

TWF/33/7
ORIGINAL:English
DATE: October23,2002

INTERNATIONALUNIONFORTHEPROTECTIONOFNEWVARIETIESOFPLANTS GENEVA

TECHNICALWORKINGPA RTY FOR FRUITCROPS

Thirty-ThirdSession
SanCarlosdeBariloche,Argentina
November25to29,2002

WORKINGPAPERONDRAFT TESTGUIDELINESFOR QUINCE (CydoniaMill. sensustricto)

DocumentpreparedbyexpertsfromGermany

TheattacheddocumentTG/100/4(proj.1)alreadyincorporates the standard wording of document TGP/7.2, which was adopted by the Technic al Committee at its thirty -eighth session in April 2002, and includes some additional standard wording from document TGP/7.1 Draft 1, also agreed at that session.

[DocumentTG/100/4(proj.1)follows]



TG/100/4(proj.1)(TWF/33/7)

ORIGINAL: English

DATE: October23,2002

INTERNATIONALUNIONFORTHEPROTECTIONOFNEWVARIETIESOFPLANTS

GENEVA

QUINCE*

(Cydonia Mill.sensustricto)*

GUIDELINES

FORTHECONDUCTOFTESTS

FORDISTINCTNESS, UN IFORMITYANDSTABILITY

AlternativeNames: *

Latin	English	French	German	Spanish
Cydonia Mill.	Quince	Cognassier	Quitte	Membrillero

ASSOCIATEDDOCUMENTS

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" (herein after referred to as the "General Introduction") and its associated "TGP" documents.

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) , for the latest information.]

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 2 -

ΤΑ	ABLEOFCONTENTS	AGE
1.	SUBJECTOFTHESE GUIDELINES	3
2.	MATERIALREQUIRED	3
3.	METHODOFEXAMINA TION	3
	3.1 DurationofTests	3
	3.2 TestingPlace	3
	3.3 ConditionsforConductingtheExamination	3
	3.4 TestDesign	4
	3.5 Number of Plants/Parts of Plants to be Examined	4
	3.6 AdditionalTests	4
4.	ASSESSMENTOFDIS TINCTNESS,UNIFORMIT YANDSTABILITY	4
	4.1 Distinctness	4
	4.1.1 GeneralRecommendations	4
	4.1.2 ConsistentDifferences	4
	4.1.3 ClearDifferences	5
	4.2 Uniformity	5
	4.3 Stability	5
5.	GROUPINGOFVARIE TIESANDORGANI ZATIONOFTHEGROWIN GTRIAL	5
6.	INTRODUCTIONTOT HETABLEOFCHARACTE RISTICS	6
	6.1 Categories of Characteristics	6
	6.1.1 StandardTestGuidelinesCharacteristics	6
	6.1.2 AsteriskedCharacteristics	6
	6.2 StatesofExpressionandCorrespondingNotes	6
	6.3 TypesofExpression	6
	6.4 ExampleVarieties	6
	6.5 Legend	6
7.	TABLEOFCHARACTE RISTICS	7
8.	EXPLANATIONSONT HETABLEOFCHARACTE RISTICS	16
9.	LITERATURE	21
10.	TECHNICALQUESTIONNAIRE	22

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23

- 3 -

1. <u>SubjectoftheseGuidelines</u>

TheseTestGuidelinesapplytoallvarietiesof *Cydonia*Mill.sensustricto.

- 2. <u>MaterialRequired</u>
- 2.1 The competent authorities decide on the quantity and quality of the plan t 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 Thematerialistobesupplied in the form of grafted plants or grafting material.
- 2.3 Theminimum quantity of plant material, to be supplied by the applicant, should be:

5two year-oldgraftedplantsorgraftingmaterialsufficient for5trees.

Itisrecommended that one of the following rootstock varieties should be used: quince 'East Malling A'or' BA29' or any other rootstock specified by the competent authorities.

- 2.4 The plant material supplied should be visibly healthy, not lacking in vigor, nor affected by any important pestor disease. It should especially be free from virus esas required by the competent authorities. It should preferably not be obtained from *invitro* propagation. If it has been produced by *invitro* propagation this fact has to be stated by the applicant.
- 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 requestsuchtreatment. I fithasbeentreated, full details of the treatment must be given.
- 3. MethodofExamination
- 3.1 Duration of Tests

Theminimum duration of tests should normally betwoin dependent growing cycles.

3.2 TestingPlace

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 varietymaybetestedatanadditional place.

3.3 ConditionsforConductingtheExamination

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

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23

- 4 -

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

- a <u>Plant/One-year-old shoot</u>: Unless otherwise stated, all observations on the plantandonthe one-year-oldshootshouldbemadeduringwinteronplantsthathavefruited atleastonce. The length of the internodeshould be observed in the middle of the shoot.
- <u>b</u> <u>Leaf</u>: Unless otherwise stated, all observations on the leaf should be made in summer on fully developed leaves from the middlethird of a current season's shoot.
- <u>Flower</u>: Unless otherwise stated, all observations on the flower should be madeonfullydevelopedflowersatthebeginningofantherdehiscence.
 - d <u>Fruit</u>:Allobservat ionsonthefruitshouldbemadeonfullyripenedfruits.
- 3.4 TestDesign
 - 3.4.1 Eachtestshouldbedesignedtoresultinatotalof, at least 5 plants.
- 3.4.2 The design of the tests should be such that plants or parts of plants may be removed for measur ement or counting without prejudice to the observations which must be madeuptotheendofthegrowing cycle.
- 3.5 Number of Plants/Parts of Plants to be Examined

Unless otherwise indicated, all observations determined by measuring or counting shouldbemadeon5plantsor2partstakenfromeachof5plants.

3.6 AdditionalTests

Additionaltests, for examining relevant characteristics, may be established.

- 4. AssessmentofDistinctness,UniformityandStability
- 4.1 Distinctness
 - 4.1.1 GeneralRecommend ations

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

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

- 5 -

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

- 4.2.1 Itis 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.
- $4.2.2 \quad \text{The acceptable number of off} \quad \text{-types tolerated in a samp} \quad \text{le size of 5} \quad \text{plants is} \\ \text{noneonthebasisofapopulationstandardof1}\% \text{ and an acceptance probability of 95}\%$

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 distin ctness and uniformity. However, experience has demonstrated that, formany 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, eith growing a further generation, or by testing a new seed or plantstock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. GroupingofVarietiesandOrganizationoftheGrowingTrial

- 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 Groupingcharacteristicsarethoseinwhichthedocumentedstatesofexpression, even whereproducedatdifferentlocations, can be used, either individually or incombination 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 othat similar varieties are grouped to gether.
- 5.3 Thefollowinghavebeenagreedasuseful grouping characteristics:
 - (a) Plant:habit(ch aracteristic2);
 - (b) Leafblade:shape(characteristic12);
 - (c) Fruit:generalshapeinlongitudinalsection(characteristic27).
- 5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction.

6. IntroductiontotheTableofCharacteristics

6.1 Categories of Characteristics

6.1.1 StandardTestGuidelinesCharacteristics

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 AsteriskedCharacteristics

Asterisked characteristics (denoted by *) are those included in the Test Guidelines which are important for the international harm onization 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 StatesofExpressionandCorrespondingNotes

Statesofexpressionaregiven 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 TypesofExpression

An explanation of the types of expression of characteristics (qualitative, quantitative and pseudo-qualitative) is provided in the General Introduction.

6.4 ExampleVarieties

Where appropriate, example varieties are provided to clarify the states of expression of each characteristic.

- 6.5 Legend
- (*) Asteriskedcharacteristic –seeSection6.1.2
- (QL) Qualitative characteristic see Section 6.3
- (QN) Quantitative characteristic see Section 6.3
- (PQ) Pseudo-Qualitativecharacteristic -seeSection6.3
- (+) SeeExplanationsontheTableofCharacteristicsinChapter8.
- a to d Seesection 3.3

7. <u>TableofCharacteristics/Tableaudescaractères/Merkmal</u> <u>stabelle/Tabladecaracteres</u>

$ ext{MoE}^{ ilde{ id}}}}}}}}}}}}}} Vuldetilequere }$	English	français	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
1. a (*) (+)	Plant:vigor		Pflanze: Wuchsstärke			
	weak		gering		Moldoveneşti, PearShaped	3
	medium		mittel		EkmekAyvasi, Hemus	5
	strong		stark		Otličnica, Sekergeurek, Vranja	7
2. a	Plant:habit		Pflanze:Wuch	sform		
	upright		aufrecht		Vranja	1
	semi- upright		halbaufrecht		Champion	2
	spreading		breitwüchsig		Bourgeault	3
3. a	One-year-oldshoot: habit		EinjährigerTi Wuchs	rieb:		
	straight		gerade		Selena	3
	wavy		gewellt		Vranja	5
	zig-zag		zickzackförmi	2	Hov.No.2,PearShaped	7
UK	tosendinformations	onexamplevariety	'Hov.No.2 '(wha		dingfor,isthereapropervariety	
4. a	One-year-oldshoot: lengthofinternode		EinjährigerTi Längedes Internodiums			
	short		kurz		Bencikli	3
	medium		mittel		Bourgeault, Champion	5
	long		lang		Matador	7

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 8 -

MoE^{ullet}	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
5. a	One-year-oldshoot: pubescence(upper third)		EinjährigerTr Behaarung(ob Drittel)			
	weak		gering		Ronda	3
	medium		mittel		Bereczki	5
	strong		stark		Champion	7
6. a	One-year-oldshoot: color		EinjährigerTr Farbe	rieb:		
	greybrown		graubraun		d'Angers	1
	greenishbrown		grünlichbraun		Selena	2
	reddishbrown		rötlichbraun		Cydopom	3
	mediumbrown		mittelbraun		Ronda	4
	darkbrown		dunkelbraun		Shams	5
7. a	One-year-oldshoot: sizeofle nticels		EinjährigerTr Grösseder Lentizellen	ieb:		
	small		klein		Champion	3
	medium		mittel		Bereczki	5
	large		groß		Cydopom	7
8. (+)	Shoot:positionof vegetativebudin relationtoshoot		Trieb:Stellung vegetativenKn imVe rhältnisz Trieb	ospe		
	adpressed		anliegend		Vranja	1
	slightlyheldout		leichtabstehend	l	Krymska	2
	markedlyheldout		deutlichabstehe	end		3
9. b	Leafblade:att itude inrelationtoshoot		Blattspreite: Haltungim Verhältniszun Trieb	<u> </u>		
	upwards		aufwärtsgerich	tet	Pinter	1
	outwards		abstehend		Leskovacz	2
	downwards		abwärtsgerichte	et	Hruskovita	3

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 9 -

${ m MoE}^{ullet}$	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
10. b	Leafblade:length		Blattspreite:I	Länge		
	short		kurz		Pinter	3
	medium		mittel		Ronda	5
	long		lang		Matador, Vranja	7
11. b	Leafblade:width		Blattspreite:I	Breite		
	narrow		schmal		Pinter	3
	medium		mittel		Otličnica	5
	broad		breit		Isfahan	7
12. b (*) (+)	Leafblade:shape		Blattspreite:I	Form		
	elliptic		elliptisch		DellaCina	1
	circular		rund		Constantinopel, Mollesca	2
	ovate		eiförmig		Fabre	3
	obovate		verkehrteiförn	nig	Tavsambas	4
13. b (+)	Leafblade:shapeof base		Blattspreite:I derBasis	Form		
	cuneate		keilförmig		Asenica	1
	rounded		abgerundet		GuzukGobek	2
	truncate		gerade		Alesa	3
	cordate		herzförmig		Kocurova	4
14. b (*) (+)	Leafblade:angleat apex(excludi ng pointedtip)		Blattspreite:V anderSpitze(c aufgesetzteSp	ohne		
	acute		spitz		Shams	1
	right-angled		rechtwinklig		Mezörtúi	2
	obtuse		stumpf		DiBazine, Champion	3

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 10 -

MoE	English	français	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
15. b (*) (+)	Leafblade:lengthof tip		Blattspreite:Länge derSpitze			
	short		kurz		Jurak, Triumph	3
	medium		mittel		Hemus	5
	long		lang		Otličnica	7
16. b	Leafblade:profile incrossse ction		Blattspreite:Profil imQuerschnitt			
	straight		eben		GuzukGobek	1
	concave		konkav		Vranja	2
17. b	Leafblade: undulationof margin		Blattspreite: WellungdesRandes			
	absentorveryweak		fehlendoder sehrg ering		Muskatnaja	1
	weak		gering		Champion	3
	medium		mittel		Bereczki	5
	strong		stark		EkmekAyvasi	7
18. b	Petiole:length		Blattstiel:Länge			
	short		kurz		Portugal	3
	medium		mittel		Bourgeault	5
	long		lang		Champion	7
19.	Stipule:size		Nebenblatt:Größe			
	absentorverysmall		fehlendodersehr klein		Otličnica	1
	small		klein		Adams	3
	medium		mittel		PearShaped, Constantinopel	5
	large		groß		Vranja	7
	verylarge		sehrgroß		Buchlowice, Aurii	9

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 11 -

MoE	English franç	çais	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
20. c	Flower:size		Blüte:Größe			
	small		klein		DellaCina	3
	medium		mittel		Champion	5
	large		groß		Turunchuksaya, Vranja	7
21. c	Flower:color		Blüte:Farbe			
(+)						
	white		weiß		d'Angers	1
	lightpink		hellrosa		Mesörtúi	2
	darkpink		dunkelrosa		Vranja	3
22. c (+)	Flower: arrangementsof petals		Blüte:Anordnung der Blütenblätter			
	free		freistehend		DellaCina	1
	touching		einanderberührend	I	Hemus	2
	overlapping		überlappend		Vranja	3
23. c	Petal:shape		Blütenblatt:Form	1		
(+)						
	elliptic		elliptisch		Patrasso	1
	circular		rund		Champion	2
	square		quadratisch		Portugal	3
	oblong		länglich		Tekes	4
24. c	Petal:undulationof margin		Blütenblatt: WellungdesRand	es		
	weak		schwach		Brno, Constantinopel	1
	medium		mittel		TurkeyNo.4	2
	strong		stark		Şafranii	3

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 12 -

MoE	English	français	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
25. c	Flower:positio nof stigmainrelationto anthers		Blüte:Stellungder NarbeimVerhältn zudenAntheren			
	below		unterhalb		Ekmek, Mesörtúi	1
	samelevel		aufgleicherHöhe		Aurii	2
	above		oberhalb		Bereczki	3
26. d	Fruit:size		Frucht:Größe			
	small		gering		Bourgeault	3
	medium		mittel		Champion	5
	large		groß		Vranja	7
27. d (*) (+)	Fruit:generalshape inlongit udinal section		Frucht:allgemeine Formim Längsschnitt	?		
	elliptic		länglich		DellaCina	1
	circular		kugelförmig		FruitsRonds , Jurak	2
	square		quadratisch		Aurii	5
	obovate		verkehrteiförmig		Ispolinskaya	3
	pyriform		birnenförmig		Hruskovita, Vranja	4
28. d	Fruit:symmetryin longitudinalse ction		Frucht:Symmetric imLängsschnitt	e		
	assymmetric		assymmetrisch		Radonia	1
	symmetric		symmetrisch		Leskovacz	2
29. d (*)	Fruit:positionof maximumdiam eter		Frucht:Positionde größten Durchmessers	es		
	inmiddle		inderMitte		Ronda	1
	towardscalyxend		zumKelchendehin		Vranja	2

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 13 -

MoE	English	français	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
30. d	Fruit:narrowing towardsstalkend		Frucht:Vereng amStielende	ung		
	absent		fehlend		Aurii	1
	present		vorhanden		Vranja	9
31. d	Fruit:lengthof narrowingtowards stalkend		Frucht:Länged Verengungam Stielende	er		
	short		kurz		Portugal	3
	medium		mittel		Limon	5
	long		lang		Hruskovita	7
32. d (*) (+)	Fruit:typeof narrowingtowards stalkend		Frucht:Typder Verengungam Stielende			
	gradual		langsamvere ngo	end	Champion	1
	abrupt		abruptverengen	d	Hruskovita	2
33. d	Fruit:prominence ofribsatstalkend		Frucht:Ausprä derRippenam Stielende	gung		
	absentorveryweak		fehlendodersehr gering		Krymskaya	1
	weak		gering		Ronda	3
	medium		mittel		Portugal	5
	strong		stark		Constantinopel	7
34. d	Fruit:prominence ofribsatcalyxend		Frucht:Ausprä derRippenam Kelch-ende	gung		
	absentorveryweak		fehlendodersehr gering		Pinter	1
	weak		gering		Ronda	3
	medium		mittel		Champion	5
	strong		stark		Bereczki	7

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 14 -

$ ext{MoE}^{ ilde{ id}}}}}}}}}}}}}} } } } }$	English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
35. d (*) (+)	Fruit:pr esenceof stalkca vity		Frucht: Vorhandensei Stielgrube	neiner		
	absent		fehlend		Bereczki	1
	present		vorhanden		Tekes	9
36. d	Fruit:sizeofstalk cavity(ifpresent) (changed)		Frucht:Größe derStielgrube (wennvorhand (verändert)			
	small		klein		Patrasso	3
	medium		mittel		Portugal	5
	large		groß		Tekes	7
	Fruit:sizeofeye basin		Frucht:Größe Kelchgrube	eder		
	small		klein		Ronda	3
	medium		mittel		Vranja	5
	large		groß		Tekes	7
38. d	Fruit:color		Frucht:Far bo	2		
	yellowgreen		gelbgrün		Champion, Ispolinskaya	1
	yellow		gelb		Constantinopel	2
	yelloworange		gelborange		Moldovenești	3
39. (*)	Timeofleafbud burst		Zeitpunktdes Blattaustriebs	<u> </u>		
	early		früh		Vranja	3
	medium		mittel		Bereczki	5
	late		spät		Champion	7

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 15 -

N.	English	français	deutsch	español	ExampleVarieties Exemples Beispielssorten Variedadesejemplo	Note/ Nota
40. (*)	Timeofbeginningof flowering (changed)	,	Zeitpunktdes Blühbeginns (verändert)			
	early		früh		Turunchuksaya	3
	medium		mittel		Vranja	5
	late		spät		Constantinopel	7
41. (*) (+)	Timeofbeginningof fruitr ipening	!	Zeitpunktdes Beginnsder Fruchtreife			
	early		früh		Radonia	3
	medium		mittel		Hemus	5
	late		spät		Ispolinskaja	7

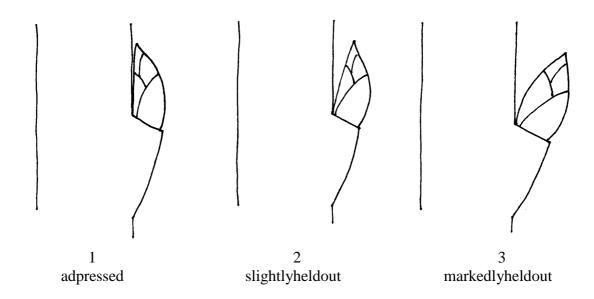
8. <u>ExplanationsontheTableofCharacteristics</u>

Ad1. Plant:vigor

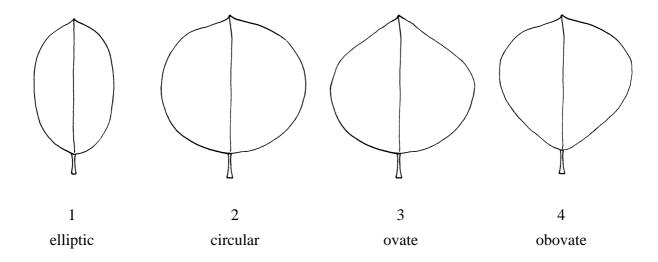
The vigor of the plant should be considered as the ov growth.

erall abundance of vegetative

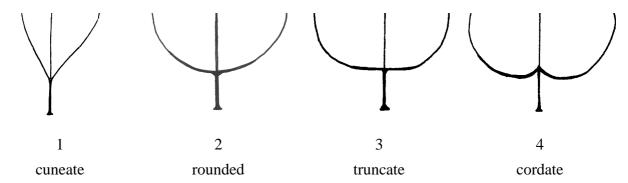
Ad8. Shoot:positionofvegetativebudinrelationtoshoot



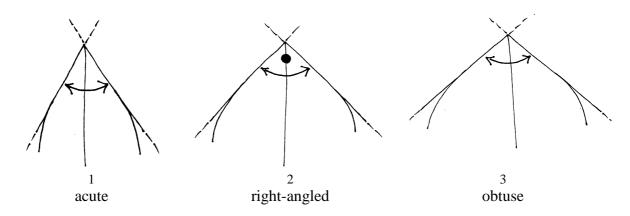
Ad12. Leafblade:shape



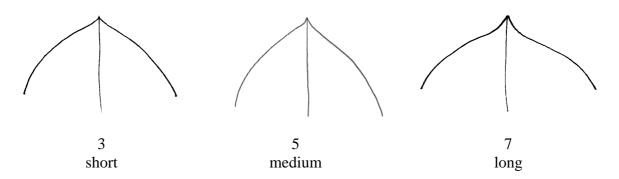
Ad13. Leafblade:shapeofbase



Ad14. Leafblade:angleatapex(excludingpointedtip)



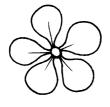
Ad15. Leafblade:lengthoftip



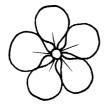
Ad21. Flower:color

The color of the flower should be observed on the first day of opening.

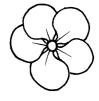
Ad22. Flower:arrangementofpetals



1 free



2 touching



3 overlapping

Ad23. Petal:shape



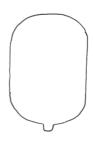
1 elliptic



2 circular

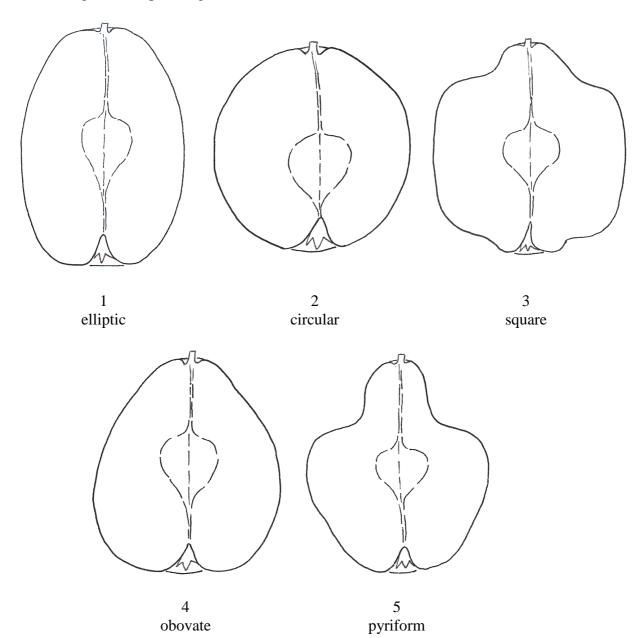


3 square

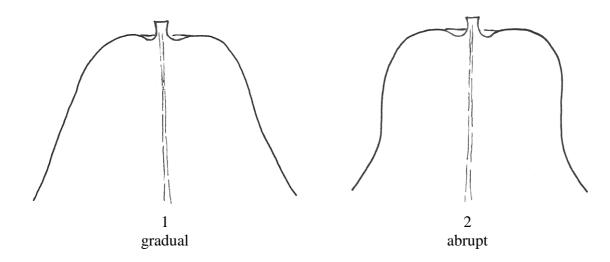


4 oblong

Ad27. Fruit:generalshapeinlongitudinalsection



Ad32. Fruit:typeofnarrowingtowardsstalkend



Ad41. Timeofbeginningof fruitripening

The time of beginning of fruit ripening should be observed at the time when the fruit is most easily picked from the tree.

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 21 -

9. <u>Literature</u>

Alibert, J. -P., Masseron, A., 1979: "Lecognassierà fruits", Ctifl -Documents No. 62, p. 69 -79.

Bordeianu, T.; Constantinescu, N.; Stefan, N., 1968: "Pomologia, Bd. VII", Editura AcademieiRepubliciiSocialisteRomania,Bukarest,775pp.

Krüssmann, G., 1951: "Die Quitten", Verlag Deutsche Gärtnerbörse, Aachen, 27pp.

Michelesi, J.C., Brossier, J., Flick ,J.D., 1973: "Première observations sur plusieurs variétés decognassiers à fruits", Arboriculture Fruitière p. 233/234.

Попов, Е., 1958: "Българска Помология", Държавно Издателство За Селскостопанска Литература, Софиа. (Popow, E., 1958: "Bulgarian fru it science", Publishing Company for AgriculturalLiterature, Sofia, 424 pp.)

Schuricht W.; Friedrich, G., 1988: "Nüsse und Quitten", Neumann Verlag, Leipzig u. Radebeul,144pp.

10. <u>TechnicalQuestionnaire</u>

TECHNICALQUESTIONNAIR			Page{ x}of{y}	ReferenceNumber:					
				Applicationdate: (nottobefilledinbytheapplicant)					
	TECHNICALQUESTIONNAIRE tobecompletedinconnectionwithanapplicationforplantbreeders' rights								
1.	SubjectoftheTechnicalQuestionnaire								
	1.1 LatinName	Cyc	donia Mill.sensustricto)					
	1.2 CommonName	QU	JINCE						
2.	Applicant								
	Name								
	Address								
	TelephoneNo.								
	FaxNo.								
	E-mailaddress								
	Breeder(ifdifferentfromapp	lica	nt)						
3.	Proposeddenominationandl	oree	der' sreference						
	Proposeddenomination (ifavailable)								
	Breeder'sreference								

TECHNICALQUESTIONNAIRE	Page{ x }of{ y }	ReferenceNumber:

4.	Info	Informationonthebreedingschemeandpropagationofthevariety						
	4.1	1 BreedingScheme						
		4.1.1 Varietyresultingfrom:						
		(a) controlledcross (pleasestatep arentvarieties)	[]					
		(b) partiallyunknowncross (pleasestateknownparentvariety(ies))	[]					
		(c) totallyunknowncross	[]					
		4.1.2 Mutation (pleasestateparentvariety)	[]					
		4.1.3 Discovery (pleasestatewhere,whenandhowdeveloped)	[]					
		4.1.4 Other (pleasepro videdetails)	[]					
	4.2	MethodofPropagatingtheVariety						
		4.2.1 <i>Invitro</i> propagation Theplantmaterialofthecandidatevarietyhasbeenobtained by <i>invitro</i> propagation yes	[] []					
		4.2.2 Other type of multiplication (seed, leaf cutting, hardwood cutting, layer):						
		(pleasespecify)						
	4.3	Virusstatus						
		4.3.1 Thevarietyisfreefromallknownvirusesasfollows: (indicatefromwhichviruses):	[]					
		4.3.2 Theplantmaterialisvirustested(indicateagainstwhichviruses):	[]					
	4.3.3 Thevirusstatusisunknown							

	D () (()	
TECHNICALQUESTIONNAIRE	Page{ x}of{y}	ReferenceNumber:

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 (2)	Plant:habit						
	upright			Vranja		1[]	
	semi-upright			Champio	on	2[]	
	spreading			Bourgean	ult	3[]	
5.2 (12)	Leafblade:sha	pe					
	elliptic			DellaCin	a	1[]	
	circular			Constant Mollesca		2[]	
	ovate			Fabre		3[]	
	obovate			Tavsamb	oas	4[]	
5.3 (27)	Fruit:generals	shapeinlongitudinalsection					
	elliptic			DellaCin	ıa	1[]	
	circular			FruitsRo	nds,Jurak	2[]	
	square			Aurii		4[]	
	obovate			Ispolinsk	taya	3[]	
	pyriform			Hruskov	ita,Vranja	5[]	
5. Si	milarvarietiesar	nddifferencesfromthesevar	ieties				
Denomination(s)of variety(ies)similarto vourcandidatevariety Characteristic(s)in whichyourcandidate varietydiffers fromthe similarvariety(ies)		Describetheexpression ofthecharacteristic(s) expression forthe similar variety(ies) yourcar vari			onofthe stic(s)fo adidate		
Sxample	?)	Plant:height	e.g.	note3	note	note7 tall	
			e.g.	e.g. short e.g. 90cm)ст	

TG/100/4(proj.1)(TWF/33/7) Quince,20 02-10-23 - 25 -

TECHNICALQUESTIONNAIRE			Page{ x}of{y}		ReferenceNumber:					
7.	Additionalinformationwhichmayhelpintheexaminationofthevariety									
7.1	In addition to the information provided in sections 5 and 6, are there any additional characteristicswhichmayhelptodistinguishthevariety?									
	Yes	[]		No	[]					
	(Ifyes,pleaseprovidedetails)									
7.2	Specialc	Specialconditionsfortheexaminationofthevariety								
	7.2.1 Are there any special conditions for growing the variety or conducting the examination?									
		Yes	[]		No	[]				
	7.2.2	Ifyes	please givedeta,	ils:						
7.3	Otherinf	format	iion							
8.	Authoriz	zation	forrelease							
			varietyrequirepri ftheenvironment					erlegislationconcerning		
	Ye	es		No						
	(b) Ha	ass uc	hauthorizationbe	enobtain	ed?					
	Ye	es		No		[]				
	Iftheans	werto	(b)isyes,pleaseatt	achacop	yoftl	neauthoriz	zation.			
9.	9. Iherebydeclarethat,tothebestofmyknowledge,theinformationprovidedinthisform iscorrect:									
	Applicant'sna me									
	Signatur	e				D	ate			