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FOR
FRUIT CROPS**

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WORKING PAPER ON REVISED TEST GUIDELINES FOR RASPBERRY
(*Rubus idaeus* L.)

Document prepared by experts from Germany

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I. Subject of these Guidelines

These Test Guidelines apply to all varieties of *Rubus idaeus* L. and their hybrids as far as they are morphologically similar to *Rubus idaeus* L.

II. Material Required

1. The competent authorities decide when, where and in what quantity and quality the plant material required for testing the variety is to be delivered. Applicants submitting material from a State other than that in which the testing takes place must make sure that all customs formalities are complied with. As a minimum, the following quantity of plant material is recommended:

10 plants.

The plant material supplied should be visibly healthy, not lacking in vigor, virus-tested and acceptable by the competent authorities. The plants supplied should have good root formation, with a satisfactory number of adventitious buds on the roots.

2. The plant material must not have undergone any treatment unless the competent authorities allow or request such treatment. If it has been treated, full details of the treatment must be given.

III. Conduct of Tests

1. To assess distinctness it is essential for the plants under test to bear a satisfactory crop of fruit for at least two growing periods.

Proposal (GB): To have the new wording “should produce at least two satisfactory crops of fruit”.

2. The tests should normally be conducted at one place. If any important characteristics of the variety cannot be seen at that place, the variety may be tested at an additional place.

3. The tests should be carried out under conditions ensuring normal growth. As a minimum, each test should include a total of 10 plants. Separate plots for observation and for measuring can only be used if they have been subject to similar environmental conditions.

4. Additional tests for special purposes may be established.

IV. Methods and Observations

1. Unless otherwise stated, all observations should be made on 10 plants or parts of 10 plants. All observations on the fruit should be made in minimum on 10 typical fruits, selected from 5 plants.

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 10 plants, the maximum number of off-types allowed would be 1.

3. All observations on the very young shoots (characteristics 1 and 2) should be made when the shoots are 15 cm long; all observations on the young shoots (characteristics 3 to 6) should be made when the shoots are about 1 m to 1,50 m long; all observations on the full grown shoot (characteristics 7 and 8) and on the leaf (characteristics 16 to 22) should be made after fruit picking.

Proposal (HU): To insert “from the middle part of the shoot” after “on the leaf” (last line), and to check whether the observation period of the “one-year-old shoot” should be mentioned.

Respond (DE): Concerning char. 5 and 6, for summer bearing varieties these observations should be made just after harvest, for autumn bearing ones just before or at harvest.

4. The number of young shoots should be observed as the number per meter length of row before thinning for the first time beginning with the second year.

Proposal (GB): To state a standard planting distance.

Respond (DE): We plant in a distance of 40 cm, but we think this should not be prescribed, as this may lead to the understanding not to observe the number of canes but to count them.

5. The habit of all winter characteristics of the canes should be observed when the canes are dormant (after frost has occurred). If the canes peel, the dominant color should be the color of the bark in the not peeled area.

Proposal (DE): To delete “after frost has occurred”.

6. The beginning of time of flowering should be observed when 10% of the flowers have opened.

7. The time of fruit ripening should be recorded as the time of first picking.

8. All observations on the fruit should be made on fruits collected during the second and third pickings.

9. All observations on the flower and the fruit as well as the length of the fruiting period should be recorded from the summer harvest only except for varieties whose main fruiting is on the current year’s cane in autumn. For these varieties observations should be made during the autumn fruiting period.

V. Grouping of Varieties

1. The collection of varieties to be grown should be divided into groups to facilitate the assessment of distinctness. Characteristics which are suitable for grouping purposes are those which are known from experience not to vary, or to vary only slightly, within a variety. Their various states of expression should be fairly evenly distributed throughout the collection.

2. It is recommended that the competent authorities use the following characteristics for grouping varieties:

- (a) Plant: anthocyanin coloration of very young shoot (characteristic 3)
- (b) Young shoot: spininess (characteristic 11)
- (c) Main fruiting (characteristic 39)
- (d) Time of ripening on previous year's canes (characteristic 42a)
- (e) Time of ripening on current year's canes (characteristic 42b)

VI. Characteristics and Symbols

1. To assess distinctness, uniformity and stability, the characteristics and their states as given in the Table of Characteristics should be used.

2. Notes (numbers), for the purposes of electronic data processing, are given opposite the states of expression for each characteristic.

3. Legend

(*) Characteristics that should be used on all varieties in every growing period over which examinations are made and always be included in the variety descriptions, except when the state of expression of a preceding characteristic or regional environmental conditions render this impossible.

(+) See Explanations on the Table of Characteristics in chapter VIII.

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

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
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Proposal (NZ): To check and to clarify which shoots to look at and when.

Proposal (HU): To standardize the terms, dormant cane or one-year-old shoot.

1. (+)	Plant: attitude of shoots (new)	Pflanze: Haltung der Triebe (neu)		
	erect	aufrecht	Ontario, Watson	3
	semi-erect	halbaufrecht	Preußen, Schönemann, Autumn Bliss	5
	drooping	hängend	Meeker, Malling Joy, Joan Squire	7

Proposal (DE): To check whether the word “drooping” should be replaced by “curved” or - alternatively - to have the characteristics “erect (3)”, “slightly curved (5)” and “strongly curved (7)”. (HU): To keep the wording as it is.

Proposal (NZ): Agreement with comment DE, it should be discussed to have: “Plant: attitude of current season’s shoots”; “drooping” could also be replaced by “arching”; to check whether this could alternatively be a cane/shoot characteristic.

2. [no. in TG/43/6: 3.] (*)	Plant: number of young shoots	Pflanze: Anzahl Jungtriebe		
	very few	sehr wenig		1
	few	wenig	Rubaca, Rucami	3
	medium	mittel	Multiraspa, Rumiloba, Glen Ample	5
	many	viele	Skeena, Glen Clova	7
	very many	sehr viele	Nagymarosi	9

Proposal (NZ): To replace “young shoots” with “current season’s shoots”.

3. [1.] (*)	Plant: anthocyanin coloration of very young shoot	Pflanze: Anthocyanfärbung des sehr jungen Triebes		
	absent	fehlend	Gelbe Antwerpener	1
	present	vorhanden	Malling Promise	9

Proposal (NZ): To have this one as a current season’s shoot characteristic

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
4. [2.] (*) Plant: intensity of anthocyanin coloration of very young shoot (if		Pflanze: Intensität der Anthocyanfärbung des sehr jungen Triebes (wenn vorhanden)			
weak		gering		Rusilva, Rumiloba	3
medium		mittel		Veten, Rucami, Cola 1	5
strong		stark		Malling Joy, Rubaca	7

Proposal (NZ): To replace “very young shoot” with “current season’s shoot” or to have this one as a current season’s shoot characteristic at all. Respond (DE): Agreement with the second proposal.

5. [7.] One-year-old shoot: bloom		Einjähriger Trieb: Bereifung			
absent or very weak		fehlend oder sehr gering		Heritage, Willamette	1
weak		gering		Malling Promise, Zefa 2	3
medium		mittel		Malling Delight	5
strong		stark		September, Glen Ample	7
very strong		sehr stark		Ontario	9

Proposal (HU): To observe the bloom on full grown shoots.

Proposal (NZ): To have the wording “current season’s shoot” instead of “one-year-old shoot”. Respond (DE): Agreement with this proposal.

6. One-year-old shoot: anthocyanin coloration (new)		Einjähriger Trieb: Anthocyanfärbung (neu)			
weak		gering		Tulameen, Malling Leo	3
medium		mittel		Malling Orion	5
strong		stark		Rubaca, Rode Radboud	7

Proposal (NZ): To have the wording “current season shoot” instead of “one-year-old shoot”.

Proposal (HU): If this characteristic should be used, char. 10 could be deleted then.

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
7. One-year-old shoot: length of internode (new)		Einjähriger Trieb: Internodienlänge (neu)			
short		kurz		Gevalo, Sirius, Baronne de Wavre	3
medium		mittel		Schönemann, Preußen	5
long		lang		Caliber, Malling Joy	7
8. (+) One-year-old shoot: length of bud (new)		Einjähriger Trieb: Länge der Knospe (neu)			
short		kurz		Wilkran	3
medium		mittel		Malling Admiral	5
long		lang		Phyllis King, Baronne de Wavre	7
9.a. [9.] (*) <u>Only varieties whose main fruiting is on the previous year's cane in summer: Dormant cane: length</u>		<u>Nur Sorten, die ihre Haupternte an der Vorjahresrute im Sommer erbringen: Winterrute: Länge</u>			
short		kurz		Loganlike	3
medium		mittel		Zefa 2	5
long		lang		Meeker, Schönemann	7
9b. [8.] (*) <u>Only varieties whose main fruiting is on the current year's cane in autumn: Current year's cane: length</u>		<u>Nur Sorten, die ihre Haupternte an der Jahresrute im Herbst erbringen: Jahresrute: Länge</u>			
short		kurz		Orange Marie	3
medium		mittel		Dinkum, September	5
long		lang		Watson	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
10. (*) <u>Only varieties whose main fruiting is on the previous year's cane in summer:</u> Dormant cane: color		<u>Nur Sorten, die ihre Haupternte an der Vorjahresrute im Sommer erbringen:</u> Winterrute: Farbe			
greyish brown		graubraun		Schönemann	1
greyish brown to brown		graubraun bis braun		Willamette	2
brown		braun		Caliber, Rucami	3
brown to purple brown		braun bis purpurbraun		Malling Landmark, Festival, Cola 1	4
purple brown		purpurbraun		Titan, Royalty	5

Proposal (NZ, chars. 11-15): To have the wording “current seasons shoot” instead of “young shoot”.

11. [4.] (*) Young shoot: spininess		Jungtrieb: Bestachelung			
absent		fehlend		Glen Moy	1
present		vorhanden		Malling Promise	9

Proposal (GB): To have the wording “spines” instead of “spininess”.

12. [5.] (*) Young shoot: density of spines in <u>central</u> third (if present)		Jungtrieb: Dichte der Stacheln im <u>mittleren</u> Drittel (wenn vorhanden)			
sparse		locker		Spica, Malling Orion, Rafzmach	3
medium		mittel		Multiraspa, Zefa 2	5
dense		dicht		Malling Exploit, Autumn Bliss	7

To check whether the word “spines” should be replaced by “prickles”.

Proposal (GB): To say “middle” instead of “central” and to keep “spines”. (NZ): To keep “spines”.

Proposal (NZ): To check whether chars. 13-15 are spine chars.

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
13. Young shoot: size of base of spine (new)		Jungtrieb: Größe der Stachelbasis (neu)			
very small		sehr klein		Reveille	1
small		klein		Pujallup, Resa	3
medium		mittel		Malling Exploid, Gevalo	5
large		groß		Köstliche Selita, Autumn Bliss	7
very large		sehr groß		Malling Landmark, Matterhorn	9
14. Young shoot: length of apex of spine		Jungtrieb: Länge der Stachelspitze			
short		kurz		Veten, Malling Delight, Rucami	3
medium		mittel		Malling Leo	5
long		lang		Malling Exploit, Meeker	7

Proposal (HU, NZ): To have the wording “length of spine”. Respond (DE): Agreement with this proposal.

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
15. [6.]	Young shoot: color of spines	Jungtrieb: Farbe der Stacheln			
green		grün		Multiraspa, Malling Delight	1
green to brownish green		grün bis bräunlichgrün		Malling Landmark, Rumiloba	2
brownish green		bräunlichgrün		Watson	3
brownish green to brown		bräunlichgrün bis braun		Malling Exploit, Preußen	4
brown		braun		Malling Orion, Spica	5
brown to brownish purple		braun bis bräunlichpurpur		Meeker	6
brownish purple		bräunlichpurpur		Malling Leo, Pajullap	7
brownish purple to purple		bräunlichpurpur bis purpur		Resa, Tulameen	8
purple		purpur		Zefa 3, Pechts Herbstfreude, Comox, Veten	9
16. [14.] (*)	Leaf: green color of upper side	Blatt: Grünfärbung der Oberseite			
light		hell		Watson, Skeena	3
medium		mittel		Malling Orion	5
dark		dunkel		Malling Landmark, Rubaca, Resa	7
17. [11.] (*)	Leaf: number of leaflets	Blatt: Anzahl Fiederblätter			
predominately three		vorwiegend drei		Zefa 3, Veten	1
sometimes three, sometimes five		teils drei, teils fünf		Sirius, Multiraspa, Malling Exploid	2
predominately five		vorwiegend fünf		Ontario, Pujallup, Rusilva	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
18. Leaf: shape of upper side of leaflets in cross section (new)		Blatt: Form der Oberseite der Fiederblättchen im Querschnitt (neu)			
concave		konkav		Glen Moy, Glen Clova	1
level		eben		Gevalo	2
convex		konvex		Gigant	3
Proposal (NZ): To replace “level” with “flat”.					
19. Leaf: pubescence of upper side (new)		Blatt: Behaarung der Oberseite (neu)			
weak		gering		Gevalo, Rucami, Malling Delight	3
medium		mittel		Schönemann, Malling Leo	5
strong		stark		Vicking	7
20. Leaf: coloration of lower side in relation to upper side (new)		Blatt: Färbung der Unterseite im Verhältnis zur Oberseite (neu)			
nearly same		etwa gleich		Winklers Sämling	1
slightly lighter		etwas heller		Preußen, Gevalo	2
markedly lighter		deutlich heller		Malling Promise	3
21. Leaf: relief between [12.] the veins (*)		Blatt: Faltung zwischen den Nebenadern			
very weak		sehr gering		Heritage, Watson	1
weak		gering		Rusilva	3
medium		mittel		Caliber, Malling Landmark, Pujallup	5
strong		stark		Spica, Malling Exploit	7
very strong		sehr stark		Korbfüller	9
Proposal (NZ): To have “unevenness” instead of “relief”.					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. Leaf: overlapping of [13.] lateral leaflets (+)		Blatt: Überlappung der seitlichen Fiederblättchen			
apart		freistehend		Willamette	3
touching		einander berührend		Malling Orion,	5
overlapping		überlappend		Gigant, Rumiloba, Resa	7
Proposal (UK): To replace “apart” with “free”.					
23. Lateral leaflet: length [15.] of petiolule (lower pair) (*)		Seitenfieder: Stielchenlänge (unteres Paar)			
very short		sehr kurz		Zefa 3, Ontario, Gigant	1
short		kurz		Schönemann, Rode Radboud	3
medium		mittel		Meeker	5
long		lang		Zefa 1	7
very long		sehr lang			9
Proposal (HU): To delete the asterix, because there could be large variations within varieties or single plants.					
24. Terminal leaflet: length (new)		Endfieder: Länge (neu)			
short		kurz		Royalty	3
medium		mittel		Norfolk Giant, Wilkran	5
long		lang		Malling Joy	7
25. Terminal leaflet: width (new)		Endfieder: Breite (neu)			
narrow		schmal		Rusilva	3
medium		mittel		Malling Leo	5
broad		breit		Malling Delight, Wilkran	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
26. Terminal leaflet: (+) shape of base (new)		Endfieder: Form der Basis (neu)			
cordate		herzförmig		Malling Jewel	1
round		rundlich		Lloyd George	2
27. Flower: size [16.]		Blüte: Größe			
small		klein		Ontario	3
medium		mittel		Spica, Rucami	5
large		groß		Schönemann, Gevalo	7
28. Flower: anthocyanin [17.] coloration of pedicel (*)		Blüte: Anthocyanfärbung des Stiels			
absent		fehlend		Gelbe Antwerpener	1
present		vorhanden		Willamette	9
29. Flower: intensity of [18.] anthocyanin (*) coloration of pedicel (if present)		Blüte: Intensität der Anthocyanfärbung des Stiels (wenn vorhanden)			
very weak		sehr gering		Schönemann, Rumilo	1
weak		gering		Joan Squire, Malling Delight	3
medium		mittel		Gevalo, Pujallup	5
strong		stark		Willamette, Loganlike	7
very strong		sehr stark		Rafzmach	9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
30. Flower: spininess of peduncle (new)		Blüte: Bestachelung des Blütenstiels (neu)			
absent		fehlend		Glen Ample	1
weak		gering		Multiraspa, Pechts Gigant	3
medium		mittel		Glen Clova, Malling Leo	5
strong		stark		Malling Joy, Orange Marie	7
very strong		sehr stark		Golden Bliss	9
31. Fruiting lateral: [19.] length (*)		Fruchtender Trieb: Länge			
very short		sehr kurz		Glen Moy, Galante	1
short		kurz		Rafzmach, Malling Orion	3
medium		mittel		Tulameen, Gradina	5
long		lang		Meeker	7
very long		sehr lang		Malling Joy, Malling Leo	9
Proposal (DE): To point out that this characteristic is for summer fruiting varieties only, and to add a characteristic “<u>Only varieties whose main fruiting is on the previous year’s cane in summer: Fruiting lateral: attitude, 1-erect, 2-semi-erect, 3-spreading</u>”.					
32. Fruit: color [20.]		Frucht: Farbe			
yellow		gelb		Gelbe Antwerpener, Golden Bliss	1
orange		orange		Orange Marie	2
pale red		hellrot		Malling Delight	3
medium red		mittelrot		Glen Clova, Malling Orion	4
dark red		dunkelrot		Gigant, Schönemann, Zefa 2	5
purple		purpur		Royalty	6
blackpurple		schwarzpurpur		Deep Purple	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
33. Fruit: size [21.] (*)		Frucht: Größe			
very small		sehr klein		Baumforth Seedling	1
small		klein		Preußen, Zenith	3
medium		mittel		Spica, Willamette	5
large		groß		Glen Moy, Malling Delight, Gevalo	7
very large		sehr groß		Glen Ample	9
34. Fruit: size of single drupe (new)		Frucht: Größe der Einzelsteinfrucht (neu)			
small		klein		Malling Admiral, Polana	3
medium		mittel		Resa, Heritage, Autumn Bliss	5
large		groß		Glen Ample, Festival, Dinkum, Rafzeter	7
Proposal (NZ): To move char. 34 after 35.					
35. Fruit: ratio length/ width [22.] (*)		Frucht: Verhältnis Länge/Breite			
as long as broad		so lang wie breit		Zefa 2, Caliber	1
longer than broad		länger als breit		Glen Clova	2
much longer than broad		viel länger als breit		Malling Delight, Tulameen	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
36. Fruit: firmness [23.] (*)		Frucht: Festigkeit			
very soft		sehr weich		Malling Delight, Caliber	1
soft		weich		Malling Landmark, Gigant	3
medium		mittel		Malling Promise, Glen Clova	5
firm		fest		Tulameen	7
very firm		sehr fest		Glen Prosen	9
37. Fruit: glossiness [24.]		Frucht: Glanz			
weak		gering		Gigant, Rumilo	3
medium		mittel		Comox	5
strong		stark		Tulameen, Rafzmach	7
Proposal (NZ): To have an example for “very strong”, if needed.					
38. Fruit: adherence to plug [25.] (*)		Frucht: Haften am Zapfen			
very weak		sehr gering			1
weak		gering			3
medium		mittel		Glen Clova, Meeker	5
strong		stark		Malling Delight	7
very strong		sehr stark		Jochems Roem, September	9
Proposal (DE, GB, HU): To be deleted, because mostly dependent on maturity.					
Proposal (NZ): To keep this char.					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
39. Main fruiting [26.] (*)		Haupternte			
on previous year's cane in summer		an der Vorjahresrute im Sommer		Malling Promise	1
on current year's cane in autumn		an der Jahresrute im Herbst		Autumn Bliss	2
Proposal (DE): To add a state "both on previous and on current year's cane" with the example varieties 'Resa', 'Isabel' and 'Baronne de Vavre'.					
40a. Only varieties whose [27.] (*) main fruiting is on the previous year's cane in summer; Plant: time of bud burst		<u>Nur Sorten, die ihre</u> <u>Haupternte an der</u> <u>Vorjahresrute im</u> <u>Sommer erbringen;</u> <u>Pflanze: Zeitpunkt des</u> <u>Knospenaufbruchs</u>			
very early		sehr früh			1
early		früh		Glen Moy, Malling Promise	3
medium		mittel		Glen Clova	5
late		spät		Malling Orion, Multiraspa	7
very late		sehr spät		Malling Joy	9
40b. Only varieties whose [28.] (*) main fruiting is on the current year's cane in autumn; Time of shoot emergence		<u>Nur Sorten, die ihre</u> <u>Haupternte an der</u> <u>Jahresrute im Herbst</u> <u>erbringen; Beginn des</u> <u>Triebwachstums</u>			
very early		sehr früh			1
early		früh		Polana	3
medium		mittel		Autumn Bliss	5
late		spät		Watson	7
very late		sehr spät			9

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
41. Time of beginning of [29.] flowering on previous year's cane (10% of flowers opened) (changed) (*)		Zeitpunkt des Blühbeginns an Vorjahresruten (10% der Blüten geöffnet) (verändert)			
very early		sehr früh		Glen Moy, Rafzmach	1
early		früh		Willamette, Gevalo	3
medium		mittel		Skeena, Rumiloba	5
late		spät		Glen Prosen	7
very late		sehr spät		Malling Leo, Malling Joy	9
42a. Time of ripening on [30.] previous year's canes (*)		Zeitpunkt der Reife an Vorjahresruten			
very early		sehr früh			1
early		früh		Glen Clova, Glen Moy, Rafzmach	3
medium		mittel		Willamette, Rusilva	5
late		spät		Schönemann, Malling Landmark	7
very late		sehr spät		Malling Leo	9
Proposal (NZ) chars. 42a. and 42.b: To have the wording "Time of maturity for consumption on"					
42b. Time of ripening on [32.] current year's canes (*)		Zeitpunkt der Reife an Jahresruten			
very early		sehr früh		Ariadne	1
early		früh		Polana	3
medium		mittel		Orange Marie, Watson	5
late		spät		Korbfüller	7
very late		sehr spät		Baronne de Wavre	9
Proposal (NZ) chars. 42a. and 42.b: ... see 42a.					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
43a. Length of harvest [31.] season on <u>previous</u> <u>year's canes</u>		Dauer der Ernteperiode an <u>Vorjahresruten</u>			
short		kurz		Glen Moy	3
medium		mittel		Glen Clova	5
long		lang		Schönemann	7

Proposal (DE, GB): To be deleted, because this seems to be a VCU characteristic.

Proposal (HU, NZ): To keep this characteristic.

43b. Length of harvest [33.] season on <u>current</u> <u>year's canes</u>		Dauer der Ernteperiode an <u>Jahresruten</u>			
short		kurz		Zefa 3	3
medium		mittel		Heritage	5
long		lang		Korbfüller	7

Proposal (DE, GB): To be deleted, because this seems to be a VCU characteristic.

Proposal (NZ, HU) chars. 43a. and 43b: To keep this characteristic.

VIII. Explanations on the Table of Characteristics

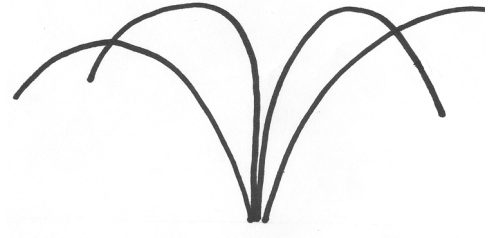
Ad. 1: Plant: attitude of shoots



3
erect



5
semi-erect

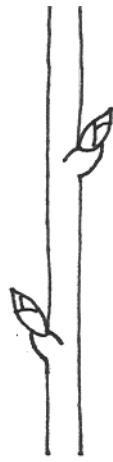


7
drooping

Ad. 8: One-year-old shoot: length of bud



3
short

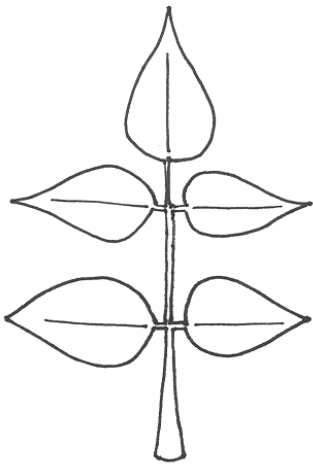


5
medium

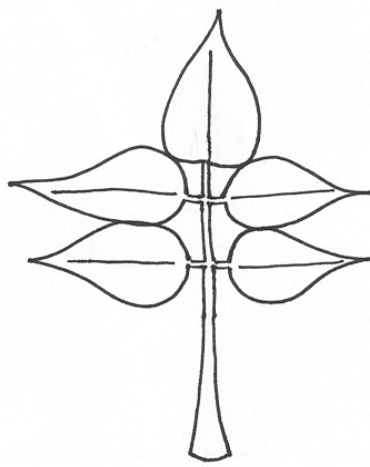


7
long

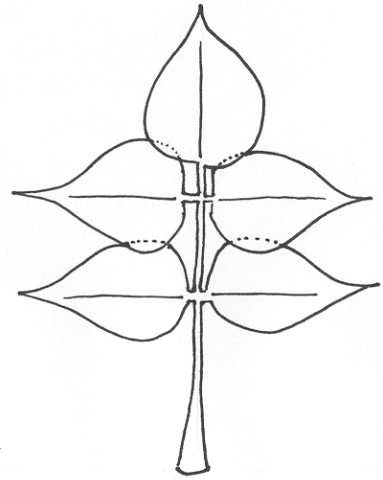
Ad. 22: Leaf: overlapping of lateral leaflets



3
apart

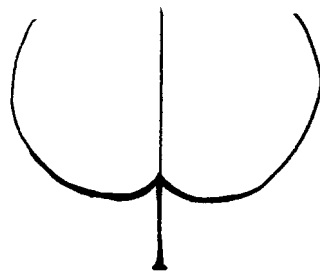


5
touching

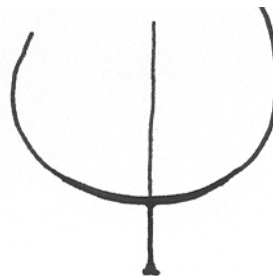


7
overlapping

Ad. 26: Terminal leaflet: shape of base



1
cordate



2
round

IX. Literature

Bordeianu, T.; Constantinescu, N.; Stefan, N., 1968: "Pomologia, Bd. VII", Editura Academiei Republicii Socialiste Romania, Bukarest, RO.

"Internordic Index of Ribes and Rubus Cultivars", AVD för Frukt och Bärödling, Alnarp, SE.

Leemans, I.A., Nannenga, E.T., 1957: "Raspberry Varieties", Instituut voor de Veredeling van Tuinbouwgewassen (IVT), Wageningen, NL.

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

X. Technical Questionnaire

Reference Number
(not to be filled in by the applicant)

TECHNICAL QUESTIONNAIRE
to be completed in connection with an application for Plant Breeders' Rights

1. Species *Rubus idaeus* L.
RASPBERRY

2. Applicant (name and address)

3. Proposed denomination or breeder's reference

4. Information on origin, maintenance and reproduction of the variety

4.1 Origin

- (a) Seedling of unknown parentage
- (b) Produced by controlled pollination (indicate parent varieties)
- Seed bearing parent (indicate parent)
-
- Pollen parent (indicate parent)
-
- (c) Produced by open pollination of (indicate seed bearing parent plant)
-
- (d) Mutation or sport from (indicate original parent variety)
-
- (e) Discovery (indicate where and when)
-

4.2. *In vitro* propagation:

The plant material of the candidate variety has been obtained
by *in vitro* propagation

yes

no

4.3 Virus status:

(a) The variety is free from all known virus as follows (indicate from which viruses) []

.....

(b) The plant material is virus tested (indicate against which virus) []

.....

(c) The virus status is unknown []

4.4 Other information:

5. Characteristics of the variety to be indicated (the number in brackets refers to the corresponding characteristic in Test Guidelines; please mark the state of expression which best corresponds).

Characteristics	Example Varieties	Note
5.1 Plant: number of young shoots (2)		
very few		1[]
few	Rubaca, Rucami	3[]
medium	Multiraspa, Rumiloba, Glen Ample	5[]
many	Skeena, Glen Clova	7[]
very many	Nagymarosi	9[]
5.2 <u>Only varieties whose main fruiting is on the previous year's cane in summer:</u> Dormant cane: color		
greyish brown	Schönemann	1[]
greyish brown to brown	Willamette	2[]
brown	Caliber, Rucami	3[]
brown to purple brown	Malling Landmark, Festival, Cola 1	4[]
purple brown	Titan, Royalty	5[]

Characteristics	Example Varieties	Note
5.3 Fruit: color (32)		
yellow	Gelbe Antwerpener, Golden Bliss	1[]
orange	Orange Marie	2[]
pale red	Malling Delight	3[]
medium red	Glen Clova, Malling Orion	4[]
dark red	Gigant, Schönemann, Zefa 2	5[]
purple	Royalty	6[]
blackpurple	Deep Purple	7[]
5.4 Fruit: size (33)		
very small	Baumforth Seedling	1[]
small	Preußen, Zenith	3[]
medium	Spica, Willamette	5[]
large	Glen Moy, Malling Delight, Gevalo	7[]
very large	Glen Ample	9[]
5.5 Fruit: ratio length/width (35)		
as long as broad	Zefa 2, Caliber	1[]
longer than broad	Glen Clova	2[]
much longer than broad	Malling Delight, Tulameen	3[]
5.6 Main fruiting (39)		
on previous year's cane in summer	Malling Promise	1[]
on current year's cane in autumn	Autumn Bliss	2[]

	Characteristics	Example Varieties	Note
5.7 (42a)	Time of ripening on <u>previous year's canes</u>		
	very early		1[]
	early	Glen Clova, Glen Moy, Rafzmach	3[]
	medium	Willamette, Rusilva	5[]
	late	Schönemann, Malling Landmark	7[]
	very late	Malling Leo	9[]
5.8 (42b)	Time of ripening on <u>current year's canes</u>		
	very early	Ariadne	1[]
	early	Polana	3[]
	medium	Orange Marie, Watson	5[]
	late	Korbfüller	7[]
	very late	Baronne de Wavre	9[]

6. Similar varieties and differences from these varieties

Denomination of similar variety	Characteristic in which the similar variety is different ^{o)}	State of expression of similar variety	State of expression of candidate variety
---------------------------------	------------------------------------------------------------------------	----------------------------------------	------------------------------------------

^{o)} In the case of identical states of expressions of both varieties, please indicate the size of the difference.

7. Additional information which may help to distinguish the variety

7.1 Resistance to pests and diseases

7.2 Special conditions for the examination of the variety

7.3 Other information

A representative color photo of the variety should be added to 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 that question is yes, please attach a copy of such an authorization.

[End of document]