

TG/LYCIUM\_BAR(proj.3) ORIGINAL: English DATE: 2023-05-19

# 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 experts from China to be considered by the Technical Working Party for Fruit Crops at its fifty-fourth session, to be held in Nîmes, France, from 2023-07-03 to 2023-07-07

Disclaimer: this document does not represent UPOV policies or guidance

Alternative names:\*

Botanical name	English	French	German	Spanish
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		Bocksdorn	
Lycium chinense Mill.	Chinese Boxthorn, Chinese Matrimony- vine, Chinese Wolfberry, Duke of Argyle's Tea Tree, Wolfberry	Lyciet de Chine	Chinesischer Bocksdorn	
<i>Lycium cylindricum</i> Kuang & A. M. Lu				
<i>Lycium dasystemum</i> Pojark.				
<i>Lycium ruthenicum</i> Murray				
<i>Lycium truncatum</i> Y. C. Wang				
<i>Lycium yunnanense</i> 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. <u>Subject of these Test Guidelines</u>

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.

## 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 rooted cuttings.
- 2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:

vegetatively propagated varieties: 5 rooted 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. <u>Method of Examination</u>

- 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 bud burst (flowering and/or vegetative), flowering and fruit harvest and concluding when the following dormant period ends with the swelling of new season buds.
- 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 5 plants or parts of plants taken from each of 5 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. <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) 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 pseudoqualitative) 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 f			deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1 2	3 4	56		7			
	Name of characteristics in English	Nom du caractère français		Name des Merkmals auf Deutsch	Nombre del carácter en español		
	states of expression	types d'ex	xpression	Ausprägungsstufen	tipos de expresión		

### 1 Characteristic number

2	(*)	Asterisked characteristic	- see Chapter 6.1.2
3	Type of expression QL QN PQ	Qualitative characteristic Quantitative characteristic Pseudo-qualitative characteristic	<ul> <li>see Chapter 6.3</li> <li>see Chapter 6.3</li> <li>see Chapter 6.3</li> </ul>
4	Method of observation (and type MG, MS, VG, VS	e of plot, if applicable)	- 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

# 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.	(*)	PQ	VG	(+)	(a)				
		Plant:	growth habit						
		uprigh	t						1
		uprigh	t to spreading						2
		spread	ding						3
2.		QN	VG	(+)	(a)		L		
		Plant: shoot	number of basal s		<u>:</u>				
		few							1
		mediu	m						2
		many					+		3
3.	(*)	QN	MG/VG	(+)				1	
i			nt-year shoot:						
		length							
		very sl	hort						1
		short							2
		mediu	m					Ningqi 5 Hao, Ningqi 7 Hao	3
		long							4
		very lo	ong					Keqi 6081	5
4.	(*)	QN	MG/VG		(b)				
			nt-year shoot: n of internode		į				
		very sl	hort					Jin mo zhu	1
		short							2
		mediu	m				<b>_</b>	Ningnongqi 9 Hao	3
		long							4
		very lo	ong					Ningqi 7 Hao	5
5.	(*)	QN	VG	(+)	(b)				
		Curre densit	nt-year shoot: ty of fruits						
		very s	parse						1
		sparse	)						2
		mediu	m						3
		dense					<b> </b>		4
		very d	ense						5

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
6. (*)	QL	VG		(b)				
	Currer preser	nt-year shoot: nce of spines						
	absent							1
	presen	t						9
7.	QN	MG/VG		(b)				
	preser Currer	or varieties with ht spines: ht-year shoot: of spines						
	short						Ningqi 8 Hao	1
	mediur	m	1					2
	long						Ningqi 7 Hao	3
8.	PQ	VG	(+)			1		
	Bark:	color						
	yellow	brown					Ningqi 7 Hao	1
	light br	own					Ningqi 5 Hao	2
	dark bi	rown					Ningqi 1 Hao	3
	grey br	rown					Ningnongqi 9 Hao	4
9.	QN	MG/VG	(+)					
	One-ye thickn	ear-old shoot: ess						
	thin							1
	mediur	n					Ningqi 1 Hao	2
	thick						Mengqi 1 Hao	3
10. (*)	QN	MG/VG	(+)	(c)				1
	Leaf: I	ength						
	very sł	nort					Ningqi 5 Hao	1
	short		1					2
	mediur	n					Ningnongqi 6 Hao, Ningnongqi 7 Hao	3
	long						Ningqi 2 Hao	4
	very lo	ng						5

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
11. (*)	QN	MG/VG	(+)	(c)				
·	Leaf:	width						
	very n	arrow					Jin mo zhu	1
	narro	N						2
	mediu	ım					Ningnongqi 7 Hao, Ningnongqi 8 Hao	3
	broad						Keqi 6082	4
	very b	oroad						5
12. (*)	PQ	VG	(+)	(c)				
	Leaf:	shape						
	linear							1
							Ningqi 7 Hao	2
40	ovate	10010						3
13	QN	MG/VG		(c)				
	Leaf: ratio length/width							
	very lo	very low					Jin mo zhu	1
	low							2
	mediu	ım					Ningqi 7 Hao	3
	high						Ningqi 6 Hao	4
	very h						Ningqicai 1 Hao	5
14.	PQ	VG		(c)				
	Leaf: side	color on upper						
	light g	reen					Mengqi 1 Hao	1
	mediu	ım green					Ningqi 1 Hao	2
	dark g	jreen					Ningqicai 1 Hao	3
	yellow	/ green						4
15.	PQ	VG	(+)	(c)			I	
	Leaf:	shape of apex						
	narrov	w acute					Ningqi 5 Hao	1
	mediu	im acute					Ningqi 1 Hao	2
	obtus	e					Ningqi 7 Hao	3
	round	rounded						4

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16.	QN	MG/VG	(+)	(d)				
	Corol	la: diameter						
	small							1
	mediu	m					Ningnongqi 5 Hao	2
	large						Ningnongqi 2 Hao	3
17.	QL	VG		(d)				
	Corol	a: color of lobe						
	white						Ningnongqi 6 Hao	1
	purple		1				Ningqicai 1 Hao	2
18.	QN	MG/VG	(+)	(d)				
	Corol tube	a: length of						
	short						Ningqi 7 Hao	1
	medium							2
	long						Keqi 6082	3
19.	QL VG		(+)	(e)		1		
	Calyx	attachment						
	mostly	v erect						1
	equall erect	y erect and semi-						2
	mostly	semi-erect						3
20. (*)	QN	MG/VG	(+)	(e)				•
	Fruit:	length						
	very s	hort					Ningqicai 1 Hao	1
	short							2
	mediu	m					Ningnongqi 1 Hao	3
	long							4
	very lo	ong					Ningnongqi 7 Hao	5
21. (*)	QN	MG/VG	(+)	(e)				
	Fruit:	width						
	narrov	V					Ningqi 9 Hao	1
	mediu	m						2
	1		1		1	1		1

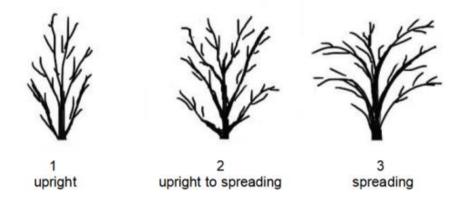
		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. (*)	PQ	VG	(+)	(e)				·
	Fruit: view	shape in lateral						
	ovate							1
	oblate	)						2
	circula	ar						3
	rhom	Dic						4
	elliptio	;						5
	obova	te						6
23. (*)	PQ	VG		(e)		1		
	Fruit	color						
	T Turc							
	white							1
	yellow	1						2
	yellow	/ orange						3
	orange							4
	orange red							5
	red							6
	purple red						Qixin 3 Hao	7
	dark p							8
24.	QN	VG	(+)	(e)				
	Fruit:	length of stalk						
	short						Ningnongqi 8 Hao	1
	mediu	ım						2
	long						Ningqi 6 Hao	3
25.	PQ	VG		(e)				
	Fruit:	color of stalk ding calyx)		<u> </u>				
	only g	reen						1
		luish green	-					2
		& purple						3
	only b							4
26. (*)		MG/VG						
		of beginning of		1				
	Time first f	ruit maturity						
	first f	ruit maturity						1
	Time first f early mediu	ruit maturity					Ningqi 1 Hao	1

- 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:

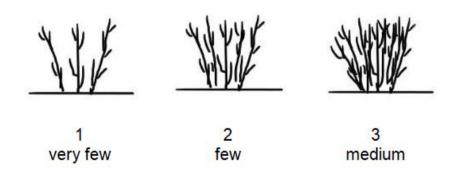
- (a) Observations should be made on dormant plants.
- (b) Observations should be made on the middle third of a current-year's fruiting shoot, when the fruits have ripened in summer.
- (c) Observations should be made on the fully developed leaves taken from the middle third of a currentyear's fruiting shoot.
- (d) Observations should be made on the fully ripened fruits taken from the middle third of a currentyear's fruiting shoot
- (e) Observations should be made on the fully ripened fruits taken from the middle third of a currentyear's fruiting shoot.
- 8.2 Explanations for individual characteristics

# Ad. 1: Plant: growth habit



Observations should be made on the main branches, excluding the fruiting shoots.

# Ad. 2: Plant: number of basal shoots



# Ad. 3: Current-year shoot: length

Observations should be made on the current-year fruiting shoot, when the fruits have ripened in summer.

# Ad. 5: Current-year shoot: density of fruits



very sparse

2 sparse

3 medium

4 dense

5 very dense

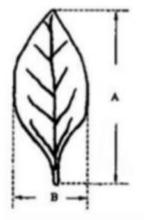
Ad. 8: Bark: color

Observations should be made at the middle third of three-year-old shoot in the dormant period.

# Ad. 9: One-year-old shoot: thickness

Observations should be made at the middle third of one-year-old shoot in the dormant period.

# Ad. 10: Leaf: length

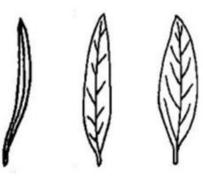


A=Leaf: length B=Leaf: width

Ad. 11: Leaf: width

See Ad. 10.

Ad. 12: Leaf: shape

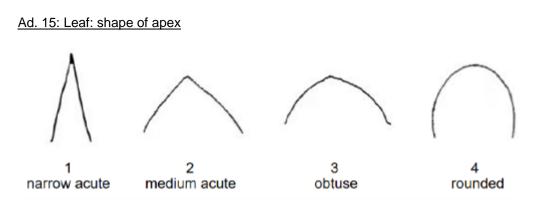


2

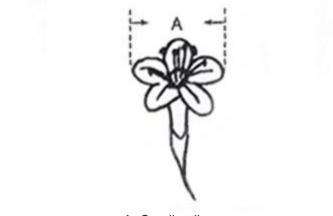
1 linear

lanceolate

3 ovate

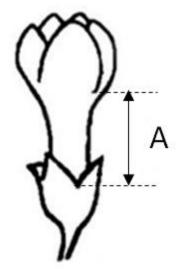


Ad. 16: Corolla: diameter



A=Corolla: diameter

Ad. 18: Corolla: length of tube



A= Corolla: length of tube

# Ad. 19: Calyx: attachment









2

equally erect and semi-erect

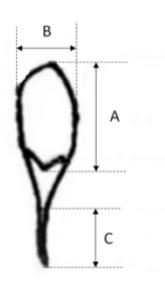
semi-erect



3 mostly semi-erect

mostly erect

Ad. 20: Fruit: length

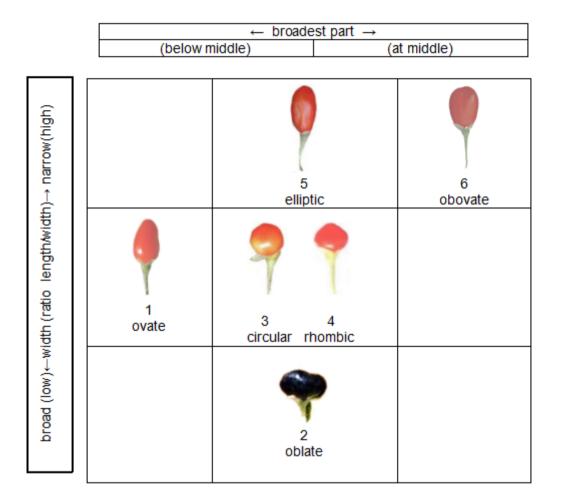


A=Fruit: length B=Fruit: width C=Fruit: length of stalk

# Ad. 21: Fruit: width

See Ad. 20.

# Ad. 22: Fruit: shape in lateral view



Ad. 24: Fruit: length of stalk

See Ad. 20.

# 9. <u>Literature</u>

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

# 10. <u>Technical Questionnaire</u>

ТЕСН	NICAL Q	UESTIONNAIRE	Page {x} of {y}	Reference Number:
				Application date: (not to be filled in by the applicant)
		to be completed in c	TECHNICAL QUESTIC	DNNAIRE ation for plant breeders' rights
1.	Subject	t of the Technical Questic		
	1.1.1	Botanical name	Lycium barbarum L.	[]
	1.1.2	Common name	wolfberry, Duke of Arg	ne, Chinese boxthorn, Chinese gyll's teaplant, Duke of Argyll's teatree, an goji, goji-berry, Matrimony-vine
	1.2.1	Botanical name	Lycium chinense Mill.	[]
	1.2.2	Common name		ninese Matrimony-vine, Chinese gyle's Tea Tree, Wolfberry
	1.3.1	Botanical name	Lycium cylindricum Ku	uang & A. M. Lu
	1.3.2	Common name		
	1.4.1	Botanical name	Lycium dasystemum I	Pojark.
	1.4.2	Common name		
	1.5.1	Botanical name	Lycium ruthenicum M	urray []
	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 K	Cuang & A. M. Lu
	1.7.2	Common name		

TECHN	NICAL 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 bre	eder's reference		
	Proposed denomination (if available)			
	Breeder's reference			

TECHNIC		UESTIONNAIRE	Page {x} of {y}		Reference Numb	er:
		tion on the breeding scheme				
	.1	Breeding scheme			-	
v	ariety i	resulting from:				
	4.1.1	Crossing				
	(a)	controlled cross				[]
		(please state parent variety)				
		(	)	х	(	)
		female parent			male parent	
	(b)	partially known cross				[]
		(please state known parent	variety(ies))			
		(	)	х	(	)
		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 whe		how de	veloped)	[]
4	.1.4	Other (Please provide details)				[]

TECHNICAL Q	UESTIONNAIRE	Page {x} of {y}	Reference Number	:
4.2 4.2.1	Method of propagating the Vegetative propagation	variety		
(a) (b)	Cuttings Other (state method)			
4.2.2	Other (Please provide details)			[]

TECH	NICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:					
	Characteristics of the variety to be indic characteristic in Test Guidelines; pleas			g				
	Characteristics Example Varieties							
5.1	Plant: growth habit							
(1)	upright			1[]				
	upright to spreading			2[]				
	spreading			3[]				
5.2 (3)	Current-year shoot: length							
	very short			1[]				
	short			2[]				
	medium	Ν	ingqi 5 Hao, Ningqi 7 Hao	3[]				
	long			4[]				
	very long	К	eqi 6081	5[]				
5.3 (4)	Current-year shoot: length of internode	e						
	very short	Ji	n mo zhu	1[]				
	short			2[]				
	medium	Ν	ingnongqi 9 Hao	3[]				
	long			4[]				
	very long	Ν	ingqi 7 Hao	5[]				
5.4 (5)	Current-year shoot: density of fruits							
	very sparse			1[]				
	sparse			2[]				
	medium			3[]				
	dense			4[]				
	very dense			5[]				
5.5 (6)	Current-year shoot: presence of spine	S						
	absent			1[]				
	present			9[]				

	Characteristics	Example Varieties	Note					
5.6 (10)	Leaf: length							
	very short Ningqi 5 Hao		1[]					
	short		2[]					
	medium	Ningnongqi 6 Hao, Ningnongqi 7 Hao	3[]					
	long	Ningqi 2 Hao	4[]					
	very long		5[]					
5.7 (11)	Leaf: width							
	very narrow	Jin mo zhu	1[]					
	narrow		2[]					
	medium	Ningnongqi 7 Hao, Ningnongqi 8 Hao	3[]					
	broad	Keqi 6082	4[]					
	very broad		5[]					
5.8 (12)	Leaf: shape							
	linear		1[]					
	lanceolate	Ningqi 7 Hao	2[]					
	ovate		3[]					
5.9 (20)	Fruit: length							
	very short	Ningqicai 1 Hao	1[]					
	short		2[]					
	medium	Ningnongqi 1 Hao	3[]					
	long		4[]					
	very long	Ningnongqi 7 Hao	5[]					
5.10 (21)	Fruit: width							
	narrow	Ningqi 9 Hao	1[]					
	medium		2[]					
	broad	Ningqicai 1 Hao	3[]					
5.11 (22)	Fruit: shape in lateral view							
. ,	ovate		1[]					
	oblate		2[]					
	circular		3[]					
	rhombic		4[]					
	elliptic		5[]					
	obovate		6[]					

	Characteristics	Example Varieties	Note
5.12 (23)	Fruit: color		
	white		1[]
	yellow		2[]
	yellow orange		3[]
	orange		4[]
	orange red		5[]
	red		6[]
	purple red	Qixin 3 Hao	7[]
	dark purple		8[]
5.13 (26)	Time of beginning of first fruit maturity		
	early		1[]
	medium	Ningqi 1 Hao	2[]
	late		3[]
5.14	Fruit: color		
	white		1[]
	red		2[]
	yellow		3[]
	purple		4[]

TECHNICAL QUESTIONN	IAIRE	Page {x} of {	[y}	Reference Nu	ımber:		
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 your candidate from the simila	variety differs	the characte	e expression of ristic(s) for the variety(ies)	Describe the expression of the characteristic(s) for <b>your</b> candidate variety		
Example current-year shoot: presen of spines			present		absent		
Comments:							

TECHI		UESTIONNAIRE	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 ma help to distinguish the variety?								
	Yes	[]	No	[]					
	(If yes,	(If yes, please provide details)							
7.2	Are the	ere any special conditions for	r growing the variety or cor	nducting the examination?					
	Yes	[]	No	[]					
	(If yes,	please provide details)							
7.3	Other	information							
Techn supple The k • • version Furthe "Devel	ical Ques ements th ey points Indica Correc Good n (minimu er guidan lopment o	stionnaire. The photograph v e information provided in the to consider when taking a pl tion of the date and geograph ct labeling (breeder's reference quality printed photograph (n um 960 x 1280 pixels)" ce on providing photographs of Test Guidelines", Guidance	vill provide a visual illustrat Technical Questionnaire. hotograph of the candidate hic location ce) hinimum 10 cm x 15 cm) an with the Technical Questio e Note 35 (http://www.upov	nd/or sufficient resolution electronic format					

r									
TECH	HNICA	L QUES	TIONNAIRE	Page {x}	of {y}	Reference	Number:		
8.	Autho	orization 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 suc	ch authorization bee	n obtained?					
		Yes	[]	No	[]				
	If the	answer to	o (b) is yes, please a	attach a copy o	f the authorizat	ion.			
9. Inf	ormatio	on on pla	nt material to be exa	mined or subn	nitted for exami	nation			
	and o	disease,	sion of a characteris chemical treatment ken from different gr	(e.g. growth	retardants or p				
chara has u	acterist underg	ics of the one such	erial should not have a variety, unless the treatment, full detain vledge, if the plant m	competent aut	horities allow on nent must be g	r request suc iven. In this r	ch treatment. espect, pleas	If the plan	t material
	(a)	Mic	croorganisms (e.g. v	irus, bacteria, j	ohytoplasma)		Yes [ ]	No [	]
	(b)	Ch	emical treatment (e.	g. growth retar	dant, pesticide)		Yes [ ]	No [	]
	(c)	Tis	sue culture				Yes [ ]	No [	]
	(d)	Oth	ner factors				Yes [ ]	No [	]
	Please provide details for where you have indicated "yes".								
10									
10.	10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:								
	Арр	olicant's n	name						
			[						]
	Sig	gnature				Date			

[End of document]