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

|  |  |
| --- | --- |
| Technical Working Party for Fruit Crops  Fiftieth Session Budapest, Hungary, June 24 to June 28, 2019 | TWF/50/8  Original: English Date: May 28, 2019 |

Partial revision of the Test Guidelines for Pummelo (Grapefruit and)   
(*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 Pummelo (Grapefruit and) (*Citrus* L. – Group 4) (document TG/204/1 Rev.).

The Technical Working Party for Fruit Crops (TWF), at its forty-ninth session in Santiago de Chile, Chile, from November 19 to 23, 2018, agreed that the Test Guidelines for Pummelo (Grapefruit and) (*Citrus*L. – Group 4) (document TG/204/1 Rev.) be partially revised for Characteristics 30, 50, 63, 65, 66, 81.

The following changes are proposed:

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 and 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 “greenish white” in Characteristic 63 “Fruit: color of albedo”
4. Characteristic 65 “Fruit: bicolored segments”
   1. To change the name of the characteristic to “Fruit: distribution of red coloration”
   2. To change wording of states of expression and example varieties
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 “medium orange” including example variety
6. To delete Characteristic 81 “Fruit: number of seeds (controlled manual self-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 TWF/50/7.

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 Varieties Exemples Beispielssorten Variedades 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 Varieties Exemples Beispielssorten Variedades 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 very low | absente ou très faible | fehlend oder sehr gering | ausente o muy baja | Gregal (PUM), JR 13 (GRA) | 1 |
| **[239]** |  | low | faible | gering | baja | Star ruby (GRA) | 3 |
|  |  | medium | moyenne | mittel | media |  | 5 |
|  |  | high | forte | stark | alta | Marsh (GRA), Duncan (GRA) | 7 |
|  |  | ~~present~~ | ~~présent~~ | ~~vorhanden~~ | ~~presente~~ |  | ~~9~~ |

Ad. 26: Anther: pollen viability

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

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 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 Varieties Exemples Beispielssorten Variedades 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 Varieties Exemples Beispielssorten Variedades 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 | gelblich orange | naranja amarillento | Gregal (PUM) | 8 |

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

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades 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 Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| 63. |  | Fruit: color of albedo | Fruit: couleur de l'albédo | Frucht: Farbe der Albedo | Fruto: color del albedo |  |  |
| **PQ** | **(e)** | greenish or white | verdâtre ou blanc | grünlich oder weiß | verdoso o 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 |

Proposed changes to Characteristic 65 “Fruit: bicolored segments”

*Current wording*

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

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

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades 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 Varieties Exemples Beispielssorten Variedades 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~~  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]** |  | medium orange | orange moyen | mittelorange | naranja medio | Gregal (PUM) | 7 |

Proposal to delete Characteristic 81 “Fruit: number of seeds (controlled manual self-pollination)”

*Current wording*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades 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 Varieties Exemples Beispielssorten Variedades 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 |

[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 very low | absente ou très faible | fehlend oder sehr gering | ausente o muy baja | 1 |  |  |  |  |  |
|  |  |  |  |  |  | low | faible | gering | baja | 3 |  |  |  |  |  |
|  |  |  |  |  |  | medium | moyenne | mittel | media | 5 |  |  |  |  |  |
|  |  |  |  |  |  | high | forte | stark | alta | 7 |  |  |  |  |  |
| **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 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** |  |  |  |  |  |  |
| **(+)** |  |  |  |  |  | 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 |  |  |  |  |  |
| **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 |  |  | 2 |
|  |  |  |  |  |  | greenish or white | verdâtre ou blanc | grünlich oder weiß | verdoso o blanco |  |  |  |  | 1 |  |
|  |  |  |  |  |  | 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.** |  | 64 |  | 65 |  | ~~Fruit: bicolored segments~~  Fruit: distribution of red coloration | ~~Fruit: segments bicolores~~  Fruit: distribution de la coloration rouge | ~~Frucht: zweifarbige Segmente~~  Frucht: Verteilung der Rotfärbung | ~~Fruto: gajos bicolores~~  Fruto: distribución de la coloración roja |  |  |  |  |  |  |
| **QL** |  |  |  |  |  | ~~absent~~ evenly distributed | ~~absents~~ uniformément répartis | ~~fehlend~~ gleichmäßig verteilt | ~~ausentes~~ repartido uniforme | 1 |  |  |  |  |  |
|  |  |  |  |  |  | ~~present~~ mainly marginate | ~~présents~~ principalement au bord | ~~vorhanden~~ hauptsächlich am Rand | ~~presentes~~ principalmente marginal | ~~9~~ 2 |  |  |  |  |  |
| **307.** | 81 | 65 | 59 | 66 | 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 |
|  |  |  |  |  |  | medium orange | orange moyen | mittelorange | naranja medio |  |  |  |  | 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]