



TG/105/5

ORIGINAL: English

DATE: 2024-08-09

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

CHINESE CABBAGE

UPOV Code(s): BRASS_RAP_PEK;
BRASS_RAP_PCH; BRASS_RAP_PRA;
BRASS_TUR

Brassica rapa

L. subsp. *pekinensis* (Lour.) Hanelt;
hybrids between *Brassica rapa* L. subsp.
pekinensis (Lour.) Hanelt and *Brassica*
rapa L. subsp. *chinensis* (L.) Hanelt;
hybrids between *Brassica rapa* L. subsp.
pekinensis (Lour.) Hanelt and *Brassica*
rapa L. var. *rapa*; *Brassica xturicensis* O.
E. Schulz & Thell.

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

* 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.]

Alternative names:*

Botanical name	English	French	German	Spanish
<i>Brassica rapa</i> L. subsp. <i>pekinensis</i> (Lour.) Hanelt, <i>Brassica campestris</i> L. subsp. <i>pekinensis</i> (Lour.) G. Olsson, <i>Brassica pekinensis</i> (Lour.) Rupr., <i>Brassica</i> <i>pe-tsai</i> L. H. Bailey, <i>Brassica rapa</i> L. subvar. <i>pe-tsai</i> (L. H. Bailey) Kitam., <i>Brassica rapa</i> L. var. <i>glabra</i> Regel, <i>Sinapis</i> <i>pekinensis</i> Lour.	Chinese Cabbage	Chou chinois	Chinakohl	Repollo chino
hybrids between <i>Brassica rapa</i> L. subsp. <i>pekinensis</i> (Lour.) Hanelt and <i>Brassica rapa</i> L. subsp. <i>chinensis</i> (L.) Hanelt				
hybrids between <i>Brassica rapa</i> L. subsp. <i>pekinensis</i> (Lour.) Hanelt and <i>Brassica rapa</i> L. var. <i>rapa</i>				
<i>Brassica xturicensis</i> O. E. Schulz & Thell.				

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

ASSOCIATED DOCUMENTS

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

* 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.]

TABLE OF CONTENTS	PAGE
1. SUBJECT OF THESE TEST GUIDELINES.....	4
2. MATERIAL REQUIRED.....	4
3. METHOD 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.....	4
3.5 Additional Tests.....	4
4. ASSESSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY.....	5
4.1 Distinctness.....	5
4.2 Uniformity.....	6
4.3 Stability.....	6
5. GROUPING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL.....	6
6. INTRODUCTION 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.....	7
6.5 Legend.....	8
7. TABLE OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CARACTERES.....	9
8. EXPLANATIONS ON THE TABLE OF CHARACTERISTICS.....	19
8.1 Explanations covering several characteristics.....	19
8.2 Explanations for individual characteristics.....	19
9. LITERATURE.....	29
10. TECHNICAL QUESTIONNAIRE.....	30

1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Brassica rapa* L. subsp. *pekinensis* (Lour.) Hanelt, hybrids between *Brassica rapa* L. subsp. *pekinensis* (Lour.) Hanelt and *Brassica rapa* L. subsp. *chinensis* (L.) Hanelt, hybrids between *Brassica rapa* L. subsp. *pekinensis* (Lour.) Hanelt and *Brassica rapa* L. var. *rapa* and *Brassica xturicensis* O. E. Schulz & Thell.

2. Material Required

2.1 The competent authorities decide on the quantity and quality of the plant material required for testing the variety and when and where it is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must ensure that all customs formalities and phytosanitary requirements are complied with.

2.2 The material is to be supplied in the form of seed.

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

10 g or 2,000 seeds

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.

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. Method of Examination

3.1 *Number of Growing Cycles*

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

3.1.2 The two independent growing cycles should be in the form of two separate plantings.

3.1.3 The testing of a variety may be concluded when the competent authority can determine with certainty the outcome of the test.

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*

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.

3.4 *Test Design*

3.4.1 Each test should be designed to result in a total of at least 60 plants, which should be divided between at least 2 replicates.

3.4.2 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 *Additional Tests*

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

4. Assessment of Distinctness, Uniformity and Stability

4.1 *Distinctness*

4.1.1 General Recommendations

It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding distinctness. However, the following points are provided for elaboration or emphasis in these Test Guidelines.

4.1.2 Consistent Differences

The differences observed between varieties may be so clear that more than one growing cycle is not necessary. In addition, in some circumstances, the influence of the environment is not such that more than a single growing cycle is required to provide assurance that the differences observed between varieties are sufficiently consistent. One means of ensuring that a difference in a characteristic, observed in a growing trial, is sufficiently consistent is to examine the characteristic in at least two independent growing cycles.

4.1.3 Clear Differences

Determining whether a difference between two varieties is clear depends on many factors, and should consider, in particular, the type of expression of the characteristic being examined, i.e. whether it is expressed in a qualitative, quantitative, or pseudo-qualitative manner. Therefore, it is important that users of these Test Guidelines are familiar with the recommendations contained in the General Introduction prior to making decisions regarding distinctness.

4.1.4 Number of Plants or Parts of Plants to be Examined

Unless otherwise indicated, for the purposes of distinctness, all observations on single plants should be made on 20 plants or parts of plants taken from each of 20 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the Table of Characteristics (see document TGP/9 “Examining Distinctness”, Section 4 “Observation of characteristics”):

MG: single measurement of a group of plants or parts of plants

MS: measurement of a number of individual plants or parts of plants

VG: visual assessment by a single observation of a group of plants or parts of plants

VS: visual assessment by observation of individual plants or parts of plants

Type of observation: visual (V) or measurement (M)

“Visual” observation (V) is an observation made on the basis of the expert’s judgment. For the purposes of this document, “visual” observation refers to the sensory observations of the experts and, therefore, also includes smell, taste and touch. Visual observation includes observations where the expert uses reference points (e.g. diagrams, example varieties, side-by-side comparison) or non-linear charts (e.g. color charts). Measurement (M) is an objective observation against a calibrated, linear scale e.g. using a ruler, weighing scales, colorimeter, dates, counts, etc.

Type of record: for a group of plants (G) or for single, individual plants (S)

For the purposes of distinctness, observations may be recorded as a single record for a group of plants or parts of plants (G), or may be recorded as records for a number of single, individual plants or parts of plants (S). In most cases, “G” provides a single record per variety and it is not possible or necessary to apply statistical methods in a plant-by-plant analysis for the assessment of distinctness.

In cases where more than one method of observing the characteristic is indicated in the Table of Characteristics (e.g. VG/MG), guidance on selecting an appropriate method is provided in document TGP/9, Section 4.2.

4.2 *Uniformity*

- 4.2.1 It is of particular importance for users of these Test Guidelines to consult the General Introduction prior to making decisions regarding uniformity. However, the following points are provided for elaboration or emphasis in these Test Guidelines:
- 4.2.2 These Test Guidelines have been developed for the examination of seed-propagated varieties including cross-pollinated and hybrid varieties. For varieties with other types of propagation, the recommendations in the General Introduction and document TGP/13 "Guidance for new types and species" Section 4.5 "Testing Uniformity" should be followed.
- 4.2.3 The assessment of uniformity should be according to the recommendations for cross-pollinated varieties in the General Introduction.
- 4.2.4 For the assessment of uniformity of single cross hybrid varieties, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 60 plants, 2 off-types are allowed.

4.3 *Stability*

- 4.3.1 In practice, it is not usual to perform tests of stability that produce results as certain as those of the testing of distinctness and uniformity. However, experience has demonstrated that, for many types of variety, when a variety has been shown to be uniform, it can also be considered to be stable.
- 4.3.2 Where appropriate, or in cases of doubt, stability may be further examined by testing a new seed stock to ensure that it exhibits the same characteristics as those shown by the initial material supplied.

5. Grouping of Varieties and Organization of the Growing Trial

- 5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.
- 5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.
- 5.3 The following have been agreed as useful grouping characteristics:
- (a) Plant: height (characteristic 2)
 - (b) Head: shape in longitudinal section (characteristic 24)
 - (c) Head: degree of overlapping of leaves (characteristic 25)
 - (d) Time of harvest maturity (characteristic 32)
- 5.4 Guidance for the use of grouping characteristics, in the process of examining distinctness, is provided through the General Introduction and document TGP/9 "Examining Distinctness".

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*

6.2.1 States of expression are given for each characteristic to define the characteristic and to harmonize descriptions. Each state of expression is allocated a corresponding numerical note for ease of recording of data and for the production and exchange of the description.

6.2.2 All relevant states of expression are presented in the characteristic.

6.2.3 Further explanation of the presentation of states of expression and notes is provided in document TGP/7 "Development of Test Guidelines".

6.3 *Types of Expression*

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

6.4 *Example Varieties*

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

6.5 Legend

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1	2	3	4	5	6	7	
		Name of characteristics in English	Nom du caractère en français	Name des Merkmals auf Deutsch	Nombre del carácter en español		
		states of expression	types d'expression	Ausprägungsstufen	tipos de expresión		

- 1 Characteristic number
- 2 (*) Asterisked characteristic – see Chapter 6.1.2
- 3 Type of expression
 QL Qualitative characteristic – see Chapter 6.3
 QN Quantitative characteristic – see Chapter 6.3
 PQ Pseudo-qualitative characteristic – see Chapter 6.3
- 4 Method of observation (and type of plot, if applicable)
 MG, MS, VG, VS – see Chapter 4.1.5
- 5 (+) See Explanations on the Table of Characteristics in Chapter 8.2
- 6 (a)-(b) See Explanations on the Table of Characteristics in Chapter 8.1
- 7 Not applicable

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

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1.	QN	VG	(+)	(a)				
	Plant: habit		Plante : port		Pflanze: Wuchsform	Planta: hábito		
	erect		dressé		aufrecht	erecto	Golden boy, Granaat	1
	semi-erect		demi-dressé		halbaufrecht	semierecto	Bilko, Daetong, Muso	2
	spreading		étalé		breitwüchsig	extendido	Lycofresh Gimjang	3
2. (*)	QN	MS/VG		(a)				
	Plant: height		Plante : hauteur		Pflanze: Höhe	Planta: altura		
	very short		très basse		sehr niedrig	muy baja		1
	very short to short		très basse à basse		sehr niedrig bis niedrig	muy baja a baja		2
	short		basse		niedrig	baja	Natsuki, TheHan1ho	3
	short to medium		basse à moyenne		niedrig bis mittel	baja a media		4
	medium		moyenne		mittel	media	Bilko, Daetong, Muso	5
	medium to tall		moyenne à haute		mittel bis hoch	media a alta		6
	tall		haute		hoch	alta	Monument, Shousai, Wonkyo20036ho	7
	tall to very tall		haute à très haute		hoch bis sehr hoch	alta a muy alta		8
	very tall		très haute		sehr hoch	muy alta		9
3.	QN	MS/VG		(a)				
	Outer leaf: length		Feuille externe : longueur		Umblatt: Länge	Hoja externa: longitud		
	very short		très courte		sehr kurz	muy corta		1
	very short to short		très courte à courte		sehr kurz bis kurz	muy corta a corta		2
	short		courte		kurz	corta	Golden boy, Summer Salad, TheHan1ho	3
	short to medium		courte à moyenne		kurz bis mittel	corta a media		4
	medium		moyenne		mittel	media	Daetong, Muso	5
	medium to long		moyenne à longue		mittel bis lang	media a larga		6
	long		longue		lang	larga	Shousai, Wonkyo20036ho	7
	long to very long		longue à très longue		lang bis sehr lang	larga a muy larga		8
	very long		très longue		sehr lang	muy larga		9

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
4.	QN	MS/VG	(+)	(a)				
	Outer leaf: width	Feuille externe: largeur	Umblatt: Breite	Hoja externa: anchura				
	very narrow	très étroite	sehr schmal	muy estrecha				1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha				2
	narrow	étroite	schmal	estrecha	Jinhongssam, Summer Salad			3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media				4
	medium	moyenne	mittel	media	Daetong, Muso			5
	medium to broad	moyenne à large	mittel bis breit	media a ancha				6
	broad	large	breit	ancha	Bando, Lycofresh Gimjang			7
	broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha				8
	very broad	très large	sehr breit	muy ancha				9
5. (*)	PQ	VG	(+)	(a)				
	Outer leaf: shape	Feuille externe : forme	Umblatt: Form	Hoja externa: forma				
	circular	circulaire	kreisförmig	circular	Bingsu, Kenshin			1
	broad obovate	obovale large	breit verkehrt eiförmig	oboval ancha	Daetong, Kaho			2
	medium obovate	obovale moyenne	mittel verkehrt eiförmig	oboval media	Muso, Suho			3
	very narrow obovate	obovale très étroite	sehr schmal verkehrt eiförmig	oboval muy estrecha	Lycofresh Gimjang			4
	elongated obovate	obovale allongée	länglich verkehrt eiförmig	oboval alargada	Shousai, Wonkyo20036ho			5
6.	PQ	VG	(+)	(a)				
	Outer leaf: shape of apex	Feuille externe : forme de l'apex	Umblatt: Form des Apex	Hoja externa: forma del ápice				
	obtuse	obtuse	stumpf	obtusa	Shousai			1
	rounded	arrondie	abgerundet	redondeada	Daetong, Muso			2
	truncate	tronquée	gerade	truncada	Lycofresh Gimjang, Ousho			3

	English		français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
7. (*)	QN	VG	(a)				
	Outer leaf: number of blisters on upper side	Feuille externe : nombre de cloûres sur la face supérieure	Umblatt: Anzahl Blasen auf der Oberseite	Hoja externa: número de vesículas en el haz			
	very few	très faible	sehr gering	muy bajo			1
	very few to few	très faible à faible	sehr gering	muy bajo a bajo			2
	few	faible	sehr gering bis gering	bajo	Granaat, Kinap, Sprinter		3
	few to medium	faible à moyen	gering	bajo a medio			4
	medium	moyen	gering bis mittel	media	Daetong, Muso, Parkin		5
	medium to many	moyen à élevé	mittel	medio a alto			6
	many	élevé	mittel bis hoch	alto	Enduro, Jindaebak, Ming		7
	many to very many	élevé à très élevé	hoch	alto a muy alto			8
	very many	très élevé	hoch bis sehr hoch	muy alto			9
8.	QN	VG	(+)	(a)			
	Outer leaf: size of blisters on upper side	Feuille externe : taille des cloûres sur la face supérieure	Umblatt: Größe der Blasen auf der Oberseite	Hoja externa: tamaño de las vesículas en el haz			
	very small	très petite	sehr klein	muy pequeño			1
	very small to small	très petite à petite	sehr klein bis klein	muy pequeño a pequeño			2
	small	petite	klein	pequeño	Granaat		3
	small to medium	petite à moyenne	klein bis mittel	pequeño a medio			4
	medium	moyenne	mittel	medio	Daetong, Parkin		5
	medium to large	moyenne à grande	mittel bis groß	medio a grande			6
	large	grande	groß	grande	Bingsu, Enduro		7
	large to very large	grande à très grande	groß bis sehr groß	grande a muy grande			8
	very large	très grande	sehr groß	muy grande			9
9. (*)	QL	VG	(a)				
	Outer leaf: main color	Feuille externe : couleur principale	Umblatt: Hauptfarbe	Hoja externa: color principal			
	green	vert	grün	verde	Daetong, EX King santosai, Hayamidori, Kaho, Muso, Parkin, Sprinkin		1
	purple	pourpre	purpurn	púrpura	Jinhongssam, Kwonnongppalgang, Red Dragon		2

	English		français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
10.	QN	VG	(a)				
	Outer leaf: Intensity of color	Feuille externe : intensité de la couleur	Umblatt: Intensität der Farbe	Hoja externa: intensidad del color			
	very light	très claire	sehr hell	muy clara	EX King santosai	1	
	very light to light	très claire à claire	sehr hell bis hell	muy clara a clara		2	
	light	claire	hell	clara	Kaho, Red Dragon	3	
	light to medium	claire à moyenne	hell bis mittel	clara a media		4	
	medium	moyenne	mittel	media	Daetong, Kwonnongppalgang, Muso, Sprinkin	5	
	medium to dark	moyenne à foncée	mittel bis dunkel	media a oscura		6	
	dark	foncée	dunkel	oscura	Hayamidori, Jinhongssam, Parkin, TheHan1ho	7	
	dark to very dark	foncée à très foncée	dunkel bis sehr dunkel	oscura a muy oscura		8	
	very dark	très foncée	sehr dunkel	muy oscura		9	
11.	QN	VG	(a)				
	Outer leaf: glossiness	Feuille externe : brillance	Umblatt: Glanz	Hoja externa: brillo			
	very weak	très faible	sehr gering	muy débil		1	
	very weak to weak	très faible à faible	sehr gering bis gering	muy débil a débil		2	
	weak	faible	gering	débil	Hanko, Kaho, Kinap	3	
	weak to medium	faible à moyenne	gering bis mittel	débil a media		4	
	medium	moyenne	mittel	media	Daetong, Muso	5	
	medium to strong	moyenne à forte	mittel bis stark	media a fuerte		6	
	strong	forte	stark	fuerte	Shunjyu	7	
	strong to very strong	forte à très forte	stark bis sehr stark	fuerte a muy fuerte		8	
	very strong	très forte	sehr stark	muy fuerte		9	
12.	QN	VG	(+)	(a)			
	Outer leaf: hairiness	Feuille externe : pilosité	Umblatt: Behaarung	Hoja externa: pilosidad			
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Bingsu, Summer Salad	1	
	weak	faible	gering	débil	Cream, Kinap	2	
	medium	moyenne	mittel	media	Daetong, Shunjyu, Tardisto	3	
	strong	forte	stark	fuerte	Jinhongssam, Muso	4	
	very strong	très forte	sehr stark	muy fuerte		5	

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
13.	QN	VG	(+)	(a)				
	Outer leaf: profile in longitudinal section		Feuille externe : profil en section longitudinale		Umblatt: Profil im Längsschnitt	Hoja externa: perfil en sección longitudinal		
	concave		concave		konkav	cóncavo	Bilko, Parkin	1
	straight		droit		gerade	recto	Daetong, Monument	2
	convex		convexe		konvex	convexo	Hanko	3
14.	QN	VG	(+)	(a)				
	Outer Leaf: undulation of margin		Feuille externe : ondulation du bord		Umblatt: Randwellung	Hoja externa: ondulación del margen		
	absent or very weak		absente ou très faible		fehlend oder sehr gering	ausente o muy débil		1
	weak		faible		gering	débil	Jinhongssam, Kaho, Red Dragon	2
	medium		moyenne		mittel	media	Hanko, Suho	3
	strong		forte		stark	fuerte	Monument	4
	very strong		très forte		sehr stark	muy fuerte	Shin-aduma, Wonkyo20036ho	5
15.	QN	VG	(+)	(a)				
	Outer leaf: incisions of margin on distal part		Feuille externe : incisions du bord sur la partie distale		Umblatt: Randeinschnitte am distalen Teil	Hoja externa: incisiones del margen en la parte distal		
	absent or weak		absentes ou faibles		fehlend oder gering	ausentes o débiles	Hanko, Jinhongssam, Kenshin	1
	medium		moyennes		mittel	medias	Kasumi, Lycofresh Gimjang	2
	strong		fortes		stark	fuertes	Wonkyo20036ho	3
16.	QN	VG	(+)	(a)				
	Outer leaf: incisions of margin on basal part		Feuille externe : incisions du bord sur la partie basale		Umblatt: Randeinschnitte am basalen Teil	Hoja externa: incisiones del margen en la parte basal		
	absent or weak		absentes ou faibles		fehlend oder gering	ausentes o débiles	Hanko, Jinhongssam, Kinap	1
	weak to medium		faibles à moyennes		gering bis mittel	débiles a medias		2
	medium		moyennes		mittel	medias	Daetong, Enduro	3
	medium to strong		moyennes à fortes		mittel bis stark	medias a fuertes		4
	strong		fortes		stark	fuertes	Sinrok Utgari, Wonkyo20036ho	5

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
17.	QN	MS/VG	(+)	(a)				
	Outer leaf: length of midrib	Feuille externe : longueur de la nervure médiane	Umblatt: Länge der Mittelrippe	Hoja externa: longitud del nervio central				
	very short	très courte	sehr kurz	muy corta				1
	very short to short	très courte à courte	sehr kurz bis kurz	muy corta a corta				2
	short	courte	kurz	corta	Hamamidori			3
	short to medium	courte à moyenne	kurz bis mittel	corta a media				4
	medium	moyenne	mittel	media	Daetong, Muso			5
	medium to long	moyenne à longue	mittel bis lang	media a larga				6
	long	longue	lang	larga	RCC65, Shousai, Wonkyo20036ho			7
	long to very long	longue à très longue	lang bis sehr lang	larga a muy larga				8
	very long	très longue	sehr lang	muy larga				9
18.	QN	MS/VG	(+)	(a)				
	Outer leaf: width of midrib	Feuille externe : largeur de la nervure médiane	Umblatt: Breite der Mittelrippe	Hoja externa: anchura del nervio central				
	very narrow	très étroite	sehr schmal	muy estrecha				1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha				2
	narrow	étroite	schmal	estrecha	Shousai, Wonkyo20036ho			3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media				4
	medium	moyenne	mittel	media	Enduro, Jinhongssam, Red Dragon			5
	medium to broad	moyenne à large	mittel bis breit	media a ancha				6
	broad	large	breit	ancha	Gorki, Harumaki 1 go, Jindaebak			7
	broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha				8
	very broad	très large	sehr breit	muy ancha				9
19.	QN	VG	(+)	(a)				
	Outer leaf: profile of midrib in cross section	Feuille externe : profil de la nervure médiane en section transversale	Umblatt: Profil der Mittelrippe im Querschnitt	Hoja externa: perfil del nervio central en sección transversal				
	flat	plat	flach	plano	Hanko, Kinap, Suho			1
	flat to concave	plat à concave	flach bis konkav	plano a cóncavo	Lycofresh Gimjang			2
	concave	concave	konkav	cóncavo	Bilko, Jinhongssam, Parkin			3

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
20.	QN	MS/VG	(+)	(a)				
	Outer leaf: thickness of midrib	Feuille externe : épaisseur de la nervure médiane	Umblatt: Dicke der Mittelrippe	Hoja externa: grosor del nervio central				
	thin	mince	dünn	delgado	RCC65		1	
	thin to medium	mince à moyenne	dünn bis mittel	delgado a medio			2	
	medium	moyenne	mittel	medio	Daetong		3	
	medium to thick	moyenne à épaisse	mittel bis dick	medio a grueso			4	
	thick	épaisse	dick	grueso	Jinhongssam		5	
21.	PQ	VG	(+)	(a)				
	Outer leaf: color of midrib	Feuille externe : couleur de la nervure médiane	Umblatt: Farbe der Mittelrippe	Hoja externa: color del nervio central				
	white	blanc	weiß	blanco	Daetong, Lycofresh Gimjang, Muso		1	
	green	vert	grün	verde	Jincai3, Jinlv60		2	
	purple	pourpre	purpurn	púrpura	RCC65, Red Dragon		3	
22.	QN	MS/VG		(b)				
	Head: height	Pomme : hauteur	Kopf: Höhe	Cogollo: altura				
	very short	très basse	sehr niedrig	muy baja			1	
	very short to short	très basse à basse	sehr niedrig bis niedrig	muy baja a baja			2	
	short	basse	niedrig	baja	Golden boy		3	
	short to medium	basse à moyenne	niedrig bis mittel	baja a media			4	
	medium	moyenne	mittel	media	Muso, Parkin, Sprinkin, Suho		5	
	medium to tall	moyenne à haute	mittel bis hoch	media a alta			6	
	tall	haute	hoch	alta	Jinhongssam, Monument, Shousai		7	
	tall to very tall	haute à très haute	hoch bis sehr hoch	alta a muy alta			8	
	very tall	très haute	sehr hoch	muy alta			9	

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
23.	QN	MS/VG	(+)	(b)				
	Head: width	Pomme : largeur	Kopf: Breite	Cogollo: anchura				
	very narrow	très étroite	sehr schmal	muy estrecha				1
	very narrow to narrow	très étroite à étroite	sehr schmal bis schmal	muy estrecha a estrecha				2
	narrow	étroite	schmal	estrecha	Granaat, Jinhongssam			3
	narrow to medium	étroite à moyenne	schmal bis mittel	estrecha a media				4
	medium	moyenne	mittel	media	Muso, TheHan1ho			5
	medium to broad	moyenne à large	mittel bis breit	media a ancha				6
	broad	large	breit	ancha	Jindaebak			7
	broad to very broad	large à très large	breit bis sehr breit	ancha muy ancha				8
	very broad	très large	sehr breit	muy ancha				9
24. (*)	PQ	VG	(+)	(b)				
	Head: shape in longitudinal section	Pomme : forme en section longitudinale	Kopf: Form im Längsschnitt	Cogollo: forma en sección longitudinal				
	ovate	ovale	eiförmig	oval	Daetong, Shinjyu			1
	circular	circulaire	kreisförmig	circular	Kenshin			2
	elliptic	elliptique	elliptisch	elíptica	Hayamidori, TheHan1ho			3
	broad oblong	oblongue large	breit rechteckig	oblonga ancha	Chushu, Golden boy, Hanko			4
	narrow oblong	oblongue étroit	schmal rechteckig	oblonga estrecha	Granaat, Jinhongssam, Shousai			5
	obovate	obovale	verkehrt eiförmig	oboval	Gorki, Hamamidori			6
25. (*)	QN	VG	(+)	(b)				
	Head: degree of overlapping of leaves	Pomme : degré de chevauchement des feuilles	Kopf: Grad der Überlappung der Blätter	Cogollo: grado de solapado de las hojas				
	absent or weak	absent ou faible	fehlend oder gering	ausente o débil	Jinhongssam			1
	weak to medium	faible à moyen	gering bis mittel	débil a medio				2
	medium	moyen	mittel	medio	Daetong, Spectrum			3
	medium to strong	moyen à fort	mittel bis stark	medio a fuerte				4
	strong	fort	stark	fuerte	Golden boy, Kinap, Muso			5

	English		français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
26.	PQ	VG	(b)				
	Head: color of upper part	Pomme : couleur de la partie supérieure	Kopf: Farbe des oberen Teils	Cogollo: color de la parte superior			
	white	blanc	weiß	blanco	Xinxiashuai	1	
	yellow green	vert jaune	gelbgrün	verde amarillento	Bingsu, Kasumi	2	
	medium green	vert moyen	mittelgrün	verde medio	Daetong, Lycofresh Gimjang, Muso	3	
	dark green	vert foncé	dunkelgrün	verde oscuro	Jinqing60	4	
	purple	pourpre	purpurn	púrpura	Jinhongssam, Red Dragon	5	
27.	QN	VG	(+)	(b)			
	Head: blistering of wrapper leaf	Pomme : cloûre des feuilles de couverture	Kopf: Blasigkeit des Deckblatts	Cogollo: abullonado de la hoja envolvente			
	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil		1	
	weak	faible	gering	débil	Granaat	2	
	medium	moyenne	mittel	medio	Gorki, Jinhongssam	3	
	strong	forte	stark	fuerte	Daetong, Enduro	4	
	very strong	très forte	sehr stark	muy fuerte	TheHan1ho	5	
28. (*)	PQ	VG	(+)	(b)			
	Head: internal color	Pomme : couleur interne	Kopf: Innenfarbe	Cogollo: color de la parte interna			
	whitish	blanchâtre	weißlich	blanquecino	Bilko, Parkin	1	
	light yellow	jaune clair	hellgelb	amarillo claro	Golden boy	2	
	medium yellow	jaune moyen	mittelgelb	amarillo medio	Daetong, Enduro, Hanko	3	
	dark yellow	jaune foncé	dunkelgelb	amarillo oscuro	TheHan1ho	4	
	orange	orange	orange	naranja	Orange Queen	5	
	purple	pourpre	purpurn	púrpura	Jinhongssam, Red Dragon	6	
29.	QN	VG	(b)				
	Head: firmness	Pomme : fermeté	Kopf: Festigkeit	Cogollo: firmeza			
	very loose	très lâche	sehr locker	muy blanda	Jinhongssam	1	
	very loose to loose	très lâche à lâche	sehr locker bis locker	muy blanda a blanda		2	
	loose	lâche	lose	blanda	Granaat, RCC65	3	
	loose to medium	lâche à moyenne	locker bis mittel	blanda a media		4	
	medium	moyenne	mittel	media	Gorki, Lycofresh Gimjang	5	
	medium to firm	moyenne à ferme	mittel bis fest	media a firme		6	
	firm	ferme	fest	firme	Bazuko, Suho	7	
	firm to very firm	ferme à très ferme	fest bis sehr fest	firme a muy firme		8	
	very firm	très ferme	sehr fest	muy firme	Shunjyu	9	

	English		français		deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
30.	PQ	VG	(+)	(b)				
	Head: shape of apex of internal stem		Pomme : forme de l'apex de la tige interne		Kopf: Form des Apex des inneren Strunks	Cogollo: forma del ápice del tallo interno		
	pointed		pointue		zugespitzt	puntiaguda	Kaho, Wonkyo20036ho	1
	rounded		arrondie		abgerundet	redondeada	Bilko, Muso, Parkin	2
	truncate		tronquée		gerade	truncada	Jindaebak, Syunju	3
31.	QL	VG	(+)	(b)				
	Head: coloration in vascular bundle of internal stem		Pomme : couleur dans le faisceau vasculaire de la tige interne		Kopf: Färbung im Gefäßbündel des inneren Strunks	Cogollo: coloración en el haz vascular del tallo interno		
	absent		absente		fehlend	ausente	Daetong	1
	present		présente		vorhanden	presente	Betafresh	9
32. (*)	QN	MG/VG		(b)				
	Time of harvest maturity		Époque de maturité de récolte		Zeitpunkt der Erntereife	Época de madurez para la cosecha		
	very early		très précoce		sehr früh	muy temprana	Kenshin	1
	very early to early		très précoce à précoce		sehr früh bis früh	muy temprana a temprana		2
	early		précoce		früh	temprana	Blues, RCC65, Sprinkin	3
	early to medium		précoce à moyenne		früh bis mittel	temprana a media		4
	medium		moyenne		mittel	media	Enduro, Muso, Suho	5
	medium to late		moyenne à tardive		mittel bis spät	media a tardía		6
	late		tardive		spät	tardía	Chusyu, Jindaebak, Parkin, Red Dragon	7
	late to very late		tardive à très tardive		spät bis sehr spät	tardía a muy tardía		8
	very late		très tardive		sehr spät	muy tardía		9
33.	QL	MS/VS	(+)					
	Male sterility		Stérilité mâle		Männliche Sterilität	Esterilidad masculina		
	absent		absente		fehlend	ausente	Kasumi, Suho	1
	present		présente		vorhanden	presente	Cheonggwang, Hanko, Red Dragon	9

8. Explanations on the Table of Characteristics

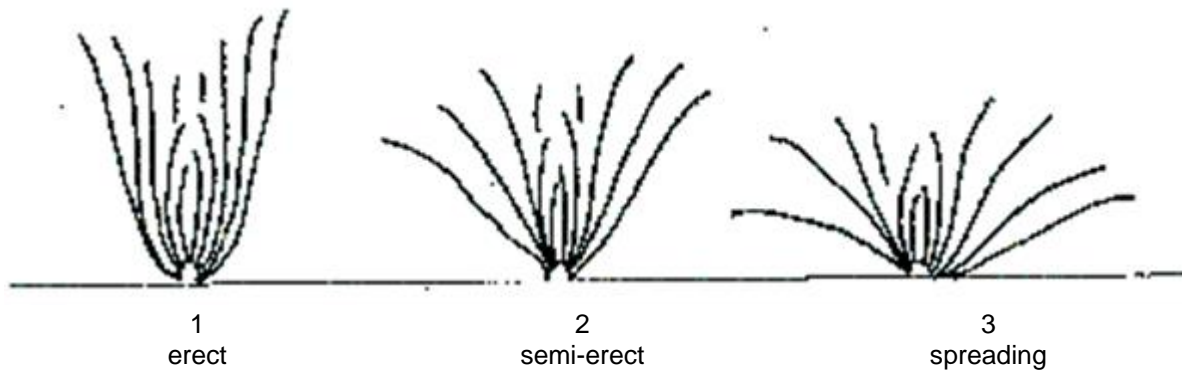
8.1 *Explanations covering several characteristics*

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

- (a) Observations should be made at the beginning of head formation, before harvest maturity.
- (b) Observations should be made at harvest maturity.

8.2 *Explanations for individual characteristics*



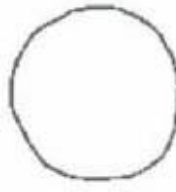


Ad. 1: Plant: habit



Ad. 4: Outer leaf: width

Observation should be made on the broadest part.

Ad. 5: Outer leaf: shape

width (ratio length/width)	← broadest part →	
	at middle	above middle
narrow (high)		 5 elongated obovate
medium (medium)		 4 very narrow obovate
broad (low)	 1 circular	 2 broad obovate
		 3 medium obovate

Ad. 6: Outer leaf: shape of apex



1
obtuse



2
rounded



3
truncate

Ad. 8: Outer leaf: size of blisters on upper side



3
small



5
medium



7
large

Ad. 12: Outer leaf: hairiness

Observations should be made on the lower side.

Ad. 13: Outer leaf: profile in longitudinal section

Observations should be made excluding the leaf base.

Ad. 14: Outer Leaf: undulation of margin



2
weak



3
medium



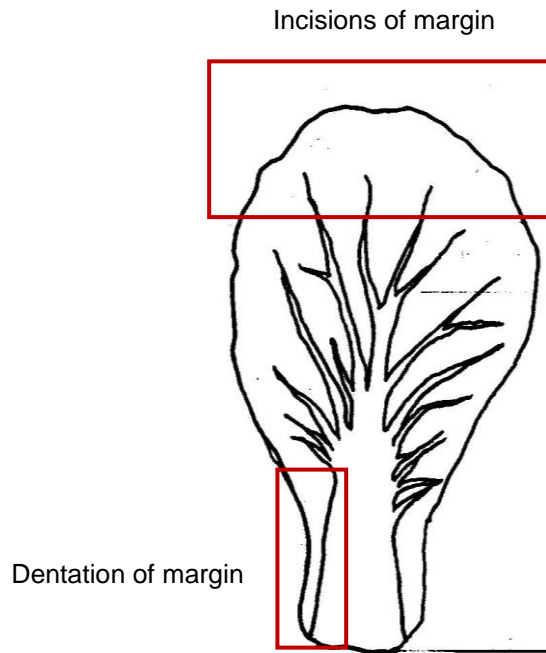
4
strong



5
very strong

Ad. 15: Outer leaf: incisions of margin on distal part

Observations should be made on the distal part of the leaf.



1
absent or weak



2
medium



3
strong

Ad. 16: Outer leaf: incisions of margin on basal part

See Ad. 15

Observations should be made on the basal part of the leaf.



1
absent or weak

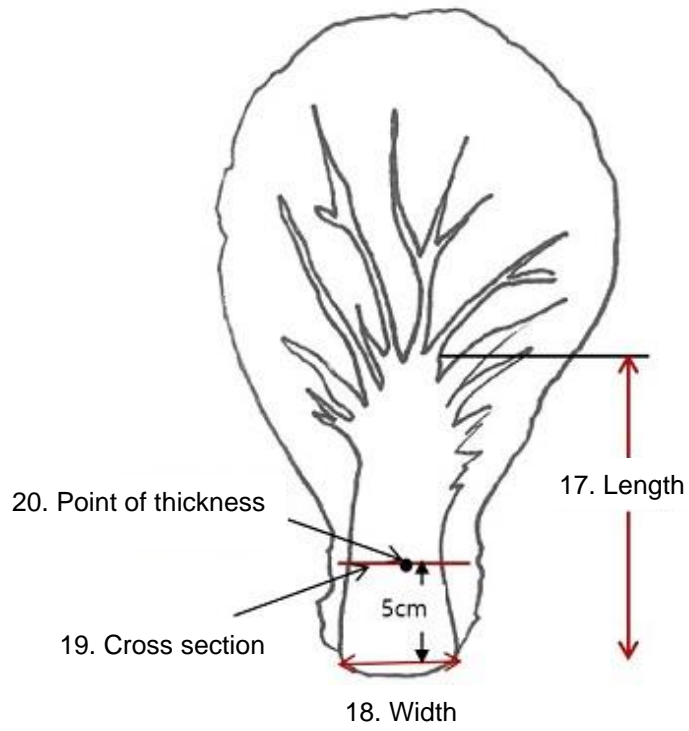


3
medium



5
strong

Ad. 17: Outer leaf: length of midrib



3
short



5
medium



7
long

Ad. 18: Outer leaf: width of midrib

See Ad. 17

Ad. 19: Outer leaf: profile of midrib in cross section

See Ad. 17

Observation should be made at 4~6cm from leaf base.



1
flat



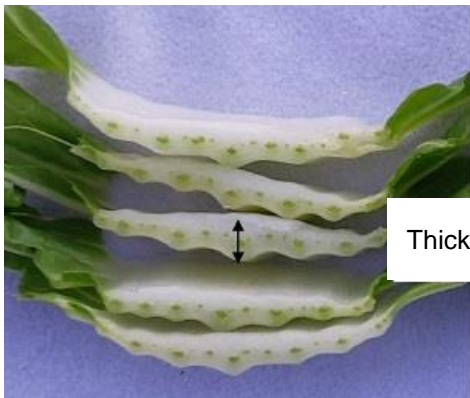
2
flat to concave



3
concave

Ad. 20: Outer leaf: thickness of midrib

Observations should be made at the midpoint of the midrib where the characteristic 19 is observed.



Thickness of midrib






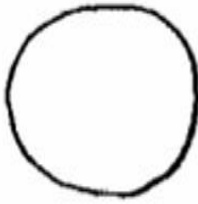
Ad. 21: Outer leaf: color of midrib

Observations should be made on the inner side of the leaf.

Ad. 23: Head: width

Observations should be made on the broadest part.

Ad. 24: Head: shape in longitudinal section

		← broadest part →		
		below middle	at middle	above middle
relative width	↑ narrow		 5 narrow oblong	
	↑		 4 broad oblong	
	↓	 1 ovate	 3 elliptic	 6 obovate
	↓ broad		 2 circular	

Ad. 25: Head: degree of overlapping of leaves



1
absent or weak

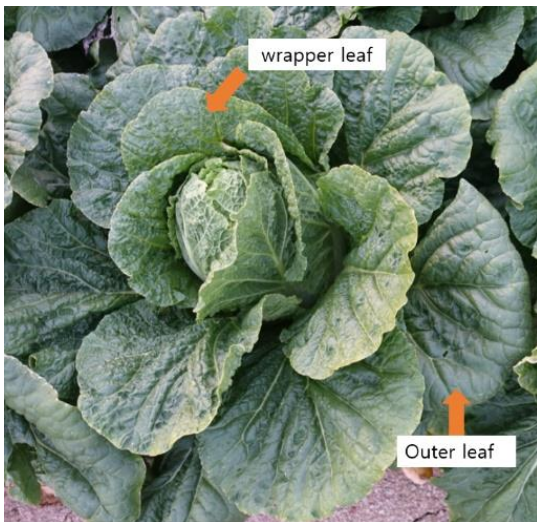


3
medium



5
strong

Ad. 27: Head: blistering of wrapper leaf



1
absent or very weak



2
weak



3
medium



4
strong



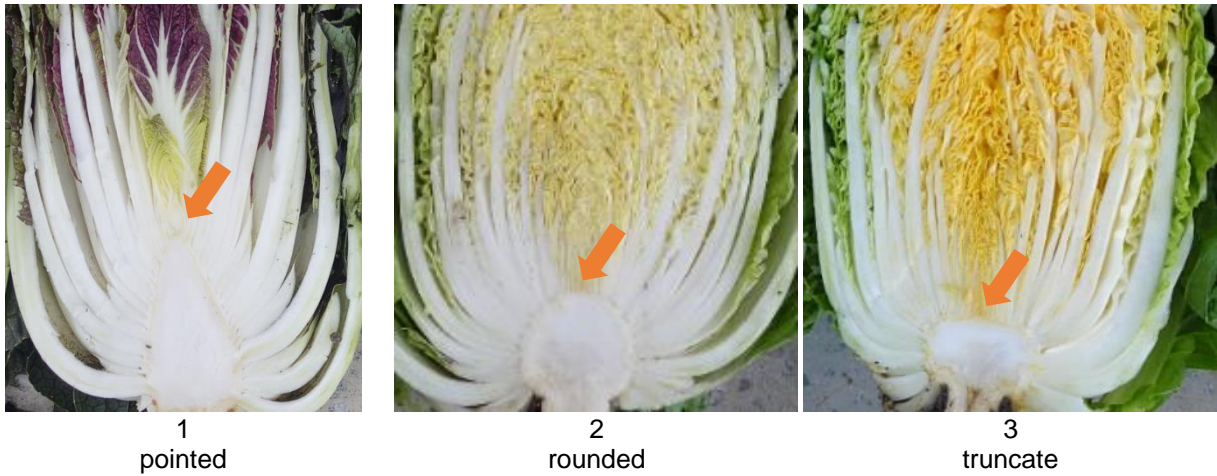
5
very strong

Ad. 28: Head: internal color

Observations should be made on upper part in longitudinal section.

Ad. 30: Head: shape of apex of internal stem

Observations should be made from heads that are cut in longitudinal section.



Ad. 31: Head: coloration in vascular bundle of internal stem

Observations should be made from heads that are cut in longitudinal section.



Ad. 33: Male sterility

To be tested in a field trial and/or in a DNA marker test¹.

In the case of a field trial, the type of observation is VS. In the case of a DNA marker test, the type of observation is MS.

Field trial:

Observations should be made on fully opened flowers. Tapping or shaking the flowering stem will release pollen, which, if present, can be observed on dark colored paper or card. The absence of pollen production is an indication of male sterility. The presence of pollen production is an indication of male fertility.



male fertile (pollen present)



male sterile (pollen absent)

DNA marker test:

If the cytoplasmic male sterility (CMS) marker is absent, the variety is expected to have male fertile flowers. If the CMS marker is present, the variety is expected to have male sterile flowers.

In cases where the DNA marker test result does not confirm the declaration in the TQ, a field trial should be performed to observe whether the variety has male fertile or male sterile flowers due to another mechanism.

¹ The description of the method to test male sterility for *Brassica* (CMS marker) is covered by a trade secret. The owner of the trade secret, Syngenta Seeds B.V., has given its consent for the use of the CMS marker solely for the purposes of examination of Distinctness, Uniformity and Stability (DUS) and for the development of variety descriptions by UPOV and authorities of UPOV members. Syngenta Seeds B.V. declares that neither UPOV, nor authorities of UPOV members that use the CMS marker for the above purposes will be held accountable for possible (mis)use of the CMS marker by third parties. Please contact Naktuinbouw, Netherlands, to obtain the method and information on the CMS marker for the purposes mentioned above.

9. Literature

Shogakukan, 1991: The Grand Dictionary of Horticulture. pp. 560-563

Tsunoda, S., Hinata, K., and Gommez-Campo, C., 1980: Brassica Crops and Wild Allies - Biology and Breeding. Japan Scientific Press, Tokyo, JP

10. Technical Questionnaire

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

	Application date: (not to be filled in by the applicant)
--	---

TECHNICAL QUESTIONNAIRE
 to be completed in connection with an application for plant breeders' rights

1.	Subject of the Technical Questionnaire		
1.1.1	Botanical name	<i>Brassica rapa</i> L. subsp. <i>pekinensis</i> (Lour.) Hanelt	[]
1.1.2	Common name	Chinese Cabbage	
1.2.1	Botanical name	hybrids between <i>Brassica rapa</i> L. subsp. <i>pekinensis</i> (Lour.) Hanelt and <i>Brassica rapa</i> L. subsp. <i>chinensis</i> (L.) Hanelt	[]
1.2.2	Common name		
1.3.1	Botanical name	hybrids between <i>Brassica rapa</i> L. subsp. <i>pekinensis</i> (Lour.) Hanelt and <i>Brassica rapa</i> L. var. <i>rapa</i>	[]
1.3.2	Common name		
1.4.1	Botanical name	<i>Brassica xturicensis</i> O. E. Schulz & Thell.	[]
1.4.2	Common name		

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

2.	Applicant	
	Name	<input type="text"/>
	Address	<input type="text"/>
	Telephone No.	<input type="text"/>
	Fax No.	<input type="text"/>
	E-mail address	<input type="text"/>
	Breeder (if different from applicant)	<input type="text"/>

3.	Proposed denomination and breeder's reference	
	Proposed denomination (if available)	<input type="text"/>
	Breeder's reference	<input type="text"/>

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

#4. Information on the breeding scheme and propagation of the variety

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross []
(please state parent variety)
(.....) x (.....)
female parent male parent

(b) partially known cross []
(please state known parent variety(ies))
(.....) x (.....)
female parent male parent

(c) unknown cross []

4.1.2 Mutation []
(please state parent variety)

4.1.3 Discovery and development []
(please state where and when discovered and how developed)

4.1.4 Other []
(Please provide details)

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

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

4.2 Method of propagating the variety

4.2.1 Seed-propagated varieties

- (a) Cross-pollination []
 - (i) Population []
 - (ii) Synthetic variety []
- (b) Hybrid []
 - (i) Single hybrid []
 - (ii) Three-way hybrid []
 - (iii) Double hybrid []
- (c) Other (please provide details) []

- 4.2.2 Other []
(Please provide details)

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

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 Plant: height (2)		
very short		1 []
very short to short		2 []
short	Natsuki, TheHan1ho	3 []
short to medium		4 []
medium	Bilko, Daetong, Muso	5 []
medium to tall		6 []
tall	Monument, Shousai, Wonkyo20036ho	7 []
tall to very tall		8 []
very tall		9 []
5.2 Head: shape in longitudinal section (24)		
ovate	Daetong, Shinjyu	1 []
circular	Kenshin	2 []
elliptic	Hayamidori, TheHan1ho	3 []
broad oblong	Chushu, Golden boy, Hanko	4 []
narrow oblong	Granaat, Jinhongssam, Shousai	5 []
obovate	Gorki, Hamamidori	6 []
5.3 Head: degree of overlapping of leaves (25)		
absent or weak	Jinhongssam	1 []
weak to medium		2 []
medium	Daetong, Spectrum	3 []
medium to strong		4 []
strong	Golden boy, Kinap, Muso	5 []
5.4 Time of harvest maturity (32)		
very early	Kenshin	1 []
very early to early		2 []
early	Blues, RCC65, Sprinkin	3 []
early to medium		4 []
medium	Enduro, Muso, Suho	5 []
medium to late		6 []
late	Chusyu, Jindaebak, Parkin, Red Dragon	7 []
late to very late		8 []
very late		9 []

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 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
<i>Example</i>	<i>Head: degree of overlapping of leaves</i>	<i>medium</i>	<i>strong</i>
Comments:			

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

#7. Additional information which may help in the examination of the variety

7.1 In addition to the information provided in sections 5 and 6, are there any additional characteristics which may help to distinguish the variety?

Yes No

(If yes, please provide details)

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

Yes No

(If yes, please provide details)

7.3 Other information

A representative color photograph of the variety displaying its main distinguishing feature(s), should accompany the Technical Questionnaire. The photograph will provide a visual illustration of the candidate variety which supplements the information provided in the Technical Questionnaire.

The key points to consider when taking a photograph of the candidate variety are:

- Indication of the date and geographic location
- Correct labeling (breeder's reference)
- Good quality printed photograph (minimum 10 cm x 15 cm) and/or sufficient resolution electronic format version (minimum 960 x 1280 pixels)

Further guidance on providing photographs with the Technical Questionnaire is available in document TGP/7 "Development of Test Guidelines", Guidance Note 35 (<http://www.upov.int/tgp/en/>).

[The link provided may be deleted by members of the Union when developing authorities' own test guidelines.]

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

8. Authorization for release

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

Yes [] No []

(b) Has such authorization been obtained?

Yes [] No []

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

9. Information on plant material to be examined or submitted for examination

9.1 The expression of a characteristic or several characteristics of a variety may be affected by factors, such as pests and disease, chemical treatment (e.g. growth retardants or pesticides), effects of tissue culture, different rootstocks, scions taken from different growth phases of a tree, etc.

9.2 The plant material should not have undergone any treatment which would affect the expression of the characteristics of the variety, unless the competent authorities allow or request such treatment. If the plant material has undergone such treatment, full details of the treatment must be given. In this respect, please indicate below, to the best of your knowledge, if the plant material to be examined has been subjected to:

(a) Microorganisms (e.g. virus, bacteria, phytoplasma)	Yes []	No []
(b) Chemical treatment (e.g. growth retardant, pesticide)	Yes []	No []
(c) Tissue culture	Yes []	No []
(d) Other factors	Yes []	No []

Please provide details for where you have indicated "yes".

.....

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

Applicant's name

Signature Date

[End of document]