

UPOV

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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
GENEVA

DRAFT**COMMON VETCH**

UPOV Code: VICIA_SAT

Vicia sativa L.**GUIDELINES****FOR THE CONDUCT OF TESTS****FOR DISTINCTNESS, UNIFORMITY AND STABILITY***prepared by an expert from Spain*

*to be considered by the
Technical Working Party for Agricultural Crops at its thirty-eighth session,
to be held in Seoul, Republic of Korea, from August 31 to September 4, 2009*

Alternative Names:*

<i>Botanical name</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Vicia sativa</i> L.	Common vetch	Vesce commune	Saatwicke	Veza común

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 varieties of *Vicia sativa* 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 seed.

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

1 kg

The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should, be stated by the applicant

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*

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

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.

3.3.2 The optimum stage of development for the assessment of each characteristic is indicated by a number in the second column of the Table of Characteristics. The stages of development denoted by each number are described at the end of Chapter 8.

3.3.3 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 100 plants, which should be divided between 2 or more replicates.

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 20 plants or parts taken from each of 20 plants.

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 100 plants, 3 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 seed 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) Time of beginning of flowering (30% of the plants) (characteristic 5)
- (b) Seed: ground color of testa (characteristic 19)
- (c) Seed: brown ornamentation (characteristic 20)
- (d) Seed: blue-black ornamentation (characteristic 22)
- (e) Seed: color of cotyledons (characteristic 24)

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 3.3.1

(a)-(c) 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/ MS (*) (+)	Seedling: ratio length/width of leaflet of second primary leaf	Plantule : rapport longueur/largeur de la foliole de la deuxième feuille primaire	Keimpflanze: Verhältnis Länge/Breite des Blättchens des zweiten Primärblattes	Plántula: relación longitud/anchura del foliolo de la segunda hoja primaria	
QN	(a)	very low	très petit	sehr klein	muy baja	1
		low	petit	klein	baja	3
		medium	moyen	mittel	media	5
		high	grand	gross	alta	7
		very high	très grand	sehr gross	muy alta	9
2.	VG	Seedling: anthocyanin coloration on base of stem	Plantule : pigmentation anthocyanique à la base de la tige	Keimpflanze: Anthocyanfärbung an der Basis des Stengels	Plántula: coloración antociánica de la base del tallo	
QL	(a)	absent	absente	fehlend	ausente	1
		present	présente	vorhanden	presente	9
3.	VG	Seedling: intensity of anthocyanin coloration on base of stem	Plantule : intensité de la pigmentation anthocyanique à la base de la tige	Keimpflanze: Intensität der Anthocyanfärbung an der Basis des Stengels	Plántula: intensidad de la coloración antociánica de la base del tallo	
QN	(a)	weak	faible	gering	débil	3
		medium	moyenne	mittel	media	5
		strong	forte	stark	fuerte	7
4.	VG	Plant: intensity of green color of foliage (just before flowering)	Plante: intensité de la couleur vert du feuillage (juste avant floraison)	Pflanze: Intensität der Grünfärbung der Blätter (unmittelbar vor der Blüte)	Planta: intensidad del color verde del follaje (justo antes de la floración)	
QN		light	claire	hell	claro	3
		medium	moyenne	mittel	medio	5
		dark	foncée	dunkel	oscuro	7

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5. MG/ (*) VG	Time of beginning of flowering (30% of the plants)	Époque de début floraison (30% des plantes)	Zeitpunkt des Blühbeginns (30 % der Pflanzen)	Época de comienzo de la floración (30% de las plantas)		
QN	very early	très précoce	sehr früh	muy temprana		1
	early	précoce	früh	temprana		3
	medium	moyenne	mittel	media		5
	late	tardive	spät	tardía		7
	very late	très tardive	sehr spät	muy tardía		9
6. VG	Stem: hairiness of upper internodes	Tige: pilosité des entrenoeuds supérieurs	Stengel: Behaarung der obersten Internodien	Tallo: vellosoidad de los entrenudos superiores		
QL (b)	absent	absente	fehlend	ausente		1
	present	présente	vorhanden	presente		9
7. VG	Stem: anthocyanin coloration on leaf axil	Tige: pigmentation anthocyannique à l'aisselle des feuilles	Stengel: Anthocyanfärbung der Blattachsel	Tallo: coloración antociánica en la axila de las hojas		
QN (b)	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil		1
	weak	faible	gering	débil		3
	medium	moyenne	mittel	media		5
	strong	forte	stark	fuerte		7
	very strong	très forte	sehr stark	muy fuerte		9
8. (*) (+) VG	Leaf: shape of tip of leaflet (on middle third of plant)	Feuille: forme de l'extrémité de la foliole (au tiers moyen de la plante)	Blatt: Form der Spitze der Blatfieder (im mittleren Drittel der Pflanze)	Hoja: forma del extremo del foliolo (en el tercio medio de la planta)		
PQ (b)	convex	convexe	konvex	convexa		1
	straight	droite	gerade	recta		2
	concave	concave	konkav	cóncava		3

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
9.	VG/ MS	Leaf: width of leaflet (on middle third of plant)	Feuille: largeur de la foliole (au tiers moyen de la plante)	Blatt: Breite der Blattfieder (im mittleren Drittel der Pflanze)	Hoja: anchura del foliolo (en el tercio medio de la planta)	
(+)						
QN	(b)	narrow	étroite	schmal	estrecho	3
		medium	moyenne	mittel	medio	5
		wide	large	breit	ancho	7
10.	VG	Stipule: anthocyanin coloration of nectaries	Stipule: pigmentation anthocyanique des nectaires	Nebenblätter: Anthocyanfärbung der Nektarien	Estípula: coloración antociánica de los nectarios	
QN	(b)	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	1
		weak	faible	gering	débil	3
		medium	moyenne	mittel	media	5
		strong	forte	stark	fuerte	7
		very strong	très forte	sehr stark	muy fuerte	9
11.	VG	Flower: color of standard	Fleur: couleur de l'étendard	Blüte: Farbe der Fahne	Flor: color del estandarte	
(*)						
PQ	(b)	white	blanc	weiß	blanco	1
		pink	rose	rosa	rosa	2
		light violet	violet clair	hellviolett	violeta claro	3
		medium violet	violet moyen	mittelviolett	violeta medio	4
		dark violet	violet foncé	dunkelviolett	violeta oscuro	5
12.	VG	Pod: hairiness	Gousse : pilosité	Hülse: Behaarung	Vaina: velloidad	
(*)						
QN	(c)	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	1
		weak	faible	gering	débil	3
		medium	moyenne	mittel	media	5
		strong	forte	stark	fuerte	7
		very strong	très forte	sehr stark	muy fuerte	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
13.	VG/ MS	Pod: length	Gousse : longueur	Hülse: Länge	Vaina: longitud	
QN	(c)	short	courte	kurz	corta	3
		medium	moyenne	mittel	media	5
		long	longue	lang	larga	7
14.	VG/ MS	Pod: width	Gousse : largeur	Hülse: breite	Vaina: anchura	
QN	(c)	narrow	étroite	schmal	estrecha	3
		medium	moyenne	mittel	media	5
		wide	large	breit	ancha	7
15.	VG	Pod: length of beak	Gousse : longueur du bec	Hülse: Länge der Spitze	Vaina: longitud del pico	
QN	(c)	short	courte	kurz	corto	3
		medium	moyenne	mittel	medio	5
		long	longue	lang	largo	7
16.	MS	Pod: number of ovules	Gousse : nombre d'ovules	Hülse: Anzahl Samenanlagen	Vaina: número de óvulos	
QN	(c)	few	faible	gering	bajo	3
		medium	moyen	mittel	medio	5
		many	élevé	groß	alto	7
17.	MG (*)	Seed: weight	Graine : poids de semences	Samen: Samengewicht	Semilla: peso	
QN	(d)	very low	très faible	sehr niedrig	muy bajo	1
		low	faible	niedrig	bajo	3
		medium	moyen	mittel	medio	5
		high	élevé	hoch	alto	7
		very high	très élevé	sehr hoch	muy alto	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
18.	VG	Seed: shape	Graine : forme	Samen: Form	Semilla: forma	
(+)						
PQ	(d)	globose	sphérique	kugelförmig	globosa	1
		ellipsoid	ellipsoïde	ellipsoid	elipsoïde	2
		rectangular	rectangulaire	rechteckig	rectangular	3
19.	VG	Seed: ground color of testa	Graine : couleur de fond du tégument	Samen: Grundfarbe der Samenschale	Semilla: color de fondo de la testa	
(*)						
(+)						
PQ	(d)	grey-green	gris-vert	graugrün	gris-verde	1
		grey-brown	gris-brun	graubraun	gris-marrón	2
		brown	brun	braun	marrón	3
		blue-black	bleu-noir	blauschwarz	azul-negro	4
20.	VG	Seed: brown ornamentation	Graine : ornements brunes	Samen: braune Ornamentierung	Semilla: ornamentación marrón	
(*)						
(+)						
PQ	(d)	absent	absentes	fehlend	ausente	1
		diffuse alone	seulement diffuses	ausschließlich diffus	difusa solamente	2
		pronounced alone	seulement nettes	ausschließlich deutlich	pronunciada solamente	3
		diffuse and pronounced	diffuses et nettes	diffus und deutlich	difusa y pronunciada	4
21.	VG	Seed: extension of brown ornamentation	Graine : étendue des ornements brunes	Samen: Ausdehnung der braunen Ornamentierung	Semilla: extensión de la ornamentación marrón	
(*)						
QN	(d)	very small	très petite	sehr gering	muy pequeña	1
		small	petite	gering	pequeña	3
		medium	moyenne	mittel	media	5
		large	grande	stark	grande	7
		very large	très grande	sehr stark	muy grande	9

	English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
22.	VG	Seed: blue-black ornamentation	Graine : ornements bleu-noir	Samen: blauschwarze Ornamentierung	Semilla: ornamentación azul-negra	
(*) (+)						
PQ	(d)	absent	absentes	fehlend	ausente	1
		punctuation alone	seulement ponctuations	ausschließlich Punkte	punteada solamente	2
		mottling alone	seulement techetures	ausschließlich Flecke	moteada solamente	3
		punctuation and mottling	ponctuations et techetures	Punkte und Flecke	punteada y moteada	4
23.	VG	Seed: extension of blue-black ornamentation	Graine : étendue des ornements bleu-noir	Samen: Ausdehnung der blauschwarzen Ornamentierung	Semilla: extensión de la ornamentación azul-negra	
(*)						
QN	(d)	very small	très petite	sehr gering	muy pequeña	1
		small	petite	gering	pequeña	3
		medium	moyenne	mittel	media	5
		large	grande	stark	grande	7
		very large	très grande	sehr stark	muy grande	9
24.	VG	Seed: color of cotyledons	Graine : couleur des cotylédons	Samen: Farbe der Keimblätter	Semilla: color de los cotiledones	
(*)						
QL	(d)	grey-brown	café au lait	graubraun	marrón grisáceo	1
		orange	orangés	orange	naranja	2

8. Explanations on the Table of Characteristics

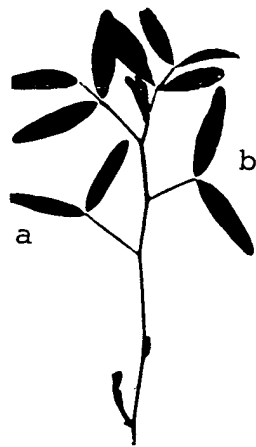
8.1 *Explanations covering several characteristics*

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

- (a) to be observed 3 to 4 weeks after seedling emergence
- (b) to be observed at the time of flowering
- (c) to be observed at pod's full development
- (d) to be observed on seeds harvested in the mature dry stage

8.2 *Explanations for individual characteristics*

Ad. 1: Seedling: ratio length/width of leaflet of second primary leaf



a: first primary leaf
b: second primary leaf

Ad. 8: Leaf: shape of tip of leaflet (on middle third of plant)



convex
1



straight
2

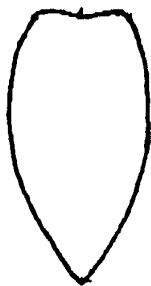


concave
3

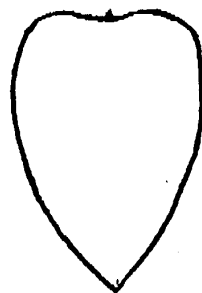
Ad. 9: Leaf: width of leaflet (on middle third of plant)



narrow
3

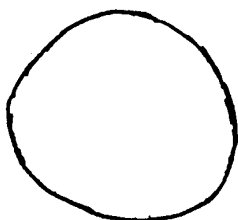


medium
5



wide
7

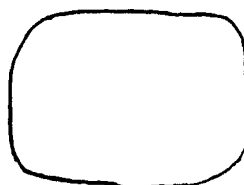
Ad. 18: Seed: shape



globose
1



ellipsoid
2

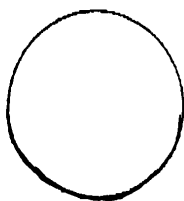


rectangular
3

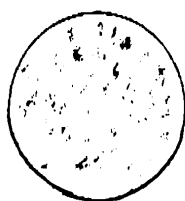
Ad. 19: Seed: ground color of testa

The ground color of the testa may be overshadowed by a very strong expression of the blue- black ornamentation (characteristic 23).

Ad. 20: Seed: brown ornamentation



absent
1



diffuse alone
2

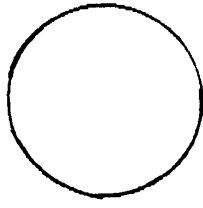


pronounced
alone
3



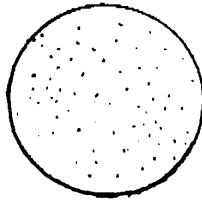
diffuse/pronounced
4

Ad. 22: Seed: blue-black ornamentation



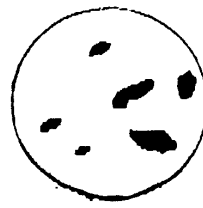
absent

1



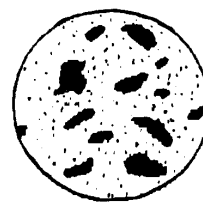
punctuation
alone

2



mottling alone

3



punctuation/mottling

4

9. Literature

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="Vicia sativa L."/>	
1.2 Common name	<input type="text" value="Common vetch"/>	
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)

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

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4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

- (a) Self-pollination
- (b) Cross-pollination
 - (i) population
 - (ii) synthetic variety
- (c) Hybrid
- Other
(please provide details)

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:																					
<p>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).</p>																							
Characteristics	Example Varieties	Note																					
<p>5.1 Time of beginning of flowering (30% of the plants) (5)</p> <table border="1"> <tbody> <tr> <td data-bbox="188 678 1002 734">very early</td> <td data-bbox="1002 678 1289 734">Acismarina, Tazza</td> <td colspan="2" data-bbox="1289 678 1460 734">1 []</td> </tr> <tr> <td data-bbox="188 734 1002 790">early</td> <td data-bbox="1002 734 1289 790">Armantes</td> <td colspan="2" data-bbox="1289 734 1460 790">3 []</td> </tr> <tr> <td data-bbox="188 790 1002 846">medium</td> <td data-bbox="1002 790 1289 846">Septimane, Tim 67</td> <td colspan="2" data-bbox="1289 790 1460 846">5 []</td> </tr> <tr> <td data-bbox="188 846 1002 902">late</td> <td data-bbox="1002 846 1289 902">Acisreina, Valzarina</td> <td colspan="2" data-bbox="1289 846 1460 902">7 []</td> </tr> <tr> <td data-bbox="188 902 1002 981">very late</td> <td></td> <td colspan="2" data-bbox="1289 902 1460 981">9 []</td> </tr> </tbody> </table>				very early	Acismarina, Tazza	1 []		early	Armantes	3 []		medium	Septimane, Tim 67	5 []		late	Acisreina, Valzarina	7 []		very late		9 []	
very early	Acismarina, Tazza	1 []																					
early	Armantes	3 []																					
medium	Septimane, Tim 67	5 []																					
late	Acisreina, Valzarina	7 []																					
very late		9 []																					
<p>5.2 Seed: ground color of testa (19)</p> <table border="1"> <tbody> <tr> <td data-bbox="188 1081 1002 1137">grey-green</td> <td data-bbox="1002 1081 1289 1137">Bernina, Cobra, Valor</td> <td colspan="2" data-bbox="1289 1081 1460 1137">1 []</td> </tr> <tr> <td data-bbox="188 1137 1002 1193">grey-brown</td> <td data-bbox="1002 1137 1289 1193">Septimane, Sylphie</td> <td colspan="2" data-bbox="1289 1137 1460 1193">2 []</td> </tr> <tr> <td data-bbox="188 1193 1002 1249">brown</td> <td data-bbox="1002 1193 1289 1249">Acismarina, Jaga</td> <td colspan="2" data-bbox="1289 1193 1460 1249">3 []</td> </tr> <tr> <td data-bbox="188 1249 1002 1328">blue-black</td> <td data-bbox="1002 1249 1289 1328">Claudia</td> <td colspan="2" data-bbox="1289 1249 1460 1328">4 []</td> </tr> </tbody> </table>				grey-green	Bernina, Cobra, Valor	1 []		grey-brown	Septimane, Sylphie	2 []		brown	Acismarina, Jaga	3 []		blue-black	Claudia	4 []					
grey-green	Bernina, Cobra, Valor	1 []																					
grey-brown	Septimane, Sylphie	2 []																					
brown	Acismarina, Jaga	3 []																					
blue-black	Claudia	4 []																					
<p>5.3 Seed: brown ornamentation (20)</p> <table border="1"> <tbody> <tr> <td data-bbox="188 1429 1002 1485">absent</td> <td data-bbox="1002 1429 1289 1485">Cobra, Jaga, Lola, Tim 67</td> <td colspan="2" data-bbox="1289 1429 1460 1485">1 []</td> </tr> <tr> <td data-bbox="188 1485 1002 1541">diffuse alone</td> <td></td> <td colspan="2" data-bbox="1289 1485 1460 1541">2 []</td> </tr> <tr> <td data-bbox="188 1541 1002 1597">pronounced alone</td> <td data-bbox="1002 1541 1289 1597">Acisreina, Hifa, Prusia</td> <td colspan="2" data-bbox="1289 1541 1460 1597">3 []</td> </tr> <tr> <td data-bbox="188 1597 1002 1697">diffuse and pronounced</td> <td data-bbox="1002 1597 1289 1697">Dalia, Minos, Septimane</td> <td colspan="2" data-bbox="1289 1597 1460 1697">4 []</td> </tr> </tbody> </table>				absent	Cobra, Jaga, Lola, Tim 67	1 []		diffuse alone		2 []		pronounced alone	Acisreina, Hifa, Prusia	3 []		diffuse and pronounced	Dalia, Minos, Septimane	4 []					
absent	Cobra, Jaga, Lola, Tim 67	1 []																					
diffuse alone		2 []																					
pronounced alone	Acisreina, Hifa, Prusia	3 []																					
diffuse and pronounced	Dalia, Minos, Septimane	4 []																					
<p>5.4 Seed: blue-black ornamentation (22)</p> <table border="1"> <tbody> <tr> <td data-bbox="188 1798 1002 1854">absent</td> <td data-bbox="1002 1798 1289 1854">Bernina, Cobra, Lola</td> <td colspan="2" data-bbox="1289 1798 1460 1854">1 []</td> </tr> <tr> <td data-bbox="188 1854 1002 1910">punctuation alone</td> <td data-bbox="1002 1854 1289 1910">Hifa</td> <td colspan="2" data-bbox="1289 1854 1460 1910">2 []</td> </tr> <tr> <td data-bbox="188 1910 1002 1966">mottling alone</td> <td></td> <td colspan="2" data-bbox="1289 1910 1460 1966">3 []</td> </tr> <tr> <td data-bbox="188 1966 1002 2045">punctuation and mottling</td> <td></td> <td colspan="2" data-bbox="1289 1966 1460 2045">4 []</td> </tr> </tbody> </table>				absent	Bernina, Cobra, Lola	1 []		punctuation alone	Hifa	2 []		mottling alone		3 []		punctuation and mottling		4 []					
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punctuation and mottling		4 []																					

TECHNICAL QUESTIONNAIRE		Page {x} of {y}	Reference Number:
Characteristics		Example Varieties	Note
5.5	Seed: color of cotyledons		
(24)			
	grey-brown	Acismarina, Prussia	1 []
	orange	Hifa, Jaga	2 []

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>[e.g. Seed: Brown ornamentation]</i>	<i>[e.g. absent]</i>	<i>[e.g. diffuse alone]</i>

Comments:

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
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7. Additional information which may help in the examination of the variety

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?

Yes [] No []

(If yes, please provide details)

7.2 Are there any special conditions for growing the variety or conducting the examination?

Yes [] No []

(If yes, please provide details)

7.3 Other information

A representative color photograph of the variety should accompany the Technical Questionnaire.

8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

If the answer to (b) is yes, please attach a copy of the authorization.

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

[End of document]