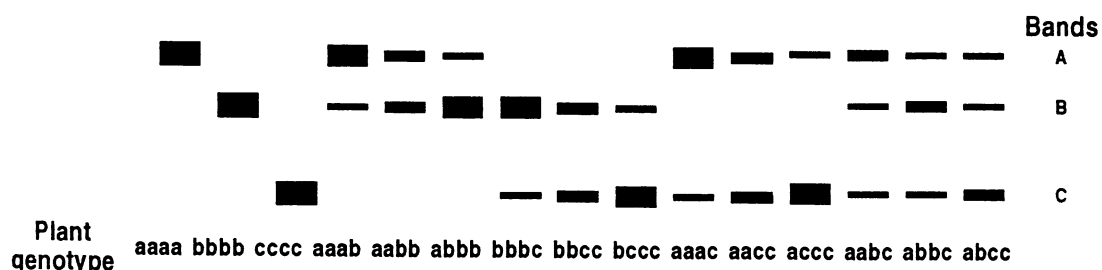


fig. 5: Diagram of zymograms of a monomeric  
enzyme from a tetraploid plant

Dimeric Enzyme\*

In dimeric enzymes, the subunits encoded by different alleles associate at random. In tetraploids with, for example, three possible alleles, monogenic individuals present one band, digenics present three bands and trigenics present six bands (see fig. 6).

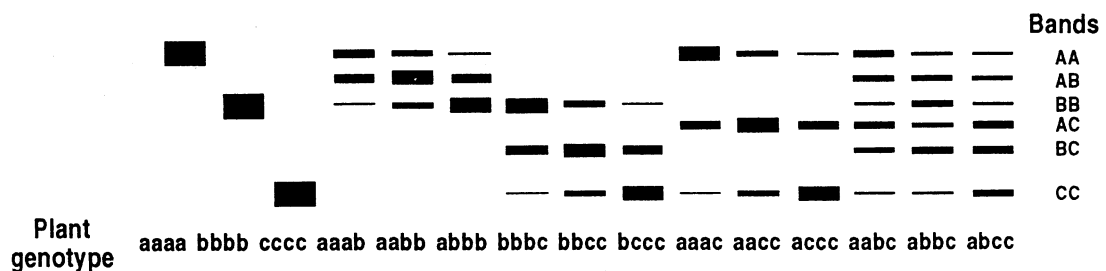


fig. 6: Diagrams of zymograms of a dimeric enzyme in a tetraploid plant

The relative intensity of bands in the zymogram of tetraploids can be used to determine the allele dosage (relative numbers of each allele). The genotypes aaab, aabb and abbb, for example, all give the same banding pattern in terms of the positions of the bands, but the relative intensities of the bands differ.

### (3) The Interpretation of Other Electrophoretic Analyses

The electrophoretic patterns of storage proteins in kernel, or of total protein (obtained by electrophoresis of all the proteins in an organ, and revealed by non-specific staining) often contain a large number of bands.

The genetics underlying the production of storage proteins is often complex and poorly understood. It is not always possible to correlate the banding patterns with the genotype.

The interpretation of these profiles is therefore descriptive. Each band can be defined by its relative mobility (the system used for wheat gliadins). The profile of a variety is thus composed of a series of bands each defined by its relative mobility. The profile may also contain clearly distinguishable zones of bands. For each zone, types (groups of bands) can be defined (examples of this system include pea and barley storage proteins).

Nevertheless, the genetic basis of some storage proteins has been characterized. For example, the positions on the chromosome have been mapped for various genes involved in the production of wheat glutenins. For each gene, the different alleles give characteristic bands each defined by a particular mobility, as in zymograms.

## EXAMPLES OF APPLICATIONS

### (1) Pure Line Varieties

The genetic variability within the pure line variety is small: in theory, analysis of an individual plant should be sufficient to describe the variety. However there may in practice be variation between individuals depending on the selection scheme. Characters that were not selected during the development of the variety may be variable. As it is difficult to identify varieties

on the basis of heterogeneous characteristics, it is in the breeders' best interest to ensure that even the irrelevant characteristics of a variety are homogeneous. Wheat and barley breeders and seed producers generally, therefore, monitor the homogeneity of varieties. This facilitates testing and quality control. The electrophoretic characteristics of a variety are in many cases also markers for technological quality.

In most cases, twenty individual plants are tested when describing a variety. They are used to produce an identification key and to define distinguishing characteristics. Only those characteristics that are homogeneous in the variety are included.

## (2) Clonal Varieties

There is in theory no genetic variation between individuals within clonal varieties. Therefore, only 5 individuals of clonal varieties are studied. The differences between varieties vary according to the species and, more importantly, according to the method of selection. For example, the differences between varieties of garlic produced by clonal selection are very small.

## (3) Hybrid and Synthetic Varieties

### Hybrids

Testing is similar to that for line varieties: analysis of differences between hybrid varieties is based on analysis of the differences between the components, or the novelty of the formula (and verifying that the formula of the variety is indeed that desired). The parental inbred lines of hybrid varieties are described in the same way as line varieties. Heterogeneity is observed (8% among maize inbred lines studied, 1 in 3 sunflower inbred lines). The conformity of the hybrid with the declared formula is verified by comparing observed genotypes with what would be expected from the parental genotypes.

### Synthetic Varieties

There is genetic variation between individuals of synthetic varieties. One hundred plants are therefore tested individually for each variety. For each marker the allelic frequency is estimated. The observed distributions are then compared using the  $\chi^2$  test.

Table I shows the comparison of the enzymes PGI, ACP and IDH in two varieties of ryegrass. The threshold value of  $\chi^2$  considered as being significant is 1%. The enzymes ACP and IDH in table I are different with a significance level ( $\chi^2$ ) of 0.1%: the two varieties are considered different.

Table I: Comparison of the enzymes PGI, ACP and IDH  
in two ryegrass varieties

Alleles	PGI				ACP				IDH			
	a	b	c	d	a	b+c	d	e+f	a	b	c	d
Variety												
variety 1	0	72	0	132	46	117	8	17	69	90	11	2
variety 2	0	90	2	112	14	149	35	2	146	47	9	2
$\chi^2$		3.4	NS			49.4***				38.8***		

NS: not significant ( $\alpha > 1\%$ )

\*\*\*: highly significant ( $\alpha < 0.1\%$ )

This approach can be used to compare varieties and to test for a possible drift during multiplication.

Table II shows the various species tested in the GEVES biochemistry laboratory. The applications for variety testing are also indicated.

Table II: Electrophoretic analyses in the GEVES  
biochemistry laboratory

Species	Applications
Maize	Trueness of hybrid formula, varietal purity, distinctness
Wheat	Varietal purity, identification, trueness of hybrid formula, support for distinctness
Durum wheat	Varietal purity, identification, support for distinctness
Barley	Varietal purity, identification, support for distinctness
Sunflower	Varietal purity
Soybean	Identification, distinctness
Italian ryegrass	Sowing layout, stability, variety control, distinctness
Pea	Varietal purity, identification, support for distinctness
Timothy	Identification, distinctness
Tall fescue	Identification, distinctness

Identification can be considered to be establishing an "identity card" which includes all electrophoretic markers. This identification serves as the basis for defining differences between new varieties, according to criteria defined by the CTPS (a minimum number of differences, thresholds for statistical significance, etc.)

Support for distinctness indicates that the electrophoretic characters revealed can be used to confirm the differences between varieties suggested by classical analysis of morphological and physiological characteristics.

Varietal purity analysis is to identify any impurities and in some cases the origin of off-types (fertilization by contaminating pollen, self-fertilization, presence of foreign seed, etc.) The size of the sample varies according to the norms and the accuracy required.

Testing trueness of the hybrid formula is the verification of the genetic composition of hybrids, by comparison of their electrophoretic profiles with those of the parental components.

Stability testing is mainly applied to synthetic varieties. It involves comparing the allelic frequencies between generations or production lots.

For Italian ryegrass, the analysis of the electrophoretic characters of different varieties is used for planning field trials: varieties with similar allelic frequencies, as assessed by electrophoresis, are planted close together, to facilitate comparisons.

The value of electrophoresis is different for different applications. Nevertheless, the key characteristics of electrophoresis for the analysis of varieties can be summarized as follows:

- rapidity
- independence of the analysis from the environmental conditions (once the stage at which the electrophoretic analysis should be performed has been fixed)
- codominance, which allows the genotype to be described
- cheapness (generally 15 to 50 FF per seed)

These electrophoretic methods will become even more valuable once the techniques used are standardized between laboratories both nationally and internationally.



## REFERENCES

- BREWER J., 1970: "An introduction to isozyme techniques," 186 pp., Academic Press, New York.
- GOIFFON M. and d'HONDT J.-L. (Eds.), 1985: "Electrophorèse et taxonomie," 314 pp., Mémoire No. 42 de la Société zoologique de France.
- HAMES B.D. and RICKWOOD D. (Eds.), 1982: "Gel electrophoresis of proteins," 290 pp., IRL Press Limited, Oxford and Washington D.C.
- HARRIS H. and HOPKINSON D.A., 1976: "Handbook of enzyme electrophoresis in human genetics," North-Holland, Amsterdam, Oxford and American Elsevier, New York.
- MAURIER H.R., 1971: "Disc electrophoresis and related techniques of polyacrylamide gel electrophoresis," 2nd ed., 222 pp., Walter de Gruyter & Co., Berlin.
- MEIGE J. (Ed.), 1975: "Les protéines des graines," 385 pp., Conservatoire et jardin botanique de la ville de Genève.
- PASTEUR N., PASTEUR G., BONHOMME F., CATALAN J. and BRITTON-DAVIDIAN J., 1987: "Manuel technique de génétique par électrophorèse des protéines," 217 pp., Lavoisier, Paris.
- RICHARDSON B.J., BAVERSTOCK P.R. and ADAMS M., 1986: "Allozyme electrophoresis. A handbook for animal systematics and population studies," 410 pp., Academic Press, London.
- TANKSLEY S.D. and ORTON T.J. (Eds), 1983: "Isozymes in plant genetics and breeding," Part A 516pp., Part B 472 pp., Elsevier, Amsterdam.

## GLOSSARY

- Allele\*: The particular form of a gene at a given locus. Each allele determines one of the possible forms of the character encoded by the gene.
- Allogamy\*: Sexual reproduction during which the zygote is formed by the fusion of two gametes from different individuals.
- Autogamy\*: Sexual reproduction during which the zygote is formed by the fusion of two gametes from a single bisexual either hermaphrodite or monoecious individual.
- Codominance\*: The equal expression of two different alleles of one locus in a heterozygote. Neither of the characters expressed masks the other.
- Diploid\*: A cell containing two copies of the genome.
- DNA\*: Deoxyribonucleic acid. A molecule made up of deoxyribonucleotides which is the genetic material of all cells. DNA is thus the basis of heredity.
- Dominance\*: The property of a genetic character expressed in a heterozygous individual resulting from a cross between two pure lines which differ for the character. The term is also used to describe the allele determining the character.

---

\* Definition taken from "Dictionnaire de Génétique," édition 1991, from the Conseil International de la Langue Française, 11, rue Navarin, 75009 Paris, 240 FF, ISBN 2-85319-231-8.

° Definition taken from "Petit Robert, Dictionnaire de la langue française," édition 1989, edited by les Dictionnaires Le Robert, 107, avenue Parmentier, 75011 Paris.

## R U S S I A N F E D E R A T I O N

## Law on the Protection of Selection Achievements\*

(of August 6, 1993)

## PART I

## GENERAL PROVISIONS

Article 1Definitions

For the purposes of this Law:

"selection achievement" means a plant variety or an animal breed;

"variety" means a plant grouping within a single botanical taxon, which grouping, irrespective of its protectability, can be defined by the expression of characteristics resulting from a given genotype or combination of genotypes and can be distinguished from any other plant grouping of the same botanical taxon by the expression of at least one of the said characteristics;

the variety may be represented by a single plant or plants as well as a part or parts thereof provided such part or parts may be used for the purpose of reproduction of entire plants of the variety; variety shall be deemed to comprise the following protected categories: clone, line, first generation hybrid, population;

"seeds" means a plant or parts thereof used for the purpose of reproduction of the variety;

"plant material" means a plant or parts thereof used for purposes other than reproduction of the variety;

"breed" means an animal grouping which, irrespective of its protectability, has genetically determined biological and morphological characteristics some of which are specific for the given grouping and distinguish it from other groupings. The breed may be represented by female or male animals or by breeding material; breed shall be deemed to comprise the following protected categories: type, crossing of lines;

"breeding animal" means an animal used for the purpose of reproduction of a breed;

---

\* Russian Title: Zakon Rossiyskoy Federatsii o Seleksionnich Doctizheniyach.

English translation supplied by the Ministry of Agriculture of the Russian Federation.

"breeding material" means a breeding animal, gametes or zygotes (embryos) thereof;

"marketable animal" means an animal used for purposes other than reproduction of the breed;

"protected selection achievement" means a variety of plants or a breed of animals registered in the State Register of Protected Selection Achievements;

"applicant" means a natural person or legal entity who has filed an application for the grant of a patent for a selection achievement.

## Article 2

### Legislation of the Russian Federation on Selection Achievements

The legislation of the Russian Federation on the protection of selection achievements shall consist of this Law, legal acts adopted on the basis thereof by the constituent Republics within the Russian Federation and implementing provisions enacted by the State authorities within their competence.

## Article 3

### Legal Protection of Selection Achievements

Rights in a selection achievement shall be protected by Law and shall be certified by a patent on a selection achievement.

The patent shall certify the exclusive right of the patent owner to use the selection achievement.

The All-Russian State Commission for Testing and Protection of Selection Achievements (hereinafter referred to as "the State Commission") shall, in accordance with this Law, carry out an integrated policy in the field of the legal protection of selection achievements in the Russian Federation. It shall receive applications for the protection of selection achievements, effect the examination, testing and registration thereof in the State Register of Protected Selection Achievements and the State Register of Selection Achievements Authorized for Use for Production Purposes, grant patents and certificates of authorship, publish official information relating to the protection of selection achievements and issue regulations and implementing provisions under this Law, and shall perform other functions specified in the Statute of the State Commission enacted by the Government of the Russian Federation.

The activities of the State Commission shall be financed from funds allocated for the purpose in the budget of the Russian Federation, fees collected in relation to patents and payments made for services and materials provided by the State Commission.

A selection achievement for which a patent has been granted by the State Commission shall be registered in the State Register of Protected Selection Achievements.

The scope of the legal protection conferred by a patent on a selection achievement shall be determined by the sum of its essential characteristics as contained in the description of the selection achievement.

The term of a patent on a selection achievement shall be 30 years from the date of registration of the selection achievement in the State Register of Protected Selection Achievements. For grapevines and ornamental, fruit and forest trees, including rootstocks thereof, the said period shall be 35 years.

## PART II

### CONDITIONS OF PROTECTABILITY OF SELECTION ACHIEVEMENTS AND THE PROCEDURE FOR FILING AN APPLICATION FOR THE GRANT OF A PATENT

#### Article 4

##### Conditions of Protectability of Selection Achievements

(1) The patent shall be granted where the selection achievement satisfies the criteria of protectability and relates to the botanical or zoological genera and species a list of which shall be determined by the State Commission subject to the international obligations of the Russian Federation.

(2) The said criteria shall be the following:

(a) Novelty.

A plant variety or animal breed shall be deemed to be new if, at the date of filing of the application for the grant of a patent, the seeds or breeding material of the given selection achievement has not been sold or otherwise disposed of to others, by or with the consent of the breeder or his successor in title, for purposes of exploitation of the selection achievement

(i) in the territory of the Russian Federation, earlier than one year before that date;

(ii) in the territory of any other State, earlier than four years or, in the case of grapevines and ornamental, fruit and forest trees, earlier than six years before the said date.

(b) Distinctness.

A selection achievement shall be clearly distinct from any other commonly known selection achievement existing at the time of the filing of the application.

Commonly known selection achievements may be those which have been entered in an official register of selection achievements or reference files, or of which a precise description has been published.

The filing of an application for the grant of a patent or an authorization to use the selection achievement shall likewise render that selection achievement a matter of common knowledge from the date of the application, provided that the application leads to the grant of the patent or the authorization.

(c) Uniformity.

A plant variety or animal breed shall be sufficiently uniform in its relevant characteristics, subject to the variation that may be expected from the particular features of its propagation or reproduction.

(d) Stability.

A selection achievement shall be deemed stable if its relevant characteristics remain unchanged after repeated propagation or reproduction or, in the case of a particular cycle of propagation or reproduction, at the end of each such cycle.

(3) Notwithstanding the provisions of paragraph (2)(a) of this Article, protection may be granted to varieties and breeds which, at the date of entry of the corresponding genus and species in the list of protected selection achievements, have been registered in the State Register of Selection Achievements Authorized for Use for Production Purposes. The priority of the selection achievement shall be determined by the date of receipt by the State Commission of the application containing the request for the grant of an authorization to use the said selection achievement.

The term of a patent provided for in Article 3 shall be reduced in relation to such selection achievement by the period starting from the year in which the authorization to use has been granted and ending in the year in which a patent has been granted. No provisional protection provided for in Article 15 shall apply for such selection achievements.

## Article 5

### Application for the Grant of a Patent

The right to file an application for the grant of the patent shall belong to the breeder or his successor in title. The application shall be filed with the State Commission.

Where a variety or breed has been developed, bred or discovered in the line of duty, the right to file an application for the grant of the patent shall belong to the employer unless otherwise provided in the employment contract.

Where there are several persons who jointly bred, developed or discovered the same selection achievement or who are the joint successors in title thereof, they may file the application jointly.

Applications may be filed through patent agents, whose powers shall be certified in a power of attorney, and who shall act in all proceedings conducted for the grant of patents.

No staff member of the State Commission or its affiliates located in the constituent Republics within the Russian Federation, autonomous regions or areas shall have the right to file an application for the grant of a patent for the duration of his employment contract.

The application for the grant of a patent shall contain:

- the request for the grant of a patent,

- the particulars of the selection achievement,
- proof of payment of the prescribed fee or of circumstances affording entitlement to exemption from payment, or to a reduction in the amount of the prescribed fee.

Requirements for the above-mentioned documents shall be established by the State Commission.

The application shall relate to one single selection achievement.

Where the application is filed by the employer, it shall be accompanied by proof of a contract concluded with the author of the selection achievement in conformity with the provisions of the paragraph 2 of this Article.

Documents for the application shall be written in Russian or another language. Where they are written in a language other than Russian, the application shall be accompanied by a Russian translation of those documents.

## Article 6

### Denomination of Selection Achievement

The selection achievement shall be designated by a denomination proposed by the applicant and approved by the State Commission.

The denomination must enable the selection achievement to be identified. It must be short and different from every denomination which designates an existing selection achievement of the same or of a closely related plant or animal species. It may not consist solely of figures. It must not be liable to mislead concerning the characteristics, origin or value of the selection achievement or the identity of the breeder. It must not be contrary to humanitarian principles or morality.

Where the denomination proposed by the applicant does not satisfy the requirements of this Article, he shall be required to submit another denomination within the period prescribed by the State Commission.

Any person who uses the protected selection achievement shall be required to use the denomination thereof registered in the State Register of Protected Selection Achievements.

The denomination may be changed with the consent of the State Commission where valid reasons are supplied in support of the change.

## Article 7

### Priority of the Selection Achievement

The priority of the selection achievement shall be determined by the date of receipt by the State Commission of the application for the grant of a patent or of the request for the grant of an authorization to use the selection achievement.

Where two or more applications claiming the same selection achievement are received by the State Commission on the same day, the priority shall be determined by the application whose sending date is earlier. Where the examination finding is that the said applications have the same sending date, the patent may be granted on the application having an earlier registration number with the State Commission, unless the agreement between the applicants provides otherwise.

Where an application with the State Commission was preceded by an application filed by the applicant in any State party to an agreement for the protection of selection achievements concluded with the Russian Federation, the applicant shall enjoy the priority of the first application within 12 months from the filing date thereof.

The applicant shall, when filing the application with the State Commission, indicate the date of priority. Within six months following the date of receipt of the application by the State Commission, the applicant shall be required to furnish a copy of the first application duly certified by the competent authority of the State where it has been filed. That copy should be accompanied by a translation thereof in Russian. Where the applicant complies with the said conditions, he shall not be required to furnish the additional documents and any material necessary for the purposes of testing for a period of three years following the filing date of the first application.

### PART III

#### EXAMINATION OF PROTECTABILITY OF SELECTION ACHIEVEMENTS

##### Article 8

##### Preliminary Examination of Patent Applications

A preliminary examination shall be carried out within a period of one month in order to determine the priority date and to verify the presence of the required documents and their compliance with the prescribed conditions.

The State Commission may request the applicant to furnish, within the prescribed time limit, missing or corrected documents relating to the application.

During the preliminary examination the applicant may, on his own initiative, supplement, clarify or correct any part of the application.

If the applicant fails, within the prescribed time limit, to furnish the corrected documents or documents missing at the filing date, the application shall be rejected and the applicant shall be notified accordingly.

Where the applicant wishes to contest the decision taken in the preliminary examination, he may do so, within three months following the date of receipt of the decision, by lodging an appeal with the courts.

Where the preliminary examination of an application has produced a favorable result, the applicant shall be notified to the effect that his application has been accepted.

The particulars of the accepted applications shall be published in the Official Gazette.

### Article 9

#### Examination of Novelty of the Selection Achievement

Any interested party may, within six months following the date of publication of the particulars of the application, file with the State Commission a notice of opposition contesting the novelty of the claimed selection achievement.

The State Commission shall notify the applicant of the notice and give the essential grounds of the opposition. In the case of disagreement with the notice of opposition the applicant may, within three months from the date of receipt of the said notice, lodge an appeal with the State Commission stating the grounds thereof.

The State Commission, on the basis of all available documents, shall take a decision and shall notify the interested parties accordingly.

Where the claimed selection achievement does not comply with the condition of novelty, a decision to refuse the patent grant shall be taken.

### Article 10

#### Testing Distinctness, Uniformity and Stability of the Selection Achievement

Testing of the selection achievement as to its compliance with the conditions of distinctness, uniformity and stability shall be carried out in accordance with a methodology and within the periods prescribed by the State Commission.

The applicant shall furnish a quantity of seeds or breeding material required for the purposes of testing and shall deliver the same to the address specified and within periods prescribed by the State Commission.

The State Commission may take into account the results of tests which have been carried out by the competent authorities of other States on the basis of bilateral agreements, the results of tests which have been carried out by other organizations of the Russian Federation on the basis of contracts concluded with the State Commission, as well as data provided by the applicant.

Where the selection achievement is found to comply with the requirements of protectability and its denomination is found to meet the conditions prescribed in Article 6 of this Law, the State Commission shall take a decision to grant the patent and shall make the description of the selection achievement.



## PART IV

## PROTECTION OF SELECTION ACHIEVEMENTS

Article 11Registration of a Selection Achievement

The State Register of Protected Selection Achievements shall include the following entries:

- genus and species of the variety or breed;
- denomination of the variety or breed;
- date of registration of the selection achievement and registration number thereof;
- family name, forenames and patronymic of the patent owner and his address;
- family name, forenames and patronymic of the author of the selection achievement and his address;
- information on the act of assignment of the patent to another person indicating his family name, forenames and address;
- information on the grant of any exclusive, open or compulsory license;
- date of expiration of the patent stating the grounds thereof.

Article 12Patent

The patent shall be granted to the applicant. Where several applicants are indicated in the request for the grant of a patent, the patent certificate shall be granted to the applicant whose name is mentioned first. The conditions for the joint exercising of the rights conferred by the patent shall be determined by agreement between them.

In the case of loss or damage of the patent certificate a duplicate may be issued subject to the payment of the prescribed patent fee.

Article 13Rights of the Patent Owner

(1) The exclusive right of the patent owner shall mean that any person who wishes to perform the following acts in respect of the seeds of the protected variety or breeding material of the protected breed shall be required to obtain a license from the patent owner:

- (a) production or reproduction,
- (b) conditioning for the purpose of propagation,
- (c) offering for sale,
- (d) selling or other marketing,
- (e) exporting from the territory of the Russian Federation,
- (f) importing into the territory of the Russian Federation,
- (g) stocking for any of the aforementioned purposes.

(2) The right of the patent owner shall also extend to plant material produced from the protected seeds or marketable animals bred from the protected breeding animals which have been put on the market without the authorization of the patent owner.

(3) The authorization of the patent owner shall be required for the performance of acts specified in paragraph (1) of this Article in relation to

(a) seeds of varieties or breeding material of breeds which are essentially derived from the protected (initial) variety or breed, where the protected variety or breed is not itself an essentially derived selection achievement,

(b) seeds of varieties or breeding material of breeds which are not clearly distinguishable from the protected variety or breed,

(c) seeds of varieties whose production requires the repeated use of the protected variety.

A selection achievement shall be deemed to be essentially derived from another (initial) selection achievement when, being clearly distinguishable from the initial variety or breed,

- it is predominantly derived from the initial selection achievement, or from a selection achievement that is itself predominantly derived from the initial selection achievement, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial selection achievement,

- except for the differences which result from the act of derivation, such as individual selection from the initial selection achievement, selection of an induced mutant, backcrossing, or transformation by genetic engineering, it conforms to the genotype or combination of genotypes of the initial selection achievement.

#### Article 14

##### Acts Not Infringing the Rights of the Patent Owner

The performance of the following acts in respect of the protected selection achievements shall not constitute an infringement of the rights of the patent owner:

- (a) acts done privately and for non-commercial purposes,
- (b) acts done for experimental purposes,
- (c) the use as the initial material for the purpose of breeding other varieties and breeds, as well as acts referred to in Article 13(1) of this Law in relation to the selection achievements so bred, except for the cases provided for in Article 13(3),
- (d) the use, for the duration of two years, of the plant material gained on farms as seeds for the propagation of the variety on their own holdings (a list of plant genera and species shall be determined by the Government of the Russian Federation),
- (e) the reproduction of marketable animals for purposes of use on given farms,
- (f) any acts in relation to seeds, plant material, breeding material and marketable animals which have been sold or otherwise marketed by the patent owner or with his consent, unless such acts
  - involve further propagation of the variety or further reproduction of the breed in question or
  - involve an export from the territory of the Russian Federation of plant material or marketable animals, which enables the propagation of the variety or the reproduction of the breed, into a country which does not protect the genus or species to which the variety or breed belongs, except where the exported material or animals are for final consumption purposes.

### Article 15

#### Provisional Legal Protection of Selection Achievements

During the period between the date of receipt of the application by the State Commission and the date of the grant of the patent the applicant shall enjoy provisional legal protection of his selection achievement.

After the patent has been granted the patent owner shall be entitled to compensation from any person who, during the period of the provisional legal protection, has performed without the authorization of the owner of the patent acts specified in Article 13(1) of this Law.

During the period of the provisional legal protection of the selection achievement the applicant shall be authorized to sell or otherwise furnish seeds of the variety or breeding material of the breed for scientific purposes or where such acts are performed in connection with the assignment of rights in a selection achievement, or where the production of seeds or breeding material is commissioned by the applicant for the purpose of the creation of stocks.

The provisional legal protection shall be deemed never to have been granted where the applicant or any other person with his consent has failed to comply with the said conditions.

## PART V

## THE USE OF SELECTION ACHIEVEMENTS

Article 16License Contract

Under a license contract (exclusive or non-exclusive license) the owner of a patent (the licensor) grants, against the payments specified in the contract or gratis, the right to use the selection achievement to another person (the licensee).

An exclusive license contract affords the licensee the exclusive right to use the selection achievement within the limits specified in the contract beyond which the licensor retains the said right.

A non-exclusive license contract allows the licensor to retain all rights deriving from the patent on the selection achievement including the right to grant licenses to third parties.

A license contract shall be concluded in writing.

An exclusive license contract shall be effective after its registration with the State Commission.

Article 17The Right of the Licensee

The licensee shall have the right, during the life of the patent, to use the protected selection achievement in the territory of the Russian Federation and to perform acts stipulated in Article 13(1) of this Law, except where the license contract provides otherwise.

The licensee may not transfer the license to third parties neither may he grant a sublicense, except where the license contract provides otherwise.

Article 18Terms and Conditions of the License Contract  
Limiting the Rights of the Licensee

No terms and conditions of the license contract shall impose limitations on the licensee unless they arise out of the rights conferred by the patent or are necessary to maintain it in force.

Article 19Open License

The owner of a patent may publish in the Official Gazette of the State Commission a notice to the effect that he undertakes to grant, subject to the payment of the amounts specified in the notice, a license to use the selection

achievement to any interested party as from the date the latter has notified the patent owner of his intention.

The State Commission shall register the grant of an open license in the State Register of Protected Selection Achievements with the specified amount of payments.

In such a case the maintenance fee shall be reduced by 50% as from January 1 of the year following the year of publication of the notice relating to the offering of an open license.

At the request of the patent owner and subject to the consent of all the holders of an open license the State Commission shall register the lapse of the open license in the State Register of Protected Selection Achievements.

## Article 20

### Compulsory License

Any person may file an application with the State Commission requesting the grant of a compulsory license.

The State Commission shall only grant a compulsory license where the following conditions are fully met:

(a) the application requesting the grant of a compulsory license has been filed after three years have passed since the date of the patent grant;

(b) the patent owner has refused the applicant the right to produce or market the seeds or breeding material or does not intend to grant the right;

(c) there are no legitimate reasons hindering the patent owner from granting the applicant the right to use his selection achievement;

(d) a person requesting the grant of a compulsory license has produced proof of being in a position, both financially and otherwise, to use the license in a competent and efficient manner;

(e) the amount of the prescribed fee for the grant of a compulsory license has been paid.

The compulsory license may confer on the licensee the right to perform acts referred to in Article 13(1) of this Law. In such a case the patent owner shall retain all the rights deriving from a selection achievement patent.

When granting a compulsory license the State Commission shall fix the amounts to be paid by the licensee to the patent owner.

At the request of the State Commission the patent owner shall furnish the licensee, against payment of monetary compensation and on reasonable terms, with seeds of the variety or breeding material of the breed in a quantity sufficient for the purposes of the compulsory license.

The State Commission shall grant a compulsory license for a period not exceeding four years. The said period may be extended if the inspection finds that the grounds prevailing at the time the compulsory license was granted still exist.

The State Commission shall revoke a compulsory license if its owner has infringed the terms under which the license had been granted.

A decision to grant or revoke a compulsory license taken by the State Commission may be contested in the courts.

When taking a decision the courts may modify the initial terms of the grant of a compulsory license determined by the State Commission.

#### Article 21

##### The Right of a Licensee to start Legal Proceedings

Where the rights of the patent owner are infringed, the licensee has the right to start legal proceedings in the prescribed manner.

#### PART VI

##### THE RIGHTS OF AN AUTHOR OF A SELECTION ACHIEVEMENT

#### Article 22

##### The Certificate of Authorship

The certificate of authorship shall attest the authorship of a selection achievement and the entitlement of the author to remuneration to be paid by the patent owner for the use of the selection achievement.

The State Commission shall issue a certificate of authorship to each author who is not the patent owner.

A natural person whose creative work resulted in the breeding, development or discovery of a selection achievement shall be recognized as the author thereof.

Any disputes arising from the authorship shall be referred to the courts.

#### Article 23

##### Remuneration to be Paid to the Author of a Selection Achievement who is not the Patent Owner

The author of the selection achievement shall, for the life of the patent, be entitled to remuneration to be paid by the patent owner for the use of the selection achievement bred, developed or discovered by him. The amount of remuneration and the terms of the payment shall be stipulated in a contract between the patent owner and the author. The amount of remuneration shall not be less than 2 per cent of the annual proceeds derived by the patent owner from the use of the protected selection achievement, including the earnings derived from the sales of licenses.

Where a variety or breed is bred, developed or discovered by two or more authors, their shares of remuneration shall be determined by agreement between them.

The remuneration shall be paid to the author within six months after the end of each year in which the selection achievement is used.

If the remuneration is not paid on time, the patent owner shall pay the author, for each day's delay, a monetary penalty the amount of which shall be stipulated in the contract.

## PART VII

### REGULATION BY THE STATE OF THE CREATION AND USE OF SELECTION ACHIEVEMENTS

#### Article 24

##### Promotion by the State of the Creation and Use of Selection Achievements

The State shall promote the creation and use of selection achievements and shall grant authors thereof and economic entities using such varieties and breeds tax advantages, favorable credit terms and other benefits under the legislation of the Russian Federation.

The breeding activities shall be of prior importance and shall be financed from the Republican budget of the Russian Federation.

Any profits (proceeds), including foreign currency earnings derived by the patent owner and the licensees from the use of a protected selection achievement, shall be exempt from taxation for two years after the variety or breed has been authorized for use. For grapevines and ornamental, fruit and forest trees, including rootstocks thereof, the said period shall be five years.

Profits (proceeds) gained by an organization financed from the State budget through the use of a selection achievement remain entirely at the disposal of the organization.

#### Article 25

##### Maintenance of Selection Achievements

The patent owner shall, throughout the life of the patent, maintain the variety or breed in such a way that all characteristics defined in the description of the variety or breed at the date of registration thereof in the State Register of Protected Selection Achievements are maintained.

At the request of the State Commission the patent owner shall furnish seeds of the variety or breeding material of the breed for the purposes of testing a new variety or breed and provide the opportunity for in situ inspection.

## Article 26

### Revocation of Patent

Any natural person or legal entity may request the State Commission to revoke the granted patent.

The State Commission shall bring a copy of the request to the attention of the patent owner. The patent owner may, within three months from the date of receipt of the said copy, furnish his reply stating valid reasons in support of the grant.

The State Commission shall take a decision on the request within six months unless additional testing is required.

The State Commission shall revoke the patent when it is established

(a) that the patent has been granted on the basis of unconfirmed information with respect to uniformity and stability of the selection achievement provided by the applicant;

(b) that the conditions of novelty or distinctness were not complied with at the date of the grant of the patent;

(c) that the person who appears in the patent document as the owner of the patent has not had a legal basis for receiving the patent.

## Article 27

### Cancellation of Patent

The State Commission shall cancel the patent if it is established

that the selection achievement no longer meets the conditions of uniformity and stability,

that the patent owner has failed, within the 12 months period, to provide at the request of the State Commission seeds, breeding material, documents or information necessary for the control of the maintenance of the selection achievement or to provide an opportunity for in situ inspection for this purpose;

that the patent owner has failed to pay, within the prescribed time limit, the maintenance fee;

that the patent owner has failed to propose, where the denomination of the variety is cancelled, another suitable denomination.

## Article 28

### Liability for Infringement of the Rights of Patent Owners

Any natural person or legal entity who uses the selection achievement in a manner contrary to the requirements prescribed by this Law shall be deemed an infringer of the rights of the patent owner.



At the request of the patent owner or the State Commission, the infringement of the patent shall cease and the owner of the patent shall be compensated by the infringer for damages sustained.

Damages may also be claimed by the owner of an exclusive or non-exclusive license except where the license contract provides otherwise.

### **Article 29**

#### **Liability for Infringement of Other Rights of the Patent Owner and the Breeder**

(1) Any natural person or legal entity who:

(a) uses for the produced and/or sold seeds or breeding material a denomination which is different from the registered denomination of that selection achievement;

(b) uses for the produced and/or sold seeds or breeding material the denomination of a registered selection achievement where the said seed or breeding material is not that of the registered selection achievement;

(c) uses for the produced and/or sold seeds or breeding material a denomination which is so similar to the denomination of a registered selection achievement that it is misleading;

(d) makes a false entry in the State Register of Protected Selection Achievements or in reports or causes it to be made therein;

(e) forges or prepares the forgery of documents to fulfill the conditions required under the provisions of this Law, or instigates such forgery or its preparation;

(f) furnishes documents containing false information on the selection achievement;

(g) sells the seeds or breeding material without the certificate,

shall be deemed to be infringing other rights of the patent owner.

(2) Persons committing the acts referred to in paragraph (1) of this Article shall be responsible under the legislation in force.

(3) Any dispute arising from the application of this Law shall be referred to the courts.

### **Article 30**

#### **Publications**

(1) The State Commission shall publish an Official Gazette containing the following information:

(a) the particulars of applications for the grant of a patent received, stating the priority date of the selection achievement, the name of the applicant, the denomination of the selection achievement, the name and forenames of

the author where the latter has not waived his right to be identified in that capacity;

- (b) any decision taken in respect of an application;
- (c) any change in the denomination of a selection achievement;
- (d) any decision for revocation or cancellation of patents;
- (e) any other information relating to the protection of selection achievements.

(2) Any natural person or legal entity shall have the right to inspect the documents of an application received once the particulars of the application and any decision in respect thereof have been published.

### Article 31

#### Appeals Against Decisions Taken by the State Commission

Any decision to grant a patent, to refuse a grant, or to revoke or cancel a patent taken by the State Commission may be contested in court proceedings.

### Article 32

#### The Use of Selection Achievements

The entry of plant varieties and animal breeds in the State Register of Selection Achievements Authorized for Use for Production Purposes shall be effected by the State Commission on the basis of the results of State tests carried out in order to determine the economic utility of the selection achievement.

With regard to specific genera and species a list of which shall be determined by the State Commission, the entry in the State Register of Selection Achievements Authorized for Use for Production Purposes shall be effected on the basis of expert evaluation and information provided by the applicant.

Seeds or breeding material marketed in a given region of the Russian Federation shall be supported by a certificate attesting the variety or breed, origin and quality thereof. The certificate shall be issued only for seeds of the variety or breeding material of the breed which has been authorized for use in that region.

No authorization for use in a given region shall be required for the reproduction of seeds or breeding material intended for the purpose of export from that region.

With respect to selection achievements registered in the State Register of the Protected Selection Achievements, the certificate shall only be issued in support of seeds or breeding material which has been procured on legitimate grounds.

A request for the grant of an authorization to use a plant variety or animal breed shall be filed with the State Commission. The request shall be accompanied by a description of the selection achievement, a guarantee to

provide free of charge seeds or breeding material thereof in the quantity necessary for the purposes of testing, proof of payment of the prescribed filing fee, a guarantee to pay the prescribed fee for carrying out State tests in order to determine the economic utility of the selection achievement.

In order to carry out the State economic utility tests of a plant variety in the next agricultural season, the request shall not be filed later than the time limit prescribed by the State Commission.

### Article 33

#### Patent Fees

Fees shall be collected for the performance of any legal acts in relation to selection achievement patents. The patent fees shall be payable to the State Commission. A list of acts for which fees are payable, the amounts of the fees and the time limits for the payment thereof, and also the conditions governing exemption from fees and the reduction or reimbursement of fees, shall be determined by the Government of the Russian Federation.

## PART VIII

### INTERNATIONAL COOPERATION

### Article 34

#### The Right to File an Application Abroad

The breeder or his successor in title shall have the right to file an application for the grant of a selection achievement patent with a competent authority of any foreign State.

The cost of obtaining a protection right for a selection achievement shall be borne by the applicant.

### Article 35

#### Rights of Foreign Natural Persons and Legal Entities

Foreign natural persons and legal entities shall, on the basis of international treaties to which the Russian Federation is party, or on the basis of reciprocity, enjoy the rights provided for in this Law and regulatory acts of the Russian Federation in the field of protection of selection achievements on the same footing as natural persons and legal entities of the Russian Federation.

### Article 36

#### The Effect of International Treaties

Where an international treaty to which the Russian Federation is party contains provisions different from those specified in this Law, the former shall prevail.

## U K R A I N E

## Law on the Protection of Plant Variety Rights\*

(of April 21, 1993)

## PART I

## GENERAL PROVISIONS

Article 1Definition of Terms

For the purposes of this Law:

"variety" means a plant grouping selected artificially within a single botanical taxon and whose heredity is characterized by its inherent biological features and properties, provided that it is distinguished from any other known plant grouping within the same botanical taxon by at least one feature and can be considered as a unit with regard to its suitability for being propagated. The category of variety covers clone, line, hybrid and population;

"seeds" mean the generative and vegetative organs of plants utilized for the purposes of the reproduction of a variety;

"exploitation of a variety" means the production of seeds for their alienation, the conditioning of seeds for the purpose of propagation, the selling or bringing of seeds into circulation in other ways, the importing of seeds, the stocking of seeds for any of the above purposes and the utilization of seeds as parent forms for the reproduction of seeds;

"Register of Plant Varieties of Ukraine" means the register in which the varieties permitted to be used in agriculture are entered;

"State Register of Plant Varieties of Ukraine" means the register in which the plant varieties protected under this Law are entered;

"a patented variety" means a variety for which a patent has been granted;

"an exclusive license" means a transfer of the right to exploit a variety, including the right to grant licenses for this variety to third parties, by the patent holder or his successor in title (licensor) to another person (licensee);

"a non-exclusive license" means a transfer of the right to exploit a variety, save the right to grant licenses for this variety to third parties, by the patent holder or his successor in title to another person.

---

\* Ukrainian Title: Zakon Ukraini pro ochoronu prav na sorti roslin.

English translation supplied by the State Patent Office of Ukraine.

## Article 2

### Object of the Legal Protection

The proprietary and non-proprietary rights of a variety breeder, a patent holder or a licensee constitute the object of the legal protection.

The list of plant genera and species for the varieties of which patents may be granted shall be established by the Cabinet of Ministers of Ukraine.

## Article 3

### Subjects of the Variety Right

Natural persons, legal entities and their successors in title who enjoy the civil legal capacity and competence under the laws of Ukraine constitute the subjects of the variety right.

## Article 4

### The Variety Patent

The variety right shall be protected by the State and certified by a patent.

A variety patent certifies the authorship of a variety and the exclusive right to exploit the variety.

A variety patent shall have a term of 20 years from the date of filing of the application with the State Patent Office of Ukraine, the term being 30 years from the said date in the case of grapevine, trees and fruit crops. The term of the patent may be extended by the State Patent Office of Ukraine at the request of the patent holder, but not by longer than 10 years.

## Article 5

### The State Patent Office of Ukraine

In conformity with this Law the State Patent Office of Ukraine (hereinafter referred to as "the Office") shall pursue the State policy in the field of the variety right protection, receive applications for the grant of variety patents, conduct their examination and State registration and ensure the official publication of the relevant information, issue variety patents and perform other duties in accordance with the Regulation on the State Patent Office of Ukraine which is subject to approval by the Cabinet of Ministers of Ukraine.

After the publications effected under this Law, the Office is bound to make against payment the patent documents open to the public.

The financing of the Office shall be effected at the expense of the State budget.

The State Committee of Ukraine for Plant Variety Testing and Protection under the Ministry of Agriculture and Food of Ukraine shall act as the Examination Body of the Office and be subordinate to it in matters of variety right protection.

## PART II

### PATENTABILITY OF A VARIETY

#### Article 6

##### Conditions of Patentability of a Variety

(1) A patent shall be granted for a variety which is new and satisfies the conditions of distinctness, uniformity and stability.

(2) A variety shall be considered to be new provided that on the date of filing with the Office of an application for the grant of a variety patent no seeds of the variety have been sold or otherwise disposed of to others by the variety breeder or his employer defined in Article 8(3) of this Law for the purpose of the exploitation of the variety:

- in the territory of Ukraine for more than a year;
- in the territory of any other country for more than six years in the case of grapevine and ornamental, fruit and forest trees and for more than four years in the case of any other crops.

This provision shall not be applied to nationals and legal entities of foreign countries where nationals and legal entities of Ukraine do not enjoy the same treatment.

Varieties of genera and species for which protection was not available in Ukraine by the variety right but which have been entered in the Register of Plant Varieties of Ukraine and have been exploited longer than the time limits stipulated in this paragraph, shall be deemed at the time of the examination to satisfy the condition of novelty. The priority of such a variety shall be established as from the date of its entering the variety trial and the term of the patent shall be reduced by the period from this date until the date of filing of the application with the Office.

(3) A variety shall be deemed to satisfy the condition of distinctness provided that it is clearly distinguishable from any other variety whose existence is a matter of common knowledge on the filing date of the application with the Office.

A variety shall be regarded as a matter of common knowledge by the fact of its exploitation, its entering into an official catalogue or into a reference collection or its precise description in a publication or an application with the Office.

The characteristics which enable the distinctive features of a variety to be determined must be capable of being reproduced and precisely described.

(4) A variety shall be deemed to be uniform if, taking into account the particular features of its propagation, the plants of the variety are sufficiently uniform in their characteristics.

(5) A variety shall be deemed to satisfy the condition of stability provided that its basic characteristics remain unchanged after each propagation, and in the case of a particular cycle of propagation, at the end of each such cycle.

### PART III

#### THE VARIETY BREEDER AND THE VARIETY PATENT HOLDER

##### Article 7

###### The Variety Breeder

A person whose creative work has resulted in the breeding of a variety shall be recognized as the variety breeder. Where a variety has been bred as a result of the creative work of several persons, all of them shall be recognized as the joint breeders of the variety.

Persons who have made no personal contribution to the creative work of breeding the variety but have only supported the breeder (or joint breeders) technically, organizationally or materially, or assisted in the drafting of the documents for the acquisition of the variety right shall not be regarded as variety breeders. Variety breeders enjoy the right of authorship which is an inalienable personal right. The authorship of a variety is protected permanently.

##### Article 8

###### The Variety Patent Holder

(1) Any person satisfying the conditions described in Article 3 of this Law may be a variety patent holder.

A variety patent shall be granted to the variety breeder. If a variety has been bred in collaboration by joint breeders, all of them are entitled to obtain a patent.

Where a variety has been bred by several persons independently of each other, the person whose application was the first to reach the Office is entitled to obtain a patent.

(2) The right to obtain a patent shall belong to any person designated by the variety breeder in the application or in a request for the grant of a patent to another person if the said request reaches the Office before a decision to grant a patent has been taken.

(3) Where a variety has been bred by an employee when performing his duties or a concrete task assigned to him by his employer the latter shall be entitled to obtain a patent. A written agreement providing for the transfer of the right to obtain a patent to the employer shall be concluded between the

said employee and employer. In this case the variety breeder shall be entitled to the remuneration stipulated in the agreement.

Where no written agreement on the transfer of the right to a patent has been concluded between the variety breeder and his employer, or in the case of a breach of the essential terms of the agreement on the part of the employer, the right to obtain a patent rests with the variety breeder.

(4) The Ukrainian Inventions Foundation shall be entitled to obtain a patent if the Foundation has been designated by the variety breeder in the application or in a request filed before a decision to grant a patent is taken.

In this case the variety breeder is entitled to remuneration commensurate with the profit gained by the Ukrainian Inventions Foundation from the exploitation of the variety. A written agreement to this effect shall be concluded between the breeder of the variety and the Ukrainian Inventions Foundation.

### Article 9

#### The Right of a Variety Patent Holder

(1) The rights conferred by a patent shall be exercised within the limits defined by the legislation.

Nobody may exploit a patented variety without the consent of the patent holder.

(2) The right of the patent holder shall not cover the legal relations associated with the use of the patented variety

for non-commercial purposes;

for experimental purposes;

as an initial source of variation for the purpose of breeding other varieties;

for commodity processing or transit transportation.

(3) A patent holder who is the breeder of the variety may transfer the patent right to any natural person who or legal entity which becomes the successor in title of the patent holder.

Where a patent holder is not the variety breeder, he may transfer the patent right subject to the terms on which this right has been obtained from the breeder of the variety.

A patent holder or his successor in title is entitled to transfer the rights conferred by the patent, in full or in part, to any natural or legal person by means of a license agreement. Under such an agreement the patent holder (licensor) transfers exclusive or non-exclusive rights to the exploitation of the variety to another person (licensee), who undertakes to pay royalties to the licensor and to perform other actions provided for by the license agreement.

The agreement on the transfer of the patent right and the license agreement shall be registered with the Office. Unless registered, they are considered to be invalid.



(4) A patent holder (or his successor in title) may file with the Office, for the purpose of its official publication, an announcement of his intention to grant an open license to any natural person or legal entity. In this case the amount of the maintenance fee shall be reduced by 50 per cent from the year following the year of publication of the announcement as to the grant of an open license. If nobody informs the patent holder of an intention to exploit the variety the patent holder may file with the Office a written notice of withdrawal of his announcement.

A person or persons wishing to obtain an open license shall conclude an agreement with the patent holder or his successor in title. Issues in dispute concerning the terms of the agreement shall be examined before a court of law.

#### Article 10

##### Alienation of the Rights under a Variety Patent

In the case of non-exploitation in Ukraine of a variety by the variety patent holder within the first five years from the date on which the decision to grant the patent was taken and of the patent holder's refusal to conclude a license agreement, a person wishing to exploit the variety may appeal to the court with a request for the grant of a non-exclusive compulsory license.

#### PART IV

##### ACQUISITION OF THE VARIETY RIGHT

#### Article 11

##### Filing of an Application

(1) Any natural person or legal entity entitled to obtain a variety patent under Article 3 of this law may file with the Office an application for the grant of a patent.

(2) An application for the grant of a patent may be filed either in person or through a representative or a patent attorney.

Natural persons who reside outside Ukraine and foreign legal entities having their permanent offices outside Ukraine shall carry on business in connection with the acquisition of a variety patent through patent attorneys registered with the Office.

(3) Only persons who are both citizens and permanent residents of Ukraine may act as patent attorneys. The responsibilities and rights of patent attorneys as well as the procedure for their recognition and registration shall be established by the Regulation on the Patent Attorneys of Ukraine which is subject to approval by the Office.

## Article 12

### Application for the Grant of a Variety Patent

(1) An application for the grant of a variety patent shall contain the following:

a request for the grant of a variety patent;

a description of the variety in which its features and properties are disclosed to the extent sufficient for the definition of the variety;

a document attesting the payment of the prescribed fee or confirming the existence of grounds for an exemption from payment of the fee or a reduction in its amount.

(2) Both the requirements in respect of the application documents and the procedure for its examination shall be established by the Office.

(3) A separate application shall be filed for each variety.

## Article 13

### Variety Denomination

(1) A variety denomination shall be designated in an application for the grant of a variety patent. The denomination must enable the variety to be identified. It may not coincide with, or must differ from, a denomination which designates an existing variety of the same or a closely related botanical species. A denomination may not consist solely of figures, be liable to mislead as to the characteristics, origin and value of the variety or the identity of the breeder of the variety, or be contrary to the principles of public morals.

(2) If applications for the grant of variety patents for one and the same variety are filed both in Ukraine and in other countries the variety denomination must be identical.

(3) If a variety denomination does not meet the requirements specified under paragraphs (1) and (2) of this Article the applicant shall furnish at the request of the Office another denomination for the variety within two months.

(4) After the grant of a patent all persons, when exploiting the variety, shall use the denomination under which it has been entered in the State Register of Plant Varieties of Ukraine.

(5) A variety denomination may be altered at the applicant's request provided that the alteration is submitted before a decision to grant a patent is taken.

## Article 14

### Priority of a Variety

(1) The priority of a variety shall be established as being the date of filing with the Office of an application which satisfies the requirements of Article 12 of this Law.

(2) Priority may be the date of the first filing in a State party to the International Convention for the Protection of New Varieties of Plants (the Convention priority) provided that the application for a variety patent is filed with the Office within 12 months from the said date.

Where an application claiming the Convention priority has not been filed with the Office within the said time limit due to circumstances beyond the applicant's control the said time limit may be extended, but not by more than two months.

An applicant wishing to benefit from the Convention priority must claim it when filing the application or within two months from the filing of the application with the Office and attach a copy of the first application certified to be a true copy by the Patent Office with which it was filed.

(3) Where during examination it is established that identical varieties have the same priority date, the application on which a patent may be granted shall be the one proved to have been mailed to the Office on an earlier date or, should these dates coincide, the one allotted a prior serial number by the Office.

### Article 15

#### Examination of an Application for the Grant of a Variety Patent

(1) The examination of an application for the grant of a variety patent shall be performed stage by stage within three years from the filing date. The Office may extend the said time limit for examination.

The examination comprises the formal examination and the examination of an application as to patentability.

(2) During the examination the applicant is entitled:

to supplement the application documents with additional information, corrections or clarifications;

to participate in person or through a representative or a patent attorney in the examination of the issues that may arise;

to be informed of the results of the variety examination.

(3) Any person, wishing to do so, may consult the application file after the relevant publication has been effected in the Official Gazette.

(4) The procedures to open the examination files to the public shall be established by the Office.

### Article 16

#### Formal Examination

(1) Within two months from the filing of the application with the Office the Examination Body shall perform the formal examination in the course of which the availability of the necessary documents and the observance of the established requirements as to their drafting are checked.

(2) Supplementary materials filed in connection with a variety application under paragraph (2) of Article 15 of this Law shall not alter the substance of the variety claimed.

Supplementary materials alter the substance of the variety claimed if they contain features not mentioned in the original application. Supplementary materials which alter the substance of the variety claimed shall not be taken into account during the examination but may be filed by the applicant as a separate application.

(3) If the result of the formal examination of an application is favorable a decision on its further prosecution shall be taken and the priority of the variety shall be established under Article 14 of this Law. A written notice of the decision shall be forwarded to the applicant.

(4) Where during the formal examination the application is found to have been filed for a variety belonging to a species or genus unprotected under the variety right, the application shall be rejected without any further processing.

(5) In the case of disagreement with the result of the formal examination the applicant may appeal against it to the Appeals Council of the Office. The Regulation on the Appeals Council shall be established by the Office.

(6) Application materials accepted for examination by the Office shall not be returned to the applicant.

(7) Following the expiration of the period of 18 months from the filing date and provided that the formal examination resulted in a favorable decision a publication concerning the application shall be effected in the Official Gazette. The contents of the publication shall be determined by the Office.

The Office may effect publication concerning the application prior to the expiration of the said period at the request of the applicant.

The variety breeder may oppose the mention of his name in the publication concerning the application.

## Article 17

### Examination of an Application as to Patentability

(1) Examination of an application as to the patentability of the variety shall be performed by the Examination Body of the Office.

(2) Where during the examination of a variety it is found that the variety does not satisfy the conditions of patentability, the grant of a patent shall be refused and the applicant shall be notified accordingly in writing.

(3) Where the applicant disagrees with the refusal to grant a patent he may appeal against the refusal to the Appeals Council of the Office.

(4) If a variety satisfies the conditions of patentability a decision to grant a patent shall be taken.

### Article 18

#### Provisional Protection of the Variety Rights

(1) Provisional protection of the variety right shall cover the period between the date of the publication concerning the application effected in the Official Gazette of the Office and the date on which a decision to grant a patent is taken and shall be provided within the scope of the description of the variety as published.

(2) Provisional protection of a variety right shall be considered to have never been granted if a patent is eventually refused and the opportunities to appeal against the refusal have been exhausted.

(3) Persons who are guilty of infringement of the patent holder's right specified in Article 9 of this Law, including infringement committed during the period of provisional protection, shall incur the liability provided for by the law.

### Article 19

#### Registration of a Variety

If the Examination Body reaches a favorable conclusion as to the patentability of a variety the Office shall take the decision to grant a patent for the variety and enter the appropriate data into the State Register of Plant Varieties of Ukraine.

### Article 20

#### Grant of a Variety Patent Document

(1) A variety patent document shall be issued by the Office after the entry of the variety into the State Register of Plant Varieties of Ukraine and within a month from the date of the receipt of a document attesting the payment of the prescribed fee. Where a patent was applied for in the name of several persons a single patent document shall be issued to them.

(2) The form of the patent document shall be determined by the Office.

(3) The Office shall rectify errors in the issued patent document at the patent holder's request.

### Article 21

#### Publication of Information on the Grant of a Patent

(1) Following the decision to grant a patent, the Office shall effect a publication in the Official Gazette, the said publication comprising the name of the variety breeder (joint breeders), the denomination of the variety, its description and other information as determined by the Office.

(2) A patent holder may apply to the Office with a request to rectify errors in the published information on the grant of a patent.

(3) After the said publication any person may consult the application file in the manner established by the Office.

## Article 22

### Withdrawal of an Application

An applicant may withdraw his application but not later than the date of the decision to grant a patent.

## Article 23

### Preservation of a Variety

The patent holder must maintain the variety during the term of the patent in such a way that its specific characteristics and properties indicated in the description of the variety on the date of its priority are preserved.

## PART V

### NULLILTY AND CANCELLATION OF A PATENT

## Article 24

### Nullity of a Variety Patent

(1) A variety patent may be declared null and void in full or in part in the following cases:

non-compliance of the variety with the conditions of patentability as stipulated by this Law;

incorrect indication of the variety breeder (joint breeders) or the patent holder in the patent document.

(2) An opposition to the grant of a patent on the grounds referred to in paragraph (1) of this Article may be considered by the Appeals Council of the Office in the presence of the person who has filed the opposition.

(3) A variety patent shall be declared null and void by a court of law.

## Article 25

### Lapse of a Patent Before its Expiration

(1) A variety patent shall lapse before its expiration:

on the grounds of a request filed by the patent holder with the Office;

in the case of failure to pay the maintenance fee within the prescribed time limit.

(2) The Office shall publish details of the lapse of a patent in the Official Gazette.

## PART VI

## LIABILITY FOR INFRINGEMENT OF THE LAW

Article 26Liability for Infringement of the Law

Persons who are guilty of infringement of this Law shall incur disciplinary, civil, administrative or criminal liability.

Article 27Settlement of Disputes in Connection with the Enforcement of this Law

Disputes arising in connection with the enforcement of this Law shall be settled in the manner prescribed by the law.

## PART VII

## FINAL PROVISIONS

Article 28Exploitation of Varieties in Production

(1) Varieties not protected in Ukraine shall only be exploited after the carrying out of a State variety trial and their entry in the Register of Plant Varieties of Ukraine.

A decision to enter a variety in the Register of Plant Varieties of Ukraine shall be taken on the basis of the results of the State variety trial and shall be approved by the Cabinet of Ministers of Ukraine.

(2) Exploitation of the varieties entered in the Register of Plant Varieties of Ukraine shall be performed in compliance with the provisions of this Law.

Article 29Fees for Services

Fees are payable to the State for the filing of an application, the grant of a patent, its maintenance and renewal. The amounts of the fees, time limits for their payment and the grounds for an exemption from payment, a reduction in their amount or the refund of a fee already paid shall be determined by the legislation of Ukraine.

The list of other services rendered by the Office in connection with the protection of plant variety rights and the amounts of fees payable for them shall be established by the Cabinet of Ministers of Ukraine.

**Article 30****Patenting of a Variety Abroad**

(1) Natural and legal persons have the right to file applications for the grant of a protective document for plant varieties bred in Ukraine with the corresponding authorities in other countries.

(2) Prior to filing an application for the grant of a variety protection document with the corresponding authorities in other countries the applicant is bound to file an application for the variety with the Office and notify it about the applicant's intentions as to patenting abroad.

(3) Non-compliance with the requirements of paragraph (2) of this Article shall deprive the applicant or his successor in title of the right to obtain a patent for the corresponding variety in Ukraine.

**Article 31****International Treaties**

If international treaties to which Ukraine is party provide for regulations different from those stipulated by this Law the regulations under the international treaty shall be applied.



## U R U G U A Y

Law No. 15.173

**Enacting Provisions to Regulate the Production,  
Certification, Marketing, Export and Import of Seed\* (Extract)**

## CHAPTER I

Article 1

The purpose of this Law shall be to regulate the production, certification, marketing, export and import of seed, to assure agricultural producers of the identity and quality thereof and to protect the ownership of plant genetic creations.

(...)

## CHAPTER V

## REGISTER OF CULTIVAR OWNERSHIP

Article 15

The Executive Unit created under Article 3 shall keep a Register of Cultivar Ownership, the purpose of which shall be to protect the property rights of the creators of new cultivars.

Article 16

Any plant genetic creation or cultivar that has homogeneous and stable hereditary characteristics over successive generations and can be distinguished from other known creations or cultivars at the time of registration can be registered in the aforesaid Register.

The registration of the new plant genetic creation or cultivar shall include a name that clearly identifies it.

---

\* Enacted on August 13, 1981, and published in the "Diario Oficial" of September 7, 1981.

Spanish Title: Ley 15.173. - Se dictan normas para regular la producción, certificación, comercialización, exportación e importación de semillas.

**Article 17**

The title of ownership relating to a cultivar shall be issued by the Ministry of Agriculture and Fisheries, and may not be granted for a period of fewer than ten years or more than twenty years.

**Article 18**

The title of ownership relating to a cultivar may be transferred, in which case the transfer shall be entered in the Register of Cultivar Ownership.

**Article 19**

On a proposal by the Ministry of Agriculture and Fisheries, the Executive Authority may declare a title of ownership "in the public interest" for a period not exceeding two years, subject to prior and adequate compensation of the owner, when it is considered to be in the public interest to have access to the product of the growing of the subject matter thereof.

**Article 20**

The title of ownership shall lapse when the owner renounces his rights, when it is proved to have been fraudulently obtained from third parties, when the owner does not have a sample of live material possessing the same characteristics as the original, or in the case of failure to make payment to the Register of Cultivar Ownership.

**CHAPTER VI**

(...)

## U R U G U A Y

Decree No. 84/983

**Introducing Law No. 15.173 Regulating  
the Production, Certification and Marketing of Seed\***

as amended by Decree No. 418/987 of August 12, 1987,  
and Decree No. 519/991 of September 17, 1991 (Extract)

(...)

**Property Rights in New Plant Varieties****Article 52**

Any new plant variety shall be the subject of a "title of ownership," which shall confer on its holder the exclusive right to produce, introduce and multiply reproductive or vegetative propagating material of the plant variety concerned, and also to sell such material, offer it for sale, undertake to sell it and otherwise exploit it by any means, in accordance with the provisions of these Regulations.

**Article 53**

The title of ownership of a plant variety, duly registered either provisionally or finally, shall be marketable, transferable or eligible for any type of contractual dealing, and shall be inheritable.

All changes of ownership shall be registered with the Executive Unit.

**Article 54**

The plant variety that is the subject of the title of ownership may be used without rights accruing to the holder thereof and without any compensation when:

- (a) the product of cultivation is used or sold as a raw material or a food;
- (b) seed is stored or sown for personal use but not for commercial purposes;

---

\* Enacted on March 16, 1983, and published in the "Diario Oficial" of March 24, 1983.

**Spanish Title:** Decreto 84/983. - Se reglamenta la ley 15.173, que regula la producción, certificación y comercialización de semillas.

- (c) the use is made by other breeders for experimental purposes or as a source of genetic material for the creation of new plant varieties, on condition that the protected plant variety is not used repeatedly and systematically for the commercial production of other plant varieties.

#### Article 55

Any variety of such plant species as have been specified by the Executive Unit, with the exception of first-generation hybrids, shall be eligible for protection.

#### Article 56

In order to be eligible for the protection afforded by Law No. 15.173 of August 13, 1981, a plant variety must fulfill the following requirements:

- (a) It must be new, in the sense that it must not have been offered for sale or marketed with the breeder's consent
  - (i) within the Republic, prior to the filing date of the application for protection and
  - (ii) outside the Republic, for longer than six years in the case of grapevines and trees or for longer than four years in the case of all other plants.

It shall not be considered detrimental to the plant variety's novelty that it has been offered for sale or marketed within the country, with the breeder's consent, during a period of up to four years prior to the decision by the Executing Agency that the species to which the cultivar belongs qualifies for protection, provided that the application for protection is filed within a period not exceeding four months after the said decision by the Executing Agency.

- (b) It must be clearly distinguishable from any plant variety whose existence is a matter of common knowledge at the filing date of the application for protection with respect to at least one morphological, physiological, cytological, chemical or other important characteristic, be subject to little fluctuation and be capable of accurate description and recognition.
- (c) It must be sufficiently uniform in all its characteristics, according to its system of reproduction or propagation.
- (d) It must remain stable in its essential characteristics, in the sense that, at the end of each cycle of multiplication carried out in the manner specified by its breeder, it retains the characteristics by which the said breeder defined it.
- (e) It must have been given a variety denomination which is acceptable for registration under the rules laid down in Article 3 of Decree 519/991 of September 17, 1991.

#### Article 57

The term of validity of the title of ownership shall run from the time of its provisional grant and shall be neither less than ten years nor more than twenty years, according to the species involved, and pursuant to the rules laid down by the Executing Agency.

#### Article 58

The holder of the title of ownership of a plant variety shall be under the obligation to supply, when called upon to do so by the Executing Agency, a live sample of the protected plant variety that possesses the same characteristics as those by which it was defined, and whatever information and documentation may be necessary for compliance with these Regulations.

#### Article 59

The title of ownership of a plant variety shall be revoked or shall lapse, as the case may be, in the following circumstances:

- (a) At the request of the owner.
- (b) On expiry of the legal period of property protection.
- (c) When the conditions of uniformity and stability laid down in Article 56 of this Decree are no longer being observed.
- (d) When, on being requested to do so by the Executing Agency, the holder is unable to supply propagating material for the production of the plant variety in the manner specified at the time of the grant of the title.
- (e) When it is proved that the title has been obtained by defrauding a third party.
- (f) When the Executing Agency has proved that the requirements specified in Article 56(a) and (b) of this Decree were not effectively complied with when the title of ownership was granted.
- (g) When the annual fee has not been paid to the Registry of Plant Variety Ownership on expiry of a period of three months from the issue of a formal summons to pay.

#### Article 60

A plant variety covered by a title of ownership shall become public property when the title lapses in the circumstances specified in subparagraphs (a), (b), (f) and (g) of the foregoing Article and where, in the circumstances specified in subparagraph (e), it is not legally possible to transfer the right to its legitimate owner.

**Article 61**

On a proposal by the Ministry of Agriculture and Fisheries, the Executive Power may, subject to whatever reports the latter may have considered it desirable to obtain, declare a title of ownership "in the public interest" for a period not exceeding two years, subject to adequate advance indemnification of the owner, where the availability of the product of its cultivation is regarded as being in the general interest.

**Article 62**

Once a title of ownership "in the public interest" has been declared, the Executive Power shall submit the file concerning it to the Ministry of Agriculture and Fisheries. The State Secretariat concerned shall, through the Executive Unit, in one and the same instrument, notify the decision to the owner and inform him that he has ten days within which to appoint a valuation expert.

**Article 63**

Once the valuation expert has been appointed by the owner, the Executing Agency shall appoint its own, and the two experts shall work together to produce a valuation within a period of fifteen days, which valuation shall, on being approved by the competent authority, become the offer by the Administration.

**Article 64**

The offer by the Administration shall be communicated personally to the owner, or to the person whom the latter may have appointed to represent him, informing him that he has to signify his acceptance or rejection of the said offer within a period of ten days.

Where no objection or observation is formulated, the administrative authority shall set the approximate date on which the plant variety is to be handed over and shall order the settlement of the sums payable to the owner.

**Article 65**

Should the evaluation experts continually disagree on the valuation, they shall by common consent appoint a third party within a maximum period of three days, whereupon the final valuation shall be decided upon by the majority within the period referred to in Article 63 of this Decree.

**Article 66**

If, on expiry of the period specified in Article 62 of this Decree, the owner has not appointed a valuation expert, the Executing Agency shall go ahead with the procedure, accomplishing the formalities referred to in the foregoing Articles with a view to effecting a valuation of the title of ownership of the plant variety declared public property.

#### Article 67

In the event of the owner rejecting the offer by the Administration, indemnification shall be determined by the decision-making bodies that have jurisdiction in the relevant field.

#### Article 68

Breeders resident abroad shall enjoy the same rights as breeders resident in the Republic, provided that the legislation of the country of residence recognizes and protects the latter's rights as breeders of varieties of the genus or species which any such breeders seek to protect in the Republic.

#### Article 69

Where a breeder resident abroad wishes to register a plant variety he shall:

- (a) elect legal domicile in Uruguay for such purposes, or appoint an authorized representative in the country;
- (b) undertake to comply with all Uruguayan legal and regulatory provisions on the ownership of plant varieties.

Where a breeder resident abroad in a country which has a bilateral or multilateral agreement with Uruguay on the matter (hereinafter referred to as "an agreement country") has filed one or more applications to register a plant variety in one or more agreement countries, he shall enjoy a period of priority in the Republic for 12 months calculated from the date of filing of the first such application. The application in the Republic shall be treated as if filed on the date of filing of this first such application.

#### Article 70

No title of ownership shall be granted if, at the time of the filing of the application, the plant varieties have been made public property by their breeders.

### Responsibilities of the Executing Agency

#### Article 71

The Executing Agency shall have the following responsibilities:

- (a) Maintenance of the Register of Plant Variety Ownership.
- (b) Grant, refusal or revocation of the titles of ownership of plant varieties, both provisional and final, for reasons which shall be stated, and approval of variety denominations.

- (c) Conduct, by itself or through other entities, of such technical verifications as it considers necessary for the purposes of granting titles of ownership of plant varieties, and also such consultations or verifications that have to be made with foreign agencies of comparable nature.
- (d) Participation in the conclusion of such national and international treaties or agreements as may be made in connection with the subject matter.
- (e) Requesting of information and growing material, on any occasion, from parties holding final or provisional titles of ownership.
- (f) Advice on the occurrence of infringements, proposal of such sanctions and the amounts of such fines as may be appropriate under the circumstances.

#### Procedure for Obtaining the Title of Ownership

##### Article 72

To obtain a title of ownership of a plant variety, an application shall be filed that has the character of a sworn statement, which shall record the following information:

- Species (common and scientific names).
- Name proposed for the new plant variety.
- Germplasm from which it originated, with details of crossing.
- Method used for creation and maintenance.
- Description of the plant variety, which shall encompass such characteristics as shall have been specified by the Executing Agency for each species, and which shall permit identification thereof.
- Attestation that the new plant variety meets the requirements laid down in subparagraphs (a), (c), (d) and (e) of Article 56 of these Regulations.
- Name of the breeder.
- Source; in the case of plant varieties bred by a breeder resident abroad, the country of the breeder should be specified. If priority is claimed under Article 69 of this Decree, the applicant shall, within a period of three months from the date of the application, file a copy of the documents which constitute the first filing in an agreement country, certified to be a true copy by the authority which received it.
- Sponsoring agricultural engineer.
- Any other information or material that the breeder may consider necessary for the purposes of the application.



### Article 73

The Executing Agency may specify requirements additional or complementary to those of the foregoing Article according to the species concerned.

### Article 74

Once registration has been applied for and the application has been examined, the Executing Agency shall publish once only in three daily journals of the capital a summary of the application, thereby starting a period of thirty working days from that date for third parties to make any claims that may be appropriate. On the expiry of that period, if no such claim has been made, a provisional title of ownership shall be granted for the plant variety.

If a claim is filed during the period, it shall be brought to the notice of the applicant for the title, who shall have ten working days within which to make the appropriate rebuttals. On the basis of the file on the case, the Executing Agency shall proceed either to grant the provisional title or reject the application filed. In the event of doubt, the Executing Agency may take such action as it considers appropriate before so proceeding.

### Article 75

As from the date of grant of the provisional title, the Executing Agency shall undertake such proving trials as it considers appropriate within the period that shall have been laid down for each species. Within the same period the Executing Agency shall proceed either to grant or not to grant the final title of ownership of the plant variety. In no event shall the period of trials exceed three years.

### Article 76

The provisional title shall confer on its holder a right of priority for the use of the name of the plant variety and the right to introduce, propagate and market it in accordance with applicable provisions.

. . . . .

### Article 3 of the Decree 519/991 of September 17, 1991

- (a) A plant variety which is the subject of an application for a title of ownership shall be designated by a denomination destined to be its generic designation. No rights in the designation registered as the denomination of the variety shall hamper the free use of the denomination in connection with the variety even after the expiration of the protection.
- (b) The denomination must enable the variety to be identified. It may not consist solely of figures except where this is an established practice for designating varieties. It must not be liable to mislead or to cause confusion concerning the characteristics, value or identity of the variety or the identity of the breeder. In particular, it must be different from every denomination which designates, in any agreement country, an existing variety of the same botanical species or of a closely related species.

- (c) The denomination of the variety shall be submitted by the breeder to the Executing Agency. If it is found that such denomination does not satisfy the requirements of paragraph (b), the Executing Agency shall refuse to register it and shall require the breeder to propose another denomination within a prescribed period. The denomination shall be registered at the same time as the title of ownership is issued.
- (d) Prior rights of third parties shall not be affected. If, by reason of a prior right, the use of the denomination of a variety is forbidden to a person who, in accordance with the provisions of paragraph (f), is obliged to use it, the Executing Agency shall require the breeder to submit another denomination for the variety.
- (e) A variety must be submitted in agreement countries under the same denomination. The Executing Agency shall register the denomination so submitted, unless it considers that denomination unsuitable. In the latter case, it may require the breeder to submit another denomination.
- (f) Any person who offers for sale or markets reproductive or vegetative propagating material of a variety which is the subject of a title of ownership shall be obliged to use the denomination of that variety, even after the expiration of the title of ownership of that variety, in so far as, in accordance with the provisions of paragraph (d), prior rights do not prevent such use.
- (g) When the variety is offered for sale or marketed, it shall be permitted to associate a trademark, trade name or other similar indication with a registered variety denomination. If such an indication is so associated, the denomination must nevertheless be easily recognizable.

---

**[Continued from page 24]**

Enzyme°: A protein which causes or increases the rate of a biochemical reaction.

Gene\*: Nucleotide sequence which makes up a unit of genetic information. A gene can determine characters directly (structural proteins), or indirectly (regulatory genes or genes encoding regulatory proteins).

Genotype\*: All the genes of an individual detected by a genetic or molecular analysis, whether or not expressed.

Heterozygote\*: A cell or individual containing different alleles at a given locus.

Homozygote\*: A cell or individual containing only one allele at a given locus.

Hybrid\*: For plants, the term hybrid is used to describe the product of the cross between two homogeneous, reproducible structures, such as pure lines, F1, or clones which differ by one or more characters.

Isoenzyme\*: Term describing enzymes with the same catalytic function but different molecular forms and properties (electrophoretic mobility, substrate affinity, catalytic efficiency, etc.). They are the result of the expression of different genes or different alleles of a single gene.

Locus\*: The position of a gene on the chromosome.

Phenotype\*: The group of visible characters resulting from the expression of the genotype in a given environment.

Polyploid\*: A cell, tissue or organism containing more than two copies of the genome. The copies may or may not be homologous, depending on whether the ploidy is the result of chromosomal multiplication or (natural or artificial) hybridization between species.

Protein°: A group of natural substances containing nitrogen and of high molecular weight. They are major and essential components of living organisms. Proteins give amino acids on hydrolysis.

Pure line\*: A group of individuals with a high level of consanguinity: they are homozygous at all loci, and are therefore genotypically and phenotypically homogeneous.

Synthetic variety\*: A commercial variety resulting from the multiplication of the descendants of a defined number of parents for a given number of years.

Tetraploid\*: A polyploid with four copies of the genome, homologous or otherwise, in the nucleus.

Zymogram\*: The pattern of bands after electrophoresis of an aqueous extract of enzymes.

---

\* Definition taken from "Dictionnaire de Génétique," édition 1991, from the Conseil International de la Langue Française, 11, rue Navarin, 75009 Paris, 240 FF, ISBN 2-85319-231-8.

° Definition taken from "Petit Robert, Dictionnaire de la langue française," édition 1989, edited by les Dictionnaires Le Robert, 107, avenue Parmentier, 75011 Paris.

---

CALENDAR

---

UPOV Meetings in 1995

April 26 to 27	Administrative and Legal Committee
April 28	Consultative Committee
June 7 to 9 (Slupia Wielka, Poland)	Technical Working Party on Automation and Computer Programs
June 20 to 22 (Hanover, Germany)	Technical Working Party for Agricultural Crops
June 26 to July 1 (Roelofarendsveen, Netherlands)	Technical Working Party for Vegetables
September 4 to 9 (Wageningen, Netherlands)	Technical Working Party for Ornamental Plants and Forest Trees
September 11 to 15 (Ashford, United Kingdom)	Technical Working Party for Fruit Crops
September 19 to 21 (Wageningen, Netherlands)	Working Group on Biochemical and Molecular Techniques, and DNA-Profiling in Particular
October 11 to 13	Technical Committee
October 16 to 17	Administrative and Legal Committee
October 18	Consultative Committee
October 19	Council

---

The International Union for the Protection of New Varieties of Plants (UPOV)--an international organization established by the International Convention for the Protection of New Varieties of Plants--is the international forum for States interested in plant variety protection. Its main objective is to promote the protection of the interests of plant breeders--for their benefit and for the benefit of agriculture and thus also of the community at large--in accordance with uniform and clearly defined principles.

"Plant Variety Protection" is a UPOV publication that reports on national and international events in its field of competence and in related areas. It is published in English only--although some items are trilingual (English, French and German)--at irregular intervals, usually at a rate of four issues a year. Requests for addition to the mailing list may be placed with:

**The International Union for the Protection of New Varieties of Plants (UPOV)**  
34, chemin des Colombettes, CH-1211 Geneva 20 (POB 18)

**Telephone: (022) 730.91.11 - Telex: 412 912 ompi ch - Telefax: (022) 733.54.28**