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| International Union for the Protection of New Varieties of Plants |  |

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| Technical CommitteeFifty-Fifth SessionGeneva, October 28 and 29, 2019 | TC/55/20Original: EnglishDate: September 17, 2019 |

Partial revision of the Test Guidelines for Grapefruit and Pummelo
(*Citrus* L. – Group 4)

Document prepared by experts from Spain

Disclaimer: this document does not represent UPOV policies or guidance

 The purpose of this document is to present a proposal for a partial revision of the Test Guidelines for Grapefruit and Pummelo (*Citrus* L. – Group 4) (document TG/204/1 Rev.).

 The Technical Working Party for Fruit Crops (TWF), at its fiftieth session in held in Budapest, Hungary, from June 24 to 28, 2019, considered a proposal for a partial revision of the Test Guidelines Grapefruit and Pummelo (*Citrus*L. – Group 4) on the basis of documents TG/204/1 Rev. and TWF/50/8 “Partial revision of the Test Guidelines for Grapefruit and Pummelo (*Citrus*L. – Group 4)” and proposed the following revisions (see document TWF/50/13 “Report”, paragraph 92):

1. Characteristic 30 “Anther: viable pollen”
	1. To change the name of the characteristic to “Anther: pollen viability”
	2. To change type of expression from QL to QN and add states of expression including example varieties
	3. To add explanation
2. Characteristic 50 “Fruit surface: predominant color(s)”
	1. To add new state of expression “yellowish orange”
	2. To change example varieties
3. To change wording of state 1 to read “white” in Characteristic 63 “Fruit: color of albedo”
4. To add a new characteristic 66 “Only varieties with Fruit: bicolored segments: present: Fruit: distribution of red coloration” after Characteristic 65 “Fruit: bicolored segments”
5. Characteristic 66 “Fruit: main color of flesh”
	1. To change wording of state 1 to read “greenish yellow”
	2. To add new state of expression “orange” including example variety
6. To delete Characteristic 81 “Fruit: number of seeds (controlled manual self-pollination)” and to revise Ad. 82 “Fruit: number of seeds (open pollination)”

 The Annex to this documents reflects the consequential changes to the citrus overall table of characteristics according to the changes to the Test Guidelines for Grapefruit and Pummelo (*Citrus*L. – Group 4) presented in this document as well as the changes to the Test Guidelines for Oranges (*Citrus* L. – Group 2), as set out in document TC/55/19.

 The proposed changes are presented below in highlight and underline (insertion) and ~~strikethrough~~ (deletion).

Proposed changes to Characteristic 30 “Anther: viable pollen”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 30. |  | Anther: viable pollen | Anthère: pollen viable | Anthere: keimfähiger Pollen | Antera: polen viable |  |  |
| **QL** | **(c)** | absent | absent | fehlend | ausente |  | 1 |
| **[239]** |  | present | présent | vorhanden | presente |  | 9 |

*Proposed new wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 30.(+) |  | Anther: ~~viable~~ pollen viability | **Anthère: viabilité du pollen ~~viabile~~** | **Anthere: ~~keimfähiger~~ Keimfähigkeit des Pollen** | **Antera: viabilidad del polen ~~viable~~** |  |  |
| **~~QL~~QN** | **(b)** | absent or low | absente ou faible | fehlend oder gering | ausente o baja | Gregal (PUM), JR 13 (GRA) | 1 |
|  |  | medium | moyenne | mittel | media |  | 2 |
|  |  | high | forte | stark | alta | Marsh (GRA), Duncan (GRA) | 3 |
| **[239]** |  | ~~present~~ | ~~présent~~ | ~~vorhanden~~ | ~~presente~~ |  | ~~9~~ |

Ad. 30: Anther: pollen viability

There is variability during development of the floral bud. It must be observed during the period of full flowering. From the two years of observations, the highest value should be taken, as this would indicate the highest potential for pollination.

Method to determine the percentage of pollen viability:

The pollen should be collected when the petals begin to open (but with the anthers closed). The anthers should be introduced into a Petri dish and placed inside a silica gel dryer at room temperature, for 20-48 hours of darkness. When the anthers are open they should be moved to an 8 ºC chamber with a 70-80 % Relative Humidity for one hour. Afterwards, the pollen should be brushed onto a microscope slide with 2 ml of Brewbacker medium (Brewbaker and Kwack. 1963). Finally, the microscope slide should be placed in a 24 ºC chamber with a 75 % RH for 20 hours.

The percentage of pollen fertility is calculated as the average of germinated pollen grains observed with a binocular microscope in 15 visual fields from 2 different microscope slides.

(Brewbaker, J.L. and Kwack, B.H. 1963. The essential role of calcium ion in pollen germination and pollen tube growth. Amer. Jour. Botany. 50: 859-865.)

Proposed changes to Characteristic 50 “Fruit surface: predominant color(s)”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 50.(\*) |  | Fruit surface: predominant color(s) | Surface du fruit: couleur(s) prédominante(s) | Fruchtoberfläche: Hauptfarbe(n) | Superficie del fruto: color(es) predominante(s) |  |  |
| **PQ** | **(e)** | yellow green  | vert‑jaune | gelbgrün | verde amarillento |  | 1 |
|  | **(f)** | greenish yellow | jaune verdâtre  | grünlichgelb | amarillo verdoso  | Tahiti (PUM) | 2 |
|  |  | light yellow  | jaune clair | hellgelb | amarillo claro | Melogold (HGP), Oroblanco (HGP), Pomelit (PUM) | 3 |
|  |  | medium yellow | jaune moyen | mittelgelb | amarillo medio | Marsh (GRA) | 4 |
|  |  | light pink | rose pâle | hellrosa | rosa claro | Ruby Henninger (GRA) | 5 |
|  |  | medium pink | rose moyen | mittelrosa | rosa medio | Oran Red (GRA) | 6 |
| **[282]** |  | dark pink | rose foncé | dunkelrosa | rosa oscuro | Star Ruby (GRA) | 7 |

*Proposed new wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 50.(\*) |  | Fruit surface: predominant color(s) | Surface du fruit: couleur(s) prédominante(s) | Fruchtoberfläche: Hauptfarbe(n) | Superficie del fruto: color(es) predominante(s) |  |  |
| **PQ** | **(e)** | yellow green  | vert‑jaune | gelbgrün | verde amarillento |  | 1 |
|  | **(f)** | greenish yellow | jaune verdâtre  | grünlichgelb | amarillo verdoso  | Tahiti (PUM) | 2 |
|  |  | light yellow  | jaune clair | hellgelb | amarillo claro | Melogold (HGP), Oroblanco (HGP), ~~Pomelit (PUM)~~ | 3 |
|  |  | medium yellow | jaune moyen | mittelgelb | amarillo medio | Marsh (GRA) | 4 |
|  |  | light pink | rose pâle | hellrosa | rosa claro | Ruby Henninger (GRA) | 5 |
|  |  | medium pink | rose moyen | mittelrosa | rosa medio | Oran Red (GRA) | 6 |
|  |  | dark pink | rose foncé | dunkelrosa | rosa oscuro | Star Ruby (GRA) | 7 |
| **[282]** |  | yellowish orange | orange jaunâtre | gelblichorange | naranja amarillento | Gregal (PUM) | 8 |

Proposed changes to Characteristic 63 “Fruit: color of albedo”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 63. |  | Fruit: color of albedo | Fruit: couleur de l'albédo | Frucht: Farbe der Albedo | Fruto: color del albedo |  |  |
| **PQ** | **(e)** | greenish | verdâtre | grünlich | verdoso | Marsh (GRA), Melogold (HGP), Oroblanco (HGP) | 1 |
|  |  | light pink | rose pâle | hellrosa | rosa claro | Ray Ruby (GRA), Redblush (GRA), Ruby Henninger (GRA) | 2 |
| **[300]** |  | pink | rose | rosa | rosa | Star Ruby (GRA) | 3 |

*Proposed new wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 63. |  | Fruit: color of albedo | Fruit: couleur de l'albédo | Frucht: Farbe der Albedo | Fruto: color del albedo |  |  |
| **PQ** | **(e)** | ~~greenish~~white | ~~verdâtre~~blanc | ~~grünlich~~weiß | ~~verdoso~~blanco | Marsh (GRA), Melogold (HGP), Oroblanco (HGP) | 1 |
|  |  | light pink | rose pâle | hellrosa | rosa claro | Ray Ruby (GRA), Redblush (GRA), Ruby Henninger (GRA) | 2 |
| **[300]** |  | pink | rose | rosa | rosa | Star Ruby (GRA) | 3 |

Proposal to add a new characteristic “Only varieties with Fruit: bicolored segments: present: Fruit: distribution of red coloration” after Characteristic 65 “Fruit: bicolored segments”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 65. |  | Fruit: bicolored segments | Fruit: segments bicolores | Frucht: zweifarbige Segmente | Fruto: gajos bicolores |  |  |
| **QL** | **(e)** | absent | absents | fehlend | ausentes | Marsh (GRA), Star Ruby (GRA) | 1 |
| **[306]** |  | present | présents | vorhanden | presentes | Pomelit (PUM) | 9 |

*Proposed new wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 65. |  | Fruit: bicolored segments | Fruit: segments bicolores | Frucht: zweifarbige Segmente | Fruto: gajos bicolores |  |  |
| **QL** | **(e)** | absent | absents | fehlend | ausentes | Marsh (GRA), Star Ruby (GRA) | 1 |
| **[306]** |  | present | présents | vorhanden | presentes | Pomelit (PUM) | 9 |
| 66. |  | Only varieties with Fruit: bicolored segments: present: Fruit: distribution of red coloration | Seulement variétés avec Fruit: segments bicolores: présents: Fruit: distribution de la coloration rouge | Nur Sorten mit Frucht: zweifarbige Segmente: vorhanden: Frucht: Verteilung der Rotfärbung | Sólo variedades con Fruto: gajos bicolores: presentes: Fruto: distribución de la coloración roja |  |  |
| **QL** | **(e)** | evenly distributed | uniformément répartis | gleichmäßig verteilt | repartido uniforme | Henderson (GRA) | 1 |
| **[306.1]** |  | mainly marginate | principalement au bord | hauptsächlich am Rand | principalmente marginal | Star Ruby (PUM), Chandler (PUM) | 2 |

Proposed changes to Characteristic 66 “Fruit: main color of flesh”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 66.(\*) |  | Fruit: main color of flesh | Fruit: couleur prin­cipale de la chair | Frucht: Hauptfarbe des Fleisches | Fruto: color principal de la pulpa |  |  |
| **PQ** | **(e)** | whitish | blanchâtre | weißlich | blanquecino | Marsh (GRA), Melogold (HGP), Oroblanco (HGP) | 1 |
|  | **(g)** | light green | vert clair | hellgrün | verde claro | Tahiti (PUM) | 2 |
|  |  | light pink | rose pâle | hellrosa | rosa claro | Ray Ruby (GRA), Redblush (GRA), Ruben (GRA), Ruby Henninger (GRA) | 3 |
|  |  | medium pink | rose moyen | mittelrosa | rosa medio | Henderson (GRA) | 4 |
|  |  | dark pink | rose foncé | dunkelrosa | rosa oscuro | Star Ruby (GRA) | 5 |
| **[307]** |  | whitish and pink | blanchâtre et rose | weißlich und rosa | blanquecino y rosa | Pomelit (PUM) | 6 |

*Proposed new wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| ~~66.~~67.(\*) |  | Fruit: main color of flesh | Fruit: couleur prin­cipale de la chair | Frucht: Hauptfarbe des Fleisches | Fruto: color principal de la pulpa |  |  |
| **PQ** | **(e)** | ~~whitish~~ greenish yellow | ~~blanchâtre~~ jaune verdâtre | ~~weißlich~~grünlichgelb | ~~blanquecino~~amarillo verdoso | Marsh (GRA), Melogold (HGP), Oroblanco (HGP) | 1 |
|  | **(g)** | light green | vert clair | hellgrün | verde claro | Tahiti (PUM) | 2 |
|  |  | light pink | rose pâle | hellrosa | rosa claro | Ray Ruby (GRA), Redblush (GRA), Ruben (GRA), Ruby Henninger (GRA) | 3 |
|  |  | medium pink | rose moyen | mittelrosa | rosa medio | Henderson (GRA) | 4 |
|  |  | dark pink | rose foncé | dunkelrosa | rosa oscuro | Star Ruby (GRA) | 5 |
|  |  | whitish and pink | blanchâtre et rose | weißlich und rosa | blanquecino y rosa | Pomelit (PUM) | 6 |
| **[307]** |  | orange | orange | orange | naranja | Gregal (PUM) | 7 |

Proposal to delete Characteristic 81 “Fruit: number of seeds (controlled manual self-pollination)” and revise Ad. 82 “Fruit: number of seeds (open pollination)”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 80. |  | Fruit: strength of fibre | Fruit: rigidité des fibres | Frucht: Festigkeit der Fasern | Fruto: vigor de la fibra |  |  |
| **QN** | **(e)** | weak | faible | schwach | débil |  | 3 |
|  |  | medium | moyenne | mittel | medio |  | 5 |
| **[324]** |  | strong | forte | stark | fuerte |  | 7 |
| 81.(+) |  | Fruit: number of seeds (controlled manual self-pollination) | Fruit: nombre de pépins (autopolli­nisation manuelle contrôlée) | Frucht: Anzahl Samen (manuelle kontrollierte Selbstbestäubung) | Fruto: número de semillas (autopoli­nización manual controlada) |  |  |
| **QN** | **(e)** | absent or very few | absents ou très peu nombreux | fehlend oder sehr gering | ausentes o muy bajo | Melogold (HGP), Oroblanco (HGP),  | 1 |
|  |  | few | peu nombreux | gering | bajo | Nelruby (GRA), Redblush (GRA) | 3 |
|  |  | medium | moyen | mittel | medio |  | 5 |
|  |  | many | nombreux | groß | alto |  | 7 |
| **[325]** |  | very many | très nombreux | sehr groß | muy alto | Chandler (PUM), Tahiti (PUM) | 9 |
| 82.(+) |  | Fruit: number of seeds (open pollination) | Fruit: nombre de pépins (fécondation libre) | Frucht: Anzahl Samen (frei abblühend) | Fruto: número de semillas (polini­zación libre) |  |  |
| **QN** | **(e)** | absent or very few | absents ou très peu nombreux | fehlend oder sehr gering | ausentes o muy bajo |  | 1 |
|  |  | few | peu nombreux | gering | bajo |  | 3 |
|  |  | medium | moyen | mittel | medio |  | 5 |
| **[326]** |  | many | nombreux | groß | alto |  | 7 |

*Proposed new wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| 80. |  | Fruit: strength of fibre | Fruit: rigidité des fibres | Frucht: Festigkeit der Fasern | Fruto: vigor de la fibra |  |  |
| **QN** | **(e)** | weak | faible | schwach | débil |  | 3 |
|  |  | medium | moyenne | mittel | medio |  | 5 |
| **[324]** |  | strong | forte | stark | fuerte |  | 7 |
| ~~81.(+)~~ |  | ~~Fruit: number of seeds (controlled manual self-pollination)~~ | ~~Fruit: nombre de pépins (autopolli­nisation manuelle contrôlée)~~ | ~~Frucht: Anzahl Samen (manuelle kontrollierte Selbstbestäubung)~~ | ~~Fruto: número de semillas (autopoli­nización manual controlada)~~ |  |  |
| **~~QN~~** | **~~(e)~~** | ~~absent or very few~~ | ~~absents ou très peu nombreux~~ | ~~fehlend oder sehr gering~~ | ~~ausentes o muy bajo~~ | ~~Melogold (HGP), Oroblanco (HGP),~~  | ~~1~~ |
|  |  | ~~few~~ | ~~peu nombreux~~ | ~~gering~~ | ~~bajo~~ | ~~Nelruby (GRA), Redblush (GRA)~~ | ~~3~~ |
|  |  | ~~medium~~ | ~~moyen~~ | ~~mittel~~ | ~~medio~~ |  | ~~5~~ |
|  |  | ~~many~~ | ~~nombreux~~ | ~~groß~~ | ~~alto~~ |  | ~~7~~ |
| **~~[325]~~** |  | ~~very many~~ | ~~très nombreux~~ | ~~sehr groß~~ | ~~muy alto~~ | ~~Chandler (PUM), Tahiti (PUM)~~ | ~~9~~ |
| ~~82.~~81.(+) |  | Fruit: number of seeds (open pollination) | Fruit: nombre de pépins (fécondation libre) | Frucht: Anzahl Samen (frei abblühend) | Fruto: número de semillas (polini­zación libre) |  |  |
| **QN** | **(e)** | absent or very few | absents ou très peu nombreux | fehlend oder sehr gering | ausentes o muy bajo |  | 1 |
|  |  | few | peu nombreux | gering | bajo |  | 3 |
|  |  | medium | moyen | mittel | medio |  | 5 |
| **[326]** |  | many | nombreux | groß | alto |  | 7 |

Ad. ~~82~~ 81 ([326]): Fruit: number of seeds (open pollination)

 Open pollination means natural pollination between trees of ~~the same~~ any variety.

[Annex follows]

## Consequential changes to the citrus overall table of characteristics

|  | Group/Groupe/Gruppe/Grupo | English | français | deutsch | español | Note/Nota | Group/Groupe/Gruppe/Grupo |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 5 |
| **239.-1** |  | ~~26~~ | 29 | ~~30~~ | 37 | **Anther: viable pollen** | **Anthère: pollen viable** | **Anthere: keimfähiger Pollen** | **Antera: polen viable** |  |  |  |  |  |  |
| **QL** |  |  |  |  |  | absent | absent | fehlend | ausente | 1 |  |  |  |  |  |
|  |  |  |  |  |  | present | présent | vorhanden | presente | 9 |  |  |  |  |  |
| **239.-2** |  | 26 |  | 30 |  | Anther: pollen viability | **Anthère: viabilité du pollen**  | **Anthere: Keimfähigkeit des Pollen** | **Antera: viabilidad del polen**  |  |  |  |  |  |  |
| **QN** |  |  |  |  |  | absent or low | absente ou faible | fehlend oder gering | ausente o baja | 1 |  |  |  |  |  |
|  |  |  |  |  |  | medium | moyenne | mittel | media | 2 |  |  |  |  |  |
|  |  |  |  |  |  | high | forte | stark | alta | 3 |  |  |  |  |  |
| **282.** | 61 | 51 | 49 | 50 | 71 | **Fruit surface: predominant color(s)** | **Surface du fruit: couleur(s) prédominante(s)** | **Fruchtoberfläche: Hauptfarbe(n)** | **Superficie del fruto: color(es) predominante(s)** |  |  |  |  |  |  |
| **PQ** | (\*) | (\*) |  | (\*) |  | green | vert | grün | verde |  | 1 |  | 1 |  | 1 |
|  |  |  |  |  |  | yellow green | vert‑jaune | gelbgrün | verde amarillento |  | 2 |  | 2 | 1 | 2 |
|  |  |  |  |  |  | greenish yellow | jaune verdâtre  | grünlichgelb | amarillo verdoso  |  |  |  |  | 2 |  |
|  |  |  |  |  |  | green and yellow | vert et jaune | grün und gelb | verde y amarillo |  |  |  |  |  | 3 |
|  |  |  |  |  |  | light yellow | jaune clair | hellgelb | amarillo claro |  | 3 |  | 3 | 3 | 4 |
|  |  |  |  |  |  | medium yellow | jaune moyen | mittelgelb | amarillo medio |  | 4 |  | 4 | 4 | 5 |
|  |  |  |  |  |  | yellow orange | orange‑jaune | gelborange | naranja amarillento |  | 5 | 1 | 5 |  | 6 |
|  |  |  |  |  |  | medium orange | orange moyen | mittelorange | naranja medio |  | 6 | 2 |  |  | 7 |
|  |  |  |  |  |  | dark orange | orange foncé | dunkelorange | naranja oscuro |  | 7 | 3 |  |  | 8 |
|  |  |  |  |  |  | green and orange | vert et orange | grün und orange | verde y naranja |  |  |  |  |  | 9 |
|  |  |  |  |  |  | yellow and orange | jaune et orange | gelb und orange | amarillo y naranja |  |  |  |  |  | 10 |
|  |  |  |  |  |  | orange red | rouge orangé | orangerot | rojo anaranjado |  | 8 | 4 |  |  | 11 |
|  |  |  |  |  |  | red | rouge | rot | rojo |  | 9 | 5 |  |  |  |
|  |  |  |  |  |  | yellow and red | jaune et rouge | gelb und rot | amarillo y rojo |  |  |  |  |  | 12 |
|  |  |  |  |  |  | orange and red | orange et rouge | orange und rot | naranja y rojo |  |  |  |  |  | 13 |
|  |  |  |  |  |  | light pink  | rose pâle | hellrosa | rosa claro |  |  |  |  | 5 |  |
|  |  |  |  |  |  | medium pink  | rose moyen | mittelrosa | rosa medio |  |  |  |  | 6 |  |
|  |  |  |  |  |  | dark pink | rose foncé | dunkelrosa | rosa oscuro |  |  |  |  | 7 |  |
|  |  |  |  |  |  | yellowish orange | orange jaunâtre | gelblich orange | naranja amarillento |  |  |  |  | 8 |  |
| **290.-1** | 67 | ~~56~~ | 55 | 56 | 78 | **Fruit surface: presence of pitting and pebbling on oil glands** | **Surface du fruit: présence de dépression et de protubérance sur les glandes à huile** | **Fruchtoberfläche: Vorhandensein von Grübchen und Körnern an den Öldrüsen** | **Superficie del fruto: presencia de picado y granulado en las glándulas de aceite** |  |  |  |  |  |  |
| **PQ** |  |  |  |  |  | pitting and pebbling absent | dépression et protubérance absentes | Grübchen und Körner fehlend | picado y granulado ausentes | 1 |  |  |  |  |  |
|  |  |  |  |  |  | pitting absent, pebbling present | dépression absente, protubérance présente | Grübchen fehlend, Körner vorhanden | picado ausente, granulado presente | 2 |  |  |  |  |  |
|  |  |  |  |  |  | pitting present, pebbling absent | dépression présente, protubérance absente | Grübchen vorhanden, Körner fehlend | picado presente, granulado ausente | 3 |  |  |  |  |  |
|  |  |  |  |  |  | pitting and pebbling present | dépression et protubérance présentes | Grübchen und Körner vorhanden | picado y granulado presentes | 4 |  |  |  |  |  |
| **290.-2** |  | 56 |  |  |  | **Fruit surface: presence of pitting and pebbling**  | **Surface du fruit: présence de dépression et de protubérance**  | **Fruchtoberfläche: Vorhandensein von Grübchen und Körnern** | **Superficie del fruto: presencia de picado y granulado**  |  |  |  |  |  |  |
| **(+)** |  |  |  |  |  | pitting and pebbling absent | dépression et protubérance absentes | Grübchen und Körner fehlend | picado y granulado ausentes | 1 |  |  |  |  |  |
| **PQ** |  |  |  |  |  | pitting absent, pebbling present | dépression absente, protubérance présente | Grübchen fehlend, Körner vorhanden | picado ausente, granulado presente | 2 |  |  |  |  |  |
|  |  |  |  |  |  | pitting present, pebbling absent | dépression présente, protubérance absente | Grübchen vorhanden, Körner fehlend | picado presente, granulado ausente | 3 |  |  |  |  |  |
|  |  |  |  |  |  | pitting and pebbling present | dépression et protubérance présentes | Grübchen und Körner vorhanden | picado y granulado presentes | 4 |  |  |  |  |  |
| **291.-1** | 68 | ~~57~~ | 56 | 57 | 79 | Varieties with fruit surface: pitting on oil glands present only: Fruit surface: density of pitting  | Variétés avec surface du fruit: présence seulement de dépression sur les glandes à huile: Surface du fruit: densité de la dépression  | Sorten mit Frucht­oberfläche: nur Grübchen an den Öldrüsen vorhanden: Fruchtoberfläche: Dichte der Grübchen  | Variedades con super­ficie del fruto: presencia solamente de picado en las glándulas de aceite: Superficie del fruto: densidad del picado |  |  |  |  |  |  |
| **QN** |  |  |  |  |  | sparse | éparse | locker | dispersa | 3 |  |  |  |  |  |
|  |  |  |  |  |  | medium | moyenne | mittel | media | 5 |  |  |  |  |  |
|  |  |  |  |  |  | dense | dense | dicht | densa | 7 |  |  |  |  |  |
| **291.-2** |  | 57 |  |  |  | Varieties with fruit surface: pitting ~~on oil glands~~ present only: Fruit surface: density of pitting  | Variétés avec surface du fruit: présence seulement de dépression ~~sur les glandes à huile~~: Surface du fruit: densité de la dépression  | Sorten mit Frucht­oberfläche: nur Grübchen ~~an den Öldrüsen~~ vorhanden: Fruchtoberfläche: Dichte der Grübchen  | Variedades con super­ficie del fruto: presencia solamente de picado ~~en las glándulas de aceite~~: Superficie del fruto: densidad del picado |  |  |  |  |  |  |
| **QN** |  |  |  |  |  | sparse | éparse | locker | dispersa | 3 |  |  |  |  |  |
|  |  |  |  |  |  | medium | moyenne | mittel | media | 5 |  |  |  |  |  |
|  |  |  |  |  |  | dense | dense | dicht | densa | 7 |  |  |  |  |  |
| **300.** | 76 | 62 |  | 63 | 87 | **Fruit: color of albedo** | **Fruit: couleur de l’albédo** | **Frucht: Farbe der Albedo** | **Fruto: color del albedo** |  |  |  |  |  |  |
| **PQ** |  |  |  |  |  | greenish | verdâtre | grünlich | verdoso |  | 1 | 1 |  | ~~1~~ | 1 |
|  |  |  |  |  |  | white | blanc | weiß | blanco |  | 2 | 2 |  | 1 | 2 |
|  |  |  |  |  |  | light yellow | jaune clair | hellgelb | amarillo claro |  | 3 | 3 |  |  | 3 |
|  |  |  |  |  |  | light orange | orange clair | hellorange | naranja claro |  | 4 | 4 |  |  | 4 |
|  |  |  |  |  |  | light pink | rose pâle | hellrosa | rosa claro |  |  |  |  | 2 |  |
|  |  |  |  |  |  | pink | rose | rosa | rosa |  | 5 | 5 |  | 3 | 5 |
|  |  |  |  |  |  | reddish | rougeâtre | rötlich | rojizo |  | 6 | 6 |  |  | 6 |
| **306.-1** |  | 64 |  | 65 |  | **Fruit: bicolored segments** | **Fruit: segments bicolores** | **Frucht: zweifarbige Segmente** | **Fruto: gajos bicolores** |  |  |  |  |  |  |
| **QL** |  |  |  |  |  | absent | absents | fehlend | ausentes | 1 |  |  |  |  |  |
|  |  |  |  |  |  | present | présents | vorhanden | presentes | 9 |  |  |  |  |  |
| **306.-2** |  | 64 |  | 65 |  | Only varieties with Fruit: bicolored segments: present: Fruit: distribution of red coloration | Seulement variétés avec Fruit: segments bicolores: présents: Fruit: distribution de la coloration rouge | Nur Sorten mit Frucht: zweifarbige Segmente: vorhanden: Frucht: Verteilung der Rotfärbung | Sólo variedades con Fruto: gajos bicolores: presentes: Fruto: distribución de la coloración roja |  |  |  |  |  |  |
| **QL** |  |  |  |  |  | evenly distributed | uniformément répartis | gleichmäßig verteilt | repartido uniforme | 1 |  |  |  |  |  |
|  |  |  |  |  |  | mainly marginate | principalement au bord | hauptsächlich am Rand | principalmente marginal | 2 |  |  |  |  |  |
| **307.** | 81 | 65 | 59 | ~~66~~67 | 92 | **Fruit: main color of flesh** | **Fruit: couleur principale de la chair** | **Frucht: Hauptfarbe des Fleisches** | **Fruto: color principal de la pulpa** |  |  |  |  |  |  |
| **PQ** | (\*) | (\*) | (\*) | (\*) |  | whitish | blanchâtre | weißlich | blanquecino |  | 1 |  |  | ~~1~~ | 1 |
|  |  |  |  |  |  | greenish yellow | jaune verdâtre | grünlichgelb | amarillo verdoso |  |  |  |  | 1 |  |
|  |  |  |  |  |  | light green | vert clair | hellgrün | verde claro |  | 2 |  | 1 | 2 | 2 |
|  |  |  |  |  |  | light yellow | jaune clair | hellgelb | amarillo claro |  | 3 |  | 2 |  | 3 |
|  |  |  |  |  |  | medium yellow | jaune moyen | mittelgelb | amarillo medio |  | 4 |  |  |  | 4 |
|  |  |  |  |  |  | light orange | orange clair | hellorange | naranja claro |  | 5 | 1 |  |  | 5 |
|  |  |  |  |  |  | medium orange | orange moyen | mittelorange | naranja medio |  | 6 | 2 |  |  | 6 |
|  |  |  |  |  |  | dark orange | orange foncé | dunkelorange | naranja oscuro |  | 7 | 3 |  |  | 7 |
|  |  |  |  |  |  | orange red | rouge orangé | orangerot | rojo anaranjado |  |  | 4 |  |  |  |
|  |  |  |  |  |  | red | rouge | rot | rojo |  | 8 | 5 |  |  | 8 |
|  |  |  |  |  |  | purple | violet | purpur | púrpura |  | 9 |  |  |  | 9 |
|  |  |  |  |  |  | light pink | rose pâle | hellrosa | rosa claro |  |  |  |  | 3 |  |
|  |  |  |  |  |  | medium pink | rose moyen | mittelrosa | rosa medio |  |  |  | 3 | 4 |  |
|  |  |  |  |  |  | dark pink | rose foncé | dunkelrosa | rosa oscuro |  |  |  |  | 5 |  |
|  |  |  |  |  |  | whitish and pink | blanchâtre et rose | weißlich und rosa | blanquecino y rosa |  |  |  |  | 6 |  |
|  |  |  |  |  |  | yellow and red | jaune et rouge | gelb und rot | amarillo y rojo |  |  |  |  |  | 10 |
|  |  |  |  |  |  | orange | orange  | orange | naranja  |  |  |  |  | 7 |  |
| **323.** | 96 | 81 | 71 | 79 |  | **Fruit juice: acidity** | **Jus du fruit: acidité** | **Fruchtsaft: Säure** | **Jugo del fruto: acidez** |  |  |  |  |  |  |
| **QN** |  |  |  |  |  | very low | très faible | sehr gering | muy baja |  |  | 1 |  |  |  |
|  |  |  |  |  |  | low | faible | gering | baja |  | 3 | 3 | 3 | 3 |  |
|  |  |  |  |  |  | medium | moyenne | mittel | media |  | 5 | 5 | 5 | 5 |  |
|  |  |  |  |  |  | high | forte | stark | alta |  | 7 | 7 | 7 | 7 |  |
| **325.** | 98 | ~~83~~ | 73 | ~~81~~ | 100 | **Fruit: number of seeds (controlled manual self-pollination)** | **Fruit: nombre de pépins (autopollinisation manuelle contrôlée)** | **Frucht: Anzahl Samen (manuelle kontrollierte Selbstbestäubung)** | **Fruto: número de semillas (auto­polinización manual controlada)** |  |  |  |  |  |  |
| **(+)** |  |  |  |  |  | absent or very few | absents ou très peu nombreux | fehlend oder sehr gering | ausentes o muy bajo | 1 |  |  |  |  |  |
| **QN** |  |  |  |  |  | few | peu nombreux | gering | bajo | 3 |  |  |  |  |  |
|  |  |  |  |  |  | medium | moyen | mittel | medio | 5 |  |  |  |  |  |
|  |  |  |  |  |  | many | nombreux | groß | alto | 7 |  |  |  |  |  |
|  |  |  |  |  |  | very many | très nombreux | sehr groß | muy alto | 9 |  |  |  |  |  |

[End of Annex and of document]