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UPOV

INTERNATIONAL UNION FOR THE PROTECTION OF NEW VARIETIES OF PLANTS

GENEVA

DRAFT

GOOSEBERRY

UPOV Code: RIBES_UVA

Ribes uva-crispa L.

GUIDELINES

FOR THE CONDUCT OF TESTS

FOR DISTINCTNESS, UNIFORMITY AND STABILITY

prepared by an expert from Germany

to be considered by the

Technical Committee at its forty-seventh session,
to be held in Geneva from April 4 to 6, 2011

Alternative Names:*

Botanical name	*English*	*French*	*German*	*Spanish*
Ribes uva-crispa L.	Gooseberry	Groseillier à maquereau	Stachelbeere	Agrazón; Grosellero Silvestre; Uve crespa

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.]

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1. Subject of these Test Guidelines

These Test Guidelines apply to all varieties of *Ribes uva-crispa* L.

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 plants on their own roots.

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

5 plants (on own roots).

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

3.1.2 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.

3.2 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

Each test should be designed to result in a total of at least 5 plants.

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 / 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 taken from each of 5 plants and any other observations made on all plants in the test, disregarding any off-type plants.

4.1.5 Method of Observation

The recommended method of observing the characteristic for the purposes of distinctness is indicated by the following key in the second column of 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 For the assessment of uniformity, a population standard of 1% and an acceptance probability of at least 95% should be applied. In the case of a sample size of 5 plants, no off-types are allowed.

4.3 Stability

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

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

5. Grouping of Varieties and Organization of the Growing Trial

5.1 The selection of varieties of common knowledge to be grown in the trial with the candidate varieties and the way in which these varieties are divided into groups to facilitate the assessment of distinctness are aided by the use of grouping characteristics.

5.2 Grouping characteristics are those in which the documented states of expression, even where produced at different locations, can be used, either individually or in combination with other such characteristics: (a) to select varieties of common knowledge that can be excluded from the growing trial used for examination of distinctness; and (b) to organize the growing trial so that similar varieties are grouped together.

5.3 The following have been agreed as useful grouping characteristics:

(a) Fruit: size (characteristic 25)
(b) Fruit: shape (characteristic 27)
(c) Fruit: color (characteristic 28)
(d) Time of beginning of fruit ripening (characteristic 37)

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

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

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

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
1. (*) (+)	**VG**	**Plant: vigor**	**Plante : vigueur**	**Pflanze: Wuchsstärke**	**Planta: vigor**		
QN	**(a)**	very weak	très faible	sehr gering	muy débil		1
		weak	faible	gering	débil	Catherina	3
		medium	moyenne	mittel	medio	Hönings Früheste, Korsun	5
		strong	forte	stark	fuerte	Mucurines, Whinham's Industry	7
		very strong	très forte	sehr stark	muy fuerte	Invicta, Rochusbeere	9
2. (*)	**VG**	**Plant: height**	**Plante : hauteur**	**Pflanze: Höhe**	**Planta: altura**		
QN	**(a)**	very short	très courte	sehr kurz	muy baja		1
		short	courte	kurz	baja	Catherina	3
		medium	moyenne	mittel	media		5
		tall	haute	hoch	alta	Rochusbeere, Rokula	7
		very tall	très haute	sehr hoch	muy alta	Reflamba	9
3. (*) (+)	**VG**	**One-year-old shoot: attitude**	**Rameau d'un an : port**	**Einjähriger Trieb: Haltung**	**Sarmiento de un año: porte**		
QN	**(a)**	erect	dressé	aufgerichtet	erecto	Gelbe Triumph, Relina, Resistenta	1
		semi-erect	demi-dressé	halbaufgerichtet	semierecto	Invicta	3
		horizontal	horizontal	waagerecht	horizontal	Korsun, Rolonda	5
4. (*)	**VG**	**Shoot: thorns**	**Rameau : épines**	**Trieb: Dornen**	**Sarmiento: espinas**		
QL	**(b)**	absent	absentes	fehlend	ausentes	Captivator, Spinefree	1
		present	présentes	vorhanden	presentes	Reflamba	9

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
5. (*) (+)	**VG**	**Shoot: number of thorns**	**Rameau : nombre d'épines**	**Trieb: Anzahl der Dornen**	**Sarmiento: número de espinas**		
QN	**(b)**	none or very few	nul ou très petit	fehlend oder sehr gering	ninguno o muy bajo	Captivator, Rokula	1
		few	petit	gering	bajo	Gelbe Triumph, Rolonda	3
		medium	moyen	mittel	medio	Hinnonmäen Punainen, Hönings Früheste	5
		many	grand	groß	alto	Whinham's Industry	7
6. (*) (+)	**VG**	**Shoot: number of single thorns**	**Rameau : nombre d'épines simples**	**Trieb: Anzahl einzelner Dornen**	**Sarmiento: número de espinas individuales**		
QN	**(b)**	none or very few	nul ou très petit	fehlend oder sehr gering	ninguno o muy bajo	Captivator, Redeva, Whitesmith	1
		few	petit	gering	bajo	Rokula, Whinham's Industry	3
		medium	moyen	mittel	medio	Invicta, Rolonda	5
		many	grand	groß	alto	Hinnonmäen Keltainen, Remarka	7
		very many	très grand	sehr groß	muy alto	Rzeszowski	9
7. (*) (+)	**VG**	**Shoot: number of double thorns**	**Rameau : nombre d'épines doubles**	**Trieb: Anzahl doppelter Dornen**	**Sarmiento: número de espinas dobles**		
QN	**(b)**	none or very few	nul ou très petit	fehlend oder sehr gering	ninguno o muy bajo	Remarka, Rokula	1
		few	petit	gering	bajo	Invicta	3
		medium	moyen	mittel	medio	Whinham's Industry	5
		many	grand	groß	alto	Reverta, Riversa	7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
8. (*) (+)	**VG**	**Shoot: number of triple thorns**	**Rameau : nombre d'épines triples**	**Trieb: Anzahl dreifacher Dornen**	**Sarmiento: número de espinas triples**		
QN	**(b)**	none or very few	nul ou très petit	fehlend oder sehr gering	ninguno o muy bajo		1
		few	petit	gering	bajo	Hinnonmäen Keltainen, Invicta, Korsun, Rokula	3
		medium	moyen	mittel	medio	Riversa, Whinham's Industry	5
		many	grand	groß	alto	Reverta, Whitesmith	7
		very many	très grand	sehr groß	muy alto	Starkls Mehltaufreie	9
9. (*) (+)	**VG**	**Shoot: number of prickles on upper third**	**Rameau : nombre d'aiguillons sur le tiers supérieur**	**Trieb: Anzahl Stacheln am oberen Drittel**	**Sarmiento: número de aguijones en el tercio superior**		
QN	**(b)**	none or very few	nul ou très petit	fehlend oder sehr gering	ninguno o muy bajo	May Duke	1
		few	petit	gering	bajo	Rote Orléans	3
		medium	moyen	mittel	medio	Werdersche Frühe Mark	5
		many	grand	groß	alto	Hönings Früheste	7
10. (*) (+)	**VG**	**Bud: position in relation to shoot**	**Bourgeon : position par rapport au rameau**	**Knospe: Stellung im Verhältnis zum Trieb**	**Yema: posición en relación con el sarmiento**		
QN	**(b)**	adpressed or slightly held out	appliqué ou légèrement décollé	anliegend oder leicht abstehend	alineada o ligeramente divergente	Whinham's Industry	1
		moderately held out	modérément décollé	mäßig abstehend	moderadamente divergente	Whitesmith	2
		strongly held out	fortement décollé	stark abstehend	fuertemente divergente	Weiße Volltragende	3
11.	**VG**	**Bud: size**	**Bourgeon : taille**	**Knospe: Größe**	**Yema: tamaño**		
QN	**(b)**	small	petite	klein	pequeña		1
		medium	moyenne	mittel	media		2
		large	grande	groß	grande		3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
12. (*) (+)	**VG**	**Bud: shape of apex**	**Bourgeon : forme du sommet**	**Knospe: Form der Spitze**	**Yema: forma del ápice**		
PQ	**(b)**	narrow acute	aigu étroit	schmal spitz	aguda estrecha		1
		broad acute	aigu large	breit spitz	aguda ancha		2
		rounded	arrondi	abgerundet	redondeada		3
13. (*) (+)	**VG**	**Young shoot: anthocyanin coloration**	**Jeune rameau : pigmentation anthocyanique**	**Junger Trieb: Anthocyanfärbung**	**Sarmiento joven: pigmentación antociánica**		
QN	**(c)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Goliath, Hinnonmäen Keltainen, Rolonda	1
		weak	faible	gering	débil	Invicta, Whinham's Industry	2
		medium	moyenne	mittel	media	Risulfa, Riversa, Rokula	3
		strong	forte	stark	fuerte	Siloba	4
		very strong	très forte	sehr stark	muy fuerte		5
14. (*)	**VG**	**Young leaf: intensity of green color**	**Jeune feuille : intensité de la couleur verte**	**Junges Blatt: Intensität der Grünfärbung**	**Hoja joven: intensidad del color verde**		
QN	**(d)**	very light	très faible	sehr hell	muy clara	Hinnonmäen Keltainen, Summersgold	1
		light	faible	hell	clara	May Duke, Whitesmith	2
		medium	moyenne	mittel	media	Rote Frankfurter, Whinham's Industry	3
		dark	foncée	dunkel	oscura	Mucurines, Resistenta	4
		very dark	très foncée	sehr dunkel	muy oscura	Reverta, Riversa	5

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
15. (*)	**VG**	**Young leaf: anthocyanin coloration**	**Jeune feuille : pigmentation anthocyanique**	**Junges Blatt: Anthocyanfärbung**	**Hoja joven: pigmentación antociánica**		
QN	**(d)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Goliath, Nieslukovskij	1
		weak	faible	gering	débil	Gelbe Triumph	2
		medium	moyenne	mittel	media	Whitesmith	3
		strong	forte	stark	fuerte	Mucurines, Risulfa	4
		very strong	très forte	sehr stark	muy fuerte		5
16. (*)	**VG/ MG**	**Leaf: length**	**Feuille : longueur**	**Blatt: Länge**	**Hoja: longitud**		
QN	**(e)**	short	courte	kurz	corta	Korsun	3
		medium	moyenne	mittel	media	Invicta	5
		long	longue	lang	larga		7
17. (*)	**VG/ MG**	**Leaf: width**	**Feuille : largeur**	**Blatt: Breite**	**Hoja: anchura**		
QN	**(e)**	narrow	étroite	schmal	estrecha	Hinnonmäen Punainen, Remarka	3
		medium	moyenne	mittel	media	Korsun	5
		broad	large	breit	ancha	Whinham's Industry	7
18. (*) (+)	**VG/ MG**	**Leaf: ratio length/width**	**Feuille : rapport longueur/largeur**	**Blatt: Verhältnis Länge/Breite**	**Hoja: relación longitud/anchura**		
QN	**(e)**	moderately compressed	modérément comprimée	mäßig zusammengedrückt	moderadamente comprimida		3
		medium	moyenne	mittel	media		5
		moderately elongated	modérément allongée	mäßig langgezogen	moderadamente alargada		7

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
19. (*) (+)	**VG**	**Leaf: angle of base of blade with petiole**	**Feuille : angle de la base du limbe avec le pétiole**	**Blatt: Winkel der Basis der Blattspreite zum Blattstiel**	**Hoja: ángulo de la base del limbo con el pecíolo**		
QN	**(e)**	very acute	très aigu	sehr spitz	muy agudo	Risulfa, Riversa, Rokula	1
		moderately acute	modérément aigu	mäßig spitz	moderadamente agudo	Achilles, California, Hinnonmäen Keltainen	2
		right angle	angle droit	rechtwinklig	ángulo recto	Pax, Retina, Rote Orléans	3
		moderately obtuse	modérément obtus	mäßig stumpf	moderadamente obtuso	Korsun, Lauffener Gelbe	4
		very obtuse	très obtus	sehr stumpf	muy obtuso		5
20.	**VG**	**Leaf: glossiness of upper side**	**Feuille : brillance de la face supérieure**	**Blatt: Glanz der Oberseite**	**Hoja: brillo del haz**		
QN	**(e)**	weak	faible	gering	débil	Korsun, Maurers Sämling, Redeva, Rolonda	1
		medium	moyenne	mittel	medio	Hinnonmäen Punainen, Rote Orléans	3
		strong	forte	stark	fuerte	Crown Bob, Whinham's Industry, Whitesmith,	5
21. (*)	**MG**	**Inflorescence: number of flowers**	**Inflorescence : nombre de fleurs**	**Blütenstand: Anzahl der Blüten**	**Inflorescencia: número de flores**		
QL	**(f)**	one	une	eine	una	Hönings Früheste	1
		two	deux	zwei	dos	Hinnonmäen Keltainen, Rokula	2
		three	trois	drei	tres		3
		more than three	plus de trois	mehr als drei	más de tres		4

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
22.	**VG**	**Flower: anthocyanin coloration of sepal**	**Fleur : pigmentation anthocyanique du sépale**	**Blüte: Anthocyanfärbung des Kelchblatts**	**Flor: pigmentación antociánica del sépalo**		
QN	**(f)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Reliza, Spinefree	1
		weak	faible	gering	débil	Crown Bob, Hinnonmäen Keltainen, Redeva	2
		medium	moyenne	mittel	media	Rokula, Whinham's Industry	3
		strong	forte	stark	fuerte	Invicta, Reverta	4
		very strong	très forte	sehr stark	muy fuerte		5
23.	**VG**	**Flower: anthocyanin coloration of ovary**	**Fleur : pigmentation anthocyanique de l'ovaire**	**Blüte: Anthocyanfärbung des Fruchtknotens**	**Flor: pigmentación antociánica del ovario**		
QN	**(f)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Reliza, Rote Frankfurter	1
		weak	faible	gering	débil	Grüne Kugel, Rolonda, Whinham's Industry	2
		medium	moyenne	mittel	media	Gelbe Triumph, Invicta	3
		strong	forte	stark	fuerte	Reverta, Riversa	4
		very strong	très forte	sehr stark	muy fuerte		5
24. (*)	**VG**	**Flower: pubescence of ovary**	**Fleur : pilosité de l'ovaire**	**Blüte: Behaarung des Fruchtknotens**	**Flor: pubescencia del ovario**		
QN	**(f)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Remarka, Rochusbeere	1
		weak	faible	gering	débil	Mukurines, Oakmere, Rexrot	2
		medium	moyenne	mittel	media	Dams Mistake, Rafzuera	3
		strong	forte	stark	fuerte	Invicta, Reflamba, Starkls Mehltaufreie	4
		very strong	très forte	sehr stark	muy fuerte		5

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
25. (*)	**VG**	**Fruit: size**	**Fruit : taille**	**Frucht: Größe**	**Fruto: tamaño**		
QN	**(g)**	very small	très petit	sehr klein	muy pequeño	Amerikanische Gebirgsstachelbeere	1
		small	petit	klein	pequeño	Early Green Haire	3
		medium	moyen	mittel	medio	Gelbe Triumph	5
		large	grand	groß	grande	Grüne Kugel, Reflamba	7
		very large	très grand	sehr groß	muy grande	Catherina	9
26. (*)	**VG/ MG**	**Fruit: ratio length/ width**	**Fruit : rapport longueur/largeur**	**Frucht: Verhältnis Länge/Breite**	**Fruto: relación longitud/ anchura**		
QN	**(g)**	strongly compressed	fortement comprimé	stark zusammengedrückt	fuertemente comprimido	Golda, May Duke	1
		moderately compressed	modérément comprimé	mäßig zusammengedrückt	moderadamente comprimido	Early Green, Peggy, Rolonda	3
		medium	moyen	mittel	medio	Rote Orléans	5
		moderately elongated	modérément allongé	mäßig langgezogen	moderadamente alargado	Grüne Flaschenbeere, Reflamba	7
27. (*) (+)	**VG**	**Fruit: shape**	**Fruit : forme**	**Frucht: Form**	**Fruto: forma**		
PQ	**(g)**	circular	circulaire	kreisförmig	circular	Bila, Rexrot	1
		elliptic	elliptique	elliptisch	elíptica	Achilles, Weiße Volltragende	2
		obovate	obovale	verkehrt eiförmig	oboval	Grüne Flaschenbeere, Peggy	3

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
28. (*) (+)	**VG**	**Fruit: color**	**Fruit : couleur**	**Frucht: Farbe**	**Fruto: color**		
PQ	**(g)**	whitish green	blanc-vert	weißlich grün	verde blanquecino	Weiße Kristall	1
		green	vert	grün	verde	Grüne Kugel	2
		yellow green	jaune-vert	gelbgrün	verde amarillo	Gelbe Triumph, Invicta	3
		yellow	jaune	gelb	amarillo	Golda, Golden Lion, Rixanta	4
		medium red	rouge moyen	mittelrot	rojo medio	Korsun, Rokula, Rolonda	5
		dark red	rouge foncé	dunkelrot	rojo oscuro	Achilles, Cernomore, May Duke, Remarka, Rubikon	6
29. (*) (+)	**VG**	**Fruit: bloom**	**Fruit : pruine**	**Frucht: Bereifung**	**Fruto: pruina**		
QN	**(g)**	absent or very weak	absente ou très faible	fehlend oder sehr gering	ausente o muy débil	Lady Delamere, May Duke	1
		weak	faible	gering	débil	Pax, Rokula, Whitesmith	2
		medium	moyenne	mittel	media	Whinham's Industry	3
		strong	forte	stark	fuerte	Resistenta	4
		very strong	très forte	sehr stark	muy fuerte	Robustenta, Rochusbeere,	5
30. (*)	**VG**	**Fruit: hairiness**	**Fruit : pilosité**	**Frucht: Behaarung**	**Fruto: vellosidad**		
QN	**(g)**	absent or very weak	nulle ou très faible	fehlend oder sehr gering	ausente o muy débil	Golda, May Duke, Mucurines, Reflamba, Remarka, Riversa	1
		weak	faible	gering	débil	Achilles, Rolonda	2
		medium	moyenne	mittel	media	Pax, Whinham's Industry	3
		strong	forte	stark	fuerte	Hönings Früheste	4
		very strong	très forte	sehr stark	muy fuerte		5

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
31. **(+)**	**VG**	**Fruit: veining**	**Fruit : veinure**	**Frucht: Aderung**	**Fruto: venación**		
QN	**(g)**	weak	faible	gering	débil	Korsun, Mauks Frühe Rote	1
		medium	moyenne	mittel	media	Gelbe Triumph, Mucurines	3
		strong	forte	stark	fuerte	Rote Preis	5
32. **(+)**	**VG**	**Fruit: strength of skin**	**Fruit : résistance de l'épiderme**	**Frucht: Festigkeit der Schale**	**Fruto: firmeza de la piel**		
QN	**(g)**	weak	faible	gering	débil	Mauks Frühe Rote, Whinham's Industry	1
		medium	moyenne	mittel	media	Achilles, Gelbe Triumph, Rokula	3
		strong	forte	hoch	fuerte	Mucurines, Rote Orléans	5
33. **(*)** **(+)**	**VG**	**Fruit: elongation of base**	**Fruit : élongation de la base**	**Frucht: Verlängerung der Basis**	**Fruto: alargamiento de la base**		
QN	**(g)**	short	petite	kurz	corta	Hinnonmäen Keltainen, May Duke	1
		medium	moyenne	mittel	media	Pax	3
		long	longue	lang	larga	Weiße Kristall	5
34. **(*)** **(+)**	**VG/ MG**	**Fruit: length of peduncle**	**Fruit : longueur du pédoncule**	**Frucht: Länge des Stiels**	**Fruto: longitud del pedúnculo**		
QN	**(g)**	short	court	kurz	corto	May Duke	1
		medium	moyen	mittel	medio	Hinnonmäen Punainen, Rexrot, Rote Orléans	3
		long	long	lang	largo	Hinnonmäen Keltainen, Maurers Sämling, Redeva	5

		English	français	deutsch	español	Example Varieties/ Exemples/ Beispielssorten/ Variedades ejemplo	Note/ Nota
35. (*) (+)	**MG**	**Time of bud burst**	**Époque de débourrement**	**Zeitpunkt des Knospenaufbruchs**	**Época de apertura de yemas**		
QN		very early	très précoce	sehr früh	muy temprana	Bila, Rokula	1
		early	précoce	früh	temprana	Invicta, Rote Frankfurter	3
		medium	moyenne	mittel	media	Früheste von Neuwied, Mucurines	5
		late	tardive	spät	tardía	Grüner Edelstein, Korsun	7
		very late	très tardive	sehr spät	muy tardía	Green Gem, Hinnonmäen Keltainen, Relina	9
36. (*) (+)	**MG**	**Time of beginning of flowering**	**Époque de début de floraison**	**Zeitpunkt des Blühbeginns**	**Época de inicio de la floración**		
QN		early	précoce	früh	temprana	May Duke, Whitesmith	3
		medium	moyenne	mittel	media	Invicta, Whinham's Industry	5
		late	tardive	spät	tardía	Hinnonmäen Keltainen, Rote Orléans	7
37. (*) (+)	**MG**	**Time of beginning of fruit ripening**	**Époque du début de maturité des fruits**	**Zeitpunkt des Beginns der Fruchtreife**	**Época de inicio de la maduración del fruto**		
QN		very early	très précoce	sehr früh	muy temprana	Remarka, Risulfa	1
		early	précoce	früh	temprana	Hinnonmäen Punainen, May Duke, Reverta	3
		medium	moyenne	mittel	media	Whinham's Industry	5
		late	tardive	spät	tardía	Achilles, Hinnonmäen Keltainen	7
		very late	très tardive	sehr spät	muy tardía	Green Gem, Relina	9

8. Explanations on the Table of Characteristics

8.1 Explanations covering several characteristics

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

(a) Observations should be made during the dormant season before pruning.
(b) Observations should be made on one-year-old shoots during the dormant season before pruning.
(c) Observations should be made after the beginning of growth on shoots of approximately 10 cm in length.
(d) Observations should be made after the beginning of growth when the leaflets are about 2 cm wide and the shoots 3 to 5 cm long.
(e) Observations should be made at the stage of fruit maturity, when the fruits have achieved full color, on the upper third of typical shoots.
(f) Observations should be made at the time of full flowering.
(g) Observations should be made at the time when the fruit is physiologically ripe.

8.2 Explanations for individual characteristics

Ad. 1: Plant: vigor

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

Ad. 3: One-year-old shoot: attitude

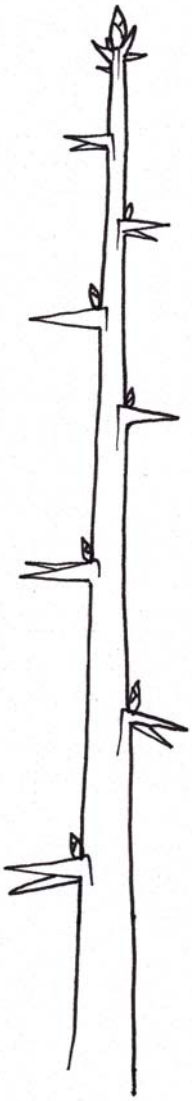
1
erect

3
semi-erect

5
horizontal

Ad. 5: Shoot: number of thorns

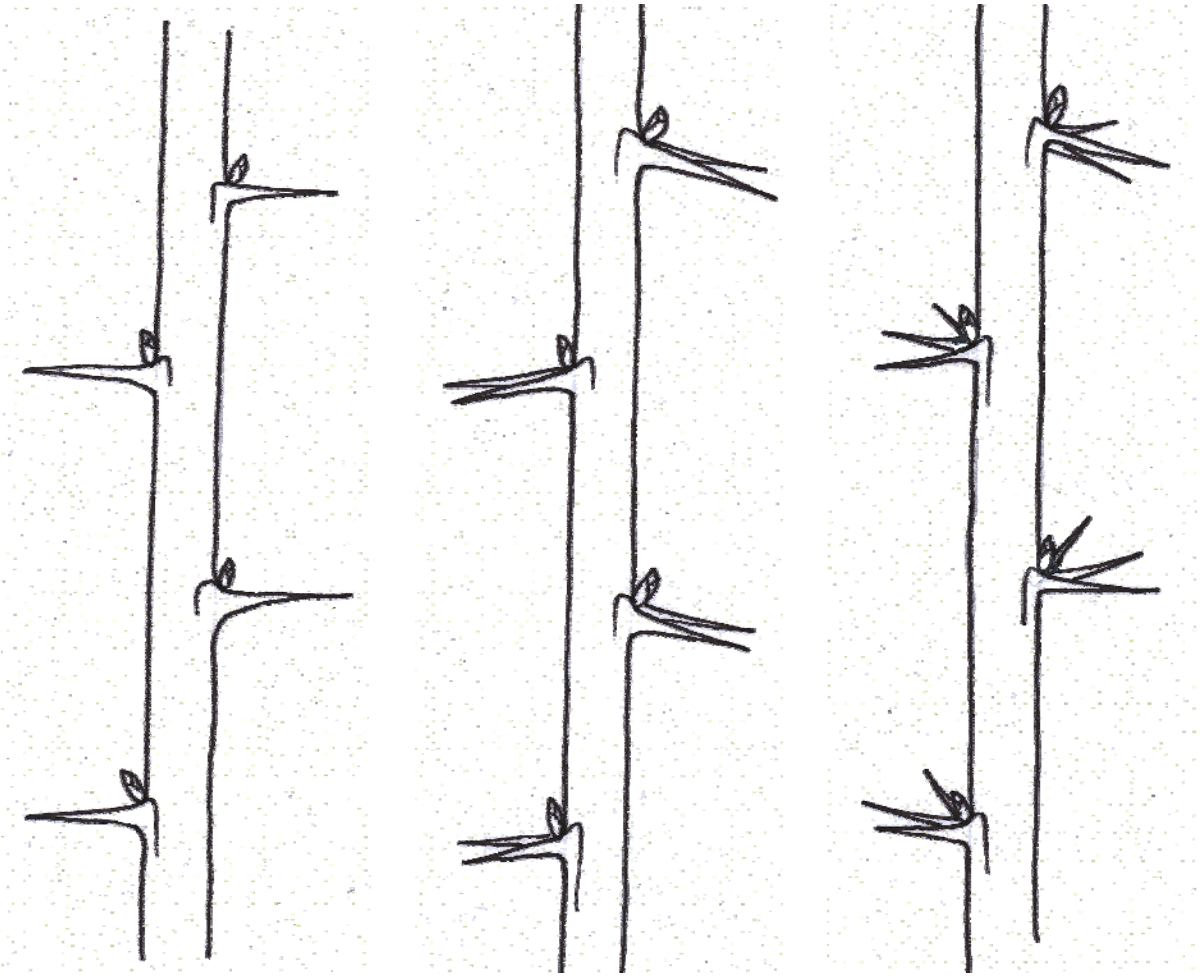
few



many

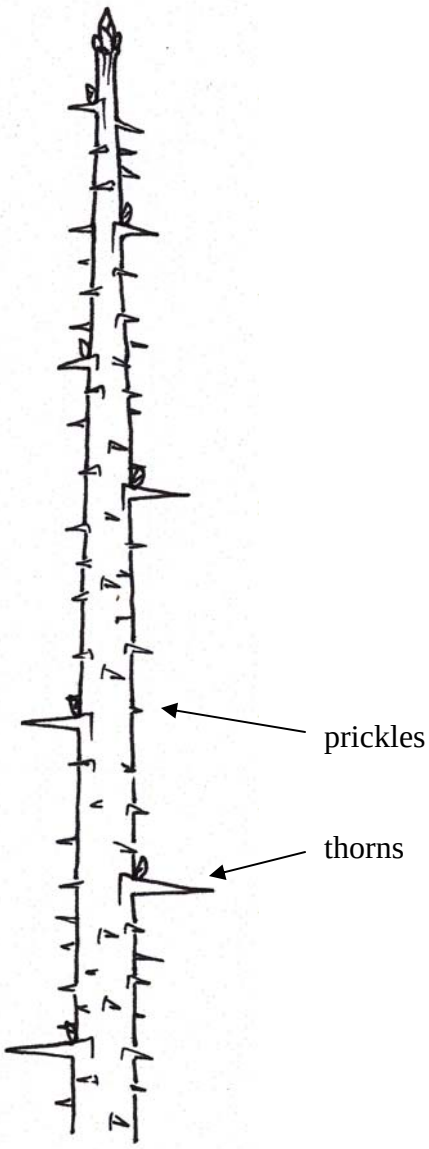
The number of thorns should be observed as the number of thorn attachments on the upper third of the shoot.

Ad. 6: Shoot: number of single thorns
Ad. 7: Shoot: number of double thorns
Ad. 8: Shoot: number of triple thorns

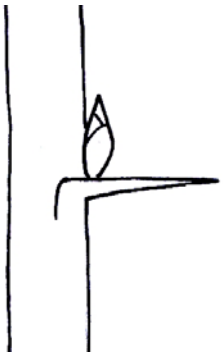


single thorns | double thorns | triple thorns

Ad. 9: Shoot: number of prickles on upper third



Ad. 10: Bud: position in relation to shoot



1
adpressed or slightly held out

2
moderately held out

3
strongly held out

Ad. 12: Bud: shape of apex

1
narrow acute

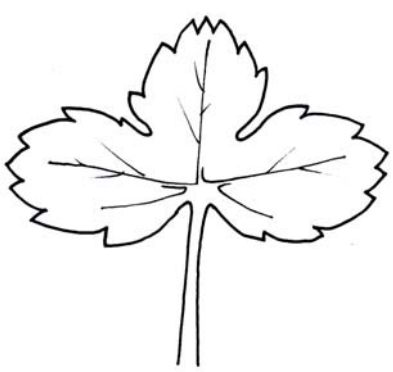
2
broad acute

3
rounded

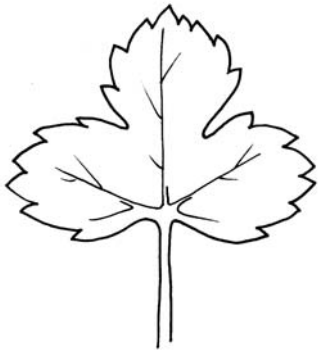
Ad. 13: Young shoot: anthocyanin coloration

The anthocyanin coloration should be observed on the leaf and the shoot at the stage of rapid growth.

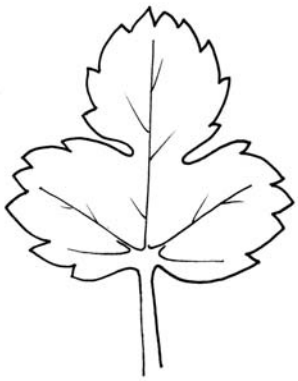
Ad. 18: Leaf: ratio length/width



3
moderately compressed



5
medium

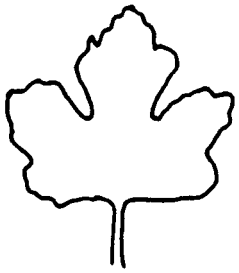


7
moderately elongated

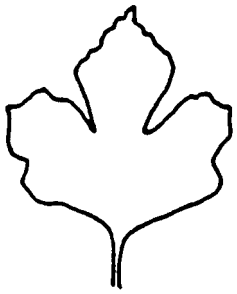
Ad. 19: Leaf: angle of base of blade with petiole

1
very acute

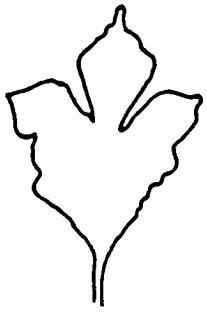
2
moderately acute



3
right angle

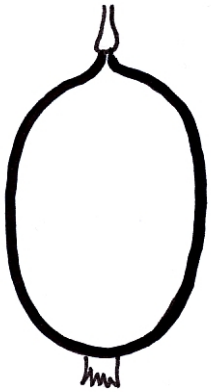
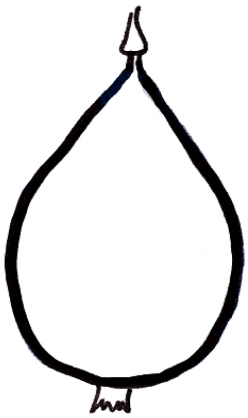
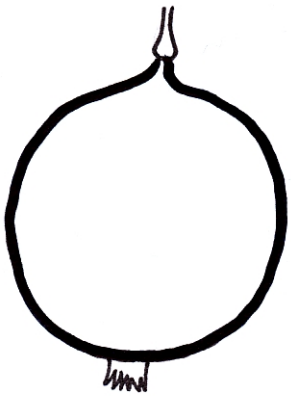


4
moderately obtuse



5
very obtuse

Ad. 27: Fruit: shape

ratio length/width	broadest part: at middle	broadest part: above middle
narrow (elongated)	 2 elliptic	
broad (compressed)	 1 circular	3 obovate

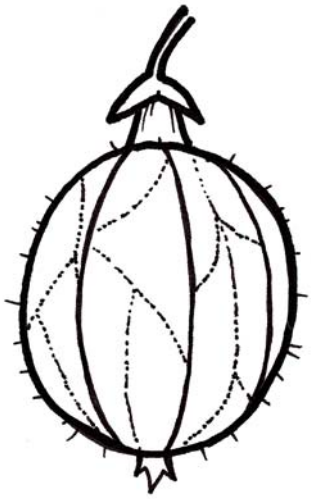
Ad. 28: Fruit: color

The fruit color should be observed after the bloom has been removed.

Ad. 29: Fruit: bloom

The bloom of the fruit is considered as the waxy layer on the fruit skin, which forms part of the cuticule. It is also known as “glaucosity” and can be removed by rubbing.

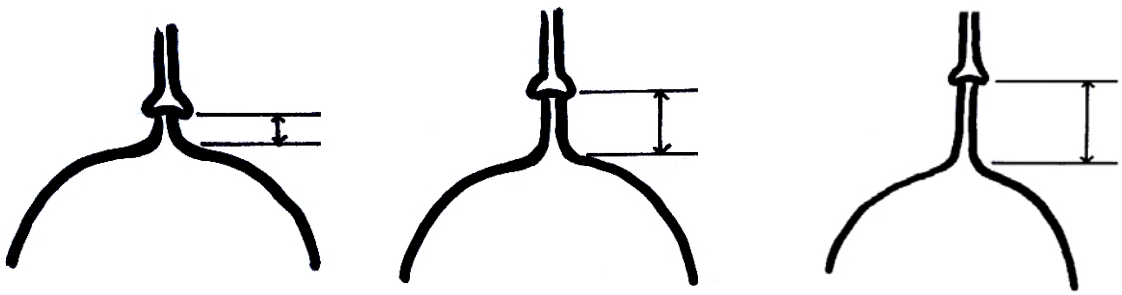
Ad. 31: Fruit: veining



Ad. 32: Fruit: strength of skin

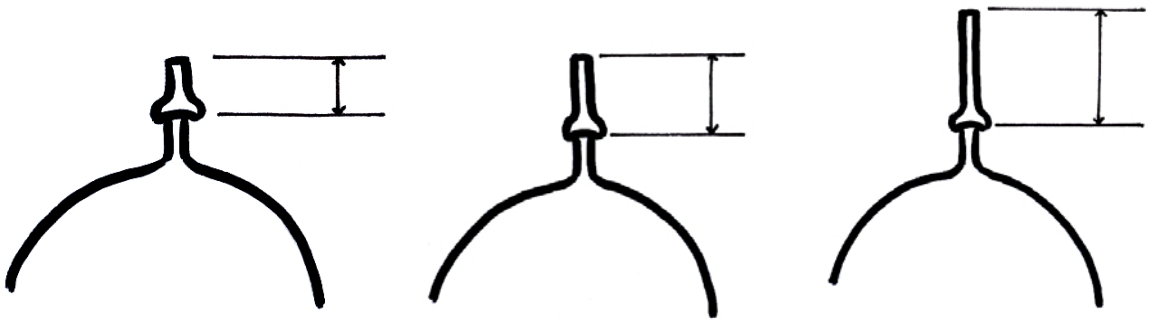
The strength of skin should preferably be observed by using a penetrometer.

Ad. 33: Fruit: elongation of base



1	3	5
short	medium	long

Ad. 34: Fruit: length of peduncle



1	3	5
short	medium	long

Ad. 35: Time of bud burst

The time of bud burst is when 10% of buds have first green leaves visible.

Ad. 36: Time of beginning of flowering

The time of beginning of flowering is when 10% of flowers are fully open.

Ad. 37: Time of beginning of fruit ripening

The time of fruit ripening is when 10% of fruits have achieved full color.

8.3 Synonyms of the example varieties

Example varieties	Synonym(s)
Early Green Haire	Early Green, Grüne Deutsche
Grüne Flaschenbeere	Green Willow
Hankkijas Delikatess	Hinnonmäki Grön, Hinnonmäki grün
Hinnonmäen Keltainen	Hinnonmäki gelb, Hinnonmäki Gul
Hinnonmäen Punainen	Hinnonmäki rot, Hinnonmäki Röd, Lepaan Punainen
Whitesmith	Weiße Triumph
Winham's Industry	Rote Triumph

9. Literature

AVD för Fruktoch Bärodling: Internordic Index of Ribes and Rubus Cultivars. Alnarp, SE.

Sorge, P., 1984: Beerenobstsorten. Verlag J. Neumann-Neudamm. Melsungen, DE, 259 pp.

Hoffman, M.H.A., 2005: List of names of woody plants. Praktijkonderzoek Plant & Omgeving BV. Boskoop, NL, 871 pp.

10. Technical Questionnaire

TECHNICAL QUESTIONNAIRE	Page {x} of {y}	Reference Number:
		Application date: (not to be filled in by the applicant)

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

1. Subject of the Technical Questionnaire

1.1 Botanical name	*Ribes uva-crispa* L.
1.2 Common name	Gooseberry

2. Applicant

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

3. Proposed denomination and breeder's reference

Proposed denomination (if available)	
Breeder's reference	

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

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

4.1 Breeding scheme

Variety resulting from:

4.1.1 Crossing

(a) controlled cross [ ]
(please state parent varieties)

(……..……..…) x (……..……..…)
female parent male parent

(b) partially known cross [ ]
(please state known parent variety(ies))

(……..……..…) x (……..……..…)
female parent male parent

(c) unknown cross [ ]

4.1.2 Mutation [ ]
(please state parent variety)

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

4.1.4 Other [ ]
(please provide details)

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

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

4.2 Method of propagating the variety

4.2.1 Vegetative propagation

(a) cuttings [ ]

(b) *in vitro* propagation [ ]

(c) 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 (25)	**Fruit: size**		
	very small	Amerikanische Gebirgsstachelbeere	1[ ]
	very small to small		2[ ]
	small	Early Green Haire	3[ ]
	small to medium		4[ ]
	medium	Gelbe Triumph	5[ ]
	medium to large		6[ ]
	large	Grüne Kugel, Reflamba	7[ ]
	large to very large		8[ ]
	very large	Catherina	9[ ]
5.2 (27)	**Fruit: shape**		
	circular	Bila, Rexrot	1[ ]
	elliptic	Achilles, Weiße Volltragende	2[ ]
	obovate	Grüne Flaschenbeere, Peggy	3[ ]
5.4 (28)	**Fruit: color**		
	whitish green	Weiβe Kristall	1[ ]
	green	Grüne Kugel	2[ ]
	yellow green	Gelbe Triumph, Invicta	3[ ]
	yellow	Golda, Golden Lion, Rixanta	4[ ]
	medium red	Korsun, Rokula, Rolonda	5[ ]
	dark red	Achilles, Cernomore, May Duke, Remarka, Rubikon	6[ ]

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

	Characteristics	Example Varieties	Note
5.5 (37)	**Time of beginning of fruit ripening**		
	very early	Remarka, Risulfa	1[ ]
	very early to early		2[ ]
	early	Hinnonmäen Punainen, May Duke, Reverta	3[ ]
	early to medium		4[ ]
	medium	Whinham's Industry	5[ ]
	medium to late		6[ ]
	late	Achilles, Hinnonmäen Keltainen	7[ ]
	late to very late		8[ ]
	very late	Green Gem, Reliza	9[ ]

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

6. Similar varieties and differences from these varieties

Please use the following table and box for comments to provide information on how your candidate variety differs from the variety (or varieties) which, to the best of your knowledge, is (or are) most similar. This information may help the examination authority to conduct its examination of distinctness in a more efficient way.

Denomination(s) of variety(ies) similar to your candidate variety	Characteristic(s) in which your candidate variety differs from the similar variety(ies)	Describe the expression of the characteristic(s) for the **similar** variety(ies)	Describe the expression of the characteristic(s) for **your** candidate variety
Example	*Fruit: color*	*yellow*	*green*

Comments:

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

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

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

Yes [ ] No [ ]

(If yes, please provide details)

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

Yes [ ] No [ ]

(If yes, please provide details)

7.3 Other information

A representative color image of the variety should accompany the Technical Questionnaire.

8. Authorization for release

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

Yes [ ] No [ ]

(b) Has such authorization been obtained?

Yes [ ] No [ ]

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

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

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

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

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

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

(a) Microorganisms (e.g. virus, bacteria, phytoplasma) Yes [ ] No [ ]

(b) Chemical treatment (e.g. growth retardant, pesticide) Yes [ ] No [ ]

(c) Tissue culture Yes [ ] No [ ]

(d) Other factors Yes [ ] No [ ]

Please provide details for where you have indicated “yes”.

……

9.3 Has the plant material to be examined been tested for the presence of virus or other pathogens?

Yes [ ]

(please provide details as specified by the Authority)

No [ ]

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

Applicant’s name

Signature Date

[End of document]