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| INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS | | |
| Geneva | | |

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|  | **LITCHI**  UPOV Code: LITCH\_CHI  *Litchi chinensis* Sonn. | [[1]](#footnote-1)\* |

**GUIDELINES  
  
FOR THE CONDUCT OF TESTS  
  
FOR DISTINCTNESS, UNIFORMITY AND STABILITY**

Alternative Names:\*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Botanical name* | *English* | *French* | *German* | *Spanish* |
| *Litchi chinensis* Sonn. | Litchi, Lychee | Litchi | Litschi | Litchi |

|  |
| --- |
| The purpose of these guidelines (“Test Guidelines”) is to elaborate the principles contained in the General Introduction (document TG/1/3), and its associated TGP documents, into detailed practical guidance for the harmonized examination of distinctness, uniformity and stability (DUS) and, in particular, to identify appropriate characteristics for the examination of DUS and production of harmonized variety descriptions. |

**ASSOCIATED DOCUMENTS**

These Test Guidelines should be read in conjunction with the General Introduction and its associated TGP documents.

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# Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Litchi chinensis* Sonn..

# 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 air-layerings or grafts. If the material is supplied in the form of grafts, the rootstocks of the grafts should also be supplied at the same time.

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

5 plants.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease.

2.5 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

# 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 growing cycle is considered to be the duration of a single growing season, beginning with bud burst, flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds.

## 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 In particular, it is essential that the plants produce a satisfactory crop of fruit in each of the two growing cycles.

## 3.4 Test Design

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

## 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 / Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 5 plants or parts taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants. In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 2.

### 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 second column of 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 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 5 plants, no off-types are allowed.

## 4.3 Stability

4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.

4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new plant stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

# 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) Fruit: size (characteristic 34)

(b) Fruit: color of skin (characteristic 39)

(c) Fruit: surface (characteristic 40)

(d) Time of beginning of flowering (characteristic 50)

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 In the case of qualitative and pseudo‑qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

|  |  |
| --- | --- |
| State | Note |
| small | 3 |
| medium | 5 |
| large | 7 |

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

|  |  |
| --- | --- |
| State | Note |
| very small | 1 |
| very small to small | 2 |
| small | 3 |
| small to medium | 4 |
| medium | 5 |
| medium to large | 6 |
| large | 7 |
| large to very large | 8 |
| very large | 9 |

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.

## 6.5 Legend

(\*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS – see Chapter 4.1.5

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

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

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

|  |  | English | français | deutsch | español | Example Varieties Exemples Beispielssorten Variedades ejemplo | Note/ Nota |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **(\*) (+)** | **VG** | Plant: growth habit | Plante : port | Pflanze: Wuchsform | Planta: porte |  |  |
| **QN** | **(a)** | upright | dressé | aufrecht | erguido | Baitangying | 1 |
|  |  | spreading | étalé | breitwüchsig | abierto | Guiwei | 2 |
|  |  | drooping | retombant | hängend | colgante | Yuanzhi | 3 |
| **(+)** | **VG** | Plant: shape | Plante : forme | Pflanze: Form | Planta: forma |  |  |
| **PQ** | **(a)** | circular | circulaire | rund | circular | Nuomici | 1 |
|  |  | elliptic | elliptique | elliptisch | elíptica | Baitangying | 2 |
|  |  | triangular | triangulaire | dreieckig | triangular |  | 3 |
| **(\*) (+)** | **VG** | Plant: vigor | Plante : vigueur | Pflanze: Wuchsstärke | Planta: vigor |  |  |
| **QN** | **(a)** | weak | faible | gering | débil | Baitangying | 1 |
|  |  | medium | moyenne | mittel | medio | Huaizhi | 2 |
|  |  | strong | forte | stark | fuerte | Zhuangyuanhong | 3 |
|  | **VG/MS** | One-year-old shoot: thickness | Rameau d’un an : épaisseur | Einjähriger Trieb: Dicke | Rama de un año: grosor |  |  |
| **QN** | **(b)** | thin | mince | dünn | delgada | Shangshuhuai | 3 |
|  |  | medium | moyen | mittel | media | Guiwei | 5 |
|  |  | thick | épais | dick | gruesa | Sanyuehong | 7 |
|  | **VG** | One-year-old shoot: attitude | Rameau d’un an : port | Einjähriger Trieb: Stellung | Rama de un año: porte |  |  |
| **QN** | **(b)** | upwards | dressé | aufwärts gerichtet | ascendente | Baitangying | 1 |
|  |  | outwards | vers l’exterieur | abstehend | orientada hacia el exterior | Nuomici | 2 |
|  |  | downwards | retombant | abwärts gerichtet | descendente | Yuanzhi | 3 |
| **(+)** | **VG/MS** | One-year-old shoot: length of internode | Rameau d’un an : longueur de l’entre‑nœud | Einjähriger Trieb: Internodienlänge | Rama de un año: longitud del entrenudo |  |  |
| **QN** | **(b)** | short | court | kurz | corto | Dianbaibaila | 3 |
|  |  | medium | moyen | mittel | medio | Sanyuehong | 5 |
|  |  | long | long | lang | largo | Yuanzhi | 7 |
|  | **VG** | One-year-old shoot: size of lenticels | Rameau d’un an : taille des lenticelles | Einjähriger Trieb: Größe der Lentizellen | Rama de un año: tamaño de las lenticelas |  |  |
| **QN** | **(b)** | small | petites | klein | pequeñas | Xiapuli | 1 |
|  |  | medium | moyennes | mittel | medias | Yuanzhi | 2 |
|  |  | large | grandes | groß | grandes | Luhebao | 3 |
|  | **VG** | One-year-old shoot: density of lenticels | Rameau d’un an : densité des lenticelles | Einjähriger Trieb: Dichte der Lentizellen | Rama de un año: densidad de las lenticelas |  |  |
| **QN** | **(b)** | sparse | faible | locker | escasa | Baitangying | 1 |
|  |  | medium | moyenne | mittel | media | Guiwei | 2 |
|  |  | dense | dense | dicht | densa | Nuomici | 3 |
|  | **VG** | Young shoot: color | Jeune rameau : couleur | Junger Trieb: Farbe | Rama joven: color |  |  |
| **PQ** | **(b)** | yellow green | vert jaune | gelbgrün | verde amarillento | Nuomici | 1 |
|  |  | green | vert | grün | verde |  | 2 |
|  |  | reddish green | vert rougeâtre | rötlichgrün | verde rojizo | Guiwei | 3 |
|  |  | brown | brun | braun | marrón | Sanyuehong | 4 |
| **(+)** | **VG** | Leaf: arrangement of leaflets | Feuille : disposition des folioles | Blatt: Anordnung der Blattfiedern | Hoja: disposición de los folíolos |  |  |
| **PQ** | **(c)** | opposite | opposés | gegenständig | opuestos | Nuomici | 1 |
|  |  | slightly alternate | légèrement alternés | leicht wechselständig | ligeramente alternos | Chenzi | 2 |
|  |  | strongly alternate | fortement alternés | stark wechselständig | claramente alternos | Heiye | 3 |
| **(\*) (+)** | **MS/VG** | Leaf: length | Feuille : longueur | Blatt: Länge | Hoja: longitud |  |  |
| **QN** | **(c)** | very short | très courte | sehr kurz | muy corta | Ziniangxi | 1 |
|  |  | short | courte | kurz | corta | Huaizhi | 3 |
|  |  | medium | moyenne | mittel | media | Xuehuaizi | 5 |
|  |  | long | longue | lang | larga | Yuanzhi | 7 |
|  |  | very long | très longue | sehr lang | muy larga | Tianjiazi | 9 |
| **(\*)** | **VG** | Petiole: color of upper side | Pétiole : couleur de la face supérieure | Blattstiel: Farbe der Oberseite | Peciolo: color de la cara superior |  |  |
| **PQ** | **(c)** | green | vert | grün | verde | Tianjiazi | 1 |
|  |  | green brown | vert clair | grünbraun | marrón verdoso | Feizixiao | 2 |
|  |  | brown | brun | braun | marrón | Yuanzhi | 3 |
|  |  | brown red | rouge brun | braunrot | rojo amarronado | Guiwei | 4 |
| **(\*) (+)** | **VG** | Leaflet: shape | Foliole : forme | Blattfieder: Form | Folíolo: forma |  |  |
| **PQ** | **(c)** | ovate | ovale | eiförmig | oval | Heiye | 1 |
|  |  | elliptic | elliptique | elliptisch | elíptico | Baitangying | 2 |
|  |  | oblong | oblongue | rechteckig | oblongo | Lanzhu | 3 |
|  |  | obovate | obovale | verkehrt eiförmig | oboval | Qingpitian | 4 |
|  |  | oblanceolate | oblancéolée | verkehrt lanzettlich | oblanceolado | Yuanzhi | 5 |
| **(\*)** | **VG** | Leaflet: shape in cross section | Foliole : forme en section transversale | Blattfieder: Form im Querschnitt | Folíolo: forma en sección transversal |  |  |
| **QN** | **(c)** | convex | convexe | konvex | convexo | Shangshuhuai | 1 |
|  |  | flat | plate | gerade | plano | Sanyuehong | 2 |
|  |  | moderately concave | modérément concave | mäßig konkav | moderadamente cóncavo | Nuomici | 3 |
|  |  | strongly concave | fortement concave | stark konkav | fuertemente cóncavo | Baitangying | 4 |
|  | **VG** | Leaflet: surface of upper side | Foliole : surface de la face supérieure | Blattfieder: Oberfäche der Oberseite | Folíolo: superficie de la cara superior |  |  |
| **QN** | **(c)** | smooth | lisse | glatt | suave | Guiwei | 1 |
|  |  | moderately rough | modérément rugueuse | mäßig rauh | moderadamente áspera |  | 2 |
|  |  | very rough | très rugueuse | sehr rauh | muy áspera | Xuehuaizi | 3 |
| **(+)** | **MS/VG** | Leaflet: length of petiolule | Foliole : longueur de la pétiolule | Blattfieder: Länge des Stiels | Folíolo: longitud del peciólulo |  |  |
| **QN** | **(c)** | short | courte | kurz | corto | Yuanzhi | 1 |
|  |  | medium | moyenne | mittel | medio | Huaizhi | 2 |
|  |  | long | longue | lang | largo | Dianbaibaila | 3 |
| **(+)** | **VG/MS** | Leaflet blade: length | Limbe de la foliole : longueur | Blattfiederspreite: Länge | Limbo del folíolo: longitud |  |  |
| **QN** | **(c)** | very short | très court | sehr kurz | muy corto | Ziniangxi | 1 |
|  |  | short | court | kurz | corto | Nuomici | 3 |
|  |  | medium | moyen | mittel | medio | Zhongshanzhuangyuanhong | 5 |
|  |  | long | long | lang | largo | Heiye | 7 |
|  |  | very long | très long | sehr lang | muy largo | Yuanzhi | 9 |
| **(+)** | **VG/MS** | Leaflet blade: width | Limbe de la foliole : largeur | Blattfiederspreite: Breite | Limbo del folíolo: anchura |  |  |
| **QN** | **(c)** | very narrow | très étroit | sehr schmal | muy estrecho | Ziniangxi | 1 |
|  |  | narrow | étroit | schmal | estrecho | Shuijingqiu | 3 |
|  |  | medium | moyen | mittel | medio | Nuomici | 5 |
|  |  | broad | large | breit | ancho | Baitangying | 7 |
|  |  | very broad | très large | sehr breit | muy ancho | Tianjiazi | 9 |
| **(\*) (+)** | **VG/MS** | Leaflet blade: ratio length/width | Limbe de la foliole : rapport longueur/largeur | Blattfiederspreite: Verhältnis Länge/Breite | Limbo del folíolo: relación longitud/anchura |  |  |
| **QN** | **(c)** | low | bas | klein | baja | Huaizhi | 1 |
|  |  | medium | moyen | mittel | media | Guiwei | 3 |
|  |  | high | élevé | groß | alta | Yuanzhi | 5 |
| **(+)** | **VG** | Leaflet: length of tip | Foliole : longueur de la pointe | Blattfieder: Länge der Spitze | Folíolo: longitud de la punta |  |  |
| **QN** | **(c)** | very short | très courte | sehr kurz | muy corta |  | 1 |
|  |  | short | courte | kurz | corta | Baitangying, Huaizhi | 2 |
|  |  | medium | moyenne | mittel | media | Guiwei, Nuomici | 3 |
|  |  | long | longue | lang | larga | Yuanzhi (Shuidong) | 4 |
| **(+)** | **VG** | Leaflet: symmetry of base | Foliole : symétrie de la base | Blattfieder: Symmetrie der Basis | Folíolo: simetría de la base |  |  |
| **QN** | **(c)** | symmetric or weakly asymmetric | symétrique ou faiblement asymétrique | symmetrisch oder schwach asymmetrisch | simétrica o ligeramente asimétrica | Nuomici | 1 |
|  |  | moderately asymmetric | modérément asymétrique | mäßig asymmetrisch | moderadamente asimétrica |  | 2 |
|  |  | strongly asymmetric | fortement asymétrique | stark asymmetrisch | fuertemente asimétrica | Guiwei | 3 |
| **(+)** | **VG** | Leaflet: shape of base | Foliole : forme de la base | Blattfieder: Form der Basis | Folíolo: forma de la base |  |  |
| **PQ** | **(c)** | acute | aiguë | spitz | aguda | Heiye | 1 |
|  |  | obtuse | obtuse | stumpf | obtusa | Feizixiao | 2 |
|  |  | truncate | tronquée | gerade | truncado | Huaizhi | 3 |
| **(\*) (+)** | **VG** | Leaflet: undulation of margin | Foliole : ondulation du bord | Blattfieder: Randwellung | Folíolo: ondulación del borde |  |  |
| **QN** | **(c)** | absent or weak | absente ou faible | fehlend oder gering | ausente o débil | Lanzhu | 1 |
|  |  | medium | moyenne | mittel | media | Nuomici | 2 |
|  |  | strong | forte | stark | fuerte | Baitangying | 3 |
| **(\*)** | **VG** | Leaflet: intensity of green color | Foliole : intensité de la couleur verte | Blattfieder: Intensität der Grünfärbung | Folíolo: intensidad del color verde |  |  |
| **QN** | **(c)** | light | clair | hell | claro | Qingpitian | 1 |
|  |  | medium | moyen | mittel | medio | Nuomici | 2 |
|  |  | dark | foncé | dunkel | oscuro | Heiye | 3 |
|  | **VG** | Leaflet: glossiness of upper side | Foliole : brillance de la face supérieure | Blattfieder: Glanz der Oberseite | Folíolo: brillo del haz |  |  |
| **QN** | **(c)** | weak | faible | gering | débil | Heiye | 1 |
|  |  | medium | moyenne | mittel | medio | Huaizhi | 2 |
|  |  | strong | forte | stark | fuerte | Dianbaibaila | 3 |
|  | **VG** | Leaflet: conspicuousness of lateral veins | Foliole : netteté des nervures latérales | Blattfieder: Ausprägung der Seitenadern | Folíolo: visibilidad de los nervios laterales |  |  |
| **QN** | **(c)** | weak | faible | gering | débil | Guiwei | 1 |
|  |  | medium | moyenne | mittel | media | Nuomici | 2 |
|  |  | strong | forte | stark | fuerte | Sanyuehong | 3 |
| **(\*) (+)** | **VG/MS** | Inflorescence: length | Inflorescence : longueur | Blütenstand: Länge | Inflorescencia: longitud |  |  |
| **QN** | **(d)** | short | courte | kurz | corta | Ziniangxi | 3 |
|  |  | medium | moyenne | mittel | media | Huaizhi | 5 |
|  |  | long | longue | lang | larga | Chenzi | 7 |
| **(\*) (+)** | **VG/MS** | Inflorescence: width | Inflorescence : largeur | Blütenstand: Breite | Inflorescencia: anchura |  |  |
| **QN** | **(d)** | narrow | étroite | schmal | estrecha | Xuehuaizi | 1 |
|  |  | medium | moyenne | mittel | media | Guiwei | 2 |
|  |  | broad | large | breit | ancha | Chenzi | 3 |
| **(\*) (+)** | **VG/MS** | Inflorescence: ratio length/width | Inflorescence : rapport longueur/largeur | Blütenstand: Verhältnis Länge/Breite | Inflorescencia: relación longitud/anchura |  |  |
| **QN** | **(d)** | low | bas | klein | baja | Huaizhi | 1 |
|  |  | medium | moyen | mittel | media | Guiwei | 3 |
|  |  | high | élevé | groß | alta | Feizixiao | 5 |
|  | **VG** | Inflorescence: density of branching | Inflorescence : densité de la ramification | Blütenstand: Dichte der Verzweigung | Inflorescencia: densidad de ramificación |  |  |
| **QN** | **(d)** | sparse | faible | locker | escasa | Yuanzhi | 3 |
|  |  | medium | moyenne | mittel | media | Guiwei | 5 |
|  |  | dense | dense | dicht | densa | Sanyuehong | 7 |
|  | **VG** | Inflorescence: density of flowers | Inflorescence : densité des fleurs | Blütenstand: Dichte der Blüten | Inflorescencia: densidad de las flores |  |  |
| **QN** | **(d)** | sparse | faible | locker | escasa | Chenzi | 3 |
|  |  | medium | moyenne | mittel | media | Nuomici | 5 |
|  |  | dense | dense | dicht | densa | Shuijingqiu | 7 |
|  | **VG** | Inflorescence: intensity of green color of main axis | Inflorescence : intensité de la couleur verte de l’axe central | Blütenstand: Intensität der Grünfärbung der Hauptachse | Inflorescencia: intensidad del color verde del eje principal |  |  |
| **QN** | **(d)** | light | claire | hell | claro | Nuomici | 1 |
|  |  | medium | moyenne | mittel | medio | Huaizhi | 2 |
|  |  | dark | foncée | dunkel | oscuro | Sanyuehong | 3 |
| **(\*) (+)** | **VG** | Flower: depth of stigma splitting | Fleur : profondeur de la scission du stigmate | Blüte: Tiefe der Narbenspaltung | Flor: profundidad de la hendidura del estigma |  |  |
| **QN** | **(d)** | shallow | peu profonde | flach | poco profunda | Chenzi | 1 |
|  |  | medium | moyenne | mittel | media | Huaizhi | 2 |
|  |  | deep | profonde | tief | profunda | Xuehuaizi | 3 |
| **(\*)** | **VG** | Fruit: size | Fruit : taille | Frucht: Größe | Fruto: tamaño |  |  |
| **QN** | **(e)** | very small | très petit | sehr klein | muy pequeño | Xinxingxiangli | 1 |
|  |  | small | petit | klein | pequeño | Chenzi | 3 |
|  |  | medium | moyen | mittel | mediano | Guiwei | 5 |
|  |  | large | grand | groß | grande | Sanyuehong | 7 |
|  |  | very large | très grand | sehr groß | muy grande | Ziniangxi | 9 |
| **(\*) (+)** | **VG** | Fruit: shape | Fruit : forme | Frucht: Form | Fruto: forma |  |  |
| **PQ** | **(e)** | cordiform | cordiforme | herzförmig | cordiforme |  | 1 |
|  |  | ovate | ovale | eiförmig | oval |  | 2 |
|  |  | circular | circulaire | rund | circular |  | 3 |
|  |  | elliptic | elliptique | elliptisch | elíptico |  | 4 |
| **(\*) (+)** | **VG** | Fruit: shape of shoulder at stalk end | Fruit : forme de l’épaulement à l’extrémité pédonculaire | Frucht: Form der Schulter am Stielende | Fruto: forma del hombro en el extremo peduncular |  |  |
| **PQ** | **(e)** | rounded | arrondi | abgerundet | redondeado |  | 1 |
|  |  | truncate | tronqué | abgestumpft | truncado |  | 2 |
|  |  | symmetrically depressed | symétriquement creux | symmetrisch eingesenkt | deprimido simétricamente |  | 3 |
|  |  | asymmetrically depressed | asymétriquement creux | asymmetrisch eingesenkt | deprimido asimétricamente |  | 4 |
| **(+)** | **VG** | Fruit: depth at stalk end | Fruit : profondeur à l’extrémité pédonculaire | Frucht: Tiefe am Stielende | Fruto: profundidad del extremo peduncular |  |  |
| **QN** | **(e)** | shallow | peu profonde | flach | poco profundo | Yuanzhi | 1 |
|  |  | medium | moyenne | mittel | medio | Heiye | 2 |
|  |  | deep | profonde | tief | profundo | Xuehuaizi | 3 |
| **(+)** | **VG** | Fruit: conspicuousness of suture | Fruit : netteté de la suture | Frucht: Ausprägung der Naht | Fruto: visibilidad de la sutura |  |  |
| **QN** | **(e)** | weak | faible | schwach | débil | Yuanzhi | 1 |
|  |  | medium | moyenne | mittel | media | Heiye | 2 |
|  |  | strong | forte | stark | fuerte | Xuehuaizi | 3 |
| **(\*)** | **VG** | Fruit: color of skin | Fruit : couleur de la peau | Frucht: Farbe der Schale | Fruto: color de la epidermis |  |  |
| **PQ** | **(e)** | green | verte | grün | verde |  | 1 |
|  |  | green and red | verte et rouge | grün und rot | verde y rojo | Feizixiao | 2 |
|  |  | yellow and red | jaune et rouge | gelb und rot | amarillo y rojo | Guangming | 3 |
|  |  | pink red | rose rouge | rosarot | rojo rosado | Kwai May Pink | 4 |
|  |  | medium red | rouge moyen | mittelrot | rojo medio | Nuomici | 5 |
|  |  | dark red | rouge foncé | dunkelrot | rojo oscuro | Jizuili | 6 |
|  |  | purplish red | rouge pourpre | purpurrot | rojo púrpura | Ziniangxi | 7 |
| **(\*) (+)** | **VG** | Fruit: surface | Fruit : surface | Frucht: Oberfläche | Fruto: superficie |  |  |
| **QN** | **(e)** | smooth or slight protuberances | protubérances lisses ou légères | glatte oder leichte Ausstülpungen | protuberancias lisas o ligeras | Huaizhi | 1 |
|  |  | moderate protuberances | protubérances modérées | mäßige Ausstülpungen | protuberancias moderadas | Nuomici | 2 |
|  |  | strong protuberances | fortes protubérances | starke Ausstülpungen | protuberancias fuertes | Guiwei | 3 |
| **(+)** | **VG** | Fruit: thickness of skin | Fruit : épaisseur de la peau | Frucht: Dicke der Schale | Fruto: grosor de la epidermis |  |  |
| **QN** | **(e)** | thin | fine | dünn | delgada | Nuomici | 1 |
|  |  | medium | moyenne | mittel | media | Baitangying | 2 |
|  |  | thick | épaisse | dick | gruesa | Ziniangxi | 3 |
|  | **VG** | Fruit: color of flesh | Fruit : couleur de la chair | Frucht: Farbe des Fleisches | Fruto: color de la pulpa |  |  |
| **PQ** | **(e)** | whitish | blanchâtre | weißlich | blanquecino | Huaizhi | 1 |
|  |  | yellowish | jaunâtre | gelblich | amarillento |  | 2 |
|  |  | yellow | jaune | gelb | amarillo | Guangming | 3 |
| **(+)** | **MG** | Fruit: weight of flesh compared to weight of fruit | Fruit : poids de la chair comparée au poids du fruit | Frucht: Gewicht des Fleisches im Vergleich zum Gewicht der Frucht | Fruto: peso de la pulpa en comparación con el peso del fruto |  |  |
| **QN** | **(e)** | low | faible | gering | bajo | Dazao | 3 |
|  |  | medium | moyen | mittel | medio | Huaizhi | 5 |
|  |  | high | élevé | hoch | alto | Nuomici | 7 |
| **(+)** | **VG** | Seed: shape | Graine : forme | Samen: Form | Semilla: forma |  |  |
| **PQ** | **(e)** | circular | circulaire | rund | circular |  | 1 |
|  |  | elliptic | elliptique | elliptisch | elíptica |  | 2 |
|  |  | ovate | ovale | eiförmig | oval |  | 3 |
|  |  | irregular | irrégulière | unregelmäßig | irregular |  | 4 |
|  | **VG** | Seed: color | Graine : couleur | Samen: Farbe | Semilla: color |  |  |
| **PQ** | **(e)** | red brown | brun rouge | rotbraun | marrón rojizo | Dazao | 1 |
|  |  | medium brown | brun moyen | mittelbraun | marrón medio | Huaizhi | 2 |
|  |  | dark brown | brun foncé | dunkelbraun | marrón oscuro | Nuomici | 3 |
| **(\*) (+)** | **VG** | Fruit: brown color on the inner side of aril | Fruit : couleur brune sur la face interne de l’arille | Frucht: Braunfärbung der Innenseite des Samenmantels | Fruto: color marrón en la superficie interna del arilo |  |  |
| **QN** | **(e)** | light brown | brun clair | hellbraun | marrón claro | Huaizhi | 1 |
|  |  | medium brown | brun moyen | mittelbraun | marrón medio | Feizixiao | 2 |
|  |  | dark brown | brun foncé | dunkelbraun | marrón oscuro | Yuanzhi | 3 |
| **(+)** | **VG** | Fruit: ratio of abortive embryos | Fruit : ratio d’embryons avortés | Frucht: Anteil abgestoßener Embryonen | Fruto: proporción de embriones abortivos |  |  |
| **QN** | **(e)** | low | bas | gering | baja | Heiye | 1 |
|  |  | medium | moyen | mittel | media | Guiwei | 2 |
|  |  | high | élevé | hoch | alta | Nuomici | 3 |
| **(+)** | **MG** | Fruit: sweetness of flesh | Fruit : goût sucré de la chair | Frucht: Süße des Fleisches | Fruto: dulzor de la pulpa |  |  |
| **QN** | **(e)** | low | faible | niedrig | bajo | Ziniangxi | 1 |
|  |  | medium | moyen | mittel | medio | Feizixiao | 3 |
|  |  | high | élevé | hoch | alto | Nuomici | 5 |
| **(+)** | **VG** | Fruit: juiciness | Fruit : jutosité de la chair | Frucht: Saftgehalt | Fruto: jugosidad |  |  |
| **QN** | **(e)** | low | faible | niedrig | baja | Baitangying | 1 |
|  |  | medium | moyenne | mittel | media | Heiye | 2 |
|  |  | high | élevée | hoch | alta | Feizixiao | 3 |
| **(\*) (+)** | **MG** | Time of beginning of flowering | Époque du début de floraison | Zeitpunkt des Blühbeginns | Época de inicio de la floración |  |  |
| **QN** |  | early | précoce | früh | temprana | Sanyuehong | 3 |
|  |  | medium | moyenne | mittel | media | Heiye | 5 |
|  |  | late | tardive | spät | tardía | Nuomici | 7 |
| **(\*) (+)** | **MG** | Time of harvest maturity | Époque de maturité de récolte | Zeitpunkt der Erntereife | Época de madurez para la cosecha |  |  |
| **QN** | **(e)** | early | précoce | früh | temprana | Baitangying | 3 |
|  |  | medium | moyenne | mittel | media | Feizixiao | 5 |
|  |  | late | tardive | spät | tardía | Nuomici | 7 |

# Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

Characteristics containing the following key in the second column of the Table of Characteristics should be examined as indicated below:

(a) Observations on the whole plant should be made during the dormant season before pruning.

(b) Observations on the shoot should be made on the mature autumnal shoots at the outside of the upper canopy, when all leaves have turned green in automn.

(c) Observations on the leaf should be made on well developed leaves at the central third of the mature autumnal shoots at the outside of the upper canopy.

(d) Observations on the flower should be made on well developed flowers at the outside of the upper canopy when 25% to 75% of the flowers are in blossom.

(e) Observations on the fruit should be made at the time of physiological ripeness at the outside of the upper canopy.

## 8.2 Explanations for individual characteristics

Ad. 1: Plant: growth habit

|  |  |  |
| --- | --- | --- |
| clip_image003 | clip_image004 | clip_image005 |
| 1 | 2 | 3 |
| upright | spreading | drooping |

Ad. 2: Plant: shape

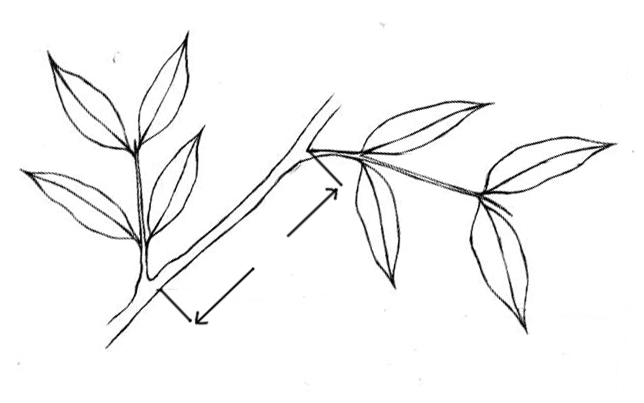
|  |  |  |
| --- | --- | --- |
| 未标题-2 1 | 2未标题-2 | 3 |
| 1 | 2 | 3 |
| circular | elliptic | triangular |

Ad. 3: Plant: vigor

Plant vigor is determined by the overall abundance of vegetative growth.

Ad. 6: One-year-old shoot: length of internode

Observing the stems of growing terminal autumnal shoots, especially the nodal portion. Internodes to be observed on the middle third of the shoot.



Internode

Ad. 10: Leaf: arrangement of leaflets

|  |  |  |
| --- | --- | --- |
| 对生 | 近对生 | 互生 |
| 1 | 2 | 3 |
| opposite | slightly alternate | strongly alternate |

Ad. 11: Leaf: length



Shoot

Petiole

Petiolule

Leaflet

Length of leaf

Ad. 13: Leaflet: shape

|  |  |  |  |
| --- | --- | --- | --- |
|  | 🡨 broadest part 🡪 | | |
|  | below middle | at middle | above middle |
| broad (low) 🡨 width (ratio length/width) 🡪 narrow (high) |  |  | 披针形 |
|  |  | 5 oblanceolate |
|  | 长椭圆形 |  |
|  | 3 oblong |  |
| 123 | 124 | 倒卵圆形 |
| 1 ovate | 2  elliptic | 4 obovate |

Ad. 16: Leaflet: length of petiolule

Ad. 17: Leaflet blade: length

Ad. 18: Leaflet blade: width

All observations on the leaflet should be made on the largest leaflet of the lowest pair.



Vein

Length of   
leaflet petiolule

Width of leaflet blade

Length of   
leaflet blade

Ad. 19: Leaflet blade: ratio length/width

|  |  |  |
| --- | --- | --- |
| 怀枝.JPG | 桂味.JPG | 圆枝.JPG |
| 1 | 3 | 5 |
| low | medium | high |

Ad. 20: Leaflet: length of tip

|  |  |  |  |
| --- | --- | --- | --- |
| 极短 | 13 | 图片3 | 图片4 |
| 1 | 2 | 3 | 4 |
| very short | short | medium | long |

Ad. 21: Leaflet: symmetry of base

|  |  |  |
| --- | --- | --- |
| 8 | 9 | 10 |
| 1 | 2 | 3 |
| symmetric or weakly asymmetric | moderately asymmetric | strongly asymmetric |

Ad. 22: Leaflet: shape of base

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | |  | |  | |
| 1 | | 2 | | 3 | | |
| acute | | obtuse | | truncate | |

Ad. 23: Leaflet: undulation of margin

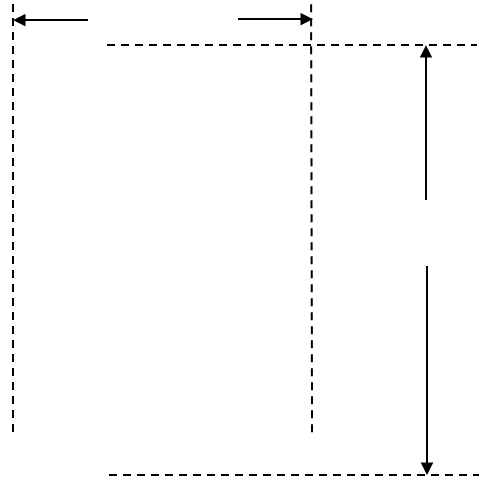
|  |  |  |
| --- | --- | --- |
| **14** | **66** | **11111** |
| 1 | 2 | 3 |
| absent or weak | medium | strong |

Ad. 27: Inflorescence: length

Ad. 28: Inflorescence: width

Width of inflorescence

Length of inflorescence



Ad. 29: Inflorescence: ratio length/width

|  |  |  |
| --- | --- | --- |
| 短花穗.JPG | 中花穗.JPG | 长花穗.JPG |
| 1 | 3 | 5 |
| low | medium | high |

Ad. 33: Flower: depth of stigma splitting

This applies to female flowers only.

|  |  |  |
| --- | --- | --- |
| 浅 | 中 | 深 |
| 1 | 2 | 3 |
| shallow | medium | deep |

Ad. 35: Fruit: shape

|  |  |  |
| --- | --- | --- |
|  | 🡨 broadest part 🡪 | |
|  | below middle | at middle |
| broad (low) 🡨 width (ratio length/width) 🡪 narrow (high) | 卵圆形 | 12111 |
| 2 ovate | 4  elliptic |
| 121111 |  |
| 1 cordiform |  |
|  | 12111111 |
|  | 3  circular |

Ad. 36: Fruit: shape of shoulder at stalk end

|  |  |  |  |
| --- | --- | --- | --- |
| 1211111111 | 121111111 | 111111111111 | 12131313 |
| 1 | 2 | 3 | 4 |
| rounded | truncate | symmetrically depressed | asymmetrically depressed |

Ad. 37: Fruit: depth at stalk end

|  |  |  |
| --- | --- | --- |
| 111 | 222 | 333 |
| 1 | 2 | 3 |
| shallow | medium | deep |

Ad. 38: Fruit: conspicuousness of suture

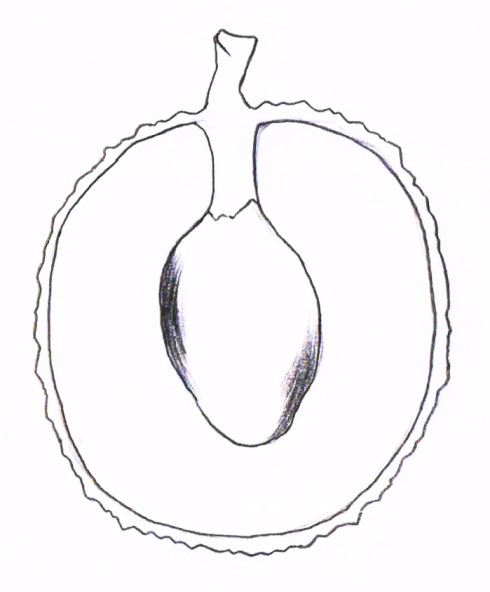
The conspicuousness of suture should be observed based on color, width and depth.

|  |  |  |
| --- | --- | --- |
| 线1 | 线3 | 线2 |
| 1 | 2 | 3 |
| weak | medium | strong |

Ad. 40: Fruit: surface

|  |  |  |
| --- | --- | --- |
| 水晶球4 | 糯米糍-果形果基 | 桂味-果形果基 |
| 1 | 2 | 3 |
| smooth or slight protuberances | moderate protuberances | strong protuberances |

Ad. 41: Fruit: thickness of skin



Thickness of skin

Ad. 43: Fruit: weight of flesh compared to weight of fruit

Flesh should be assessed at time of harvest maturity and to be determined on 20 fruits. When weighing the flesh, fruit skin and seed should be removed.

Ad. 44: Seed: shape

|  |  |  |
| --- | --- | --- |
|  | 🡨 broadest part 🡪 | |
|  | at middle | above middle |

|  |  |  |
| --- | --- | --- |
| broad (low)🡨 width (ratio length/width) 🡪 narrow (high) | 椭圆形 | 锥形 |
| 2  elliptic | 3  ovate |
| 圆形 |  |
| 1  circular |  |

|  |  |
| --- | --- |
| Other | 不规则形 |
| 4  irregular |

Ad. 46: Fruit: brown color on the inner side of aril

|  |  |  |
| --- | --- | --- |
| 肉1 | 肉2 | 肉3 |
| 1 | 2 | 3 |
| light brown | medium brown | dark brown |

Ad. 47: Fruit: ratio of abortive embryos

Select 20 fruits randomly, then cut the fruit into pieces along the suture to take out the seeds and then vertically cut the seed open to check the number of the aborted embryos.

Low: less than 4 seeds aborted

Medium: 4-16 seeds aborted

High: more than 16 seeds aborted

Ad. 48: Fruit: sweetness of flesh

The content of total soluble solids should be measured by using a refractometer.

Ad. 49: Fruit: juiciness

The fruit is cut into two pieces along the suture with a knife and then the skin and the core are removed. Afterward, the flesh is wrapped with four layers of absorbent paper for 5 seconds to observe the following:

Low: the absorbent paper is not completely wet

Medium: the absorbent paper is completely wet

High: the absorbent paper is completely wet and juice is dripping naturally

Ad. 50: Time of beginning of flowering

The beginning of flowering is when 10% of the inflorescences on each plant have started to flower.

Ad. 51: Time of harvest maturity

The time of harvest maturity is when the overall appearance, firmness and taste indicate that the fruit is ready for consumption.

# Literature

Fu, L.J., 1985: An Album of Guangdong Litchi Varieties in Full Colour. Science Popularization Press Guangzhou Branch. Guangzhou, CN, 78 pp.

Menzel, C.M. and Waite, G.K., 2005: Litchi and Longan, Botany, Production and Uses. CABI Publishing. Nambour, Queensland, AU, pp. 59-86

Wu, S.X., 1998: Encylopaedia of China Fruits: Litchi. Forestry Press, Beijing, CN, pp. 94-206

# 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 Botanical name | | | *Litchi chinensis* Sonn. | | | | | | |  | |
|  | | |  | | | | | | |  | |
| 1.2 Common name | | | Litchi | | | | | | |  | |
|  | | |  | | | | | |  | | |
|  | | |  | | | | | | |  | |
| 2. Applicant | | | | | | | | | | | |
|  | | |  | | | | | | |  | |
| Name | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| Address | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| Telephone No. | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| Fax No. | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| E-mail address | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| Breeder (if different from | | |  | | | | | | |  | |
| applicant) | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| 3. Proposed denomination and breeder’s reference | | | | | | | | | | | |
|  | | |  | | | | | | |  | |
| Proposed denomination | | |  | | | | | | |  | |
| (if available) | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| Breeder’s reference | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
|  | | |  | | | | | | |  | |
| [[2]](#footnote-2)#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 varieties)  (…………………..…………………………) x (……………..…………..………………..…)  female parent male parent  (b) partially known cross [ ]  (please state known 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)   |  | | --- | |  | | | | | | | | | | | | |
| 4.2 Method of propagating the variety | | | | | | | | | | | |
| 4.2.1 Vegetative propagation  (a) cuttings [ ]  (b)air layering [ ]  (c) grafting (budding) [ ]  (d) *in vitro* propagation [ ]  (e) other (state method) [ ]   |  | | --- | |  | | | | | | | | | | | | |
| 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 (34) | Fruit: size | | | | | |  | | | |  |
|  | very small | | | | | | Xinxingxiangli | | | | 1[ ] |
|  | very small to small | | | | | |  | | | | 2[ ] |
|  | small | | | | | | Chenzi | | | | 3[ ] |
|  | small to medium | | | | | |  | | | | 4[ ] |
|  | medium | | | | | | Guiwei | | | | 5[ ] |
|  | medium to large | | | | | |  | | | | 6[ ] |
|  | large | | | | | | Sanyuehong | | | | 7[ ] |
|  | large to very large | | | | | |  | | | | 8[ ] |
|  | very large | | | | | | Ziniangxi | | | | 9[ ] |
| 5.2 (39) | Fruit: color of skin | | | | | |  | | | |  |
|  | green | | | | | |  | | | | 1[ ] |
|  | green and red | | | | | | Feizixiao | | | | 2[ ] |
|  | yellow and red | | | | | | Guangming | | | | 3[ ] |
|  | pink red | | | | | | Kwai May Pink | | | | 4[ ] |
|  | medium red | | | | | | Nuomici | | | | 5[ ] |
|  | dark red | | | | | | Jizuili | | | | 6[ ] |
|  | purplish red | | | | | | Ziniangxi | | | | 7[ ] |
| 5.3 (40) | Fruit: surface | | | | | |  | | | |  |
|  | smooth or slight protuberances | | | | | | Huaizhi | | | | 1[ ] |
|  | moderate protuberances | | | | | | Nuomici | | | | 2[ ] |
|  | strong protuberances | | | | | | Guiwei | | | | 3[ ] |
|  | Characteristics | | | | | | Example Varieties | | | | Note |
| 5.4 (50) | Time of beginning of flowering | | | | | |  | | | |  |
|  | very early | | | | | |  | | | | 1[ ] |
|  | very early to early | | | | | |  | | | | 2[ ] |
|  | early | | | | | | Sanyuehong | | | | 3[ ] |
|  | early to medium | | | | | |  | | | | 4[ ] |
|  | medium | | | | | | Heiye | | | | 5[ ] |
|  | medium to late | | | | | |  | | | | 6[ ] |
|  | late | | | | | | Nuomici | | | | 7[ ] |
|  | late to very late | | | | | |  | | | | 8[ ] |
|  | very late | | | | | |  | | | | 9[ ] |
| 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* | | *Fruit: size* | | | *small* | | | *medium* | | | |
|  | |  | | |  | | |  | | | |
|  | |  | | |  | | |  | | | |
|  | |  | | |  | | |  | | | |
| Comments: | | | | | | | | | | | |
| [[3]](#footnote-3)#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 image of the variety should accompany the Technical Questionnaire. | | | | | | | | | | | |
| 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”. | | | | | | | | | | | |
| 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]

1. \* These names were correct at the time of the introduction of these Test Guidelines but may be revised or updated. [Readers are advised to consult the UPOV Code, which can be found on the UPOV Website ([www.upov.int](http://www.upov.int)), for the latest information.] [↑](#footnote-ref-1)
2. # Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire. [↑](#footnote-ref-2)
3. # Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire. [↑](#footnote-ref-3)