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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS
 GENEVA

DRAFT

CITRUS L. – Group5

TRIFOLIATE ORANGE

- *Poncirus* Raf. (TrifoliateOrange,GoldenApple)
- *Poncirus*xGrap efruit(Citrumelo)
- *Poncirus* xLemon(Citremon)
- *Poncirus* xMandarin(Citrandarin)
- *Poncirus* xSweetOrange(Citrangle)

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

AlternativeNames: *

<i>Latin</i>	<i>English</i>	<i>French</i>	<i>German</i>	<i>Spanish</i>
<i>Poncirus</i> Raf.	GoldenApple, TrifoliateOrange	Orangertrifolié	DreiblättrigeOrange, Bitterorange	Naranjotrifoliado

ASSOCIATED DOCUMENTS

These guidelines should be read in conjunction with document TG/1/3, “General Introduction to the Examination of Distinctness, Uniformity and Stability and the Development of Harmonized Descriptions of New Varieties of Plants” (hereinafter referred to as the “General Introduction”) and its associated “TGP” documents.

Other associated documents : *CITRUSL. – GROUP1:TG/MANDA* **
CITRUSL. – GROUP2:TG/ORANG **
CITRUSL. – GROUP3:TG/LEM -LIM **
CITRUSL. – GROUP4:TG/GRA -PUM **

* 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 Web Site (<http://www.upov.int>), for the latest information.]

** Final relevant TG's reference to be inserted in due time.

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1. SubjectoftheseGuidelines

1.1 The following Test Guidelines have been developed from the standard Citrus Test Guidelines template. In particular, the Table of Characteristics has been selected from the overall set of citrus characteristics presented in the Annex.

1.2 These Test Guidelines apply to all varieties of the following species of the group TrifoliateOrange of the genus *Poncirus* L.(Rutaceae), and their hybrids:

Group5. TRIFOLIATEORANGEANDITSHYBRIDS

Poncirus Raf.(TrifoliateOrange,GoldenApple) -PON
Poncirus xGrapefruit(*Citrus* trumelo) -CML
Poncirus xLemons(*Citron*) -CTL
Poncirus xMandarin(*Citrandarin*) -CTI
Poncirus xSweetOrange(*Citrance*) -CTG
Other *Poncirus* Hybrids -HPO

1.3 In the case of hybrids between species within the genus *Poncirus* L., the Test Guidelines to be used should be those for which the overall appearance of fruit is most suited. However, if the variety cannot be clearly distinguished from all varieties covered by other Test Guidelines, those other Test Guidelines should also be used to examine the variety.

1.4 In the case of hybrids between species within the genus *Poncirus* L., where the variety is clearly distinguishable from all other varieties covered by other Test Guidelines, it may still be necessary to use additional citrus characteristics to examine the variety. In these circumstances it is appropriate to use characteristics from the Test Guidelines covering the parent species, or to select characteristics from the overall set of citrus characteristics presented in the Annex.

2. MaterialRequired

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 to be supplied in the form of budsticks of 6 to 10 mm in diameter (one year old), each cut just behind a typical fruit, if required by the competent authorities, one-year-old grafted trees. In the case of rootstock varieties, rooted cuttings or polyembryonic seeds may be required in addition.

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

10 budsticks sufficient to establish 10 plants or,
if required by the competent authorities,
10 one-year-old grafted trees.

2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pest or disease. It should preferably not be obtained from *in vitro*

propagation. If it has been produced by *in vitro* propagation this fact must be stated by the applicant.

2.5 The plant material must 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.

3. Method of Examination

3.1 *Duration of Tests*

The minimum duration of tests should normally be two independent growing cycles and must be sufficient for the trees under test to bear a satisfactory crop of fruit in at least two growing periods.

3.2 *Testing Place*

The tests should normally be conducted at one place. If any characteristics of the variety, which are relevant for the examination of DUS, cannot be seen at that place, the variety may be tested at an additional place.

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. Where necessary for the examination of fruit varieties, a standard specified rootstock should be used for each group.

3.3.2 All observations should be made on plants of the same age not less than 3 years old. The age of the plants should be specified.

3.3.3 Information on examining particular characteristics:

3.3.3.1 The table of characteristics provides notes which indicate the recommendations for observing characteristics as follows:

- [a] **Growth habit**: The observation on the growth habit of the tree should be made immediately after harvest.
- [b] **Young leaf**: All observations on the young leaf should be made on actively growing spring flush. [Not applicable for Groups 1 (Mandarin) and 2 (Oranges).]
- [c] **Leaf**: All observations on the leaf should be made on fully developed leaves on the middle third of the youngest spring flush branch sections not showing signs of active growth.

- [d] **Flower**: Unless otherwise indicated, all observations on the flower bud and the flower should be made on the terminal flower bud and flower, at the time of full flowering of the variety.
All observations on the open flower should be made on the first day of opening.
- [e] **Flowerbud** : All observations on the flower bud should be made when the petal tips are just visible. [Not applicable for Groups 1 (Mandarin), 2 (Oranges) and 5 (Trifoliate Orange).]
- [f] **Fruit**: Unless otherwise indicated, all observations on the fruit should be made on the main fruiting of the year. All observations on the fruit should be made at the stage of optimum ripeness. This stage should be determined by the ratio: total soluble solids/acid content of juice. The fruit should be tested weekly and harvested as soon as this stage has been reached.
All fruits for observations should be taken from the periphery of the tree and fruit misformed as a result of clustering should not be sampled.
- [g] **Fruit surface and fruit rind** : All observations on the fruit surface and on the fruit rind should be made at the middle, between the base and apex of the fruit.
- [h] **Fruit flesh** : All observations on the flesh of the fruit should be made on a cross section through the middle of the fruit.
- [i] **Seed**: All observations on the seed should be made on the fresh seed.

3.4 *Test Design*

3.4.1 The design of the tests should be such that plants or parts of plants may be removed for measurement or counting without prejudice to the observations which must be made up to the end of the growing cycle.

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

3.5 *Number of Plants/Parts of Plants to be Examined*

Unless otherwise indicated, all observations determined by measuring or counting should be made on 5 plants or 2 parts taken from each of 5 plants.

3.6 *Additional Tests*

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

4. AssessmentofDistinctness,UniformityandStability

4.1 *Distinctness*

4.1.1 GeneralRecommendations

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 ConsistentDifferences

The minimum duration of tests recommended in section 3.1 reflects, in general, the need to ensure that any differences in a characteristic are sufficiently consistent.

4.1.3 ClearDifferences

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.

4.2 *Uniformity*

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:

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 ascertaining 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 tested, either by growing a further generation, or by testing a new seed or plant stock to ensure that it exhibits the same characteristics as those shown by the previous materials supplied.

5. GroupingofVarietiesandOrganizationoftheGowingTrial

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 is aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where reproduced 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 trials so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

- (a) Leaf: caducity (characteristic 7)
- (b) Leaf: number of leaflets (characteristic 8)
- (c) Fruit surface: presence of pubescence (characteristic 72)
- (d) Fruit: number of seeds (controlled self-pollination) (characteristic 100)
- (e) Seed: polyembryony (characteristic 102).

5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. 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*

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.

6.3 *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 ExampleVarieties

Whereappropriate,examplevarietiesor,in somecases,speciesareprovidedt oclarify thestatesofexpressionofeachcharacteristic.Eachexamplevarietyorspeciesisfollowedby theabbreviationofitsgroupinbrackets.

6.5 Legend

- (+) SeeExplanationsontheTableofCharacteristicsinChapter8.
- (*) Asteriskedcharacte ristic –seesection6.1.2
- QL Qualitativecharacteristic –seesection6.3
- QN Quantitativecharacteristic –seesection6.3
- PQ Pseudo-Qualitativecharacteristic –seesection6.3
- c# Correspondingnumberofcharacteristicinthe citrusoveralltableof characteristics
- a to i MethodofExamination –seesection3.3.3.1

6.6 Abbreviations

- PON: *Poncirus* Raf.(TrifoliateOrange)
- CML: *Poncirus* xGrapefruit(Citrumelo)
- CTL: *Poncirus* xLemons(Citremon)
- CTI: *Poncirus* xMandarin(Citrandarin)
- C TG: *Poncirus* xSweetOrange(Citrangle)
- HPO: Other *Poncirus* Hybrids

7. TableofCharacteristics/Tableaudescaractères/Merkmalstabelle/Tabladecaracteres

MoE	English	français	deutsch	español	Example Varieties Exemples Beispiel sorten Variedades ejempl	Note/ Nota
1. (*)	Tree:growthhabit	Arbre:port	Baum:Wuchstyp	Árbol:porte		
PQ	a upright spreading	droit étalé	aufrecht breitbuschig	erguido abierto	<i>Poncirustrifoliata</i> (PON) CPB4475 (CML)	1 2
c2.	drooping	retombant	hängend	colgante		3
2.	Tree:densityof spines	Arbre:densitédes épines	Baum:Dichteder Stacheln	Árbol:densidadde lasespinas		
QN	absent or sparse intermediate	absentes ou éparse intermédiaires	fehlend oder locker mittel	ausente o laxa media		1 2
c3.	dense	denses	dicht	densa	<i>Poncirustrifoliata</i> (PON)	3
3.	Tree:lengthof spines	Arbre:longueurdes épines	Baum:Längeder Stacheln	Árbol:longitudde lasespinas		
QN	short medium	courtes moyennes	kurz mittel	cortas medias		3 5
c4.	long	longues	lang	largas	<i>Poncirustrifoliata</i> (PON)	7
4.	Branch:expression of lenticels	Branche:expression deslenticelles	Zweig:Ausprägung der Lentizellen	Rama:expresión de laslenticelas		
QN	weak medium	faible moyenne	gering mittel	débil media		3 5
c5.	strong	forte	stark	fuerte	Cunningham (CTG)	7
5. (*)	Youngleaf: presence of antho - cyanin coloration	Jeunefeuille:pré - sence de pigmen - tion anthocyanique	Jungblatt:Vor - handenseinder Anthocyanfärbung	Hojajoven:presen - ciadepigmentación antociánica		
QL	b absent	absente	fehlend	ausente	Troyer	1
c6.	present	présente	vorhanden	presente		9

*

MoE=Method of Examination

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
6.	Youngleaf:intensity ofanthocyanin coloration	Jeunefeuille:intensité delapigmentationanthocyanique	Jungblatt:Intensität derAnthocyanfärbung	Hojajoven:intensidad delapigmentación antociánica		
QN	b weak	faible	gering	débil		3
	medium	moyenne	mittel	media		5
c7.	strong	forte	stark	fuerte		7
7. (*)	Leaf:caducity	Feuilles:persistiance	Blatt:Frühzeitiges Abfallen	Hoja:caducidad		
PQ	c perennial	persistantes	mehrjährig	perenne	CPB4475 (CML)	1
	partiallycaducous	partiellement caduques	teilweisefrühzeitig abfallend	parcialmente caduca	Troyer	2
c8.	caducous	caduques	frühzeitigabfallend	caduca	<i>Poncirustrifoliata</i> (PON)	3
8. (*)	Leaf:number of leaflets	Feuille:nombredé folioles	Blatt:Anzahl Teilblätter	Hoja:númerode foliolos		
PQ	c oneonly	unes seule	nur eine	sólo uno		1
	variable	variable	variabel	variable	Troyer	2
c9.	threeonly	trois seulement	nur drei	sólo tres	<i>Poncirustrifoliata</i> (PON)	3
9.	Leafblade:length (apicalleafletincase ofcompoundleaf)	Limbe:longueur (folioleapicaleen casdefeuille composée)	Blattspreite:Länge (apikalesTeilblatt beizusammen gesetztemBlatt)	Limbo:longitud (foliolatípicoen casodeh oja compuesta)		
QN	c short	court	kurz	corto		3
	medium	moyen	mittel	medio		5
c10.	long	long	lang	largo		7
10.	Leafblade:width (asfor9)	Limbe:largeur (commepour9)	Blattspreite:Breite (wiefür9)	Limbo:anchura (comopara9)		
QN	c narrow	étroit	schmal	estrecho		3
	medium	moyen	mittel	medio		5
c11.	broad	large	breit	ancho		7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejempl	Note/ Nota
11.	Leafblade:ratio length/width(as for 9)	Limbe:rapport longueur/largeur (comme pour 9)	Blattspreite:Ver - hältnisLänge/Breite (wie für 9)	Limbo:relación longitud/anchura (comopara 9)		
QN	c small	faible	klein	pequeño	<i>Poncirustrifoliata</i> (PON)	3
	medium	moyen	mittel	medio		5
c12.	large	élevé	groß	grande		7
12.	Leafblade:length (lateral leaflet in case of compound leaf)	Limbe:longueur (foliolelatéraleen casdefeuille composée)	Blattspreite:Länge (seitliches Teilblatt beizusammen - gesetztem Blatt)	Limbo:longitud (foliolateralen casodehoja compuesta)		
QN	c short	court	kurz	corto		3
	medium	moyen	mittel	medio		5
c13.	long	long	lang	largo		7
13.	Leafblade:width (as for 12)	Limbe:largeur (comme pour 12)	Blattspreite:Breite (wie für 12)	Limbo:anchura (comopara 12)		
QN	c narrow	étroit	schmal	estrecho		3
	medium	moyen	mittel	medio		5
c14.	broad	large	breit	ancho		7
14.	Leafblade:ratio length/width(as for 12)	Limbe:rapport longueur/largeur (comme pour 12)	Blattspreite:Ver - hältnisLänge/Breite (wie für 12)	Limbo:relación longitud/anchura (comopara 12)		
QN	c small	faible	klein	pequeño	<i>Poncirustrifoliata</i> (PON)	3
	medium	moyen	mittel	medio		5
c15.	large	élevé	groß	grande		7
15.	Leafblade:ratio lengthofbladeof apicalleaflet/length ofbladeoflateral leaflet	Limbe:rapport longueurdu limbe delafoliole apicale/longueurdu limbedelafoliole latérale	Blattspreite:Ver - hältnisLängeder Spreitedesapikalen Teilblattes/Länge derSpreitedes seitlichenTeilblattes	Limbo:relación entrelalongituddel limbodelfoliololo apicalylalongitud dellimbodelfoliololo lateral		
QN	c small	faible	klein	pequeño		3
	medium	moyen	mittel	medio		5
c16.	large	élevé	groß	grande		7

MoE		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
16.	Leafblade:shapein crosssection(as for 9)	Limbe:formeen sectiontransversale (commepour9)	Blattspreite:Form imQuerschnitt(wie für 9)	Limbo:formaen seccióntransversal (comopara9)			
QN	c straightorweakly concave	droit ou légèrement concave	gerade oder leicht konkav	recto o ligeramente cóncavo			1
	intermediate	intermédiaire	mittel	intermedio			2
c17.	stronglyconcave	fortementconcave	starkkonkav	fuertemente concavo			3
17.	Leafblade:twisting	Limbe:torsion	Blattspreite:Drehung	Limbo:torsión			
QN	c absentorweak	absente ou faible	fehlend oder gering	ausente o débil			1
	intermediate	intermédiaire	mittel	media			2
c18.	strong	forte	stark	fuerte			3
18.	Leafblade: blistering	Limbe:cloûre	Blattspreite: Blasigkeit	Limbo:abullonado oampollado			
QN	c absentorweak	absente ou faible	fehlend oder gering	ausente o débil			1
	intermediate	intermédiaire	mittel	medio			2
c19.	strong	forte	stark	fuerte			3
19.	Leafblade:intensity ofgreencolor	Limbe:intensitéde lacouleurverte	Blattspreite: Intensitätder Grünfärbung	Limbo:intensidad delcolorverde			
QN	c light	claire	hell	claro			3
	medium	moyenne	mittel	medio			5
c20.	dark	foncé	dunkel	oscuro			7
20.	Leafblade: pubescenceonlower side	Limbe:pilositésur lafaceinférieure	Blattspreite: Behaarungander Unterseite	Limbo:pubescencia enelenvés			
QN	c absentorweak	absente ou faible	fehlend oder gering	ausente o débil			1
	intermediate	intermédiaire	mittel	media			2
c21.	strong	forte	stark	fuerte			3

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
21.	Leafblade:undulationofmargin	Limbe:ondulationdubord	Blattspreite:Randwellung	Limbo:ondulacióndelborde		
QN	[c] absent or weak	absente ou faible	fehlend oder gering	ausente o débil		1
	intermediate	intermédiaire	mittel	media		2
c22.	strong	forte	stark	fuerte		3
22. (*)	Leafblade:incisionsofmargin	Limbe:incisionsdubord	Blattspreite:Randeinschnitte	Limbo:incisionesdelborde		
PQ	[c] absent	absentes	fehlend	ausentes		1
	crenate	crénelées	gekerbt	crenadas		2
c23.	dentate	dentelées	gezähnt	dentadas		3
23. (*) (+)	Leafblade:shapeofapex	Limbe:formede l'extrémité	Blattspreite:Form derSpitze	Limbo:formadelápice		
PQ	[c] acuminate	acuminée	zugespitzt	acuminado		1
	acute	pointue	spitz	agudo		2
	obtuse	obtuse	stumpf	obtuso		3
c24.	rounded	arrondie	abgerundet	redondeado		4
24. (+)	Leafblade:emarginationat tip	Limbe:échancrure à l'extrémité	Blattspreite:Randeinschnitte an derSpitze	Limbo:emarginado en la parte superior		
QL	[c] absent	absente	fehlend	ausente		1
c25.	present	présente	vorhanden	presente		9
25.	Petiole:length	Pétiole:longueur	Blattstiel:Länge	Pecíolo:longitud		
QN	[c] short	court	kurz	corto		3
	medium	moyen	mittel	medio		5
c26.	long	long	lang	largo		7
26. (*)	Petiole:presence of wings	Pétiole:présence d'ailes	Blattstiel:Vorhan - dense in von Flügeln	Pecíolo:presencia de alas		
QL	[c] absent	absentes	fehlend	ausentes		1
c27.	present	présentes	vorhanden	presentes		9

MoE	English	français	deutsch	español	Example Varieties	Note/ Nota
					Exemples Beispielssorten Variedades ejemplares	
27.	Varietieswith petiolewings presentonly : Petiole:widthof wings	Seulementles variétésprésentant desailesaupétiole : Pétiole:largeurdes ailes	NurSortenmit vorhandenenFlügel amBlattstiell : Blattstiell:Breiteder Flügel	Sólovariedadescon alaspresentesenel pecíolo:Pecíolo: anchuradelasalas		
QN	c narrow	étroites	schmal	estrechas	3	
	medium	moyennes	mittel	medias	5	
c28.	broad	larges	breit	anchas	7	
28.	Flowerbud:presenceofanthocyanin coloration	Boutonfloral:présence depigmentationanthocyanique	Blütenknospe:Vorhandenseinder Anthocyanfärbung	Yemafloral:presencia depigmentaciónantociánica		
QL	d absent	absente	fehlend	ausente	1	
c29.	e present	présente	vorhanden	presente	9	
29.	Flower bud:intensityofanthocyanin coloration	Boutonfloral:intensité delapigmentationanthocyanique	Blütenknospe:Intensität der Anthocyanfärbung	Yemafloral:intensidad delapigmentaciónantociánica		
QN	d weak	faible	schwach	débil	3	
	e medium	moyenne	mittel	media	5	
c30.	strong	forte	stark	fuerte	7	
30.	Flower:diameterof calyx	Fleur:diamètredu calice	Blüte:Durchmesser desKelchs	Flor:diámetro del cáliz		
QN	d small	petit	klein	pequeño	3	
	medium	moyen	mittel	medio	5	
c31.	large	grand	groß	grande	7	
31.	Flower:lengthof petal	Fleur:longueurdu pétales	Blüte:Länge des Blütenblattes	Flor:longitud del pétalo		
QN	d short	court	kurz	corto	3	
	medium	moyen	mittel	medio	5	
c32.	long	long	lang	largo	7	

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
32.	Flower:widthofpetal	Fleur:largeurdu pétale	Blüte:Breite des Blütenblattes	Flor:anchura del pétalo		
QN	[d] narrow	étroit	schmal	estrecho		3
	medium	moyen	mittel	medio		5
c33.	broad	large	breit	ancho		7
33.	Flower:ratio length/widthofpetal	Fleur:rapport longueur/largeur du pétale	Blüte:Verhältnis Länge/Breite des Blütenblattes	Flor:relación longitud/anchura del pétalo		
QN	[d] small	faible	klein	pequeño		3
	medium	moyen	mittel	medio		5
c34.	large	élevé	groß	grande		7
34.	Flower:lengthofstamens	Fleur:longueur des étamines	Blüte:Länge der Staubfäden	Flor:longitud de los estambres		
QN	[d] short	courtes	kurz	cortos		3
	medium	moyennes	mittel	medios		5
c35.	long	longues	lang	largos		7
35.	Stamen:coloroffilament	Étamaine:couleur du filament	Staubfaden:Farbe des Fadens	Estambre:color del filamento		
QL	[d] white	blanc	weiß	blanco	Carrizo (CTG)	1
c37.	pink	rose	rosa	rosa	Forner Alcaide 13 (CTI)	2
36.	Anther:color	Anthère:couleur	Anthere:Farbe	Antera:color		
PQ	[d] white	blanc	weiß	blanco		1
	lightyellow	jauneclair	hellgelb	amarilloclaro		2
c38.	mediumyellow	jaunemoyen	mittelgelb	amarillomedio		3
37.	Anther:viablepollen	Anthère:pollen viable	Anthere:keimfähiger Pollen	Antera:polen viable		
QL	[d] absent	absent	fehlend	ausente		1
c39.	present	présent	vorhanden	presente		9

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
38.	Style:length	Style:longueur	Griffel:Länge	Estilo:longitud		
QN	d short medium	court moyen	kurz mittel	corto medio		3 5
c40.	long	long	lang	largo		7
39.	Ovary:pubescence	Ovaire:pilosité	Fruchtknoten: Behaarung	Ovario:pubescencia		
QL	absent	absente	fehlend	ausente		1
c42.	present	présente	vorhanden	presente	<i>Poncirustrifoliata</i> (PON)	9
40. (*)	Fruit:length	Fruit:longueur	Frucht:Länge	Fruto:longitud		
QN	f short medium	court moyen	kurz mittel	corto medio		3 5
c44.	long	long	lang	largo		7
41.	Fruit:diameter	Fruit:diamètre	Frucht: Durchmesser	Fruto:diámetro		
QN	f small medium	petit moyen	klein mittel	pequeño medio		3 5
c45.	large	grand	groß	grande		7
42.	Fruit:ratio length/diameter	Fruit:rapport longueur/diamètre	Frucht:Verhältnis Länge/Durchmesser	Fruto:relación longitud/diámetro		
QN	f small medium	faible moyen	klein mittel	pequeño medio		3 5
c46.	large	élevé	groß	grande		7
43.	Fruit:positionof broadestpart	Fruit:position dela partielapluslarge	Frucht:Position des breitesten Teils	Fruto:posición de la partemás amplia		
QN	f towardsstalkend atmiddle	vers l'extrémité pédonculaire	zum Stielende hin inder Mitte	hacia el extremo peduncular		1 2
c47.	towardsdistalend	vers la partie distale	zum distalen Ende hin	hacia el extremo distal		3

MoE	English	français	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
44 (+)	Fruit:circumference intransversesection	Fruit:circonférence ensectiontransverse	Frucht:Umfangim Querschnitt	Fruto:circun - ferenciaensección transversal		
PQ [f]	circular somewhatangular	circulaire légèrementanguleuse	zirkular etwaskantig	circular ligeramenteangular	<i>Poncirustrifoliata</i> (PON)	1 2
c48.	scalloped	dentelée	muschelförmig	festoneado		3
45. (+)	Fruit:generalshape ofproximalpart (excludingneck, collaranddepres - sionatstalkend)	Fruit:formgéné - raledelapartiepro - ximale(àl'exclusion ducol,delacolle - retteetdeladépres - sionàl'extrémité pédonculaire)	Frucht:allgemeine Formdesproxima - lenTeils(ohneHals, KragenundEinsen - kungamStielende)	Fruto:formagene - raldelapartepro - ximal(excluidoel cuello,elcollaryla depresióndelex - tremopeduncular)		
PQ [f]	flattened slightlyrounded stronglyrounded	aplatie légèrementarrondie fortementarrondie	abgeflacht leichtabgerundet starkabgerundet	aplanada ligeramente redondeada fuertemente redondeada		1 2 3
c49.	tapered	effilée	verjüngt	afilada		4
46. (+)	<u>Varietieswithfruit neckabsentonly :</u> Fruit:presenceof depressionatstalk end	<u>Seulementlesvarié -</u> <u>tésdontlefruitne</u> <u>présentepasdecol</u> : Fruit:présence d'unedepresiónà l'extrémité pédonculaire	<u>NurSortendiekein</u> <u>HalsamFrucht</u> <u>zeigen:Frucht:</u> Vorhandensein einer Einsenkung amStielende	<u>Sólovariedadescon</u> <u>frutosincuello :</u> Fruto:presenciade unadepresiónenel extremopeduncular		
QL [f]	absent	absente	fehlend	ausente		1
c50.	present	présente	vorhanden	presente		9
47.	<u>Varietieswithfruit neckabsentonly :</u> Fruit:depthof depressionatstalk end	<u>Seulementlesvarié -</u> <u>tésdontlefruitne</u> <u>présentepasdecol</u> : Fruit:profondeur deladépressionà l'extrémité pédonculaire	<u>NurSortendiekein</u> <u>HalsamFrucht</u> <u>zeigen:Frucht:</u> Tiefeder Einsenkungam Stielende	<u>Sólovariedadescon</u> <u>frutosincuello :</u> Fruto:profundidad deladepresiónenel extremopeduncular		
QN [f]	shallow medium	peuprofonde moyenne	flach mittel	pocoprofunda media		3 5
c51.	deep	profonde	tief	profunda		7

MoE	English	français	deutsch	español	Example Varieties	Note/ Nota
					Exemples Beispielssorten Variedades ejempl	
48. (+)	Fruit:presenceof neck	Fruit:présenced'un col	Frucht: Vorhandenseindes Halses	Fruto:presencia de uncuello		
QL	[f] absent	absent	fehlend	ausente		1
c52.	present	présent	vorhanden	presente		9
49.	Fruit:lengthofneck	Fruit:longueurdu col	Frucht:Länge des Halses	Fruto:longitud del cuello		
QN	[f] short	court	kurz	corto		3
	medium	moyen	mittel	medio		5
c53.	long	long	lang	largo		7
50.	Fruit:thicknessof neck	Fruit:épaisseurdu col	Frucht:Dicke des Halses	Fruto:grosor del cuello		
QN	[f] thin	mince	dünn	delgado		3
	medium	moyen	mittel	medio		5
c54.	thick	épais	dick	grueso		7
51. (+)	Fruit:presenceof constrictionatstalk end	Fruit:présenced'un étranglement à l'extrémité pédonculaire	Frucht:Vorhan - denseinder Einschnürung am Stielende	Fruto:presencia de un estrechamiento en el extremo peduncular		
QL	[f] absent	absent	fehlend	ausente		1
c55.	present	présent	vorhanden	presente		9
52.	Fruit:expressionof constrictionatstalk end	Fruit:expression de l'étranglement à l'extrémité pédonculaire	Frucht:Ausprägung der Einschnürung am Stielende	Fruto:expresión del estrechamiento en el extremo peduncular		
QN	[f] weak	faible	gering	débil		3
	medium	moyenne	mittel	medio		5
c56.	strong	forte	stark	fuerte		7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
53.	Fruit:numberof radialgroovesat stalkend	Fruit:nombredes canneluresradiales àl'extrémité pédonculaire	Frucht:Anzahl radialeFurchen am Stielende	Fruto:númerode acanaladuras radiales en el extremopeduncular		
QN [f]	absentorfew	absentesoupeu nombreuses	fehlendodersehr gering	ausenteobajo		1
	intermediate	moyennement nombreuses	mittel	medio		2
c57.	many	nombreuses	groß	alto		3
54.	Fruit:lengthof radialgroovesat stalkend	Fruit:longueurdes canneluresradiales àl'extrémité pédonculaire	Frucht:Länge der radialemFurchen am Stielende	Fruto:longitudde lasacanaladuras radiales en el extremopeduncular		
QN [f]	short	courtes	kurz	cortas		3
	medium	moyennes	mittel	medianas		5
c58.	long	longues	lang	largas		7
55. (+)	Neckedvarieties only:Fruit:local depressionatstalk attachment	Variétésàcol seulement:Fruit: dépressionlocale à l'attache pédonculaire	NurhalsigeSorten : Frucht:örtliche Einsenkung am Stielansatz	Sólovariedades con cuello:Fruto: depresiónlocalen la inserción peduncular		
QN [f]	absentorshallow	absenteoupeu profonde	fehlendoderflach	ausenteopoco profunda		1
	intermediate	intermédiaire	dazwischenliegend	intermedia		2
c59.	deep	profonde	tief	profunda		3
56. (+)	Fruit:presenceof collar	Fruit:présence d'unecorolle	Frucht:Vorhandensein desKragens	Fruto:presenciade uncollar		
QL [f]	absent	absente	fehlend	ausente		1
c60.	present	présente	vorhanden	presente		9

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
57.	Fruit:abscission layerbetweenfloral discandfruit	Fruit:abscission entreledisquefloral etlefruit	Frucht:Trenn - schichtzwischen Blüten scheibe und Frucht	Fruto:capade abscisiónentreel discofloral y el fruto		
QN	[f] absentorweakly developed	absenteoufaiblement développée	fehlendoderschwach entwickelt	ausenteodébilmente desarrollada		1
	intermediate	intermédiaire	mittel	intermedia		2
c63.	stronglydeveloped	fortementdéveloppée	starkentwickelt	fuertemente desarrollada		3
58.	Fruit:generalshape ofdistalpart (excludingnipple, bulgingofnaveland depressionatdistal end)	Fruit:formégéné - raledelapartie distale(àl'exclusion dumamelon,dela courburedufruit secondaireetdela dépressionà l'extrémitédistale)	Frucht:allgemeine Formdesdistalen Teils(ohneWarze, Wölbungder sekundärenFrucht undEinsenkung am distalenEnde)	Fruto:forma generaldelaparte distal(excluidoel mamelónopezón,el abultamiento del ombligo y la depresiónenel extremodistal)		
QN	[f] flattened	aplatie	abgeflacht	aplanada		1
	slightlyrounded	légèrementarrondie	leichtabgerundet	ligeamente redondeada		2
c64.	stronglyrounded	fortementarrondie	starkabgerundet	fuertemente redondeada		3
59.	Fruit:presenceof depressionatdistal end	Fruit:présence d'unedepressionà l'extrémitédistale	Frucht:Vorhanden - seinder Einsenkung amdistalenEnde	Fruto:presenciade unadepresiónenel extremodistal		
QL	[f] absent	absente	fehlend	ausente		1
c65.	present	présente	vorhanden	presente		9
60.	Fruit:depthof depressionatdistal end	Fruit:profondeur deladépressionà l'extrémitédistale	Frucht:Tiefeder Einsenkungam distalenEnde	Fruto:profundidad deladepresiónenel extremodistal		
QN	[f] shallow	peuprofonde	flach	pocoprofunda		3
	medium	moyenne	mittel	media		5
c66.	deep	profonde	tief	profunda		7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
61. (*) (+)	Fruit:presenceof nipple	Fruit:présence'd'un mamelon	Frucht:Vorhanden - seinder Warze	Fruto:presencia de unmamelónopezón		
QL	<input checked="" type="checkbox"/> absent	absent	fehlend	ausente		1
c68.	present	présent	vorhanden	presente		9
62.	Fruit:prominence ofnipple	Fruit:proéminence dumamelon	Frucht:Vorwölbung der Warze	Fruto:prominencia delmamelón pezón		
QN	<input checked="" type="checkbox"/> weak	faible	gering	débil		3
	medium	moyenne	mittel	medio		5
c69.	strong	forte	stark	fuerte		7
63.	Fruit:presenceof areola	Fruit:présence d'une aréole	Frucht:Vorhanden - seinder Areola	Fruto:presencia de una areola		
QL	<input checked="" type="checkbox"/> absent	absente	fehlend	ausente		1
	incomplete	incomplète	unvollständig	incompleta		2
c70.	complete	complète	vollständig	completa		3
64. (+)	Fruit:typeofareola	Fruit:typed'aréole	Frucht:Typ der Areola	Fruto:tipo de areola		
QL	<input checked="" type="checkbox"/> smooth	régulière	glatt	lisa		1
	grooved	cannelée	gerieft	acanalada		2
c71.	ridged	annelée	geringelt	acrestada		3
65.	Fruit:diameterof areola	Fruit:diamètre de l'aréole	Frucht:Durch - messer der Areola	Fruto:diámetro de la areola		
QN	<input checked="" type="checkbox"/> small	petit	klein	pequeña		3
	medium	moyen	mittel	media		5
c72.	large	grand	groß	grande		7

MoE	English	français	deutsch	español	Example Varieties	Note/ Nota
					Exemples Beispielssorten Variedades ejempl	
66.	Fruit:diameterof stylarscar	Fruit:diamètre de la cicatrice stylaire	Frucht: Durchmesser der Griffelnarbe	Fruto: diámetro de la cicatriz estilar		
QN	[f] small	petit	klein	pequeña	3	
	medium	moyen	mittel	media	5	
c73.	large	grand	groß	grande	7	
67.	Fruit:protruding stylarpoint	Fruit:pointstylaire protubérant	Frucht: herausragende Griffelspitze	Fruto: protuberancia del punto estilar		
QN	[f] small	petit	klein	pequeño	3	
	medium	moyen	mittel	medio	5	
c74.	large	grand	groß	grande	7	
68.	Fruit:persistenceof style	Fruit:persistance du style	Frucht: Persistenz des Griffels	Fruto: persistencia delestilo		
PQ	[f] none	aucune	fehlend	ninguna	1	
	partial	partielle	teilweise gegeben	parcial	2	
c75.	total	totale	vollständig gegeben	total	3	
69.	Fruit:bulgingof navel	Fruit:courbure du fruit secondaire	Frucht: Wölbung der sekundären Frucht	Fruto: abultamiento del ombligo		
QN	[f] absent or weak	absente ou faible	fehlend	ausente o débil	1	
	intermediate	intermédiaire	mittel	medio	2	
c78.	strong	forte	stark	fuerte	3	
70.	Fruit:presenceof radialgroovesat distalend	Fruit:présence de cannelures radiales à l'extrémité distale	Frucht: Vorhandensein radialer Furchen an am distalen Ende	Fruto: presencia de acanaladuras radiales en el extremo distal		
QL	[f] absent	absentes	fehlend	ausentes	1	
c79.	present	présentes	vorhanden	presentes	9	

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
71.	Fruitsurface: predominantcolor	Fruit:couleur prédominante à la surface	Fruchtoberfläche: Hauptfarbe	Superficiedel fruto: color predominante		
PQ	<input type="checkbox"/> f green <input type="checkbox"/> g yellowgreen greenandyellow lightyellow mediumyellow yelloworange mediumorange darkorange greenandorange yellowandorange orangered yellowandred	vert vert-jaune vertetjaune jauneclair jaunemoyen orange-jaune orangemoyen orangefoncé vertetorange jauneetorange rougeorangé jauneetrouge	grün gelbgrün grünundgelb hellgelb mittelgelb gelborange mittelorange dunkelorange grünundorange gelbundorange orangerot gelbundrot	verde verdeamarillo verdeyamarillo amarilloclaro amarillomedio naranjaamarillento naranjamedio naranjaoscuro verdeynaranja amarilloynaranja rojoanaranjado amarilloyrojo		1 2 3 4 5 6 7 8 9 10 11 12
c82.	orangeandred	orangeetrouge	orangeundrot	naranjayrojo		13
72. (*)	Fruitsurface: presenceof pubescence	Surfacedufruit: présencedepilosité	Fruchtoberfläche: Vorhandenseinder Behaarung	Superficiedel fruto: presenciade pubescencia		
QL	<input type="checkbox"/> f absent <input type="checkbox"/> g present	absente	fehlend	ausente		1
c83.					<i>Poncirus trifoliata</i> (PON)	9
73. (*)	Fruitsurface: intensityof pubescence	Surfacedufruit: intensitédela pilosité	Fruchtoberfläche: Intensitätder Behaarung	Superficiedel fruto: intensidaddela pubescencia		
QN	<input type="checkbox"/> f weak <input type="checkbox"/> g medium	faible	gering	débil		3 5
c84.	strong	forte	stark	fuerte		7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
74.	Fruitsurface: roughness	Surfacedufruit: rugosité	Fruchtoberfläche: Rauheit	Superficiedel fruto: rugosidad		
QN	<input type="checkbox"/> f smooth <input type="checkbox"/> g medium	lisse intermédiaire	glatt mittel	lisa media		3 5
c86.	rough	rugueuse	rauh	rugosa		7
75.	Fruitsurface:sizeof oilglands	Surfacedufruit: taillesdes glandes à huile	Fruchtoberfläche: Größeder Öldrüsen	Superficiedel fruto: tamaño de las glándulas de aceite		
PQ	<input type="checkbox"/> f all more or less the same size <input type="checkbox"/> g larger ones interspersed by smaller ones	toutes plus ou moins de la même taille grandes et petites intercalées	alle mehr oder weniger gleich groß kleineren	todas más o menos del mismo tamaño glándulas grandes intercaladas con otras más pequeñas		1 2
76.	Fruitsurface:sizeof largeroilglands	Surfacedufruit: taillesdes glandes à huile les plus grosses	Fruchtoberfläche: Größeder größerer Öldrüsen	Superficiedel fruto: tamaño de las glándulas de aceite más grandes		
QN	<input type="checkbox"/> f small <input type="checkbox"/> g medium	petites moyennes	klein mittel	pequeñas medianas		3 5
c88.	large	grosses	groß	grandes		7
77.	Fruitsurface: conspicuousnessof largeroilglands	Surfacedufruit: netteté des glandes à huile les plus grosses	Fruchtoberfläche: Sichtbarkeit der größeren Öldrüsen	Superficiedel fruto: visibilidad de las glándulas de aceite más grandes		
QN	<input type="checkbox"/> f weak <input type="checkbox"/> g medium	faible moyenne	gering mittel	débil media		3 5
c89.	strong	forte	stark	fuerte		7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
78.	Fruitsurface: presenceofpitting andpebblingonoil glands	Surfacedufruit: présence degrenure et decrépissure sur les glandes à huile	Fruchtoberfläche: Vorhandensein von Grübchen und Körnern	Superficiedel fruto: presencia de picado y granulado en las glándulas de aceite		
PQ	<input type="checkbox"/> f pitting and pebbling absent <input checked="" type="checkbox"/> g pitting absent, pebbling present pitting present, pebbling absent	grenure et crépissure absentes grenure absente, crépissure présente grenure présente, crépissure absente	Grübchen und Körner fehlend Grübchen fehlend, Körner vorhanden Grübchen vorhanden, Körner fehlend	picado y granulado ausentes picado ausente, granulado presente picado presente, granulado ausente		1 2 3
c90.	pitting and pebbling present	grenure et crépissure présentes	Grübchen und Körner vorhanden	picado y granulado presentes		4
79.	Fruitsurface: densityofpittingon oilglands	Surfacedufruit: densité de la grenure sur les glandes à huile	Fruchtoberfläche: Dichte der Grübchen und Öldrüsen	Superficiedel fruto: densidad del picado en las glándulas de aceite		
QN	<input type="checkbox"/> f sparse <input checked="" type="checkbox"/> g medium	épars moyenne	locker mittel	dispersa media		3 5
c91.	dense	dense	dicht	densa		7
80.	Fruitsurface:depth ofpittingonoil glands	Surfacedufruit: profondeur de la grenure sur les glandes à huile	Fruchtoberfläche: Tiefe der Grübchen und Öldrüsen	Superficiedel fruto: profundidad del picado en las glándulas de aceite		
QN	<input type="checkbox"/> f shallow <input checked="" type="checkbox"/> g medium	peu profonde moyenne	flach mittel	poco profundo medio		3 5
c92.	deep	profonde	tief	profundo		7
81.	Fruitsurface: densityofpebb lingonoilglands	Surfacedufruit: densité de la crépissure sur les glandes à huile	Fruchtoberfläche: Dichte der Körner und Öldrüsen	Superficiedel fruto: densidad del granulo - lado en las glándulas de aceite		
QN	<input type="checkbox"/> f sparse <input checked="" type="checkbox"/> g medium	épars moyenne	locker mittel	dispersa media		3 5
c93.	dense	dense	dicht	densa		7

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
82.	Fruit surface: degree of pebbling on oil glands	Surface du fruit: degré de crêpissure sur les glandes à huile	Fruchtoberfläche: GradderKörner - bildung anden Öldrüsen	Superficie del fruto: nivel de granulado en las glándulas de aceite		
QN	<input type="checkbox"/> f weak <input checked="" type="checkbox"/> g medium	faible	gering	débil		3
c94.	strong	moyen	mittel	medio		5
						7
83.	Fruit rind: thickness	Écorce du fruit: épaisseur	Fruchtschale: Dicke	Corteza del fruto : espesor		
QL	<input type="checkbox"/> f thin <input checked="" type="checkbox"/> g medium	fine	dünn	delgada		3
c95.	thick	moyenne	mittel	media		5
						7
84.	Fruit rind: adherence to flesh	Écorce du fruit: adhérence à la chair	Fruchtschale: Anhaftung am Fleisch	Corteza del fruto: adherencia a la pulpa		
QN	<input type="checkbox"/> f weak <input checked="" type="checkbox"/> g medium	faible	gering	débil		3
c96.	strong	moyenne	mittel	media		5
						7
85.	Fruit rind: strength	Écorce du fruit: rigidité	Fruchtschale: Stärke	Corteza del fruto: vigor		
QN	<input type="checkbox"/> f weak <input checked="" type="checkbox"/> g medium	faible	gering	débil		3
c97.	strong	moyenne	mittel	medio		5
						7
86.	Fruit rind: conspicuousness of oil glands on inner surface	Écorce du fruit: netteté des glandes à huile sur la face interne	Fruchtschale: Sichtbarkeit der Öldrüsen an der inneren Oberfläche	Corteza del fruto: glándulas de aceite en la superficie interna		
QN	<input type="checkbox"/> f absent or weakly conspicuous <input checked="" type="checkbox"/> g intermediate	absentes ou peu nettes	fehlend oder schwach sichtbar	ausentes o poco visibles		1
c99.	strongly conspicuous	moyennes	mittel	intermedias		2
		très nettes	gutsichtbar	muy visibles		3

MoE	English	français	deutsch	español	Example Varieties	Note/ Nota
					Exemples Beispielssorten Variedades ejempl	
87.	Fruit:colorof albedo	Fruit:couleur de l'albédo	Frucht:Farbeder Albedo	Fruto:color del albedo		
PQ	[f] greenish	verdâtre	grünlich	verdoso		1
	white	blanc	weiß	blanco		2
	light yellow	jauneclair	hellgelb	amarilloclaro		3
	lightorange	orangeclair	hellorange	naranjaclaro		4
	pink	rose	rosa	rosa		5
c100.	reddish	rougeâtre	rötlich	rojizo		6
88.	Fruit:densityof albedo	Fruit:densité de l'albédo	Frucht:Dichteder Albedo	Fruto:densidad del albedo		
QN	[f] loose	faible	locker	laxo		3
	medium	moyenne	mittel	medio		5
c101.	dense	dense	dicht	denso		7
89.	Fruit:amountof albedoadheringto flesh(strands excluded)	Fruit:quantité d'albédoadhérant à la chair(à l'exclusion des brins)	Frucht:Umfang der amFleisch anhaftendenAlbedo (ohneFasern)	Fruto:cantidad de albedoque se adhiere a la pulpa (excluidos los filamentos)		
QN	[f] absentorverysmall	absenteoutrèsfaible	fehlend	ausenteomuy pequeña		1
	small	faible	gering	pequeña		3
	medium	moyenne	mittel	media		5
	large	forte	groß	grande		7
c102.	verylarge	trèsforte	sehrgroß	muygrande		9
90.	Fruit:presenceof albedostrands	Fruit:présence de brinsd'albédo	Frucht:Vor - handensein von Albedofasern	Fruto:presencia de filamentosdealbedo		
QL	[f] absent	absents	fehlend	ausentes		1
c103.	present	présents	vorhanden	presentes		9

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
91.	Fruit:amount of albedo strands	Fruit:quantité de brins d'albédo	Frucht:Anzahl Albedofasern	Fruto:cantidad de filamentos dealbedo		
QN	[f] small	faible	klein	baja		3
	medium	moyenne	mittel	media		5
c104.	large	forte	groß	alta		7
92.	Fruit:main color of flesh	Fruit:couleur principale de la chair	Frucht:Hauptfarbe des Fleisches	Fruto:color principal de la pulpa		
PQ	[f] whitish	blanchâtre	weißlich	blanquecino		1
	[h] lightgreen	vert clair	hellgrün	verdeclaro		2
	lightyellow	jaune clair	hellgelb	amarilloclaro		3
	mediumyellow	jaune moyen	mittelgelb	amarillomedio		4
	lightorange	orange clair	hellorange	naranjaclaro		5
	mediumorange	orange moyen	mittelorange	naranjamedio		6
	darkorange	orange foncé	dunkelorange	naranja oscuro		7
	red	rouge	rot	rojo		8
	purple	violet	purpur	púrpura		9
c107.	yellow and red	jaune et rouge	gelb und rot	amarillo y rojo		10
93.	Fruit:bitterness of flesh	Fruit:amertume de la chair	Frucht:Bitterkeit des Fleisches	Fruto:amargor de la pulpa		
QL	[f] absent	absente	fehlend	ausente		1
c108.	[h] present	présente	vorhanden	presente		9
94.	Fruit:fill in gofcore	Fruit:structure du cœur	Frucht:Ausfüllung des inneren Fruchtfleisches	Fruto:relleno del hueco central		
QN	[f] absent or very sparse	absente ou très lâche	fehlend	ausente o muy laxo		1
	[h] sparse	lâche	locker	laxo		3
	medium	intermédiaire	mittel	medio		5
	dense	dense	dicht	denso		7
c109.	very dense	très dense	sehr dicht	muy denso		9

MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
95.	Fruit:presenceofrudimentary segments	Fruit:présence de segments rudimentaires	Frucht:Vorhan - denseinunvoll - ständigen Segmente	Fruto:presencia de gajosrudimentarios		
QN	<input checked="" type="checkbox"/> f absentorweak <input type="checkbox"/> h intermediate	nulleoufaible intermédiaire	nulloergering dazwischenliegend	nulaodébil intermedia		1 2
c111.	strong	forte	stark	fuerte		3
96.	Fruit:numberof welldeveloped segments	Fruit:nombre de segmentsbien développés	Frucht:Anzahlgut entwickelter Segmente	Fruto:númerode gajosbien desarrollados		
QN	<input checked="" type="checkbox"/> f few <input type="checkbox"/> h medium	peu moyen	gering mittel	bajo medio		3 5
c112.	many	beaucoup	groß	alto		7
97.	Fruit:strengthof segmentwalls	Fruit:rigiditédes paroisdessegments	Frucht:Stärkeder Segmentwände	Fruto:firmezade lasparedesdelos gajos		
QN	<input checked="" type="checkbox"/> f weak <input type="checkbox"/> h medium	faible moyenne	schwach mittel	débil media		3 5
c114.	strong	forte	stark	fuerte		7
98.	Fruit:presenceof navel(viewed internally)	Fruit:présence de fruitsecondaire (vue interne)	Frucht:Vorhanden - seinvonsekundären Früchten(voninnen gesehen)	Fruto:presencia de ombligo(visto internamente)		
PQ	<input checked="" type="checkbox"/> f absentorveryrare occasionallypresent	absentoutrèsrare présent occasionnellement	fehlendodersehr selten zuweilenvorhanden	ausenteomuyrara ocasionalmente presente		1 2
c119.	alwayspresent	toujoursprésent	immervorhanden	siemprepresente		3
99.	Fruit:juiciness	Fruit:succulence	Frucht:Saftigkeit	Fruto:suculencia		
QN	<input checked="" type="checkbox"/> f low medium	faible moyenne	gering mittel	baja media		3 5
c121.	high	éllevée	groß	alta		7

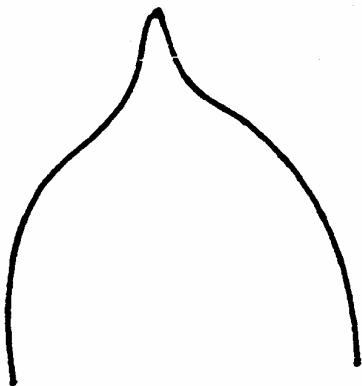
MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
100.	Fruit:numberof seeds(controlled self-pollination)	Fruit:nombredé pépins(autopollinisationcontrôlée)	Frucht:Anzahl Samen(kontrollierte Selbstbefruchtung)	Fruto:númerode semillas(autopolini - zacióncontrolada)		
QN	[f] absentorveryfew	absentsoutrèspeu nombreux	fehlendodersehr gering	ausenteomuybajo		1
	few	peunombreux	gering	bajo		3
	medium	moyennement nombreux	mittel	medio		5
	many	nombreux	groß	alto		7
c125.	verymany	trèsnombreux	sehr groß	muy alto		9
101. (+)	Fruit:numberof seeds(open pollination)	Fruit:nombredé pépins(fécondation libre)	Frucht:Anzahl Samen(frei abblühend)	Fruto:númerode semillas(polini - zaciónlibre)		
QN	[f] absentorveryfew	absentsoutrèspeu nombreux	fehlendodersehr gering	ausenteomuybajo		1
	few	peunombreux	gering	bajo		3
	moderate	modérément nombreux	mittel	moderado		5
c126.	many	nombreux	groß	alto		7
102. (*)	Seed:polyembryony	Pépin: polyembryonie	Samen: Polyembryonie	Semilla: poliembrionía		
QL	[i] absent	absente	fehlend	ausente		1
c127.	present	présente	vorhanden	presente		9
103.	Seed:length	Pépin:longueur	Samen:Länge	Semilla:longitud		
QN	[i] short	court	kurz	corta		3
	medium	moyen	mittel	media		5
c128.	long	long	lang	larga		7
104.	Seed:width	Pépin:largeur	Samen:Breite	Semilla:anchura		
QN	[i] narrow	étroit	schmal	estrecha		3
	medium	moyen	mittel	media		5
c129.	broad	large	breit	ancha		7

MoE	English	français	deutsch	español	Example Varieties	Note/ Nota
					Exemples Beispielssorten Variedades ejempl	
105.	Seed:surface	Pépin:surface	Samen:Oberfläche	Semilla:superficie		
QL	i smooth	lisse	glatt	lisa		1
c130.	wrinkled	ridée	runzlig	arrugada		2
106.	Seed:externalcolor	Pépin:couleur externe	Samen:Außenfarbe	Semilla:color externo		
PQ	i greenish	verdâtre	grünlich	verdosado		1
	whitish	blanchâtre	weißlich	blanquecino		2
	yellowish	jaunâtre	gelblich	amarillento		3
	pinkish	rosâtre	blaßrosa	rosado		4
c132.	brownish	brunâtre	bräunlich	amarronado		5
107.	Seed:colorofinner seedcoat	Pépin:couleur du tégument interne	Samen:Farbeder inneren Samenschale	Semilla:color de la cubierta interna		
PQ	i white	blanc	weiß	blanco		1
	lightyellow	jauneclair	hellgelb	amarilloclaro		2
	lightbrown	marronclair	hellbraun	marrónclaro		3
	mediumbrown	marronmoyen	mittelbraun	marrónmedio		4
	darkbrown	marronfoncé	dunkelbraun	marrónoscuro		5
	red	rouge	rot	rojo		6
c133.	purple	violet	purpur	púrpura		7
108.	Polyembryonic varietiesonly :Seed: colorofcotyledons	Variétéspoly - embryonnaires seulement:Pépin: couleur des cotylédons	Nurpolyembryo - nischeSorten : Samen:Farbeder Kotyledonen	Sólovariedades poliembrionicas: Semilla:color de los cotiledones		
PQ	i white	blanc	weiß	blanco		1
	cream	crème	cremefarben	crema		2
	lightgreen	vertclair	hellgrün	verdeclaro		3
	darkgreen	vertfoncé	dunkelgrün	verdeoscuro		4
c134.						

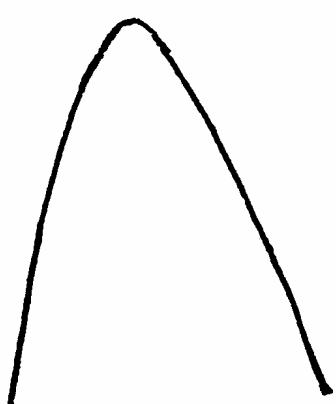
MoE	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplares	Note/ Nota
109. (*)	Floweringhabit	Floraison	Blühverhalten	Tipo de floración		
QL	floweringonce	une seule	einmal blühend	una floración		1
c135.	floweringmorethan once	plusieurs	mehr als einmal blühend	más de una floración		2
110.	Timeofmaturityof fruitfor consumption	Époquedematurité du fruit pour la consommation	Zeitpunkt der Fruchtreife für den Genuss	Époque de maturité du fruit pour le consommation		
QN	early	précoce	früh	temprana		3
	medium	moyenne	mittel	media		5
c136.	late	tardive	spät	tardía		7
111. (+)	Plant:self - incompatibility	Plante:auto - incompatibilité	Pflanze:Selbst - unverträglichkeit	Planta:auto - incompatibilidad		
QL	absent	absente	fehlend	ausente		1
c138.	present	présente	vorhanden	presente		9

8. Explanations on the Table of Characteristics

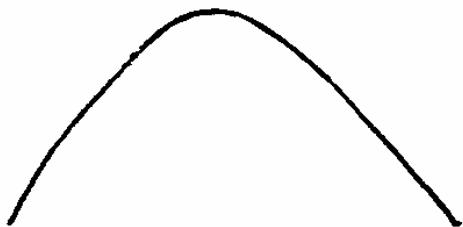
Ad.23(c24.): Leafblade:shape of apex



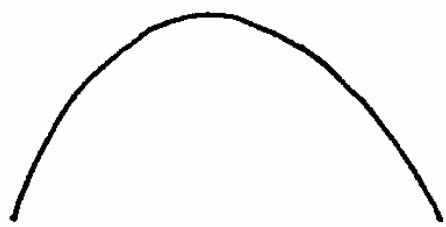
1
acuminate



2
acute

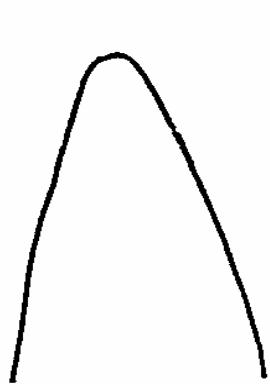


3
obtuse

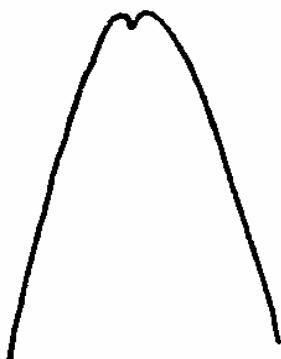


4
rounded

Ad. 24(c25.): Leafblade:emargination at tip

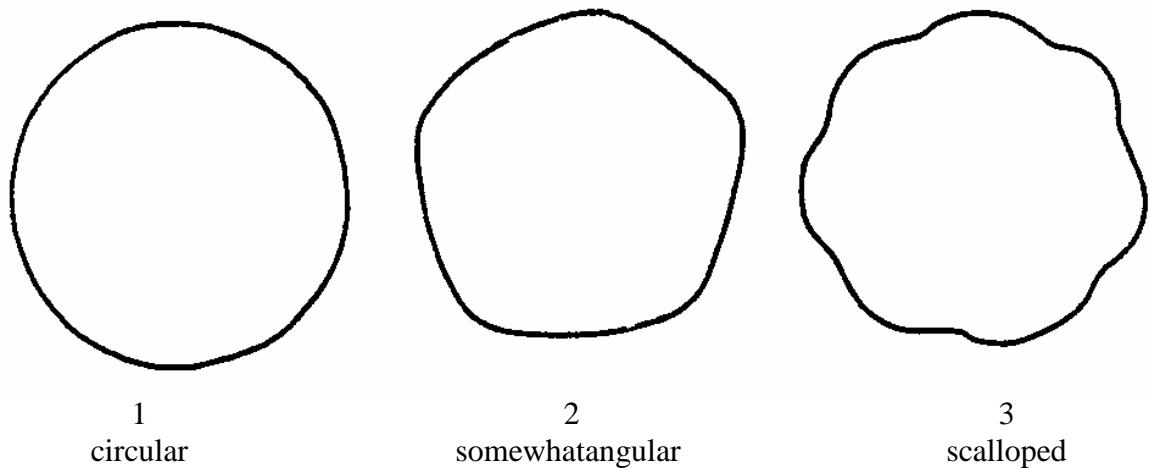


1
absent

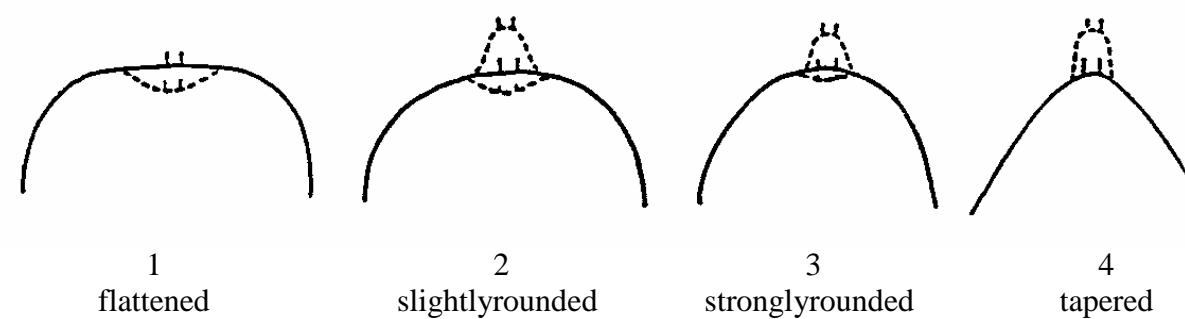


9
present

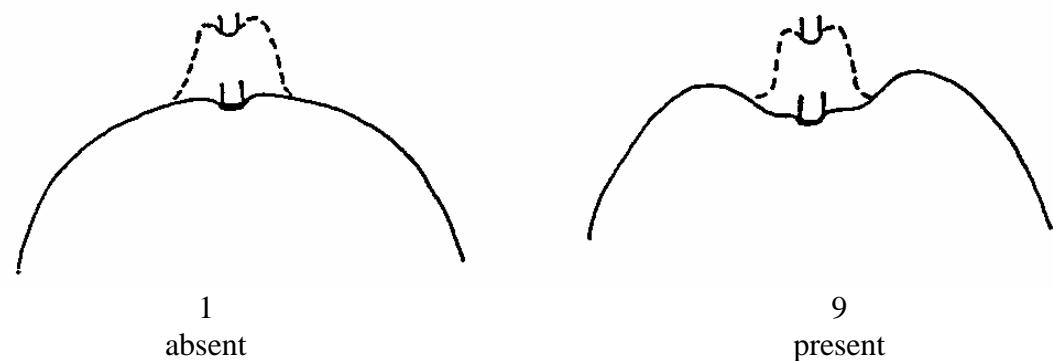
Ad.44(c48.):Fruit:circumferenceintransversesection



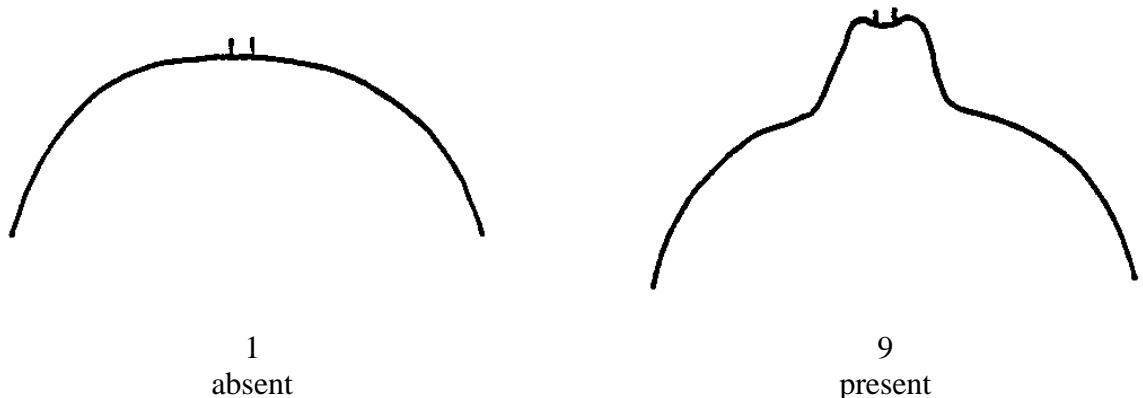
Ad.45(c49.): Fruit:generalshapeofproximalpart (excludingneck,collara nddepressionat stalkend)



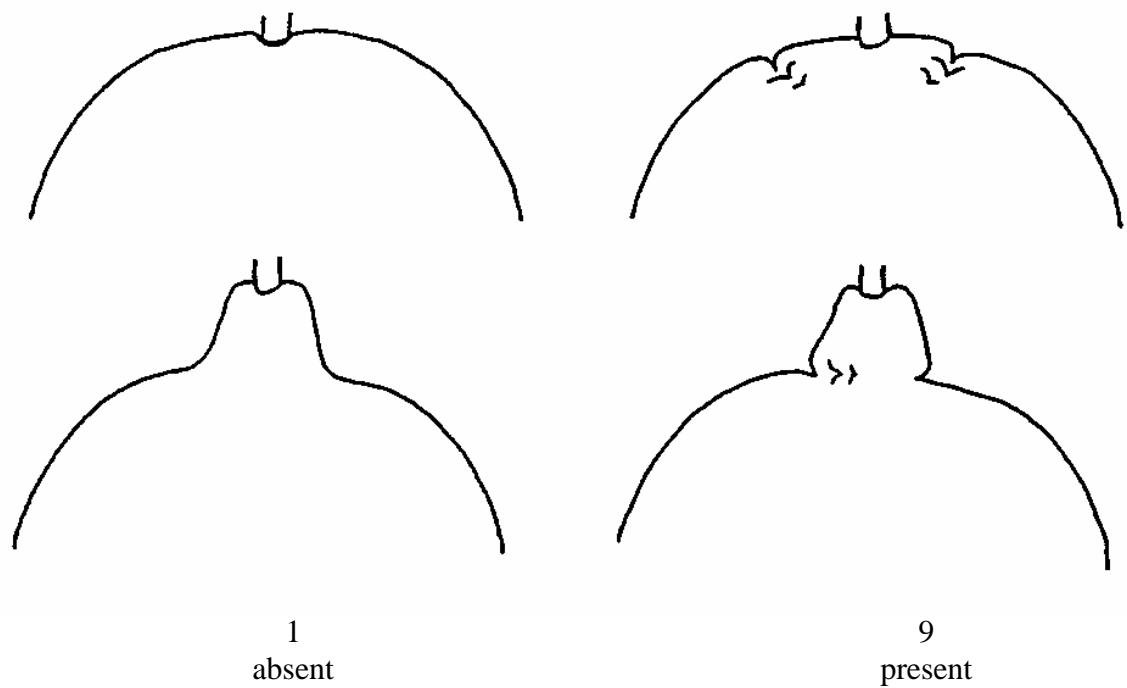
Ad.46(c50.): Varietieswithfruitneckabsentonly:Fruit:presenceofdepressionatstalkend



Ad.48(c52.):Fruit:presenceo fneck



Ad.51(c55.):Fruit:presenceofconstrictionatstalkend

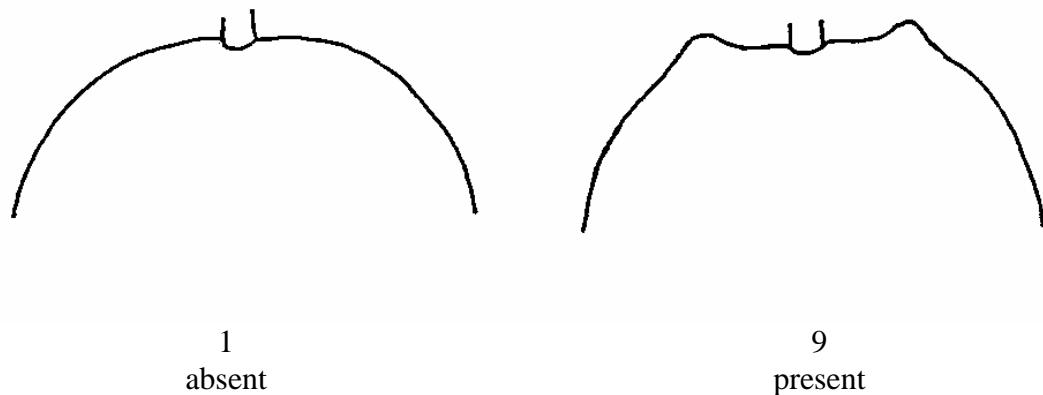


Ad.55(c59.): Necked varieties only: Fruit: local depression at stalk attachment

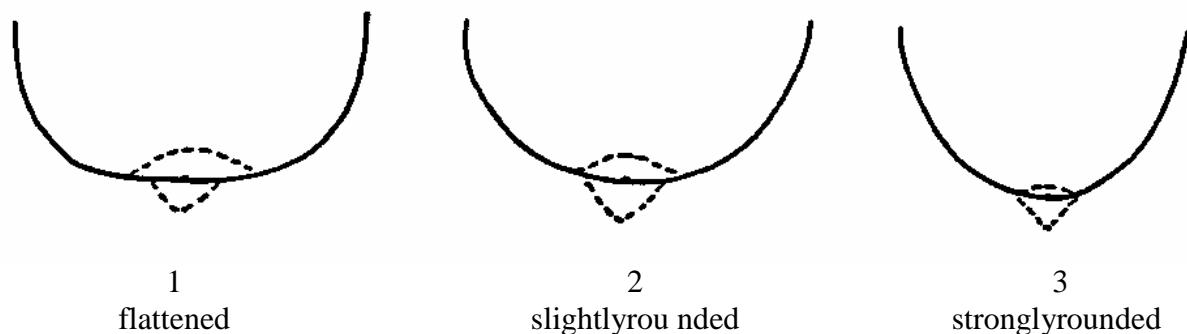
[drawingstobeprovided]

1 2 3
absent or very shallow shallow deep

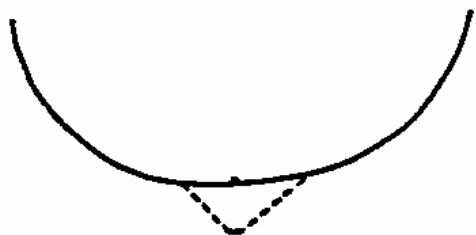
Ad.56(c60.): Fruit: presence of collar



Ad.58(c64.): Fruit: general shape of distal part (excluding nipple, bulging of navel and depression at distal end)



Ad.59(c65.):Fruit:presenceofdepressionatdistalend

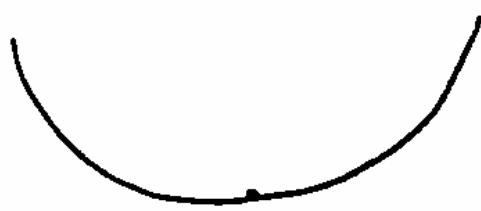


1
absent



9
present

Ad.61(c68.):Fruit:presenceofnipple



1
absent



9
present

Ad.64(c71.):Fruit:typeofareola



1
smooth



2
grooved



3
ridged

Ad.101(c126.):Fruit:numberofseeds(openpollination)

Ad.111(c138.):Plant:self -incompatibility

LISTO FEXAMPLE VARIETIES FOR *PONCIRUS*

Varietydenomination	Group or species	Observations
CPB4475	CML	
Carrizo	CTG	
Cunningham	CTG	
FornerAlcaide13	CTI	
<i>Poncirustrifoliata</i>	PON	

9. Literature

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- Shannon, L.M., Frolich, E.F., Cameron, S.H., 1960: Characteristics of *Poncirus trifoliata* selections. Am. Soc. Hort. Sci., 76:163 -169.
- Webber, H. J. and L. D. Batchelor (Editors), 1946: "The Citrus Industry", Volume I. University of California Press. 1028pp.

10. TechnicalQuestionnaire

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
		Applicationdate: (nottobefilledinbythe applicant)
TECHNICALQUESTIONNAIRE tobecompletedinconnectionwithanapplicationforplantbreeders'rights		
1. SubjectoftheTechnicalQuestionnaire		
<p><i>Poncirus</i> Raf. (TrifoliateOrange,GoldenApple) -PON <input type="checkbox"/></p> <p><i>Poncirus</i> xGrapefruit(Ci trumelo) -CML <input type="checkbox"/></p> <p><i>Poncirus</i> xLemons(Citremon) -CTL <input type="checkbox"/></p> <p><i>Poncirus</i> xMandarin(Citrandarin) -CTI <input type="checkbox"/></p> <p><i>Poncirus</i> xSweetOrange(Citrangle) -CTG <input type="checkbox"/></p> <p>Other <i>Poncirus</i>Hybrid -HPO: <input type="checkbox"/></p>		
2. Applicant:Name <input type="text"/>		
Address <input type="text"/>		
TelephoneNo. <input type="text"/>		
FaxNo. <input type="text"/>		
E-mailaddress <input type="text"/>		
Breeder(ifdifferent fromapplicant) <input type="text"/>		
3. Proposeddenominationandbreeder'sreference		
Proposeddenomination (ifavailable)	<input type="text"/>	
Breeder'sreference	<input type="text"/>	

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
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4. Information on the breeding scheme and propagation of the variety

4.1 Breeding Scheme

4.1.1 Variety resulting from:

- (a) controlled cross
- (please state parent varieties)
- (b) partially unknown cross
- (please state known parent variety(ies))
- (c) totally unknown cross

4.1.2 Mutation
(please state parent variety)

4.1.3 Discovery
(please state where, when and how developed)

4.1.4 Other
(please provide details)

4.2 Method of Propagating the Variety

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
Characteristics	ExampleVarieties	Note
5. Characteristics of the variety to be indicated (the number in brackets refers to the correspondingcharacteristicinTestGuidelines;pleasemarkthenotewhichbestcorresponds).		
5.1 Leaf:caducity (7)		
perennial	CPB4475 (CML)	1[]
partiallycaducous	Troyer	2[]
caducous	<i>Poncirustrifoliata</i> (PON)	3[]
5.2 Leaf:numberofleaflets (8)		
oneonly		1[]
variable	Troyer	2[]
threeonly	<i>Poncirustrifoliata</i> (PON)	3[]
5.3 Fruitsurface:presenceofpubescence (72)		
absent		1[]
present	<i>Poncirustrifoliata</i> (PON)	9[]
5.4 Fruit:numberofseeds(controlledselfpollination) (100)		
absentorveryfew		1[]
few		3[]
medium		5[]
many		7[]
verymany		9[]
5.5 Seed:polyembryony (102)		
absent		1[]
present		9[]

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
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6. Similar varieties and differences from these varieties

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)	<i>Leafblade: shape of apex</i>	<i>acute</i>	<i>obtuse</i>

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 Special conditions for the examination of the variety

7.2.1 Are there any special conditions for growing the variety or conducting the examination?

Yes No

7.2.2 If yes, please give details:

7.3 Other information

A representative color photograph of the variety should accompany the Technical Questionnaire

TECHNICALQUESTIONNAIRE	Page{x}of{y}	ReferenceNumber:
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8. Authorization for release

(a) Does the variety require prior authorization for release under legislation concerning the protection of the environment, human and animal health?

Yes No

(b) Has such authorization been obtained?

Yes No

If the answer to (b) is yes, please attach a copy of the authorization.

9. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:

Applicant's name

Signature

Date

[Annex follows]