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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

GRAPEVINE

UPOV Code(s):

VITIS

Vitis L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by experts from Italy
to be considered by the
Technical Working Party for Fruit Crops
at its fiftieth session, to be held in Budapest, Hungary,
from 2019-06-24 to 2019-06-28

Disclaimer: this document does not represent UPOV policies or guidance

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:

(a) plants on their own roots;
(b) rooted grafts with scions grafted on a rootstock to be specified by the competent authority;
(c) top graft cuttings to produce grafted plants; or
(d) cuttings to produce plants on their own roots.

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

5 plants.

The competent authority can accept the submission of propagating material sufficient to produce 10 rooted grafts or 10 plants on their own roots. 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 only accept propagating materials that comply with the official sanitary regulations of the State in which the test is to take place.

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

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

3. Method of Examination

3.1 Number of Growing Cycles

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

3.1.2 The two independent growing cycles may be observed from a single planting, examined in two separate growing cycles.

3.1.3 In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two 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 Table of Characteristics. The stages of development denoted by each number are described in Chapter 8.3.

3.4 Test Design

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

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

3.5 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.

4.1.4 Number of Plants or Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 5 plants or parts of plants taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation 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

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

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 These Test Guidelines have been developed for the examination of vegetatively propagated varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.

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

4.3 Stability

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

4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial 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: prostrate hairs between main veins on lower side of blade (characteristic 7)
(d) Flower: sexual organs (characteristic 16)
(e) Mature leaf: number of lobes (characteristic 21)
(f) Time of beginning of berry ripening (characteristic 31)
(g) Bunch: density (characteristic 34)
(h) Berry: shape (characteristic 37)
(i) Berry: color of skin (characteristic 39)
(j) Berry: anthocyanin coloration of flesh (characteristic 40)
(k) Berry: particular flavor (characteristic 42)
(l) Berry: formation of seeds (characteristic 43)

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 “Examining Distinctness”.

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

6.2.1 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.

6.2.2 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	*Note*
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	*Note*
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 “Development of Test Guidelines”.

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.

For the example varieties – other than rootstocks – the color of the berry of the example varieties is indicated in the table in Chapter 8.4, 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.

That table also provides synonyms of certain example varieties.

6.5 Legend

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1 2	**3 4**	**5 6**	**7**			
	Name of characteristics in English	**Nom du caractère en français**	**Name des Merkmals auf Deutsch**	**Nombre del carácter en español**		
	states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

1 Characteristic number

2 (*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression
QL Qualitative characteristic – see Chapter 6.3
QN Quantitative characteristic – see Chapter 6.3
PQ Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)
MG, MS, VG, VS – see Chapter 4.1.5

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

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

7 Growth stage key See Explanations on the Table of Characteristics in Chapter 8

8 O-... code number of OIV

9 BI-... code number of Bioversity International

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

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. (*)	**QN MG**	**(+)**	**07-09 / O-301 / B-7.1.1**			
	Time of bud burst					
	very early				Nero	1
	early				Chardonnay	3
	medium				Cabernet Sauvignon	5
	late				Mourvèdre	7
	very late				Airen	9
2. (*)	**QN VG**	**(+)**	**53-69 / O-001 / B-6.1.1**			
	Young shoot: openness of tip					
	closed				Riparia Gloire de Montpellier	1
	slightly open				3309 Couderc	2
	half open				Kober 5 BB	3
	wide open				Cina	4
	fully open				Flame seedless, Pinot noir	5
3. (*)	**QN VG**	**(+)**	**53-69 / O-004 / B-6.1.3**			
	Young shoot: density of <u>prostrate</u> hairs on tip					
	absent or very sparse				3309 Couderc , Autumn royal seedless	1
	sparse				Chasselas blanc	3
	medium				Crimson seedless, Pinot noir	5
	dense				Furmint	7
	very dense				Meunier	9
4. (*)	**QN VG**	**(+)**	**53-69 / O-003 / B-6.1.2**			
	Young shoot: anthocyanin coloration of <u>prostrate</u> hairs on tip					
	absent or very weak				Furmint	1
	weak				Riesling	3
	medium				Barbera	5
	strong				Cabernet Sauvignon	7
	very strong				Cina	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5.	**QN VG**	**(+)**	**53-69 / O-005 / B-6.1.4**			
	Young shoot: density of <u>erect</u> hairs on tip					
	absent or very sparse				Flame seedless, Rupestris du Lot	1
	sparse				3309 Couderc	3
	medium				3306 Couderc	5
	dense				Riparia Gloire de Montpellier	7
	very dense				Riparia Tomentosa	9
6.	**(*) PQ VG**	**(+)**	**53-69 / O-051 / B-6.1.16**			
	Young leaf: color of <u>upper</u> side of blade					
	yellow green				Furmint	1
	green				Silvaner	2
	green with reddish brown speckles				Riesling	3
	light brown red				Kober 5 BB	4
	dark brown red				Chasselas blanc	5
	brownish purple				Deckrot	6
7.	**(*) QN VG**	**(+)**	**53-69 / O-053 / B-6.1.17**			
	Young leaf: prostrate hairs between main veins on lower side of blade					
	absent or very sparse				Rupestris du Lot	1
	sparse				Muscat à petits grains blancs, Sugraone	3
	medium				Merlot, Riesling	5
	dense				Clairette	7
	very dense				Meunier	9
8.	**QN VG**	**(+)**	**53-69 / O-056 / B-6.1.20**			
	Young leaf: erect hairs on main veins on lower side of blade					
	absent or very sparse				Flame seedless, Rupestris du Lot	1
	sparse				3309 Couderc	3
	medium				Kober 125 AA	5
	dense				Teleki 8 B	7
	very dense				Riparia Scribner	9

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9.		**QN VG**	**(+)**	**60-69 / O-006 / B-6.1.5**			
		Shoot: attitude					
		erect				Garnacha tinta	1
		semi erect				Muscat Ottonel	3
		horizontal				Barbera	5
		semi drooping				Aramon noir	7
		drooping				Albillo real	9
10.		**PQ VG**	**(+)** **(a)**	**60-69 / O-007 / B-6.1.6**			
		Shoot: color of <u>dorsal</u> side of internodes					
		green				Sauvignon, Sultanina	1
		green and red				Carignan, Sugraone	2
		red				Kober 5 BB, Riesling	3
11.	**(*)**	**PQ VG**	**(+)** **(a)**	**60-69 / O-008 / B-6.1.7**			
		Shoot: color of <u>ventral</u> side of internodes					
		green				Flame seedless, Sauvignon	1
		green and red				Carignan	2
		red				Mourvèdre	3
12.		**PQ VG**	**(+)** **(a)**	**60-69 / O-009 / B-6.1.8**			
		Shoot: color of <u>dorsal</u> side of nodes					
		green				Sauvignon, Sultanina	1
		green and red				Barbera, Sugraone	2
		red				Kober 5 BB	3
13.		**QN VG**	**(+)** **(a)**	**60-69 / O-010 / B-6.1.9**			
		Shoot: color of <u>ventral</u> side of nodes					
		green				3309 Couderc , Sultanina	1
		green and red				Börner	2
		red				Kober 5 BB	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
14.	**QN VG**	**(a)**	**60-69 / O-012 / B-6.1.11**			
	Shoot: density of <u>erect</u> hairs on internodes					
	absent or very sparse				3309 Couderc , Flame seedless	1
	sparse				161-49 Couderc	3
	medium				Teleki 8 B	5
	dense				Kober 125 AA, Riparia Scribner	7
	very dense				Cina, Riparia Tomentosa	9
15.	**QN VG**	**(a)**	**60-69 / O-014 / B-6.1.10**			
	Shoot: density of prostrate hairs on internodes					
	none or very sparse				Flame seedless, Garnacha tinta	1
	sparse				King Husainy	3
	medium				Clairette	5
	dense					7
	very dense					9
16. **(*)**	**QL VG**	**(+)**	**61-68 / O-151 / B-6.2.1**			
	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, Flame seedless	3
	reflexed stamens and fully developed gynoecium				Kober 5 BB, Ohanes	4
17. **(*)**	**QN VG**	**(b)**	**75-81 / O-065 / B-6.1.21**			
	Mature leaf: size of blade					
	very small				1103 Paulsen	1
	small				Gamay	3
	medium				Cabernet Sauvignon, Flame seedless	5
	large				Carignan	7
	very large				Bobal, Emperor	9

		English	français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18.	**(*)**	**PQ VG**	**(+)**	**(b)**	**75-81 / O-067 / B-6.1.22**			
		Mature leaf: shape of blade						
		cordate					Petit Verdot	1
		wedge shaped					Riparia Gloire de Montpellier	2
		pentagonal					Chasselas blanc, Sultanina	3
		circular					Clairette, Flame seedless	4
		kidney shaped					Rupestris du Lot	5
19.		**QN VG**		**(b)**	**75-81 / O-075 / B-6.1.26**			
		Mature leaf: blistering of upper side of blade						
		absent or very weak					Rupestris du Lot	1
		weak					Chasselas blanc	3
		medium					Semillon	5
		strong					Merlot	7
		very strong					Brancellao	9
20.		**QL VG**		**(b)**	**75-81 / O-073 / B- ---**			
		Mature leaf: undulation of blade between main and lateral veins						
		absent					Garnacha tinta	1
		present					Cot, Riparia Gloire de Montpellier	9
21.	**(*)**	**QN VG**	**(+)**	**(b)**	**75-81 / O-068 / B-6.1.23**			
		Mature leaf: number of lobes						
		one					Rupestris du Lot	1
		three					Chenin blanc	2
		five					Chasselas blanc	3
		seven					Vermentino	4
		more than seven					Hebron, Nuragus	5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22.		**QN VG**	**(+) (b)**	**75-81 / O-094 / B-6.1.34**			
		Mature leaf: depth of upper lateral sinuses					
		absent or very shallow				Melon	1
		shallow				Gamay	3
		medium				Merlot	5
		deep				Chasan	7
		very deep				Chasselas cioutat	9
23.		**QN VG**	**(+) (b)**	**75-81 / O-082 / B-6.1.33**			
		Only varieties with lobed leaves: Mature leaf: arrangement of lobes of upper lateral sinuses					
		open				Folle blanche, Sultanina	1
		closed				Chasselas blanc	2
		slightly overlapped				Cabernet Sauvignon	3
		strongly overlapped				Clairette, Flame seedless	4
24.	**(*)**	**QN VG**	**(+) (b)**	**75-81 / O-79 / B-6.1.30**			
		Mature leaf: arrangement of lobes of petiole sinus					
		very wide open				Rupestris du Lot	1
		wide open				Riparia Gloire de Montpellier	2
		half open				Aramon noir	3
		slightly open				Sauvignon	4
		closed				Chasselas blanc	5
		slightly overlapped				Aubun	6
		half overlapped				Riesling	7
		strongly overlapped				Clairette	8
		very strongly overlapped				Domina	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
25. (*)	**QN VG**	**(+) (b)**	**75-81 / O- -- / B-6.1.28**			
	Mature leaf: length of teeth					
	very short				Berlandieri Resseguier 2	1
	short				Emerald seedless, Pinot noir	3
	medium				Merlot	5
	long				Carignan, Centennial seedless	7
	very long					9
26. (*)	**QN VG**	**(+) (b)**	**75-81 / O-078 / B-6.1.29**			
	Mature leaf: ratio length/width of teeth					
	very low				157-11 Couderc	1
	low				Silvaner	3
	medium				Chasselas blanc	5
	high				Muscat of Alexandria	7
	very high				Sangiovese	9
27. (*)	**PQ VG**	**(+) (b)**	**75-81 / O-076 / B-6.1.27**			
	Mature leaf: shape of teeth					
	both sides concave				Trevisana nera	1
	both sides straight				Muscat à petits grains blancs	2
	both sides convex				Chenin blanc	3
	one side concave, one side convex				Aspiran	4
	mixture of both sides straight and both sides convex				Cabernet franc	5
	mixture of both sides straight and one side concave, one side convex				Conegliano precoce	6

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
28. (*) QN VG		**(+) (b)**	**75-81 / O- -- / B-6.1.24**			
	Mature leaf: proportion of main veins on <u>upper</u> side of blade with anthocyanin coloration					
	absent or very low				Garnacha tinta	1
	low				Autumn royal seedless, Muscat of Alexandria	3
	medium				Dornfelder	5
	high				Deckrot	7
	very high				Cabernet Mitos	9
29. (*) QN VG		**(b)**	**75-81 / O-084 / B-6.1.35**			
	Mature leaf:density of <u>prostrate</u> hairs <u>between</u> main veins on <u>lower</u> side of blade					
	absent or very sparse				Chasselas blanc	1
	sparse				Blush seedless, Gamay	3
	medium				Cabernet Sauvignon	5
	dense				Clairette	7
	very dense				Isabella	9
30. (*) QN VG		**(b)**	**75-81 / O-087 / B-6.1.38**			
	Mature leaf: density of <u>erect</u> hairs on main veins on <u>lower</u> side of blade					
	absent or very sparse				Rupestris du Lot	1
	sparse				Perle de Csaba	3
	medium				Muscat Ottonel	5
	dense				Early muscat, Kober 125 AA	7
	very dense				Börner	9
31. (*) QN MG		**(+)**	**81 / O-303 / B-7.1.4**			
	Time of beginning of berry ripening					
	very early				Perle de Csaba	1
	early				Pinot noir	3
	medium				Riesling, Sultanina	5
	late				Carignan	7
	very late				Olivette noire	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
32. (*)	**QN VG**	**(+)**	**89 / O-202 / B-7.1.5**			
	Bunch: length					
	very small				Kober 5 BB	1
	small				Riesling	3
	medium				Müller Thurgau	5
	large				Trebbiano toscano	7
	very large				Nehelescol	9
33.	**QN VG**	**(+)**	**89 / O-203 / B- --**			
	Bunch: width					
	very narrow				161-49 Couderc	1
	narrow				Riesling	3
	medium				Garnacha tinta	5
	wide				Cardinal	7
	very wide				Ruby seedless	9
34. (*)	**QN VG**	**(+)**	**89 / O-204 / B-6.2.3**			
	Bunch: density					
	very lax				Nehelescol	1
	lax				Malbo gentile	3
	medium				Chasselas blanc, Sugraone	5
	dense				Sauvignon	7
	very dense				Meunier	9
35. (*)	**QN MG/VG**	**(+)**	**89 / O-206 / B-6.2.4**			
	Bunch: length of peduncle of primary bunch					
	very short				Silvaner	1
	short				Gewürztraminer	3
	medium				Marsanne	5
	long				Alphonse Lavallée	7
	very long				Freisa	9

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
36. (*)	**QN VG**		**89 / O- -- / B-6.2.5**			
	Berry: size					
	very small				Corinthe noir	1
	small				Riesling, Sultanina	3
	medium				Portugieser, Sugraone	5
	large				Muscat of Alexandria, Red globe	7
	very large				Alphonse Lavallée, Kyoho	9
37. (*)	**PQ VG**	**(+)**	**89 / O- -- / B-6.2.6**			
	Berry: shape					
	obloid				Tompa	1
	globose				Chasselas blanc	2
	broad ellipsoid				Müller Thurgau	3
	narrow ellipsoid				Olivette noire	4
	cylindrical				Khalili belyi	5
	obtuse ovoid				Ahmeur bou Ahmeur	6
	ovoid				Bicane	7
	obovoid				IFG five	8
	horn shaped				Santa Paula	9
	broad finger shaped				Black finger	10
	narrow finger shaped				IFG twelve	11
38.	**QL VG**	**(+)**	**89**			
	Berry: presence of a dimple					
	absent				Chardonnay	1
	present				IFG six	9
39. (*)	**PQ VG**	**(+)**	**89 / O- -- / B-6.2.8**			
	Berry: color of skin					
	yellow green				Chasselas blanc	1
	yellowish				Moscato giallo, Palatina	2
	rosish				Chasselas rose	3
	redish				Flame seedless, Molinera gorda	4
	grey red				Pinot gris	5
	dark red violet				Cardinal	6
	blue black				Pinot noir	7

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
40. (*)	**QN VG**		**89 / O-231 / B-6.2.9**			
	Berry: anthocyanin coloration of flesh					
	absent or very weak				Pinot noir	1
	weak				Gamay de Bouze	3
	medium				Gamay de Chaudenay	5
	strong				Alicante Bouschet	7
	very strong				Deckrot	9
41.	**QN VG**		**89 / O-2.35 / B-6.2.11**			
	Berry: firmness of flesh					
	soft				Pinot noir	1
	moderately firm				Italia	2
	very firm				Sugraone, Sultanina	3
42. (*)	**PQ VG**		**89 / O- --- / B- ---**			
	Berry: particular flavor					
	none				Auxerrois	1
	muscat				Muscat of Alexandria	2
	foxy				Isabella	3
	muscat mixed foxy				IFG nineteen	4
	herbaceous				Cabernet Sauvignon	5
	caramel				IFG seven	6
	any other flavor				Chardonnay, Merlot, Pinot noir, Riesling	7
43. (*)	**QL VG**	**(+)**	**89 / O-241 / B-6.2.7**			
	Berry: formation of seeds					
	none				Corinthe noir	1
	rudimentary				Sultanina	2
	complete				Riesling	3

	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
44.	**PQ VG**		**91-00 / O- -- / B- --**			
	Woody shoot: main color					
	yellowish brown				Garnacha tinta	1
	orange brown				Malvar, Portugieser	2
	dark brown				Chasselas blanc, Sultanina	3
	reddish brown				3309 Couderc	4
	greysh brown				1103 Paulsen	5
	reddish violet				Cabernet Mitos	6

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

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

(a) Shoot: Observations on the shoot which should be made in the middle third of shoot.
(b) Mature leaf: Observations on the mature leaf which should be made on leaves in the middle third of the shoot just above the raceme.

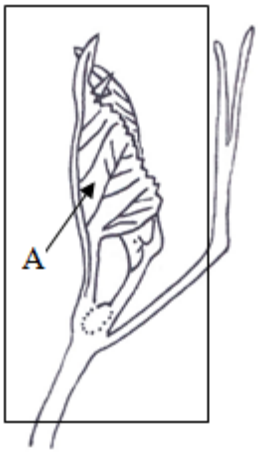
8.2 Explanations for individual characteristics

Ad. 1: Time of bud burst

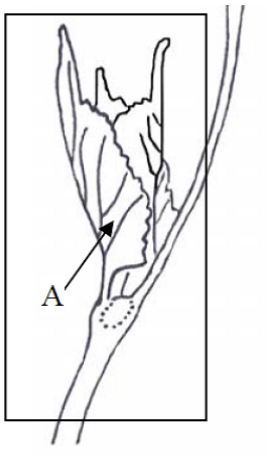
The time of bud burst is when 50% of the plants are at the bud burst stage. A plant is at bud burst stage when 50% of the buds are at least at growth stage 07.

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

Ad. 2: Young shoot: openness of tip



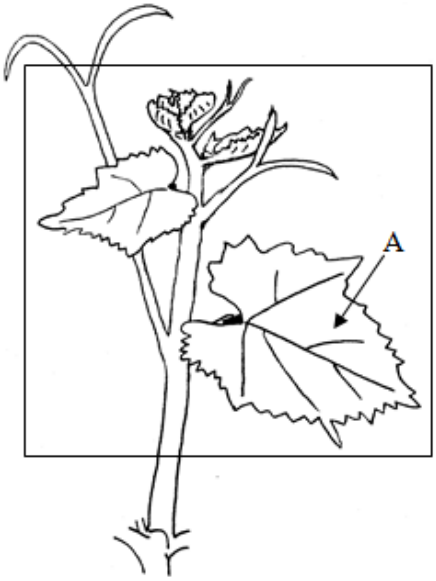
1
closed



2
slightly open

3
half open

4
wide open



5
fully open

The openness of tip results from the attitude of the young leaves. The leaves indicated with 'A' have about the same physiological age. Openness of tip is correlated with elongation of the shoot tip.

Ad. 3: Young shoot: density of prostrate hairs on tip

See Ad. 2

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. 4: Young shoot: anthocyanin coloration of prostrate hairs on tip

See explanation characteristic 2 and 3

Ad. 5: Young shoot: density of erect hairs on tip

See explanation characteristic 2 and 3

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. The states green with anthocyanin spots (3); light copper red (4); dark copper red (5); and wine red (6) correspond to an increasing amount of anthocyanin coloration.

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

See Ad. 7

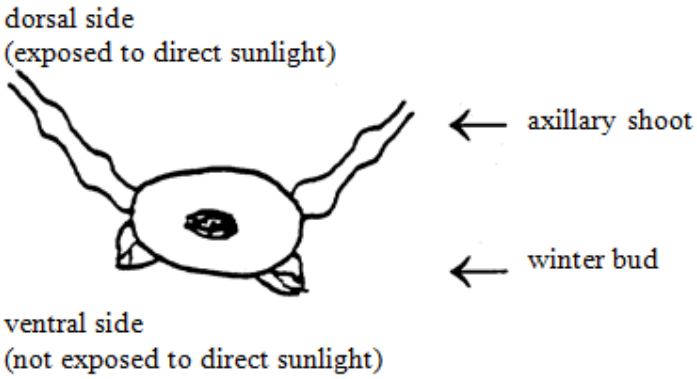
Ad. 9: Shoot: attitude

1	3	5	7	9
erect	semi-erect	horizontal	semi-drooping	drooping

Observation of this characteristic should be made on plants before tying. Observation is difficult in windy locations where the shoots have to be tied early.

Ad. 10: Shoot: color of dorsal side of internodes

Cross section of shoot



The states: green (1); green and red (2); and red (3) correspond to the proportion c anthocyanin coloration: absent or low (1); medium (2); and high (3).

Ad. 11: Shoot: color of ventral side of internodes

See Ad. 10

Ad. 12: Shoot: color of dorsal side of nodes

See Ad. 10

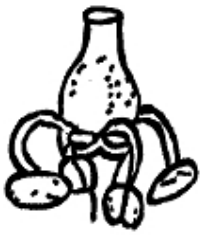
Ad. 13: Shoot: color of ventral side of nodes

See Ad. 10

Ad. 16: Flower: sexual organs

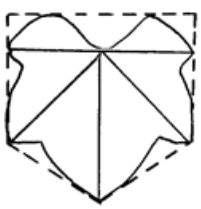
2
fully developed stamens and reduced gynoecium

3
fully developed stamens and fully developed gynoecium



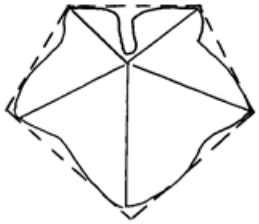
4
reflexed stamens and fully developed gynoecium

Ad. 18: Mature leaf: shape of blade



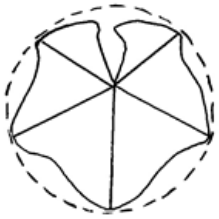
(forms a pentagon with parallel sides)

2
wedge-shaped



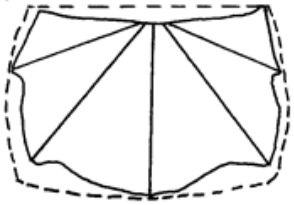
(forms a pentagon with broadest part towards the base)

3
pentagonal



(forms a pentagon with broadest part towards the apex)

4
circular



(broader than long)

5
kidney-shaped

Ad. 21: 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.

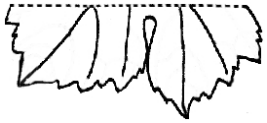
Ad. 22: Mature leaf: depth of upper lateral sinuses

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.

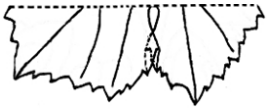
Ad. 23: Only varieties with lobed leaves: Mature leaf: arrangement of lobes of upper lateral sinuses

See explanation Ad. 21 and Ad. 22.

1
open



2
closed



3
slightly overlapped

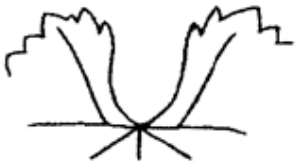
4
strongly overlapped

Ad. 24: Mature leaf: arrangement of lobes of petiole sinus

Leaves must be flattened for notation. Within the same plant leaves with different arrangements of lobes of petiol sinus can appear. The predominant arrangement of lobes has to be observed.

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. 25: Mature leaf: length of teeth

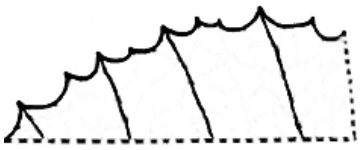
All observations should be made between lateral main veins on the teeth of secondary veins.

Ad. 26: Mature leaf: ratio length/width of teeth

See Ad. 25

Ad. 27: Mature leaf: shape of teeth

See Ad. 25

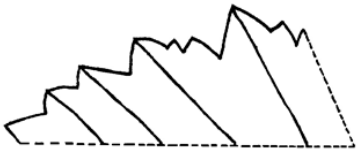


1
both sides concave

2
both sides straight

3
both sides convex

4
one side concave ; one side convex



5
mixture of both sides straight and both sides convex

Ad. 28: Mature leaf: proportion of main veins on upper side of blade with anthocyanin coloration

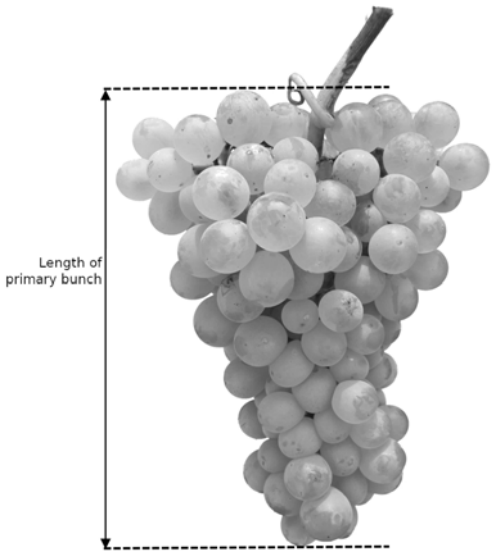
The characteristic should be observed as the proportion of the total length of main veins with anthocyanin coloration. Interruptions in the anthocyanin coloration should not be included in that proportion.

Ad. 31: Time of beginning of berry ripening

To be observed when about 50% of the berries on 50% of the plants start to become soft. Berries will be deformed when lightly pressed between fingers.

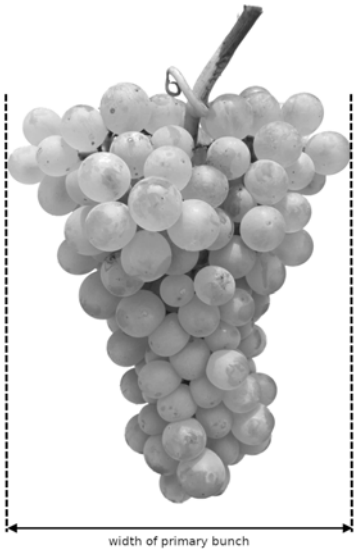
Ad. 32: Bunch:length

Observation of this characterstic should be made excluding the peduncle. To be measured the distance from yhe uppermost to the lowest berry of the primary bunch.



Ad. 33: Bunch:width

To be measured the maximum distance between the lateral berries of the primary bunch.

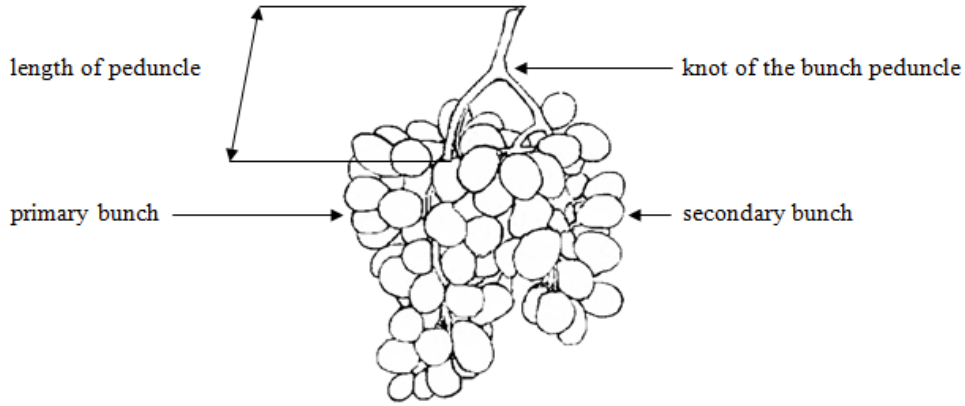


Ad. 34: Bunch: density

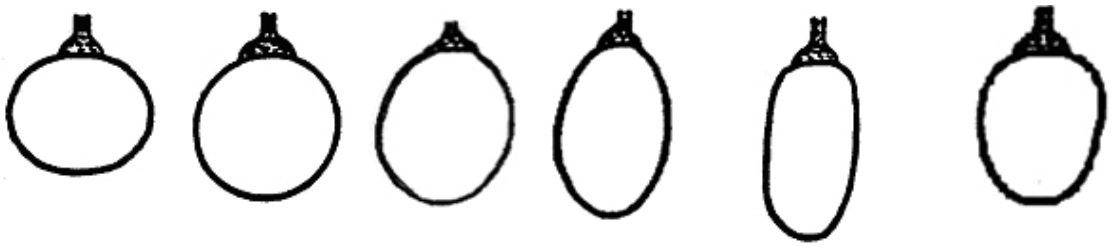
1 = berries in grouped formation, many visible pedicels
3 = single berries, some pedicels visible
5 = densely distributed berries, pedicels not visible, berries movable
7 = berries not readily movable 9 = berries pressed out of shape

Ad. 35: Bunch: length of peduncle of primary bunch

The distance from insertion point of peduncle on shoot to 1st ramification of primary bunch should be measured. Above the 1st ramification there is a knot like thickening on the peduncle from which a secondary bunch or a tendril may arise which should not be confused with the 1st ramification.



Ad. 37: Berry: shape



1	2	3	4	5	6
obloid	globose	broad ellipsoid	narrow ellipsoid	cylindrical	obtuse ovoid

7	8	9	10	11
ovoid	obovoid	horn-shaped	broad finger-shaped	narrow finger-shaped

Ad. 38: Berry: presence of a dimple

1
absent

9
present

Ad. 39: Berry: color of skin

Observation of this characteristic should be made on barries of different bunchis after removing the bloom.
This characteristic might be light dependent. Observation shoud be made only on those berries exposed directly to the sun.

Ad. 43: 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)
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/Bud development
00	Dormancy: winter buds pointed to rounded, light 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	2nd leaves unfolded
13	3rd leaves unfolded
1-	Stages continuous till …
19	9 or more leaves unfolded
Principal growth stage 5	Inflorescence emerge
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
62	20% of flowerhoods fallen
63	Early flowering: 30% of flowerhoods fallen
64	40% of flowerhoods fallen
65	Full flowering: 50% of flowerhoods fallen
66	60% of flowerhoods fallen
67	70% 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	Berries beginning to touch
79	Majority of berries touching
Principal growth stage 8	Ripening of berries
81	Beginning of ripening: berries begin to develop variety-specific color
83	Berries developing 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 discolouration
93	Beginning of leaf-fall
95	50% of leaves fallen
97	End of leaf-fall
99	Harvested product

[1] The code has been jointly developed by *Biologische Bundesanstalt für Land- und Forstwirtschaft (BB), Bundessor-tenamt (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, and in Meier, 1997 (see Literature).

8.4 Synonyms and skin color of berry for example varieties

Example Varieties	Skin color of berry *	Synonyms
Ahmeur bou Ahmeur	Rs	
Airen	B	
Albillo real	B	
Alicante Bouschet	N	Garnacha Tintorera
Alphonse Lavallée	N	Ribier
Aramon noir	N	
Aspiran	N	
Aubun	N	
Autumn royal seedless	N	
Auxerrois	B	
Barbera	N	
Berlandieri Resseguier 2	N	
Bicane	B	
Black finger	N	
Blush seedless	Rg	
Bobal	N	
Börner		
Brancellao	N	
Cabernet Franc	N	
Cabernet Mitos	N	
Cabernet Sauvignon	N	
Cardinal	Rg	
Carignan	N	Cariñena, Mazuela
Centennial seedless	B	
Chardonnay	B	
Chasan	B	
Chasselas blanc	B	Weisser Gutedel
Chasselas cioutat	B	
Chasselas rose	Rs	Roter Gutedel
Chenin blanc	B	
Cina		
Clairette	B	
Conegliano precoce	N	Conegliano 199
Cot	N	Malbec
Couderc 157-11		
Couderc 161-49	N	
Couderc 3306		
Couderc 3309		
Corinthe noir	N	Black Corinth, Corinto nero, Korinthiaki, Corinto negro
Crimson seedless	Rg	
Deckrot	N	
Domina	N	
Dornfelder	N	
Early muscat	B	
Emerald seedless	B	
Emperor	Rg	
Flame seedless	Rg	
Folle blanche	B	
Freisa	N	
Furmint	B	
Gamay	N	
Gamay de Bouze	N	
Gamay de Chaudenay	N	
Garnacha tinta	N	Grenache noir
Gewürztraminer	Rs	Roter Traminer, Traminer aromatico, Tramin cervený
Hebron	B	
IFG five	N	
IFG seven	B	
IFG six	N	
IFG nineteen	Rg	
Isabella	N	
Italia	B	
Khalili belyi	B	

King Husainy	B	Jade seedless
Kober 5 BB	N	
Kober 125 AA	N	
Kyoho	N	
Lipovina	B	Harslevelu
Malbo gentile	N	
Malvar	B	
Marsanne	B	
Melon	B	
Merlot	N	
Meunier	N	Müllerrebe, Pinot meunier
Molinera gorda	Rg	
Moscato giallo	B	
Mourvèdre	N	
Müller Thurgau	B	Rivaner
Muscat à petits grains blancs	B	Gelber Muskateller, Moscatel de grano menudo, Moschato aspro, Muscat blanc
Muscat of Alexandria	B	Hanepoot, Zibibbo, Moscatel de Alejandría, Moscatel de Málaga, Moscatel romano
Muscat Ottonel	B	
Nehelescol	B	
Nero	N	
Nuragus	B	
Ohanes	B	
Olivette noir	N	
Palatina	B	
Paulsen 1103		
Perle de Csaba	B	Csaba gyöngye
Petit Verdot	N	
Pinot gris	G	Grauburgunder, Pinot grigio, Ruländer
Pinot noir	N	Blauer Spätburgunder, Pinot nero, Rulandské sedé
Portugieser	N	Blauer Portugieser, Portugais bleu, Modry Portugal
Red globe	Rg	
Riesling	B	Riesling renano, Rheinriesling, Weisser Riesling, Ryzlink rýnský
Riparia Gloire de Montpellier		
Riparia scribner		
Riparia tomentosa		
Ruby seedless	Rg	
Rupestris du Lot		
Sangiovese	N	
Santa Paula	B	
Sauvignon	B	
Semillon	B	
Servant	B	
Silvaner	B	
Sugraone	B	Superior Seedless
Sultanina	B	Thompson Seedless, Sultanine B
Teleki 8 B		
Tompa	B	
Trebbiano toscano	B	
Trevisana nera	N	
Uva rara	N	
Vermentino	B	

* The color of the berry is indicated according to the standardized code used within the European Union for the classification of vine varieties:

B = white
G = grey
N = black
Rg = red
Rs = rose

9. Literature

Ambrosi, H. et al., 1994: Farbatlas Rebsorten. Verlag Eugen Ulmer, Stuttgart, DE.
Borrego Polanco, J. et al., 1990: Descripciones ampelográficas nacionales. Servicio de Investigación Agraria de la Comunidad de Madrid, Madrid, ES.
Bundessortenamt (editor), 2015: Beschreibende Sortenliste Reben.
Cabello, F. et al., 2003: La colección de variedades de vid de El Encín. Instituto Madrileño de Investigación Agraria y Alimentaria, Madrid, ES.
Catalogue des variétés et des clones cultivés en France, 2ème édition, Institut Français de la Vigne et du Vin INRA-Montpellier SupAgro-VINIFLHOR, 2007
Chomé, P. et al., 2003: Variedades de vid. Registro de variedades comerciales. Centro de publicaciones del Ministerio de Agricultura, Pesca y Alimentación, Madrid, ES.
CTPS – Ministère de l'Agriculture de la Pêche et de l'Alimentation, 199: Catalogue des variétés et clones de vigne cultivés en France. ENTAV (editor), Le Grau du Roi, FR.
Galet, P., 1988: Cépages et vignobles de France, tome 1: Les vignes américaines. 2e édition, imprimerie Charles Dehan, Montpellier, FR.
Galet, P., 1990: Cépages et vignobles de France, tome 2: L'ampélographie française. 2e édition, imprimerie Charles Dehan, Montpellier, FR.
Garcia de Luján, A. et al. 2004: Catálogo de variedades y clones de vid de Andalucía. Junta de Andalucía, Consejería de Agricultura y Pesca, Sevilla, ES.
Goethe, H., 1887: Handbuch der Ampelographie. 2. Auflage, Verlag Paul Parey, Berlin, DE.
IRZ Geilweilerhof, 2007: Vitis. International Variety Catalogue (VIVC), http://www.vivc.bafz.de/index.php
IPGRI, 1997: Descriptors for Grapevine (*Vitis* spp.). International Plant Genetic Resources Institute, Via delle Sette Chiese142, 00145 Rome, IT, p. 62.
Lawrence, Eleanor, 1994: Henderson's Dictionary of Biological Terms. 10th edition, Longman Scientific and Technical.
Lorenz, D.H. et al., 1994: Phänologische Entwicklungsstadien der Weinrebe (Vitis vinifera L. ssp. vinifera). Codierung und Beschreibung nach der erweiterten BBCH-Skala. Vitic. Enol. Sci. 49 (2), pp. 66-70.
Meier, U., 1997: Growth stages of mono- and dicotyledonous plants. BBCH-Monograph, Blackwell Science, Berlin, Vienna, a.o., 622 pp.
Moog, H., 1957: Einführung in die Rebsortenkunde. Verlag Eugen Ulmer, Stuttgart, DE.
OIV, 2009: Descriptor List for Grapevine Varieties and *Vitis* Species. Office International de la Vigne et du Vin, 18, rue d'Aguesseau, 75008 Paris, FR.
Muñoz Organero, G., Gaforio, L., Garcia Muñoz, S., Cabello, F., 2011: Manual for standardisation of OIV Vitis descriptors. INIA.
Ortiz Marcide, J.M., et al., 1999: Identificación molecular de Germoplasma de Vid. Instituto Madrileño de Investigación Agraria y Alimentaria, Jornadas de Agronomía, Madrid, ES.
RNV, 2013: Registro nazionale delle varietà di vite, http://catalogoviti.politicheagricole.it/catalogo.php.
Stern, William T., 1995: Botanical Latin. 4th edition, David and Charles Publishers.
Viala, P., Vermorel, V., 1901-1910: Ampélographie. Tome 1-7, Editeurs Masson et Cie, Paris, FR.

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.
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)
(……..……..…) x (……..……..…)

female parent male parent

(b) partially known cross [ ]
(please state known parent variety(ies))

(please state known parent varieties)
(……..……..…) x (……..……..…)

female parent male parent

(c) unknown cross [ ]

(d) [ ]

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 [ ]

4.1.5 Other [ ]
(Please provide details)

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

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

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) Cuttings [ ]
(b) *In vitro* propagation [ ]
(c) Other (state method) [ ]

4.2.2 Other [ ]
(Please provide details)

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

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds).

	Characteristics	Example Varieties	Note
5.1 (2)	**Young shoot: openness of tip**		
	closed	Riparia Gloire de Montpellier	1 [ ]
	slightly open	3309 Couderc	2 [ ]
	half open	Kober 5 BB	3 [ ]
	wide open	Cina	4 [ ]
	fully open	Flame seedless, Pinot noir	5 [ ]
5.2 (6)	**Young leaf: color of <u>upper</u> side of blade**		
	yellow green	Furmint	1 [ ]
	green	Silvaner	2 [ ]
	green with reddish brown speckles	Riesling	3 [ ]
	light brown red	Kober 5 BB	4 [ ]
	dark brown red	Chasselas blanc	5 [ ]
	brownish purple	Deckrot	6 [ ]
5.3 (7)	**Young leaf: prostrate hairs between main veins on lower side of blade**		
	absent or very sparse	Rupestris du Lot	1 [ ]
	sparse	Muscat à petits grains blancs, Sugraone	3 [ ]
	medium	Merlot, Riesling	5 [ ]
	dense	Clairette	7 [ ]
	very dense	Meunier	9 [ ]
5.4 (16)	**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, Flame seedless	3 [ ]
	reflexed stamens and fully developed gynoecium	Kober 5 BB, Ohanes	4 [ ]

	Characteristics	Example Varieties	Note
5.5 (21)	**Mature leaf: number of lobes**		
	one	Rupestris du Lot	1 [ ]
	three	Chenin blanc	2 [ ]
	five	Chasselas blanc	3 [ ]
	seven	Vermentino	4 [ ]
	more than seven	Hebron, Nuragus	5 [ ]
5.6 (31)	**Time of beginning of berry ripening**		
	very early	Perle de Csaba	1 [ ]
	early	Pinot noir	3 [ ]
	medium	Riesling, Sultanina	5 [ ]
	late	Carignan	7 [ ]
	very late	Olivette noire	9 [ ]
5.7 (37)	**Berry: shape**		
	obloid	Tompa	1 [ ]
	globose	Chasselas blanc	2 [ ]
	broad ellipsoid	Müller Thurgau	3 [ ]
	narrow ellipsoid	Olivette noire	4 [ ]
	cylindrical	Khalili belyi	5 [ ]
	obtuse ovoid	Ahmeur bou Ahmeur	6 [ ]
	ovoid	Bicane	7 [ ]
	obovoid	IFG five	8 [ ]
	horn shaped	Santa Paula	9 [ ]
	broad finger shaped	Black finger	10 [ ]
	narrow finger shaped	IFG twelve	11 [ ]
5.8 (39)	**Berry: color of skin**		
	yellow green	Chasselas blanc	1 [ ]
	yellowish	Moscato giallo, Palatina	2 [ ]
	rosish	Chasselas rose	3 [ ]
	redish	Flame seedless, Molinera gorda	4 [ ]
	grey red	Pinot gris	5 [ ]
	dark red violet	Cardinal	6 [ ]
	blue black	Pinot noir	7 [ ]

	Characteristics	Example Varieties	Note
5.9 (40)	**Berry: anthocyanin coloration of flesh**		
	absent or very weak	Pinot noir	1 [ ]
	weak	Gamay de Bouze	3 [ ]
	medium	Gamay de Chaudenay	5 [ ]
	strong	Alicante Bouschet	7 [ ]
	very strong	Deckrot	9 [ ]
5.10 (42)	**Berry: particular flavor**		
	none	Auxerrois	1 [ ]
	muscat	Muscat of Alexandria	2 [ ]
	foxy	Isabella	3 [ ]
	muscat mixed foxy	IFG nineteen	4 [ ]
	herbaceous	Cabernet Sauvignon	5 [ ]
	caramel	IFG seven	6 [ ]
	any other flavor	Chardonnay, Merlot, Pinot noir, Riesling	7 [ ]
5.11 (43)	**Berry: formation of seeds**		
	none	Corinthe noir	1 [ ]
	rudimentary	Sultanina	2 [ ]
	complete	Riesling	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
Example	*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

A representative color photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)"

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (http://www.upov.int/tgp/en/).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

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.

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 as specified by the Authority)

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]