

UPOV

TG/HIPPH(proj.2)

ORIGINAL: English

DATE: 2006-07-31

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-seventh session,
to be held in Salvador, Bahia State, Brazil, from August 21 to 25, 2006*

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 To be checked	Argasse, Argousier, Grisset To be checked	Sanddorn	Espino armarillo, 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.]

<u>TABLE OF CONTENTS</u>	<u>PAGE</u>
1. SUBJECT OF THESE TEST GUIDELINES.....	3
2. MATERIAL REQUIRED	3
3. METHOD OF EXAMINATION.....	3
3.1 Number of Growing Cycles	3
3.2 Testing Place	3
3.3 Conditions for Conducting the Examination.....	3
3.4 Test Design.....	4
3.5 Number of Plants / Parts of Plants to be Examined.....	4
3.6 Additional Tests	4
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	4
4.1 Distinctness	4
4.1.1 <i>General Recommendations</i>	4
4.1.2 <i>Consistent Differences</i>	4
4.1.3 <i>Clear Differences</i>	5
4.2 Uniformity.....	5
4.3 Stability	5
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....	5
6. INTRODUCTION TO THE TABLE OF CHARACTERISTICS	6
6.1 Categories of Characteristics.....	6
6.1.1 <i>Standard Test Guidelines Characteristics</i>	6
6.1.2 <i>Asterisked Characteristics</i>	6
6.2 States of Expression and Corresponding Notes.....	6
6.3 Types of Expression	6
6.4 Example Varieties	6
6.5 Legend.....	6
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.....	8
8. EXPLANATION ON THE TABLE OF CHARACTERISTICS.....	14
8.1 Explanations covering several characteristics	14
8.2 Explanations for individual characteristics	14
LITERATURE.....	17
9. TECHNICAL QUESTIONNAIRE.....	18

1. Subject of these Test Guidelines

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

Proposal of Poland: to determine if these TG apply only to vegetatively propagated varieties or to all varieties of *Hippophae rhamnoides* L.

Slovakia: 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: growth habit (characteristic 2);
- (c) Plant: sex (characteristic 4);
- (d) Shoot: thorns (characteristic 7);

- (e) Fruit: general shape (characteristic 17);
- (f) Fruit: color of skin (characteristic 18);

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: Single measurement of a group of plants or parts of plants – see Chapter 3.3.1

MS: Measurement of a number of individual plants or parts of plants – see Chapter 3.3.1

VG: Visual assessment by a single observation of a group of plants or parts of plants – see Chapter 3.3.3

VS: Visual assessment by observation of individual plants or parts of plants” – see Chapter 3.3.3

(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	arbre	baum	árbol	Maslichnaya, Novost` Altaya, Slovan, Vitaminaya	1
	bush	buissonnant	buschig	arbustivo	Bojan	2
	GE: to read "tree-like and bushy"					
2. VG (*)	Plant: attitude of branches	Plante:	Pflanze:	Planta:		
PQ (a)	upright	dressé	aufrecht	erecto	Ascola, Frugana	1
	semi upright	demi-dressé	halbaufrecht	semierecto	Leikora, Slovan, Vitaminaya	2
	spreading	étalé	breitwüchsig	rastrero	Bojan, Maslichnaya	3
	arching	arquée	eingesenkt – to change into 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	2

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5.	VG	Plant: density of shoots		Plante: densité	Pflanze: Dichte	Planta: densidad
QN	(a)	sparse	faible	locker	laxa	Vitaminaya 3
		medium	moyenne	mittel	media	Bojan 5
		dense	dense	dicht	densa	Maslichnaya, Slovan 7
6.	VG	Shoot: position of inflorescences				
QL	(b)	on one-year-old shoots only				Leikora 1
		both on one-year-old and older shoots				Ascola, Dorana 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 7
8.	VS	Shoot: thorns				
QL	(b)	absent	absente	fehlend	ausente	1
		present	présente	vorhanden	presente	Vitaminaya, Slovan, Bojan, Leikora 9
9.	VG	Shoot: number of thorns: (from middle part to top)				
		absent or very few	nul ou très petit	fehlend oder sehr gering	ausente o muy bajo	1
QN	(b)	few	faibles	wenige	pocas	Vitaminaya 3
		medium	moyennes	mittel	media	Slovan 5
		many	nombreuses	viele	abundantes	Bojan, Leikora 7
10.	VS	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

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
11. VG (*) (+)	Leaf blade: shape	Limbe: forme	Blattspreite: Form	Limbo: forma		
PQ	(c) very narrow elliptic				Bojan, Dorana, Maslichnaya, Vitaminaya	1
	narrow elliptic				Slovan	2
	narrow ovate (lanceolate)				Frugana	3
12. MS/ (*) VG	Leaf: length GE: to read “Leaf blade: length”	Feuille: longueur	Blatt: Länge	Hoja: longitud		
QN	(c) short	courte	kurz	corta	Dorana, Maslichnaya	3
	medium	moyenne	mittel	media	Hergo, Slovan	5
	long	longue	lang	larga	Bojan, Leikora, Vitaminaya	7
13. VG (*)	Leaf: color of upper side GE: to read “Leaf blade: color of upper side”	Feuille: couleur de la face supérieure	Blatt: Farbe der Oberseite	Hoja: color del haz		
QL	(c) green	verte	Grün	verde	Dorana, Leikora, Pollmix 1	1
	silverish				Bojan, Maslichnaya, Slovan	2
14. VG QN	<u>Varieties with green color of upper side only</u> Leaf: intensity of green color of upper side					
	light	légère	Hell	claro	Dorana	1
	medium	moyenne	Mittel	medio	Leikora	2
	dark	foncé	Dunkelgrün	verde oscuro	Pollmix 1	3
			GE: to read “dunkel“	GE: to read “oscuro“		

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
15. VG (*)	Leaf: pubescence of lower side	Feuille: pilosité de la face inférieure	Blatt: Behaarung der Unterseite	Hoja: pubescencia del envés		
QN (c)	weak	faible	gering	débil	Bojan, Slovan	3
(d)	medium	moyenne	mittel	media		5
	strong	Forte	stark	fuerte		7
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
	Proposal of Poland:	All fruit charact.: to add indication: "Only female varieties"				
	Slovakia:	it is not necessary to indicate as male varieties are not bearing and the example varieties indicate the female status				
17. VG (*) (+)	Fruit: general shape	Fruit: forme générale	Frucht: allgemeine Form	Fruto: forma general		
PQ (e)	transverse broad elliptic (narrow oblate)					1
	circular				Tashkent	2
	broad elliptic				Askola, Bojan, Frugana	3
	oblong				Hergo, Terhi	4
	inverted pear-shaped				Dorana	5
	broad obovate				Leikora, Slovan	6

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
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				Hergo, Slovan	3
	orange red	rouge orangé	orangerot	rojo anaranjado	Ascola, Leikora, Bojan	4
	red	rouge	rot	rojo		5
19. VG	Fruit: pubescence	Fruit: pilosité	Frucht: Behaarung	Fruto: pubescencia		
QN (d)	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Bojan, Maslichnaya, Vitaminaya	1
(e)	weak	faible	gering	débil	Frugana	3
	medium	moyenne	mittel	media	Hergo	5
	strong	forte	stark	fuerte	Ascola, Slovan	7
20. MS/ VG	Fruit: length of peduncle	Fruit: longueur du pédoncule	Frucht: Länge des Stiels	Fruto: longitud del pedúnculo		
	GE:to delete "MS"					
QN (e)	short	court	kurz	corto	Hergo, Bojan	3
	medium	moyen	mittel	medio	Leikora, Maslichnaya	5
	long	long	lang	largo	Frugana, Slovan	7
21. MG/ (+) VG	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	5
	late	tardive	spät	tardía	Leikora, Slovan	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
22. MG/ VG	Time of fruit maturity					
(+)	very early	très précoce	sehr früh	muy temprana	Terhi, Tytti	1
	early	précoce	früh	temprana	Frugana	3
	medium	moyenne	mittel	media	Hergo	5
	late	tardive	spät	tardía	Dorana	7
	very late	très tardive	sehr spät	muy tardía	Leikora	9

8. Explanation on the Table of Characteristics

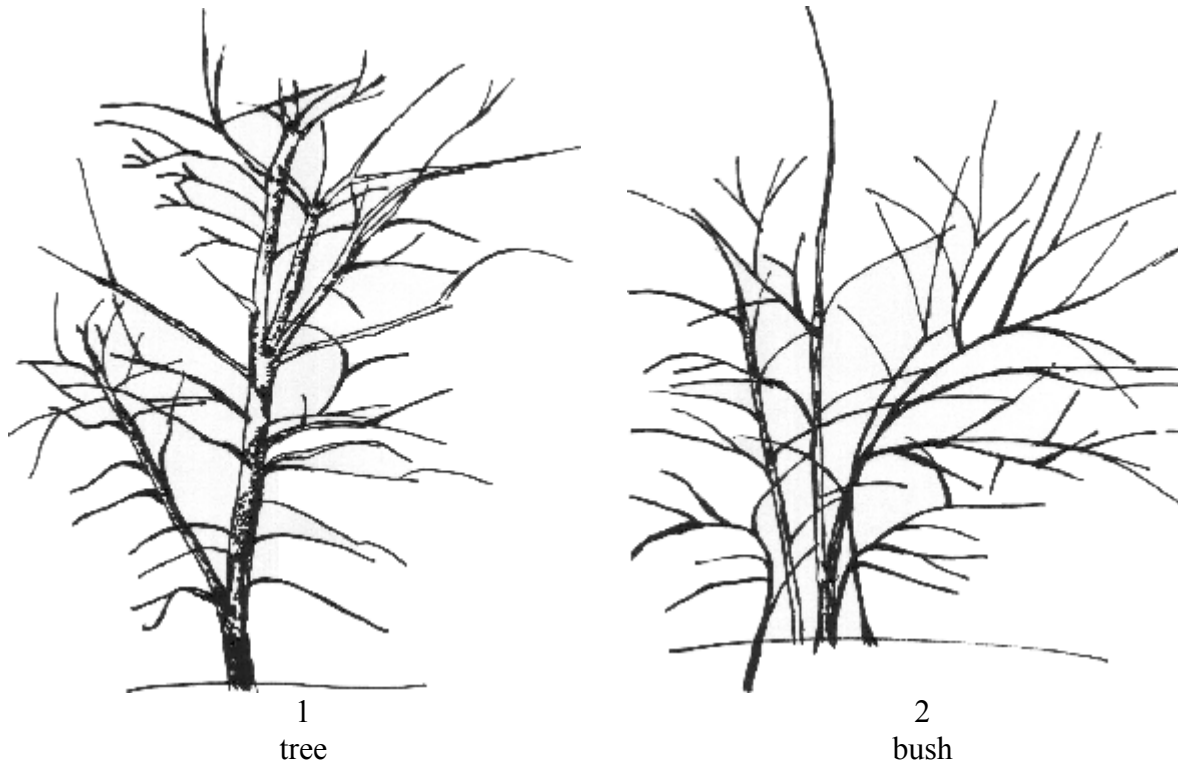
8.1 *Explanations covering several characteristics*

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

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

8.2 *Explanations for individual characteristics*

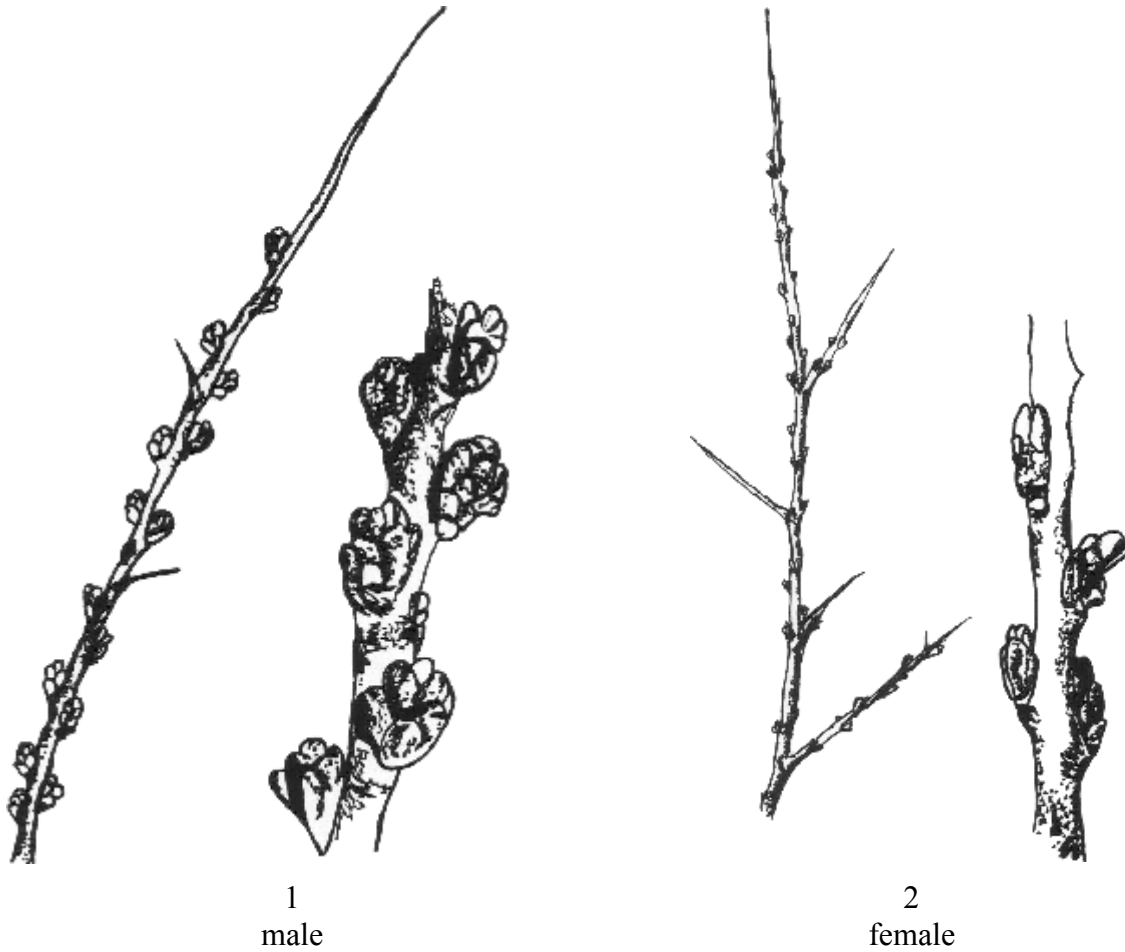
Ad.1: Plant: growth type



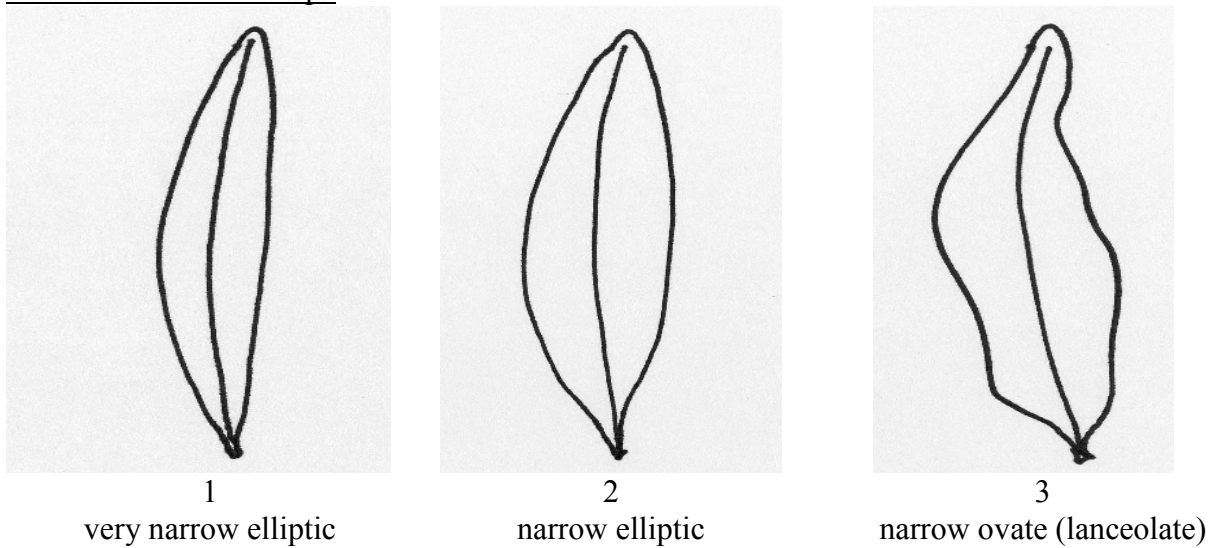
Ad. 3: Plant: vigor

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

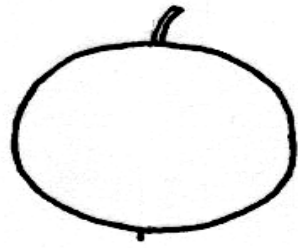
Ad.4: Plant: sex



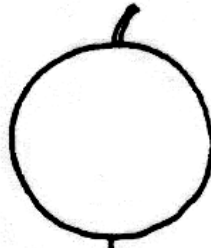
Ad.11: Leaf blade: shape



Ad.17: Fruit: general shape



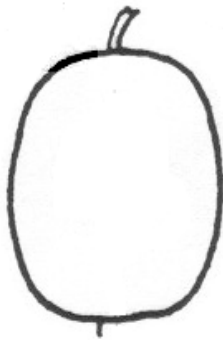
1
transverse broad elliptic
(narrow oblate)



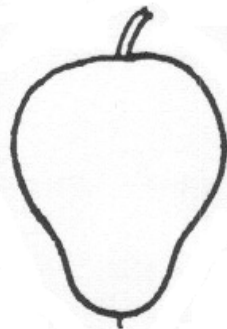
2
circular



3
broad elliptic



4
oblong



5
inverted pear shape



6
broad obovate

Ad.21: Time of beginning of flowering

Time of beginning of flowering is when 20 % of flowers buds are fully open.

Ad.22: Time of fruit maturity

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

Literature

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

Collective of authors, 2000: Metodika provedeniya ispytaniy na otlichimost', odnorodnost' i stabil'nost' – Oblepikha. NII sadovodstva Sibiri im. M.A. Lisavenko, Russian Federation, 9 pp.

Collective of authors, 2000: Merkmalstabelle für die Prüfung der Unterscheidbarkeit, Homogenität und Beständigkeit von Sanddorn. Bundessortenamt, Germany, 8 pp.

Collective of authors, 2004: Metodika pre vykonávanie skúšok odlišnosti, vyrovnanosti a stálosti odrôd – Rakytník rešetliakovitý, VÚOOD Bojnice a ÚKSÚP Veľké Ripňany, Slovakia, 8 pp.

9. 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:
-------------------------	-----------------	-------------------

#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:
-------------------------	-----------------	-------------------

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	Maslichnaya, Novost` Altaya, Slovan, Vitaminaya	1[]
bush	Bojan	2[]
5.2 Plant: attitude of branches (2)		
upright	Ascola, Frugana	1[]
semi upright	Leikora, Slovan, Vitaminaya	2[]
spreading	Bojan, Maslichnaya	3[]
arching	Hergo	4[]
5.3 Plant: sex (4)		
female	Bojan, Leikora, Slovan	1[]
male	Pollmix	2[]
5.4 Shoot: thorns (8)		
absent		1[]
present	Vitaminaya, Slovan, Bojan, Leikora	9[]
5.5 Fruit: general shape (17)		
transverse broad elliptic (narrow oblate)		1[]
circular	Tashkent	2[]
broad elliptic	Askola, Bojan, Frugana	3[]
oblong	Hergo	4[]
inverted pear shape	Dorana	5[]
broad obovate	Leikora, Slovan	6[]
Characteristics	Example Varieties	Note

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
-------------------------	-----------------	-------------------

5.6 Fruit: color of skin (18)			
light yellow			1[]
dark yellow			2[]
yellow orange		Hergo, Slovan	3[]
orange red		Ascola, Leikora, Bojan	4[]
red			5[]

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>(example to be inserted)</i>	<i>(example to be inserted)</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:
-------------------------	-----------------	-------------------

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	<input type="text"/>		
Signature	<input type="text"/>	Date	<input type="text"/>

[End of document]