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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

GRAPEVINE

UPOV code: VITIS

Vitis L.

*

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Germany and Spain

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:*

Botanical name	*English*	*French*	*German*	*Spanish*
Vitis L.	Grapevine	Vigne	Rebe	Vid

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 *Vitis* 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 plants on their own roots.

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

10 plants

In the case of a variety with roots sensitive to *Phylloxera vastatrix* the competent authority can require scions grafted on a specific rootstock variety not being sensitive to that pest. The competent authority can accept the submission of propagating material sufficient to produce 10 rooted grafts or 10 plants on their own roots.

2.4 Plant material should preferably not be obtained from meristematic tissue

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

2.6 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. 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 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 in Chapter 8.3.

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

3.3.4 In the second column of the Table of Characteristics for each characteristic are indicated the code numbers of the OIV (O-...) and IPGRI (I-...) of the corresponding characteristic in their Descriptor lists for grapevine varieties and *Vitis* species, drawn up jointly by the OIV (International Office of the Grapevine and Wine, 18, rue d'Aguesseau, 75008 Paris, France), IPGRI (International Plant Genetic Resources Institute, Via dei Tre Denarie 472/a 00057 Maccarese (Fiumicino) Rome, Italy) and UPOV, in order to avoid risks of mistakes and errors resulting from the multiplicity and heterogeneity of existing lists of distinctive characteristics.

3.4 Test Design

3.4.1 Each test should be designed to result in a total of at least 10 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 10 plants or parts taken from each of 10 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 10 plants, 1 off-type is 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) Young shoot: openness of tip (characteristic 2)
(b) Young leaf: color of upper side of blade (characteristic 6)
(c) Young leaf: density of prostrate hairs between main veins on lower side of blade (characteristic 7)
(d) Flower: sexual organs (characteristic 17)
(e) Mature leaf: number of lobes (characteristic 22)
(f) Only varieties for fruit production: time of beginning of berry ripening (veraison) (characteristic 34)
(g) Berry: shape (characteristic 39)
(h) Berry: color of skin (without bloom) (characteristic 40)
(i) Berry: anthocyanin coloration of flesh (characteristic 42)
(j) Berry: particular flavour (characteristic 45)
(k) Berry: formation of seeds (characteristic 46)

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.

The indication of a species in the column "Example Varieties" indicates that the majority of the varieties – but not necessarily all varieties – of this species show the state of expression of that characteristic.

For the example varieties – other than rootstocks – after the name of the variety the color of the berry is indicated, following the standardized code used within the European Union for the classification of vine varieties: B = white, G = grey, N = black, Rg = red, Rs = rose.

Synonyms of certain example varieties used are indicated in Chapter 8.4.

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

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

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

07-00 See Explanations on the Table of Characteristics in Chapter 8.3

O-... code number of the OIV – see Chapter 3.3.4

I-... code number of the IPGRI – see Chapter 3.3.4

Explanations:

Highlighted : new changes and notes and explanations at each characteristic

~~Strikethrough~~: to be deleted

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

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*) (+)	**07-09 O-301 I-7.1.1 MG**	**Time of bud burst (50% of buds on 50% of plants)**	**Époque de débourrement (50% des bourgeons sur 50% des plantes)**	**Zeitpunkt des Knospenauf-bruchs (50% der Knospen bei 50% der Pflanzen)**	**Época de desborre (50% de las yemas en 50% de las plantas)**		
QN		very early	très précoce	sehr früh	muy temprana	Nero N	1
		early	précoce	früh	temprana	Chardonnay B	3
		medium	moyenne	mittel	media	Cabernet Sauvignon N	5
		late	tardive	spät	tardía	Mourvèdre N	7
		very late	très tardive	sehr spät	muy tardía	Airen B	9
2. (*) (+)	**53-69 O-001 I-6.1.1 VG**	**Young shoot: openness of tip**	**Jeune rameau: ouverture de l'extrémité**	**Junger Trieb: Öffnung der Triebspitze**	**Pámpano: apertura de la extremidad**		
QN		closed	fermée	geschlossen	cerrado	*Vitis riparia*	1
		~~slightly open~~	~~légèrement ouverte~~	~~leicht offen~~	~~ligeramente abierto~~	~~3309 Coudere~~	~~2~~
		half open	demi-ouverte	halb offen	semi abierto	Kober 5 BB	3
		~~wide open~~	~~largement ouverte~~	~~weit offen~~	~~muy abierto~~	~~Cina~~	~~4~~
		fully open	complètement ouverte	vollständig offen	completamente abierto	*Vitis vinifera*	5

NOTE: We have only three figures on the explanations. OIV have only three states but can also use states 2 and 4..

DE: According to UPOV rules 1-3-5 means that 2 and 4 can also be used (example varieties exist). Wording for 2 and 4 are necessary.

SP , FR: better same as OIV , only 3 levels are enough

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
3. (*) (+)	**53-69 O-004 I-6.1.3 VG**	**Young shoot: density of prostrate hairs on tip**	**Jeune rameau: densité des poils couchés de l'extrémité**	**Junger Trieb: Dichte der Woll-behaarung an der Triebspitze**	**Pámpano: densidad de los pelos tumbados de la extremidad**		
QN		none or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy baja	3309 Couderc	1
		low	faible	gering	baja	Chasselas blanc B	3
		medium	moyenne	mittel	media	Pinot noir N	5
		high	forte	hoch	alta	Lipovina B	7
		very high	très forte	sehr hoch	muy alta	Meunier N	9
4. (*) (+)	**53-69 O-003 I-6.1.2 VG**	**Young shoot: anthocyanin coloration of prostrate hairs on tip**	**Jeune rameau: pigmentation anthocyanique des poils couchés de l'extrémité**	**Junger Trieb: Anthocyanfär-bung der Woll-behaarung an der Triebspitze**	**Pámpano: pigmentación antociánica de los pelos tumbados de la extremidad**		
QN		absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Furmint B	1
		weak	faible	gering	débil	Riesling B	3
		medium	moyenne	mittel	media	Barbera N	5
		strong	forte	stark	fuerte	Cabernet Sauvignon N	7
		very strong	très forte	sehr stark	muy fuerte	*Vitis cinerea*	9

NOTE: Initially, SA, SP and HU agree that the coloration is of the tip better than the hairs because there are colorated tip with white hairs.

Afther to study with OIV experts, two different characters can be watched: coloration of the tip and coloration of the hairs on tip. Usually is observed the coloration of hairs, so, same character as OIV is proposed.

DE: to delete Vitis aestivalis for note 9 as there exist 'types' without prostrate hairs

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5. (+)	**53-69 O-005 I-6.1.4 VG**	**Only varieties not for fruit production: Young shoot: density of erect hairs on tip**	**Seulement variétés non destinées à la production de fruits: Jeune rameau: densité des poils dressés de l'extrémité**	**Nur Sorten nicht zur Fruchterzeugung: Junger Trieb: Dichte der Borstenbehaa-rung an der Triebspitze**	**Sólo variedades no utilizadas para la producción de fruta: Pámpano: densidad de los pelos erguidos de la extremidad**		
QN	**(d)**	absent or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy escasa	Rupestris du Lot	1
		low	faible	gering	escasa	3309 Couderc	3
		medium	moyenne	mittel	media	3306 Couderc	5
		high	forte	hoch	densa	*Vitis riparia*	7
		very high	très forte	sehr hoch	muy densa		9
Note: This character do not distinguish fruit varieties							
6. (*) (+)	**53-69 O-051 I-6.1.16 VG**	**Young leaf: color of upper side of blade**	**Jeune feuille: couleur de la face supérieure du limbe**	**Junges Blatt: Farbe der Ober-seite der Spreite**	**Hoja joven: color del haz del limbo**		
PQ		yellow-green	verte jaune	gelbgrün	verde amarillo	Furmint B	1
		green	vert	grün	verde	Sylvaner B	2
		green with anthocyanin spots	vert à plages anthocyaniques	grün mit Anthocyanflecken	verde con zonas antociánicas	Riesling B	3
		light copper-red	rouge cuivré clair	hellkupferrot	rojo-cobrizo claro	Kober 5 BB	4
		dark copper-red	rouge cuivré foncé	dunkelkupferrot	rojo-cobrizo oscuro	Chasselas blanc B	5
		wine-red	rouge vineuse	weinrot	rojo vino	Deckrot N	6

Note: UPOV office propose to separate it in two characters a) intensity of green color and b) intensity of anthocyanic coloration. CZ agree it , but D, SP and HU prefer the present definition with de adition of the color green for level 2.

This character is not harmoniced with OIV because OIV levels are quite different and at OIV intermediate levels are possible using as a combination of the present ones , for example: green + bronze.

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
7. (*) (+)	**53-69 O-053 I-6.1.17 VG**	**Young leaf: density of prostrate hairs between main veins on lower side of blade**	**Jeune feuille: densité des poils couchés entre les nervures principales de la face inférieure du limbe**	**Junges Blatt: Dichte der Woll-behaarung zwischen den Hauptadern auf der Unterseite der Spreite**	**Hoja joven: densidad de los pelos tumbados entre los nervios principales del envés del limbo**		
QN		none or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy baja	*Rupestris du Lot*	1
		low	faible	gering	baja	*Muscat blanc B*	3
		medium	moyenne	mittel	media	*Merlot N, Riesling B*	5
		high	forte	hoch	alta	*Clairette B*	7
		very high	très forte	sehr hoch	muy alta	*Vitis labrusca*	9
8. (+)	**53-69 O-056 I.6.1.20 VG**	**Young leaf: den-sity of erect hairs on main veins on lower side of blade**	**Jeune feuille: densité des poils dressés sur les nervures principales de la face inférieure du limbe**	**Junges Blatt: Dichte der Bor-stenbehaarung auf den Haupt-adern auf der Unterseite der Spreite**	**Hoja joven: densi-dad de los pelos erguidos sobre los nervios principales del envés**		
QN		none or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy baja	*Rupestris du Lot*	1
		low	faible	gering	baja	*3309 Couderc*	3
		medium	moyenne	mittel	media	*Kober 125 AA*	5
		high	forte	hoch	alta	*Teleki 8 B*	7
		very high	très forte	sehr hoch	muy alta	*Riparia Scribner*	9

Note: to confirm the example varieties for notes 7 and 9. DE: ok (Riparia Scribner with higher density than Teleki 8 B or Vitis cinerea)

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
9. **(+)**	**60-69 O-006 I-6.1.5 VG**	**Shoot: attitude (before tying)**	**Rameau: port (avant palissage)**	**Trieb: Haltung (vor dem Heften)**	**Sarmiento: porte (antes de ser entutorado)**		
QN		erect	érigé	aufrecht	erecto	Garnacha tinta N,	1
		semi-erect	demi-érigé	halb aufrecht	semierecto	Muscat Ottonel B	3
		horizontal	horizontal	waagerecht	horizontal	Barbera N	5
		semi-drooping	demi-retombant	halb hängend	semi-rastrero	Aramon noir N	7
		drooping	retombant	hängend	rastrero	Albillo Real B	9
DE: propose to delete because it is difficult to observe (shoots need to be tied early because of wind)							
10. **(+)**	**60-69 O-007 I-6.1.6 VG**	**Shoot: color of dorsal side of internodes**	**Rameau: couleur de la face dorsale de l'entre-nœud**	**Trieb: Farbe der Rückenseite derInternodien**	**Sarmiento: color de la cara dorsal del entrenudo**		
PQ	**(a)**	green	verte	grün	verde	Sauvignon B	1
		green and red	verte et rouge	grün und rot	verde y rojo	Carignan N	2
		red	rouge	rot	rojo	Riesling B	3
11. **(*)** **(+)**	**60-69 O-008 I-6.1.7 VG**	**Shoot: color of <u>ventral</u> side of internodes**	**Rameau: couleur de la face <u>ventrale</u> de l'entre-nœud**	**Trieb: Farbe der <u>Bauch</u>seite der Internodien**	**Sarmiento: color de la cara <u>ventral</u> del entrenudo**		
PQ	**(a)**	green	verte	grün	verde	Sauvignon B	1
		green and red	verte et rouge	grün und rot	verde y rojo	Carignan N	2
		red	rouge	rot	rojo	Mourvedre N	3
12. **(+)**	**60-69 O-009 I-6.1.8 VG**	**Shoot: color of <u>dorsal</u> side of nodes**	**Rameau: couleur de la face <u>dorsale</u> du nœud)**	**Trieb: Farbe der <u>Rücken</u>seite der Nodien**	**Sarmiento: color de la cara <u>dorsal</u> del nudo**		
PQ	**(a)**	green	verte	grün	verde	Sauvignon B	1
		green and red	verte et rouge	grün und rot	verde y rojo	*Vitis coignetiae*	2
		red	rouge	rot	rojo	Kober 5 BB	3
SA: They do find differences in fruit and not fruit varieties, CZ and FR: all kind of varieties *DE and HU: proposal " only for varieties not for fruit production" as before (gives same information as char. 10).*							

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
13. **(+)**	**60-69 O-010 I-6.1.9 VG**	**Shoot: color of ventral side of nodes**	**Rameau: couleur de la face ventrale du nœud**	**Trieb: Farbe der Bauchseite der Nodien**	**Sarmiento: color de la cara ventral del nudo**		
PQ	**(a)**	green	verte	grün	verde	3309 Couderc	1
		green and red	verte et rouge	grün und rot	verde y rojo	Börner	2
		red	rouge	rot	rojo	Kober 5 BB	3

SA: They do find differences in fruit and not fruit varieties,
CZ and FR: all kind of varieties
DE and HU: proposal "only for varieties not for fruit production" as before (gives same information as char. 10).

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
14.	**60-69 O-012 I-6.1.11 VG**	**Only varieties not for fruit production: Shoot: density of erect hairs on internodes**	**Seulement variétés non destinées à la production de fruits: Rameau: densité des poils dressés sur les entre-nœuds**	**Nur Sorten nicht zur Fruchterzeugung: Trieb: Dichte der Borstenbehaarung auf den Internodien**	**Sólo variedades no utilizadas para la producción de fruta: Sarmiento: densidad de los pelos erguidos sobre los entrenudos**		
QN	**(a) (d)**	none or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy baja	3309 Couderc	1
		low	faible	gering	baja	161-49 Couderc	3
		medium	moyenne	mittel	media	Teleki 8 B	5
		high	forte	hoch	alta	Kober 125 AA, Riparia Scribner	7
		very high	très forte	sehr hoch	muy alta	*Vitis cinerea*	9
		NOTE: OIV applied this ch to all varieties **SA: usually no erect hairs on wine and table grape varieties* **DE: to observe this char. only on rootstock varieties*					
New (i)	**60-73 O-014 I-6.1.13 VG**	**Shoot: density of prostrate hairs on internodes**			**Sarmiento: Densidad de los pelos tumbados en los internudos**		
QN	**(a)**	absent or very low			nula o muy escasa	Nouvelle	1
		low			escasa	Chenin B	3
		medium			media	Clairette B.	5
		high			densa		7
		very high			muy densa		9
		SA, SP , IT , HU: agree to include *DE, FR, CZ: not necessary for distinctness*					

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
New (ii)	**O-015-2 VG**	**Shoot: intensity of anthocyanin coloration on the buds (SA*)**			**Sarmiento: Intensidad de la coloración antociánica de las escamas de la yema**		
QN	**(a)**	absent or very weak			nula o muy escasa	Pinotage	1
		weak			escasa	Verdelho	3
		medium			media	Chenel	5
		strong			fuerte	Chardonnay B	7
		very strong			muy fuerte		9
SA propose to include it , but a general agreement were against to include it(DE, CZ, SP, FR, HU,..)							
**DE: not necessary for distinctness and difficult to observe.*							
~~**15. (+)**~~	~~**60-73 O-016 I-6.1.14 VG**~~	~~**Shoot: number of consecutive tendrils**~~	~~**Rameau: nombre de vrilles consécutives**~~	~~**Trieb: Anzahl aufeinander folgender Ranken**~~	~~**Sarmiento: número de zarcillos consecutivos**~~		
~~**QL**~~	~~**(a)**~~	~~two or less~~	~~deux ou moins~~	~~zwei oder weniger~~	~~dos o menos~~	~~*Vitis vinifera*~~	~~1~~
		~~three or more~~	~~trois ou plus~~	~~drei oder mehr~~	~~tres o más~~	~~*Vitis labrusca*~~	~~2~~
**DE: to delete for lack of distinctness within Vitis vinifera (only Vitis labrusca shows note 2 but is not important for PBR).*							
General agreement TO DELETE this character							
16.	**60-73 O-017 I-6.1.15 VG**	**Shoot: length of tendrils**	**Rameau: longueur des vrilles**	**Trieb: Länge der Ranken**	**Sarmiento: longitud del zarcillos**		
QN	**(a)**	very short	très courtes	sehr kurz	muy corto	Rupestris du Lot	1
		short	courtes	kurz	corto	Aramon noir N	3
		medium	moyennes	mittel	medio	Pinot noir N	5
		long	longues	lang	largo	Chasselas blanc B	7
		very long	très longues	sehr lang	muy largo	Emperor Rg	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
17. (*) (+)	**61-68 O-151 I-6.2.1 VG**	**Flower: sexual organs**	**Fleur: organes sexuels**	**Blüte: Geschlechts-organe**	**Flor: órganos sexuales**		
QL		fully developed stamens and no gynoecium	étamines complètement développées et pas de gynécée	vollentwickelte Staubblätter und kein Stempel	Estambres completamente desarrollados y gineceo ausente	Rupestris du Lot	1
		fully developed stamens and reduced gynoecium	étamines complètement développées et un gynécée réduit	vollentwickelte Staubblätter und reduzierter Stempel	Estambres completamente desarrollados y gineceo reducido	3309 Couderc	2
		fully developed stamens and fully developed gynoecium	étamines complètement développées et un gynécée complètement développé	vollentwickelte Staubblätter und vollentwickelter Stempel	Estambres completamente desarrollados y gineceo completamente desarrollado	Chasselas blanc B	3
		reflexed stamens and fully developed gynoecium	étamines réfléchies et un gynécée complètement développé	zurückgebogene Staubblätter und vollentwickelter Stempel	Estambres reflejos y gineceo completamente desarrollado	Kober 5 BB, Ohanes B	4
18. (*)	**75-81 O-065 I-6.1.21 VG**	**Mature leaf: size of blade**	**Feuille adulte: taille du limbe**	**Ausgewachsenes Blatt: Größe der Spreite**	**Hoja adulta: tamaño del limbo**		
QN	**(b)**	very small	très petit	sehr klein	muy pequeño	*Vitis rupestris*	1
		small	petit	klein	pequeño	Gamay N	3
		medium	moyen	mittel	medio	Cabernet Sauvignon N	5
		large	grand	groß	grande	Carignan N	7
		very large	très grand	sehr groß	muy grande	Emperor Rg, Bobal N	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
19. (*) (+)	**75-81 O-067 I-6.1.22 VG**	**Mature leaf: shape of blade**	**Feuille adulte: forme du limbe**	**Ausgewachsenes Blatt: Form der Spreite**	**Hoja adulta: forma del limbo**		
PQ	**(b)**	cordate	cordiforme	herzförmig	cordiforme	*Vitis cordifolia*	1
		wedge-shaped	cunéiforme	keilförmig	cuneiforme	Riparia Gloire de Montpellier	2
		pentagonal	pentagonale	fünfeckig	pentagonal	Chasselas blanc B	3
		circular	orbiculaire	kreisförmig	orbicular	Clairette B	4
		kidney-shaped	réniforme	nierenförmig	reniforme	Rupestris du Lot	5
		Note: to improve pictures with real photographs and geometrical forms as OIV *DE: It is suggested to use only stylized geometrical forms of OIV but no photos which show an ideal expression not present in many cases*					
20. (+)	**75-81 O-074 I-6.1.25 VG**	**Mature leaf: profile of blade in cross section**	**Feuille adulte: profil du limbe en section transversale**	**Ausgewachsenes Blatt: Profil der Spreite im Querschnitt**	**Hoja adulta: perfil del limbo en sección transversal**		
PQ	**(b)**	flat	plan	eben	plano	Gamay N	1
		V-shaped	en V	V-förmig	en forma de V	Rupestris du Lot	2
		involute	involuté	Rand nach oben gebogen	con bordes hacia el haz	Furmint B	3
		revolute	révoluté	Rand nach unten gebogen	con bordes hacia el envés	Alicante Bouschet N	4
		twisted	ondulé	wellig	alabeado	Garnacha tinta N	5
		DE ,CZ and SP: Not stable and difficult characteristic. To delete *HU and FR: to maintain* *To consult on grapevine subgroup UPOV if to delete or not.*					

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
21.	**75-81 O-075 I-6.1.26 VG**	**Mature leaf: blistering of upper side of blade**	**Feuille adulte: cloqûre de la face supérieure du limbe**	**Ausgewachsenes Blatt: Blasigkeit der Oberseite der Spreite**	**Hoja adulta: abullonado del haz**		
QN	**(b)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	nula o muy débil	Rupestris du Lot	1
		weak	faible	gering	débil	Chasselas blanc B	3
		medium	moyenne	mittel	media	Semillon B	5
		strong	forte	stark	fuerte	Merlot N	7
		very strong	très forte	sehr stark	muy fuerte	Brancellao N	9
22. (*) (+)	**75-81 O-068 I-6.1.23 VG**	**Mature leaf: number of lobes**	**Feuille adulte: nombre de lobes**	**Ausgewachsenes Blatt: Anzahl der Lappen**	**Hoja adulta: número de lóbulos**		
QL	**(b)**	one	un	einer	uno	Rupestris du Lot	1
		three	trois	drei	tres	Chenin blanc B	2
		five	cinq	fünf	cinco	Chasselas blanc B	3
		seven	sept	sieben	siete	Vermentino B	4
		more than seven	plus de sept	mehr als sieben	más de siete	Hebron B	5
		Note: A leaf showing no lateral sinus is considered to consist of one lobe					
		Same as OIV					

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
23. **(+)**	**75-81 O-I-6.1.34 VG**	**Mature leaf: depth of upper lateral sinuses**	**Feuille adulte: profondeur des sinus latéraux supérieurs**	**Ausgewachsenes Blatt: Tiefe der oberen Seitenbuchten**	**Hoja adulta: profundidad de los senos laterales superiores**		
QN	**(b)**	absent or very shallow	nulle ou très superficiels	fehlend oder sehr flach	ausentes o muy superficiales	Melon B	1
		shallow	superficiels	flach	superficiales	Gamay N	3
		medium	moyens	mittel	medios	Merlot N	5
		deep	profonds	tief	profundos	Chasan B	7
		very deep	très profonds	sehr tief	muy profundos	Chasselas Cioutat B	9
		OIV character 605 is another characteristic than UPOV 23 .					
		Note 1 , " absent "describes also entire leafs without lateral sinus					
24. **(+)**	**75-81 O-082 I-6.1.33 VG**	**Only varieties with lobed leaves: Mature leaf: arrangement of lobes of upper lateral sinuses**	**Seulement varietés avec feuilles lobulés: Feuille adulte: arrangement des lobes des sinus latéraux supérieurs**	**Nur Sorten mit gelappten Blättern: Ausgewachsenes Blatt: Anordnung der Lappen der oberen Seitenbuchten**	**Solo variedades de hojas lobuladas: Hoja adulta: disposición de los lóbulos de los senos laterales superiores**		
QN	**(b)**	open	ouverts	offen	separados	Folle Blanche B	1
		closed	fermés	geschlossen	tangentes	Chasselas blanc B	2
		slightly overlapped	légèrement chevauchants	leicht überlappt	ligeramente superpuestos	Cabernet Sauvignon N	3
		strongly overlapped	très chevauchants	weit überlappt	muy superpuestos	Clairette B	4
		NOTE: OIV ch 082 has 5 levels. Level 5 is for "absence de sinus", its means no lobed leafs					
		On consider the definition of the character not well expressed (sinus can be "open", but only lobes can be "overlapped").					
		On consider that three levels are enough (1 open/ 2 closed / 3 overlapped)					

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
25. (*) (+)	**75-81 O-079 I-6.1.30 VG**	**Mature leaf: arrangement of lobes of petiole sinus**	**Feuille adulte: arrangement des lobes du sinus pétiolaire**	**Ausgewachsenes Blatt: Anordnung der Lappen der Stielbucht**	**Hoja adulta: Postura de los lóbulos en el seno peciolar**		
QN	**(b)**	very wide open	très largement ouvert	sehr weit offen	muy ampliamente abierto	Rupestris du Lot	1
		wide open	très ouvert	weit offen	muy abierto	Riparia Gloire de Montpellier	2
		half open	demi-ouvert	halb offen	medio abierto	Aramon noir N	3
		slightly open	peu ouvert	leicht offen	poco abierto	Sauvignon B	4
		closed	fermé	geschlossen	cerrado	Chasselas blanc B	5
		slightly overlapped	légèrement chevauchant	leicht überlappt	ligeramente superpuesto	Aubun N	6
		half overlapped	demi-chevauchant	halb überlappt	medio superpuesto	Riesling B	7
		strongly overlapped	très chevauchant	weit überlappt	fuertemente superpuesto	Clairette B	8
		very strongly overlapped	très fortement chevauchant	sehr weit überlappt	muy fuertemente superpuesto	Domina N	9

The term' lobes' could be misleading as non-lobed leaves can be described as well.Really,we observ the limb border,or the border of petiole sinus, not lobes (DE alternative: 'arrangement of border line of petiole sinus')

**SP,HU, FR, CHI: High variability , difficult to observe small differences. Proposal only 5 states l: very wide open (1; Rupestris du Lot), wide open (2; Riparia Gloire de Montpellier, 1103 Paulsen), open (3; Aramon noir N), closed (4; Sauvignon B, Chasselas blanc B, Aubun N), overlapped (5; Riesling B, Clairette B), strongly overlapped (6; Domina)*

**DE, UPOV, CZ: 9 states should be kept as before. They are appropriate to describe the observed variation and fit best with regard to a minimum distance of 2 notes for distinctness and with regard to the variability within a variety. In a scale of 6 notes a minimum distance of 1 note would not be sufficient and 2 notes could be too much (loss of distinctness).*

At the end, an agreement for 9 states is reached in coordination with 5 states at OIV

NOTE: OIV ch. 079 is similar to ch 25 of UPOV but use only 5 levels

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
26. **(+)**	**75-81 O-081.2 I-6.1.32 VG**	**Mature leaf: bordering of base of petiole sinus by veins**		**Ausgewachsenes Blatt: Begrenzung der Stielbuchtba-sis durch Adern**	**Hoja adulta:Bordeado de la base del seno peciolar por venas**		
QL	**(b)**	absent	absent	fehlend	ausente	Chasselas blanc B	1
		present	présent	vorhanden	presente	Chardonnay B	9

NOTE: OIV consider two possibilities for level 9, present: limited by veins at one side or at both sides

**DE,HU: to keep absent/present (1/9 and to include a drawing for both states for clarification. OIV note 2 and 3 are not stable enough as they can be found on the same plant. The majority of leaves should show one given state for description whereas for OIV it is sufficient to find note 2 rsp. 3 each on only 10 % of leaves in order to describe a variety even with both states (not possible for UPOV)*

IT: can be consider two characters: bordering at one side (absent/present) and Bordering at two sides (absent/present)

Looks a easy character , but it is not stabile.

Study the possibility TO DELETE

27. **(*)** **(+)**	**75-81 O-I-6.1.28 VG**	**Mature leaf: length of teeth**	**Feuille adulte: longueur des dents**	**Ausgewachsenes Blatt: Länge der Zähne**	**Hoja adulta: longitud de los dientes**		
QN	**(b)**	short	courtes	kurz	cortos	Pinot noir N	3
		medium	moyennes	mittel	medios	Merlot N	5
		long	longues	lang	largos	Carignan N	7

NOTE: *Different character. UPOV and OIV .*

OIV consider 5 levels and compare length of teeth in relation with the size of leaf

28. **(*)** **(+)**	**75-81 O-078 I-6.1.29 VG**	**Mature leaf: ratio length/width of teeth**	**Feuille adulte: rapport longueur/ largeur des dents**	**Ausgewachsenes Blatt: Verhältnis Länge/Breite der Zähne**	**Hoja adulta: relación longitud/ anchura de los dientes**		
QN	**(b)**	very small	très petit	sehr klein	muy pequeña	*Vitis coignetiae*	1
		small	petit	klein	pequeña	Silvaner B	3
		medium	moyen	mittel	media	Chasselas blanc B	5
		large	grand	groß	grande	Muscat of Alexandria B	7
		very large	très grand	sehr groß	muy grande	*Vitis longii*	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
29. (*) (+)	**75-81 O-076 I-6.1.27 VG**	**Mature leaf: shape of teeth**	**Feuille adulte: forme des dents**	**Ausgewachsenes Blatt: Form der Zähne**	**Hoja adulta: forma de los dientes**		
PQ	**(b)**	both sides concave	à côtés concaves	beiderseits konkav	ambos lados cónca-vos	*Vitis aestivalis*	1
		both sides straight	à côtés rectilignes	beiderseits gerad-linig	ambos lados recti-líneos	Muscat blanc B	2
		both sides convex	à côtés convexes	beiderseits konvex	ambos lados con-vexos	Chenin blanc B	3
		one side concave, one side convex	un côté concave, un côté convexe	eine Seite konkav, eine Seite konvex	un lado cóncavo, un lado convexo	Aspiran N	4
		mixture of both sides straight and both sides convex	mélange de deux côtés rectilignes et deux côtés convexes	Mischung aus beiderseits geradlinig und beiderseits konvex	mezcla de ambos lados rectilíneos y ambos lados convexos	Cabernet franc N	5
30. (*)	**75-81 O-070 I-6.1.24 VG**	**Mature leaf: anthocyanin coloration <u>of</u> main veins on <u>upper</u> side of blade**	**Feuille adulte: pigmentation anthocyanique <u>des</u> nervures principales de la face <u>supérieure</u> du limbe**	**Ausgewachsenes Blatt: Anthocyanfärbung <u>der</u> Hauptadern auf der <u>Ober</u>seite der Spreite**	**Hoja adulta: pigmentación antociánica <u>de</u> los nervios principales del <u>haz</u>**		
QN	**(b)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Garnacha tinta N	1
		weak	faible	gering	débil	Muscat of Alexandria B	3
		medium	moyenne	mittel	media	Dornfelder N	5
		strong	forte	stark	fuerte	Deckrot N	7
		very strong	très forte	sehr stark	muy fuerte	Cabernet Mitos N	9

SP , FR: to take over definition of characteristic and states of OIV*

**DE, HU, CZ:Interruption of anthocyanin coloration on main veins causes problems when using OIV scale. Continuous coloration could receive same note as clearly interrupted coloration. Bifurcations often show clear coloration even after interruptions. Therefore rather to change definition into 'Mature leaf: portion of main vein surface with anthocyanin coloration on <u>upper</u> side of blade' with states 1-9 from absent or very low to very high.*

Could be consider different characters: OIV and the proposal of DE.*

Two alternatives (same as OIV or different character) to study during the TWF consultation

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
31. (*)	**75-81 O-084 I-6.1.35 VG**	**Mature leaf: density of prostrate hairs between main veins on lower side of blade**	**Feuille adulte: densité des poils couchés entre les nervures principales de la face inférieure du limbe**	**Ausgewachsenes Blatt: Dichte der Wollbehaarung zwischen den Hauptadern auf der Unterseite der Spreite**	**Hoja adulta: densidad de los pelos postrados entre los nervios principales del envés**		
QN	**(b)**	none or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy baja	Chasselas blanc B	1
		low	faible	gering	baja	Gamay N	3
		medium	moyenne	mittel	media	Cabernet Sauvignon N	5
		high	forte	hoch	alta	Clairette B	7
		very high	très forte	sehr hoch	muy alta	Isabella N	9
32. (*)	**75-81 O-087 I-6.1.38 VG**	**Mature leaf: density of erect hairs on main veins on lower side of blade**	**Feuille adulte: densité des poils dressés des nervures principales de la face inférieure du limbe**	**Ausgewachsenes Blatt: Dichte der Borstenbehaa-rung der Haupt-adern auf der Unterseite der Spreite**	**Hoja adulta: densidad de pelos erguidos sobre los nervios principales del envés**		
QN	**(b)**	none or very low	nulle ou très faible	fehlend oder sehr gering	nula o muy baja	Rupestris du Lot	1
		low	faible	gering	baja	Perle de Csaba B	3
		medium	moyenne	mittel	media	Muscat Ottonel B	5
		high	forte	hoch	alta	Kober 125 AA	7
		very high	très forte	sehr hoch	muy alta	Börner	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
33.	**75-81 O-093 I-6.1.40 VG**	**Mature leaf: length of petiole compared to length of middle vein**	**Feuille adulte: longueur du pétiole par rapport à la longueur de la nervure médiane**	**Ausgewachsenes Blatt: Länge des Stieles im Vergleich zur Länge der Mittelader**	**Hoja adulta: longitud del peciolo en relación a la longitud del nervio central**		
QN	**(b)**	much shorter	plus court	viel kürzer	más corto		1
		slightly shorter	légèrement plus court	etwas kürzer	ligeramente más corto	Riparia Gloire de Montpellier	2
		equal	égal	gleich	igual	Garnacha tinta N	3
		slightly longer	légèrement plus long	etwas länger	ligeramente más largo	Cardinal Rg	4
		much longer	plus long	viel länger	más largo		5
34. (*) (+)	**81 O-303 I-7.1.4 MG**	**Only varieties for fruit production: Time of beginning of berry ripening (veraison)**	**Seulement variétés destinées à la production de fruits: Époque de début de véraison**	**Nur Sorten zur Fruchterzeugung: Zeitpunkt des Beginns der Beerenreife**	**Solo variedades para la producción de fruta: Época del comienzo del envero**		
QN		very early	très précoce	sehr früh	muy temprana	Perle de Csaba B	1
	(d)	early	précoce	früh	temprana	Pinot noir N	3
		medium	moyenne	mittel	media	Riesling B	5
		late	tardive	spät	tardía	Carignan N	7
		very late	très tardive	sehr spät	muy tardía	Olivette noire N	9

Note: To add a general explanation: characters of bunch and berry must be observed only in varieties producing fruits (normaly V. vinífera and V. labrusca), excluding rootstocks. DE would prefer to include varieties not for fruit production (except for char. 34) wherever possible and to keep explanation 8.1 (c) as in the current guidelines.

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
35. (*)	**89 O-I-6.2.2 VG**	**Bunch: size (peduncle excluded)**	**Grappe: taille (pédoncule exclu)**	**Traube: Größe (ohne Stiel)**	**Racimo: tamaño (pedúnculo excluido)**		
QN	**(c)**	very small	très petite	sehr klein	muy pequeño	Kober 5 BB	1
		small	petite	klein	pequeño	Riesling B	3
		medium	moyenne	mittel	medio	Chasselas blanc B	5
		large	grosse	groß	grande	Trebbiano Toscano B	7
		very large	très grosse	sehr groß	muy grande	Nehelescol B	9
		NOTE: OIV consider length (ch. 202) and width (ch. 203)					
36. (*) (+)	**89 O-204 I-6.2.3 VG**	**Bunch: density**	**Grappe: compacité**	**Traube: Dichte**	**Racimo: compa-cidad**		
QN	**(c)**	very loose	très lâche	sehr locker	muy suelto	*Vitis amurensis*	1
		loose	lâche	locker	suelto	Cardinal Rg	3
		medium	moyenne	mittel	medio	Chasselas blanc B	5
		dense	compacte	dicht	compacto	Sauvignon B	7
		very dense	très compacte	sehr dicht	muy compacto	Meunier N	9
37. (*) (+)	**89 O-206 I-6.2.4 VG**	**Bunch: length of peduncle of primary bunch**	**Grappe: longueur du pédoncule de la grappe principal**	**Traube: Länge des Stieles der Haupttraube**	**Racimo: longitud del pedúnculo del racimo principal**		
QN	**(c)**	very short	très court	sehr kurz	muy corto	Silvaner B	1
		short	court	kurz	corto	Gewürztraminer Rs	3
		medium	moyen	mittel	medio	Marsanne B	5
		long	long	lang	largo	Alphonse Lavallée N	7
		very long	très long	sehr lang	muy largo	Freisa N	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
38. (*)	**89 O- - I-6.2.5 VG**	**Berry: size**	**Baie: grosseur**	**Beere: Größe**	**Baya: tamaño**		
QN	**(c)**	very small	très petite	sehr klein	muy pequeña	Corinthe noir N	1
		small	petite	klein	pequeña	Riesling B	3
		medium	moyenne	mittel	media	Blauer Portugieser N	5
		large	grosse	groß	grande	Muscat of Alexandria B	7
		very large	très grosse	sehr groß	muy grande	Alphonse Lavallée N	9
NOTE: OIV consider length (ch. 202) and width (ch. 203) wich is more connected with shape							
39. (*) (+)	**89 O-223 I-6.2.6 VG**	**Berry: shape**	**Baie: forme**	**Beere: Form**	**Baya: forma**		
PQ	**(c)**	obloid		abgeflacht kugelförmig	globosa achatada	Tompa B	1
		globose		kugelförmig	globosa	Chasselas blanc B	2
		broad ellipsoid		breit elliptisch	eliptica corta	Müller Thurgau B	3
		narrow ellipsoid		schmal elliptisch	elíptica alargada	Olivette noire N	4
		cylindrical		zylindrisch	cilindrica	Kahlili belyi B	5
		obtuse ovoid		abgestumpft eiförmig	troncovoide	Ahmeur bou Ahmeur Rs	6
		ovoid		eiförmig	ovoide	Bicane B	7
		obovoid		verkehrt eiförmig	ovoide inversa		8
		horn-shaped		hornförmig	con forma de cuerno	Santa Paula B	9
		finger-shaped		fingerförmig	apezonada	Black finger N	10
NOTE: OIV has adopted the same expressions that UPOV							

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
40. (*)	**89 O-225 I-6.2.8 VG**	**Berry: color of skin (without bloom)**	**Baie: couleur de l'épiderme (sans pruine)**	**Beere: Farbe der Haut (ohne Bereifung)**	**Baya: color de la epidermis (sin pruina)**		
PQ	**(c)**	green	vert	grün	verde	Jade seedless (King Husainy)	1
		yellow-green	vert jaune	gelbgrün	verde-amarilla	Chasselas blanc B	2
		yellow	jaune	gelb	amarilla		3
		–yellow-rose	jaune rosé	gelbrosa	amarillo rosada	Moscatel grano menudo rojo	4
		rose	rose	rosa	rosa	Chasselas rose Rs	5
		red	rouge	rot	roja	Molinera gorda Rg	6
		grey-red	rouge gris	graurot	roja-gris	Pinot gris G	7
		dark red violet	rouge foncé violet	dunkelrotviolett	roja-violeta oscura	Cardinal Rg	8
		blue black	noir bleu	blauschwarz	negra-azul	Pinot noir N	9

This characteristic were not well explain before , neither at OIV. Some existing colours were not included . This is a very important character, specially for new table grapes varieties , and need to be improved as is proposed now..

At OIV, this characteristic is not well explain .The "yellow green" state include different colours. But OIV experts prefer to maintain as it is .So, this character remain not harmonized

Environement conditions and time of observation can influence the results, so, an explanation will be usefull.

DE: An example variety for "yellow" is still necessary

New (iii)	**O-240 I-6.2.13**	**Berry: ease of detachment from pedicel**	**Baie: facilité der séparation du pédicelle**	**Beere: Trennbarkeit vom Stielchen**	**Baya: Facilidad de separación del pedicelo**		
QN	(c)	difficult	difficile	schwierig	difícil	Isabella N	1
		moderately easy		mäßig leicht	medianamente difícil	Sylvaner B	2
		very easy	très facile	sehr leicht	facil	Carignan N	3

NOTE from Spain: It is an important carácter for table grapes.

Change the order , now, from easy to difficult , same as OIV.

DE: change of order would be in contrast to definition of characteristic (increasing ease is necessary)

Notes 1 to 3 but is a quantitative character?

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
41.	**89 O-228 I-7.1.6 VG**	**Berry: thickness of skin**	**Baie: épaisseur de la peau**	**Beere: Dicke der Haut**	**Baya: grosor de la piel**		
QN	**(c)**	thin	mince	dünn	fina	Chasselas blanc B	3
		medium	moyenne	mittel	media	Cariñena N	5
		thick	épaisse	dick	gruesa	Servant B	7
		NOTE: OIV consider five levels (1,3,5,7,9).					
		Note: sensorial observation					
		States 1 and 9 are posibles					
42. (*)	**89 O-231 I-6.2.9 VG**	**Berry: antho-cyanin coloration of flesh**	**Baie: pigmen-tation antho-cianique de la pulpe**	**Beere: Antho-cyanfärbung des Fruchtfleisches**	**Baya: pigmentación antociánica de la pulpa**		
QN	**(c)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Pinot noir N	1
		weak	faible	gering	débil	Gamay de Bouze N	3
		medium	moyenne	mittel	media	Gamay de Chaudenay N	5
		strong	forte	stark	fuerte	Alicante Bouschet N	7
		very strong	très forte	sehr stark	muy fuerte	Deckrot N	9
43.	**89 O-235 I-6.2.11 VG**	**Berry: firmness of flesh**	**Baie: fermeté de la pulpe**	**Beere: Festigkeit des Fruchtflei-sches**	**Baya: consistencia de la pulpa**		
QN	**(c)**	soft	molle	weich	blanda	Pinot noir N	1
		slightly firm	légèrement ferme	mäßig fest	ligeramente dura	Italia B	2
		very firm	très ferme	sehr fest	muy dura	Sultanina B	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
44.	**89 O-232 I-6.2.10 VG**	**Berry: juiciness of flesh**	**Baie: succulence de la pulpe**	**Beere: Saftigkeit des Fruchtflei-sches**	**Baya: suculencia de la pulpa**		
QN	**(c)**	low		gering		Isabella N	1
		medium		mittel		Muscat of Alexandria B	2
		high		hoch		Aramon noir N	3
		FR , DE: to delete ch. (DE: very high negative correlation to char.43 'firmness of flesh')					
		IT: to maintain ch.					
45. (*)	**89 O-236 I-6.2.12 VG**	**Berry: particular flavor**	**Baie: particula-rité de la saveur**	**Beere: besonderer Geschmack**	**Baya: sabor particular**		
PQ	**(c)**	none	aucune	keiner	ninguno	Auxerrois B	1
		muscat	goût muscaté	Muskatgeschmack	sabor a moscatel	Muscat of Alexandria B	2
		foxy	goût foxé	Foxgeschmack	sabor avulpinado	Isabella N	3
		herbaceous	goût herbacé	krautiger Geschmack	sabor herbáceo	Cabernet Sauvignon N	4
		other than muscat, foxy or herbaceous	autre goût que muscaté, foxé ou herbacé	anderer Geschmack als Muskat-, Fox- oder krautiger Geschmack	otro sabor aparte de moscatel, avulpinado o herbáceo	Riesling B	5

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
46. (*) (+)	**89 O-241 I-6.2.7 VG**	**Berry: formation of seeds**	**Baie: formation de pépins**	**Beere: Ausbil-dung von Samen**	**Baya: formación de pepitas**		
QL	**(c)**	none	aucune	keine	ninguna	Corinthe noir N	1
		rudimentary	rudimentaire	rudimentär	rudimentaria	Sultanina B	2
		complete	complète	vollständig	bien formada	Riesling B	3
47.	**93 O-306 I-VG**	**Plant: anthocyanin coloration of autumn leaves**	**Plante: pigmentation anthocyanique des feuilles en automne**	**Pflanze: Antho-cyanfärbung des Herbstlaubes**	**Planta: pigmentación antociánica de las hojas en otoño**		
QN		absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Blauer Trollinger N	1
		weak	faible	gering	débil	Domina N	3
		medium	moyenne	mittel	media	Dornfelder N	5
		strong	forte	stark	fuerte	Dunkelfelder N	7
		very strong	très forte	sehr stark	muy fuerte	Cabernet Mitos N	9

Can be consider as different character than OIV-306

*<u>Two alternatives:</u> to observe the general coloration of leaves , as OIV , *SP and *SA proposed and to add green , or, to observe the antocianic coloration , as proposed by *DE.*

Is distribution or intensity of antocianic coloration ?

DE: problems with OIV scale: differentiation between reddish/red/dark red is not clear. Moreover these pure colors are misleading as they will be observed in a mixture with yellow (and residual green). Therefore proposal either to keep ' Plant: anthocyanin coloration of autumn leaves' or to change definition slightly into 'Plant: <u>general</u> anthocyanin coloration of autumn leaves'(states 1-9 from absent or very weak to very strong)*

Chile: the time of observation is very important. Need to be clarified

FR, DE and IT propose TO DELET

(DE: … in case drought, early frost or diseases should be too great an obstacle for a proper observation)

To consult with UPOV experts at TWF

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
48.	**91-00 O-103 I-6.1.42 VG**	**Woody shoot: main color**	**Sarment: couleur principale**	**Rebholz: Haupt-farbe**	**Sarmiento leñoso: color principal**		
PQ		yellowish brown	brun jaunâtre	gelblichbraun	marrón amarillento	Garnacha tinta N	1
		orange brown	brun orangé	orangebraun		Portugieser N, Malvar B	2
		dark brown	brun foncé	dunkelbraun	marrón oscuro	Chasselas blanc B	3
		reddish brown	brun rougeâtre	rötlichbraun	marrón rojizo	3309 Couderc	4
		violet	violacé	violett	violáceo	Aestivalis Jäger	5

The basic woody colour is always brown, with more or less content of yellow or red.

OIV can combine several of the basic colours indicated in its states of expression, but UPOV can describe only with one state and therefore UPOV needs more precise colour states than OIV.

No harmonization can be achieved with OIV

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) Shoot: All observations on the shoot should be made in the middle third of shoot.

(b) Mature leaf: All observations on the mature leaf should be made on leaves in the middle third of the shoot just above the raceme.

(c) Bunch and berry: Wherever possible all characteristics of the bunch and berry should also apply to varieties not for fruit production unless otherwise indicated.

(d) In contrast to varieties for fruit production, varieties not for fruit production, e.g. rootstock varieties, show very small berries in combination with formation of complete seeds or show no fruit set due to missing or reduced gynoecium (see state of expressions in characteristics 17, 38 and 46).

8.2 Explanations for individual characteristics

Ad. 1: Time of bud burst

Pruning can influence the time of bud burst, therefore, all kind of material has to undergo the same pruning management.

Ad. 2 to 5: Young shoot: tip (part in squares to be observed)

Young shoot: openness of tip (2):

1	3	5
closed	half open	fully open

Ad. 3: Young shoot: density of prostrate hairs on tip
Ad. 4: Young shoot: anthocyanin coloration of prostrate hairs on tip
Ad. 5: Only varieties not for fruit production: Young shoot: density of erect hairs on tip

Wide open or fully open tips (characteristic 2) to be observed with inclusion of first 2 distal unfolded leaves. Leaves of closed, slightly open or half open tips to be unfolded to enable observations on corresponding part of tip.

Ad. 6: Young leaf: color of upper side of blade

Observation on first 2 distal unfolded leaves in case of closed, slightly open or half open tips (characteristic 2). Observation on first 4 distal unfolded leaves in case of wide open or fully open tips.

Ad. 7: Young leaf: density of prostrate hairs between main veins on lower side of blade
Ad. 8: Young leaf: density of erect hairs on main veins on lower side of blade

Observation on second distal unfolded leaf in case of closed, slightly open or half open tips (characteristic 2). Observation on fourth distal unfolded leaf in case of wide open or fully open tips.

Ad. 9: Shoot: attitude (before tying)

1
erect

3
semi-erect

5
horizontal

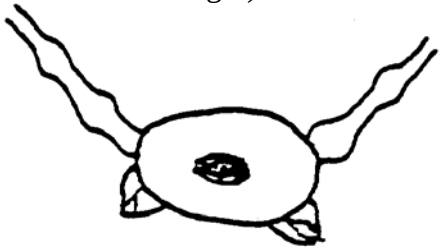
7
semi-drooping

9
drooping

Ad. 10: Shoot: color of dorsal side of internodes
Ad. 11: Shoot: color of ventral side of internodes
Ad. 12: Shoot: color of dorsal side of nodes
Ad. 13: Shoot: color of ventral side of nodes

Cross section of shoot

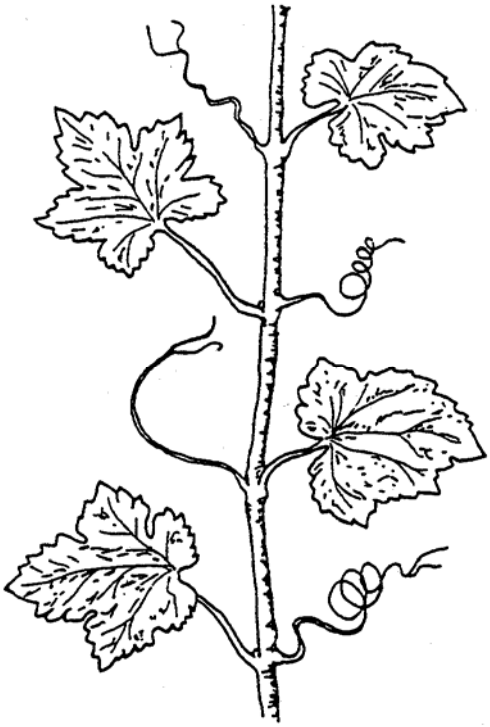
dorsal side
(exposed to direct sunlight)



ventral side
(not exposed to direct sunlight)

Ad. 15: Shoot: number of consecutive tendrils

1
two or less

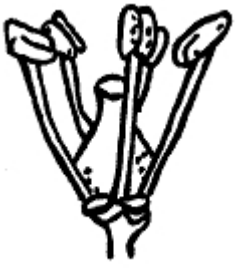


2
three or more

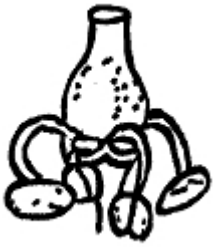
Ad. 17: Flower: sexual organs

1
fully developed stamens
and no gynoecium

2
fully developed stamens
and reduced gynoecium

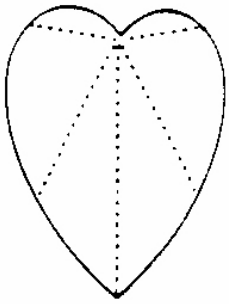


3
fully developed stamens
and fully developed gynoecium

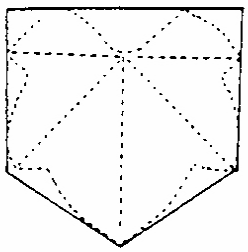


4
reflexed stamens
and fully developed gynoecium

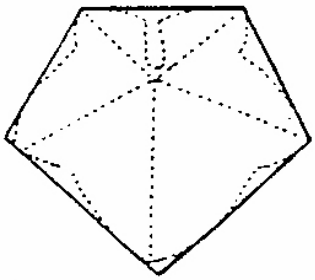
Ad. 19: Mature leaf: shape of blade



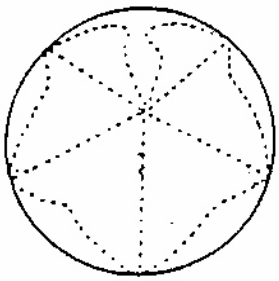
1
cordate



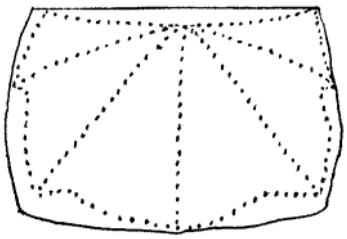
2
wedge-shaped



3
pentagonal

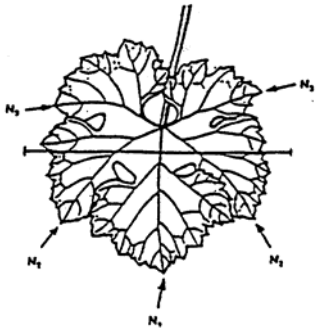


4
circular

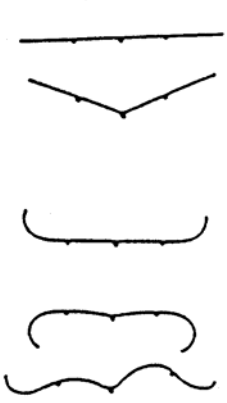


5
kidney-shaped

Ad. 20: Mature leaf: profile of blade in cross section



← cross section



1 flat

2 V-shaped

3 involute

4 revolute

5 twisted

Ad. 22: Mature leaf: number of lobes

A lobe is that part of the leaf which lies between two leaf sinuses. A leaf sinus results from a clear interruption of teeth on the leaf margin. A leaf showing no lateral sinus is considered to consist of one lobe.

Within the same plant leaves with different number of lobes can appear. The predominant number of lobes has to be observed.

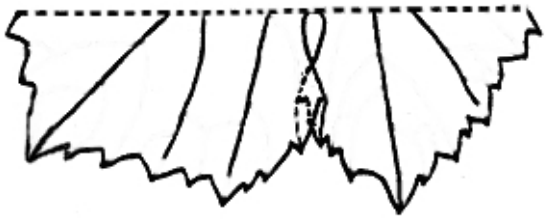
Ad. 23: Mature leaf: depth of upper lateral sinuses

Ad. 24: Only varieties with lobed leaves: Mature leaf: arrangement of lobes of upper lateral sinuses

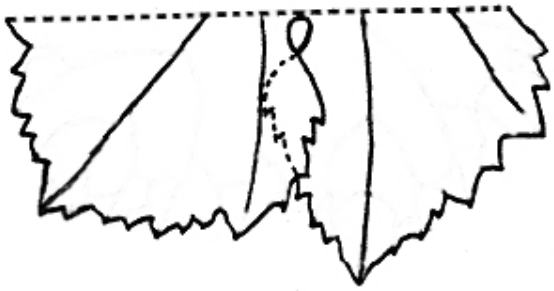
A sinus results from a clear interruption of teeth on the leaf margin. The upper lateral sinuses are situated between the middle vein and the next lateral main vein.

1
open

2
closed



3
slightly overlapped



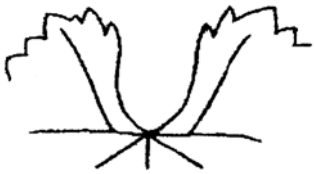
4
strongly overlapped

Ad. 25: Mature leaf: arrangement of lobes of petiole sinus

Leaves must be flattened for notation.

1
very wide open

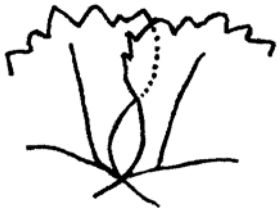
2
wide open



3
half open

4
slightly open

5
closed



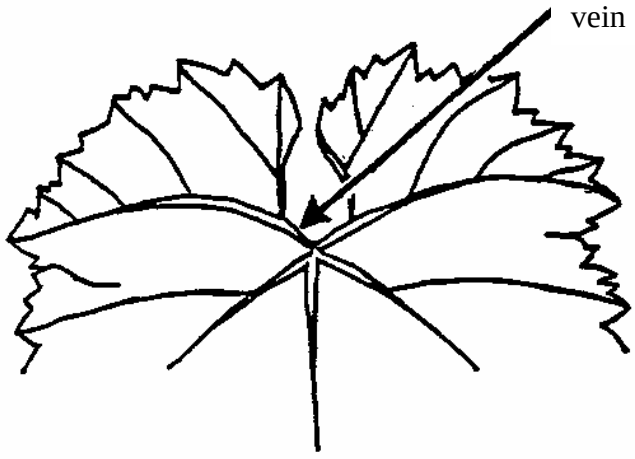
6
slightly overlapped

7
half overlapped

8
strongly overlapped

9
very strongly overlapped

Ad. 26: Mature leaf: bordering of base of petiole sinus by veins



Ad. 27: Mature leaf: length of teeth
Ad. 28: Mature leaf: ration length/width of teeth
Ad. 29: Mature leaf: shape of teeth

All observations should be made between lateral main veins on the teeth of secondary veins.

Ad. 29: Mature leaf: shape of teeth

1
both sides concave

2
both sides straight

3
both sides convex

4
one side concave, one side convex

5
mixture of both sides straight andboth sides convex

Ad. 34: Only varieties for fruit production: Time of beginning of berry ripening (veraison)

About 50% of berries start getting soft.

Ad. 36: Bunch: density

1 = berries in grouped formation, many visible pedicels
3 = single berries, some pedicels visible
5 = densely distributed berries, pedicels not visible, berries movable
7 = berries not readily movable
9 = berries pressed out of shape.

Ad. 37: Bunch: length of peduncle of primary bunch

To be measured: distance from insertion point of peduncle on shoot to 1st ramification of primary bunch. Above the 1st ramification there is a knot like thickening on the peduncle from which a secondary bunch or a tendril may arise which must not be mixed up with the 1st ramifaction.

Ad. 39: Berry: shape

1
obloid

2
globose

3
broad ellipsoid

4
narrow ellipsoid

5
cylindrical

6
obtuse ovoid

7
ovoid

8
obovoid

9
horn-shaped

10
finger-shaped

Ad. 46: Berry: formation of seeds

1 = no formation of seeds (parthenocarpic, type Corinthe)
2 = seeds with soft seed coat, embryo or endosperm not completely developed (stenospermocarpic, type Sultanina)
3 = seeds fully developed

8.3 Encoding and Description of the Phenological Stages of Grapevine According to the Extended BBCH Scale[1]

BBCH-Code	Description
Principal growth stage 0	Sprouting
00	Dormancy: winter buds pointed to rounded, bright or dark brown according to cultivar, bud scales more or less closed according to cultivar
01	Beginning of bud swelling: buds begin to expand inside the bud scales
03	End of bud swelling: buds swollen, but not green
05	"Wool stage": brown wool clearly visible
07	Beginning of bud burst: green shoot tips just visible
09	Bud burst: green shoot tips clearly visible
Principal growth stage 1	Leaf development
11	First leaf unfolded and spread away from shoot
12	Two leaves unfolded
13	Three leaves unfolded
14	Four leaves unfolded
15	Five leaves unfolded
16	Six leaves unfolded
19	Nine or more leaves unfolded
Principal growth stage 5	Inflorescence emergence
53	Inflorescences clearly visible
55	Inflorescences swelling, flowers closely pressed together
57	Inflorescences fully developed, flowers separating
Principal growth stage 6	Flowering
60	First flowerhoods detached from the receptacle
61	Beginning of flowering: 10% of flowerhoods fallen
63	Early flowering: 30% of flowerhoods fallen
65	Full flowering: 50% of flowerhoods fallen
68	80% of flowerhood fallen
69	End of flowering
Principal growth stage 7	Development of fruits
71	Fruit set: young fruits begin to swell, remains of flowers lost
73	Berries groat-sized, bunches begin to hang
75	Berries pea-sized, bunches hang
77	Beginning of berry touch
79	Berry touch completed
Principal growth stage 8	Ripening of berries
81	Beginning of ripening: berries begin to brighten in color
83	Berries brightening in color
85	Softening of berries
89	Berries ripe for harvest
Principal growth stage 9	Senescence
91	After harvest: end of wood maturation
92	Beginning of leaf discoloration
93	Beginning of leaf-fall
95	50% of leaves fallen
97	End of leaf-fall
99	Post-harvest treatments

1 The code has been jointly developed by *Biologische Bundesanstalt für Land- und Forstwirtschaft (BB), Bundessortenamt (BSA) and Industrieverband Agrar (IVA*) in cooperation with *Staatliche Lehr- und Forschungsanstalt für Landwirtschaft, Wein und Gartenbau (SLFA)*, Section Plant Pathology, Neustadt/Weinstraße. Published in Lorenz et al., 1994 (see Literature).

8.4 Synonyms for Certain Example Varieties Used

Example Varieties	Synonyms
Blauer Portugieser N	Portugais bleu
Chasselas blanc B	Weisser Gutedel
Chasselas rose Rs	Roter Gutedel
Corinthe noir N	Black Corinth, Corinto nero, Korinthiaki, Corinto negro.
Gewürztraminer Rs	Roter Traminer, Traminer aromatico
Garnacha tinta N	Grenache noir
Meunier N	Müllerrebe, Pinot meunier
Müller Thurgau B	Rivaner
Muscat blanc B	Gelber Muskateller, ~~Moscato bianco,~~ Muscat à petits grains blancs, Moscatel de grano menudo, Moschato aspro
Muscat of Alexandria B	Hanepoot, Zibibbo, Moscatel de Alejandría, Moscatel de Málaga, Moscatel romano
Perle de Csaba B	Csaba gyöngye
Pinot gris G	Grauburgunder, Pinot grigio, Ruländer
Pinot noir N	Blauer Spätburgunder, Pinot nero
Riesling B	Riesling renano, Rheinriesling, Weisser Riesling
Sultanina B	~~Sultana,~~ Thompson Seedless, Sultanine B

9. Literature

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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: Vitis L.

Please specify species: .....

1.2 Common name: Grapevine

2. Applicant

Name:

Address:

Telephone No.:

Fax No.:

E-mail address:

Breeder (if different from applicant):

3. Proposed denomination and breeder's reference

Proposed denomination (if available):

Breeder's reference:

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

(a) cuttings [ ]

(b) *in vitro* propagation [ ]

(c) other (state method) [ ]

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 state of expression which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (2)	**Young shoot: openness of tip**		
	closed	*Vitis riparia*	1[ ]
	slightly open	3309 Couderc	2[ ]
	half open	Kober 5 BB	3[ ]
	wide open	Cina	4[ ]
	fully open	*Vitis vinifera*	5[ ]
5.2 (6)	**Young leaf: color of <u>upper</u> side of blade**		
	yellow-green	Furmint B	1[ ]
	green	Silvaner B	2[ ]
	green with anthocyanin spots	Riesling B	3[ ]
	light copper-red	Kober 5 BB	4[ ]
	dark copper-red	Chasselas blanc B	5[ ]
	wine-red	Deckrot N	6[ ]
5.3 (7)	**Young leaf: density of prostrate hairs between main veins on lower side of blade**		
	none or very low	Rupestris du Lot	1[ ]
	low	Muscat blanc B	3[ ]
	medium	Merlot N, Riesling B	5[ ]
	high	Clairette B	7[ ]
	very high	*Vitis labrusca*	9[ ]

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

	Characteristics	Example Varieties	Note
5.4 (17)	**Flower: sexual organs**		
	fully developed stamens and no gynoecium	Rupestris du Lot	1[ ]
	fully developed stamens and reduced gynoecium	3309 Couderc	2[ ]
	fully developed stamens and fully developed gynoecium	Chasselas blanc B	3[ ]
	reflexed stamens and fully developed gynoecium	Ohanes B	4[ ]
5.5 (22)	**Mature leaf: number of lobes**		
	one	Rupestris du Lot	1[ ]
	three	Chenin blanc B	2[ ]
	five	Chasselas blanc B	3[ ]
	seven	Vermentino B	4[ ]
	more than seven	Hebron B	5[ ]
5.6 (34)	**Only varieties for fruit production: Time of beginning of berry ripening (veraison)**		
	very early	Perle de Csaba B	1[ ]
	early	Chasselas blanc B	3[ ]
	medium	Riesling B	5[ ]
	late	Carignan N	7[ ]
	very late	Olivette noire N	9[ ]

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

	Characteristics	Example Varieties	Note
5.7 (39)	**Berry: shape**		
	obloid	Nobling B	1[ ]
	globose	Chasselas blanc B	2[ ]
	broad ellipsoid	Müller Thurgau B	3[ ]
	narrow ellipsoid	Olivette noire N	4[ ]
	cylindrical	Kahlili belyi B	5[ ]
	obtuse ovoid	Ahmeur bou Ahmeur Rs	6[ ]
	ovoid	Bicane B	7[ ]
	obovoid		8[ ]
	horn-shaped	Santa Paula B	9[ ]
	finger-shaped	Black finger	10[ ]
5.8 (40)	**Berry: color of skin (without bloom)**		
	green	Jade seedless (King Husainy)	1[ ]
	yellow-green	Chasselas blanc B	2[ ]
	yellow		3[ ]
	yellow-rose	Moscatel grano menudo rojo	4[ ]
	rose	Chasselas rose Rs	5[ ]
	red	Molinera gorda Rg	6[ ]
	grey-red	Pinot gris G	7[ ]
	dark red violet	Cardinal Rg	8[ ]
	blue black	Pinot noir N	9[ ]

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

	Characteristics	Example Varieties	Note
5.9 (42)	**Berry: anthocyanin coloration of flesh**		
	absent or very weak	Pinot noir N	1[ ]
	weak	Gamay de Bouze N	3[ ]
	medium	Gamay de Chaudenay N	5[ ]
	strong	Alicante Bouschet N	7[ ]
	very strong	Deckrot N	9[ ]
5.10 (45)	**Berry: particular flavor**		
	none	Auxerrois B	1[ ]
	muscat	Muscat of Alexandria B	2[ ]
	foxy	Isabella N	3[ ]
	herbaceous	Cabernet Sauvignon N	4[ ]
	other than muscat, foxy or herbaceous	Riesling B	5[ ]
5.11 (46)	**Berry: formation of seeds**		
	none	Corinthe noir N	1[ ]
	rudimentary	Sultanina B	2[ ]
	complete	Riesling B	3[ ]

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

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
Chasselas blanc	*Berry: shape*	*globose*	*broad ellipsoid*

Comments:

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

#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

7.3.1 Fungicide treatment is necessary against the following diseases:

	yes	no	sometimes	unknown
(a) Peronospora (Plasmopara)	[ ]	[ ]	[ ]	[ ]
(b) Oidium	[ ]	[ ]	[ ]	[ ]
(c) Botrytis	[ ]	[ ]	[ ]	[ ]

7.3.2 Main use of variety

(a) Wine grape	[ ]
(b) Table grape	[ ]
(c) Rootstock	[ ]
(d) Ornamental	[ ]
(e) Other (specify)	[ ]

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

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:

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:

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”.

……

9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?

Yes [ ]

.....
(please provide details)

No [ ]

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]