

DISCLAIMER

The present version of the national guideline has been accepted by the President of the CPVO for its use in technical examinations carried out on behalf of the CPVO or for the take-over of reports serving as a basis for a CPVO decision.

Helleborus
National protocol: NP/KST/4.rev

Botanical taxon:	Helleborus L.	
Common Name (when known):	Christmas Rose	
Date of preparation of NP:	2014	
Date of revision of NP:	27-10-2020	
NP revised by:	W. A. Wietsma	
Sample to be examined:	VEGETATIVE	
Number of foreseen growing cycles:	1 year	
Closing date for applications:	1/12	
Submission date/period:	Young plants, in vitro	01/04 – 30/04
	Divisions	01/10 – 31/10
	Plants grown, from seed	01/04 – 30/04
Plant quantity:	Veg. prop. (vitro, divisions): 15 young plants plants, grown from seed: 30 one-year old plants able to show all their characteristics during the first year of examination	
Special conditions sample:	None	
Test station address:	Naktuinbouw, Sotaweg 22, 2371 AA, Roelofarendsveen	
Name:	Team Support Variety Testing Department	
E-mail:	teamsupport@rasraad.nl	
List of grouping characteristics:	NO, (if yes put as annex)	
Minimum number of plants in trial:	Vegetative: 10	Seed: 20
Minimum number of plants observed by measuring or counting:	Vegetative: 1	Seed: 1
Give description of when observations on the flower and leaf should take place:	At full flowering	
Give description of when/where the other observations should take place:	At full flowering	
Test will take place:	OUTDOOR/GREENHOUSE	
	Plants will be grown in pots outdoor, end November/beginning December 10 plants (veg. prop) or 20 plants (seed prop.) will be put in a cold greenhouse for flowering	
Vegetatively propagated: Uniformity:	A population standard of 1% with an acceptance probability of at least 95%. Number of Off-types allowed: one off-type allowed in a sample size of 15	
Seed propagated: Uniformity:	A population standard of 1% with an acceptance probability of at least 95%. Number of Off-types allowed: one off-type allowed in a sample size of 30	
Table of characteristics:	PRESENT (see annex)	
	(if present, please annex the table of characteristics and explanations)	
Literature:	PRESENT (see annex)	

Table of characteristics Helleborus

1. Plant: height	low	(3)	Coseh 960
	medium	(5)	Coseh 900
	high	(7)	Lisette
2. Plant: diameter	small	(3)	Coseh 950
	medium	(5)	Coseh 900
	large	(7)	Hgc Green Corsican
3. Petiole: length	short	(3)	Coseh 900
	medium	(5)	Coseh 700
	long	(7)	Amor
4. Petiole: intensity of green colour	light	(3)	ABCRD02
	medium	(5)	Emma
	dark	(7)	
5. Petiole: anthocyanin coloration	absent	(1)	HLR 140
	present	(9)	ABCRD02
6. Petiole: intensity of anthocyanin coloration	weak	(3)	Coseh 950
	medium	(5)	Coseh 990
	strong	(7)	Coseh 960
7. Petiolule: intensity of green colour	light	(3)	ABCRD02
	medium	(5)	Emma
	dark	(7)	
8. Petiolule: anthocyanin coloration	absent	(1)	HLR 120
	present	(9)	Coseh 960
9. Petiolule: intensity of anthocyanin coloration	weak	(3)	HLR 140
	medium	(5)	Coseh 950
	strong	(7)	ABCRD02
10. Leaf blade: width	narrow	(3)	Double Fashion
	medium	(5)	Coseh 990
	broad	(7)	ABCRD02
11. Leaf blade: number of leaflets 5-6 (3)	few	(3)	HLR 120
	medium	(5)	Coseh 960
	many	(7)	Amor
12. Leaflet: shape	narrow ovate	(1)	
	ovate	(2)	Coseh 900
	ovate to elliptic	(3)	
	narrow elliptic	(4)	
	elliptic	(5)	HLR 140
	elliptic to obovate	(6)	
	narrow obovate	(7)	
	obovate	(8)	Coseh 990
13. Leaflet: length	short	(3)	Double Fashion
	medium	(5)	Coseh 989
	long	(7)	Hgc Double Surprise
14. Leaflet: width	narrow	(3)	Coseh 1020
	medium	(5)	Coseh 960
	broad	(7)	Lisette
15. Leaflet: serrate: intensity	weak	(3)	Coseh 990
	medium	(5)	Coseh 980
	strong	(7)	HLR 140
16. Leaflet: colour of upper Side	RHS Colour Chart (indicate reference number)		
17. Leaflet: glossiness of upper side	weak	(3)	ABCRD02
	medium	(5)	Emma
	strong	(7)	

18. Leaflet: undulation of margin	weak	(3)	HLR 40
	medium	(5)	Coseh 900
	strong	(7)	
19. Leaflet: cross section	weakly concave	(3)	Coseh 960
	medium concave	(5)	Emma
	strongly concave	(7)	HLR 120
20. Inflorescence: branches	absent	(1)	
	present	(9)	
21. Inflorescence: number of branches	few	(3)	Little Darling
	medium	(5)	Coseh 950
	many	(7)	ABCRD02
22. Peduncle: length	short	(3)	Coseh 240
	medium	(5)	Coseh 910
	long	(7)	Tutu
23. Peduncle: width	narrow	(3)	Coseh 900
	medium	(5)	HLR 170
	broad	(7)	Hgc Silver Moon
24. Peduncle: intensity of green colour	light	(3)	Coseh 990
	medium	(5)	Coseh 910
	dark	(7)	
25. Peduncle: anthocyanin coloration	absent	(1)	Coseh 900
	present	(9)	Coseh 980
26. Peduncle: intensity of anthocyanin coloration	weak	(3)	NVDH 100
	medium	(5)	Coseh 990
	strong	(7)	Coseh 980
27. Bract: length	short	(3)	Coseh 910
	medium	(5)	ABCRD02
	long	(7)	Hgc Merlin
28. Bract: width	narrow	(3)	ABCRD02
	medium	(5)	Amor
	broad	(7)	Hgc Merlin
29. Bract: intensity of green colour	light	(3)	
	medium	(5)	Coseh 990
	dark	(7)	ABCRD02
30. Bract: main vein: intensity of green colour	light	(3)	
	medium	(5)	NVDH 100
	dark	(7)	Coseh 950
31. Bract: anthocyanin coloration	absent	(1)	Coseh 950
	present	(9)	Amor
32. Bract: intensity of anthocyanin coloration	weak	(3)	ABCRD02
	medium	(5)	Coseh 990
	strong	(7)	Amor
33. Flower: number of flowers in inflorescence	few	(3)	HLR 140
	medium	(5)	Candy Love
	many	(7)	Coseh 830
34. Flower: single or double	single	(1)	Coseh 990
	double	(2)	NVDH 100
35. Sepal: length	short	(3)	Coseh 900
	medium	(5)	Coseh 910
	long	(7)	KLEHH07003
36. Sepal: width	narrow	(3)	Coseh 900
	medium	(5)	Coseh 910
	broad	(7)	Walhero

37. Sepal: shape	narrow ovate	(1)	
	ovate	(2)	Coseh 900
	broad ovate	(3)	NVDH 100
	narrow elliptic	(4)	Coseh 240
	elliptic	(5)	Coseh 740
	broad elliptic	(6)	
	rounded	(7)	Coseh 700
38. Sepal: shape of top	acuminate	(1)	Amor
	rounded	(2)	Coseh 980
	acute	(3)	NVDH 100
39. Sepal: colour of inner side	RHS Colour Chart (indicate reference number)		
40. Sepal: colour of outer side	RHS Colour Chart (indicate reference number)		
41. Nectary: length	short	(3)	Coseh 950
	medium	(5)	Coseh 990
	long	(7)	Coseh 800
42. Nectary: colour: intensity of green colour	light	(3)	Coseh 700
	medium	(5)	Coseh 980
	dark	(7)	Coseh 900
43. Nectary: colour of margin	light green	(1)	Amor
	green	(2)	
	yellow green	(3)	Coseh 990
	light yellow	(3)	HLR 170
	yellow	(4)	Coseh 980
44. Nectary: size of margin	small	(3)	Coseh 980
	medium	(5)	Coseh 990
	broad	(7)	Coseh 700
45. Filament: length	short	(3)	Ivory Prince
	medium	(5)	Coseh 910
	long	(7)	Coseh 960
46. Filament: colour	light green	(1)	NVDH 100
	white	(2)	Coseh 980
47. Filament: anthocyanin Coloration	absent	(1)	NVDH 100
	present	(9)	
48. Filament: intensity of anthocyanin coloration	weak	(3)	ABCRD02
	medium	(5)	
	strong	(7)	
49. Anther: colour	light yellow	(1)	Coseh 960
	yellow	(2)	Coseh 990
	light yellow green	(3)	Coseh 900
	yellow green	(4)	Coseh 980
50. Carpel: number	few	(3)	HLR 140
	medium	(5)	Coseh 910
	many	(7)	Little Darling
51. Style: colour	white	(1)	Coseh 700
	white green	(2)	Coseh 740
	cream yellow	(3)	HLR 120
	light green	(4)	NVDH 100
52. Style: anthocyanin coloration	absent	(1)	Coseh 980
	present	(9)	NVDH 100
53. Style: intensity of anthocyanin coloration	weak	(3)	Candy Love
	medium	(5)	NVDH 100
	strong	(7)	Coseh 960

54. Stigma: colour	white	(1)	Coseh 960
	white green	(2)	NVDH 100
	light yellow green	(3)	Coseh 980
	light cream	(4)	Coseh1020
	cream	(5)	Coseh 1000
55. Ovary: length	short	(3)	Amor
	medium	(5)	ABCRD02
	long	(7)	Snow Queen
56. Ovary: colour: intensity of green colour	light	(3)	Coseh 980
	medium	(5)	NVDH 100
	dark	(7)	Tutu
57. Ovary: anthocyanin coloration	absent	(1)	NVDH 100
	present	(9)	ABCRD02
58. Ovary: intensity of anthocyanin coloration	weak	(3)	Double Fashion
	medium	(5)	HLR 120
	strong	(7)	ABCRD02
<p>Literature: Atrium tuinplanten encyclopedie: C. Brickell The Encyclopedia of Garden Flowers: K&G Bryant Encyclopedia of Garden Plants and Flowers: Lance Hattate Dictionary of Gardening: The Royal Horticultural Society Hortica: A.B.Graf</p>			