

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
 GENEVA

DRAFT

COMMON SEA BUCKTHORN

UPOV Code: HIPPH_RHA

Hippophae rhamnoides L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Slovakia

*to be considered by the Technical Working Party for Fruit Crops
 at its thirty-eighth session, to be held in Jeju, Republic of Korea, from July 9 to 13, 2007*

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Hippophae rhamnoides</i> L.	Common Sea Buckthorn, Sallowthorn, Sea-buckthorn	Argasse, Argousier, Grisset	Sanddorn	Espino amarillo, Espino falso

The purpose of these guidelines (“Test Guidelines”) is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions.

ASSOCIATED DOCUMENTS

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website (www.upov.int), for the latest information.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all vegetatively propagated varieties of *Hippophae rhamnoides* L.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of one-year-old, well-rooted plants with at least two shoots.

2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

5 plants.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

3. Method of Examination

3.1 *Number of Growing Cycles*

3.1.1 The minimum duration of tests should normally be two independent growing cycles.

3.1.2 The growing cycle is considered to be the duration of a single growing season, beginning with bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds.”

3.2 *Testing Place*

Tests are normally conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

3.3 *Conditions for Conducting the Examination*

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination. In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.

3.3.2 The recommended method of observing the characteristic is indicated by the following key in the second column of the Table of Characteristics:

MG: single measurement of a group of plants or parts of plants

MS: measurement of a number of individual plants or parts of plants

VG: visual assessment by a single observation of a group of plants or parts of plants

VS: visual assessment by observation of individual plants or parts of plants.

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 5 plants.

3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

3.5 *Number of Plants / Parts of Plants to be Examined*

Unless otherwise indicated, all observations should be made on 5 plants or parts taken from each of 5 plants. In the case of parts of plants, the number to be taken from each of the plants should be 3.

3.6 *Additional Tests*

Additional tests, for examining relevant characteristics, may be established.

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being

examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.2 *Uniformity*

4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:

4.2.2 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 5 plants, no off-types are allowed.

4.3 *Stability*

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be tested, either by growing a further generation, or by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Plant: growth type (characteristic 1);
- (b) Plant: attitude of branches (characteristic 2);
- (c) Plant: sex (characteristic 4);
- (d) Shoot: number of thorns (characteristic 8);

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. Introduction to the Table of Characteristics

6.1 *Categories of Characteristics*

6.1.1 Standard Test Guidelines Characteristics

Standard Test Guidelines characteristics are those which are approved by UPOV for examination of DUS and from which members of the Union can select those suitable for their particular circumstances.

6.1.2 Asterisked Characteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harmonization of variety descriptions and should always be examined for DUS and included in the variety description by all members of the Union, except when the state of expression of a preceding characteristic or regional environmental conditions render this inappropriate.

6.2 *States of Expression and Corresponding Notes*

States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.3 *Types of Expression*

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 *Example Varieties*

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

6.5 *Legend*

(*) Asterisked characteristic – see Chapter 6.1.2

QL: Qualitative characteristic – see Chapter 6.3

QN: Quantitative characteristic – see Chapter 6.3

PQ: Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS: See Chapter 3.3.2

(a)-(e) See Explanations on the Table of Characteristics in Chapter 8.1

(+) See Explanations on the Table of Characteristics in Chapter 8.2

7. Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
1.	VG	Plant: growth type	Plante: type de croissance	Pflanze: Wuchstyp	Planta: porte		
(*)							
(+)							
QL	(a)	tree- type	arbre	baumartig	árbol	Maslichnaya, Novost` Altaya, Slovan, Vitaminaya	1
		bush- type	buissonnant	buschig	arbustivo	Bojan, Terhi, Dorana	2
2.	VG	Plant: attitude of branches	Plante: port des ramifications	Pflanze: Stellung der Seitenäste	Planta: porte de las ramificaciones		
(*)							
PQ	(a)	erect	dressé	aufrecht	erecto	Ascola, Frugana	1
		semi-erect	demi-dressé	halbaufrecht	semierecto	Leikora, Slovan, Vitaminaya	2
		horizontal	horizontal	waagerecht	horizontal	Bojan, Maslichnaya	3
		arching	arquée	bogenförmig	arqueada	Hergo	4
3.	VG	Plant: vigor	Plante: vigueur	Pflanze: Wuchsstärke	Planta: vigor		
(+)							
QN	(a)	weak	faible	gering	débil	Dorana, Maslichnaya	3
		medium	moyenne	mittel	medio	Bojan, Hergo	5
		strong	forte	stark	fuerte	Ascola	7
		very strong	très forte	sehr stark	muy fuerte	Leikora	9
4.	VG	Plant: sex	Plante: sexe	Pflanze: Geschlecht	Planta: sexo		
(*)							
(+)							
QL	(a)	female	femelle	weiblich	femenina	Bojan, Leikora, Slovan	1
		male	mâle	männlich	masculina	Pollmix 1	2
5.	VG	Plant: density of shoots	Plante: densité	Pflanze: Dichte	Planta: densidad		
QN	(a)	sparse	faible	locker	laxa	Vitaminaya, Pollmix 3	3
		medium	moyenne	mittel	media	Bojan	5
		dense	dense	dicht	densa	Maslichnaya, Slovan	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
6.	VG	Shoot: position of inflorescences					
QL	(b)	on one-year-old shoots only			Leikora, Pollmix 1, Pollmix 2	1	
		both on one-year-old and older shoots			Ascola, Dorana, Frugana	2	
7.	VG	One-year-old shoot: thickness	Rameau d'un an: épaisseur	Einjähriger Trieb: Dicke	Rama de un año: grosor		
QN	(b)	thin	mince	dünn	delgada	3	
		medium	moyen	mittel	media	Bojan, Slovan 5	
		thick	épais	dick	gruesa	Maslichnaya, Leikora 7	
8.	VG	Shoot: number of thorns: (from middle part to top)					
QN	(b)	absent or very few	nul ou très petit	fehlend oder sehr wenige	ausente o muy bajo	Obil'naya, Yantarnaya 1	
		few	faibles	wenige	pocas	Vitaminaya, Pollmix 1 3	
		medium	moyennes	mittel	media	Slovan 5	
		many	nombreuses	viele	abundantes	Bojan, Leikora, Pollmix 2 7	
9.	VG	Shoot: length of thorns					
QN	(b)	short	courte	kurz	corta	Silvia, Tiberiu 3	
		medium	moyenne	mittel	media	Auras, Victoria 5	
		long	longue	lang	larga	Diana 7	
10.	VG	Leaf blade: shape	Limbe: forme	Blattspreite: Form	Limbo: forma		
	(*) (+)						
PQ	(c)	very narrow elliptic		sehr schmal elliptisch		Bojan, Dorana, Maslichnaya, Vitaminaya 1	
		narrow elliptic	elliptique étroit	schmal elliptisch	elíptica estrecha	Slovan 2	
		narrow ovate (lanceolate)	lancéolée	lanzettlich	lanceolada	Frugana 3	

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
11. MG/ (*) VG	Leaf blade: size	Limbe : taille	Blattspreite: Größe	Limbo: tamaño		
QN	(c) small	petit	klein	pequeño	Dorana, Maslichnaya	3
	medium	moyenne	mittel	mediano	Hergo, Slovan	5
	large	grand	groß	grande	Bojan, Leikora, Vitaminaya	7
12. VG	Leaf blade: undulation of margin	Limbe: ondulation du bord	Blattspreite: Randwellung	Limbo: ondulación del borde		
QL	(c) absent	absente	fehlend	ausente	Bojan, Dorana, Slovan, Maslichnaya, Vitaminaya	1
	present	présente	vorhanden	presente	Frugana	9
13. VG (*)	Leaf blade: color of upper side	Limbe : couleur de la face supérieure	Blattspreite : Farbe der Oberseite	Limbo : color del haz		
QL	(c) green	verte	grün	verde	Dorana, Leikora, Pollmix 1	1
	silverish		silbern		Bojan, Maslichnaya, Slovan, Sprite	2
14. VG QN	Leaf blade: intensity of green color of upper side	Limbe: intensité de la couleur verte de la face supérieure	Blattspreite: Intensität der Grünfärbung der Oberseite	Limbo: intensidad del color verde en la parte superior		
	light	légère	hell	claro	Dorana	1
	medium	moyenne	mittel	medio	Leikora	2
	dark	foncé	dunke	oscuro	Pollmix 1	3
15. VG (*)	Leaf blade: pubescence of lower side	Limbe : pilosité de la face inférieure	Blattspreite : Behaarung der Unterseite	Limbo : pubescencia del envés		
QN	(c) weak	faible	gering	débil	Bojan, Slovan	3
	(d) medium	moyenne	mittel	media		5
	strong	Forte	stark	fuerte		7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
16. VG	Fruit: size	Fruit: taille	Frucht: Größe	Fruto: tamaño		
(*)						
QN	(e) small	petit	klein	pequeño	Dorana, Bojan	3
	medium	moyen	mittel	medio	Hergo, Maslichnaya	5
	large	gros	groß	grande	Leikora	7
17. VG	Fruit: general shape	Fruit: forme générale	Frucht: allgemeine Form	Fruto: forma general		
(*)						
(+)						
PQ	(e) transverse broad elliptic (narrow oblate)					1
	circular	circulaire	kreisförmig	circular	Tashkent	2
	broad elliptic	elliptique large	breit elliptisch	elíptica ancha	Askola, Bojan, Frugana	3
	oblong	oblong	rechteckig	oblonga	Hergo, Terhi	4
	pear- shaped		birnenförmig		Dorana	5
	broad ovate	ovale large	breit eiförmig	oval ancha	Leikora, Slovan	6
18. VG	Fruit: color of skin	Fruit: couleur de la peau	Frucht: Farbe der Haut	Fruto: color de la epidermis		
(*)						
PQ	(e) light yellow	jaune clair	hellgelb	amarillo claro		1
	dark yellow	jaune foncé	dunkelgelb	amarillo oscuro	Terhi, Tytti	2
	yellow orange		gelborange		Hergo, Slovan	3
	orange red	rouge orangé	orangerot	rojo anaranjado	Ascola, Leikora, Bojan	4
	red	rouge	rot	rojo	Sirola, L 90/539	5
19. VG	Fruit: pubescence	Fruit: pilosité	Frucht: Behaarung	Fruto: pubescencia		
QN	(d) weak	faible	gering	débil	Bojan, Maslichnaya, Vitaminaya , Frugana	3
	(e) medium	moyenne	mittel	media	Hergo	5
	strong	forte	stark	fuerte	Ascola, Slovan	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
20.	VG	Fruit: length of peduncle	Fruit: longueur du pédoncule	Frucht: Länge des Stiels	Fruto: longitud del pedúnculo	
QN	(e)	short	court	kurz	corto	Hergo, Bojan 1
		medium	moyen	mittel	medio	Leikora, Maslichnaya 2
		long	long	lang	largo	Frugana, Slovan 3
21.	MG	Time of beginning of flowering	Époque de début de floraison	Zeitpunkt des Blühbeginns	Época de comienzo de la floración	
(+)						
QN		early	précoce	früh	temprana	3
		medium	moyenne	mittel	media	Bojan, Maslichnaya, Hergo, Dorana 5
		late	tardive	spät	tardía	Leikora, Slovan 7
22.	MG	Time of beginning of fruit ripening				
(+)						
		very early	très précoce	sehr früh	muy temprana	Terhi, Tytti 1
		early	précoce	früh	temprana	Frugana 3
		medium	moyenne	mittel	media	Hergo, Dorana 5
		late	tardive	spät	tardía	Leikora 7
		very late	très tardive	sehr spät	muy tardía	9

8. Explanation on the Table of Characteristics

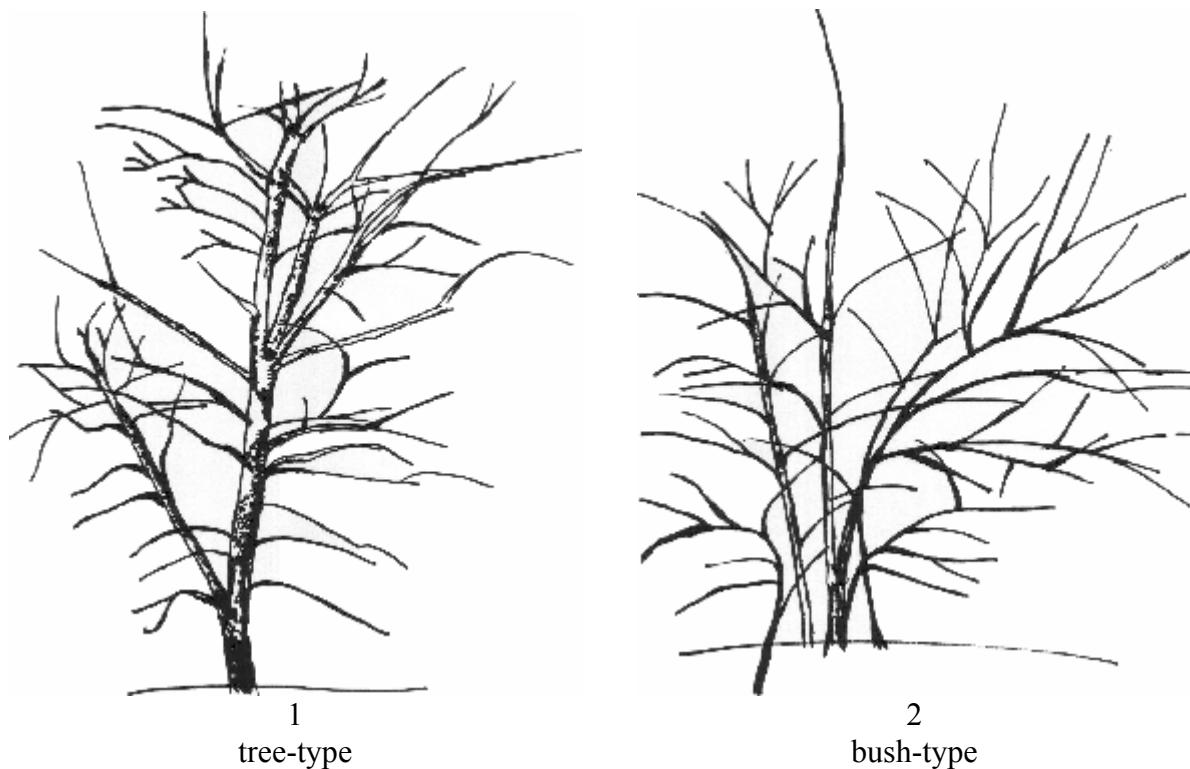
8.1 *Explanations covering several characteristics*

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

- (a) Plant: Observations should be made during winter dormancy.
- (b) Shoot: Observations should be made during active growth.
- (c) Leaf blade: Observations should be made on mature leaves taken from the middle third of the current season's growth in the middle part of plant.
- (d) Pubescence: Observations should be made using a magnifying glass.
- (e) Fruit: Observations should be made at the time of fruit maturity.

8.2 *Explanations for individual characteristics*

Ad.1: Plant: growth type



Ad. 3: Plant: vigor

The vigor of the plant should be considered as the overall abundance of vegetative growth.

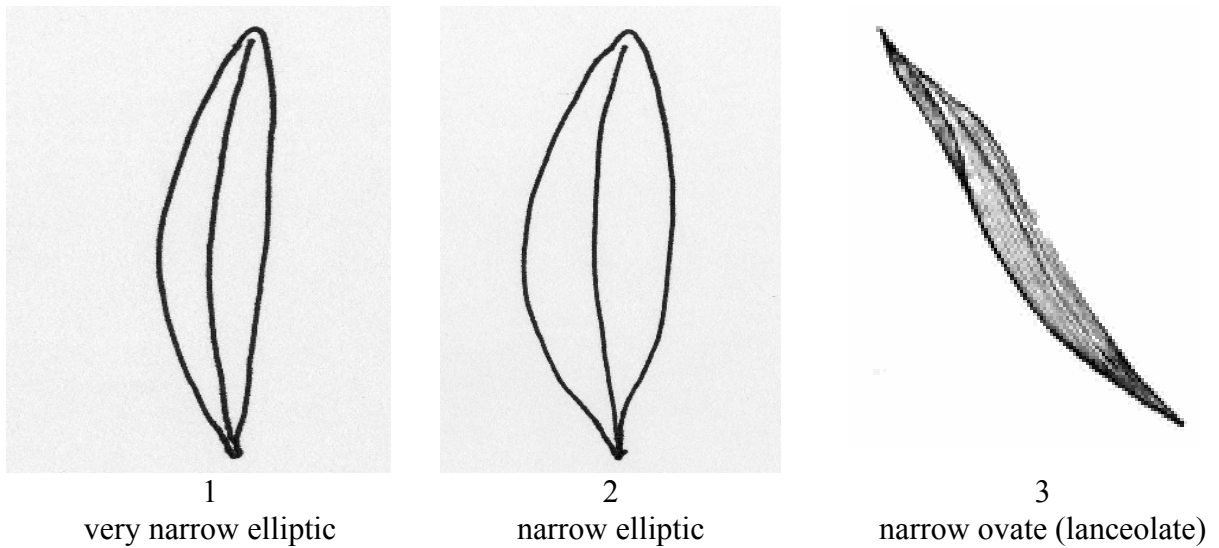
Ad.4: Plant: sex



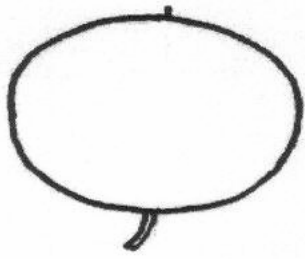
Ad.9: Shoot: length of thorns

Lateral thorns should be assessed exclusively, as the terminal ones (at the tip of the central leading shoots) are longer.

Ad.10: Leaf blade: shape



Ad.17: Fruit: general shape



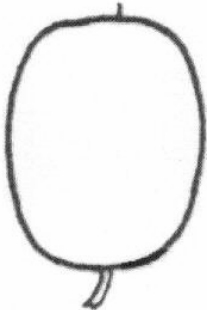
1
transverse broad elliptic
(narrow oblate)



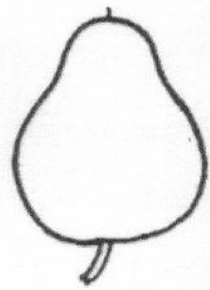
2
circular



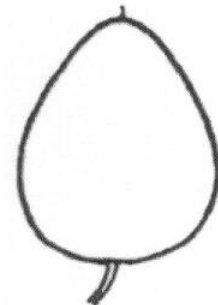
3
broad elliptic



4
oblong



5
pear- shaped



6
broad ovate

Ad.21: Time of beginning of flowering

Time of beginning of flowering is when 10 % of flowers buds are fully open.

Ad.22: Time of beginning of fruit ripening

Time of fruit maturity is when at least 90 % of fruits have achieved full color.

9. Literature

Kutina, J., 1992: Pomologický atlas 2, Zemědělské nakladatelství BRÁZDA, Praha, Czech Republic, 304 pp.

Krüssmann, G., 1968: Die Bäume Europas, Paul Parey, Berlin und Hamburg, Germany, 186 pp.

Porpáczy, A., 1987: Ribiszke, áfonya, bodza, fekete berkenye, Mezőgazdasági Kiadó, Budapest, Hungary, pp. 305-311

Hričovský, I., 2002: Pomológia, Nezávislosť, Bratislava, Slovak Republic, pp. 361-363

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)
TECHNICAL QUESTIONNAIRE to be completed in connection with an application for plant breeders' rights		
1. Subject of the Technical Questionnaire		
1.1 Botanical name	<input type="text" value="Hippophae rhamnoides L."/>	
1.2 Common name	<input type="text" value="Common Sea Buckthorn"/>	
2. Applicant		
Name	<input type="text"/>	
Address	<input type="text"/>	
Telephone No.	<input type="text"/>	
Fax No.	<input type="text"/>	
E-mail address	<input type="text"/>	
Breeder (if different from applicant)	<input type="text"/>	
3. Proposed denomination and breeder's reference		
Proposed denomination (if available)	<input type="text"/>	
Breeder's reference	<input type="text"/>	

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

- (a) controlled cross []
(please state parent varieties)
- (b) partially known cross []
(please state known parent variety(ies))
- (c) unknown cross []

4.1.2 Mutation []
(please state parent variety)

4.1.3 Discovery and development []
(please state where and when discovered
and how developed)

4.1.4 Other []
(please provide details)

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

- (a) cuttings []
- (b) *in vitro* propagation []
- (c) other (state method) []

4.2.2 Other []
(please provide details)

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

Characteristics	Example Varieties	Note
5.1 Plant: growth type (1)		
tree- type	Maslichnaya, Novost' Altaya, Slovan, Vitaminaya	1[]
bush- type	Bojan, Terhi, Dorana	2[]
5.2 Plant: attitude of branches (2)		
erect	Ascola, Frugana	1[]
semi-erect	Leikora, Slovan, Vitaminaya	2[]
horizontal	Bojan, Maslichnaya	3[]
arching	Hergo	4[]
5.3 Plant: sex (4)		
female	Bojan, Leikora, Slovan	1[]
male	Pollmix 1	2[]
5.4 Shoot: number of thorns : (from middle part to top) (8)		
absent or very few	Obil'naya, Yantarnaya	1
few	Vitaminaya, Pollmix 1	3
medium	Slovan	5
many	Bojan, Leikora, Pollmix 2	7

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
5.5 Fruit: general shape (17)			
transverse broad elliptic (narrow oblate)			1[]
circular		Tashkent	2[]
broad elliptic		Askola, Bojan, Frugana	3[]
oblong		Hergo, Terhi	4[]
pear- shaped		Dorana	5[]
broad ovate		Leikora, Slovan	6[]
5.6 Fruit: color of skin (18)			
light yellow			1[]
dark yellow		Terhi, Tytti	2[]
yellow orange		Hergo, Slovan	3[]
orange red		Ascola, Leikora, Bojan	4[]
red		Sirola, L 90/539	5[]

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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6. Similar varieties and differences from these varieties

Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the similar variety(ies)	Describe the expression of the characteristic(s) for your candidate variety
<i>Example</i>	<i>Leaf: color of upper side</i>	<i>green/silverish</i>	

Comments:

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
<p>#7. Additional information which may help in the examination of the variety</p> <p>7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?</p> <p>Yes [] No []</p> <p>(If yes, please provide details)</p> <p>7.2 Are there any special conditions for growing the variety or conducting the examination?</p> <p>Yes [] No []</p> <p>(If yes, please provide details)</p>		
<p>8. Authorization for release</p> <p>(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?</p> <p>Yes [] No []</p> <p>(b) Has such authorization been obtained?</p> <p>Yes [] No []</p> <p>If the answer to (b) is yes, please attach a copy of the authorization.</p>		

Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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9. Information on plant material to be examined or submitted for examination.

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

- | | | |
|---|---------|--------|
| (a) Microorganisms (e.g. virus, bacteria, phytoplasma) | Yes [] | No [] |
| (b) Chemical treatment (e.g. growth retardant, pesticide) | Yes [] | No [] |
| (c) Tissue culture | Yes [] | No [] |
| (d) Other factors | Yes [] | No [] |

Please provide details for where you have indicated "yes".

.....

10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature Date

[End of document]