

TG/143/4(proj.1) ORIGINAL: English DATE: 2004-05-18

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA



CHICK-PEA

UPOV code: CICER_ARI

Cicer arietinum L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from France

to be considered by the Technical Working Party for Vegetables at its thirty-eighth session, to be held in Seoul, from June 7 to 11, 2004

Alternative Names:*

Botanical name	English	French	German	Spanish
Cicer arietinum L.	Chick-Pea	Pois chiche	Kichererbse	Garbanzo

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.

^{*} 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.]

i:\orgupov\shared\tg\chickpea\upov drafts\tg_143_4_proj_1.doc

ASSOCIATED DOCUMENTS

These guidelines ("Test 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 UPOV documents:

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 3 -

TABLE OF CONTENTS

PAGE

1.	SUBJ	ECT OF THESE TEST GUIDELINES	4
2.	MATI	ERIAL REQUIRED	4
3.	METH	IOD OF EXAMINATION	4
	3.1	Number of Growing Cycles	4
	3.2	Testing Place	4
	3.3	Conditions for Conducting the Examination	4
	3.4	Test Design	5
	3.5	Number of Plants / Parts of Plants to be Examined	5
	3.6	Additional Tests	5
4.	ASSE	SSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	5
	4.1	Distinctness	5
	4.2	Uniformity	6
	4.3	Stability	6
5.	GROU	JPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL	6
6.	INTR	ODUCTION TO THE TABLE OF CHARACTERISTICS	7
	6.1	Categories of Characteristics	7
	6.2	States of Expression and Corresponding Notes	7
	6.3	Types of Expression	7
	6.4	Example Varieties	
	6.5	Legend	7
7.		E OF CHARACTERISTICS/TABLEAU DES	
		ACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES	
8.		ANATIONS ON THE TABLE OF CHARACTERISTICS	
9.		RATURE	-
10.	TECH	NICAL QUESTIONNAIRE	16

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 4 -

1. <u>Subject of these Test Guidelines</u>

These Test Guidelines apply to all varieties of Cicer arietinum L.

2. <u>Material Required</u>

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 seed.

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

3 000 seeds, 1000g

(i) The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority. In cases where the seed is to be stored, the germination capacity should be as high as possible and should be stated by the applicant.

(ii) The seed should meet the minimum requirements for germination, species and analytical purity, health and moisture content, specified by the competent authority.

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.

3. <u>Method of Examination</u>

3.1 Number of Growing Cycles

The minimum duration of tests should normally be two independent growing cycles.

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 The recommended method of observing the characteristic is indicated by the following key in the second column of the Table 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

3.4 Test Design

Each test should be designed to result in a total of at least 100 plants, which should be divided between two or more replicates.

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.

3.5 Number of Plants / Parts of Plants to be Examined

Unless otherwise indicated, all observations should be made on 20 plants or parts taken from each of 20 plants.

3.6 Additional Tests

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

4. <u>Assessment of Distinctness, Uniformity and Stability</u>

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.

4.2 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 100 plants, 3 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 tested, either by growing a further generation, or by testing a new seed stock to ensure that it exhibits the same characteristics as those shown by the previous material supplied.

5. <u>Grouping of Varieties and Organization of the Growing Trial</u>

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) Flower: color (characteristic 8)
- (b) Seed: color (1 month after harvest) (characteristic 14)
- (c) Seed: shape (characteristic 17)
- (d) Seed: ribbing (characteristic 18)
- (e) Time of flowering (characteristic 19)

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 7 -

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

6. <u>Introduction to the Table of Characteristics</u>

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 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 (Section 6.1.2)
QL QN PQ	Qualitative characteristic Quantitative characteristic Pseudo-qualitative characteristic	 see Chapter 6 (Section 6.3) see Chapter 6 (Section 6.3) see Chapter 6 (Section 6.3)

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 8 -

- MG: single measurement of a group of plants or parts of plants see Section 3.3.2
- MS: measurement of a number of individual plants or parts of plants see Section 3.3.2
- VG: visual assessment by a single observation of a group of plants or parts of plants see Section 3.3.2
- VS: visual assessment by observation of individual plants or parts of plants see Section 3.3.2
- (a)-(b) See Explanations on the Table of Characteristics in Chapter 8.1
- (+) See Explanations on the Table of Characteristics in Chapter 8.

7. <u>Table of Characteristics/Tableau des caractères/Merkmalstabelle/Tabla de caracteres</u>

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*)	<mark>MS/</mark> VG	Plant: height (when pods at full development)	Plante: hauteur (à complet développement des gousses)	Pflanze: Höhe (wenn Hülsen voll entwickelt)			
QN		very short	très courte	sehr niedrig			1
		short	courte	niedrig		Castor, Sombrero	3
		medium	moyenne	mittel		Cabri, Cascari, Sirtaki, <mark>Twist</mark>	5
		tall	haute	hoch		<mark>Elvar</mark> , Lambada, Salsa	7
		very tall	très haute	sehr hoch			9
2. (*)	MS/ VS	Plant: attitude (after flowering)	Plante: port (après floraison)	Pflanze: Wuchsform (nach der Blüte)	1		
<mark>QL</mark>		erect	dressé	aufrecht		Cascari, Casoar, Castor, Jazz Sombrero	3
		semi-erect	demi-dressé	halbaufrecht		Flamenco, Lambada	5
		prostrate	étalé	liegend		Sirtaki	7
3.	MS/ VS	Plant: intensity of ramification	Plante: intensité de la ramification	Pflanze: Stärke der Verzweigung			
QN		weak	faible	gering		Castor, Jazz, Lambada	3
		medium	moyenne	mittel		Cascari, Rondo, Sombrero, <mark>Flamenco</mark>	5
		strong	forte	stark			7
4. (*)	VS	Stem: anthocyanin coloration	Tige: coloration anthocyanique	Stengel: Anthocyanfärbung			
<mark>QL</mark>		absent	absente	fehlend		Sirtaki, <mark>Twist.</mark> Flamenco	1
		present	présente	vorhanden		Castor, Sombrero	9

TG/143/4(proj.1) Chick-Pea/Pois chiche/Kichererbse/Garbanzo, 2003-05-18 - 10 -

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5.	•	<mark>Stem: height of</mark> insertion of first flower	Tige: hauteur d'insertion de la première fleur	<mark>Stengel: Höhe der</mark> Ansatzstelle der ersten Blüte	•	•	
		low	basse	niedrig	•	•	<mark>3</mark>
		medium	moyenne	<mark>mittel</mark>	•	•	<mark>5</mark>
		<mark>high</mark>	haute	<mark>hoch</mark>	•	1 - C	7
6. (*)	VS	Foliage: intensity of green color	Feuillage: intensité de la couleur verte	Laub: Intensität der Grünfärbung			
<mark>QL</mark>	(a)	light	claire	hell		Sirtaki	3
		medium	moyenne	mittel		Cascari, Salsa	5
		dark	foncée	dunkel		Lambada, Rondo, Sombrero	7
7. (*)	MS/ VS	Leaflet: size	Foliole: taille	Fiederblatt: Grösse			
QN	(a)	very small	très petite	sehr klein		Castor	1
		small	petite	klein		Flamenco, Sirtaki	3
		medium	moyenne	mittel		Cascari, Salsa, Twist	5
		large	grande	gross		Casoar, Flamenco	7
		very large	très grande	sehr gross		Lambada	9
8. (*)	<mark>VG</mark>	Flower: color	Fleur: couleur	Blüte: Farbe			
<mark>QL</mark>		white	blanche	weiss		Sirtaki, Twist	1
		purplish pink	rose pourpre	purpurrosa		Castor, Sombrero	2
9. (*)	MS/ VS	Peduncle: length	Pédoncule: longueur	Blütenstandstiel: Länge			
QN		short	court	kurz		Cascari, Castor, Sombrero	3
		medium	moyen	mittel		Cascari	5
		long	long	lang		Flamenco, Jazz	7

TG/143/4(proj.1) Chick-Pea/Pois chiche/Kichererbse/Garbanzo, 2003-05-18 - 11 -

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
10. (*)	MS/ VS	Pod: size	Gousse: taille	Hülse: Grösse			
QN	(b)	very small	très petite	sehr klein		Castor	1
		small	petite	klein			3
		medium	moyenne	mittel		Rondo	5
		large	grande	gross		Jazz	7
		very large	très grande	sehr gross		Flamenco	9
11. (*)	<mark>VG</mark>	Pod: intensity of green color	Gousse: intensité de la couleur verte	Hülse: Intensität der Grünfärbung	r		
QL	(b)	light	claire	hell			3
		medium	moyenne	mittel		Cascari, Flamenco, Twist	5
		dark	foncée	dunkel		Sombrero	7
12.	MS/ VS	Pod: length of beak	Gousse: longueur du bec	Hülse: Länge des Schnabels			
QN	(b)	short	court	kurz		Sombrero	3
		medium	moyen	mittel		Cascari, Castor, Sirtaki	5
		long	long	lang		Flamenco, Jazz	7
<mark>13</mark> (*)	MS	Pod: predominant number of seeds per pod		•	•	•	I
QN	<mark>(c)</mark>	one	•	1	1 - C	Twist	1
		one / two	•	1 - C	1 - C	Elvar, Flamenco	2
		two or more	1 C	•	1 C	Cascari, Sombrero	<mark>3</mark>

TG/143/4(proj.1) Chick-Pea/Pois chiche/Kichererbse/Garbanzo, 2003-05-18 - 12 -

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
14. (*)	VG	Seed: color (1 month after harvest)	Graine: couleur (1 mois après récolte)	Samen: Farbe (1 Monat nach Ernte)			
<mark>QL</mark>		yellow	Jaune	gelb			1
		beige	beige	beige		Cabri, Sirtaki	2
		ochre	ocre	ocker			3
		brown	brune	braun		Castor	4
		reddish brown	brun rougeâtre	rötlichbraun			5
		black	noire	schwarz		Sombrero	6
15. (*)	VG	Seed: intensity of color	Graine: intensité de la couleur	Samen: Intensität der Farbe			
QL		light	claire	hell			3
		medium	moyenne	mittel			5
		dark	foncée	dunkel			7
16. (*) (+)	MG	Seed: weight	Graine: poids	Samen: Gewicht			
<mark>QN</mark>		very low	très petit	sehr gering			1
		low	petit	gering			3
		medium	moyen	mittel		Cabri, Cascari	5
		high	élevé	hoch		Jazz	7
		very high	très élevé	sehr hoch		Lambada, Salsa	9
17. (*) (+)	VG	Seed: shape	Graine: forme	Samen: Form			
<mark>QL</mark>		round	ronde	rund		Cascari <mark>, Elvar</mark>	1
		round to angular	ronde à angulaire	rund bis kantig		Flamenco, Sirtaki	2
		angular	angulaire	kantig		Castor, Sombrero	3

TG/143/4(proj.1) Chick-Pea/Pois chiche/Kichererbse/Garbanzo, 2003-05-18 - 13 -

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
18. (*)	<mark>VG</mark>	Seed: ribbing	Graine: sinuosités	Samen: Rippung			
<mark>QL</mark>		absent or very weak	absentes ou très faibles	fehlend oder sehr gering		Cabri, Cascari	1
		weak	faibles	gering			3
		medium	moyennes	mittel		Flamenco, Jazz, Twist	5
		strong	fortes	stark		Sombrero	7
		very strong	très fortes	sehr stark		Castor	9
19. (*)	VG	Time of flowering (80% of plants with at least one flower)	Epoque de la floraison (80% des plantes avec au moins une fleur)	Zeitpunkt der Blüte (80% der Pflanzen mit wenigstens einer Blüte)			
QN		very early	très précoce	sehr früh		Salsa	1
		early	précoce	früh		Cabri, Sirtaki	3
		medium	moyenne	mittel		Cascari, Sombrero	5
		late	tardive	spät		Casoar	7
		very late	très tardive	sehr spät		Castor	9
20. (*)	<mark>VG</mark>	Time of maturity of pod (when seed is dry)	Epoque de maturité de la gousse (grain sec)	Zeitpunkt der Reife der Hülse (Trockenkorn)			
QN		very early	très précoce	sehr früh		Castor	1
		early	précoce	früh		Cabri, Casoar, Sombrero	3
		medium	moyenne	mittel		Flamenco, Sirtaki	5
		late	tardive	spät		Lambada, Salsa, Twist	7
		very late	très tardive	sehr spät			9

8. 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) <u>Foliage</u>: all observations on the foliage should be made at the time of flowering.
- (b) <u>Pod</u>: all observations on the pod should be made at the green stage of seeds fully developed in size.
- (c) Pod: The observation: predominant number of seeds per pod should be made at harvest maturity stage

Explanations for individual characteristics

Ad. 13: Pod: predominant number of seeds per pod (at harvest maturity)
Level 1: 90 % < percentage of pods with <u>only</u> one seed
Level 2: 10 % < percentage of pods with <u>at least</u> 2 seeds < 50%
Level 3: 50 % < percentage of pods have <u>at least</u> 2 seeds

Ad. 16: Seed: weight

The seed weight should be measured on two samples of 100 seeds.

Ad. 17: Seed: shape







1 round

2 round to angular

3 angular

9. <u>Literature</u>

ICRISAT, ICARDA and IBPGR, 1985: "Chick-pea descriptors," IBPGR Secretariat, Rome, IT, 15 pp.

Maesen, L.J.G. van der, 1972: "Cicer L., a monograph of the genus with special reference to the chick-pea (C. arietinum L.), its ecology and cultivation," Meded. Landbouwhogeschool, Wageningen, NL, <u>72</u>, pp. 1-136

Saxena, M.C. and Singh, K.B., 1987: "The Chick-pea," C.A.B. International (ICARDA), SY, 409 pp.

Smartt, J., 1990: "Grain Legumes" (especially Chapter 6: "Pulses of the classical world, pp. 176-244), Cambridge University Press, Cambridge, GB

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 16 -

9. <u>Technical Questionnaire</u>

TEC	HNICAL QUESTIONNAII	RE	Page {x} of {y}	Reference Number:
				Application date: (not to be filled in by the applicant)
			INICAL QUESTIONN tion with an applicatio	VAIRE n for plant breeders' rights
and v this	where the parent lines are to	be sould	submitted as a part of t be completed for eac	application for plant breeders' rights, the examination of the hybrid variety, th of the parent lines, in addition to
1.	Subject of the Technical Q	uest	ionnaire	
	1.1 Botanical name	Cie	cer arietinum L.	
	1.2 Common Name	Ch	ick-Pea	
2.	Applicant			
	Name			
	Address			
	Telephone No.			
	Fax No.			
	E-mail address			
	Breeder (if different from a	appli	cant)	
3.	Proposed denomination an	d bro	eeder's reference	
	Proposed denomination			
	(if available) Breeder's reference			

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 17 -

TECHNICAL QUESTIONNAIRE	Page $\{x\}$ of $\{y\}$	Reference Number:				
[#] 4. Information on the breeding set	theme and propagation of	of the variety				
4.1 Breeding scheme ASW 15						
(i) Variety resulting from:						
(i) Valiety resulting from.						
4.1.1 Crossing						
(a) controlled		[]				
-	e parent varieties)	F 1				
(b) partially ki	own cross e known parent variety(ies))				
(c) unknown c	± • •	[]				
		L J				
4.1.2 Mutation		[]				
(please state pare	nt variety)					
	1 /	r 1				
4.1.3 Discovery and de	re and when discovered	and how developed)				
(please state whe		and now developed)				
4.1.4 Other		[]				
(please provide c	etails)					
(ii)		Variety resulting from:				
4.1.1 Crossing						
(a) controlled	cross	[]				
(please stat	e parent varieties)					
(b) partially k		[]				
	e known parent variety(ies))				
(c) unknown c	ross					
4.1.2 Discovery and de	4.1.2 Discovery and development []					
-	▲	and how developed)				
George and a second sec	(please state where and when discovered and how developed)					
4.1.3 Other		[]				
(please provide c	(please provide details)					
••••••						
4.2 Method of propagating the	e variety (pro domo: se	ee GN 31 and GN 32)				

[#]Authorities may allow certain of this information to be provided in a confidential section of the Technical Questionnaire.

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 18 -

TECI	HNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:						
5. corre	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 (1)	Plant: height (when pods at full d	evelopment)							
	very short			1[]					
	short		Castor, Sombrero	3[]					
	medium		Cabri, Cascari, Sirtaki, <mark>Twist</mark>	5[]					
	tall		<mark>Elvar</mark> , Lambada, Salsa	7[]					
	very tall			9[]					
5.2 (8)	Flower: color								
	white		Sirtaki, <mark>Twist</mark>	1[]					
	purplish pink		Castor, Sombrero	2[]					
<mark>5.3</mark> (13)	Pod: predominant number of seed	ls per pod							
	one		Twist	1[]					
	one / two		Elvar, Flamenco	<mark>2[]</mark>					
	two or more		Cascari, Sombrero	<mark>3[]</mark>					
5.4 (14)	Seed: color (1 month after harvest)							
	yellow			1[]					
	beige		Cabri, Sirtaki	2[]					
	ochre			3[]					
	brown		Castor	4[]					
	reddish brown			5[]					
	black		Sombrero	6[]					

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 19 -

TECH	HNICAL QUESTIONNAIRE Page {x} of {y} Refer	ence Number:	
	Characteristics	Example Varieties	Note
5.5 (16)	Seed: weight		
	very low		1[]
	low		3[]
	medium	Cabri, Cascari	5[]
	high	Jazz	7[]
	very high	Lambada, Salsa	9[]
5.6 (17)	Seed: shape		
	round	Cascari, <mark>Elvar</mark>	1[]
	round to angular	Flamenco, Sirtaki	2[]
	angular	Castor, Sombrero	3[]
5.7 (19)	Time of flowering (80% of plants with at least one flower)		
	very early	Salsa	1[]
	early	Cabri, Sirtaki	3[]
	medium	Cascari, Sombrero	5[]
	late	Casoar	7[]
	very late	Castor	9[]
5.8 (20)	Time of maturity of pod (when seed is dry)		
	very early	Castor	1[]
	early	Cabri, Casoar, Sombrero	3[]
	medium	Flamenco, Sirtaki	5[]
	late	Lambada, Salsa, Twist	7[]
	very late		9[]

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 20 -

TECHNICAL QUESTIONNAIRE	Page $\{x\}$ of $\{y\}$	Reference Number:

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	Characteristic(s) in	Describe the expression	Describe the
variety(ies) similar to	which your candidate	of the characteristic(s)	expression of the
your candidate variety	variety differs from the	for the similar	characteristic(s) for
	similar variety(ies)	variety(ies)	your candidate variety

Example

Comments:

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 21 -

TEC	INICAL QUESTIONNAIRE Page {x} of {y} Reference Number:				
[#] 7.	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 examina	tion?			
	Yes [] No []				
	(If yes, please provide details)				
7.3	Other information ASW 16				
A representative color photograph 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.				

TG/143/4(proj.1) Chick-Pea, 2003-05-18 - 22 -

TECHNICAL QUESTIONNAIRE Page {x} of	f {y} Reference Number:
-------------------------------------	-------------------------

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 []	
	Pleas	se provide details of where you have indicated "yes".				
	ASV	V 17				
9.3 patho	9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?					
	Yes	[]				
	(please provide details as specified by the Authority)					
	No	[]				
10. is co	10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:					n
	Appl	icant's name				
	Signa	ature	Date			

[End of document]