

TG/84/5(proj.2)
ORIGINAL: English
DATE: 2025-05-09

## INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

Geneva

**DRAFT** 

#### JAPANESE PLUM

UPOV Code(s): PRUNU\_CDS; PRUNU\_PSC; PRUNU\_ROS; PRUNU\_SAE; PRUNU\_SAP; PRUNU\_SAV; PRUNU\_SMU; PRUNU\_SPE; PRUNU\_SRP; PRUNU\_SVP

to add "and interspecific hybrids" to common name?

Hybrids between Prunus cerasifera Ehrh., P. domestica L. and P. salicina Lindl.; Hybrids between Prunus pumila, P. salicina and P. cerasifera; Prunus ×rossica Eremin: Prunus salicina x P. americana: (Prunus salicina x P. americana) x P. pumila L. var. bessevi: Hybrids between Prunus salicina Lindl. and P. avium (L.) L.; Prunus salicina x P. mume; Hybrids between Prunus salicina Lindl. and P. persica (L.) Batsch; Hybrids between Prunus salicina, P. armeniaca and P. persica; Prunus salicina x P. avium x P. persica

#### **GUIDELINES**

### FOR THE CONDUCT OF TESTS

## FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from France

to be considered by the

Technical Working Party for Fruit Crops at its fifty-sixth session, to be held in in Bursa, Türkiye, from 2025-06-23 to 2025-06-26

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:\*

Botanical name	English	French	German	Spanish
Hybrids between Prunus cerasifera Ehrh., P. domestica L. and P. salicina Lindl.				
Hybrids between Prunus pumila, P. salicina and P. cerasifera				
Prunus ×rossica Eremin, Prunus cerasifera × P. salicina				
Prunus salicina × P. americana				
(Prunus salicina × P. americana) × P. pumila L. var. besseyi, (Prunus salicina × P. americana) × P. besseyi				
Hybrids between Prunus salicina Lindl. and P. avium (L.) L., Prunus avium (L.) L x P. salicina Lindl., Prunus salicina Lindl. x P. avium (L.) L.				
Prunus salicina × P. mume				
Hybrids between Prunus salicina Lindl. and P. persica (L.) Batsch, Prunus persica (L.) Batsch × P. salicina Lindl., Prunus salicina Lindl. × P. persica (L.) Batsch				
Hybrids between Prunus salicina, P. armeniaca and P. persica, Prunus armeniaca × P. salicina × P. persica, Prunus salicina × P. armeniaca × P. persica				
Prunus salicina × P. avium × P. persica				

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.]

TΑ	BLE O	F CONTENTS	PAGE
1.	SUBJE	CT OF THESE TEST GUIDELINES	<u>4</u>
2.	MATER	RIAL REQUIRED	<u>4</u>
3.	METH	OD OF EXAMINATION	<u>4</u>
	3.1 3.2 3.3 3.4 3.5	Number of Growing Cycles Testing Place Conditions for Conducting the Examination. Test Design Additional Tests	<u>5</u> <u>5</u>
4.	ASSES	SSMENT OF DISTINCTNESS, UNIFORMITY AND STABILITY	<u>6</u>
	4.1 4.2 4.3	Distinctness	<u>7</u>
5.	GROU	PING OF VARIETIES AND ORGANIZATION OF THE GROWING TRIAL	<u>8</u>
6.	INTRO	DUCTION TO THE TABLE OF CHARACTERISTICS	<u>8</u>
	6.1 6.2 6.3 6.4 6.5	Categories of Characteristics States of Expression and Corresponding Notes Types of Expression Example Varieties Legend	<u>8</u> 9
7.		OF CHARACTERISTICS/TABLEAU DES CARACTÈRES/MERKMALSTABELLE/TABLA DE CTERES	<u>11</u>
8.	EXPLA	NATIONS ON THE TABLE OF CHARACTERISTICS	<u>30</u>
	8.1 8.2	Explanations covering several characteristics.  Explanations for individual characteristics.	
9.	LITER	ATURE	40
10.	TECH	NICAL QUESTIONNAIRE	<u>41</u>

### 1. Subject of these Test Guidelines

- 1.1 These Test Guidelines apply to all varieties of hybrids between *Prunus cerasifera* Ehrh., *P. domestica* L. and *P. salicina* Lindl., hybrids between *Prunus pumila*, *P. salicina* and *P. cerasifera*, *Prunus ×rossica* Eremin, *Prunus salicina* × *P. americana*, (*Prunus salicina* × *P. americana*) × *P. pumila* L. var. besseyi, hybrids between *Prunus salicina* Lindl. and *P. avium* (L.) L., *Prunus salicina* × *P. mume*, hybrids between *Prunus salicina* Lindl. and *P. persica* (L.) Batsch, hybrids between *Prunus salicina*, *P. armeniaca* and *P. persica*, *Prunus salicina* × *P. avium* × *P. persica*, *Prunus avium*, *Prunus persica and Prunus cerasifera*, in which the plum phenotype predominates.
- 1.2 Guidance on the use of Test Guidelines for other hybrids involving *Prunus salicina* L. 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 budwood or dormant shoots for grafting, or one-year-old trees grafted on a rootstock specified by the competent authority.
- 2.3 The minimum quantity of plant material, to be supplied by the applicant, should be:
  - budwood or dormant shoots sufficient to propagate 3 trees or
  - 3 one-year-old trees
- 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 3 trees.
- 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 5.

#### 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 3 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) Fruit: weight (characteristic 19)
  - (b) Fruit: ground color of skin (characteristic 33)
  - (c) Fruit: hue of over color (characteristic 34)
  - (d) Fruit: relative area of over color (characteristic 35)
  - (e) Fruit: color of flesh (characteristic 39)
  - (f) Time of beginning of flowering (characteristic 50)
  - (g) Time of beginning of fruit ripening (characteristic 51)
- 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)-(d) See Explanations on the Table of Characteristics in Chapter 8.1

7 Not applicable

#### 9

## 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.	QN	VG	(+)	(a)			·	
	Tree: v	rigor						
	very we	eak						1
	very we	eak to weak					ZAI122bisp	2
	weak						Satsuma, Suplumtwelve	3
	weak to	o medium						4
	mediun	n					Autumn Giant, Obilnaya	5
	mediun	n to strong					Gold Ball	6
	strong						Royal Diamond, Taiyou, Yummygiant	7
	strong	to very strong					Methley	8
	very st	rong						9
2. (*)	PQ	VG	(+)	(a)		l		
3	Tree: h	nabit		:				
	upright						Anne Gold, Formosa, Taiyou	1
	semi-u	pright					Laroda	2
	spread	ing					Ozark Premier, Shiro	3
	droopir	ng					Yummygiant	4
3.	PQ	VG	(+)	(a)				
	One-ye	ear-old shoot:						
	greyish	brown					Taiyou	1
	yellow	brown					Sordum	2
	mediun	n brown					Methley	3
	reddish	brown					Combination	4
4.	QN	MS/VG				Į.	<b>-</b>	1
<u> </u>	Spur:	length		·				
	very sh	nort					Laroda, Sordum	1
	short		<u> </u>					2
	mediur	m	1				Frontier	3
	long		1		<b>+</b>			4
	very lo	ng					October Purple	5

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. (*)	QN	MS/VG	(b)				
	Leaf I	blade: length					
	very s	short				Blackcot, Obilnaya	1
	very s	short to short				Queen Gamet	2
	short					Honey Rosa, Pioneer	3
	short	to medium				Golden Plumza, Ozark Premier	4
	mediu					Friandise, Taiyou	5
		ım to long				Friar, Sun Kiss	6
	long					Lamoon, Sordum	7
	long to	o very long				Plumsweet IV	8
	very lo	ong					9
6. (*)	QN	MS/VG	(b)				
	Leaf I	blade: width					
	very r	narrow				Queen Gamet	1
	very n	narrow to narrow				Pioneer	2
	narro	W				Beauty, Ozark Premier	3
	narror	m to medium				Gold Ball	4
	mediu	ım				September Yummy, Sordum	5
	mediu	ım to broad				Formosa, Methley	6
	broad					Anne Gold, Combination	7
	broad	to very broad				Plumred IX	8
	very b	oroad				Flavorella	9
7. (*)	QN	MS/VG	(b)				
		blade: h/width ratio					
	low					Anne Gold, Casselman	1
	mediu	ım		<b>+</b>		Pioneer, Suplumtwenty	2
	high					Eclipse, Friandise, Lamoon	3

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
8. (*)	PQ	VG	(+)	(b)				
	Leaf b	olade: shape						
	ovate						Flavorella	1
	elliptio	;					October Purple, Suplumtwelve, Syokou, Taiyou	2
	obova	ite					Kanro, Pioneer, Suplumtwenty	3
	to che	eck: triangular					Kelsey	4
9. (*)	PQ	VG		(b)				1
	Leaf I	plade: color of r side						
	light g	reen					Ozark Premier, Taiyou	1
	mediu	ım green					Abundance, Laroda, Yummygiant	2
	dark g	dark green					Gaviota, Shiro	3
	reddis	sh purple					Hollywood	4
10. (*)	PQ	VG	(+)	(b)				
	Leaf I	olade: incisions rgin						
	crena	te					Dapple Dandy, Friandise, Gaviota, Harry Pickstone	1
	bi-cre	nate					Golden Kiss, Pioneer,	2
							Suplumtwenty	
	serrat	e					Suplumtwenty	3
	serrat						Suplumtwenty  ZAI122bisp	3 4
11. (*)	bi-ser			(b)				
11. (*)	bi-seri	rate		(b)				
11. (*)	bi-seri	MS/VG le: length		(b)				
11. (*)	Di-seri	MS/VG le: length		(b)			ZAI122bisp  Plumsweetone, Red	4
11. (*)	QN Petiol very s	MS/VG le: length		(b)			ZAI122bisp  Plumsweetone, Red Beauty  Dapple Dandy, Golden	1
11. (*)	Di-Seri QN Petiol very s	MS/VG le: length		(b)			ZAI122bisp  Plumsweetone, Red Beauty  Dapple Dandy, Golden Plumza, Kelsey  Frontier, Gold Ball,	1 2

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
12.	QN	MS/VG	(+)	(c)				
	Pedic	el: length						
	very s	hort					Dapple Dandy	1
	short						Methley, Sun Kiss, Yummygem	2
	mediu	ım					Queen Ann, RD3, Shiro, Zaiterki	3
	long						Red Ace, Taiyou	4
	very lo	ong					Grenadine	5
13. (*)	QN	MS/VG		(c)				
	Flowe	er: diameter						
	very s	mall					Lamoon	1
	small						Nubiana, Suplumtwelve	2
	mediu	ım					Crimson Glo, October Purple, Shiro, Taiyou	3
	large						Kiyou, Methley, Zaiterla	4
	very la	arge					ZAI122bisp	5
14.	QN	VG	(+)	(c)			1	1
	Flower of pet	er: arrangement tals						
	free						Laroda, Yummygiant	1
	touchi	ing					Beauty, Harry Pickstone, Queen Garnet, Shiro	2
	overla	apping					Anne Gold, Obilnaya	3
15.	PQ	VG	(+)	(c)				
	Petal:	: shape						
	elliptio						Formosa, Red Ace, Taiyou, Yummygiant	1
	circula	ar					Plumsweetone, Shiro, Wickson, Zaipubo	2
	oblate	)					Wright's Early	3
	obova	ate						4

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
16.	QN	VG		(c)				
	Petal: margi	undulation of in						
	absen	it or weak					Formosa, Redheart, Shiro, Taiyou, Yummygiant	1
	mediu	ım					Ozark Premier, Queen Ann, Suplumtwenty	2
	strong	1					Lady Red, Showtime	3
17. (*)	QN	VG	(+)	(c)				
	Stigm relation	na: position in on to anthers						
	below						Mariposa, Suplumtwenty, Yummygiant	1
	same	level					Gold Ball, Methley	2
	above	)					Anne Gold, Obilnaya	3
18. (*)	QN	MS/VG		(d)				1
	Fruit:	length of stalk						
	very s	hort						1
	short						Yonemomo, Zaiterla	2
	mediu						Anne Gold, Sordum	3
	long						Crimson Glo, Hollywood	4
	very lo	ong					Primetime	5
19. (*)	QN	MG/MS		(d)				
·	Fruit:	weight						
	very s	mall					Methley	1
		mall to small					Golden Japan	2
	small						Allo, Eldorado, ZAI122bisp	3
	small	to medium					Suplumtwentytwo	4
	mediu	ım					Shiro, Zaiterla	5
	mediu	ım to large					Blackcot, Crimson Glo	6
	large						Angeleno, Friar, Ozark Premier, Taiyou	7
	large t	to very large					Sun Kiss, Yummygiant	8
	very la	arge					Anne Gold, Lamoon, Songold	9

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
20. (*)	QN	MS/VG	(+)	(d)				
-	Fruit:	height						
	very s	short						1
	very s	short to short					Methley	2
	short						Eclipse, Golden Japan	3
	short	to medium					Blackcot	4
	mediu	ım					Crimson Glo, Harry Pickstone, Sun Kiss	5
	mediu	ım to tall					Plumsweet IV	6
	tall						Anne Gold, Suplumtwenty, Valentine	7
	tall to	very tall					Hengpral, Lamoon	8
	very t	all						9
21. (*)	QN	MS/VG	(+)	(d)				
	Fruit:	width						
	very r	narrow					Methley	1
	very r	narrow to narrow					Zaiterla	2
	narro	w					Amber Jewel, October Sun	3
	narro	w to medium					Yummygem	4
	mediu	ım					Casselman, Crimson Glo	5
	mediu	ım to broad					Ruby Star	6
	broad	l					Anne Gold, Simka	7
	broad	I to very broad					Lamoon, Sun Kiss	8
	very b	oroad					Florence, Suplumtwenty	9

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. (*)	QN	MS/VG		(d)				
	Fruit: height	ratio t/width						
	very sı	mall					Plumsweet XI, SD7A, Suplumtwenty	1
	very sı	mall to small					Dapple Dandy, Friar	2
	small						Anne Gold, Florence	3
	small t	to medium					Golden Japan, Yummygiant	4
	mediu	m					Soryana, Suplumthirtyone	5
	mediu	m to high					Aphrodite, Grenadine	6
	high		•				Lamoon, ZAI122bisp	7
	high to	very high					October Sun	8
	very hi	igh	•				Hengpral	9
23. (*)	QN	VG	(+)	(d)		l		
	Fruit:	symmetry						
	symme asymn	etric or slightly netric					Laroda, Shiro, Soryana	1
	moder	rately asymmetric					Formosa, Friar, Harry Pickstone	2
	strong	ly asymmetric					Anne Gold, Ozark Premier	3
24. (*)	PQ	VG	(+)	(d)				
	Fruit: view	shape in lateral						
	cordat	e					Burbank, Hengpral	1
	oblate						Friar, Suplumtwenty	2
	oblong	]					Reubennel, ZAI048ISP	3
	circula	ır					Golden Japan, Red Beauty, Shiro	4
	elliptic						October Sun, Ozark Premier, Taiyou	5
25. (*)	PQ	VG	(+)	(d)				
	Fruit:	shape of base						
	trunca	te					Florence, Green Sun, Suplumtwelve	1
	depres	ssed					Calita, Durado, Gabora , Suplumtwenty	2

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
26. (*)	PQ	VG	(+)	(d)				
	Fruit:	shape of apex						
	pointe	d					Golden Plumza, Hengpral, Lamoon	1
	rounde	ed					Friandise, Shiro	2
	trunca	te					Angeleno, ZAI048ISP	3
	depres	ssed					Dapple Dandy, Friar, Tereda	4
27.	QN	MS/VG	(+)	(d)		1		ı
	Fruit: cavity	depth of stalk						
	shallo	w					Florence, Rubycrunch, Taiyou	1
	mediu	m					Angeleno, Golden Japan, Nubiana	2
	deep						Laroda, Suplumtwelve, Yummygiant	3
28.	QN	MS/VG	(+)	(d)				T
	Fruit: cavity	width of stalk						
	narrov	v					Koike Sumomo, October Sun, Queen Garnet	1
	mediu	m					Beni Ryozhen, Friandise	2
	broad						Blackred XII, Finroza	3
29.	QN	VG		(d)				
	Fruit:	depth of suture						
	absen	t or very shallow					Golden Japan, Methley, Sunrise	1
	shallo	w					Gold Ball, Pioneer, Taiyou	2
	mediu	m	***************************************				Formosa, Sordum	3
	deep						Akihime, Plumsweetone	4
30. (*)	QL	VG		(d)				1
	Fruit:	pubescence						
	absen	t					Golden Japan, Methley, Soryana	1
	preser	nt					Blackcot, ZAI122bisp, Zaiterla	9

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. (*)	QN	VG		(d)				
	Fruit:	varieties with pubescence: nt: Fruit: bloom of						
	weak						Ooishi Nakate, Red June, Soryana	1
	mediu	ım					Pioneer, Sordum, Yummygiant	2
	strong	)					Blackred XII, Friandise, Redyummy, Souvenir II	3
32. (*)	QL	VG	(+)	(d)				
	Fruit:	surface						
	smoot	th					Golden Japan, Soryana	1
	bump	у					Suplumtwelve, Suplumtwenty	2
33. (*)	PQ	VG		(d)		1		
·	Fruit: skin	ground color of		,				
	not vis	sible					Angeleno, Blackred V	1
	green						Gaviota, Santa Rosa	2
	yellow	vish green					Formosa, Ozark Premier, Songold, Taiyou	3
	yellow	,					Golden Plumza, Shiro, Sun Kiss	4
34. (*)	PQ	VG	(+)	(d)				
	Fruit: color	hue of over						
	none						Golden Japan	1
	orang	e yellow					Zairobe	2
	mediu	ım red					Red Beauty, Soryana	3
	dark r	ed					Formosa, Starking Delicious, Taiyou	4
	purple	)					Karari, Yummygiant	5
	dark b						Laroda, Suplumtwenty	6
	black						Angeleno, Blackred V, Blackred XII	7

		English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
35. (*)	QN	VG	(d)		·		
	Fruit:	relative area of color					
	absen	t or very small				Green Sun, Shiro, Sun Kiss	1
	very s	mall to small					2
	small					Anne Gold, Bragialla	3
	small	to medium				Zaipubo	4
	mediu	ım					5
	mediu	ım to large				Soryana	6
	large					Burbank, Taiyou	7
	large	to very large				Plumred XI	8
	very la	arge or whole ce				Friar, Suplumeleven	9
36. (*)	PQ	VG	(d)				I
	Fruit: color	pattern of over					
	flecks	only				Tiger, Zaiterla	1
	mottle	ed				Burbank, Formosa, Omega	2
	solid f	lush only				Blackred XII, Friar, Taiyou	3
37. (*)	QN	VG	(d)				
	Fruit: lentic	number of els					
	few					ARC PR 3	1
	mediu	ım				Red Majesty, Sunrise	2
	many					Friandise, Polar Eclipse	3
38. (*)	QN	VG	(d)				
	Fruit:	size of lenticels					
	small					Obilnaya, Souvenir II, Sunset	1
	mediu	ım				Extreme, Friandise	2
	large					Plumsweet XI, Southern Belle	3

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39. (*)	PQ	VG		(d)				
	Fruit:	color of flesh						
	whitis	h					Plumcandy X, Taiyou	1
	green							2
	yellow	vish green					Anne Gold, Shiro	3
	yellow	, I					Angeleno, Golden Japan, Reubennel	4
	orang	е					Blackamber, Sun Gold, Zaiterla	5
	mediu	ım red					Florence, Satsuma, Sordum	6
	dark r	ed					Beauty, Friandise, Hawera, Karari, Stark Delicious	7
	purpli	sh					Blackred VI, Plumred VII, Sangue di Drago	8
40.	QN	MS/VG	(+)	(d)			·	
	Fruit:	firmness						
	very s	oft					Shiro	1
	soft						Methley	2
	mediu	ım					Frontier, ZAI122bisp	3
	firm						Anne Gold, Laroda, Sun Kiss, Taiyou, Zaiterla	4
	very fi	irm					Blackamber, Crimson Glo, Redyummy, Yummybeaut	5
41.	QN	MG/VG	(+)	(d)				
	Fruit:	juiciness						
	low						Autumn Giant, Burbank, Laroda	1
	mediu	ım					Friandise, Gaviota, Ozark Premier	2
	high						Reubennel, Santa Rosa, Shiro, Sun Kiss	3

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
42.	QN	MG	(+)	(d)			,	
	Fruit:	acidity						
	low						Angeleno, Durado, Florence, Gold Ball, Lamoon	1
	low to	medium						2
	mediu	ım					Anne Gold, Green Sun, Shiro, Soryana, Sun Kiss, Taiyou	3
	mediu	ım to high						4
	high						Carmen, Crimson Glo, Obilnaja, Pioneer, Zaiterla	5
43.	QN	MG	(+)	(d)			•	
	Fruit:	sweetness						
	low						Durado, Gold Ball, Obilnaja, Shiro	1
	low to	medium						2
	mediu	ım					Angeleno, Pioneer, Soryana	3
	mediu	ım to high						4
	high						Laroda, Plumcandy X, Plumred VII, Suplumtwelve, Taiyou	5
44. (*)	QN	VG	(+)	(d)				<u> </u>
•		adherence of to flesh		•				
	semi-a	adherent					Blackamber, Nubiana, Ruby Star, Taiyou	1
	adher	ent					Friandise, Red Majesty, Shiro, Sungold	2
45. (*)	QN	MS/VG		(d)				
	Stone to fru	e: size in relation it						
	very s	mall					Suplumtwelve	1
	small						Sun Kiss	2
	mediu	ım					Queen Garnet	3
	large						Yummygiant	4
	very la	arge	1				ZAI122bisp	5

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
46.	PQ	VG	(+)	(d)			•	
	Stone view	: shape in lateral						
	circula	ır					Angeleno, Kelsey, Pioneer, Red Beauty	1
	mediu	m elliptic					Friandise, Santa Rosa, Taiyou	2
	narrov	v elliptic					Eldorado, Lamoon, Plumred IX	3
	broad	obovate						4
	mediu	m obovate					African Rose	5
47.	QN	VG	(+)	(d)		_		
	Stone latera	: symmetry in I view						
	symm	etric or slightly netric					Angeleno, Frontier, Methley	1
	moder	ately asymmetric					Friandise, Golden Plumza, Shiro	2
	strong	ly asymmetric					Blackred VI, Obilnaya, Plumred III	3
48.	PQ	VG	(+)	(d)				
		: texture of I surfaces						
	fine gr	ained					Eldorado, Methley, Obilnaya	1
	granul	ar					Nubiana, Pioneer	2
	rough						Laroda, Songold, Zaipubo	3
	hamm	ered					Harry Pickstone, Ozark Premier, Suplumtwenty, Yummygiant	4
49.	QN	VG	(+)	(d)				
	Stone end	: width of stalk-						
	narrov	V					Friar, Frontier, Golden Japan, October Sun	1
	mediu	m					Dapple Dandy, Harry Pickstone, Sun Kiss	2
	broad						Angeleno, Lady Red, Red Beauty, Suplumtwenty	3

		English		français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
50. (*)	QN	MG	(+)					!
	Time flowe	of beginning of ring						
	very e	early					Blackred VI, Durado, Karari	1
	very e	early to early					African Rose, Blackred I, Plumred VII, Red Beauty	2
	early						Grenadine, Mariposa, Plumsweet V, Taiyou	3
	early t	to medium					Crimson Glo, Plumsweet IV, Red Majesty	4
	mediu	ım					Green Sun, Nubiana, Redyummy, Suplumthirtyone	5
	mediu	ım to late					Friandise, Friar, Zairobe	6
	late						Gaviota, Golden Japan, Gradiplum, Ozark Premier, Shiro	7
	late to	very late					Anne Gold, Burbank, Zaipubo	8
	very la	ate					Angeleno, Ruby Star, Simka	9
51. (*)	QN	MG	(+)					
	Time fruit r	of beginning of ipening						
	very e	early					Blackred I, Durado, Red Beauty, Red Noble, Zaiterla	1
	very e	early to early					African Rose, Methley, Yummygem	2
	early						Golden Japan, Mariposa, Shiro, Yummybeaut	3
	early t	to medium					Anne Gold, Blackcot, Soryana	4
	mediu	ım					Crimson Glo, Gaviota, Suplumtwelve	5
	mediu	ım to late					Lamoon, Sun Kiss	6
	late						Angeleno, Nubiana, Plumcandy X, Plumsweet IV, Taiyou, Zaiterki	7
	late to	very late					Blackred XII, Florence, Ruby Star	8
	very la	ate					Akihime, Autumn Giant, Golden King, September Yummy	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:

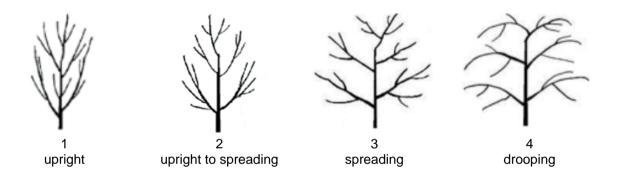
- (a) Observations should be made during the dormant period and before the beginning of flowering, on trees that have fruited at least once.
- (b) Observations should be made on fully developed leaves from the middle third of a well- developed current season's shoot.
- (c) Observations should be made on fully developed flowers.
- (d) Observations should be made on mature fruits, at time of eating maturity.

### 8.2 Explanations for individual characteristics

### Ad. 1: Tree: vigor

The tree vigor should be considered as the overall abundance of vegetative growth.

### Ad. 2: Tree: habit



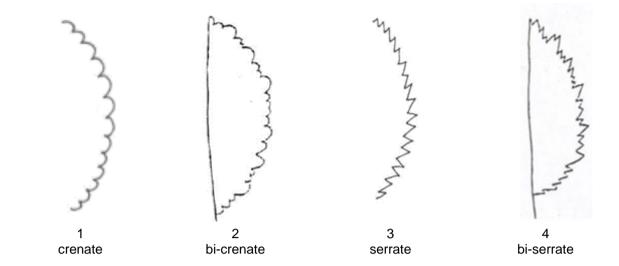
### Ad. 3: One-year-old shoot: color

Observations should be made on the sunny side of one-year-old shoots, at the central third of the shoots.

### Ad. 8: Leaf blade: shape



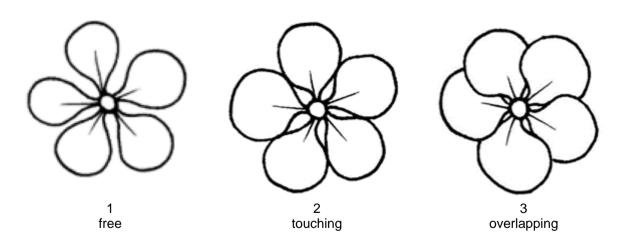
Ad. 10: Leaf blade: incisions of margin



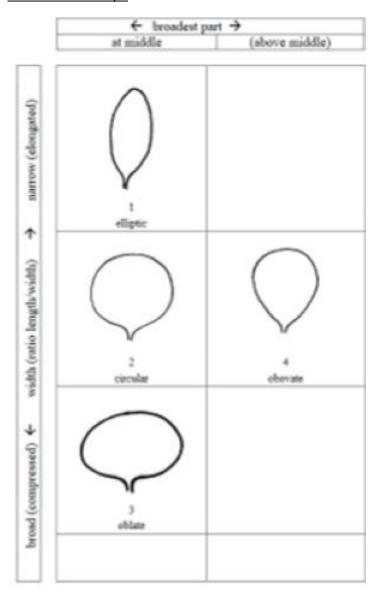
Ad. 12: Pedicel: length



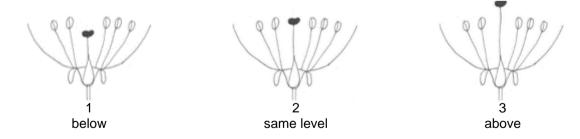
Ad. 14: Flower: arrangement of petals



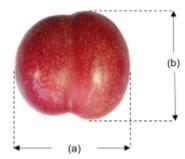
## Ad. 15: Petal: shape



Ad. 17: Stigma: position in relation to anthers



Ad. 20: Fruit: height



- (a) Width in ventral view
- (b) Height

Ad. 21: Fruit: width

See Ad. 30.

Observations should be made in ventral view.

Ad. 23: Fruit: symmetry

Observations should be made in ventral view.



symmetric or slightly asymmetric



2 moderately asymmetric



3 strongly asymmetric

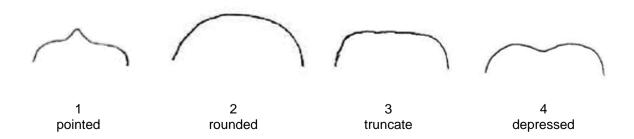
## Ad. 24: Fruit: shape in lateral view

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

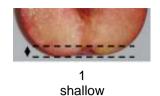
## Ad. 25: Fruit: shape of base

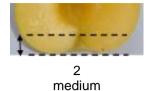


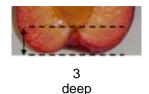
## Ad. 26: Fruit: shape of apex



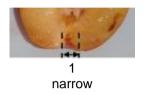
### Ad. 27: Fruit: depth of stalk cavity

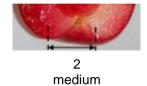


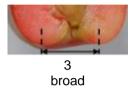




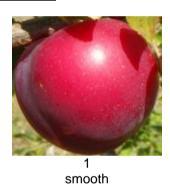
### Ad. 28: Fruit: width of stalk cavity







Ad. 32: Fruit: surface





Ad. 34: Fruit: hue of over color

Observations should be made after removing bloom.

### Ad. 40: Fruit: firmness

Observations should be made by squeezing the fruits or measuring by using a penetrometer.

### Ad. 41: Fruit: juiciness

Observations could be made by calculating the ratio between the weight of a (or several) fresh fruit, and the weight of the juice obtained by pressing those fresh fruits.

### Ad. 42: Fruit: acidity

The acidity should be observed as titrable acidity of juice. Equation is: Acidity (gram/liter) = (V1 \* N \* me)/V  $V = \text{sample volume in ml} \\ V1 = \text{NaOH volume in ml} \\ N = \text{normality of NaOH} \\ \text{me} = \text{equivalent weight of malic acid (67)}$ 

## Ad. 43: Fruit: sweetness

Observations should be made using degrees Brix.

## Ad. 44: Fruit: adherence of stone to flesh

Observations should be made on the part of the stone that is linked to the flesh on an open fruit.

Ad. 46: Stone: shape in lateral view

	<b>←</b>		→ above middle			
	at	at middle				
width (ratio length/width)						
narrow (high)		3 narrow elliptic				
medium (medium)		2	5			
	circular	medium elliptic	medium obovate			
broad (low)			4 broad obovate			

## Ad. 47: Stone: symmetry in lateral view



symmetric or slightly asymmetric

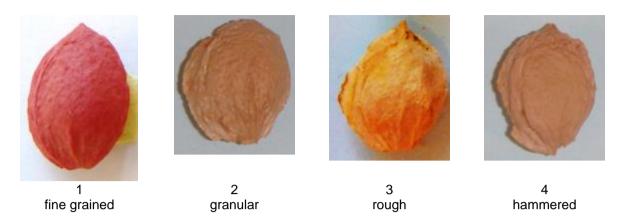


moderately asymmetric



3 strongly asymmetric

Ad. 48: Stone: texture of lateral surfaces



Ad. 49: Stone: width of stalk-end



Ad. 50: Time of beginning of flowering

Time of beginning of flowering is reached when 10% of flowers are open.

### Ad. 51: Time of beginning of fruit ripening

Time of beginning of fruit ripening is reached when 10% of fruits have eating maturity.

#### 9. Literature

Aranzana, M.J., Decroocq, V., Dirlewanger, E. et al. 2019. Prunus genetics and applications after de novo genome sequencing: achievements and prospects. Hortic Res 6:58. https://doi.org/10.1038/s41438-019-0140-8

Boonprakob, U., Byrne, D.H., Graham, C.J., Okie, W.R., Beckman, T., Smith, B.R. 2001. Genetic relationships among cultivated diploid plums and their progenitors as determined by RAPD markers. Journal of the American Society for Horticultural Science 126:451-461. https://doi.org/10.21273/JASHS.126.4.451

Burbank, L. 1901. Supplement to new creations in fruits and flowers. Santa Rosa, California, US: Burbank's Experimental Farms.

Guerrero, B.I., Guerra, M.E., Herrera, S., Irisarri, P., Pina, A., and Rodrigo, J. 2021. Genetic diversity and population structure of Japanese plum-type (hybrids of *P. salicin*a) accessions assessed by SSR markers. Agronomy 11(9):1748.

https://doi.org/10.3390/agronomy11091748

Hartmann, W. and Neumüller, M. 2009. Plum breeding. Breeding plantation tree crops: temperate species, pp.161-231. https://www.researchgate.net/profile/Manfred-Fischer-3/publication/225247978\_Pear\_Breeding/links/54de3cb40cf2953c22ad7e2c/Pear-Breeding.pdf#page=167

Hedrick, U.P., 1911: The Plums of New York. JB Lyon Company, Binghamton, NY, US

Karp, D. 2015. Luther Burbank's Plums. HortScience 50(2):189-194. https://doi.org/10.21273/HORTSCI.50.2.189

Li, F.D., Du, H.Y., Fu D.L., Yang, S.B., Fu J.M., Du, L.Y., Li F.H. 2004. 'Konglongdan' — a new cultivar of hybrid between the species of plum and apricot. Acta Horticulturae Sinica 31(6):835-835. https://www.ahs.ac.cn/EN/Y2004/V31/I6/835

Lindley, J. 1830. Report upon the new or rare plants... [with first publication of "*Prunus salicina*", pp. 239-240]. In: Transactions of the Horticultural Society 7. London

Liu, W., Liu, D., Zhang, A., Feng, C., Yang, J., Yoon, J., and Li, S. 2007. Genetic diversity and phylogenetic relationships among plum germplasm resources in China assessed with inter-simple sequence repeat markers. Journal of the American Society for Horticultural Science 132(5):619-628. https://doi.org/10.21273/JASHS.132.5.619

Liu, S, Xu, M., Liu, J., et al. 2023 An overview of the worldwide plum breeding. Scientia Agricultura Sinica 56(9):1744-1759. https://doi.org/10.3864/j.issn.0578-1752.2023.09.011

Neumüller, M. 2011. Fundamental and applied aspects of plum (*Prunus domestica*) breeding. Fruit, Vegetable and Cereal Science and Biotechnology 5(1):139-156. http://www.globalsciencebooks.info/Online/GSBOnline/images/2011/FVCSB 5(SI1)/FVCSB 5(SI1)139-

nttp://www.globalsclencebooks.into/Online/GSBOnline/Images/2011/FVCSB\_5(SI1)/FVCSB\_5(SI1)139-156o.pdf

Okie, W.R. 2005. 'Spring Satin' plumcot. Journal of the American Pomological Society 59(3):119-124. https://www.pubhort.org/aps/59/v59\_n3\_a18.htm

Okie, W.R. 2006. Introgression of *Prunus* species in plum. *NY Fruit Quarterly 14*(1):29-37. https://nyshs.org/wp-content/uploads/2016/10/Introgression-of-Prunus-Species-in-Plum.pdf

Okie, W.R., and Hancock, J.F. 2008. Plums. In: Temperate fruit crop breeding: germplasm to genomics, J.F. Hancock (ed.). Dordrecht, Germany: Springer Science. https://doi.org/10.1007/978-1-4020-6907-9\_11 Okie, W.R., Ramming, D.W. 1999. Plum breeding worldwide. HortTechnology 9:162-176. https://doi.org/10.21273/HORTTECH.9.2.162

Okie, W.R., and Weinberger, J.H. 1996. Plums, pp. 559-607. In: Janick, J. and Moore, J.N. Fruit breeding, Volume I: Tree and tropical fruits. New York: Wiley.

Ramming, D., and Cociu, V. 1991. Plums (*Prunus*). In: Genetic resources of temperate fruit and nut crops, ed. Moore, J.N. and Ballington, J.J., Acta Hortic. 290:233-287. Wageningen, the Netherlands: International

Society for Horticultural Science.

https://doi.org/10.17660/ActaHortic.1991.290.6

Reales, A., Sargent, D.J., Tobutt, K.R. et al. 2010. Phylogenetics of Eurasian plums, Prunus L. section Prunus(Rosaceae), according to coding and non-coding chloroplast DNA sequences. Tree Genetics & Genomes 6:37-45.

https://doi.org/10.1007/s11295-009-0226-9

Shi, S., Li, J., Sun, J., Yu, J. and Zhou, S. 2013. Phylogeny and classification of Prunus sensu lato (Rosaceae). Journal of Integrative Plant Biology 55(11):1069-1079. https://doi.org/10.1111/jipb.12095

Sottile, F., Caltagirone, C., Giacalone, G., Peano, C., Barone, E. 2022. Unlocking plum genetic potential: where are we at? Horticulturae 8:128.

https://doi.org/10.3390/horticulturae8020128

Spaeth, R.A., Pincot, D.D., Potter, D., Brown, P.J., Gradziel, T. and Preece, J.E. 2024. Relatedness of Luther Burbank's plum (Prunus sp.) introductions based on genotyping by seguencing. HortScience, 59(6):873-880. https://doi.org/10.21273/HORTSCI17731-24

Tong, Y and Xia, N. 2016. New combinations of Rosaceae, Urticaceae and Fagaceae from China. Biodiversity Science 24(6):714-718.

https://doi.org/10.17520/biods.2016071

USDA. 2025a. Taxonomy of Prunus xlimeixing (J. Y. Zhang & Z. M. Wang) Y. H. Tong & N. H. Xia). USDA, Agricultural Research Service, National Plant Germplasm System. 2025. Germplasm Resources Information Network (GRIN Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland. https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomydetail?id=482374. Accessed 16 April 2025.

USDA, 2025b. Taxonomy of Prunus salicina Lindl, USDA, Agricultural Research Service, National Plant Germplasm System. 2025. Germplasm Resources Information Network (GRIN Taxonomy). National Germplasm Resources Laboratory, Beltsville, Maryland.

https://npgsweb.ars-grin.gov/gringlobal/taxon/taxonomydetail?id=30091. Accessed 17 April 2025.

Wei, X., Shen, F., Zhang, Q. et al. 2021 Genetic diversity analysis of Chinese plum (Prunus salicina L.) based on whole-genome resequencing. Tree Genetics & Genomes 17:26. https://doi.org/10.1007/s11295-021-01506-x

Wight, W.P. 1915. Native American species of Prunus. Washington, DC: United States Department of Agriculture.

https://www.biodiversitylibrary.org/item/190323

Yu Xianghe, Zhang Qiuping, Liu Weisheng, Sun Meng, Liu Ning, Zhang Yuping, Xu Ming. 2011. Genetic diversity analysis of morphological and agronomic characters of Chinese plum (Prunus salicina Lindl.) germplasm. Journal of Plant Genetic Resources 12(3):402-407.

Zhang, Q.P., Wei, X., Liu, W.S., Liu, N., Zhang, Y.P., Xu, M., Liu, S., Zhang, Y.J., Ma, X.X. and Dong, W.X. 2018. The genetic relationship and structure of some natural interspecific hybrids in Prunus subgenus Prunophora, based on nuclear and chloroplast simple sequence repeats. Genetic Resources and Crop Evolution 65:625-636. https://doi.org/10.1007/s10722-017-0559-4

Zhivondov, A. 2011. 'Standesto', the first Bulgarian plumcot cultivar. In XV International Symposium on Apricot Breeding and Culture, ActaHort 966:219-222.

https://www.actahort.org/books/966/966\_34.htm

Zhivondov, A. and Uzundzhalieva, K. 2011. Taxonomic classification of plum-apricot hybrids. In XV International Symposium on Apricot Breeding and Culture, ActaHort 966:211-217. https://www.actahort.org/books/966/966 33.htm

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

TECHN	IICAL Q	UESTIONNAIRE		Page {x} of {y}		Reference Number:	
						Application date: (not to be filled in by the applicant	t)
			_	HNICAL QUESTIC		IRE for plant breeders' rights	
1.	Subject	of the Technical Questio	onnai	re			
	1.1.1	Botanical name		orids between <i>Prui</i> salicina Lindl.	nus c	erasifera Ehrh., P. domestica L. and	[]
	1.1.2	Common name					
	1.2.1	Botanical name	Hyl	orids between <i>Prui</i>	nus p	umila, P. salicina and P. cerasifera	[]
	1.2.2	Common name					
	1.3.1	Botanical name	Pru	<i>ınus ×rossica</i> Eren	nin		[]
	1.3.2	Common name					
	1.4.1	Botanical name	Pru	ınus salicina × P. a	amerio	cana	[]
	1.4.2	Common name					
	1.5.1	Botanical name	(Pr	unus salicina × P.	amer	icana) × P. pumila L. var. besseyi	[]
	1.5.2	Common name					
	1.6.1	Botanical name	Hyl	orids between <i>Prui</i>	านร ระ	alicina Lindl. and <i>P. avium</i> (L.) L.	[]
	1.6.2	Common name					
	1.7.1	Botanical name	Pru	ınus salicina × P. r	nume		[]
	1.7.2	Common name					
	1.8.1	Botanical name		orids between <i>Prui</i> sch	านร ระ	alicina Lindl. and <i>P. persica</i> (L.)	[]
	1.8.2	Common name					
	1.9.1	Botanical name	Hyl	orids between <i>Prui</i>	านร ระ	alicina, P. armeniaca and P. persica	[]
	1.9.2	Common name					

	1.10.1	Botanical name	Prunus salicina × P. avium × P. persica	[]
	1.10.2	Common name		
	1.11.1	Botanical name	Prunus salicina x (Prunus salicina x Prunus armeniaca), and other hybrids involving Prunus salicina and Prunus armeniaca in which the plum phenotype predominates	[]
	1.11.2	Common name	interspecific plum	
	1.12.1	Botanical name	hybrids between <i>Prunus salicina</i> and one or more of <i>Prunus armeniaca</i> , <i>Prunus persica</i> , <i>Prunus avium</i> and <i>Prunus cerasifera</i> , in which the plum phenotype predominates	[]
	1.12.2	Common name	interspecific plum	
	1.13.1	Botanical name	Prunus x limeixing; Prunus salicina x Prunus ameniaca	[]
	1.13.2	Common name	plumcot	
2.	Applicar	nt		
	Name			
	Address	i		ı
	Telepho	ne No.		1
	Fax No.			
	E-mail address			
	E-mail a	ddress		
		(if different from		
3.	Breeder applican	(if different from	eder's reference	
3.	Breeder applican Propose	(if different from at) and denomination and bread denomination	eder's reference	

TECHN	NICAL Q	UESTIONNAIRE	Page {x} of {y}	Reference Number:
#4.	Informa	tion on the breeding scheme	and propagation of the va	riety
	4.1	Breeding scheme		
	Variety	resulting from:		
	4.1.1	Crossing		
	(5)	acontrolled avece		r 1
	(a)	controlled cross		[]
	(b)	partially known cross		[]
	(c)	unknown cross		[ ]
	4.1.2	Mutation (please state parent variety	a.	[]
		(please state parent variety	)	
	4.1.3	Discovery and developmen	t	[]
		(please state where and wh	nen discovered and how de	veloped)
	4.1.4	Other		[]
		(Please provide details)		

TECHNICAL C	UESTIONNAIRE	Page {x} of {y}	Reference Number	:
4.0	Mathada for a sanding the sa			
4.2	Method of propagating the v	rariety		
4.2.1	Vegetative propagation			
(a) (b) (c) (d)	Cuttings In vitro propagation Budding or grafting 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 (19)	Fruit: weight		
	very small	Methley	1[]
	very small to small	Golden Japan	2[]
	small	Allo, Eldorado, ZAI122bisp	3[]
	small to medium	Suplumtwentytwo	4[]
	medium	Shiro, Zaiterla	5[]
	medium to large	Blackcot, Crimson Glo	6[]
	large	Angeleno, Friar, Ozark Premier, Taiyou	7[]
	large to very large	Sun Kiss, Yummygiant	8[]
	very large	Anne Gold, Lamoon, Songold	9[]
5.2 (24)	Fruit: shape in lateral view		
	cordate	Burbank, Hengpral	1[]
	oblate	Friar, Suplumtwenty	2[]
	oblong	Reubennel, ZAI048ISP	3[]
	circular	Golden Japan, Red Beauty, Shiro	4[]
	elliptic	October Sun, Ozark Premier, Taiyou	5[]
5.3 (30)	Fruit: pubescence		
	absent	Golden Japan, Methley, Soryana	1[]
	present	Blackcot, ZAI122bisp, Zaiterla	9[]
5.4 (33)	Fruit: ground color of skin		
	not visible	Angeleno, Blackred V	1[]
	green	Gaviota, Santa Rosa	2[]
	yellowish green	Formosa, Ozark Premier, Songold, Taiyou	3[]
	yellow	Golden Plumza, Shiro, Sun Kiss	4[]

	Characteristics	Example Varieties	Note
5.5 (34)	Fruit: hue of over color		
	none	Golden Japan	1[]
	orange yellow	Zairobe	2[]
	medium red	Red Beauty, Soryana	3[]
	dark red	Formosa, Starking Delicious, Taiyou	4[]
	purple	Karari, Yummygiant	5[]
	dark blue	Laroda, Suplumtwenty	6[]
	black	Angeleno, Blackred V, Blackred XII	7[]
5.6 (35)	Fruit: relative area of over color		
	absent or very small	Green Sun, Shiro, Sun Kiss	1[]
	very small to small		2[]
	small	Anne Gold, Bragialla	3[]
	small to medium	Zaipubo	
	medium		5[]
	medium to large	Soryana	6[]
	large	Burbank, Taiyou	7[]
	large to very large	Plumred XI	8[]
	very large or whole surface	Friar, Suplumeleven	9[]
5.7 (39)	Fruit: color of flesh		
	whitish	Plumcandy X, Taiyou	1[]
	green		2[]
	yellowish green	Anne Gold, Shiro	3[]
	yellow	Angeleno, Golden Japan, Reubennel	4[]
	orange Blackamber, Sun Gold, Zaiterla		5[]
	medium red	Florence, Satsuma, Sordum	6[]
	dark red	Beauty, Friandise, Hawera, Karari, Stark Delicious	7[]
	purplish	Blackred VI, Plumred VII, Sangue di Drago	8[]

	Characteristics	Example Varieties	Note
5.8 (50)	Time of beginning of flowering		
	very early	Blackred VI, Durado, Karari	1[]
	very early to early	African Rose, Blackred I, Plumred VII, Red Beauty	2[]
	early	Grenadine, Mariposa, Plumsweet V, Taiyou	3[]
	early to medium	Crimson Glo, Plumsweet IV, Red Majesty	4[]
	medium	Green Sun, Nubiana, Redyummy, Suplumthirtyone	5[]
	medium to late	Friandise, Friar, Zairobe	6[]
	late	Gaviota, Golden Japan, Gradiplum, Ozark Premier, Shiro	7[]
	late to very late	Anne Gold, Burbank, Zaipubo	
	very late	Angeleno, Ruby Star, Simka	9[]
5.9 (51)	Time of beginning of fruit ripening		
	very early	Blackred I, Durado, Red Beauty, Red Noble, Zaiterla	1[]
	very early to early	African Rose, Methley, Yummygem	2[]
	early	Golden Japan, Mariposa, Shiro, Yummybeaut	3[]
	early to medium	Anne Gold, Blackcot, Soryana	4[]
	medium	Crimson Glo, Gaviota, Suplumtwelve	5[]
	medium to late	Lamoon, Sun Kiss	6[]
	late	Angeleno, Nubiana, Plumcandy X, Plumsweet IV, Taiyou, Zaiterki	7[]
	late to very late	Blackred XII, Florence, Ruby Star	8[]
	very late	Akihime, Autumn Giant, Golden King, September Yummy	9[]

TECHNICAL QUESTION	Page {x} of {y} Reference Numb			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 character	expression of ristic(s) for the rariety(ies)	Describe the expre the characteristic(s candidate var	) for <b>your</b>	
Example Fruit: ground o		color of skin	Not	visible	Green		
Comments:							

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

<sup>#</sup> 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 th	Are there any special conditions for growing the variety or conducting the examination?					
	Yes	[]	No	[]			
	(If yes,	(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.]

TECH	NICAI	LQUESTIONNAIRE	Page {x} of {y}	F	Reference	Number:		
8.	Authoi	rization for release						
	(a)	Does the variety require prior authorization for release under legislation concerning the protection of th environment, human and animal health?						
		Yes [ ]	No []					
	(b)	Has such authorization bee	n obtained?					
		Yes [ ]	No []					
	If the a	answer to (b) is yes, please a	attach a copy of the autho	rizatio	n.			
9. Info	rmatio	n on plant material to be exa	amined or submitted for ex	xamina	ation			
	and d	e expression of a characteris lisease, chemical treatment scions taken from different gr	(e.g. growth retardants	or pe				
chara has u	cteristi ndergo	ant material should not have cs of the variety, unless the one such treatment, full detai our knowledge, if the plant m	competent authorities alle	ow or be give	request sue en. In this i	ch treatment. I respect, please	f the plant ma	terial
	(a)	Microorganisms (e.g. vi	irus, bacteria, phytoplasm	na)		Yes [ ]	No [ ]	
	(b)	Chemical treatment (e.	g. growth retardant, pestic	cide)		Yes [ ]	No [ ]	
	(c)	Tissue culture				Yes [ ]	No [ ]	
	(d)	Other factors				Yes [ ]	No [ ]	
	Please provide details for where you have indicated "yes".							
9.3 Ha	as the	plant material to be examine	d been tested for the pres	sence (	of virus or o	other pathoger	ıs?	
	Yes	[ ]						
	(please provide details as specified by the Authority)							
	No	[ ]						
10.	10. I hereby declare that, to the best of my knowledge, the information provided in this form is correct:							
	Арр	licant's name						
								<u> </u>
Signature					Date			

[End of document]