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| |  |  |  | | --- | --- | --- | |  |  | **E** | |  |  |  | |  | wordml://75.png | |  | | --- | | **TG/50/10(proj.5)** | | **ORIGINAL:** English | | **DATE:** 2022-05-28 | | | **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 fifty-third session, to be held virtually,* | | |  | | --- | | *from 2022-07-11 to 2022-07-15* | | | | | | *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. | |  | | | | |

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| |  |  | | --- | --- | | TABLE OF CONTENTS | PAGE | |  |  | | |  |  |  | | --- | --- | --- | | 1. | SUBJECT OF THESE TEST GUIDELINES.......................................................................................................... | [3](#Section1) | |  |  |  | | 2. | MATERIAL REQUIRED..................................................................................................................... | [3](#Section2) | |  |  |  | | 3. | METHOD OF EXAMINATION............................................................................................................... | [3](#Section3) | |  |  |  | |  | |  |  |  | | --- | --- | --- | | 3.1 | Number of Growing Cycles................................................................................................................. | [3](#Section3-1) | | 3.2 | Testing Place................................................................................................................... | [3](#Section3-2) | | 3.3 | Conditions for Conducting the Examination............................................................................................... | [3](#Section3-3) | | 3.4 | Test Design................................................................................................................. | [5](#Section3-4) | | 3.5 | Additional Tests................................................................................................................... | [5](#Section3-5) | | | |  |  |  | | 4. | ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY................................................................. | [5](#Section4) | |  |  |  | |  | |  |  |  | | --- | --- | --- | | 4.1 | Distinctness.......................................................................................................... | [5](#Section4-1) | | 4.2 | Uniformity............................................................................................................ | [6](#Section4-2) | | 4.3 | Stability............................................................................................................... | [6](#Section4-3) | | | |  |  |  | | 5. | GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL................................................ | [7](#Section5) | |  |  |  | | 6. | INTRODUCTION TO THE TABLE OF CHARACTERISTICS................................................................................ | [8](#Section6) | |  |  |  | |  | |  |  |  | | --- | --- | --- | | 6.1 | Categories of Characteristics...................................................................................................... | [8](#Section6-1) | | 6.2 | States of Expression and Corresponding Notes........................................................................................ | [8](#Section6-2) | | 6.3 | Types of Expression............................................................................................................ | [8](#Section6-3) | | 6.4 | Example Varieties.............................................................................................................. | [8](#Section6-4) | | 6.5 | Legend................................................................................................................. | [9](#Section6-5) | | | |  |  |  | | 7. | TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.................................................................................................................. | [10](#Section7) | |  |  |  | | 8. | EXPLANATIONS ON THE TABLE OF CHARACTERISTICS............................................................................... | [30](#Section8) | |  | |  |  |  | | --- | --- | --- | | 8.1 | Explanations covering several characteristics........................................................................................... | [30](#Section8-1) | | |  | | --- | | 8.2 | | Explanations for individual characteristics................................................................................................. | [31](#Section8-2) | | | |  |  |  | | 9. | LITERATURE................................................................................................................... | [44](#Section9) | |  |  |  | | 10 | TECHNICAL QUESTIONNAIRE............................................................................................................ | [45](#Section10) | |  |  |  | |  | |  | | --- | |  | |  | | | |

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| --- | --- |
| 1. | Subject of these Test Guidelines |
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|  | |  | | --- | | These Test Guidelines apply to all varieties of *Vitis* L., covering table grapes, wine grapes, and roostocks. | |

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| --- | --- |
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| 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, only in the case of a variety not being sensitive to *Daktulosphaira vitifoliae*;  (b) rooted grafts with scions grafted on a rootstock to be specified by the competent Authority. | |
|  |  |
| 2.3 | |  | | --- | | The minimum quantity of plant material, to be supplied by the applicant, should be: | |
|  |  |
|  | |  | | --- | | 5 plants. | |
|  |  |
| 2.4 | |  | | --- | | The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease. | |
|  |  |
| 2.5 | |  | | --- | | The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given. | |

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| 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, excluding unproductive rootstock varieties, produce a satisfactory crop of fruit in each of the two growing cycles. | |
|  |  |
| |  | | --- | | 3.1.4 | | The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test. |
|  |  |
| *3.2* | *Testing Place* |
|  |  |
|  | Tests are normally concluded 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. |
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| --- | --- |
| *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. |

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|  |  |
| 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 3 plants or parts of plants taken from each of 3 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. |

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| 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. |
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| --- | --- |
| 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 16) | | | |  | | --- | | (e) | |  | |  | | --- | | Mature leaf: number of lobes (characteristic 20) | | | |  | | --- | | (f) | |  | |  | | --- | | Time of beginning of berry ripening (characteristic 30) | | | |  | | --- | | (g) | |  | |  | | --- | | Bunch: density (characteristic 33) | | | |  | | --- | | (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: presence 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”. |

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| 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 | All relevant states of expression are presented in the characteristic. |
|  |  |
| 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. |

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|  | |  | | --- | | 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. | |

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| --- | --- |
| *6.5* | *Legend* |
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| |  |  | English | | français | | deutsch | español | Example Varieties Exemples Be ejemplo | Note | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | **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)-(c) | | |  |  | | --- | --- | | |  | | --- | | See Explanations on the Table of Characteristics in Chapter 8.1 | | | | |  |  |  |  | | 7 | |  | | --- | | Growth stage key See Explanations on the Table of Characteristics in Chapter 8.3 | | | | | |

|  |  |
| --- | --- |
| 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/VG** | **(+)** | **(c)** | **07-09 / O-301 / B-7.1.1** | | | |
|  |  | |  | | --- | | **Time of bud burst** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very early | |  | |  |  | Nero | 1 |
|  |  | very early to early | |  | |  |  | Sugraone | 2 |
|  |  | early | |  | |  |  | Chardonnay, Kyoho | 3 |
|  |  | early to medium | |  | |  |  | Rkatsiteli | 4 |
|  |  | medium | |  | |  |  | Garnacha tinta, Sultanina | 5 |
|  |  | medium to late | |  | |  |  | Red globe | 6 |
|  |  | late | |  | |  |  | Mourvèdre | 7 |
|  |  | late to very late | |  | |  |  | King Husainy | 8 |
|  |  | very late | |  | |  |  | Garganega | 9 |
| **2.** | **(\*)** | **QN** | **VG** | **(+)** |  | **53-69 / O-001 / B-6.1.1** | | | |
|  |  | |  | | --- | | **Young shoot: openness of tip** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | closed | |  | |  |  | 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 prostrate hairs on tip** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | 3309 Couderc , Afus ali, Sultanina | 1 |
|  |  | very soparse to sparse | |  | |  |  | Ansonica | 2 |
|  |  | sparse | |  | |  |  | Chasselas blanc | 3 |
|  |  | sparse to medium | |  | |  |  | Chardonnay | 4 |
|  |  | medium | |  | |  |  | Italia, Pinot noir | 5 |
|  |  | medium to dense | |  | |  |  | Korinthiaki | 6 |
|  |  | dense | |  | |  |  | Furmint, Kyoho | 7 |
|  |  | dense to very dense | |  | |  |  | Clairette | 8 |
|  |  | very dense | |  | |  |  | Meunier | 9 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **4.** |  | **QN** | **VG** | **(+)** |  | **53-69 / O-005 / B-6.1.4** | | | |
|  |  | |  | | --- | | **Young shoot: density of erect hairs on tip** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | Du Lot, Flame seedless | 1 |
|  |  | sparse | |  | |  |  | 3309 Couderc | 2 |
|  |  | medium | |  | |  |  | 3306 Couderc | 3 |
|  |  | dense | |  | |  |  | Gloire de Montpellier | 4 |
|  |  | very dense | |  | |  |  | 1616 Couderc | 5 |
| **5.** | **(\*)** | **QN** | **VG** | **(+)** |  | **53-69 / O-003 / B-6.1.2** | | | |
|  |  | |  | | --- | | **Young shoot: anthocyanin coloration of prostrate hairs on tip** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very weak | |  | |  |  | Autumn royal seedless, Furmint | 1 |
|  |  | very week to weak | |  | |  |  | Chardonnay | 2 |
|  |  | weak | |  | |  |  | Kyoho, Riesling weiss | 3 |
|  |  | weak to medium | |  | |  |  | Cabernet franc | 4 |
|  |  | medium | |  | |  |  | Barbera | 5 |
|  |  | medium to strong | |  | |  |  | Dalkauer | 6 |
|  |  | strong | |  | |  |  | Cabernet-Sauvignon | 7 |
|  |  | strong to very strong | |  | |  |  | Cina | 8 |
|  |  | very strong | |  | |  |  | Dabouki | 9 |
| **6.** | **(\*)** | **PQ** | **VG** | **(+)** |  | **53-69 / O-051\* / B-6.1.16\*** | | | |
|  |  | |  | | --- | | **Young leaf: color of upper side of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | yellow green | |  | |  |  | Furmint, Sultanina | 1 |
|  |  | green | |  | |  |  | Silvaner gruen | 2 |
|  |  | green with reddish brown speckles | |  | |  |  | Riesling weiss, Sugraone | 3 |
|  |  | light brownish red | |  | |  |  | Kober 5 BB | 4 |
|  |  | medium brownish red | |  | |  |  | Chasselas blanc,  Crimson seedless | 5 |
|  |  | dark brownish red | |  | |  |  | Deckrot | 6 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **7.** | **(\*)** | **QN** | **VG** | **(+)** |  | **53-69 / O-053 / B-6.1.17** | | | |
|  |  | |  | | --- | | **Young leaf: density of prostrate hairs between main veins on lower side of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | Du Lot, Garnacha tinta | 1 |
|  |  | very sparse to sparse | |  | |  |  | Müller Thurgau | 2 |
|  |  | sparse | |  | |  |  | Muscat à petits grains blancs, Sugraone | 3 |
|  |  | sparse to medium | |  | |  |  | Chardonnay,  Muscat of Alexandria | 4 |
|  |  | medium | |  | |  |  | Kyoho, Merlot,  Riesling weiss | 5 |
|  |  | medium to dense | |  | |  |  | Cabernet franc | 6 |
|  |  | dense | |  | |  |  | Furmint | 7 |
|  |  | dense to very dense | |  | |  |  | Clairette | 8 |
|  |  | very dense | |  | |  |  | Meunier | 9 |
| **8.** |  | **QN** | **VG** | **(+)** |  | **53-69 / O-056 / B-6.1.20** | | | |
|  |  | |  | | --- | | **Young leaf: density of erect hairs on main veins on lower side of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | Du Lot, Flame seedless | 1 |
|  |  | sparse | |  | |  |  | 3309 Couderc | 2 |
|  |  | medium | |  | |  |  | Kober 125 AA | 3 |
|  |  | dense | |  | |  |  | Teleki 8 B | 4 |
|  |  | very dense | |  | |  |  | Gloire de Montpellier | 5 |
| **9.** |  | **QN** | **VG** | **(+)** |  | **57-69 / O-006 / B-6.1.5** | | | |
|  |  | |  | | --- | | **Shoot: attitude** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | erect | |  | |  |  | Garnacha tinta | 1 |
|  |  | semi-erect | |  | |  |  | Muscat Ottonel | 2 |
|  |  | horizontal | |  | |  |  | Barbera | 3 |
|  |  | semi-drooping | |  | |  |  | Aramon noir | 4 |
|  |  | drooping | |  | |  |  | Dabouki | 5 |
| **10** |  | **PQ** | **VG** | **(+)** | **(a)** | **60-69 / O-007 / B-6.1.6** | | | |
|  |  | |  | | --- | | **Shoot: color of dorsal side of internodes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | green | |  | |  |  | Sauvignon blanc, Sultanina | 1 |
|  |  | green and red | |  | |  |  | Carignan, Sugraone | 2 |
|  |  | red | |  | |  |  | Kober 5 BB,  Riesling weiss | 3 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **11** | **(\*)** | **PQ** | **VG** | **(+)** | **(a)** | **60-69 / O-008 / B-6.1.7** | | | |
|  |  | |  | | --- | | **Shoot: color of ventral side of internodes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | green | |  | |  |  | Flame seedless, Sauvignon blanc | 1 |
|  |  | green and red | |  | |  |  | Carignan | 2 |
|  |  | red | |  | |  |  | Mourvèdre | 3 |
| **12** |  | **PQ** | **VG** | **(+)** | **(a)** | **60-69 / O-009 / B-6.1.8** | | | |
|  |  | |  | | --- | | **Shoot: color of dorsal side of nodes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | green | |  | |  |  | Sauvignon blanc, Sultanina | 1 |
|  |  | green and red | |  | |  |  | Barbera, Sugraone | 2 |
|  |  | red | |  | |  |  | Kober 5 BB | 3 |
| **13** |  | **PQ** | **VG** | **(+)** | **(a)** | **60-69 / O-010 / B-6.1.9** | | | |
|  |  | |  | | --- | | **Shoot: color of ventral side of nodes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | green | |  | |  |  | Sauvignon blanc, Sultanina | 1 |
|  |  | green and red | |  | |  |  | Palomino fino | 2 |
|  |  | red | |  | |  |  | Dabouki | 3 |
| **14** |  | **QN** | **VG** |  | **(a)** | **60-69 / O-012 / B-6.1.11\*** | | | |
|  |  | |  | | --- | | **Shoot: density of erect hairs on internodes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | 3309 Couderc ,  Flame seedless | 1 |
|  |  | sparse | |  | |  |  | 161-49 Couderc | 2 |
|  |  | medium | |  | |  |  | Teleki 8 B | 3 |
|  |  | dense | |  | |  |  | Fercal, Kober 125 AA | 4 |
|  |  | very dense | |  | |  |  | Cina | 5 |
| **15** |  | **QN** | **VG** |  | **(a)** | **60-69 / O-014 / B-6.1.13** | | | |
|  |  | |  | | --- | | **Shoot: density of prostrate hairs on internodes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | Flame seedless, Garnacha tinta | 1 |
|  |  | sparse | |  | |  |  | Alphonse Lavallée | 2 |
|  |  | medium | |  | |  |  | Clairette | 3 |
|  |  | dense | |  | |  |  | Viura | 4 |
|  |  | very dense | |  | |  |  | Meunier | 5 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **16** | **(\*)** | **QL** | **VG** | **(+)** |  | **61-68 / O-151 / B-6.2.1\*** | | | |
|  |  | |  | | --- | | **Flower: sexual organs** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | fully developed stamens and no gynoecium | |  | |  |  | 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,  Moscatel rosado | 4 |
| **17** | **(\*)** | **QN** | **VG** |  | **(b)** | **75-81 / O-065 / B-6.1.21** | | | |
|  |  | |  | | --- | | **Mature leaf: size of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very small | |  | |  |  | 99 Richter | 1 |
|  |  | very small to small | |  | |  |  | 1103 Paulsen | 2 |
|  |  | small | |  | |  |  | Gamay | 3 |
|  |  | small to medium | |  | |  |  | Muscat à petits grains blancs | 4 |
|  |  | medium | |  | |  |  | Cabernet-Sauvignon, Flame seedless | 5 |
|  |  | medium to large | |  | |  |  | Sugraone | 6 |
|  |  | large | |  | |  |  | Carignan,  Crimson seedless | 7 |
|  |  | large to very large | |  | |  |  | Sultanina | 8 |
|  |  | very large | |  | |  |  | Alphonse Lavallée, Viura | 9 |
| **18** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** | **75-81 / O-067 / B-6.1.22** | | | |
|  |  | |  | | --- | | **Mature leaf: shape of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | cordate | |  | |  |  | Petit Verdot | 1 |
|  |  | wedge-shaped | |  | |  |  | Autumn royal seedless, Gloire de Montpellier | 2 |
|  |  | pentagonal | |  | |  |  | Chasselas blanc, Sultanina | 3 |
|  |  | circular | |  | |  |  | Clairette, Flame seedless | 4 |
|  |  | kidney-shaped | |  | |  |  | Du Lot | 5 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **19** |  | **QN** | **VG** |  | **(b)** | **75-81 / O-075 / B-6.1.26** | | | |
|  |  | |  | | --- | | **Mature leaf: blistering of upper side of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very weak | |  | |  |  | Du Lot, Kyoho | 1 |
|  |  | very weak to weak | |  | |  |  | Welschriesling | 2 |
|  |  | weak | |  | |  |  | Chasselas blanc,  Crimson seedless | 3 |
|  |  | weak to medium | |  | |  |  | Schiava grossa | 4 |
|  |  | medium | |  | |  |  | Argentina, Müller Thurgau | 5 |
|  |  | medium to strong | |  | |  |  | Semillon | 6 |
|  |  | strong | |  | |  |  | Merlot | 7 |
|  |  | strong to very strong | |  | |  |  | Rotberger | 8 |
|  |  | very strong | |  | |  |  | Alvarelhao, Gewürztraminer | 9 |
| **20** | **(\*)** | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O-068 / B-6.1.23** | | | |
|  |  | |  | | --- | | **Mature leaf: number of lobes** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | one | |  | |  |  | Du Lot | 1 |
|  |  | three | |  | |  |  | Chenin blanc, Isabella | 2 |
|  |  | five | |  | |  |  | Chasselas blanc, Sugraone | 3 |
|  |  | seven | |  | |  |  | Autumn royal seedless, Cabernet-Sauvignon | 4 |
|  |  | more than seven | |  | |  |  | Centennial seedless, Vilana, Xynisteri | 5 |
| **21** |  | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O-094 / B-6.1.34** | | | |
|  |  | |  | | --- | | **Mature leaf: depth of upper lateral sinuses** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very shallow | |  | |  |  | Gloire de Montpellier | 1 |
|  |  | very shallow to shallow | |  | |  |  | Seyval blanc | 2 |
|  |  | shallow | |  | |  |  | Gamay, Sugraone | 3 |
|  |  | shallow to medium | |  | |  |  | Cabertin | 4 |
|  |  | medium | |  | |  |  | Flame seedless, Merlot, Red globe | 5 |
|  |  | medium to deep | |  | |  |  | Johanniter | 6 |
|  |  | deep | |  | |  |  | Centennial seedless, Malvasia Dubrovacka | 7 |
|  |  | deep to very deep | |  | |  |  |  | 8 |
|  |  | very deep | |  | |  |  | Chasselas cioutat | 9 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **22** |  | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O-082 / B-6.1.33** | | | |
|  |  | |  | | --- | | **Only varieties with number of lobes more than one: mature leaf: arrangement of lobes of upper lateral sinuses** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | open | |  | |  |  | Cot, Sultanina | 1 |
|  |  | closed | |  | |  |  | Chasselas blanc | 2 |
|  |  | slightly overlapped | |  | |  |  | Autumn royal seedless, Cabernet-Sauvignon | 3 |
|  |  | strongly overlapped | |  | |  |  | Clairette, Flame seedless | 4 |
| **23** | **(\*)** | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O-79 / B-6.1.30** | | | |
|  |  | |  | | --- | | **Mature leaf: arrangement of lobes of petiole sinus** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very open | |  | |  |  | Du Lot | 1 |
|  |  | very open to half open | |  | |  |  | Autumn royal seedless, Gloire de Montpellier | 2 |
|  |  | half open | |  | |  |  | Aramon noir, Red globe | 3 |
|  |  | half open to closed | |  | |  |  | Flame seedless, Sauvignon blanc | 4 |
|  |  | closed | |  | |  |  | Chasselas blanc,  Crimson seedless | 5 |
|  |  | closed to half overlapped | |  | |  |  | Cabernet franc | 6 |
|  |  | half overlapped | |  | |  |  | Riesling weiss,  Ruby seedless | 7 |
|  |  | half overlapped to very overlapped | |  | |  |  | Agiorgitiko, Marsanne | 8 |
|  |  | very overlapped | |  | |  |  | Clairette | 9 |
| **24** | **(\*)** | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O- -- / B-6.1.28** | | | |
|  |  | |  | | --- | | **Mature leaf: length of teeth** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very short | |  | |  |  | Dogridge | 1 |
|  |  | very short to short | |  | |  |  | Isabella | 2 |
|  |  | short | |  | |  |  | Pinot noir | 3 |
|  |  | short to medium | |  | |  |  | Gewürztraminer | 4 |
|  |  | medium | |  | |  |  | Crimson seedless, Merlot | 5 |
|  |  | medium to long | |  | |  |  | Dornfelder | 6 |
|  |  | long | |  | |  |  | Autumn royal seedless, Carignan | 7 |
|  |  | long to very long | |  | |  |  |  | 8 |
|  |  | very long | |  | |  |  | Ahmeur bou Ahmeur, Centennial seedless, Dabouki | 9 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **25** | **(\*)** | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O-078 / B-6.1.29** | | | |
|  |  | |  | | --- | | **Mature leaf: ratio length/width of teeth** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very low | |  | |  |  | Marsanne | 1 |
|  |  | very low to low | |  | |  |  | Isabella | 2 |
|  |  | low | |  | |  |  | Silvaner gruen | 3 |
|  |  | low to medium | |  | |  |  | Riesling weiss | 4 |
|  |  | medium | |  | |  |  | Chasselas blanc,  Crimson seedless | 5 |
|  |  | medium to high | |  | |  |  | Muscat à petits grains blancs | 6 |
|  |  | high | |  | |  |  | Autumn royal seedless, Muscat of Alexandria | 7 |
|  |  | high to very high | |  | |  |  |  | 8 |
|  |  | very high | |  | |  |  | Centennial seedless, Sangiovese | 9 |
| **26** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** | **75-81 / O-076\* / B-6.1.27\*** | | | |
|  |  | |  | | --- | | **Mature leaf: shape of teeth** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | both sides concave | |  | |  |  | Autumn royal seedless, Petit Verdot | 1 |
|  |  | both sides straight | |  | |  |  | Kyoho, Muscat à petits grains blancs | 2 |
|  |  | both sides convex | |  | |  |  | Chenin blanc | 3 |
|  |  | one side concave, one side convex | |  | |  |  | Aramon noir | 4 |
|  |  | mixture of both sides straight and both sides convex | |  | |  |  | Cabernet franc, Sugraone | 5 |
|  |  | mixture of both sides straight and one side concave, one side convex | |  | |  |  | Alphonse Lavallée, Centennial seedless, Cinsaut | 6 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **27** | **(\*)** | **QN** | **VG** | **(+)** | **(b)** | **75-81 / O- -- / B-6.1.24** | | | |
|  |  | |  | | --- | | **Mature leaf: proportion of main veins on upper side of blade with anthocyanin coloration** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very low | |  | |  |  | Garnacha tinta, Sultanina | 1 |
|  |  | very low to low | |  | |  |  | Chardonnay | 2 |
|  |  | low | |  | |  |  | Muscat of Alexandria, Semillon | 3 |
|  |  | low to medium | |  | |  |  | Riesling weiss | 4 |
|  |  | medium | |  | |  |  | Chenin blanc, Flame seedless | 5 |
|  |  | medium to high | |  | |  |  | Cabertin | 6 |
|  |  | high | |  | |  |  | Dolcetto | 7 |
|  |  | high to very high | |  | |  |  | Palas | 8 |
|  |  | very high | |  | |  |  | Cabernet Mitos | 9 |
| **28** | **(\*)** | **QN** | **VG** |  | **(b)** | **75-81 / O-084 / B-6.1.35** | | | |
|  |  | |  | | --- | | **Mature leaf: density of prostrate hairs between main veins on lower side of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | Chasselas blanc | 1 |
|  |  | very sparse to sparse | |  | |  |  | Chardonnay, Pinot noir, Riesling weiss | 2 |
|  |  | sparse | |  | |  |  | Italia | 3 |
|  |  | sparse to medium | |  | |  |  | Syrah, Trebbiano toscano | 4 |
|  |  | medium | |  | |  |  | Cabernet-Sauvignon | 5 |
|  |  | medium to dense | |  | |  |  | Barbera | 6 |
|  |  | dense | |  | |  |  | Clairette | 7 |
|  |  | dense to very dense | |  | |  |  |  | 8 |
|  |  | very dense | |  | |  |  | Isabella | 9 |
| **29** | **(\*)** | **QN** | **VG** |  | **(b)** | **75-81 / O-087 / B-6.1.38** | | | |
|  |  | |  | | --- | | **Mature leaf: density of erect hairs on main veins on lower side of blade** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very sparse | |  | |  |  | Du Lot | 1 |
|  |  | sparse | |  | |  |  | Perle de Csaba | 2 |
|  |  | medium | |  | |  |  | Riesling weiss | 3 |
|  |  | dense | |  | |  |  | Kober 125 AA, Tempranillo | 4 |
|  |  | very dense | |  | |  |  | Börner | 5 |

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| **30** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **81 / O-303 / B-7.1.4** | | | |
|  |  | |  | | --- | | **Time of beginning of berry ripening** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very early | |  | |  |  | Perle de Csaba | 1 |
|  |  | very early to early | |  | |  |  | Flame seedless, Sugraone | 2 |
|  |  | early | |  | |  |  | Centennial seedless, Kyoho, Pinot noir | 3 |
|  |  | early to medium | |  | |  |  | Moscatuel | 4 |
|  |  | medium | |  | |  |  | Riesling weiss, Sultanina | 5 |
|  |  | medium to late | |  | |  |  | Autumn royal seedless | 6 |
|  |  | late | |  | |  |  | Alphonse Lavallée, Carignan, Ruby seedless | 7 |
|  |  | late to very late | |  | |  |  | Ahmeur bou Ahmeur, Italia | 8 |
|  |  | very late | |  | |  |  | Aledo, Isabella | 9 |
| **31** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **89 / O-202 / B-7.1.5** | | | |
|  |  | |  | | --- | | **Bunch: length** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very short | |  | |  |  | Kober 5 BB | 1 |
|  |  | very short to short | |  | |  |  | Gewürztraminer | 2 |
|  |  | short | |  | |  |  | Riesling weiss | 3 |
|  |  | short to medium | |  | |  |  | Muscat à petits grains blancs | 4 |
|  |  | medium | |  | |  |  | Müller Thurgau | 5 |
|  |  | medium to long | |  | |  |  | Sugraone | 6 |
|  |  | long | |  | |  |  | Autumn royal seedless, Trebbiano toscano | 7 |
|  |  | long to very long | |  | |  |  | Moscato d'Amburgo, Sultanina | 8 |
|  |  | very long | |  | |  |  | Nehelescol, Red globe | 9 |
| **32** |  | **QN** | **MG/VG** | **(+)** | **(c)** | **89 / O-203 / B- --** | | | |
|  |  | |  | | --- | | **Bunch: width** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very narrow | |  | |  |  | 161-49 Couderc | 1 |
|  |  | very narrow to narrow | |  | |  |  | Silvaner gruen | 2 |
|  |  | narrow | |  | |  |  | Riesling weiss | 3 |
|  |  | narrow to medium | |  | |  |  | Barbera | 4 |
|  |  | medium | |  | |  |  | Garnacha tinta | 5 |
|  |  | medium to wide | |  | |  |  | Muscat of Alexandria | 6 |
|  |  | wide | |  | |  |  | Cardinal, Red globe | 7 |
|  |  | wide to very wide | |  | |  |  |  | 8 |
|  |  | very wide | |  | |  |  | Sultanina | 9 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **33** | **(\*)** | **QN** | **VG** | **(+)** | **(c)** | **89 / O-204 / B-6.2.3** | | | |
|  |  | |  | | --- | | **Bunch: density** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very lax | |  | |  |  | Nehelescol | 1 |
|  |  | very lax to lax | |  | |  |  | Supernova | 2 |
|  |  | lax | |  | |  |  | Cardinal, Red globe | 3 |
|  |  | lax to medium | |  | |  |  | Moscatuel | 4 |
|  |  | medium | |  | |  |  | Chasselas blanc,  Flame seedless, Sugraone | 5 |
|  |  | medium to dense | |  | |  |  | Perlette, Silvaner gruen | 6 |
|  |  | dense | |  | |  |  | Sauvignon blanc, Sultanina | 7 |
|  |  | dense to very dense | |  | |  |  | Carignan | 8 |
|  |  | very dense | |  | |  |  | Chenin blanc, Meunier | 9 |
| **34** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **89 / O-206 / B-6.2.4** | | | |
|  |  | |  | | --- | | **Bunch: length of peduncle of primary bunch** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very short | |  | |  |  | Silvaner gruen | 1 |
|  |  | very short to short | |  | |  |  | Chenin blanc | 2 |
|  |  | short | |  | |  |  | Crimson seedless, Sauvignon blanc | 3 |
|  |  | short to medium | |  | |  |  | Portugieser blau | 4 |
|  |  | medium | |  | |  |  | Cabernet franc, Sugraone | 5 |
|  |  | mediuim to long | |  | |  |  | Cabertin | 6 |
|  |  | long | |  | |  |  | Alphonse Lavallée, Barbera, Kyoho,  Red globe | 7 |
|  |  | long to very long | |  | |  |  | Stephanie | 8 |
|  |  | very long | |  | |  |  | Freisa | 9 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
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| **35** | **(\*)** | **QN** | **MS/VG** | **(+)** | **(c)** | **89 / O-220\* / B- --** | | | |
|  |  | |  | | --- | | **Berry: length** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very short | |  | |  |  | Korinthiaki | 1 |
|  |  | very short to small | |  | |  |  |  | 2 |
|  |  | short | |  | |  |  | Riesling weiss | 3 |
|  |  | short to medium | |  | |  |  |  | 4 |
|  |  | medium | |  | |  |  | Portugieser blau, Sultanina | 5 |
|  |  | medium to long | |  | |  |  |  | 6 |
|  |  | long | |  | |  |  | Sugraone | 7 |
|  |  | long to very long | |  | |  |  |  | 8 |
|  |  | very long | |  | |  |  | Kyoho | 9 |
|  |  | very long to extra long | |  | |  |  |  | 10 |
|  |  | extra long | |  | |  |  | Itumnine | 11 |
| **36** | **(\*)** | **QN** | **MS/VG** | **(+)** | **(c)** | **89 / OIV-221 / B- --** | | | |
|  |  | |  | | --- | | **Berry: width** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | very narrow | |  | |  |  | Korinthiaki | 1 |
|  |  | very narrow to narrow | |  | |  |  |  | 2 |
|  |  | narrow | |  | |  |  | Riesling weiss, Sultanina | 3 |
|  |  | narrow to medium | |  | |  |  |  | 4 |
|  |  | medium | |  | |  |  | Portugieser blau | 5 |
|  |  | medium to broad | |  | |  |  |  | 6 |
|  |  | broad | |  | |  |  | Muscat of Alexandria | 7 |
|  |  | broad to very broad | |  | |  |  |  | 8 |
|  |  | very broad | |  | |  |  | Alphonse Lavallée, Kyoho | 9 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
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| **37** | **(\*)** | **PQ** | **VG** | **(+)** | **(c)** | **89 / O- 223\* / B-6.2.6\*** | | | |
|  |  | |  | | --- | | **Berry: shape** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | obloid | |  | |  |  | Flame seedless,  Tompa Mihaly | 1 |
|  |  | globose | |  | |  |  | Chasselas blanc | 2 |
|  |  | broad ellipsoid | |  | |  |  | Müller Thurgau,  Red globe | 3 |
|  |  | narrow ellipsoid | |  | |  |  | Italia, Sultanina | 4 |
|  |  | cylindrical | |  | |  |  | Afus ali | 5 |
|  |  | obtuse ovoid | |  | |  |  | Ahmeur bou Ahmeur | 6 |
|  |  | ovoid | |  | |  |  | Dabouki | 7 |
|  |  | obovoid | |  | |  |  | Kyoho,  Muscat of Alexandria | 8 |
|  |  | horn-shaped | |  | |  |  | Santa Paula | 9 |
|  |  | finger-shaped | |  | |  |  | Black finger | 10 |
| **38** |  | **QL** | **VG** | **(+)** | **(c)** | **89** | | | |
|  |  | |  | | --- | | **Berry: presence of a dimple** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent | |  | |  |  | Afus ali, Crimson seedless | 1 |
|  |  | present | |  | |  |  | Ahmeur bou Ahmeur | 9 |
| **39** | **(\*)** | **PQ** | **VG** | **(+)** | **(c)** | **89 / O- 225\* / B-6.2.8\*** | | | |
|  |  | |  | | --- | | **Berry: color of skin** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | green | |  | |  |  | Afus ali | 1 |
|  |  | yellow green | |  | |  |  | Chasselas blanc, Sugraone | 2 |
|  |  | yellow | |  | |  |  | Moscato giallo | 3 |
|  |  | yellow pink | |  | |  |  | Sauvitage, Villaris | 4 |
|  |  | pink | |  | |  |  | Chasselas rose | 5 |
|  |  | red | |  | |  |  | Flame seedless | 6 |
|  |  | grey red | |  | |  |  | Pinot gris | 7 |
|  |  | dark red violet | |  | |  |  | Cardinal,  Crimson seedless | 8 |
|  |  | blue black | |  | |  |  | Autumn royal seedless, Kyoho, Pinot noir | 9 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
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| **40** | **(\*)** | **QN** | **VG** |  | **(c)** | **89 / O-231 / B-6.2.9** | | | |
|  |  | |  | | --- | | **Berry: anthocyanin coloration of flesh** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | absent or very weak | |  | |  |  | Pinot noir, Red globe | 1 |
|  |  | weak | |  | |  |  | Autumn royal seedless, Gamay de Bouze | 2 |
|  |  | medium | |  | |  |  | Gamay de Chaudenay | 3 |
|  |  | strong | |  | |  |  | Alicante Bouschet | 4 |
|  |  | very strong | |  | |  |  | Cabernet Mitos | 5 |
| **41** |  | **QN** | **MG/VG** |  | **(c)** | **89 / O-235 / B-6.2.11** | | | |
|  |  | |  | | --- | | **Berry: firmness of flesh** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | soft | |  | |  |  | Pinot noir | 1 |
|  |  | medium | |  | |  |  | Italia | 2 |
|  |  | firm | |  | |  |  | Crimson seedless, Sugraone | 3 |
| **42** | **(\*)** | **PQ** | **VG** |  | **(c)** | **89 / O-236 / B-6.2.12\*** | | | |
|  |  | |  | | --- | | **Berry: particular flavor** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | none | |  | |  |  | Garnacha tinta, Merlot, Sugraone, Sultanina | 1 |
|  |  | muscat | |  | |  |  | Early muscat,  Muscat of Alexandria | 2 |
|  |  | foxy | |  | |  |  | Isabella, Kyoho | 3 |
|  |  | herbaceous | |  | |  |  | Cabernet-Sauvignon | 4 |
|  |  | caramel | |  | |  |  | IFG Seven | 5 |
|  |  | other than muscat, foxy or herbaceous | |  | |  |  | Red globe,  Riesling weiss,  Sauvignon blanc | 6 |
| **43** | **(\*)** | **QL** | **VG** | **(+)** | **(c)** | **89 / O-241 / B-6.2.7** | | | |
|  |  | |  | | --- | | **Berry: presence of seeds** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | none | |  | |  |  | Korinthiaki | 1 |
|  |  | rudimentary | |  | |  |  | Sultanina | 2 |
|  |  | complete | |  | |  |  | Cardinal, Kyoho,  Riesling weiss | 3 |

|  |  | English | | français | | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
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| **44** |  | **PQ** | **VG** |  |  | **91-99** | | | |
|  |  | |  | | --- | | **Woody shoot: color** | | | |  | | --- | |  | | | |  | | --- | |  | | |  | | --- | |  | |  |  |
|  |  | light brown | |  | |  |  | Garnacha tinta | 1 |
|  |  | orange brown | |  | |  |  | Portugieser blau | 2 |
|  |  | dark brown | |  | |  |  | Chasselas blanc, Sultanina | 3 |
|  |  | reddish brown | |  | |  |  | 3309 Couderc | 4 |
|  |  | reddish violet | |  | |  |  | Cinsaut, Semillon | 5 |

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| |  |  |  |  | | --- | --- | --- | --- | | 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) | | |  | | --- | | Observations on the shoot which should be made in the middle third of shoot. | | | | |  |  |  |  | | |  | | --- | | (b) | | |  | | --- | | Observations on the mature leaf which should be made on leaves in the middle third of the shoot just above the raceme. | | | | |  |  |  |  | | |  | | --- | | (c) | | |  | | --- | | Observations should be made on plant without any chemical or physical treatments that could modify the physiology or morphology of the bunch, berry or phenological stages. | | | | |  |  |  |  | |

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| |  |  | | --- | --- | |  | | | |  | | --- | | *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. | | | |

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| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Ad. 2: Young shoot: openness of tip  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.   |  |  |  | | --- | --- | --- | |  |  |  | | 1 | 2 | 3 | | closed | slightly open | half open |  |  |  | | --- | --- | |  |  | | 4 | 5 | | wide open | fully open | | | |

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| |  |  | | --- | --- | | |  | | --- | | 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: density of erect hairs on tip  See explanation characteristic 2 and 3 | | | |  | | --- | | Ad. 5: Young shoot: anthocyanin coloration of prostrate 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 fourth distal unfolded leaf in case of wide open or fully open tips.  The states green with reddish brown speckles (3); light brownish red (4); medium brownish red (5); and dark brownish red (6) correspond to an increasing amount of anthocyanin coloration. | | | |  | | --- | | Ad. 7: Young leaf: density of 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: density of erect hairs on main veins on lower side of blade  See Ad. 7 | | |

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| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Ad. 9: Shoot: attitude  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.   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  | | 1 | 2 | 3 | 4 | 5 | | erect | semi-erect | horizontal | semi-drooping | drooping | | | | |  | | --- | | Ad. 10: Shoot: color of dorsal side of internodes  wordml://86.png | | | |  | | --- | | 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 | | |

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| |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Ad. 16: Flower: sexual organs   |  |  |  |  | | --- | --- | --- | --- | | wordml://87.png | wordml://88.png | wordml://89.png | wordml://90.png | | 1 | 2 | 3 | 4 | | fully developed stamens and no gynoecium | fully developed stamens and reduced gynoecium | fully developed stamens and fully developed gynoecium | reflexed stamens and fully developed gynoecium | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Ad. 18: Mature leaf: shape of blade   |  |  |  |  |  | | --- | --- | --- | --- | --- | |  |  |  |  |  | | (rounded lateral outline) | (forms a pentagon with parallel sides) | (forms a pentagon with broadest part towards the base) | (forms a pentagon with broadest part towards the apex) | (broader than long) | | 1 | 2 | 3 | 4 | 5 | | cordate | wedge-shaped | pentagonal | circular | kidney-shaped | | | | |  | | --- | | Ad. 20: 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. 21: 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. | | |

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| |  |  | | --- | --- | | |  | | --- | | Ad. 31: Bunch: length  Observations should be made excluding the peduncle. To be observed the distance from the uppermost to the lowest berry of the primary bunch.  wordml://115.png | | | |  | | --- | | Ad. 32: Bunch: width  To be observed at the maximum distance between the lateral berries of the primary bunch.  wordml://116.png | | |

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| |  |  | | --- | --- | | |  | | --- | | Ad. 33: Bunch: density  1 = berries in grouped formation, many visible pedicels  2 =barries in grouped formation and seldom visible pedicels  3 = single berries, some pedicels visible  4 =  berries with few visible pedicels  5 = densely distributed berries, pedicels not visible, berries movable  6 =  densely distributed berries, pedicels not visible, some berries movable  7 = berries not readily movable  8 =  many berries pressed out of shape  9 = berries pressed out of shape | | | |  | | --- | | Ad. 34: 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.  wordml://117.png | | | |  | | --- | | Ad. 35: Berry: length  Observations should be made on berries taken from different bunches of each plant.  wordml://118.png | | |

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| |  |  | | --- | --- | | |  | | --- | | Ad. 36: Berry: width  Observation should be made on berries taken from different bunches of each plant.  wordml://119.png | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | Ad. 37: Berry: shape   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  |  |  |  | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | | obloid | globose | broad ellipsoid | narrow ellipsoid | cylindrical | obtuse ovoid | ovoid | obovoid | horn-shaped | finger-shaped | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | Ad. 38: Berry: presence of a dimple   |  |  | | --- | --- | | wordml://131.png | wordml://132.png | | 1 | 2 | | absent | present | | | |

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| |  |  | | --- | --- | | |  | | --- | | Ad. 39: Berry: color of skin  Observation of this characteristic should be made on berries of different bunches after removing the bloom.  This characteristic might be light dependent. Observation should be made only on those berries exposed directly to the sun. | | | |  | | --- | | Ad. 43: Berry: presence 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 | | |

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*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]](#_ftnref1)            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, and in Meier, 1997 (see Literature).    *Synonyms and skin color of berry for example varieties*   | Example Varieties | Skin color of berry \* | Synonyms | | --- | --- | --- | | 1103 Paulsen |  |  | | 161-49 Couderc | N |  | | 1616 Couderc | N |  | | 3306 Couderc |  |  | | 3309 Couderc |  |  | | 99 Richter |  |  | | Afus ali | B |  | | Agiorgitiko | N |  | | Ahmeur bou Ahmeur | Rs | Flame tokai | | Alicante Bouschet | N | Garnacha Tintorera | | Aledo | B |  | | Alphonse Lavallée | N | Ribier | | Alvarelhao | N |  | | Ansonica | B |  | | Aramon noir | N |  | | Argentina | Rs |  | | Autumn royal seedless | N |  | | Barbera | N |  | | Black finger | N |  | | Börner |  |  | | Cabernet franc | N |  | | Cabernet Mitos | N |  | | Cabernet-Sauvignon | N | Cabernet Sauvignon | | Cabertin | N |  | | Cardinal | Rg |  | | Carignan | N | Carignano, Cariñena, Mazuela | | Centennial seedless | B |  | | Chardonnay | B |  | | Chasselas blanc | B | Weisser Gutedel | | Chasselas cioutat | B |  | | Chasselas rose | Rs | Roter Gutedel | | Chenin blanc | B |  | | Cina |  |  | | Cinsaut | N |  | | Clairette | B |  | | Cot | N | Malbec | | Crimson seedless | Rg |  | | Dabouki | B |  | | Dalkauer | B |  | | Deckrot | N |  | | Dog ridge | N |  | | Dolcetto | N |  | | Dornfelder | N |  | | Du Lot |  | Rupestris du Lot | | Early muscat | B |  | | Fercal | N |  | | Flame seedless | Rg |  | | Freisa | N |  | | Furmint | B |  | | Garganega | B |  | | Gamay | N |  | | Gamay de Bouze | N |  | | Garnacha tinta | N | Grenache noir | | Gewurztraminer | Rs |  | | Gloire de Montpellier |  | Riparia Gloire de Montpellier | | IFG Seven | B |  | | Isabella | N |  | | Italia | B |  | | Itumnine | Rg |  | | Johanniter | B |  | | King husainy | B |  | | Kober 125 AA | N |  | | Kober 5 BB | N |  | | Korinthiaki | N | Black Corinth, Corinto nero, Corinthe noir, Corinto negrorinth, Corinto nero, Corinthe noir, Corinto negro | | Kyoho | N |  | | Malvasia dubrovacka | B | Malvasia di Sardegna | | Marsanne | B |  | | Merlot | N |  | | Meunier | N | Müllerrebe, Pinot meunier | | Moscatel rosado | Rs |  | | 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 Hamburg | N |  | | Muscat of Alexandria | B | Hanepoot, Zibibbo, Moscatel de Alejandría, Moscatel de Málaga, Moscatel romano | | Muscat Ottonel | B |  | | Moscatuel | Rs |  | | Nehelescol | B |  | | Nero | N |  | | Palas | N |  | | Palomino fino | B |  | | Perle de Csaba | B | Csaba gyöngye | | Perlette | B |  | | Petit verdot | N |  | | Pinot gris | G | Grauburgunder, Pinot grigio, Ruländer | | Pinot noir | N | Blauer Spätburgunder, Pinot nero, Rulandské sedé | | Portugieser blau | N | Blauer Portugieser, Portugais bleu, Modry Portugal | | Red globe | Rg |  | | Riesling weiss | B | Riesling renano, Rheinriesling, Weisser Riesling, Ryzlink rýnský | | Rkatsiteli | B |  | | Rotberger | N |  | | Ruby seedless | Rg |  | | Sangiovese | N |  | | Santa Paula | B |  | | Sauvignon blanc | B |  | | Sauvitage | Rs |  | | Schiava grossa | N |  | | Semillon | B |  | | Seyval blanc | B |  | | Silvaner gruen | B |  | | Stephanie | B |  | | Sugraone | B |  | | Sultanina | B | Sultanine, Thompson seedless | | Supernova | Rs |  | | Syrah | N |  | | Teleki 8 B |  |  | | Tompa Mihaly | B | Chasselas Michel Tompa, Tompa | | Trebbiano toscano | B | Ugni blanc | | Vilana | B |  | | Villaris | Rs |  | | Viura | B | Macabeo, Macabeu | | Welschriesling | B |  | | Xynisteri | 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 | | |

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | |  |  |  | | --- | --- | --- | | |  |  | | --- | --- | | 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.  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, 1995:  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.  IPGRI, 1997:  Descriptors for Grapevine (*Vitis* spp.). International Plant Genetic Resources Institute, Via delle Sette Chiese 142, 00145 Rome, IT, p. 62.  IRZ Geilweilerhof, 2007:  Vitis. International Variety Catalogue (VIVC), <http://www.vivc.bafz.de/index.php>  Lawrence, E., 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, AT.  Ministero delle politiche agricole, alimentari e forestali, 2013: Registro nazionale delle varietà di vite, <http://catalogoviti.politicheagricole.it/catalogo.php>, IT  Moog, H., 1957:  Einführung in die Rebsortenkunde.  Verlag Eugen Ulmer, Stuttgart, DE.  Muñoz Organero, G., Gaforio, L., Garcia Muñoz, S., Cabello, F., 2011: Manual for standardisation of OIV Vitis descriptors. INIA, ES.  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.  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.  Pl@ntGrape, 2009-2020: Catalogue des vignes cultivées en France. IFV – INRAE – l’Institut Agro, Montpellier SupAgro, <https://plantgrape.plantnet-project.org/fr/>.  Stern, W. T., 1995:  Botanical Latin.  4th edition, David and Charles Publishers, UK.  Viala, P., Vermorel, V., 1901-1910: Ampélographie. Tome 1-7, Editeurs Masson et Cie, Paris, FR. | | |

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| |  |  | | --- | --- | | 10. | Technical Questionnaire | |
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| |  |  |  | | --- | --- | --- | | TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
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| |  |  | | --- | --- | |  | 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 | |  |  | |  |  |  |  |  | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| |  |  |  |  |  | | --- | --- | --- | --- | --- | | 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 variety)  (…………………..……………..…)                          x        (……………..…………………..…)  female parent                                                                     male parent | | | | |  | | --- | | (b) | | |  | | --- | | partially known cross | | [ ] | |  | |  | | --- | | (please state known parent variety(ies))  (…………………..……………..…)                          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 | | Other (Please provide details) | [ ] | |  |  | | |  |  | | | | | | |

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| |  |  |  | | --- | --- | --- | |  |  |  | |  | 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) | [ ] | |  |  |  | |  |  |  | |  |  |  | | | |  | |  |  | | --- | --- | | |  | | --- | |  | | | | |

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

|  | Characteristics | Example Varieties | Note |
| --- | --- | --- | --- |
|  |  |  |  |
| |  | | --- | | **5.1** |  |  | | --- | | **(2)** | | |  | | --- | | **Young shoot: openness of tip** | |  |  |
|  | |  | | --- | | closed | | |  | | --- | | 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 upper side of blade** | |  |  |
|  | |  | | --- | | yellow green | | |  | | --- | | Furmint, Sultanina | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | green | | |  | | --- | | Silvaner gruen | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | green with reddish brown speckles | | |  | | --- | | Riesling weiss, Sugraone | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | light brownish red | | |  | | --- | | Kober 5 BB | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | medium brownish red | | |  | | --- | | Chasselas blanc, Crimson seedless | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | dark brownish red | | |  | | --- | | Deckrot | | |  | | --- | | 6 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.3** |  |  | | --- | | **(7)** | | |  | | --- | | **Young leaf: density of prostrate hairs between main veins on lower side of blade** | |  |  |
|  | |  | | --- | | absent or very sparse | | |  | | --- | | Du Lot, Garnacha tinta | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | very sparse to sparse | | |  | | --- | | Müller Thurgau | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | sparse | | |  | | --- | | Muscat à petits grains blancs, Sugraone | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | sparse to medium | | |  | | --- | | Chardonnay, Muscat of Alexandria | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | medium | | |  | | --- | | Kyoho, Merlot, Riesling weiss | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | medium to dense | | |  | | --- | | Cabernet franc | | |  | | --- | | 6 [   ] | |
|  | |  | | --- | | dense | | |  | | --- | | Furmint | | |  | | --- | | 7 [   ] | |
|  | |  | | --- | | dense to very dense | | |  | | --- | | Clairette | | |  | | --- | | 8 [   ] | |
|  | |  | | --- | | very dense | | |  | | --- | | Meunier | | |  | | --- | | 9 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.4** |  |  | | --- | | **(16)** | | |  | | --- | | **Flower: sexual organs** | |  |  |
|  | |  | | --- | | fully developed stamens and no gynoecium | | |  | | --- | | 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, Moscatel rosado | | |  | | --- | | 4 [   ] | |
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|  | Characteristics | Example Varieties | Note |
| --- | --- | --- | --- |
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| |  | | --- | | **5.5** |  |  | | --- | | **(20)** | | |  | | --- | | **Mature leaf: number of lobes** | |  |  |
|  | |  | | --- | | one | | |  | | --- | | Du Lot | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | three | | |  | | --- | | Chenin blanc, Isabella | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | five | | |  | | --- | | Chasselas blanc, Sugraone | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | seven | | |  | | --- | | Autumn royal seedless, Cabernet-Sauvignon | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | more than seven | | |  | | --- | | Centennial seedless, Vilana, Xynisteri | | |  | | --- | | 5 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.6** |  |  | | --- | | **(30)** | | |  | | --- | | **Time of beginning of berry ripening** | |  |  |
|  | |  | | --- | | very early | | |  | | --- | | Perle de Csaba | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | very early to early | | |  | | --- | | Flame seedless, Sugraone | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | early | | |  | | --- | | Centennial seedless, Kyoho, Pinot noir | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | early to medium | | |  | | --- | | Moscatuel | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | medium | | |  | | --- | | Riesling weiss, Sultanina | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | medium to late | | |  | | --- | | Autumn royal seedless | | |  | | --- | | 6 [   ] | |
|  | |  | | --- | | late | | |  | | --- | | Alphonse Lavallée, Carignan, Ruby seedless | | |  | | --- | | 7 [   ] | |
|  | |  | | --- | | late to very late | | |  | | --- | | Ahmeur bou Ahmeur, Italia | | |  | | --- | | 8 [   ] | |
|  | |  | | --- | | very late | | |  | | --- | | Aledo, Isabella | | |  | | --- | | 9 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.7** |  |  | | --- | | **(33)** | | |  | | --- | | **Bunch: density** | |  |  |
|  | |  | | --- | | very lax | | |  | | --- | | Nehelescol | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | very lax to lax | | |  | | --- | | Supernova | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | lax | | |  | | --- | | Cardinal, Red globe | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | lax to medium | | |  | | --- | | Moscatuel | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | medium | | |  | | --- | | Chasselas blanc, Flame seedless, Sugraone | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | medium to dense | | |  | | --- | | Perlette, Silvaner gruen | | |  | | --- | | 6 [   ] | |
|  | |  | | --- | | dense | | |  | | --- | | Sauvignon blanc, Sultanina | | |  | | --- | | 7 [   ] | |
|  | |  | | --- | | dense to very dense | | |  | | --- | | Carignan | | |  | | --- | | 8 [   ] | |
|  | |  | | --- | | very dense | | |  | | --- | | Chenin blanc, Meunier | | |  | | --- | | 9 [   ] | |
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|  | Characteristics | Example Varieties | Note |
| --- | --- | --- | --- |
|  |  |  |  |
| |  | | --- | | **5.8** |  |  | | --- | | **(37)** | | |  | | --- | | **Berry: shape** | |  |  |
|  | |  | | --- | | obloid | | |  | | --- | | Flame seedless, Tompa Mihaly | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | globose | | |  | | --- | | Chasselas blanc | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | broad ellipsoid | | |  | | --- | | Müller Thurgau, Red globe | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | narrow ellipsoid | | |  | | --- | | Italia, Sultanina | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | cylindrical | | |  | | --- | | Afus ali | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | obtuse ovoid | | |  | | --- | | Ahmeur bou Ahmeur | | |  | | --- | | 6 [   ] | |
|  | |  | | --- | | ovoid | | |  | | --- | | Dabouki | | |  | | --- | | 7 [   ] | |
|  | |  | | --- | | obovoid | | |  | | --- | | Kyoho, Muscat of Alexandria | | |  | | --- | | 8 [   ] | |
|  | |  | | --- | | horn-shaped | | |  | | --- | | Santa Paula | | |  | | --- | | 9 [   ] | |
|  | |  | | --- | | finger-shaped | | |  | | --- | | Black finger | | |  | | --- | | 10 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.9** |  |  | | --- | | **(39)** | | |  | | --- | | **Berry: color of skin** | |  |  |
|  | |  | | --- | | green | | |  | | --- | | Afus ali | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | yellow green | | |  | | --- | | Chasselas blanc, Sugraone | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | yellow | | |  | | --- | | Moscato giallo | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | yellow pink | | |  | | --- | | Sauvitage, Villaris | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | pink | | |  | | --- | | Chasselas rose | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | red | | |  | | --- | | Flame seedless | | |  | | --- | | 6 [   ] | |
|  | |  | | --- | | grey red | | |  | | --- | | Pinot gris | | |  | | --- | | 7 [   ] | |
|  | |  | | --- | | dark red violet | | |  | | --- | | Cardinal, Crimson seedless | | |  | | --- | | 8 [   ] | |
|  | |  | | --- | | blue black | | |  | | --- | | Autumn royal seedless, Kyoho, Pinot noir | | |  | | --- | | 9 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.10** |  |  | | --- | | **(40)** | | |  | | --- | | **Berry: anthocyanin coloration of flesh** | |  |  |
|  | |  | | --- | | absent or very weak | | |  | | --- | | Pinot noir, Red globe | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | weak | | |  | | --- | | Autumn royal seedless, Gamay de Bouze | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | medium | | |  | | --- | | Gamay de Chaudenay | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | strong | | |  | | --- | | Alicante Bouschet | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | very strong | | |  | | --- | | Cabernet Mitos | | |  | | --- | | 5 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.11** |  |  | | --- | | **(42)** | | |  | | --- | | **Berry: particular flavor** | |  |  |
|  | |  | | --- | | none | | |  | | --- | | Garnacha tinta, Merlot, Sugraone, Sultanina | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | muscat | | |  | | --- | | Early muscat, Muscat of Alexandria | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | foxy | | |  | | --- | | Isabella, Kyoho | | |  | | --- | | 3 [   ] | |
|  | |  | | --- | | herbaceous | | |  | | --- | | Cabernet-Sauvignon | | |  | | --- | | 4 [   ] | |
|  | |  | | --- | | caramel | | |  | | --- | | IFG Seven | | |  | | --- | | 5 [   ] | |
|  | |  | | --- | | other than muscat, foxy or herbaceous | | |  | | --- | | Red globe, Riesling weiss, Sauvignon blanc | | |  | | --- | | 6 [   ] | |
|  |  |  |  |
|  |  |  |  |
| |  | | --- | | **5.12** |  |  | | --- | | **(43)** | | |  | | --- | | **Berry: presence of seeds** | |  |  |
|  | |  | | --- | | none | | |  | | --- | | Korinthiaki | | |  | | --- | | 1 [   ] | |
|  | |  | | --- | | rudimentary | | |  | | --- | | Sultanina | | |  | | --- | | 2 [   ] | |
|  | |  | | --- | | complete | | |  | | --- | | Cardinal, Kyoho, Riesling weiss | | |  | | --- | | 3 [   ] | |

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| |  |  |  | | --- | --- | --- | | TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
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| |  |  | | --- | --- | | 6. | Similar varieties and differences from these varieties | | |  | | --- | | *Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.* | | | | |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | | |  | | --- | | Denomination(s) of variety(ies) similar to your candidate variety | | |  | | --- | | Characteristic(s) in which your candidate variety differs from the similar variety(ies) | | |  | | --- | | Describe the expression of the characteristic(s) for the **similar** variety(ies) | | |  | | --- | | Describe the expression of the characteristic(s) for **your** candidate variety | | | | | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | *Example* | |  | | --- | | *Berry: shape* | | |  | | --- | | *globose* | | |  | | --- | | *broad ellipsoid* | | |  |  |  |  | |  |  |  |  | |  |  |  |  | | | |  | Comments: | |

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | |  | | --- | | #7. | | Additional information which may help in the examination of the variety | | | | |  |  |  | | | | 7.1 | In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety? | | | | |  | Yes | [ ] | No | [ ] | |  | (If yes, please provide details) | | | | | 7.2 | Are there any special conditions for growing the variety or conducting the examination? | | | | |  | Yes | [ ] | No | [ ] | |  | (If yes, please provide details) | | | | | 7.3 | Other information | | | | |  |  |  |  |  | | 7.3.1 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.] | | | | | | |  | | --- | | 7.3.2 Only if the variety is not sensitive to *Daktulosphaira vitifoliae* the material to be supplied should be in form of plants on their own roots. Additional information on the sensitivity of the variety to this phytophagus should be provided to the Authority. | | | | | | |  |  |  |  |  | |

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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | 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 |  |  | |  |  |  | |  |  | |  |  |  |  |  |  | |
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