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INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

DRAFT

GOJI

UPOV Code(s): LYCIU_BAR; LYCIU_CHI; LYCIU_CYL; LYCIU_DAS; LYCIU_RUT; LYCIU_TRU; LYCIU_YUN

Lycium barbarum L.;
Lycium chinense Mill.;
Lycium cylindricum Kuang & A. M. Lu;
Lycium dasystemum Pojark.;
Lycium ruthenicum Murray;
Lycium truncatum Y. C. Wang;
Lycium yunnanense Kuang & A. M. Lu

[*]

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from China

to be considered by the

Technical Committee at its sixty-first session,
to be held Geneva from 2025-10-20 to 2025-10-21

Disclaimer: this document does not represent UPOV policies or guidance

[*] 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:*

Nom botanique	*anglais*	*français*	*allemand*	*espagnol*
Lycium barbarum L., *Lycium halimifolium* Mill., *Lycium vulgare* Dunal	Barbary matrimony-vine, Chinese boxthorn, Chinese wolfberry, Duke of Argyll's teaplant, Duke of Argyll's teatree, Himalayan goji, Tibetan goji, goji-berry, Matrimony-vine	Baie de Goji, Lyciet commun, Lyciet de barbary	Bocksdorn	Baya de goji
Lycium chinense Mill.	Chinese Boxthorn, Chinese Matrimony-vine, Chinese Wolfberry, Duke of Argyle's Tea Tree, Wolfberry	Lyciet de Chine, Baie de Goji	Chinesischer Bocksdorn	
Lycium cylindricum Kuang & A. M. Lu				
Lycium dasystemum Pojark.				
Lycium ruthenicum Murray				
Lycium truncatum Y. C. Wang				
Lycium yunnanense Kuang & A. M. Lu				

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

ASSOCIATED DOCUMENTS

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

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1. Subject of these Test Guidelines

1.1 These Test Guidelines apply to all varieties of *Lycium barbarum* L., *Lycium chinense* Mill., *Lycium cylindricum* Kuang & A. M. Lu, *Lycium dasystemum* Pojark., *Lycium ruthenicum* Murray, *Lycium truncatum* Y. C. Wang and *Lycium yunnanense* Kuang & A. M. Lu.

1.2 Guidance on the use of Test Guidelines for species in the same genus / interspecific hybrids that are not explicitly covered by Test Guidelines is provided in document TGP/13"Guidance for New Types and Species".

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 vegetatively propagated plants.

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

5 plants.

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

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

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 may be observed from a single planting, examined in two separate growing cycles.

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

3.1.4 The growing cycle is considered to be the duration of a single growing season, beginning with the dormancy period, followed by bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period starts.

3.1.5 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 5 plants.

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 3 plants or parts of plants taken from each of 3 plants and any other observations made on all plants in the test, disregarding any off-type plants.

In the case of observations of parts taken from single plants, the number of parts to be taken from each of the plants should be 2.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the 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 vegetatively propagated 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 For the assessment of uniformity of vegetatively propagated 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 5 plants, no off-types are allowed.

4.3 Stability

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

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

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) Leaf: shape (characteristic 12)
(b) Fruit: shape in lateral view (characteristic 22)
(c) Fruit: color (characteristic 23)

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.

(1)	*Lycium barbarum* L.	FPW07
(1)	*Lycium barbarum* L.	Instant Success
(1)	*Lycium barbarum* L.	Jingqi 4 Hao
(1)	*Lycium barbarum* L.	Keqi 6081
(1)	*Lycium barbarum* L.	Keqi 6082
(1)	*Lycium barbarum* L.	Ningqi 1 Hao
(1)	*Lycium barbarum* L.	Ningqi 2 Hao
(1)	*Lycium barbarum* L.	Ningqi 3 Hao
(1)	*Lycium barbarum* L.	Ningqi 4 Hao
(1)	*Lycium barbarum* L.	Ningqi 5 Hao
(1)	*Lycium barbarum* L.	Ningqi 7 Hao
(1)	*Lycium barbarum* L.	Ningqi 8 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 9 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 18 Hao
(1)	*Lycium barbarum* L.	NQ1
(1)	*Lycium barbarum* L.	Qixin 1 Hao
(1)	*Lycium barbarum* L.	Qixin 3 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 4 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 5 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 16 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 19 Hao
(1)	*Lycium barbarum* L.	Ningnongqi 20 Hao
(2)	*Lycium chinense* Mill.	Tianjing 3 Hao
(3)	*Lycium ruthenicum* Murray.	Jinmozhu
(3)	*Lycium ruthenicum* Murray.	Linqi 1 Hao

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

7 Not applicable See Explanations on the Table of Characteristics in Chapter 8.3

(1), (2), (3) See Chapter 6.4

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

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1.	**(*)**	**PQ**	**VG**	**(+)**	**(a)**				
		Plant: growth habit		**Plante : port**		**Pflanze: Wuchsform**	**Planta: hábito de crecimiento**		
		upright		dressé		aufrecht	erguido		1
		upright to spreading		dressé à étalé		aufrecht bis breitwüchsig	erguido a extendido		2
		spreading		étalé		breitwüchsig	extendido		3
		drooping		retombant		überhängend	colgante		4
2.		**QN**	**VG**	**(+)**	**(a)**				
		Plant: number of basal shoots		**Plante : nombre de pousses basales**		**Pflanze: Anzahl Basistriebe**	**Planta: número de ramas basales**		
		few		petit		gering	bajo	NQ1 (1)	1
		medium		moyen		mittel	medio	FPW07 (1)	2
		many		élevé		hoch	alto	Instant Success (1)	3
3.	**(*)**	**QN**	**MG/VG**	**(+)**					
		One-year-old fruiting shoot: length		**Rameau fructifère d'un an : longueur**		**Einjähriger Fruchttrieb: Länge**	**Rama fructífera de un año: longitud**		
		short		courte		kurz	corta	Ningnongqi 5 Hao (2)	1
		short to medium		courte à moyenne		kurz bis mittel	corta a media		2
		medium		moyenne		mittel	media	Ningnongqi 20 Hao (2)	3
		medium to long		moyenne à longue		mittel bis lang	media a larga		4
		long		longue		lang	larga	Qixin 1 Hao (1)	5
4.		**QN**	**MG/VG**	**(+)**					
		One-year-old fruiting shoot: thickness		**Rameau fructifère d'un an : épaisseur**		**Einjähriger Fruchttrieb: Dicke**	**Rama fructífera de un año: grosor**		
		thin		mince		dünn	delgado	Ningqi 1 Hao (1)	1
		medium		moyenne		mittel	medio	Ningqi 7 Hao (1)	2
		thick		épaisse		dick	grueso	Keqi 6082 (1)	3
5.	**(*)**	**QN**	**MG/VG**		**(b)**				
		One-year-old shoot: length of internode		**Rameau d'un an : longueur de l'entre-nœud**		**Einjähriger Trieb: Länge des Internodiums**	**Ramo de un año: longitud del entrenudo**		
		short		courte		kurz	corta	Jinmozhu (4)	1
		medium		moyenne		mittel	media	Ningnongqi 4 Hao (2)	2
		long		longue		lang	larga	Ningqi 2 Hao (1)	3

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6.	**(*)**	**QL**	**VG**		**(b)**				
		One-year-old shoot: presence of thorns		**Rameau d'un an : présence d'épines**		**Einjähriger Trieb: Vorhandensein von Dornen**	**Rama de un año: presencia de espinas**		
		absent		absente		fehlend	ausente		1
		present		présente		vorhanden	presente	Ningqi 3 Hao (1)	9
7.		**QN**	**MS/VG**	**(+)**	**(b)**				
		<u>Only varieties with: One-year-old shoot: presence of thorns: present:</u> One-year-old shoot: length of thorns		**<u>Seulement variétés avec : Rameau d'un an : présence d'épines : présente :</u> Rameau d'un an : longueur des épines**		**<u>Nur Sorten mit: Einjähriger Trieb: Vorhandensein von Dornen: vorhanden:</u> Einjähriger Trieb: Dornenlänge**	**<u>Sólo variedades con: Rama de un año: presencia de espinas: presente:</u> Rama de un año: longitud de las espinas**		
		short		courte		kurz	corta		1
		medium		moyenne		mittel	media	Ningnongqi 16 Hao (2)	2
		long		longue		lang	larga		3
8.		**PQ**	**VG**	**(+)**					
		Bark: color		**Écorce : couleur**		**Rinde: Farbe**	**Corteza: color**		
		yellow brown		brun-jaune		gelbbraun	marrón amarillento	Ningqi 7 Hao (1)	1
		light brown		brun clair		hellbraun	marrón claro	Ningqi 5 Hao (1)	2
		dark brown		brun foncé		dunkelbraun	marrón oscuro	Ningqi 1 Hao (1)	3
		grey brown		brun-gris		graubraun	marrón grisáceo	Ningnongqi 9 Hao (1)	4
9.	**(*)**	**QN**	**MG/VG**	**(+)**	**(c)**				
		Leaf: length		**Feuille : longueur**		**Blatt: Länge**	**Hoja longitud**		
		short		courte		kurz	corta	Ningnongqi 5 Hao (2)	1
		short to medium		courte à moyenne		kurz bis mittel	corta a media	Ningqi 4 Hao (1)	2
		medium		moyenne		mittel	media	Ningqi 5 Hao (1)	3
		medium to long		moyenne à longue		mittel bis lang	media a larga	Ningqi 2 Hao (1)	4
		long		longue		lang	larga	Ningnongqi 20 Hao (2)	5
10.	**(*)**	**QN**	**MG/VG**	**(+)**	**(c)**				
		Leaf: width		**Feuille : largeur**		**Blatt: Breite**	**Hoja: anchura**		
		narrow		étroite		schmal	estrecha	Jinmozhu (4), Ningnongqi 5 Hao (2)	1
		narrow to medium		étroite à moyenne		schmal bis mittel	estrecha a media	Ningqi 4 Hao (1)	2
		medium		moyenne		mittel	media	Ningqi 3 Hao (1)	3
		medium to broad		moyenne à large		mittel bis breit	media a ancha	Ningqi 7 Hao (1)	4
		broad		large		breit	ancha	Ningnongqi 4 Hao (2)	5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11.	**(*)**	**QN** **MG/VG**	**(c)**				
		Leaf: ratio length/width	**Feuille : rapport longueur/largeur**	**Blatt: Verhältnis Länge/Breite**	**Hoja: relación longitud/anchura**		
		low	bas	klein	baja	Ningnongqi 4 Hao (2)	1
		low to medium	bas à moyen	klein bis mittel	baja a media	Ningnongqi 18 Hao (1)	2
		medium	moyen	mittel	media	Ningqi 4 Hao (1)	3
		medium to high	moyen à élevé	mittel bis groß	media a alta	Ningqi 5 Hao (1)	4
		high	élevé	groß	alta	Ningqi 8 Hao (1)	5
12.	**(*)**	**PQ** **VG**	**(+)** **(c)**				
		Leaf: shape	**Feuille : forme**	**Blatt: Form**	**Hoja: forma**		
		ovate	ovale	eiförmig	oval		1
		lanceolate	lancéolée	lanzettlich	lanceolada	Ningqi 7 Hao (1)	2
		linear	linéaire	linear	lineal		3
		oblanceolate	oblancéolée	verkehrt lanzettlich	oblanceolada		4
13.	**(*)**	**PQ** **VG**		**(c)**			
		Leaf: color on upper side	**Feuille : couleur de la face supérieure**	**Blatt: Farbe der Oberseite**	**Hoja: color del haz**		
		light green	vert clair	hellgrün	verde claro		1
		medium green	vert moyen	mittelgrün	verde medio	Ningqi 1 Hao (1)	2
		dark green	vert foncé	dunkelgrün	verde oscuro		3
		grey green	vert-gris	graugrün	verde grisáceo	Jinmozhu (4)	4
		yellow green	vert-jaune	gelbgrün	verde amarillento		5
14.	**(*)**	**PQ** **VG**	**(+)** **(c)**				
		Leaf: shape of apex	**Feuille : forme de l'apex**	**Blatt: Form des Apex**	**Hoja: forma del ápice**		
		narrow acute	aiguë étroite	schmal spitz	aguda estrecha	Ningqi 5 Hao (1)	1
		medium acute	aiguë moyenne	mittel spitz	aguda media		2
		obtuse	obtuse	stumpf	obtusa		3
		rounded	arrondie	abgerundet	redondeada		4
15.		**QN** **MG/VG**	**(+)** **(d)**				
		Corolla: diameter	**Corolle : diamètre**	**Krone: Durchmesser**	**Corola: diámetro**		
		small	petit	klein	pequeño	Qixin 3 Hao (1)	1
		small to medium	petit à moyen	klein bis mittel	pequeño a medio	Ningqi 5 Hao (1)	2
		medium	moyen	mittel	medio	Jingqi 4 Hao (1)	3
		medium to large	moyen à grand	mittel bis groß	medio a grande	Keqi 6081 (1)	4
		large	grand	groß	grande	Ningnongqi 20 Hao (2)	5

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16.	**(*)**	**QL**	**VG**		**(d)**				
		Corolla: color of lobe		**Corolle : couleur du lobe**		**Krone: Farbe des Lappens**	**Corola: color del lóbulo**		
		white		blanc		weiß	blanco		1
		purple		pourpre		purpurn	púrpura		2
17.		**QN**	**MG/VG**	**(+)**	**(d)**				
		Corolla: length of tube		**Corolle : longueur du tube**		**Krone: Länge der Röhre**	**Corola: longitud del tubo**		
		short		courte		kurz	corta	Ningqi 7 Hao (1)	1
		medium		moyenne		mittel	media	Ningnongqi 5 Hao (2)	2
		long		longue		lang	larga	Keqi 6082 (1)	3
18.	**(*)**	**QN**	**VG**	**(+)**					
		Shoot: density of fruits		**Rameau : densité des fruits**		**Trieb: Fruchtdichte**	**Rama: densidad de frutos**		
		sparse		lâche		locker	laxa		1
		sparse to medium		lâche à moyenne		locker bis mittel	laxa a media	Ningnongqi 20 Hao (2)	2
		medium		moyenne		mittel	media	Ningqi 5 Hao (1)	3
		medium to dense		moyenne à dense		mittel bis dicht	media a densa	Ningnongqi 16 Hao (2)	4
		dense		dense		dicht	densa	Ningqi 1 Hao (1)	5
19.		**QN**	**VG**	**(+)**	**(e)**				
		Peduncle: attachment to calyx		**Pédoncule : attache du calice**		**Blütenstandsstiel: Kelchansatz**	**Pedúnculo: unión con el cáliz**		
		mostly symmetrical		principalement symétrique		überwiegend symmetrisch	mayormente simétrico	Ningnongqi 5 Hao (2)	1
		equally symmetrical and asymmetrical		également symétrique et asymétrique		gleichermaßen symmetrisch und asymmetrisch	igualmente simétrico y asimétrico	Ningnongqi 19 Hao (2)	2
		mostly asymmetrical		principalement asymétrique		überwiegend asymmetrisch	mayormente asimétrico	Ningnongqi 9 Hao (1)	3
20.	**(*)**	**QN**	**MG/VG**	**(+)**	**(e)**				
		Fruit: length		**Fruit : longueur**		**Frucht: Länge**	**Fruto: longitud**		
		short		courte		kurz	corta	Ningnongqi 5 Hao (2)	1
		short to medium		courte à moyenne		kurz bis mittel	corta a media	Ningnongqi 4 Hao (2)	2
		medium		moyenne		mittel	media	Ningqi 1 Hao (1)	3
		medium to long		moyenne à longue		mittel bis lang	media a larga	Ningnongqi 9 Hao (1)	4
		long		longue		lang	larga	Ningqi 8 Hao (1)	5

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
21.	**(*)**	**QN**	**MG/VG**	**(+)**	**(e)**				
		Fruit: width		**Fruit : largeur**		**Frucht: Breite**	**Fruto: anchura**		
		narrow		étroite		schmal	estrecha	Ningqi 2 Hao (1)	1
		medium		moyenne		mittel	media	Ningqi 7 Hao (1)	2
		broad		large		breit	ancha	Ningnongqi 18 Hao (1)	3
22.	**(*)**	**PQ**	**VG**	**(+)**	**(e)**				
		Fruit: shape in lateral view		**Fruit : forme en vue latérale**		**Frucht: Form in Seitenansicht**	**Fruto: forma en vista lateral**		
		ovate		ovale		eiförmig	oval		1
		oblate		arrondie-aplatie		breitrund	achatada		2
		circular		circulaire		kreisförmig	circular		3
		rhombic		rhombique		rhombisch	rómbica		4
		elliptic		elliptique		elliptisch	elíptica		5
		obovate		obovale		verkehrt eiförmig	oboval		6
23.	**(*)**	**PQ**	**VG**		**(e)**				
		Fruit: color		**Fruit : couleur**		**Frucht: Farbe**	**Fruto: color**		
		whitish		blanchâtre		weißlich	blanquecino		1
		yellow		jaune		gelb	amarillo		2
		yellow orange		orange-jaune		gelborange	naranja amarillento		3
		orange		orange		orange	naranja		4
		orange red		rouge-orange		orangerot	rojo anaranjado		5
		red		rouge		rot	rojo		6
		purple red		rouge-pourpre		purpurrot	rojo púrpura	Qixin 3 Hao (1)	7
		dark purple		violet foncé		dunkelpurpurn	púrpura oscuro		8
24.	**(*)**	**QL**	**VG**	**(+)**	**(e)**				
		Fruit: mucron		**Fruit : mucron**		**Frucht: aufgesetzte Spitze**	**Fruto: mucrón**		
		absent		absent		fehlend	ausente		1
		present		présent		vorhanden	presente		9
25.	**(*)**	**QN**	**VG**	**(+)**	**(e)**				
		Fruit: length of stalk		**Fruit : longueur du pédoncule**		**Frucht: Stiellänge**	**Fruto: longitud del pedúnculo**		
		short		courte		kurz	corta	Linqi 1 Hao (4)	1
		short to medium		courte à moyenne		kurz bis mittel	corta a media	Ningnongqi 5 Hao (2)	2
		medium		moyenne		mittel	media	Ningqi 7 Hao (1)	3
		medium to long		moyenne à longue		mittel bis lang	media a larga	Qixin 1 Hao (1)	4
		long		longue		lang	larga	Keqi 6081 (1)	5

		English		français		deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
26.	**(*)**	**PQ**	**VG**	**(+)**	**(e)**				
		Fruit: color of stalk		**Fruit : couleur du pédoncule**		**Frucht: Farbe des Stiels**	**Fruto: color del pedúnculo**		
		medium green		vert moyen		mittelgrün	verde medio		1
		bluish green		vert bleuâtre		bläulichgrün	verde azulado		2
		green and purple		vert et purpre		grün und purpurn	verde y púrpura		3
		blue		bleu		blau	azul		4
27.	**(*)**	**QN**	**MG/VG**	**(+)**					
		Time of beginning of fruit maturity		**Époque de début de maturité des fruits**		**Zeitpunkt des Beginns der Fruchtreife**	**Época de inicio de la madurez del fruto**		
		early		précoce		früh	temprana	Ningnongqi 18 Hao (1)	1
		medium		moyenne		mittel	media	Ningqi 1 Hao (1)	2
		late		tardive		spät	tardía	Ningnongqi 4 Hao (2)	3

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 on dormant plants.

(b) Observations should be made on the middle third of a one-year-old shoot in the dormant period.

(c) Observations should be made on the fully developed leaves taken from the middle third of a current-year's fruiting shoot.

(d) Observations should be made on the fully open flowers taken from the middle third of a fruiting shoot.

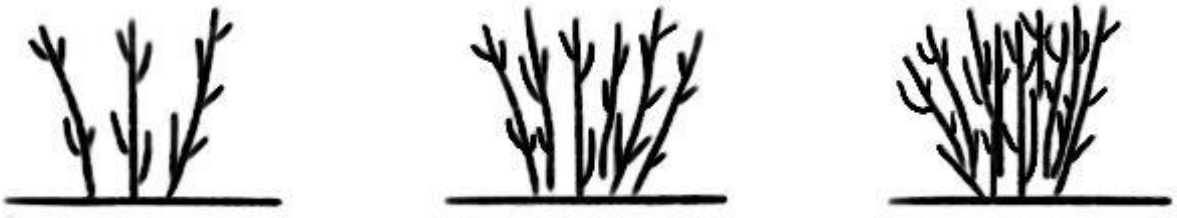
(e) Observations should be made on the fully ripened fruits taken from the middle third of a fruiting shoot.

8.2 Explanations for individual characteristics

Ad. 1: Plant: growth habit

1 upright | 2 upright to spreading | 3 spreading | 4 drooping

Ad. 2: Plant: number of basal shoots



1 few | 2 medium | 3 many

Ad. 3: One-year-old fruiting shoot: length

Observations should be made on the whole length of one-year-old fruiting shoots in the dormant period.

Ad. 4: One-year-old fruiting shoot: thickness

Observations should be made on the middle third of one-year-old fruiting shoots in the dormant period.

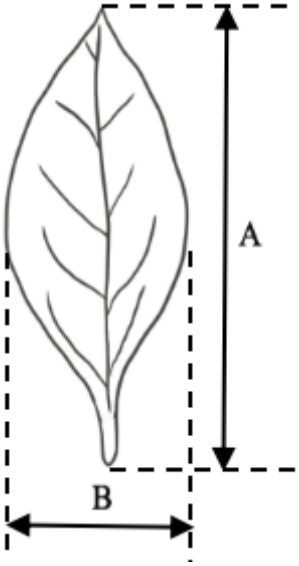
Ad. 7: Only varieties with: One-year-old shoot: presence of thorns: present: One-year-old shoot: length of thorns

Observations should be made on the longest thorn.

Ad. 8: Bark: color

Observations should be made on the middle third of two-year-old shoots in the dormant period.

Ad. 9: Leaf: length



A = Leaf: length
B = Leaf: width

Ad. 10: Leaf: width

See Ad. 9.

Ad. 12: Leaf: shape

1
ovate

2
lanceolate

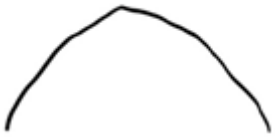
3
linear

4
oblanceolate

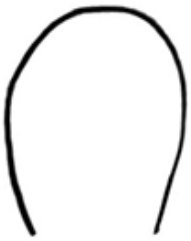
Ad. 14: Leaf: shape of apex

1
narrow acute

2
medium acute



3
obtuse

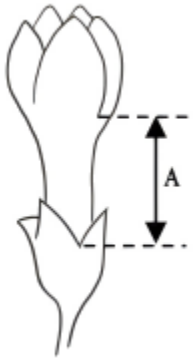


4
rounded

Ad. 15: Corolla: diameter

A = Corolla: diameter

Ad. 17: Corolla: length of tube



A = Corolla: length of tube

Ad. 18: Shoot: density of fruits

Observations should be made on the middle third of a fruiting shoot.

1
sparse

2
sparse to medium

3
medium

4
medium to dense

5
dense

Ad. 19: Peduncle: attachment to calyx

mostly symmetrical

1

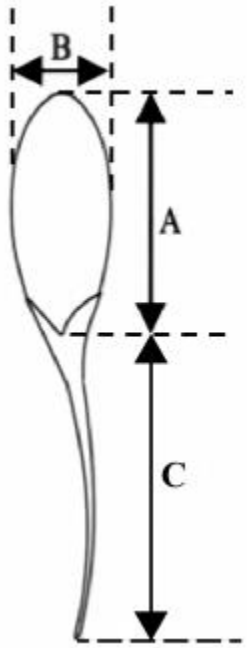
equally symmetrical and asymmetrical

2

mostly asymmetrical

3

Ad. 20: Fruit: length



A = Fruit: length
B = Fruit: width
C = Fruit: length of stalk

Ad. 21: Fruit: width

See Ad. 20.

Ad. 22: Fruit: shape in lateral view

width (ratio length/width)	← broadest part →		
	below middle	at middle	above middle
narrow (high)	 ovate 1	 elliptic 5	 obovate 6
medium (medium)		 circular 3  rhombic 4	
broad (low)		 2 oblate	

Ad. 24: Fruit: mucron

1
absent

9
present

Ad. 25: Fruit: length of stalk

See Ad. 20.

Ad. 26: Fruit: color of stalk

Observations should be made including the calyx.

Ad. 27: Time of beginning of fruit maturity

Time of beginning of fruit maturity is reached when 10% of the fruiting shoots of the whole plant have mature fruits in the first fruit ripening period.

9. Literature

石志刚，杜慧莹，门慧芹，2012: 枸杞种质资源描述规范和数据标准. 中国林业出版社. 北京，中国, 66pp.
(Zhi-gang S., Hui-ying D., Huiqin M., 2012: Description specification and data standard of germplasm resources for *Lycium* L. China forestry publishing house. Beijing, CN, 66 pp.)

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	*Lycium barbarum* L.	☐
1.1.2	Common name	Barbary matrimony-vine, Chinese boxthorn, Chinese wolfberry, Duke of Argyll's teaplant, Duke of Argyll's teatree, Himalayan goji, Tibetan goji, goji-berry, Matrimony-vine	
1.2.1	Botanical name	*Lycium chinense* Mill.	☐
1.2.2	Common name	Chinese Boxthorn, Chinese Matrimony-vine, Chinese Wolfberry,	
1.3.1	Botanical name	*Lycium cylindricum* Kuang & A. M. Lu	☐
1.3.2	Common name		
1.4.1	Botanical name	*Lycium dasystemum* Pojark.	☐
1.4.2	Common name		
1.5.1	Botanical name	*Lycium ruthenicum* Murray	☐
1.5.2	Common name		
1.6.1	Botanical name	*Lycium truncatum* Y. C. Wang	☐
1.6.2	Common name		
1.7.1	Botanical name	*Lycium yunnanense* Kuang & A. M. Lu	☐
1.7.2	Common name		
1.8.1	Botanical name	Other species, please specify	☐
1.8.2	Common name		

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

2. Applicant

Name	
Address	
Telephone No.	
Fax No.	
E-mail address	
Breeder (if different from applicant)	

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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 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 Vegetative propagation

(a) Cuttings [ ]
(b) In vitro propagation [ ]
(c) Budding or grafting (please specify rootstock) [ ]
(d) Other (state method) [ ]

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 (1)	**Plant: growth habit**		
	upright		1 [ ]
	upright to spreading		2 [ ]
	spreading		3 [ ]
	drooping		4 [ ]
5.2 (3)	**One-year-old fruiting shoot: length**		
	short	Ningnongqi 5 Hao (2)	1 [ ]
	short to medium		2 [ ]
	medium	Ningnongqi 20 Hao (2)	3 [ ]
	medium to long		4 [ ]
	long	Qixin 1 Hao (1)	5 [ ]
5.3 (5)	**One-year-old shoot: length of internode**		
	short	Jinmozhu (4)	1 [ ]
	medium	Ningnongqi 4 Hao (2)	2 [ ]
	long	Ningqi 2 Hao (1)	3 [ ]
5.4 (6)	**One-year-old shoot: presence of thorns**		
	absent		1 [ ]
	present	Ningqi 3 Hao (1)	9 [ ]
5.5 (9)	**Leaf: length**		
	short	Ningnongqi 5 Hao (2)	1 [ ]
	short to medium	Ningqi 4 Hao (1)	2 [ ]
	medium	Ningqi 5 Hao (1)	3 [ ]
	medium to long	Ningqi 2 Hao (1)	4 [ ]
	long	Ningnongqi 20 Hao (2)	5 [ ]
5.6 (10)	**Leaf: width**		
	narrow	Jinmozhu (4), Ningnongqi 5 Hao (2)	1 [ ]
	narrow to medium	Ningqi 4 Hao (1)	2 [ ]
	medium	Ningqi 3 Hao (1)	3 [ ]
	medium to broad	Ningqi 7 Hao (1)	4 [ ]
	broad	Ningnongqi 4 Hao (2)	5 [ ]

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

	Characteristics	Example Varieties	Note
5.7 (12)	**Leaf: shape**		
	ovate		1 [ ]
	lanceolate	Ningqi 7 Hao (1)	2 [ ]
	linear		3 [ ]
	oblanceolate		4 [ ]
5.8 (20)	**Fruit: length**		
	short	Ningnongqi 5 Hao (2)	1 [ ]
	short to medium	Ningnongqi 4 Hao (2)	2 [ ]
	medium	Ningqi 1 Hao (1)	3 [ ]
	medium to long	Ningnongqi 9 Hao (1)	4 [ ]
	long	Ningqi 8 Hao (1)	5 [ ]
5.9 (21)	**Fruit: width**		
	narrow	Ningqi 2 Hao (1)	1 [ ]
	medium	Ningqi 7 Hao (1)	2 [ ]
	broad	Ningnongqi 18 Hao (1)	3 [ ]
5.10 (22)	**Fruit: shape in lateral view**		
	ovate		1 [ ]
	oblate		2 [ ]
	circular		3 [ ]
	rhombic		4 [ ]
	elliptic		5 [ ]
	obovate		6 [ ]
5.11 (23)	**Fruit: color**		
	whitish		1 [ ]
	yellow		2 [ ]
	yellow orange		3 [ ]
	orange		4 [ ]
	orange red		5 [ ]
	red		6 [ ]
	purple red	Qixin 3 Hao (1)	7 [ ]
	dark purple		8 [ ]

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

	Characteristics	Example Varieties	Note
5.12 (27)	**Time of beginning of fruit maturity**		
	early	Ningnongqi 18 Hao (1)	1 [ ]
	medium	Ningqi 1 Hao (1)	2 [ ]
	late	Ningnongqi 4 Hao (2)	3 [ ]

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
Example	*Leaf: length*	*short*	*medium*

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.]

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:

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]