

RASPBERRY (*Rubus idaeus* L.) DESCRIPTORS

II ACCESSION MANAGEMENT, MULTIPLICATION/REGENERATION DESCRIPTORS

Descriptor code	Descriptor scale (score)	Reference values	Reference varieties	Remarks
II/1	Number of times accession regenerated			

II/2	Patent status			
	0	Non-patented cultivar		
	1	Patented cultivar		

II/3	Number of plants sampled			
				Approximate number of plants collected (sampled) in the field to produce this accession.

II/4	Nature of vegetative sample			
	0	Not vegetative (seed)		
	1	Cuttings - for grafting		
	2	Cuttings - for rooting		
	3	Rooted plants		
	4	Tissue culture		
	5	Other (specify in NOTES descriptor, II/11)		

II/5	Virus disease status (including mycoplasma)			
	1	Virus disease free**		** Record results of virus tests in the NOTES descriptor, II/11 (positive or negative).
	2	Virus disease tested (infected)**		
	3	Not tested		

II/6	End use			
	1	Scion cultivar – dessert		

	2	Scion cultivar – processing			
	3	Dual or multipurpose consumption			
	4	Clonal rootstock			
	5	Clonal interstock			
	6	Seedling rootstock			
	7	Ornamental/pollinator (pollinizer)			
	8	Botanical (wild) species			
	9	Other (specify in NOTES descriptor, II/11) for example 'valuable unnamed selections from a breeding programme'			

II/7	Other notes from collector			
				Collectors should record ecological/climatic information. For cultivated crops, cultivation practices should be recorded.

II/8	Rootstock			
				Name of rootstock on which accession is grafted, if any.

II/9	Condition of tree			
	1	Dead		
	2	Dying		
	3	Old – declining		
	4	Mature – diseased		
	5	Mature - non-vigorous		
	6	Mature – vigorous		
	7	Young - not yet bearing		
	8	Other (specify in NOTES descriptor, II/11)		

II/10	Propagation method			
	1	Grafting (including budding)		
	2	Hardwood cuttings		
	3	Softwood cuttings		
	4	Stool beds		
	5	Layering		
	6	Micropropagation		
	7	Seed		
	8	Other (specify in NOTES descriptor, II/11)		

II/11	Notes			

III CHARACTERIZATION AND EVALUATION DESCRIPTORS

Descriptor code	Descriptor scale (score)	Reference values	Reference varieties	Remarks
	PLANT VEGETATIVE CHARACTERS			
III/1	Habit:			
	3 upright (compact)			
	5 semi-upright			
	7 arching			
III/2	Number of current season's canes:			
	3 few			
	5 medium			
	7 many			
	9 very many			
III/3	Varieties which fruit on previous season's cane in summer: Dormant cane: length			
	3 short			
	5 medium			
	7 long			
III/4	Varieties which fruit on current season's cane in autumn: Current season's cane: length			
	3 short			
	5 medium			
	7 long			
III/5	Spines: presence			
	1 absent			
	9 present			
III/6	Current season's cane:spine			
	3 few			
	5 medium			
	7 dense			
III/7	Current season's cane: spine colour			
	1 green			
	2 brownish green			
	3 brownish green to brown			
	4 brown			
	5 brown to purplish brown			
	6 purplish brown			
	7 brownish purple			
	8 purple			
III/8	Current season's cane: bloom			
	1 absent or very weak			
	3 weak			
	5 medium			
	7 strong			

	9	very strong			
	FRUIT CHARACTERS				
III/9	Fruit: main bearing type				
	1	only on previous year's cane in summer			
	2	both on previous year's cane in summer and on current year's cane in autumn			
	3	only on current year's cane in autumn			
III/10	Varieties which fruit on previous year's cane in summer: Time of beginning of flowering on previous year's cane				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/11	Varieties which fruit on current year's cane in autumn: Time of beginning of flowering on current season's cane				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/12	Varieties which fruit on previous year's cane in summer: Time of beginning of fruit ripening on previous year's cane				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/13	Varieties which fruit on current year's cane in autumn: Time of beginning of fruit ripening on current year's cane				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/14	Varieties which fruit on previous year's cane in summer: Length of fruiting period on previous year's cane				
	3	short			
	5	medium			
	7	long			
III/15	Varieties which fruit on current year's cane in autumn: Length of fruiting period on current year's cane				
	3	short			
	5	medium			

	7	long			
	FRUIT DATA				
III/16	Fruit: size				
	1	very small			
	3	small			
	5	medium			
	7	large			
	9	very large			
III/17	Fruit: width				
	3	narrow			
	5	medium			
	7	broad			
III/18	Fruit: ratio length/width				
	3	small			
	5	medium			
	7	large			
III/19	Fruit: general shape in lateral view				
	3	circular			
	5	broad conical			
	7	conical			
	9	trapezoidal			
III/20	Fruit: size of single drupe				
	3	small			
	5	medium			
	7	large			
III/21	Fruit: color				
	1	yellow			
	2	orange			
	3	light red			
	4	medium red			
	5	dark red			
	6	purple			
	7	dark purple			
	8	black			
III/22	Fruit: firmness				
	1	very soft			
	3	soft			
	5	medium			
	7	firm			
	9	very firm			
III/23	Fruit: adherence to plug				
	1	very weak			
	3	weak			
	5	medium			
	7	strong			
	9	very strong			
III/24	Fruit: flavour				

	1	very sour			
	3	sour			
	5	medium			
	7	sweet			
	9	very sweet			
	PHENOLOGICAL DATA				
III/25	Time of bud burst				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/26	Time of beginning of primocane growing				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/27	Time of beginning of flowering				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
III/28	Time of leaf fall				
	1	very early			
	3	early			
	5	medium			
	7	late			
	9	very late			
	PRODUCTION				
III/29	Yield				
	1	very low			
	3	low			
	5	medium			
	7	high			
	9	very high			
	SUSCEPTIBILITY TO ENVIRONMENTAL STRESS, PESTS AND DISEASES				
III/30	Susceptibility to winter frost				
		Proportion of damaged canes, buds, %			
	1	not (resistent)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		

III/31	Susceptibility to spring frost			
	Proportion of damaged buds, primocanes, flower %			
	1 not (resistent)	0 %		
	2 very small	< 5%		
	3 small	6 - 25 %		
	5 medium	26 - 50 %		
	7 strong	51 - 75 %		
	9 very strong (susceptible)	76 - 100%		
III/32	Susceptibility to dry			
	Proportion of damaged buds, primocanes, leaves, fruits, %			
	1 not (resistent)	0 %		
	2 very small	< 5%		
	3 small	6 - 25 %		
	5 medium	26 - 50 %		
	7 strong	51 - 75 %		
	9 very strong (susceptible)	76 - 100%		
III/33	Susceptibility to raspberry aphid <i>Amphorophora rubi</i> Börner			
	Proportion of damaged primocanes, leaves %			
	1 not (resistent)	0 %		
	2 very small	< 5%		
	3 small	6 - 25 %		
	5 medium	26 - 50 %		
	7 strong	51 - 75 %		
	9 very strong (susceptible)	76 - 100%		
III/34	Susceptibility to <i>Macropsis fuscula</i>			
	Proportion of damaged leaves, %			
	1 not (resistent)	0 %		
	2 very small	< 5%		
	3 small	6 - 25 %		
	5 medium	26 - 50 %		
	7 strong	51 - 75 %		
	9 very strong (susceptible)	76 - 100%		
III/35	Susceptibility to <i>Tetranychus urticae</i>			
	Proportion of damaged leaves, %			
	1 not (resistent)	0 %		
	2 very small	< 5%		
	3 small	6 - 25 %		
	5 medium	26 - 50 %		
	7 strong	51 - 75 %		
	9 very strong (susceptible)	76 - 100%		
III/36	Susceptibility to <i>Eriphyes gracilis</i>			
	Proportion of leaves, %			

	1	not (resistant)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/37	Susceptibility to <i>Chortophila dentiens</i>				
		Proportion of damaged primocanes, %			
	1	not (resistant)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/38	Susceptibility to <i>Thomasiniana theobaldi</i>				
		Proportion of damaged canes, %			
	1	not (resistant)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/39	Susceptibility to <i>Pennisetia hyaeiformis</i>				
		Proportion of damaged canes, %			
	1	not (resistant)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/40	Susceptibility to <i>Didymella applanata</i> (Niessl.) Sacc				
		Proportion of damaged canes, %			
	1	not (resistant)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/41	Susceptibility <i>Elsinoe veneta</i> (Burkholder) Jenk.				
		Proportion of damaged buds, canes, leaves, fruits, %			
	1	not (resistant)	0 %		
	2	very small	< 5%		

	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/42	Susceptibility to <i>Sphaerulina rubi</i> De Maree & Wicox.,				
		Proportion of damaged leaves, %			
	1	not (resistent)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/43	Susceptibility to <i>Botrytis cinerea</i> Pers.: Fr.),				
		Proportion of damaged buds, primocanes, leaves, fruits, %			
	1	not (resistent)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/44	Susceptibility to <i>Verticillium dahliae</i> Kleb.				
		Proportion of damaged canes, %			
	1	not (resistent)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/45	Susceptibility to raspberry leaf –curl				
		Proportion of damaged plants, %			
	1	not (resistent)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/46	Susceptibility to rubus stunt				
		Proportion of damaged plants, %			
	1	not (resistent)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		

	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
III/47	Susceptibility to raspberry bushy dwarf (RBD)				
		Proportion of damaged plants, %			
	1	not (resistant)	0 %		
	2	very small	< 5%		
	3	small	6 - 25 %		
	5	medium	26 - 50 %		
	7	strong	51 - 75 %		
	9	very strong (susceptible)	76 - 100%		
	CHEMICAL CONTENT OF FRUITS				
III/48	Chemical content of fruits: anthocyanins				
	1	very low			
	3	low			
	5	medium			
	7	high			
	9	very high			
III/49	Chemical content of fruits: phenolic				
	1	very low			
	3	low			
	5	medium			
	7	high			
	9	very high			
III/50	Chemical content of fruits: ascorbic acid				
	1	very low			
	3	low			
	5	medium			
	7	high			
	9	very high			
III/51	Chemical content of fruits: ellagic acid				
	1	very low			
	3	low			
	5	medium			
	7	high			
	9	very high			
III/52	Chemical content of fruits: dry matter				
	1	very low			
	3	low			
	5	medium			
	7	high			
	9	very high			
III/53	Chemical content of fruits: ratio sugar/acid				
	1	very low			
	3	low			
	5	medium			
	7	high			

	9 very high			
III/54	Notes			Any other additional information
III/55	Cytological characteristics and identified genes			
III/56	Molecular markers			
III/57	Pictures			

Reference:

TG 43/7, 2003-04-09 (deutsch). Richtlinien für die Durchführung der Prüfung auf Unterscheidbarkeit, Homogenität und Beständigkeit, Himbeeren (*Rubus idaeus L.*)