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

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| Technical Working Party for Fruit CropsFifty-Third SessionVirtual meeting, July 11 to 15, 2022 | TWF/53/9Original: EnglishDate: June 10, 2022 |

Partial revision of the Test Guidelines for Walnut

Document prepared by an expert from the Czech Republic

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 Walnut (document TG/125/7).

 The Technical Working Party for Fruit Crops (TWF), at its fifty-second session, hosted by China and organized by electronic means, from July 12 to 16, 2021, agreed that the Test Guidelines for Walnut (document TG/125) be partially revised (see document TWF/52/10 “Report”, Annex IV).

 The following changes are proposed:

1. Addition of a new characteristic “Tree: predominant location of fruit buds” after characteristic 2 “Tree: branching”
2. Change from “ventral view” “to lateral view” in the following characteristics:

(i) Char. 10. Nut: shape in ventral view

(ii) Char. 11. Nut: shape in lateral view

(iii) Char. 13. Nut: shape of base in lateral view

(iv) Char. 14. Nut: shape of apex in lateral view

(v) Char. 18 Nut: width of pad on suture in lateral view

1. Addition of a new characteristic “Time of leaf bud burst” after characteristic 27 “Kernel: ease of removal from shell”

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

Proposal to add a new characteristic “Tree: predominant location of fruit buds” after characteristic 2 “Tree: branching”

|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **2.** |  | **QN** | **VG** | **(+)** | **(a)** |  |
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| **Tree: branching** |

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| **Arbre : ramification** |

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| **Baum: Verzweigung** |

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| **Árbol: ramificación** |

 |  |  |
|  |  | weak | faible | gering | escasa | Chico, Huashan 5, Shangluo 3, Vina, Xisiyu 1 | 3 |
|  |  | medium | moyenne | mittel | media | Chuanhe 2, Franquette, Hartley, Lübo, Marbot, Qinyou 1, Shangsong 6, Xinzaofeng | 5 |
|  |  | strong | forte | stark | abundante | Corne, Daixiang, Jinfeng, Liaoning 1, Liaoning 4, Luguang, Luguo 2, Parisienne, Shaanhe 1, Xiangling, Xifu 2, Xilin 2, Zhonglin 1, Zhonglin 5 | 7 |
| **NEW** |  | **QN** | **VG** | **(+)** |  |  |
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| **Tree: predominant location of fruit buds** |

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| **Arbre: localisation****prédominante des bourgeons à fruit** |

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| **Baum: vorwiegende Position der Fruchtknospen** |

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| **Árbol: localización****predominante de los yemas fructíferas** |

 |  |  |
|  |  | at tip of one-year old shoot (fruiting on outer side of tree) | à l’extrémité des rameauxd’un an (fructificationen périphériede l’arbre) | an der Spitze dereinjährigen Zweige(Fruchtbildung an derAußenseite des Baumes) | en el ápice de tallosde un año (fructificaciónen la parteexterna del árbol) | Corne, Franquette, Marbot | 1 |
|  |  | mainly on the top of long shoots bound on branches of 2 years or older (fruiting in clusters) | brprincipalement enextrémité de pousseslongues insérées surdes rameaux de 2 ansou plus (fructificationpar bouquets) | an der Spitze langerTriebe an zweijährigenoder älterenZweigen (Fruchtbildungin Gruppen) | predominantementeen el extremo detallos largos, sobreramos de 2 o másaños (fructificaciónen grupos) | Hartley | 2 |
|  |  | all along the one-year old shoot (fruiting on lateral brindilles) | tout le long desrameaux d’un an(fructification surbrindilles latérales) | auf die ganze Längeeinjähriger Zweigeverteilt (Fruchtbildungan kleinenSeitenzweigen) | a lo largo de tallos de1 año (fructificaciónen brindillas laterales) | Chico, Payne, Serr | 3 |
| **4.** | **(\*)** | **PQ** | **VG** | **(+)** |  |  |
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| **Bud: shape** |

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| **Bourgeon : forme** |

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| **Knospe: Form** |

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| **Yema: forma** |

 |  |  |
|  |  | circular | circulaire | kreisförmig | circular | Daixiang, Jinlong 1, Luguang, Luguo 2, Milotai 10, Xiangling, Xilin 2, Xinzaofeng, Zhonglin 1 | 1 |
|  |  | flabellate | flabelliforme | fächerförmig | flabeliforme | Fenghui | 2 |
|  |  | triangular | triangulaire | dreieckig | triangular | Chuanhe 2, Liaoning 4, Zhenzhuhetao | 3 |

Ad. NEW: Tree: predominant location of fruit buds

The type of fruiting (predominant location of fruit buds) should be observed at the time of full bloom of the female flowers.

|  |  |  |
| --- | --- | --- |
|  |  |  |
| 1 | 2 | 3 |
| at tip of one-year old shoot(fruiting on outer side of tree) | mainly on the top of long shoots bound on branches of 2 years or older (fruiting in clusters) | all along the one-year old shoot (fruiting on lateral brindilles) |

Proposal to change from “ventral view” “to lateral view”

### Characteristic 10 “Nut: shape in ventral view”

#### Current wording

|  |  |  |  |  |  |  |
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| **10.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
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| **Nut: shape in ventral view** |

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| **Noix : forme en vue ventrale** |

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| **Nuß: Form in Bauchansicht** |

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| **Nuez: forma en vista ventral** |

 |  |  |
|  |  | triangular | triangulaire | dreieckig | triangular | Hartley | 1 |
|  |  | broad ovate | broad ovate | breit eiförmig | oval ancha | Marbot, Payne, Serr | 2 |
|  |  | ovate | ovale | eiförmig | oval | Gustine, Jinfeng | 3 |
|  |  | oblong | oblongue | breitrund | oblonga | Milotai bőtermő, Mumahetao, Sunland | 4 |
|  |  | elliptic | elliptique | elliptisch | elíptica | Corne, Daifeng, Franquette, Sorrento, Xilin 2 | 5 |
|  |  | circular | circulaire | kreisförmig | circular | Jinlong 1, Jinlong 2, Liaoning 4, Milotai 10, Meylannaise, Xiangling, Zhonglin 1, Zhonglin 5,  | 6 |
|  |  | broad elliptic | elliptique large | breit elliptisch | elíptica ancha | Parisienne, Luguang | 7 |

#### Proposed new wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **10.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
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| **Nut: shape in lateral ~~ventral~~ view** |

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| **Noix: forme en vue latérale ~~ventrale~~** |

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| **Nuß: Form in Seitenansicht ~~Bauchansicht~~** |

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| **Nuez: forma en vista lateral ~~ventral~~** |

 |  |  |
|  |  | triangular | triangulaire | dreieckig | triangular | Hartley | 1 |
|  |  | broad ovate | broad ovate | breit eiförmig | oval ancha | Marbot, Payne, Serr | 2 |
|  |  | ovate | ovale | eiförmig | oval | Gustine, Jinfeng | 3 |
|  |  | oblong | oblongue | breitrund | oblonga | Milotai bőtermő, Mumahetao, Sunland | 4 |
|  |  | elliptic | elliptique | elliptisch | elíptica | Corne, Daifeng, Franquette, Sorrento, Xilin 2 | 5 |
|  |  | circular | circulaire | kreisförmig | circular | Jinlong 1, Jinlong 2, Liaoning 4, Milotai 10, Meylannaise, Xiangling, Zhonglin 1, Zhonglin 5,  | 6 |
|  |  | broad elliptic | elliptique large | breit elliptisch | elíptica ancha | Parisienne, Luguang | 7 |

### Characteristic 11 “Nut: shape in lateral view”

#### Current wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **11.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
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| **Nut: shape in lateral view** |

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| **Noix : forme en vue latérale** |

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| --- |
| **Nuß: Form in Seitenansicht** |

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| **Nuez: forma en vista lateral** |

 |  |  |
|  |  | triangular | triangulaire | dreieckig | triangular | Hartley | 1 |
|  |  | broad ovate | ovale large | breit eiförmig | oval ancha | Payne, Serr, Xiangling | 2 |
|  |  | ovate | ovale | eiförmig | oval | Gustine, Jinfeng | 3 |
|  |  | circular | circulaire | kreisförmig | circular | Meylannaise, Milotai 10 | 4 |
|  |  | broad elliptic | elliptique large | breit elliptisch | elíptica ancha | Franquette | 5 |
|  |  | oblate | arrondie aplatie | breitrund | achatada | Yuanbao | 6 |

#### Proposed new wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **11.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
|  |  |

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| --- |
| **Nut: shape in ventral ~~lateral~~ view** |

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| **Noix: forme en vue ventrale ~~latérale~~** |

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| **Nuß: Form in Bauchansicht ~~Seitenansicht~~** |

 |

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| --- |
| **Nuez: forma en vista ventral ~~lateral~~** |

 |  |  |
|  |  | triangular | triangulaire | dreieckig | triangular | Hartley | 1 |
|  |  | broad ovate | ovale large | breit eiförmig | oval ancha | Payne, Serr, Xiangling | 2 |
|  |  | ovate | ovale | eiförmig | oval | Gustine, Jinfeng | 3 |
|  |  | circular | circulaire | kreisförmig | circular | Meylannaise, Milotai 10 | 4 |
|  |  | broad elliptic | elliptique large | breit elliptisch | elíptica ancha | Franquette | 5 |
|  |  | oblate | arrondie aplatie | breitrund | achatada | Yuanbao | 6 |

### Characteristic 13 “Nut: shape of base in lateral view”

#### Current wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **13.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
|  |  |

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| **Nut: shape of base in lateral view** |

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| **Noix : forme de la base en vue latérale** |

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| **Nuß: Form der Basis in Seitenansicht**  |

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| **Nuez: forma de la base en vista lateral**  |

 |  |  |
|  |  | cuneate | cunée | keilförmig | cuneada | Corne, Milotai bőtermő | 1 |
|  |  | rounded | arrondie | abgerundet | redondeada | Chico, Franquette, Payne, Serr, Xiangling | 2 |
|  |  | truncate | tronquée | gerade | truncada | Parisienne | 3 |
|  |  | emarginate | récurrente | eingekerbt | emarginada | Hartley | 4 |

#### Proposed new wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **13.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
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| --- |
| **Nut: shape of base in ventral ~~latera~~l view** |

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| --- |
| **Noix: forme de la base en vue ventrale ~~latérale~~** |

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| **Nuß: Form der Basis in Bauchansicht ~~Seitenansicht~~** |

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| **Nuez: forma de la base en vista ventral ~~lateral~~** |

 |  |  |
|  |  | cuneate | cunée | keilförmig | cuneada | Corne, Milotai bőtermő | 1 |
|  |  | rounded | arrondie | abgerundet | redondeada | Chico, Franquette, Payne, Serr, Xiangling | 2 |
|  |  | truncate | tronquée | gerade | truncada | Parisienne | 3 |
|  |  | emarginate | récurrente | eingekerbt | emarginada | Hartley | 4 |

### Characteristic 14 “Nut: shape of apex in lateral view”

#### Current wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **14.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
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| **Nut: shape of apex in lateral view**  |

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| **Noix : forme du sommet en vue latérale**  |

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| **Nuß: Form der Spitze in Seitenansicht**  |

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| **Nuez: forma del ápice en vista lateral**  |

 |  |  |
|  |  | obtuse | obtus | stumpf | obtuso | Vina | 1 |
|  |  | rounded | arrondi | abgerundet | redondeado | Zhonglin 1 | 2 |
|  |  | truncate | tronqué | gerade | truncado | Milotai bőtermő, Zhonglin 5 | 3 |
|  |  | emarginate | récurrent | eingekerbt | emarginado | Xiangling | 4 |

#### Proposed new wording

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **14.** | **(\*)** | **PQ** | **VG** | **(+)** | **(b)** |  |
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| --- |
| **Nut: shape of apex in ventral ~~lateral~~ view** |

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| **Noix : forme du sommet en vue ventrale ~~latérale~~**  |

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| **Nuß: Form der Spitze in Bauchansicht ~~Seitenansicht~~**  |

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|  |
| --- |
| **Nuez: forma del ápice en ventral ~~lateral~~** |

 |  |  |
|  |  | obtuse | obtus | stumpf | obtuso | Vina | 1 |
|  |  | rounded | arrondi | abgerundet | redondeado | Zhonglin 1 | 2 |
|  |  | truncate | tronqué | gerade | truncado | Milotai bőtermő, Zhonglin 5 | 3 |
|  |  | emarginate | récurrent | eingekerbt | emarginado | Xiangling | 4 |

### Characteristic 18 “Nut: width of pad on suture in lateral view”

#### Current wording

|  |  |  |  |  |  |  |
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| **18.** |  | **QN** | **VG** | **(+)** | **(b)** |  |
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| **Nut: width of pad on suture in lateral view** |

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| **Noix : largeur du bourrelet de suture en vue latérale** |

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| **Nuß: Breite des Wulstes auf der Naht in Seitenansicht** |

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| **Nuez: anchura del almohadillado de la sutura en vista lateral** |

 |  |  |
|  |  | narrow | étroit | schmal | estrecho | Chico, Grandjean, Parisienne, Xiangling | 1 |
|  |  | medium | moyen | mittel | medio | Gustine, Hartley | 3 |
|  |  | broad | large | breit | ancho | Corne, Marbot, Payne, Serr | 5 |

#### Proposed new wording

|  |  |  |  |  |  |  |
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| **18.** |  | **QN** | **VG** | **(+)** | **(b)** |  |
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| **Nut: width of pad on suture in ventral ~~lateral~~ view** |

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| **Noix : largeur du bourrelet de suture en vue ventrale ~~latérale~~** |

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| **Nuß: Breite des Wulstes auf der Naht in Bauchansicht ~~Seitenansicht~~** |

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| --- |
| **Nuez: anchura del almohadillado de la sutura en vista ventral ~~lateral~~** |

 |  |  |
|  |  | narrow | étroit | schmal | estrecho | Chico, Grandjean, Parisienne, Xiangling | 1 |
|  |  | medium | moyen | mittel | medio | Gustine, Hartley | 3 |
|  |  | broad | large | breit | ancho | Corne, Marbot, Payne, Serr | 5 |

Proposal to add of a new characteristic “Time of leaf bud burst” after characteristic 27 “Kernel: ease of removal from shell”

|  |  | English | français | deutsch | español | Example VarietiesExemplesBeispielssortenVariedades ejemplo | Note/Nota |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **27.** |  | **QN** | **VG** | **(+)** | **(c)** |  |
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| **Kernel: ease of removal from shell** |

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| **Cerneau : facilité d’extraction de la coquille** |

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| **Kern: Leichtigkeit des Entfernens von der Schale** |

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| **Semilla: facilidad con que se extrae de la cáscara** |

 |  |  |
|  |  | very easy | très aisée | sehr leicht | muy fácil | Milotai 10, Payne, Pedro, Serr | 1 |
|  |  | easy | aisée | leicht | fácil | Franquette, Hartley, Marbot | 2 |
|  |  | medium | moyenne | mittel | media | Jinlong 2, Meylannaise | 3 |
|  |  | difficult | difficile | schwer | difícil | Corne | 4 |
|  |  | very difficult | très difficile | sehr schwer | muy difícil | Aodidaguanmao, Jilong | 5 |
| **NEW** |  | **QN** | **MG** | **(+)** |  |  |
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| **Time of leaf bud burst** |

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| **Époque de débourrement foliaire** |

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| **Zeitpunkt des Blattknospenauf-bruchs** |

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| **Época de brotación de las hojas** |

 |  |  |
|  |  | very early | très précoce | sehr früh | muy precoz |  | 1 |
|  |  | very early to early | très précoce à précoce | sehr früh bis früh | muy precoz a precoz | Ashley, Chico, Payne | 2 |
|  |  | early | précoce | früh | precoz | Chase D 9, Vina | 3 |
|  |  | early to medium | précoce à moyenne | früh bis mittel | precoz a media | Adams 10, Hartley, Pedro | 4 |
|  |  | medium | moyenne | mittel | media | Chandler, Howard | 5 |
|  |  | medium to late | moyenne à tardive | mittel bis spät | media a tardía | Grandjean, Marbot, Mayette | 6 |
|  |  | late | tardive | spät | tardía | Franquette, Parisienne | 7 |
|  |  | late to very late | tardive à très tardive | spät bis sehr spät | tardía a muy tardía | Ronde de Montignac | 8 |
|  |  | very late | très tardive | sehr spät | muy tardía |  | 9 |
| **28.** |  | **QN** | **MG** | **(+)** |  |  |
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| **Time of beginning of female flowering** |

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| **Époque de début de floraison femelle** |

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| **Zeitpunkt des Beginns der weiblichen Blüte** |

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| **Época de inicio de la floración femenina** |

 |  |  |
|  |  | early | précoce | früh | temprana | Chase D 9, Lübo, Luguo 2, Sorrento, Xilin 2 | 3 |
|  |  | medium | moyenne | mittel | media | Daifeng, Daixiang, Fenghui, Luguang, Marbot, Milotai 10 | 5 |
|  |  | late | tardive | spät | tardía | Bonifác, Jinlong 1, Jinlong 2, Liaoning 1, Liaoning 4, Milotai kései | 7 |

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