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|  | EUROPEAN PEAR  UPOV Code(s): PYRUS\_COM  *Pyrus communis* L. | \* |

GUIDELINESFOR THE CONDUCT OF TESTS  
FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Germany

to be considered by the

Technical Working Party for Fruit Crops at its fifty-sixth session,

to be held in Bursa, Türkiye, from 2025-06-23 to 2025-06-26

Disclaimer: this document does not represent UPOV policies or guidance

Alternative Names:\*

| *Botanical name* | *English* | *French* | *German* | *Spanish* |
| --- | --- | --- | --- | --- |
| *Pyrus communis* L., *Pyrus asiae-mediae* (Popov) Maleev, *Pyrus balansae* Decne., *Pyrus bourgaeana* Decne., *Pyrus communis* L. subsp. *bourgaeana* (Decne.) Nyman, *Pyrus communis* L. var. *mariana* Willk., *Pyrus domestica* Medik., *Pyrus elata* Rubtzov, *Pyrus medvedevii* Rubtzov | European Pear, Pear | Poirier | Birne | Peral |

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.

Other associated UPOV documents: TG/169 (Pyrus rootstocks) and TG/149 (Japanese Pear)

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# Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Pyrus communis* L. and its hybrids with other species of *Pyrus* L.   [NZ: Consider to indicate PYRUS\_BCO, \_CPB, \_CUS, and \_LEC].

# 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 trees, on a rootstock specified by the competent authority, or in the form of budsticks or graftwood.

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

(a) varieties resulting from crossing:  
5 trees, budsticks or shoots for grafting;  
(b) varieties resulting from mutation:  
10 trees, budsticks or shoots for grafting.

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.

# 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 trees produce a satisfactory crop of fruit in each of the two growing cycles.

3.1.4 The growing cycle is considered to be the duration of a single growing season, beginning with the dormancy period, followed by bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period starts.

3.1.5 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 conducted at one place. In the case of tests conducted at more than one place, guidance is provided in TGP/9 “Examining Distinctness”.

## 3.3  Conditions for Conducting the Examination

3.3.1 The tests should be carried out under conditions ensuring satisfactory growth for the expression of the relevant characteristics of the variety and for the conduct of the examination.

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

## 3.4  Test Design

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

3.4.2 In the case of varieties resulting from mutation, each test should be designed to result in a total of at least 10 trees.

## 3.5  Additional Tests

Additional tests, for examining relevant characteristics, may be established.

# 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.

## 4.3  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.

# Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

(a) Tree: growth habit (characteristic 2)

(b) Young shoot: intensity of pubescence (characteristic 9)

(c) Fruit: profile of sides (characteristic 36)

(d) Fruit: hue of over color (characteristic 38)

(e) Fruit: relative area of  over color (characteristic 40)

(f) Fruit: pattern of over color (characteristic 41)

(g) Fruit: color of flesh (characteristic 56)

(h) Time of beginning of flowering (characteristic 58)

(i) Time of eating maturity (characteristic 60)

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”.

# 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.

See chapter 8.4 for Synonyms of the example varieties

## 6.5  Legend

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

1 Characteristic number

2 (\*) Asterisked characteristic – see Chapter 6.1.2

3 Type of expression

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-qualitative characteristic – see Chapter 6.3

4 Method of observation (and type of plot, if applicable)

MG, MS, VG, VS – see Chapter 4.1.5

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

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

7 Growth stage key (if applicable) See Explanations on the Table of Characteristics in Chapter 8.3

# Table of Characteristics/Tableau des caracteres/Merkmalstabelle/Tabla de caracteres

|  | | English | | français | | deutsch | español | Example Varieties  Exemples  Beispielssorten  Variedades ejemplo | Note/  Nota |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1.** |  | **QN** | **VG** | **(+)** |  | **00 or 39** |  |  |  |
|  | | **Tree: vigor** | |  | |  |  |  |  |
| very weak | |  | |  |  |  | 1 |
| very weak to weak | |  | |  |  |  | 2 |
| weak | |  | |  |  | Précoce de Trévoux | 3 |
| weak to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 5 |
| medium to strong | |  | |  |  |  | 6 |
| strong | |  | |  |  | Beurré d’Amanlis | 7 |
| strong to very strong | |  | |  |  |  | 8 |
| very strong | |  | |  |  |  | 9 |
| **2.** | **(\*)** | **PQ** | **VG** | **(+)** | **(a)** | **00** |  |  |  |
|  | | **Tree: growth habit** | |  | |  |  |  |  |
| fastigiate | |  | |  |  | Jeanne d’Arc | 1 |
| upright | |  | |  |  | Beurré Clairgeau, Doyenné du Comice | 2 |
| semi-upright | |  | |  |  | Colorée de Juillet, Nojabrskaja | 3 |
| spreading | |  | |  |  | Madame Ballet | 4 |
| drooping | |  | |  |  | Beurré Diel, Beurré Six | 5 |
| weeping | |  | |  |  | Armida, Beurré d’Amanlis | 6 |
| **3.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(b)** | **00** |  |  |  |
|  | | **One-year-old shoot: length of internode** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| short | |  | |  |  | Conference | 2 |
| medium | |  | |  |  | Beurré Hardy, Jeanne d’Arc | 3 |
| long | |  | |  |  | Pitmaston Duchesse d’Angoulême, Santa Maria | 4 |
| very long | |  | |  |  |  | 5 |
| **4.** | **(\*)** | **PQ** | **VG** |  | **(b)** | **00** |  |  |  |
|  | | **One-year-old shoot: predominant color on sunny side** | |  | |  |  |  |  |
| grey green | |  | |  |  | Mirandino rosso, Nojabrskaja | 1 |
| grey brown | |  | |  |  | Concorde | 2 |
| orange brown | |  | |  |  | Eva Baltet | 3 |
| light brown | |  | |  |  |  | 4 |
| medium brown | |  | |  |  | Beurré Superfin, Précoce de Trévoux | 5 |
| dark brown | |  | |  |  | Jeanne d’Arc | 6 |
| brown red | |  | |  |  | Beurré Hardy, Louise Bonne d’Avranches | 7 |
| brown purple | |  | |  |  | Nordhäuser Winterforelle | 8 |
| **5.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(b)** | **00** |  |  |  |
|  | | **One-year-old shoot: number of lenticels** | |  | |  |  |  |  |
| very few | |  | |  |  |  | 1 |
| few | |  | |  |  | Triomphe de Vienne | 2 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 3 |
| many | |  | |  |  | Beurré d’Amanlis, Doyenné d’Alencon | 4 |
| very many | |  | |  |  |  | 5 |
| **6.** | **(\*)** | **QN** | **VG** | **(+)** | **(b)** | **00** |  |  |  |
|  | | **One-year-old shoot: position of vegeta­tive bud in relation to shoot** | |  | |  |  |  |  |
| adpressed | |  | |  |  | Williams’ Bon Chrétien | 1 |
| slightly held out | |  | |  |  | Passe Crassane | 2 |
| markedly held out | |  | |  |  | Conference, Épine du Mas | 3 |
| **7.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** | **00** |  |  |  |
|  | | **One-year-old shoot: shape of apex of vegetative bud** | |  | |  |  |  |  |
| acute | |  | |  |  | Conference | 1 |
| obtuse | |  | |  |  | Passe Crassane | 2 |
| rounded | |  | |  |  | Jeanne d’Arc | 3 |
| **8.** | **(\*)** | **QN** | **VG** | **(+)** |  | **32-35** |  |  |  |
|  | | **Young shoot: anthocyanin coloration of growing tip** | |  | |  |  |  |  |
| absent or very weak | |  | |  |  | Clapp’s Favourite, Poire de Charneu | 1 |
| weak | |  | |  |  | Doyenné du Comice | 2 |
| medium | |  | |  |  | Beurré Hardy | 3 |
| strong | |  | |  |  | Red Bartlett | 4 |
| very strong | |  | |  |  | Liegels Winterbutterbirne | 5 |
| **9.** |  | **QN** | **VG** |  |  | **32-35** |  |  |  |
|  | | **(NEW) Young shoot: intensity of pubescence** | |  | |  |  |  |  |
| absent or very weak | |  | |  |  |  | 1 |
| weak | |  | |  |  |  | 2 |
| medium | |  | |  |  |  | 3 |
| strong | |  | |  |  |  | 4 |
| very strong | |  | |  |  |  | 5 |
| **10.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: length** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| very short to short | |  | |  |  |  | 2 |
| short | |  | |  |  | Joséphine de Malines, Pierre Corneille | 3 |
| short to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Beurré Hardy, Conference | 5 |
| medium to long | |  | |  |  |  | 6 |
| long | |  | |  |  | Passe Crassane, Triomphe de Vienne | 7 |
| long to very long | |  | |  |  |  | 8 |
| very long | |  | |  |  |  | 9 |
| **11.** | **(\*)** | **QN** | **VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: attitude in relation to shoot** | |  | |  |  |  |  |
| upwards | |  | |  |  | Citron des Carmes, Précoce de Trévoux | 1 |
| outwards | |  | |  |  | Curé, Doyenné du Comice | 2 |
| downwards | |  | |  |  | Beurré Giffard, Pitmaston Duchesse d’Angoulême | 3 |
| **12.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: width** | |  | |  |  |  |  |
| very narrow | |  | |  |  |  | 1 |
| very narrow to narrow | |  | |  |  |  | 2 |
| narrow | |  | |  |  | Olivier de Serres | 3 |
| narrow to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 5 |
| medium to broad | |  | |  |  |  | 6 |
| broad | |  | |  |  | Curé | 7 |
| broad to very broad | |  | |  |  |  | 8 |
| very broad | |  | |  |  |  | 9 |
| **13.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: ratio length/width** | |  | |  |  |  |  |
| very small | |  | |  |  | Curé | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Président Drouard | 3 |
| small to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Conference, Williams’ Bon Chrétien | 5 |
| medium to broad | |  | |  |  |  | 6 |
| large | |  | |  |  | Louise Bonne d’Avranches, Triomphe de Vienne | 7 |
| broad to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  | Beurré Lebrun, Monchallard | 9 |
| **14.** |  | **PQ** | **VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: shape of base** | |  | |  |  |  |  |
| acute | |  | |  |  | Beurré Giffard | 1 |
| right-angled | |  | |  |  | Grand Champion, Santa Maria | 2 |
| obtuse | |  | |  |  | Général Leclerc | 3 |
| truncate | |  | |  |  | Doyenné du Comice | 4 |
| cordate | |  | |  |  | Président Drouard | 5 |
| **15.** |  | **PQ** | **VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: shape of apex** | |  | |  |  |  |  |
| acuminate | |  | |  |  | Premp 36 | 1 |
| acute | |  | |  |  | Conference | 2 |
| right-angled | |  | |  |  | Williams’ Bon Chrétien | 3 |
| obtuse | |  | |  |  | Beurré Clairgeau | 4 |
| rounded | |  | |  |  | Curé, Pitmaston Duchesse d’Angoulême | 5 |
| **16.** | **(\*)** | **PQ** | **VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: incisions of margin** | |  | |  |  |  |  |
| absent | |  | |  |  | Beurré Giffard | 1 |
| crenate | |  | |  |  | Beurré d’Amanlis | 2 |
| serrate | |  | |  |  | Alexandrine Douillard, Général Leclerc | 3 |
| **17.** |  | **QN** | **VG** |  | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: depth of incisions of margin** | |  | |  |  |  |  |
| very shallow | |  | |  |  |  | 1 |
| shallow | |  | |  |  | Précoce de Trévoux, Williams’ Bon Chrétien | 2 |
| medium | |  | |  |  | Beurré Diel, Olivier de Serres | 3 |
| deep | |  | |  |  | Pitmaston Duchesse d’Angoulême | 4 |
| very deep | |  | |  |  |  | 5 |
| **18.** | **(\*)** | **QN** | **VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Leaf blade: curvature of longitudinal axis** | |  | |  |  |  |  |
| very weak | |  | |  |  |  | 1 |
| weak | |  | |  |  | Précoce de Trévoux | 2 |
| medium | |  | |  |  | Beurré Giffard, Épine du Mas | 3 |
| strong | |  | |  |  | Comtesse de Paris, Doyenné d’Alencon | 4 |
| very strong | |  | |  |  |  | 5 |
| **19.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(c)** | **71-77** |  |  |  |
|  | | **Petiole: length** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| very short to short | |  | |  |  |  | 2 |
| short | |  | |  |  | Épine du Mas | 3 |
| short to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Beurré Hardy, Louise Bonne d’Avranches | 5 |
| medium to long | |  | |  |  |  | 6 |
| long | |  | |  |  | Triomphe de Vienne | 7 |
| long to very long | |  | |  |  |  | 8 |
| very long | |  | |  |  |  | 9 |
| **20.** | **(\*)** | **QL** | **VG** |  | **(c)** | **71-77** |  |  |  |
|  | | **Petiole: presence of stipules** | |  | |  |  |  |  |
| absent | |  | |  |  | Monchallard | 1 |
| present | |  | |  |  | Doyenné du Comice | 9 |
| **21.** |  | **QN** | **VG** | **(+)** |  | **71-77** |  |  |  |
|  | | **Petiole: position of stipules** | |  | |  |  |  |  |
| towards base of petiole | |  | |  |  |  | 1 |
| in middle | |  | |  |  |  | 2 |
| towards base of leaf blade | |  | |  |  |  | 3 |
| **22.** | **(\*)** | **QN** | **MG/VG** |  |  | **55** |  |  |  |
|  | | **Flower bud: length** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| short | |  | |  |  | Beurré Alexandre Lucas, Williams’ Bon Chrétien | 2 |
| medium | |  | |  |  | Louise Bonne d’Avranches | 3 |
| long | |  | |  |  | Beurré Bosc, Beurré Hardy | 4 |
| very long | |  | |  |  |  | 5 |
| **23.** |  | **PQ** | **VG** |  |  |  |  |  |  |
|  | | **(NEW) Flower bud: shape** | |  | |  |  |  |  |
| ovate | |  | |  |  |  | 1 |
| narrow elliptic | |  | |  |  |  | 2 |
| medium elliptic | |  | |  |  |  | 3 |
| rounded | |  | |  |  |  | 4 |
| **24.** |  | **QN** | **MG/VG** |  | **(d)** | **60-65** |  |  |  |
|  | | **Flower: length of sepal** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| short | |  | |  |  | Olivier de Serres, Triomphe de Vienne | 2 |
| medium | |  | |  |  | Beurré Hardy, Doyenné du Comice | 3 |
| long | |  | |  |  | Curé, Pitmaston Duchesse d’Angoulême | 4 |
| very long | |  | |  |  |  | 5 |
| **25.** |  | **PQ** | **VG** | **(+)** | **(d)** | **60-65** |  |  |  |
|  | | **Flower: attitude of sepals in relation to corolla** | |  | |  |  |  |  |
| adpressed | |  | |  |  | Président Drouard | 1 |
| spreading | |  | |  |  | Doyenné du Comice, Pitmaston Duchesse d’Angoulême | 2 |
| recurved | |  | |  |  | Beurré d’Anjou, Beurré Giffard | 3 |
| **26.** | **(\*)** | **QN** | **VG** | **(+)** | **(d)** | **60-65** |  |  |  |
|  | | **Flower: arrangement of petals** | |  | |  |  |  |  |
| free | |  | |  |  | Beurré Bosc, Passe Crassane | 1 |
| intermediate | |  | |  |  | Doyenné du Comice, Jeanne d’Arc | 2 |
| overlapping | |  | |  |  | Conference, Docteur Jules Guyot | 3 |
| **27.** |  | **QN** | **VG** | **(+)** | **(d)** | **60-65** |  |  |  |
|  | | **Flower: position of stigmas relative to anthers** | |  | |  |  |  |  |
| below | |  | |  |  | Bergamotte Esperen, Jeanne d’Arc | 1 |
| same level | |  | |  |  | Alexandrine Douillard, Beurré Hardy | 2 |
| above | |  | |  |  | Beurré d’Amanlis, Beurré Giffard | 3 |
| **28.** |  | **QN** | **MG/VG** |  | **(d)** | **60-65** |  |  |  |
|  | | **Flower: size of petal** | |  | |  |  |  |  |
| very small | |  | |  |  |  | 1 |
| small | |  | |  |  | Highland, Sierra | 2 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 3 |
| large | |  | |  |  | Concorde, Dita | 4 |
| very large | |  | |  |  |  | 5 |
| **29.** | **(\*)** | **PQ** | **VG** | **(+)** | **(d)** | **60-65** |  |  |  |
|  | | **Flower: shape of petal** | |  | |  |  |  |  |
| transverse elliptic | |  | |  |  |  | 1 |
| circular | |  | |  |  | Comtesse de Paris | 2 |
| elliptic | |  | |  |  |  | 3 |
| oblong | |  | |  |  |  | 4 |
| narrow ovate | |  | |  |  | Beurré Hardy, Doyenné du Comice | 5 |
| broad ovate | |  | |  |  | Beurré Bosc | 6 |
| **30.** | **(\*)** | **QN** | **MG/VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: weight** | |  | |  |  |  |  |
| very low | |  | |  |  | Petit Muscat, Précoce de Cassano | 1 |
| very low to low | |  | |  |  |  | 2 |
| low | |  | |  |  | Citron des Carmes, Doyenné de Juillet | 3 |
| low to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Docteur Jules Guyot, Épine du Mas | 5 |
| medium to high | |  | |  |  |  | 6 |
| high | |  | |  |  | Doyenné du Comice, Passe Crassane | 7 |
| high to very high | |  | |  |  |  | 8 |
| very high | |  | |  |  | Margarete Marillat | 9 |
| **31.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: height** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| very short to short | |  | |  |  |  | 2 |
| short | |  | |  |  | Olivier de Serres | 3 |
| short to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 5 |
| medium to long | |  | |  |  |  | 6 |
| long | |  | |  |  | Abbé Fétel | 7 |
| long to very long | |  | |  |  |  | 8 |
| very long | |  | |  |  |  | 9 |
| **32.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: diameter** | |  | |  |  |  |  |
| very small | |  | |  |  |  | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Abbé Fétel | 3 |
| small to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 5 |
| medium to large | |  | |  |  |  | 6 |
| large | |  | |  |  | Jeanne d’Arc | 7 |
| large to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  |  | 9 |
| **33.** | **(\*)** | **QN** | **MG/VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: ratio height/ diameter** | |  | |  |  |  |  |
| very small | |  | |  |  | Olivier de Serres, Passe Crassane | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Beurré d’Ahrenberg | 3 |
| small to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Beurré Clairgeau, Williams’ Bon Chrétien | 5 |
| medium to large | |  | |  |  |  | 6 |
| large | |  | |  |  | Conference | 7 |
| large to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  | Abbé Fétel | 9 |
| **34.** | **(\*)** | **QN** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: position of maximum diameter** | |  | |  |  |  |  |
| in middle | |  | |  |  | Bergamotte Esperen | 1 |
| slightly towards calyx | |  | |  |  | Beurré Alexandre Lucas, Doyenné du Comice | 2 |
| clearly towards calyx | |  | |  |  | Conference | 3 |
| **35.** |  | **QN** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: symmetry in longitudinal section** | |  | |  |  |  |  |
| symmetric | |  | |  |  | Passe Crassane | 1 |
| slightly asymmetric | |  | |  |  | Beurré Bosc | 2 |
| strongly asymmetric | |  | |  |  | Beurré Clairgeau, Nouveau Poiteau | 3 |
| **36.** | **(\*)** | **PQ** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: profile of sides** | |  | |  |  |  |  |
| concave | |  | |  |  | Abbé Fétel, Beurré Bosc | 1 |
| straight | |  | |  |  | Beurré Giffard | 2 |
| convex | |  | |  |  | Doyenné d’Hiver, Olivier de Serres | 3 |
| **37.** | **(\*)** | **PQ** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: ground color** | |  | |  |  |  |  |
| not visible | |  | |  |  | Grand Champion, Uta | 1 |
| green | |  | |  |  | Nouveau Poiteau | 2 |
| yellow green | |  | |  |  | Beurré Giffard, Beurré Hardy | 3 |
| yellow | |  | |  |  | Président Drouard, Williams’ Bon Chrétien | 4 |
| **38.** | **(\*)** | **PQ** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: hue of over color** | |  | |  |  |  |  |
| orange | |  | |  |  | Précoce de Trévoux | 1 |
| orange red | |  | |  |  | Duchesse Elsa | 2 |
| pink red | |  | |  |  | Belle Angevine | 3 |
| light red | |  | |  |  | Nordhäuser Winterforelle | 4 |
| dark red | |  | |  |  | Starkrimson | 5 |
| purple | |  | |  |  |  | 6 |
| **39.** | **(\*)** | **QN** | **VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: intensity of over color** | |  | |  |  |  |  |
| very light | |  | |  |  |  | 1 |
| very light to light | |  | |  |  |  | 2 |
| light | |  | |  |  |  | 3 |
| light to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  |  | 5 |
| medium to dark | |  | |  |  |  | 6 |
| dark | |  | |  |  |  | 7 |
| dark to very dark | |  | |  |  |  | 8 |
| very dark | |  | |  |  |  | 9 |
| **40.** | **(\*)** | **QN** | **VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: relative area of  over color** | |  | |  |  |  |  |
| absent or very small | |  | |  |  | Passe Crassane, Président Drouard | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Précoce de Trévoux | 3 |
| small to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Nordhäuser Winterforelle | 5 |
| medium to large | |  | |  |  |  | 6 |
| large | |  | |  |  | Beurré Clairgeau | 7 |
| large to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  | Starkrimson | 9 |
| **41.** | **(\*)** | **PQ** | **VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: pattern of over color** | |  | |  |  |  |  |
| only solid flush | |  | |  |  |  | 1 |
| solid flush with stripes | |  | |  |  |  | 2 |
| only stripes | |  | |  |  |  | 3 |
| flushed and mottled | |  | |  |  |  | 4 |
| **42.** | **(\*)** | **QN** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: relative area of russet around stalk attachment** | |  | |  |  |  |  |
| absent or very small | |  | |  |  | Curé | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Nordhäuser Winterforelle | 3 |
| small to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Packham’s Triumph | 5 |
| medium to large | |  | |  |  |  | 6 |
| large | |  | |  |  | Beurré Hardy | 7 |
| large to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  | Madame Verté | 9 |
| **43.** |  | **QN** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: relative area of russet on cheeks** | |  | |  |  |  |  |
| absent or very small | |  | |  |  | Liegels Winterbutterbirne | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Beurré Alexandre Lucas | 3 |
| smallt to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Comtesse de Paris | 5 |
| medium to large | |  | |  |  |  | 6 |
| large | |  | |  |  | Général Leclerc | 7 |
| large to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  | Madame Verté | 9 |
| **44.** | **(\*)** | **QN** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: relative area of russet around eye basin** | |  | |  |  |  |  |
| absent or very small | |  | |  |  | Liegels Winterbutterbirne | 1 |
| very small to small | |  | |  |  |  | 2 |
| small | |  | |  |  | Nordhäuser Winterforelle | 3 |
| small to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Packham’s Triumph | 5 |
| medium to large | |  | |  |  |  | 6 |
| large | |  | |  |  | Conference | 7 |
| large to very large | |  | |  |  |  | 8 |
| very large | |  | |  |  | Général Leclerc, Madame Verté | 9 |
| **45.** | **(\*)** | **QN** | **MG/VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: length of stalk** | |  | |  |  |  |  |
| very short | |  | |  |  |  | 1 |
| very short to short | |  | |  |  |  | 2 |
| short | |  | |  |  | Beurré des Enfants, Beurré d’Anjou | 3 |
| short to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Alexandrine Douillard, Beurré Hardy | 5 |
| medium to long | |  | |  |  |  | 6 |
| long | |  | |  |  | Beurré Bosc, Curé | 7 |
| long to very long | |  | |  |  |  | 8 |
| very long | |  | |  |  |  | 9 |
| **46.** | **(\*)** | **QN** | **MG/VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: thickness of stalk** | |  | |  |  |  |  |
| very thin | |  | |  |  |  | 1 |
| thin | |  | |  |  | Beurré Bosc, Concorde | 2 |
| medium | |  | |  |  | Beurré Hardy, Williams’ Bon Chrétien | 3 |
| thick | |  | |  |  | Beurré d’Anjou, Clapp’s Favourite | 4 |
| very thick | |  | |  |  |  | 5 |
| **47.** |  | **QN** | **VG** |  |  | **89** |  |  |  |
|  | | **(NEW) Fruit: attitude of stalk to axis of fruit** | |  | |  |  |  |  |
| straight | |  | |  |  |  | 1 |
| oblique | |  | |  |  |  | 2 |
| right-angled | |  | |  |  |  | 3 |
| **48.** |  | **QN** | **VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: curvature of stalk** | |  | |  |  |  |  |
| absent or very weak | |  | |  |  | Président Drouard | 1 |
| weak | |  | |  |  | Curé | 2 |
| medium | |  | |  |  | Conference | 3 |
| strong | |  | |  |  | Beurré Bosc | 4 |
| very strong | |  | |  |  |  | 5 |
| **49.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: depth of stalk cavity** | |  | |  |  |  |  |
| absent or very shallow | |  | |  |  | Beurré Giffard, Conference | 1 |
| shallow | |  | |  |  | Louise Bonne d’Avranches | 2 |
| medium | |  | |  |  | Épine du Mas, Précoce de Trévoux | 3 |
| deep | |  | |  |  | Doyenné d’Hiver, Passe Crassane | 4 |
| very deep | |  | |  |  | Olivier de Serres | 5 |
| **50.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(f)** | **89** |  |  |  |
|  | | **Fruit: depth of eye basin** | |  | |  |  |  |  |
| very shallow | |  | |  |  |  | 1 |
| shallow | |  | |  |  | Comtesse de Paris, Précoce de Trévoux | 2 |
| medium | |  | |  |  | Beurré Giffard, Beurré Hardy | 3 |
| deep | |  | |  |  | Doyenné du Comice, Passe Crassane | 4 |
| very deep | |  | |  |  |  | 5 |
| **51.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(f)** | **89** |  |  |  |
|  | | **Fruit: width of eye basin** | |  | |  |  |  |  |
| very narrow | |  | |  |  |  | 1 |
| narrow | |  | |  |  | Épine du Mas, Williams’ Bon Chrétien | 2 |
| medium | |  | |  |  | Beurré Clairgeau, Beurré Hardy | 3 |
| broad | |  | |  |  | Doyenné du Comice, Passe Crassane | 4 |
| very broad | |  | |  |  |  | 5 |
| **52.** | **(\*)** | **PQ** | **VG** |  | **(f)** | **89** |  |  |  |
|  | | **Fruit: relief of area around eye** | |  | |  |  |  |  |
| smooth | |  | |  |  | Passe Crassane, Président Drouard | 1 |
| slightly ribbed | |  | |  |  | Alexandrine Douillard, Williams’ Bon Chrétien | 2 |
| embossed | |  | |  |  | Beurré Clairgeau, Le Lectier | 3 |
| **53.** |  | **PQ** | **VG** | **(+)** | **(f)** | **89** |  |  |  |
|  | | **Fruit: attitude of sepals** | |  | |  |  |  |  |
| converging | |  | |  |  | Beurré Alexandre Lucas, Le Lectier | 1 |
| erect | |  | |  |  | Conference, Passe Crassane | 2 |
| spreading | |  | |  |  | Comtesse de Paris, Curé | 3 |
| **54.** | **(\*)** | **QN** | **VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: texture of flesh** | |  | |  |  |  |  |
| very fine | |  | |  |  |  | 1 |
| fine | |  | |  |  | Beurré Hardy, Grand Champion | 2 |
| medium | |  | |  |  | Beurré Bosc, Président Drouard | 3 |
| coarse | |  | |  |  | Curé, Tongre | 4 |
| very coarse | |  | |  |  |  | 5 |
| **55.** | **(\*)** | **QN** | **MG/VG** | **(+)** | **(e)** | **89** |  |  |  |
|  | | **Fruit: firmness of flesh** | |  | |  |  |  |  |
| very soft | |  | |  |  |  | 1 |
| soft | |  | |  |  | Jeanne d’Arc | 2 |
| medium | |  | |  |  | Beurré Hardy, Poire de Charneu | 3 |
| firm | |  | |  |  | Comtesse de Paris, Nordhäuser Winterforelle | 4 |
| very firm | |  | |  |  |  | 5 |
| **56.** | **(\*)** | **PQ** | **VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: color of flesh** | |  | |  |  |  |  |
| white | |  | |  |  |  | 1 |
| greenish | |  | |  |  |  | 2 |
| yellowish | |  | |  |  |  | 3 |
| pinkish | |  | |  |  |  | 4 |
| reddish | |  | |  |  |  | 5 |
| **57.** |  | **QN** | **MG/VG** |  | **(e)** | **89** |  |  |  |
|  | | **Fruit: juiciness of flesh** | |  | |  |  |  |  |
| very dry | |  | |  |  |  | 1 |
| dry | |  | |  |  | Mirandino rosso, Timpurri de Voinesti | 2 |
| medium | |  | |  |  | Williams’ Bon Chrétien | 3 |
| juicy | |  | |  |  | Conference, Grand Champion | 4 |
| very juicy | |  | |  |  | Doyenné du Comice, Robert de Neufville | 5 |
| **58.** | **(\*)** | **QN** | **MG/VG** | **(+)** |  |  |  |  |  |
|  | | **Time of beginning of flowering** | |  | |  |  |  |  |
| very early | |  | |  |  | Beurré Alexandre Lucas, Pitmaston Duchesse d’Angoulême | 1 |
| very early to early | |  | |  |  |  | 2 |
| early | |  | |  |  | Delfrap, Louise Bonne d’Avranches | 3 |
| early to medium | |  | |  |  |  | 4 |
| medium | |  | |  |  | Packham’s Triumph, Williams’ Bon Chrétien | 5 |
| medium to late | |  | |  |  |  | 6 |
| late | |  | |  |  | Doyenné du Comice, Jeanne d’Arc | 7 |
| late to very late | |  | |  |  |  | 8 |
| very late | |  | |  |  | Frangipane | 9 |
| **59.** |  | **QN** | **MG/VG** | **(+)** |  |  |  |  |  |
|  | | **Time for harvest** | |  | |  |  |  |  |
| extremely early | |  | |  |  |  | 1 |
| extremely early to very early | |  | |  |  |  | 2 |
| very early | |  | |  |  |  | 3 |
| very early to early | |  | |  |  |  | 4 |
| early | |  | |  |  |  | 5 |
| early to medium | |  | |  |  |  | 6 |
| medium | |  | |  |  |  | 7 |
| medium to late | |  | |  |  |  | 8 |
| late | |  | |  |  |  | 9 |
| late to very late | |  | |  |  |  | 10 |
| very late | |  | |  |  |  | 11 |
| very late to extremely late | |  | |  |  |  | 12 |
| extremely late | |  | |  |  |  | 13 |
| **60.** | **(\*)** | **QN** | **MG/VG** | **(+)** |  |  |  |  |  |
|  | | **Time of eating maturity** | |  | |  |  |  |  |
| extremely early | |  | |  |  |  | 1 |
| extremely early to very early | |  | |  |  |  | 2 |
| very early | |  | |  |  | Doyenné de Juillet, Mirandino rosso | 3 |
| very early to early | |  | |  |  |  | 4 |
| early | |  | |  |  | Précoce de Trévoux | 5 |
| early to medium | |  | |  |  |  | 6 |
| medium | |  | |  |  | Coscia | 7 |
| medium to late | |  | |  |  |  | 8 |
| late | |  | |  |  | Beurré Hardy, Doyenné du Comice, Jeanne d’Arc | 9 |
| late to very late | |  | |  |  |  | 10 |
| very late | |  | |  |  | Doyenné d’Hiver, Nordhäuser Winterforelle, Président Drouard | 11 |
| very late to extremely late | |  | |  |  |  | 12 |
| extremely late | |  | |  |  |  | 13 |

# 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 should be made after at least one satisfactory crop of fruit.

(b) Observations should be made in the middle third of lateral dormant shoots in winter, after at least one satisfactory crop of fruit.

(c) Observations should be made on fully developed leaves from the middle third of vigorous vegetative current season shoots.

(d) Observations should be made on second or subsequent flowers, at the start of anther dehiscence.

(e) Observations should be made on fruits when they are eating ripe.

(f) Observations should be made on fruits at harvest.

## 8.2  Explanations for individual characteristics

Ad. 1: Tree: vigor

The vigor of the tree should be considered as the overall abundance of vegetative growth, after at least one satisfactory crop of fruit. It can either be assessed at the peak of vegetative growth in summer (growth stage 39), or during the dormant season before pruning (stage 00), considering shoot length and thickness, and trunk diameter.

Ad. 2: Tree: growth habit

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| A black tree with no leaves  AI-generated content may be incorrect. | wordml://76.png | wordml://77.png | wordml://78.png | wordml://79.png | wordml://80.png |
| 1 | 2 | 3 | 4 | 5 | 6 |
| fastigiate | upright | upright to spreading | spreading | drooping | weeping |

Ad. 3: One-year-old shoot: length of internode

Observations should be made using a vernier caliper gauge.

Ad. 5: One-year-old shoot: number of lenticels

Observations should be made by counting in a defined area [e.g. an area of 1 cm²] or by visual assessment of the density of lenticels on the bark.

Ad. 6: One-year-old shoot: position of vegeta­tive bud in relation to shoot

|  |  |  |
| --- | --- | --- |
| Knospe anlieg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Knospe leichtabst.tif | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Knospe stark abst.tif |
| 1 | 2 | 3 |
| adpressed | slightly held out | markedly held out |

Ad. 7: One-year-old shoot: shape of apex of vegetative bud

|  |  |  |
| --- | --- | --- |
| C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Gooseberry_bud narrow acute.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Gooseberry_bud broad acute.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Gooseberry_bud rounded.jpg |
| 1 | 2 | 3 |
| acute | obtuse | rounded |

Ad. 8: Young shoot: anthocyanin coloration of growing tip

Observations should be made during rapid growth.

Ad. 10: Leaf blade: length

A drawing of a leaf with a straight line

AI-generated content may be incorrect.

Ad. 11: Leaf blade: attitude in relation to shoot

|  |  |  |
| --- | --- | --- |
| Blattstellung_aufrecht | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Blattstellung_horizontal.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Blattstellung_haengend.jpg |
| 1 | 2 | 3 |
| upwards | outwards | downwards |

Ad. 12: Leaf blade: width

See Ad. 8

Ad. 13: Leaf blade: ratio length/width

See Ad. 8.

Ad. 14: Leaf blade: shape of base

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Leaf base_narrow acute | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Leaf base_broad acute.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Leaf base_obtuse.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\HMB Blattbasis rund.TIF | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Blbasiswink_herz.bmp |
| 1 | 2 | 3 | 4 | 5 |
| acute | right-angled | obtuse | truncate | cordate |

To consider / to check if “truncate” really exists, or if “rounded” would be more appropriate, or if both shapes do exist.

Ad. 15: Leaf blade: shape of apex

Observations should be made excluding the pointed tip.

|  |  |  |  |
| --- | --- | --- | --- |
| C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Leaf apex_acute.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Blspitzwink_90.bmp | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Leaf apex_obtuse.jpg | Leaf Apex round |
| 1 | 2 | 3 | 4 |
| acute | right-angled | obtuse | rounded |

Ad. 16: Leaf blade: incisions of margin

The predominant type of incision at distal half should be observed.

|  |  |  |
| --- | --- | --- |
| Leaf blade entire | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Rand_gesägt.jpg | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\Rand_gekerbt.jpg |
| 1 | 2 | 3 |
| absent | serrate | crenate |

Ad. 18: Leaf blade: curvature of longitudinal axis

|  |  |  |
| --- | --- | --- |
| Blatt_längs_gerade | Blatt_längs_leicht gewellt | Blatt_längs_stark gewellt |
| 1 | 3 | 5 |
| very weak | medium | very strong |

Ad. 19: Petiole: length

See Ad. 8.

Ad. 21: Petiole: position of stipules

|  |  |  |
| --- | --- | --- |
| G:\UPOV-Merkmale (Zg.)\Blatt\Pear_stipules position_1.tif | G:\UPOV-Merkmale (Zg.)\Blatt\Pear_stipules position_2.tif | G:\UPOV-Merkmale (Zg.)\Blatt\Pear_stipules position_3.tif |
| 1 | 2 | 3 |
| towards base of petiole | at middle | towards base of leaf blade |

Ad. 25: Flower: attitude of sepals in relation to corolla

|  |  |  |
| --- | --- | --- |
| G:\UPOV-Merkmale (Zg.)\Kelch\PFL_Kelchblatt_amBlütenblatt.jpg | G:\UPOV-Merkmale (Zg.)\Kelch\PFL_Kelchblatt_abst.tif | G:\UPOV-Merkmale (Zg.)\Kelch\PFL_Kelchbl_anl.tif |
| 1 | 2 | 3 |
| adpressed | spreading | recurved |

Ad. 26: Flower: arrangement of petals

|  |  |  |
| --- | --- | --- |
| Blblatt_Stell_free | Blblatt_Stell_touching | Blblatt_Stell_overl |
| 1 | 2 | 3 |
| free | intermediate | overlapping |

Ad. 27: Flower: position of stigmas relative to anthers

|  |  |  |
| --- | --- | --- |
| Stigmas below | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\stigmas same level.tiff | Stigmas above |
| 1 | 2 | 3 |
| below | same level | above |

Ad. 29: Flower: shape of petal

Observations should be made excluding the claw at the top of the petal.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| G:\UPOV-Merkmale (Zg.)\Blüte\Pear_petal shape_transverse elliptic.tif | G:\UPOV-Merkmale (Zg.)\Blüte\Pear_petal shape_circular.tif | G:\UPOV-Merkmale (Zg.)\Blüte\Pear_petal shape_elliptic.tif | G:\UPOV-Merkmale (Zg.)\Blüte\Pear_petal shape_oblong.tif | G:\UPOV-Merkmale (Zg.)\Blüte\Pear_petal shape_narrow ovate.tif | G:\UPOV-Merkmale (Zg.)\Blüte\Pear_petal shape_broad ovate.tif |
| 1 | 2 | 3 | 4 | 5 | 6 |
| transverse elliptic | circular | elliptic | oblong | narrow ovate | broad ovate |

Ad. 31: Fruit: height

The maximum height should be observed, excluding the stalk.

Ad. 32: Fruit: diameter

The maximum diameter should be observed.

Ad. 34: Fruit: position of maximum diameter

|  |  |  |
| --- | --- | --- |
| BRN_DMmax_mitte | BRN_DMmax_mitteunten | BRN_DMmax_unten |
| 1 | 2 | 3 |
| in middle | slightly towards calyx | clearly towards calyx |

Ad. 35: Fruit: symmetry in longitudinal section

Observations should be made on fruits in longitudinal section.

Ad. 36: Fruit: profile of sides

|  |  |  |
| --- | --- | --- |
| BRN_Frform_konkav | BRN_Frform_gerade | BRN_Frform_konvex |
| 1 | 2 | 3 |
| concave | straight | convex |

Ad. 37: Fruit: ground color

The ground color is the first color to appear chronologically during the development of the fruit.

Ad. 38: Fruit: hue of over color

Observations should be made after removing the bloom.

Ad. 42: Fruit: relative area of russet around stalk attachment

See Ad. 49.

The russet is a dull brown rough finish on the skin.

Ad. 43: Fruit: relative area of russet on cheeks

See Ad. 42 and Ad. 49.

Ad. 44: Fruit: relative area of russet around eye basin

See Ad. 41 and Ad 46.

Ad. 48: Fruit: curvature of stalk

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| A black and white drawing of a tall object  AI-generated content may be incorrect. | A black line drawing of a plant  AI-generated content may be incorrect. | A black and white drawing of a curved object  AI-generated content may be incorrect. | A black and white drawing of a curved object  AI-generated content may be incorrect. | A black and white drawing of a curved object  AI-generated content may be incorrect. |
| 1 | 2 | 3 | 4 | 5 |
| absent or very weak | weak | medium | strong | very strong |

Ad. 49: Fruit: depth of stalk cavity  
  
A drawing of a pear

AI-generated content may be incorrect.

Fruits should be cut through the central axis as accurately as possible. Stalk cavity and eye basin depth and width should be measured from the sectioned fruits. The following diagram indicates the position of lines scored, using a knife or scalpel, on the fruit prior to measuring these characteristics.  
• The lines a-b and e-f must be at right angles to the axis of the fruit. (A plastic protractor can be used to ensure accuracy.)  
• The line a-b is marked at the base of the sepals.  
• The line e-f is marked at the insertion of the stalk.  
• The lines a-c and b-d indicate the eye basin depth. They are drawn at right angles to the line a-b to the point where the basin curve levels out.  
• The lines e-g and f-h indicate the stalk cavity depth. They are drawn at right angles to the line e-f to the point where the stalk cavity curve levels out.  
• In the case of asymmetric or irregular sections, observations should be made on the larger side (i.e. in case of depths of stalk cavity: e-g instead of f-h; in case of depth of eye basin: a-c instead of b-d).  
  
f-h = depth of stalk cavity (characteristic 45)  
a-c = depth of eye basin (characteristic 47)  
a-b = width of eye basin (characteristic 48)

Ad. 50: Fruit: depth of eye basin

See Ad. 49.

Ad. 51: Fruit: width of eye basin

See Ad. 49.

Ad. 53: Fruit: attitude of sepals

|  |  |  |
| --- | --- | --- |
| BRN_Kelchbl_Stellung_3 | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\BRN_Kelchbl_Stellung_2.tif | C:\Users\schulte\AppData\Local\Microsoft\Windows\INetCache\Content.Word\BRN_Kelchbl_Stellung_1.tif |
| 1 | 2 | 3 |
| coverging | erect | spreading |

Ad. 55: Fruit: firmness of flesh

Observations can be made by measuring, using a penetrometer.

Ad. 58: Time of beginning of flowering

The time of flowering is reached when 10% of the flowers are fully open.

Ad. 59: Time for harvest

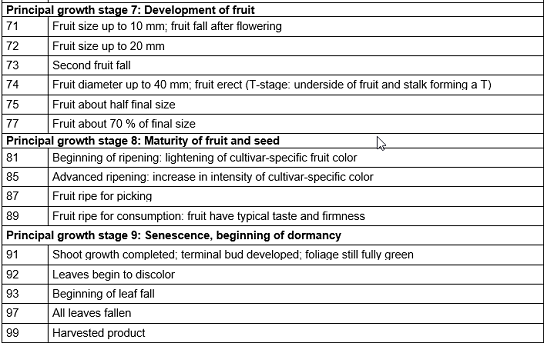
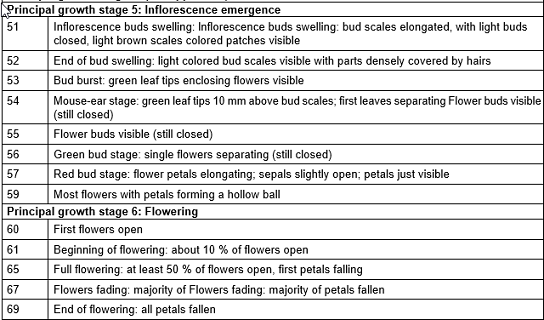
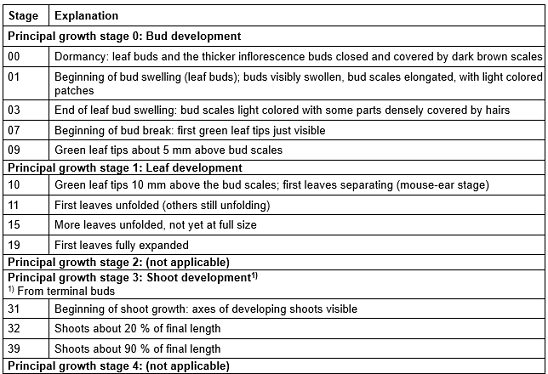
The time for harvest is reached when fruits are ripe for picking and can most easily be picked from the trees. As this physiological stage of the fruit is characterized by a regression of starch content in the flesh, the time for harvest can also be determined by assessing the starch content.

Ad. 60: Time of eating maturity

The time of eating maturity is reached when the fruit is ripe for eating and has reached its optimum flavor and aroma. Eating maturity can be reached on trees or in cold chambers.  As this physiological stage of the fruit is characterized by a degradation of starch content in the flesh, the time of eating maturity can also be determined by assessing the starch content.

## 8.3  Additional Explanations on the Table of Characteristics

*BBCH-Scale for the description of the phenological growth stages of pome fruit*  
  
  
  
(taken from: Biologische Bundesanstalt für Land- und Forstwirtschaft [1997])  
  
*8.4 Synonyms of example varieties*



# Literature

Arbury, J., 1997:  “Pears.”  Wells & Winter, Mereworth, Maidstone, GB  
  
Bocek, O., 1954:  “Pomologie.”  Statni Zemedelske Hakladatelstvi, Praha, CZ  
  
Bordeianu, T., *et. al.*, 1963:  “Pomologia Republicii Socialiste Romania.”  Vol. 1-8, Editura Academiei Republicii Socialiste, Bucaresti, RO  
  
Brozik, S., Regius, J., 1957:  “Termeszett gyümölcsfajtaink. Almastermesuek, Körte es birs.” Mezögazdasagi Kiado, Budapest, HU  
  
Cifranic, P., et al., 1978: “Pomologia.” Priroda, Bratislava, CZ  
  
Dahl, C.G., 1943:  “Pomologia del II – Päron och Plommon.”  Albert Bonniers Förlag, Stockholm, SE  
  
Fleckinger, J., 1948: Les stades végétatives des arbres frutiers, en rapport avec les traitements. Pomology Français 1948, supplements 81-93, FR  
  
Hedrick, U.P., 1921:  “The pears of New York – Report of the New York Experimental Station for the year 1921.”  J.B. Lyon Company, Albany, US  
  
Kessler, H., 1948:  “Birnensorten der Schweiz.”  Verlag Verbandsdruckerei AG, Bern, CH  
  
Krümmel, H., Groh, W., Friedrich, G., 1964:  “Deutsche Obstsorten.”  Bd. 1-3. Deutscher Landwirtschaftsverlag, Berlin, DE  
  
Leroy, A., 1867:  “Dictionnaire de pomologie I,II – Poires.”  Principales Librairies Agricoles et Horticoles, Angers, FR  
  
Meier, U., 1997: Growth stages of mono- and dicotyledonous plants. Blackwell, Berlin, Vienna.  
  
Morettini, A., Baldini, E., Scaramuzzi, F., Mittempergher L., 1967:  “Monografia delle principali cultivar di pero.”  Consiglio nazionale delle ricerche, Centro Miglioramento Piante da Frutto, Firenze, IT  
  
Morgan, J., 2015: "The Book of Pears". Penguin Random House, London, GB  
  
Nicotra, A., Cobianchi, D., Faedi, W., Manzo, P., 1979:  “Monografia di cultivar di pero.”  Ministero Agricoltura e Foreste, Roma, IT  
  
Nilsson, A., 1989:  “Våra päron-, plommon- och körsbärssorter.”  Karlebo Forlag AB, SE  
  
Petzold, H., 1989:  “Birnensorten.” Verlag J. Neumann, Neudamm, Melsungen, Berlin, Basel, Wien, DE  
  
Seitzer, J., Schüle, H., Wenck, F., 1957:  “Farbtafeln der Birnensorten.”  Verlag Eugen Ulmer, Stuttgart, DE  
  
Tomcsanyi, P., et al., 1979:  “Gyümölcsfajtaink, Gyakorlati pomologia.”  Mezögazdasagi Kiado, Budapest, HU  
  
Van der Zwet, T., 1982:  “The Pear.”  Horticultural Publishing, US  
  
Votteler, W., 1993:  “Verzeichnis der Apfel- und Birnensorten.”  Obst- und Gartenbauverlag, 3. Auflage, München, DE  
  
Yamagata-ken, 1980:  “The report on the characterization and classification of pear varieties.”  Yamagata Horticultural Experiment Station, JP

# Technical Questionnaire

|  |  |  |  |
| --- | --- | --- | --- |
| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|  |  |  | |
|  |  | Application date:  (not to be filled in by the applicant) | |
| TECHNICAL QUESTIONNAIRE  to be completed in connection with an application for plant breeders' rights | | | |
| 1. Subject of the Technical Questionnaire | | | |
| 1.1.1 Botanical name | *Pyrus communis* L. | |  |
|  |  | |  |
| 1.1.2 Common name | European Pear, Pear | |  |
| 2. Applicant | | | |
| Name |  | |  |
|  |  | |  |
| Address |  | |  |
|  |  | |  |
| Telephone No. |  | |  |
|  |  | |  |
| Fax No. |  | |  |
|  |  | |  |
| E-mail address |  | |  |
|  |  | |  |
| Breeder (if different from  applicant) |  | |  |
|  |  | |  |

|  |  |  |  |
| --- | --- | --- | --- |
| TECHNICAL QUESTIONNAIRE | Page {x} of {y} | Reference Number: | |
|  | | | |
| 3. Proposed denomination and breeder's reference | | | |
| Proposed denomination  (if available) |  | |  |
|  |  | |  |
| Breeder's reference |  | |  |

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

|  |
| --- |
| #4. Information on the breeding scheme and propagation of the variety  4.1 Breeding scheme  Variety resulting from:  4.1.1 Crossing  (a) controlled cross [ ]  (please state parent variety)  (…………………..……………..…) x (……………..…………………..…)  female parent male parent  (b) partially known cross [ ]  (please state parent variety(ies))  (…………………..……………..…) x (……………..…………………..…)  female parent male parent  (c) unknown cross [ ] |
| 4.1.2 Mutation  (please state parent variety) |
| 4.1.3 Discovery and development  (please state where and when discovered and how developed) |
| 4.1.4 Other  (Please provide details) |

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

|  |
| --- |
| 4.2 Method of propagating the variety  4.2.1 Vegetative propagation  (a) In vitro propagation [ ]  (b) Other (state method) [ ]  4.2.2 Other  (Please provide details) [ ] |
|  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TECHNICAL QUESTIONNAIRE | | Page {x} of {y} | | Reference Number: | |
|  | | | | | |
| 5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the note which best corresponds). | | | | | |
|  | Characteristics | | Example Varieties | | Note |
| **5.1**  **(2)** | **Tree: growth habit** | |  | |  |
|  | fastigiate | | Jeanne d’Arc | | 1 [ ] |
|  | upright | | Beurré Clairgeau, Doyenné du Comice | | 2 [ ] |
|  | semi-upright | | Colorée de Juillet, Nojabrskaja | | 3 [ ] |
|  | spreading | | Madame Ballet | | 4 [ ] |
|  | drooping | | Beurré Diel, Beurré Six | | 5 [ ] |
|  | weeping | | Armida, Beurré d’Amanlis | | 6 [ ] |
| **5.2**  **(9)** | **(NEW) Young shoot: intensity of pubescence** | |  | |  |
|  | absent or very weak | |  | | 1 [ ] |
|  | weak | |  | | 2 [ ] |
|  | medium | |  | | 3 [ ] |
|  | strong | |  | | 4 [ ] |
|  | very strong | |  | | 5 [ ] |
| **5.3**  **(20)** | **Petiole: presence of stipules** | |  | |  |
|  | absent | | Monchallard | | 1 [ ] |
|  | present | | Doyenné du Comice | | 9 [ ] |
| **5.4**  **(30)** | **Fruit: weight** | |  | |  |
|  | very low | | Petit Muscat, Précoce de Cassano | | 1 [ ] |
|  | very low to low | |  | | 2 [ ] |
|  | low | | Citron des Carmes, Doyenné de Juillet | | 3 [ ] |
|  | low to medium | |  | | 4 [ ] |
|  | medium | | Docteur Jules Guyot, Épine du Mas | | 5 [ ] |
|  | medium to high | |  | | 6 [ ] |
|  | high | | Doyenné du Comice, Passe Crassane | | 7 [ ] |
|  | high to very high | |  | | 8 [ ] |
|  | very high | | Margarete Marillat | | 9 [ ] |
| **5.5**  **(34)** | **Fruit: position of maximum diameter** | |  | |  |
|  | in middle | | Bergamotte Esperen | | 1 [ ] |
|  | slightly towards calyx | | Beurré Alexandre Lucas, Doyenné du Comice | | 2 [ ] |
|  | clearly towards calyx | | Conference | | 3 [ ] |
|  |  | |  | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TECHNICAL QUESTIONNAIRE | | Page {x} of {y} | | Reference Number: | |
|  | |  | |  | |
|  | Characteristics | | Example Varieties | | Note |
| **5.6**  **(36)** | **Fruit: profile of sides** | |  | |  |
|  | concave | | Abbé Fétel, Beurré Bosc | | 1 [ ] |
|  | straight | | Beurré Giffard | | 2 [ ] |
|  | convex | | Doyenné d’Hiver, Olivier de Serres | | 3 [ ] |
| **5.7**  **(37)** | **Fruit: ground color** | |  | |  |
|  | not visible | | Grand Champion, Uta | | 1 [ ] |
|  | green | | Nouveau Poiteau | | 2 [ ] |
|  | yellow green | | Beurré Giffard, Beurré Hardy | | 3 [ ] |
|  | yellow | | Président Drouard, Williams’ Bon Chrétien | | 4 [ ] |
| **5.8**  **(38)** | **Fruit: hue of over color** | |  | |  |
|  | orange | | Précoce de Trévoux | | 1 [ ] |
|  | orange red | | Duchesse Elsa | | 2 [ ] |
|  | pink red | | Belle Angevine | | 3 [ ] |
|  | light red | | Nordhäuser Winterforelle | | 4 [ ] |
|  | dark red | | Starkrimson | | 5 [ ] |
|  | purple | |  | | 6 [ ] |
| **5.9**  **(40)** | **Fruit: relative area of  over color** | |  | |  |
|  | absent or very small | | Passe Crassane, Président Drouard | | 1 [ ] |
|  | very small to small | |  | | 2 [ ] |
|  | small | | Précoce de Trévoux | | 3 [ ] |
|  | small to medium | |  | | 4 [ ] |
|  | medium | | Nordhäuser Winterforelle | | 5 [ ] |
|  | medium to large | |  | | 6 [ ] |
|  | large | | Beurré Clairgeau | | 7 [ ] |
|  | large to very large | |  | | 8 [ ] |
|  | very large | | Starkrimson | | 9 [ ] |
| **5.10**  **(41)** | **Fruit: pattern of over color** | |  | |  |
|  | only solid flush | |  | | 1 [ ] |
|  | solid flush with stripes | |  | | 2 [ ] |
|  | only stripes | |  | | 3 [ ] |
|  | flushed and mottled | |  | | 4 [ ] |
|  |  | |  | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| TECHNICAL QUESTIONNAIRE | | Page {x} of {y} | | Reference Number: | |
|  | |  | |  | |
|  | Characteristics | | Example Varieties | | Note |
| **5.11**  **(56)** | **Fruit: color of flesh** | |  | |  |
|  | white | |  | | 1 [ ] |
|  | greenish | |  | | 2 [ ] |
|  | yellowish | |  | | 3 [ ] |
|  | pinkish | |  | | 4 [ ] |
|  | reddish | |  | | 5 [ ] |
| **5.12**  **(58)** | **Time of beginning of flowering** | |  | |  |
|  | very early | | Beurré Alexandre Lucas, Pitmaston Duchesse d’Angoulême | | 1 [ ] |
|  | very early to early | |  | | 2 [ ] |
|  | early | | Delfrap, Louise Bonne d’Avranches | | 3 [ ] |
|  | early to medium | |  | | 4 [ ] |
|  | medium | | Packham’s Triumph, Williams’ Bon Chrétien | | 5 [ ] |
|  | medium to late | |  | | 6 [ ] |
|  | late | | Doyenné du Comice, Jeanne d’Arc | | 7 [ ] |
|  | late to very late | |  | | 8 [ ] |
|  | very late | | Frangipane | | 9 [ ] |
| **5.13**  **(60)** | **Time of eating maturity** | |  | |  |
|  | extremely early | |  | | 1 [ ] |
|  | extremely early to very early | |  | | 2 [ ] |
|  | very early | | Doyenné de Juillet, Mirandino rosso | | 3 [ ] |
|  | very early to early | |  | | 4 [ ] |
|  | early | | Précoce de Trévoux | | 5 [ ] |
|  | early to medium | |  | | 6 [ ] |
|  | medium | | Coscia | | 7 [ ] |
|  | medium to late | |  | | 8 [ ] |
|  | late | | Beurré Hardy, Doyenné du Comice, Jeanne d’Arc | | 9 [ ] |
|  | late to very late | |  | | 10 [ ] |
|  | very late | | Doyenné d’Hiver, Nordhäuser Winterforelle, Président Drouard | | 11 [ ] |
|  | very late to extremely late | |  | | 12 [ ] |
|  | extremely late | |  | | 13 [ ] |
|  |  | |  | |  |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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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* |  | |  | |  |
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| 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  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.]  -    Resistance to pests and diseases    -    Virus status  (a) The variety is free from all known virus as follows (indicate from which viruses) [ ]  ...................................................................................................................................  (b) The plant material is virus tested (indicate against which virus) [ ]  ...................................................................................................................................  (c) The virus status is unknown [ ] | | | |

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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 |  |
|  | [End of document] | | |