



TWF/31/6

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GENEVA

**TECHNICAL WORKING PARTY
FOR
FRUIT CROPS**

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WORKING PAPER ON REVISED TEST GUIDELINES FOR EUROPEAN PLUM
(*Prunus domestica* L.)

Document prepared by experts from Germany

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I. Subject of these Guidelines

These Test Guidelines apply to all vegetatively propagated varieties for fruit production of *Prunus domestica* L. including its subspecies. *P. salicina* Lindl. and their hybrids.

Proposal (JP): It is not necessary to add *P. salicina*.

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:

5 trees (one-year-old grafts).

Proposal (ZA): 5 trees (one-year-old grafts) could be replaced with: "5 one-year-old grafted trees", otherwise it appears that the grafts are one-year-old.

It is recommended that the competent authority prescribes one of the following rootstock varieties: 'Saint-Julien d'Orléans' or 'Myrobalan B' or any other rootstock specified by the competent authorities. If accepted by the competent authorities the applicant could also submit 8 dormant shoots for grafting.

Proposal (ZA): To change the wording as follows: "It is recommended that one of the following rootstock varieties be used: 'Saint-Julien d'Orléans' or 'Myrobalan B' or any other rootstock specified..."

2. The plant material supplied should be visibly healthy, not lacking in vigor or affected by any important pests or diseases and should especially be free from viruses as required by the competent authority. It should preferably not be obtained from *in vitro* propagation. If it has been produced by *in vitro* propagation this fact has to be stated by the applicant.

3. 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 that the plants under test 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 5 trees. 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 determined by measurement, weighing or counting should be made on 5 plants or 10 parts, 2 from each of 5 plants. All observations on the fruit should be made on a minimum of 10 typical fruits, 2 from each fruit tree.
2. For 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.
3. Unless otherwise stated, all observations on the tree and on the one-year-old shoot should be made during winter on trees that have fruited at least once. The thickness of the shoot and the length of internodes should be observed in the middle of the shoot.
4. All observations on the vegetative bud should be made on one-year-old shoots.
5. Unless otherwise stated, all observations on the leaf should be made in summer on fully developed leaves from the middle third of a current season's shoot.
6. Unless otherwise stated, all observations on the flower should be made on fully developed flowers at the beginning of anther dehiscence.
7. All observations on the fruit should be made on fruits at maturity for consumption.

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 the 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) Fruit: size (characteristic 43)
 - (b) Fruit: ground color of skin (after removing bloom) (characteristic 52)
 - (c) Time of beginning of flowering (characteristic 65)
 - (d) Time of maturity for consumption (characteristic 66)

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

Proposal (HU): To check whether some of the new example varieties could be replaced by more common ones.

Respond (DE): See new added, **boldly typed** example varieties.

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
1. Tree: vigor		Baum: Wuchsstärke			
weak		gering		Ruth Gerstetter	3
medium		mittel		Felsina, Victoria	5
strong		stark		Valor	7
2. Tree: density of crown		Baum: Kronendichte			
open		locker		Čačanska najbolja, Reine Claude verte ou Dorée	3
medium		mittel		Anna Späth, Prune d'Ente	5
dense		dicht		Mirabelle de Nancy	7
3. One-year-old shoot: attitude		Einjähriger Trieb: Stellung			
erect		aufrecht		Čačanska Julia, Empress, Reine Claude de Bavay	1
semi-erect		halbaufrecht		Prune d'Ente, Hanita	2
horizontal		waagerecht		Graf Brühl, Gräfin Cosel, Reine Claude verte ou Dorée	3
drooping		hängend		Primacotes	4
4. One-year-old shoot: thickness		Einjähriger Trieb: Dicke			
thin		dünn		Perdrigon Violet, Victor Christian	3
medium		mittel		Reine Claude verte ou Dorée	5
thick		dick		Reine Claude de Bavay	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
5. One-year-old shoot: length of internodes		Einjähriger Trieb: Länge der Internodien			
short		kurz		Andrierez Plum, California Blue	3
medium		mittel		Anna Späth, Reine Claude verte ou Dorée	5
long		lang		Angelina Burdett, Reine Claude de Bavay	7
6. One-year-old shoot: pubescence		Einjähriger Trieb: Behaarung			
weak		gering		Prune d'Ente, Felsina	3
medium		mittel		Reine Claude verte ou Dorée, Top	5
strong		stark		The Czar	7
Proposal (JP): To specify what exactly is to be observed in this char.					
7. One-year-old shoot: number of lenticels		Einjähriger Trieb: Anzahl Lentizellen			
few		gering		Anna Späth, Hauszwetsche	3
medium		mittel		Prune d'Ente, Gräfin Cosel	5
many		groß		Graf Brühl, Reine Claude de Bavay	7
8. Shoot: number of flowers		Trieb: Anzahl Blüten			
few		gering		Prune d'Ente	3
medium		mittel		Felsina, Reine Claude de Bavay	5
many		groß		Elena, Grand Prize	7
Proposal (ZA) chars. 8 and 9: To say "Flowering shoot", just to distinguish it from the one-year-old shoot, and to place chars. 8. and 9. just before 32.					

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
9. Shoot: double flowers [No. 49. in TG/41]		Trieb: doppelte Blüten			
absent		fehlend		Jefferson ???	1
present		vorhanden		Kirke's, Reine Claude d'Althan	9

TWF: To check whether the example variety 'Jefferson' would fit to state 1.

Proposal ZA: To say flowering shoot, just to distinguish it from the one-year-old shoot, and to place char. 8 and 9 just before char. 32.

10. One-year-old shoot: size of vegetative bud [13.]		Einjähriger Trieb: Größe der vegetativen Knospe			
small		klein		Elena, Reine Claude d'Althan	3
medium		mittel		Prune d'Ente, Empress	5
large		groß		Golden Transparent	7
11. One-year-old shoot: shape of vegetative bud [10.] (+)		Einjähriger Trieb: Form der vegetativen Knospe			
conical		kegelförmig		Anna Späth, Bountiful	1
ovoid		eiförmig		Reine Claude d'Oullins	2
spheroid		rund		Herman	3
12. One-year-old shoot: position of vegetative bud in relation to shoot (+)		Einjähriger Trieb: Stellung der vegetativen Knospe im Verhältnis zum Trieb			
adpressed		anliegend		Anna Späth, Marjorie's Seedling	1
slightly held out		etwas abstehend		Coes Goldendrop, Hanita	2
markedly held out		deutlich abstehend		Herman, Victoria	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
13. One-year-old shoot: [9.] size of vegetative (+) bud support		Einjähriger Trieb: Größe des Wulstes der vegetativen Knospe			
small		klein		Belle de Louvein, Hanita	3
medium		mittel		The Czar, Felsina	5
large		groß		Elena, Reine Claude d'Oullins	7
14. One-year-old shoot: (+) decurrence of vegetative bud support		Einjähriger Trieb: Auslaufen des Wulstes der vegetativen Knospe			
not decurrent		nicht auslaufend		Coe's Golden Drop	1
decurrent		auslaufend		Laxton's Cropper	2
15. Young shoot: [16.] intensity of anthocyanin coloration of growing tip (during rapid growth)		Junger Trieb: Intensität der Anthocyanfärbung der Triebspitze (während des schnellen Wachstums)			
weak		gering		Herman, Reine Claude d'Oullins	3
medium		mittel		Anna Späth, Ersinger, Hanita, Hauszwetsche	5
strong		stark		Cambridge Gage, Felsina	7
Proposal (GB): To check the correct order for leaf characteristics (petiole - stipule - nectary - blade).					
16. Leaf blade: attitude [17.] in relation to shoot (+)		Blattspreite: Stellung im Verhältnis zum Trieb			
upwards		aufwärts			1
outwards		waagerecht		Early Laxton	2
downwards		hängend		Victoria	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
17. Leaf blade: length		Blattspreite: Länge			
short		kurz		Ruth Gerstetter	3
medium		mittel		Graf Brühl, Reine Claude verte ou Dorée	5
long		lang		Anna Späth, Prune d'Ente	7
18. Leaf blade: width		Blattspreite: Breite			
narrow		schmal		Prune d'Ente, Hanita	3
medium		mittel		Graf Brühl, Reine Claude verte ou Dorée	5
broad		breit		Nordens, Valor	7
19. Leaf blade: ratio [18.] length / width (*)		Blattspreite: Verhältnis Länge / Breite			
small		klein		Nordens, Valor	3
medium		mittel		Prune d'Ente, Hanita	5
large		groß		Anna Späth ,Felsina, Hauszwetsche	7
20. Leaf blade: shape [19.] (*) (+)		Blattspreite: Form			
ovate		eiförmig			1
elliptic		elliptisch		Prune d'Ente, Top	2
obovate		verkehrt eiförmig		Allgrove's Superb, Hanita	3
21. Leaf blade: angle of [20.] apex (excluding tip) (+)		Blattspreite: Winkel an der Spitze (ohne aufgesetzte Spitze)			
acute		spitz		Anna Späth, Damson Prune	1
right-angled		rechtwinklig		Prune d'Ente, Gräfin Cosel	2
obtuse		stumpf		Graf Brühl, Pershore	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
22. Leaf blade: shape of (*) (+) base		Blattspreite: Form der Basis			
acute		spitz		Katinka, Top, Verity	1
obtuse		stumpf		Anna Späth, Hanita	2
truncate		gerade		Marjorie's Seedling	3
23. Leaf blade: intensity of green color of upper side		Blattspreite: Intensität der Grünfärbung der Oberseite			
light		hell		Ersinger Frühzwetsche	3
medium		mittel		Prune d'Ente, Katinka, Opal	5
dark		dunkel		Anna Späth , Elena	7
24. Leaf blade: glossiness of upper side		Blattspreite: Glanz der Oberseite			
weak		gering		Early Rivers	3
medium		mittel		Shropshire Damson	5
strong		stark		President	7
25. [26.] Leaf blade: pubescence of lower side		Blattspreite: Behaarung der Unterseite			
absent		fehlend		Reine Claude verte ou Dorée	1
present		vorhanden		Anna Späth	9
26. [27.] Leaf blade: incisions of margin (+)		Blattspreite: Form der Randeinschnitte			
crenate		gekerbt		Hanita, Reine Claude d'Oullins	1
serrate		gesägt		Anna Späth, Golden Bullace	2

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
27. Leaf: presence of nectary		Blatt: Vorhandensein von Nektarien			
absent		fehlend		Anna Späth, Jefferson	1
present		vorhanden		Grand Duke, Victoria	9
Proposal (GB): To keep the word "nectary" instead of the proposed "gland".					
Proposal (ZA): To have a plural form "nectaries" if there are normally 2 nectaries.					
Respond (DE): Also a single nectary is possible.					
28. Leaf: position of [34.] nectaries		Blattstiel: Sitz der Nektarien			
predominantly on base of blade		vorwiegend an der Basis		Reine Claude de Bavay, Mirabelle de Metz	1
predominantly on petiole		vorwiegend am Stiel		Reine Claude d'Althan	2
both on base of blade and petiole		an der Basis und am Stiel		Reine Claude verte ou Dorée, d'Ente	3
Proposal (ZA): To delete the word "both".					
29. Petiole: length		Blattstiel: Länge			
short		kurz		Reine Claude d'Althan	3
medium		mittel		Prune d'Ente, Felsina	5
long		lang		Victoria	7
30. Petiole: ratio length of leaf blade/length of petiole		Blattstiel: Verhältnis Länge der Blattspreite/Länge des Blattstiels			
small		klein		Graf Brühl, Reine Claude verte ou Dorée	3
medium		mittel		Prune d'Ente, Hanita	5
large		groß		Hauszwetsche Typ Schüfer	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
31. Petiole: pubescence [30.] of upper side		Blattstiel: Behaa- rung der Oberseite			
weak		gering		Ruth Gerstetter, Hanita, Reine Claude d'Althan	3
medium		mittel		Prune d'Ente, Empress	5
dense		dicht		Herman, Professeur Collumbien	7

Proposal (GB): The leaf chars. will have to be rearranged to petiole, stipule, nectary blade.

Proposal (ZA): Should either be "sparse to dense" (distribution) or "weak to strong" (distribution plus length).

32. Flower: diameter [36.] (fully opened (*)) flowers)		Blüte: Durchmesser (bei voll geöffneter Blüte)			
small		klein		Early Laxton, Elena, Hanita	3
medium		mittel		Herman, Victoria, Ruth Gerstetter	5
large		groß		Čaćanska najbolja, Felsina, Reine Claude d'Oullins	7

33. Flower: relative [50.] position of margins (*)(+) of petals		Blüte: relative Stellung der Ränder der Blütenblätter			
apart		freistehend		Anna Späth, Italienische Zwetsche	1
touching		berührend		Coe's Golden Drop, Empress	2
overlapping		überlappend		Ontario, Ruth Gerstetter	3

Proposal (ZA): To have the wording "Petals: relative position of margins" and move this to just before char. 37.
Proposal (JP): To add "single flower only" in the title, and in state 1 to replace "apart" by "free".

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
34. Pedicel: length [37.]		Blütenstiel: Länge			
absent or very short		fehlend oder sehr kurz		Elena, Čačanska najbolja	1
short		kurz		Reine Claude de Bavay, Ruth Gerstetter	3
medium		mittel		Ersinger Frühzwetsche, Reine Claude verte ou Dorée	5
long		lang		Prune d'Ente, Felsina, Ortenauer	7
very long		sehr lang			9

Proposal (ZA): To discuss the order of organs (pedicel and then upwards [calyx, corolla, etc.] although in the leaf it is done the other way round [first the blade then petiole]).

35. Sepal: attitude [44.]		Kelchblatt: Stellung			
adpressed to petals		anliegend am Blütenblatt		Hanita, Marjorie's Seedling	1
touching receptacle		anliegend am Blütenboden		Čačanska rana, Washington	2
touching neither petals nor receptacle		wederBlütenblatt noch Blütenboden berührend		Anna Späth, Reine Claude d'Oullins	3

Proposal (ZA): To have the wording "Calyx: attitude of sepals" because one looks at the calyx is as a whole.

36. Sepal: shape [45.] (*)(+)		Kelchblatt: Form			
narrow elliptic		schmal elliptisch		Italienische Zwetsche, Hauszwetsche	1
elliptic		elliptisch		Reine Claude d'Oullins	2
ovate		eiförmig		Washington, Coe's Golden Drop	3
broad ovate		breit eiförmig		The Czar	4
triangular		dreieckig		Kirke's	5

Proposal (ZA): The drawings for state 1 and 2 look almost like "narrow lanceolate" and "lanceolate", they should be improved.

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
37. Petal: size [51.] (*)		Blütenblatt: Größe			
small		klein		Golden Bullace	3
medium		mittel		Königin Victoria	5
large		groß		Reine Claude d'Oullins	7
38. Petal: shape [52.] (*)(+)		Blütenblatt: Form			
elliptic		elliptisch		Anna Späth, Opal	1
broad elliptic		breit elliptisch		Graf Brühl	2
circular		rundlich		The Czar, Reine Claude d'Althan	3
obovate		verkehrt eiförmig		Gräfin Cosel, Herman	4
39. Petal: undulation of margin [53.]		Blütenblatt: Wellung des Randes			
absent		fehlend		Red Magnum	1
present		vorhanden		Anna Späth	9
Proposal (ZA): To check whether there is not any inbetween state for very weakly expressed situations.					
40. Stigma: position in relation to anthers [59.]		Narbe: Stellung im Verhältnis zu den Staubbeuteln			
below		unterhalb		Reine Claude d'Althan, Ersinger Frühzwetsche	1
at same level		in gleicher Höhe		Hanita, Graf Brühl, Italienische Zwetsche	2
above		oberhalb		Herman, Reine Claude verte ou Dorée	3

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
41. Anther: color (just before dehiscence) [60.]		Staubbeutel: Farbe (kurz vor dem Pollenstäuben)			
yellowish		gelblich		Anna Späth, Prune d'Ente, Hanita	1
reddish orange		rötlichorange		Gräfin Cosel, Valor, Reine Claude verte ou Dorée	2
42. Ovary: pubescence [63.] (*)		Fruchtkonten: Behaarung			
absent		fehlend		Hanita, Washington	1
present		vorhanden		Anna Späth, Belle de Louvain	9
43. Fruit: size [67.] (*)		Frucht: Größe			
very small		sehr klein		Mirabelle de Nancy	1
small		klein		Bonne de Bry, Hauszwetsche	3
medium		mittel		Hanita, Reine Claude verte ou Dorée	5
large		groß		Nordens, Reine Claude d'Oullins	7
very large		sehr groß		Čačanska najbolja	9
44. Fruit: shape in lateral view [68.] (*)(+)		Frucht: Form in der Seitenansicht			
narrow elliptic		schmal elliptisch		Empress	1
elliptic		elliptisch		Bonne de Bry, Victoria	2
circular		kugelförmig		Prune d'Ente, Mirabelle de Nancy	3
transverse elliptic		abgeflacht		Hauszwetsche	4

Proposal (SK): To check whether another state "ovate" with an example variety 'Valjevka' should be added.

Respond (DE): We support this proposal and have 'Hanita' for "ovate" and, additionally, 'Hauszwetsche' for "obovate".

Proposal (ZA): To make a check about the difference between "transverse elliptic" and "oblate".

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
45. Fruit: position of [69.] maximum diameter (*)		Frucht: Position des maximalen Durch- messers			
towards stalk end		zur Basis hin		Hauszwetsche Typ Schüfer	1
in middle		in der Mitte		Victoria	2
towards pistil end		zur Spitze hin		Hanita, Madeleine Nomblot	3

Proposal (ZA): Char. 44 does not make allowance for a position of maximum diameter in any other place than in the middle, so char. 45 cannot be possible.

46. Fruit: symmetry (in [70.] ventral view) (*)		Frucht: Symmetrie (bauchseits)			
symmetric		symmetrisch		Reine Claude verte ou Dorée	1
asymmetric		asymmetrisch		Angelina Burdett, Anna Späth	2

47. Fruit: depth of [71.] suture towards stalk (*) end		Frucht: Tiefe der Naht zum Stielende hin			
shallow		flach		Hanita, Reine Claude Tardive de Chambourcy	3
medium		mittel		Reine Claude de Bavay	5
deep		tief			7

Proposal: to check whether the example variety 'Čačanska najbolja' would fit state 7.

Respond (DE): Under our growing conditions 'C. najbolja' represents state 3, so better do keep this one off.

48. Fruit: bloom [73.]		Frucht: Bereifung			
absent		fehlend			1
present		vorhanden		Čačanska najbolja	9

TWF: To check whether bloom on the fruit can really be absent.

Respond (DE): We really do not know any variety without fruit bloom.

Proposal (ZA): To check whether there is not any in-between state for very weakly expressed situations, and to put this char. just before char. 52.

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
49. Fruit: depression at [74.] apex		Frucht: Einsenkung am Scheitel			
absent or very weakly expressed		fehlend oder sehr schwach ausgeprägt		Jefferson, Reine Claude verte ou Dorée	1
weakly expressed		schwach ausgeprägt		Reine Claude d'Oullins	2
strongly expressed		deutlich ausgeprägt		Victoria	3
50. Fruit: pubescence at [76.] apex		Frucht: Behaarung am Scheitel			
absent		fehlend		Ersinger, Ortenauer	1
present		vorhanden		Anna Späth	9
Proposal (ZA): To check whether there is not any in-between state for very weakly expressed situations. Respond (DE): If there would be three states, the distances between them would be very small.					
51. Fruit: depth of stalk [80.] cavity		Frucht: Tiefe der Stielhöhle			
shallow		flach		Anna Späth, Hanita, Monsieur Jaune	3
medium		mittel		Graf Brühl, Reine Claude de Bavay	5
deep		tief		Bleue de Belgique, Gräfin Cosel	7

English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
52. Fruit: ground color [84.] (* of skin (after removing bloom)		Frucht: Grundfarbe der Haut (nach Ent- fernen der Berei- fung)			
whitish		weißlich		Reine Claude diaphane	1
green		grün		Reine Claude verte ou Dorée	2
yellowish green		gelblich grün		Reine Claude d'Oullins	3
yellow		gelb		Drop d'Or d'Espéren, (Tipala)	4
orange yellow		orange gelb		Emma Leppermann	5
red		rot		Prune d'Ente, Victoria	6
light violet		hellviolett		Reine Claude d'Althan, Opal	7
dark violet		dunkelviolett		Anna Späth, Royale Blue	8
violet blue		violettblau		Early Rivers, Graf Brühl, Gräfin Cosel	9
dark blue		dunkelblau		Čáčanska najbolja, Č. Iepotica, Top	10
53. Fruit: color of flesh [86.] (*		Frucht: Farbe des Fleisches			
whitish		weißlich			1
green		grün		Ersinger Frühzwet-sche, Reine Claude verte ou Dorée	2
yellowish green		gelbgrün		Anna Späth, Reine Claude d'Oullins, Ruth Gerstetter	3
yellow		gelb		Ariel, Graf Brühl, Monsieur Jaune	4
orange		orange		Early Transparent, Gräfin Cosel, Hanita	5
red		rot		Bountiful	6

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
54. Fruit: firmness of [87.] flesh (*)		Frucht: Festigkeit des Fleisches			
soft		weich		Čačanska rodna, Empress, Gräfin Cosel	3
medium		mittel		Elena, Monsieur Jaune	5
firm		fest		Nordens, Hauszwetsche	7
55. Fruit: juiciness [89.]		Frucht: Saftgehalt			
low		niedrig		Hauszwetsche, Top	3
medium		mittel		Anna Späth	5
high		hoch		Čačanska najbolja, Jefferson	7
56. Fruit: degree of [92.] adherence of stone (*) to flesh		Frucht: Stärke des Anhaftens des Steins am Fleisch			
non-adherent		nicht anhaftend		Hanita, Kirke's	1
semi-adherent		teilweise anhaftend		Drap d'Or d'Espéren, Elena	2
adherent		anhaftend		Ersinger Früh-zwetsche, Jefferson	3
57. Stone: general shape [94.] in lateral view (*)(+)		Stein: allgemeine Form in der Seiten- ansicht			
narrow elliptic		schmal elliptisch		Drap d'Or d'Espéren, Ortenauer	1
broad elliptic		breit elliptisch		Graf Brühl, Washington	2
round		rund		Early Transparent, Herman	3

Proposal (ZA): To replace the word "round" by "circular" and to improve the drawings as they look more like lanceolate (1), ovate (2) or ovate (1), broad ovate (2).

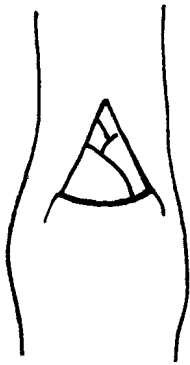
English	français	deutsch	español	Example Varieties Exemples Beispielssorten Variedades ejemplo	Note/ Nota
58. Stone: shape in [95.] ventral view (*)(+)		Stein: Form bauchseits			
narrow elliptic		schmal elliptisch		Anna Späth	1
elliptic		elliptisch		Hanita, Washington	2
broad elliptic		breit elliptisch		Gräfin Cosel, Reine Claude verte ou Dorée	3
59. Stone: symmetry in [97.] lateral view		Stein: Symmetrie in der Seitenansicht			
symmetric		symmetrisch		(Tipala)	1
asymmetric		asymmetrisch		Anna Späth, Ontario, Hauszquetsche	2
60. Stone: position of [99.] maximum width (in ventral view)		Stein: Position der maximalen Breite (bauchseits)			
towards stalk end		zur Basis hin		Anna Späth, The Czar	1
in middle		in der Mitte		Čačanska najbolja, Jefferson	2
towards pistil end		zur Spitze hin		Reine Claude diaphane	3
Proposal (ZA): To check whether the brackets are necessary. Char. 58 does not make allowance for maximum width anywhere else than in the middle.					
61. Stone: outgrowing [100.] of keel (+)		Stein: Ausbuchtung des Kiels			
weak		gering		Drap d'Or d'Espéren, Herman	3
medium		mittel		Anna Späth, Coes Golden Drop	5
strong		stark		Reine Claude d'Althann	7

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
62. Stone: texture of [101.] lateral surfaces (+)					
		Stein: Struktur der seitlichen Oberfläche			
coarse grained		grobkörnig		Monsieur hâtif	1
hammered		gehämmert		Reine Claude d'Oullins, Stanley, Valor	2
63. Stone: width at stalk [107.] end (+)					
		Stein: Breite am Stielansatz			
narrow		schmal		Kirke's	3
medium		mittel		Hanita, Marjorie's Seedling	5
broad		breit		Gräfin Cosel, Washington	7
64. Stone: shape of apex [109] (+)					
		Stein: Form der Spitze			
acute		spitz		Čačanska rodna, The Czar, Ortenauer	1
obtuse		stumpf		Anna Späth, Hanita	2
rounded		abgerundet		Monsieur Jaune	3
65. Time of beginning of [110.] flowering (*)					
		Zeitpunkt des Blühbeginns			
very early		sehr früh		Graf Brühl, Lützelsachser Frühzwetsche	1
early		früh		Ruth Gerstetter, Utility	3
medium		mittel		Prune d'Ente, Hanita, Reine Claude verte ou Dorée	5
late		spät		Elena, Hauszwetsche	7
very late		sehr spät		Hauszwetsche Typ Schüfer, Quetsche Blanche de Cétrécourt	9

English	français	deutsch	español	Example Varieties Exemples Beispielsorten Variedades ejemplo	Note/ Nota
66. Time of maturity for [111.] consumption (*)		Zeitpunkt der Eß- reife			
very early		sehr früh		Ruth Gerstetter	1
early		früh		Bonne de Bry, Ersinger Frühzwetsche	3
medium		mittel		Graf Brühl, Reine Claude verte ou Dorée	5
late		spät		Čačanska rodna, Prune d'Ente	7
very late		sehr spät		Elena, President, Reine Claude de Bavay	9

VIII. Explanations on the Table of Characteristics

Ad 11. One-year-old shoot: shape of vegetative bud



1
conical

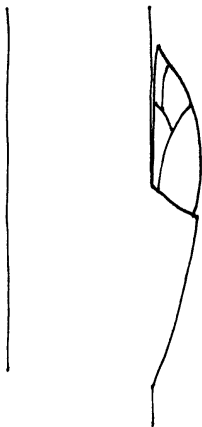


2
ovoid



3
spheroid

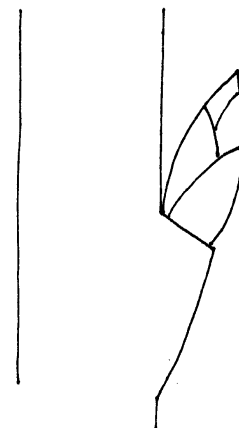
Ad 12. One-year-old shoot: position of vegetative bud in relation to shoot



1
adpressed

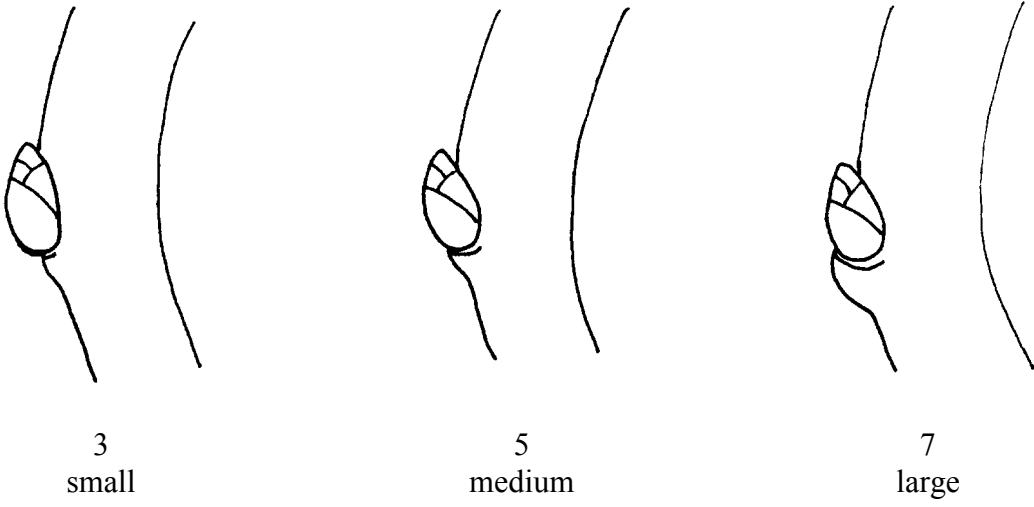


2
slightly held out

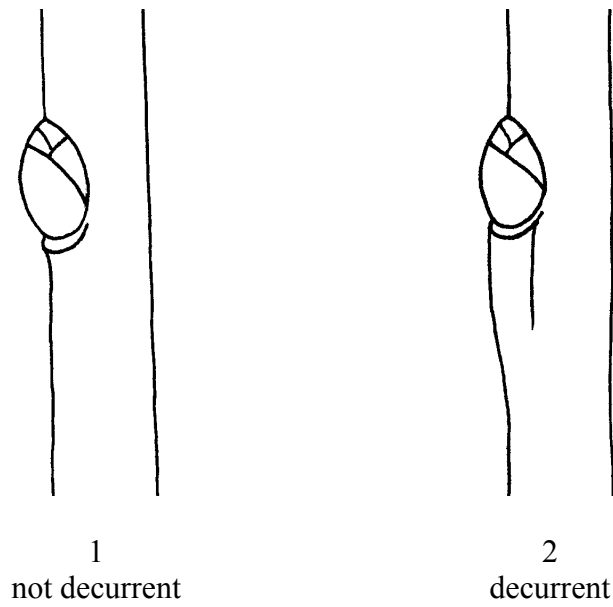


3
markedly held out

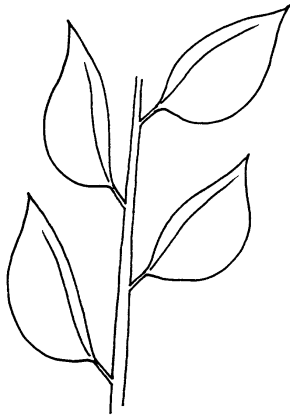
Ad 13. One-year-old shoot: size of vegetative bud support



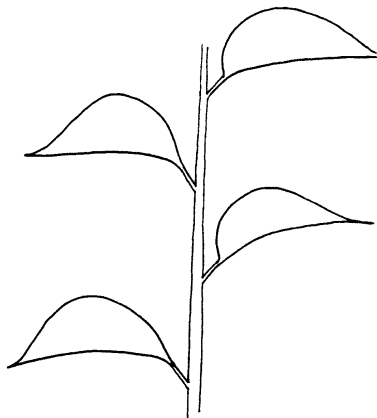
Ad 14. One-year-old shoot: decurrence of vegetative bud support



Ad 16. Leaf blade: attitude in relation to shoot



1
upwards

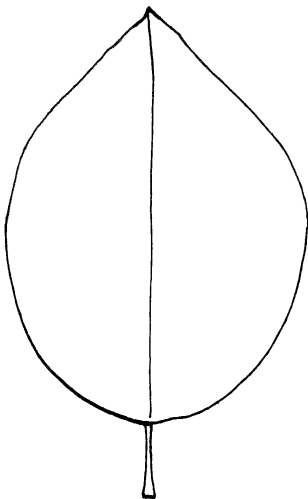


2
outwards

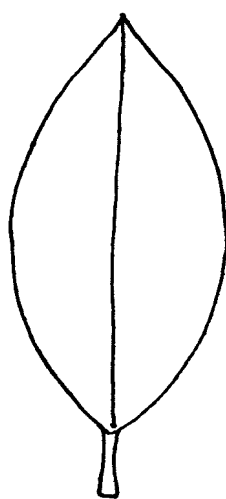


3
downwards

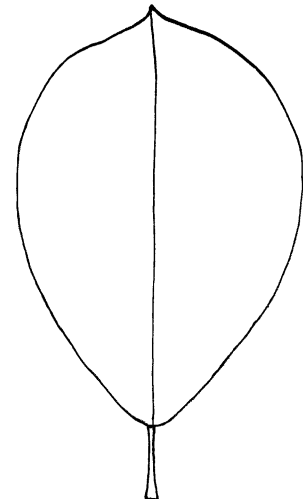
Ad 20. Leaf blade: shape



1
ovate

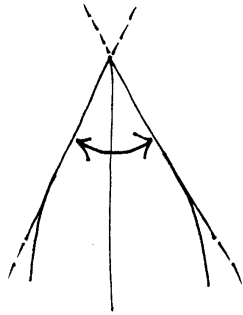


2
elliptic

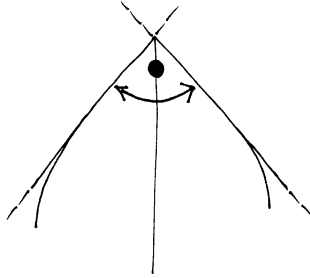


3
obovate

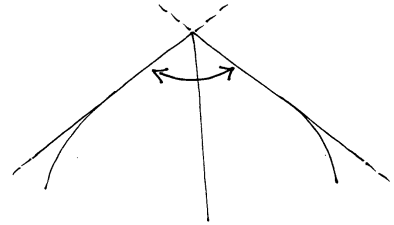
Ad 21. Leaf blade: angle of apex (excluding tip)



1
acute

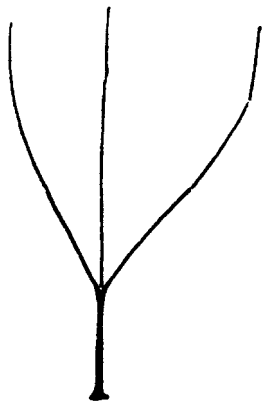


2
right-angled

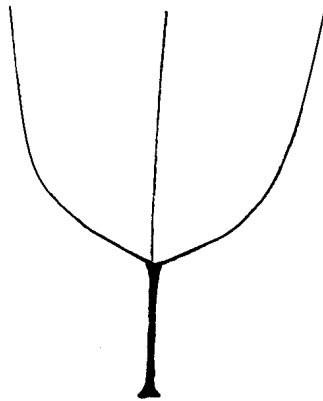


3
obtuse

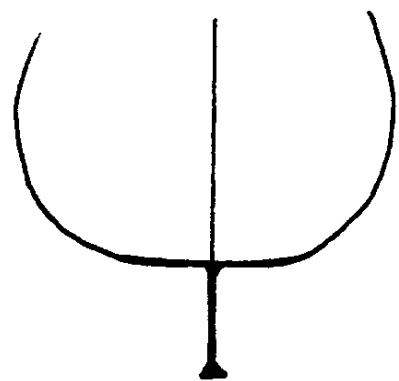
Ad 22. Leaf blade: shape of base



1
acute



2
obtuse



3
truncate

Ad 26. Leaf blade: incisions of margin

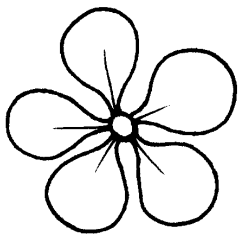


1
crenate

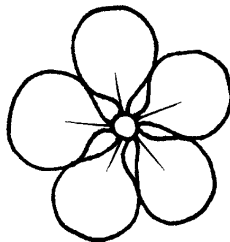


2
serrate

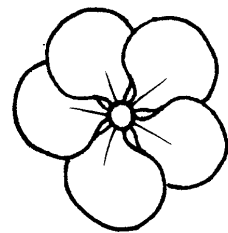
Ad 33. Flower: relative position of margins of petals



1
free

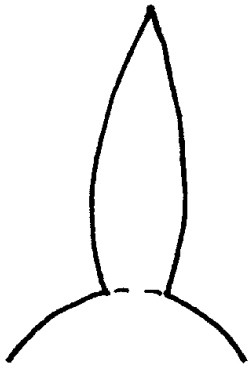


2
touching

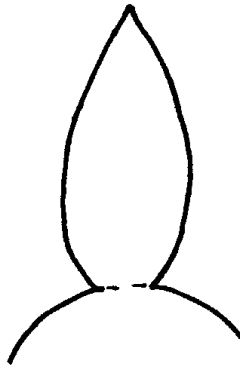


3
overlapping

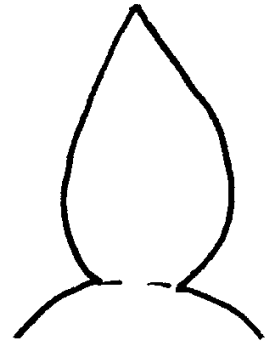
Ad 36. Sepal: shape



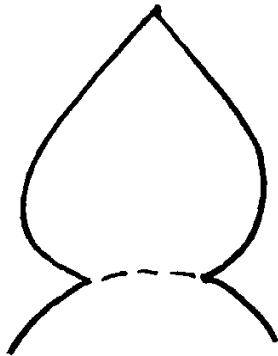
1
narrow elliptic



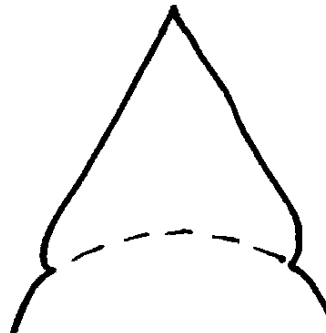
2
elliptic



3
ovate

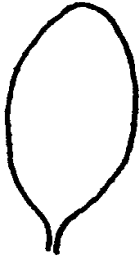


4
broad ovate

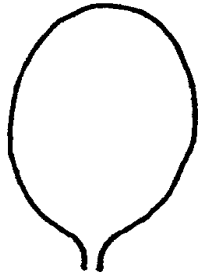


5
triangular

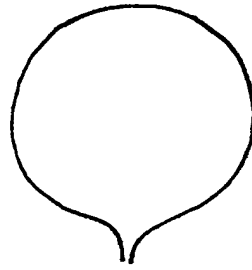
Ad 38. Petal: shape



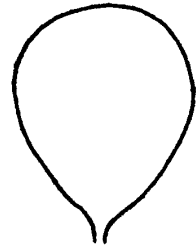
1
elliptic



2
broad elliptic

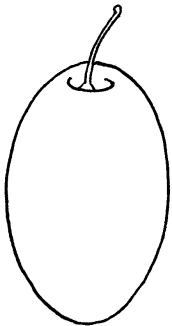


3
circular

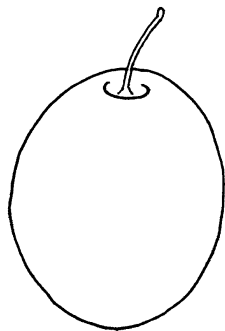


4
obovate

Ad 44. Fruit: shape in lateral view



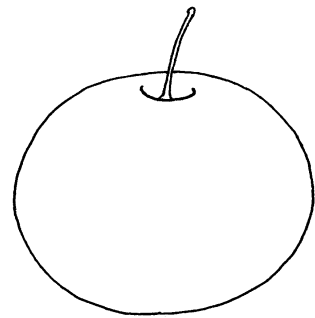
1
narrow elliptic



2
elliptic

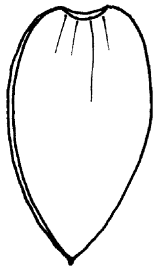


3
circular

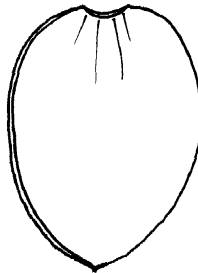


4
transverse elliptic

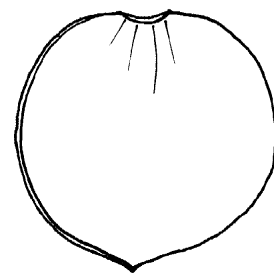
Ad 57. Stone: general shape in lateral view



1
narrow elliptic



2
broad elliptic

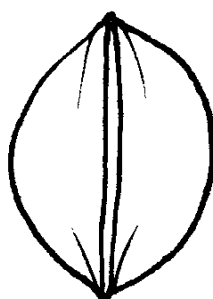


3
round

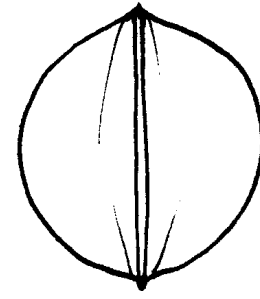
Ad 58. Stone: shape in ventral view



1
narrow elliptic

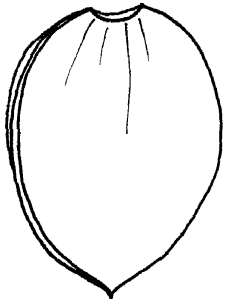


2
elliptic

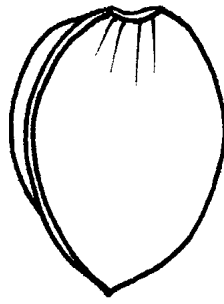


3
broad elliptic

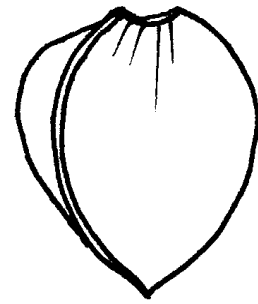
Ad 61. Stone: outgrowing of keel



1
weak



2
medium

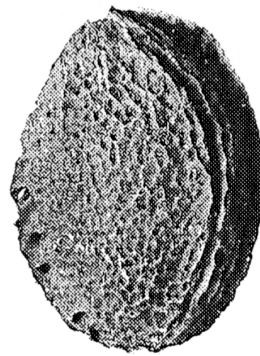


3
strong

Ad 62. Stone: texture of lateral surfaces

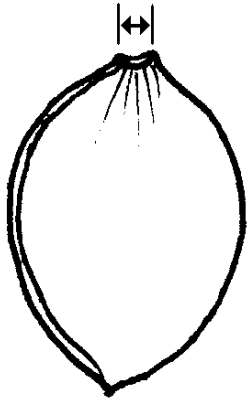


1
coarse grained

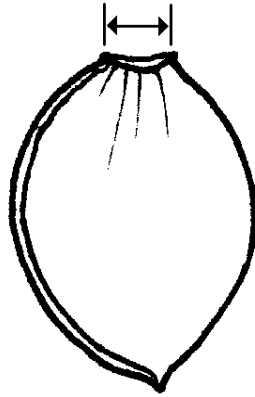


2
hammered

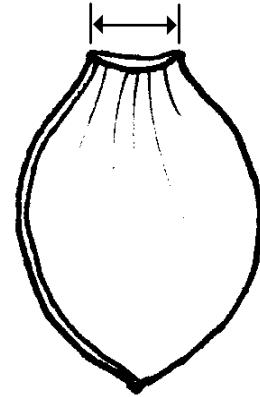
Ad 63. Stone: width at stalk end



3
narrow

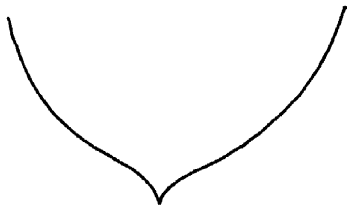


5
medium

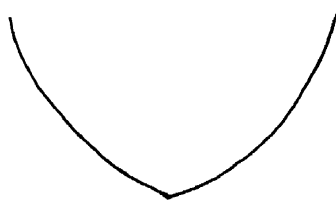


7
broad

Ad 64. Stone: shape of apex



1
acute



2
obtuse



3
rounded

Synonyms of the example varieties:

Example Varieties	Synonyms
Čačanska Julia	Cacaks Julia
Čačanska lepotica	Cacaks Schöne
Čačanska najbolja	Cacaks Beste
Čačanska rana	Cacaks Frühe
Čačanska rodna	Cacaks Fruchtbare
Coe's Golden Drop	Bury seedling, Goutte d'or de Coe, Silver prune
Drap d'Or d'Esperen	Golden Esperen
Ersinger Frühzwetsche	Ahlbachs Frühzwetsche, Eisentaler Frühzwetsche, Goldquelle, Quetsche précoce d'Ersingen, Weißentaler Frühzwetsche
Graf Althanns Reneklode	Althann, Count Althanns Gage, (Reine Claude) Conducta, Reine Claude (du comte) d'Althan
Hauszwetsche	Altesse ordinaire, Bauernpflaume, Early Russian, Hauspflaume, Impératrice Violette, Quetsche commune (d'Allemagne), Quetsche d'Alsace, Quetsche de Metz, Quetsche de Namur
Italienische Zwetsche	Altesse double, Bleue d'Italie, Fellenberg, Italian Prune, Quetsche d'italie
Kirke's	Kirkes Pflaume
Mirabelle de Metz	Metzer Mirabelle, Mirabelle abricotée, Mirabelle aus Metz, Mirabelle petite
Mirabelle de Nancy	Double Mirabelle, (Double) Drap d'Or, Mirabelle grosse, Nancymirabelle
Monsieur hâtif	Early Orleans, Monsiuer du Roi, Wilmot's Orleans
President	Président
Prune d'Ente	Agen (d')Robe de Sergent, Datte d'Agen, Ente, French prune
Queen Victoria	Königin Viktoria, Viktoriapflaume
Reine Claude de Bavay	Monstreuese de Bavay, Saint Clair
Reine Claude diaphane	Reine Claude de Guigne, Transparent Gage
Reine Claude Dorée	Damas gris, Dauphine, Green Gage, Große Grüne Reneklode, (Prune d')Abricot (vert), Reine Claude verte, Zuckerpflaume
Reine Claude d'Oullins	Fausse Reine Claude, Massot, Oullins Golden, Oullins Reneklode, Reine Claude précoce
The Czar	Le Tsar, Czar

IX. Literature

Bundessortenamt (1997): Beschreibende Sortenliste Steinobst – Pflaume, Süßkirsche, Sauerkirsche. Hannover: Landbuch Verlag, 168 p.

Caillavet, H. (1991): Variétés anciennes de pruniers domestiques. Paris: INRA et BRG, 540 p.

Dermine, E. ; Liard, O. (1957): Identification et Description de Varieties du Prunier Europeen. Gembloux & Paris, 322 p.

Groh, W. (1960): Anbau der Pflaume. Berlin: Deutscher Landwirtschaftsverlag, 152 p.

Hedrick, U.P. (1911): The plums of New York. State of New York – Dep. of Agric.: 18th Annual Report, Vol 3, Part II. Albany, USA: J.B. Lyon Company, 616 p.

Röder, K. (1939): Sortenkundliche Untersuchungen an Prunus domestica. Halle (Saale): Kühn-Archiv Bd. 54, 131 p.

Taylor, H.V. (1949): The plums of England. London: Crosby Lockwood & Son, Ltd, 151 p.

X. Technical Questionnaire

	<p>Reference Number (not to be filled in by the applicant) /</p>
<p>TECHNICAL QUESTIONNAIRE to be completed in connection with an application for Plant Breeders' Rights /</p>	
1. Species	<p><i>Prunus domestica</i> L. EUROPEAN PLUM (Fruit varieties, rootstocks excluded)</p>
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 []

.....

– Pollen parent []

.....

(c) Produced by open pollination of (indicate seed bearing parent only) []

.....

(d) Mutation or sport from (indicate parent variety) []

.....

(e) Discovery (indicate where and when) []

.....

4.2 *In vitro* propagation:

The plant material has been obtained by *in vitro* propagation yes []

no []

4.3 Virus status:

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

.....

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

.....

- (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 Fruit: size (43)		
very small	Mirabelle de Nancy	1[]
small	Bonne de Bry, Hauszwetsche	3[]
medium	Hanita, Reine Claude verté ou Dorée	5[]
large	Nordens, Reine Claude d'Oullins	7[]
very large	Čačanska najbolja	9[]
5.2 Fruit: general shape in lateral view (44)		
narrow ellipsoid	Empress	1[]
ellipsoid	Bonne de Bry, Victoria	2[]
spheroidal	Prune d'Ente, Mirabelle de Nancy	3[]
transverse ellipsoid	Hauszwetsche	4[]

Characteristics	Example Varieties	Note
5.3 Fruit: ground color of skin (after removing bloom) (52)		
whitish	Reine Claude diaphane	1[]
green	Reine Claude verté ou Dorée	2[]
yellowish-green	Reine Claude d'Oullins	3[]
yellow	Drop d'Or d'Espéren, (Tipala)	4[]
orange-yellow	Emma Leppermann	5[]
red	Prune d'Ente, Victoria	6[]
light violet	Reine Claude d'Althan, Opal	7[]
dark violet	Anna Späth, Royale Blue	8[]
violet-blue	Early Rivers, Graf Brühl, Gräfin Cosel	9[]
dark blue	Čačanska najbolja, Čačanska lepotica, Top	10[]
5.4 Fruit: color of flesh (53)		
whitish		1[]
green	Ersinger Frühzwetsche, Reine Claude verté ou Dorée	2[]
yellowish-green	Anna Späth, Reine Claude d'Oullins, Ruth Gerstetter	3[]
yellow	Ariel, Graf Brühl, Monsieur Jaune	4[]
orange	Early Transparent, Gräfin Cosel, Hanita	5[]
red	Bountiful	6[]
5.5 Stone: degree of adherence to the flesh (56)		
non-adherent	Hanita, Kirke's	1[]
semi-adherent	Drap d'Or d'Espéren, Elena	2[]
adherent	Ersinger Frühzwetsche, Jefferson	3[]

Characteristics	Example Varieties	Note
5.6 Time of beginning of flowering (65)		
very early	Graf Brühl, Lützelsachser Frühzwetsche	1[]
early	Ruth Gerstetter, Utility	3[]
medium	Prune d'Ente, Hanita, Reine Claude de verté ou Dorée	5[]
late	Elena, Hauszwetsche	7[]
very late	Hauszwetsche Typ Schüfer, Quetsche Blanche de Cétricourt	9[]
5.7 Time of maturity for consumption (66)		
very early	Ruth Gerstetter	1[]
early	Bonne de Bry, Ersinger Frühzwetsche	3[]
medium	Graf Brühl, Reine Claude verté ou Dorée	5[]
late	Čačanska rodna, Prune d'Ente	7[]
very late	Elena, President, Reine Claude de Bavay	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
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^{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]