

GRANO SIBERIANO VALTELLINESE

Scheda descrittiva morfologica

I caratteri morfologici del Grano Siberiano Valtellinese (*Fagopyrum tataricum*) sono stati descritti seguendo le indicazioni del questionario tecnico dell'Unione Internazionale per la protezione delle Novità Vegetali (UPOV) TG/278/1 che fa riferimento al grano saraceno comune (*Fagopyrum esculentum*) (la specie più affine a *Fagopyrum tataricum*) in quanto UPOV non dispone di linee guida tecnico-descrittive specifiche per il grano saraceno siberiano.

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 In the case of qualitative and pseudo-qualitative characteristics (see Chapter 6.3), all relevant states of expression are presented in the characteristic. However, in the case of quantitative characteristics with 5 or more states, an abbreviated scale may be used to minimize the size of the Table of Characteristics. For example, in the case of a quantitative characteristic with 9 states, the presentation of states of expression in the Test Guidelines may be abbreviated as follows:

State	Note
small	3
medium	5
large	7

However, it should be noted that all of the following 9 states of expression exist to describe varieties and should be used as appropriate:

State	Note
very small	1
very small to small	2
small	3
small to medium	4
medium	5
medium to large	6
large	7
large to very large	8
very large	9

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*

(*) Asterisked characteristic – see Chapter 6.1.2

QL Qualitative characteristic – see Chapter 6.3

QN Quantitative characteristic – see Chapter 6.3

PQ Pseudo-qualitative characteristic – see Chapter 6.3

MG, MS, VG, VS – see Chapter 4.1.5

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

(+) See Explanations on the Table of Characteristics in Chapter 8.2

09-99 See Explanations on the Table of Characteristics in Chapter 8.3

C special test

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

	<u>English</u>	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1.	C	Plant: ploidy	Plante : ploïdie	Pflanze: Ploidie	Planta: ploidía	
QL	<u>diploid</u>	diploïde	dipoid	diploide	Shinano No.1	2
	tetraploid	tétraploïde	tetrapoid	tetraploide	Miyazaki-ohtsubu	4
2.	09 VG	Cotyledon: anthocyanin coloration	Cotylédon : pigmentation anthocyanique	Keimblatt: Anthocyanfärbung	Cotiledón: pigmentación antociánica	
QN	<u>absent or very weak</u>	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Aelita	1
	weak	faible	gering	débil	Astoria, Shinano No.1	3
	medium	moyenne	mittel	media	Miyazaki-ohtsubu	5
	strong	forte	stark	fuerte	Rubra	7
3.	51 VG	Stem: anthocyanin coloration	Tige : pigmentation anthocyanique	Stengel: Anthocyanfärbung	Tallo: pigmentación antociánica	
QN	absent or weak	nulle ou faible	fehlend oder gering	ausente o débil	Shinano-natusoba, Yangjeol	1
	<u>medium</u>	moyenne	mittel	media	Daesan, Takane ruby	2
	strong	forte	stark	fuerte	Shinei red	3
4.	51 VG	Inflorescence: anthocyanin coloration of bud	Inflorescence : pigmentation anthocyanique du bourgeon	Blüte: Anthocyanfärbung der Knospe	Inflorescencia: pigmentación antociánica de la yema	
QN	<u>absent or very weak</u>	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Shinano No.1, Max	1
	weak	faible	gering	débil		3
	medium	moyenne	mittel	media	Lifago	5
	strong	forte	stark	fuerte	Lifesturm, Takane ruby	7

	<u>English</u>	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5. (*) (+)	MG	Time of beginning of flowering	Époque de début de floraison	Zeitpunkt des Blühbeginns	Época del inicio de la floración	
QN	<u>early</u>	précoce	früh	precoz	Kitawasesoba, Vokiai	3
	medium	moyenne	mittel	media	Shinano No.1, Shinano-natusoba, Zita	5
	late	tardive	spät	tardía	La Harpe, Shinei red	7
6. (+)	65 VG	Plant: growth type	Plante : type de croissance	Pflanze: Wuchstyp	Planta: hábito de crecimiento	
QL	determinate	déterminé	begrenzt wachsend	determinado	Kitawasesoba	1
	<u>indeterminate</u>	indéterminé	unbegrenzt wachsend	indeterminado	Kitanomashu	2
7. (*) (+)	65 MG	Plant: height	Plante : hauteur	Pflanze: Höhe	Planta: altura	
QN	short	basse	niedrig	baja	Shinano-natusoba	3
	<u>medium</u>	moyenne	mittel	media	Shinano No.1	5
	tall	haute	hoch	alta	Miyazaki-ohtsubu	7
8. (+)	65 VG	Leaf blade: shape of base	Limbe : forme de la base	Blattspreite: Form der Basis	Limbo: forma de la base	
PQ	(a) truncate	tronquée	abgestumpft	truncada		1
	weakly cordate	légèrement cordiforme	leicht herzförmig	ligeramente cordiforme	Shinano No.1, Shinano-natusoba	2
	strongly cordate	fortement cordiforme	stark herzförmig	fuertemente cordiforme	Miyazaki-ohtsubu	3
	<u>sagittate</u>	sagittée	pfeilspitzenförmig	sagitada	Daesan	4

	<u>English</u>	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
9.	65 VG	Leaf blade: intensity of green color	Limbe : intensité de la couleur verte	Blattspreite: Intensität der Grünfärbung	Limbo: intensidad del color verde		
QN	(a)	light	claire	hell	clara	Smuglianka, Takane ruby	1
		<u>medium</u>	moyenne	mittel	media	Luba, Panda, Shinano No.1	2
		dark	forte	dunkel	oscura	Miyazaki-ohtsubu, Vokiai	3
10.	65 VG	Flower: size	Fleur : taille	Blüte: Größe	Flor: tamaño		
QN		<u>small</u>	petite	klein	pequeño	Shinano No.1	1
		medium	moyenne	mittel	medio	Shinano-natusoba	2
		large	grande	groß	grande	Miyazaki-ohtsubu	3
11.	65 VG (*)	Flower: color of petals	Fleur : couleur des pétales	Blüte: Farbe der Blütenblätter	Flor: color de los pétalos		
PQ		white	blancs	weiß	blanco	Shinano No.1, Yangjeol	1
		<u>light green</u>	vert clairs	hellgrün	verde claro	Zelenotsvetkovaya 90	2
		light red	rouge clair	hellrot	rojo claro	Shinei red	3
		dark red	rouge foncé	dunkelrot	rojo oscuro	Takane ruby	4
12.	65 VG (+)	Flower: length of pedicel	Fleur : longueur du pédicelle	Blüte: Länge des Blütenstiels	Flor: longitud del pedicelo		
QN		short	court	kurz	corta	Miyazaki-ohtsubu	1
		<u>medium</u>	moyen	mittel	media	Shinano No.1	2
		long	long	lang	larga		3
13.	65 VG (+)	Plant: total number of flower clusters	Plante : nombre total d'amas de fleurs	Pflanze: Gesamtzahl der Blütentrauben	Planta: número total de racimos florales		
QN		few	petit	wenige	bajo	Shinano-natusoba	1
		medium	moyen	mittel	medio	Shinano No.1	2
		<u>many</u>	grand	viele	alto	Miyazaki-ohtsubu	3

	<u>English</u>	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
14.	78	Stem: length	Tige : longueur	Stengel: Länge	Tallo: longitud		
(+)	MS						
QN	short	courte	kurz	corta	Shinano-natusoba	3	
	<u>medium</u>	moyenne	mittel	media	Shinano No.1	5	
	long	longue	lang	larga		7	
15.	78	Stem: number of nodes	Tige : nombre de nœuds	Stengel: Anzahl der Knoten	Tallo: número de nudos		
(*)	MS						
QN	few	petit	wenige	bajo	Shinano-natusoba	3	
	<u>medium</u>	moyen	mittel	medio	Shinano No.1	5	
	many	grand	viele	alto	Takane ruby	7	
16.	78	Stem: diameter	Tige : diamètre	Stengel: Durchmesser	Tallo: diámetro		
(+)	MS						
QN	small	petit	klein	pequeño	Shinano-natusoba	1	
	<u>medium</u>	moyen	mittel	medio	Shinano No.1	2	
	large	grand	groß	grande		3	
17.	89	Time of maturity	Époque de maturité	Zeitpunkt der Reife	Época de madurez		
(*)	MG						
(+)							
QN	<u>early</u>	précoce	früh	precoz	Shinano-natusoba	3	
	medium	moyenne	mittel	media	Shinano No.1	5	
	late	tardive	spät	tardía	Shinei red	7	
18.	99	Seed: length	Semence : longueur	Samen: Länge	Semilla: longitud		
	MS/ VG						
QN	(b)	short	courte	kurz	corta	1	
		<u>medium</u>	moyenne	mittel	media	Shinano No.1	2
		long	longue	lang	larga	Miyazaki-ohtsubu	3

	<u>English</u>	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota	
19.	99	Seed: shape	Semence : forme	Samen: Form	Semilla: forma		
	VG						
	(+)						
PQ	(b)	elliptic	elliptique	elliptisch	elíptica	Kubokawa-zairai	1
		ovate	ovale	eiförmig	ovado		2
		<u>trullate</u>	trullée	rautenförmig	rómbica	Shinano No.1, Yangjeol	3
20.	99	Seed: skin color	Semence : couleur de l'épiderme	Samen: Farbe der Haut	Semilla: color de la piel		
	(*)	VG					
PQ	(b)	grey	gris	grau	gris	La Harpe	1
		<u>medium brown</u>	brun moyen	mittelbraun	marrón medio	Daesan, Kora, Luba, Panda, Takane ruby, Zita	2
		dark brown	brun foncé	dunkelbraun	marrón oscuro	Ilija, Shinano No.1, Yangjeol	3
		black	noir	schwarz	negro	Czernoplodnaja, Shinano-natsusoba, Smuglianka	4
21.	99	Seed: 1000 seed weight	Semence : poids de 1 000 semences	Samen: Gewicht von 1 000 Samen	Semilla: peso de 1000 semillas		
	MG						
QN	(b)	low	petit	gering	pequeño	Kora, La Harpe, Luba, Panda, Shinei red	3
		medium	moyen	mittel	mediano	Shinano No.1, Smuglianka, Zita	5
		<u>high</u>	élevé	hoch	grande	Ilija, Kara Dag, Kitawasesoba, Lena, Vokiai	7

2. Explanations on the Table of Characteristics

8.1 *Explanations covering several characteristics*

- (a) all observations on leaves should be observed on leaves from the middle part of the plant
- (b) all observations on seeds should be observed on ripened seeds from the upper part of the plant

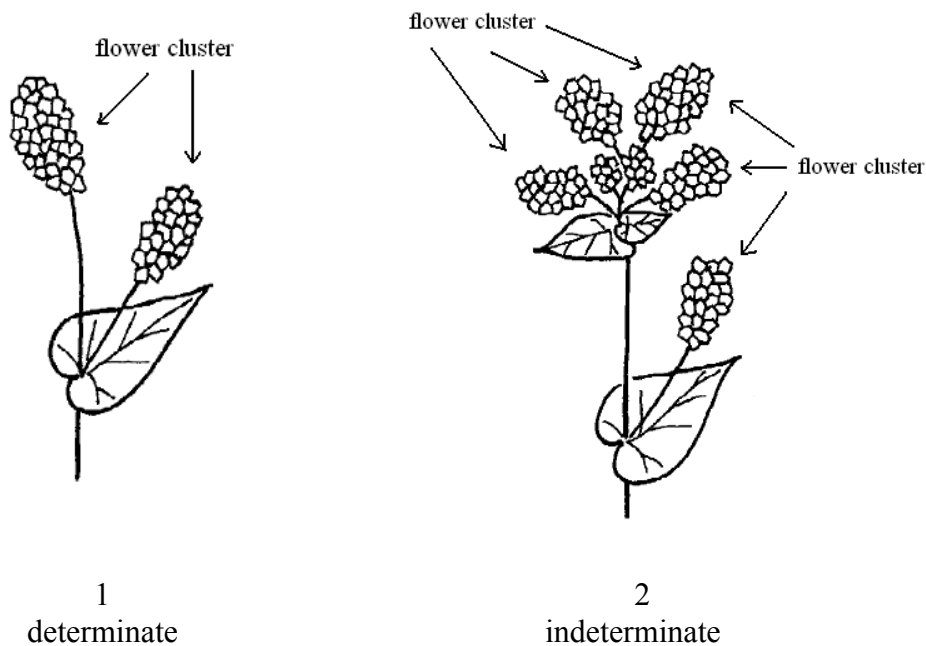
8.2 *Explanations for individual characteristics*

Ad. 5: Time of beginning of flowering

The time when 10% of plants have at least one open flower.

Ad. 6: Plant: growth type

Ad. 13: Plant: total number of flower clusters

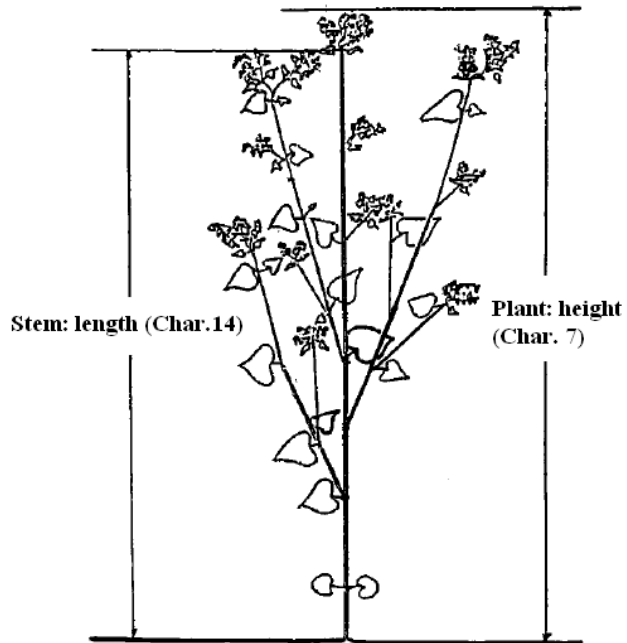


If the terminal inflorescence of the main stem has one to two flower clusters, the variety belongs to the determinate growth type. If it has five or more flower clusters, the variety belongs to the indeterminate (unlimited) growth type.

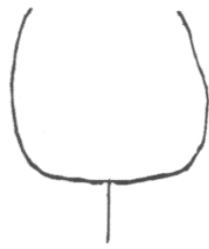
The total number of flower clusters per plant should be observed.

Ad. 7: Plant: height
Ad. 14: Stem: length

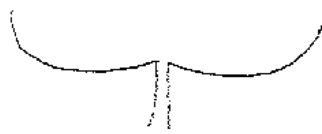
For plant height, the natural height should be measured.



Ad. 8: Leaf blade: shape of base



1
truncate



2
weakly cordate



3
strongly cordate



4
sagittate

Ad. 12: Flower: length of pedicel



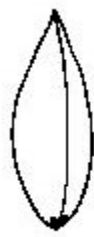
Ad. 16: Stem: diameter

To be measured on central part of internode between first and second node on main stem.

Ad. 17: Time of maturity

The time when 80% of seeds show fully-ripe color.

Ad. 19: Seed: shape



1
elliptic



2
ovate



3
trullate

8.3 *Phenological growth stages*

The growth stages are adapted from the BBCH scale (Meyer, 1997) as follows:

<i>Code</i>	<i>Description</i>
Principal growth stage 0 09	Sprouting Emergence: Cotyledons break through soil surface
Principal growth stage 5 51	Inflorescence emergence Inflorescence buds visible
Principal growth stage 6 65	Flowering Full flowering: about 50% of flowers open
Principal growth stage 7 78	Development of seed 80% of seeds mature
Principal growth stage 8 89	Ripening or maturity of seed Seed shows fully-ripe color
Principal growth stage 9 99	Senescence, beginning of dormancy Harvested product

