

**The prolific grape variety (*Vitis vinifera* L.) ‘Heunisch Weiss’ (= ‘Gouais blanc’): bud mutants, “colored” homonyms and further offspring**

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Table 2 (supplemental material 1)

Description of ‘Heunisch Weiss’ B mutants and ‘Heunisch’ named cultivars by OIV descriptors

OIV-descriptor code	VIVC prime name / OIV-descriptor	Heunisch Weiss Seedless B	Heunisch Dreifarbig RS	Heunisch Rotgestreift B-RS	Heunisch Weiss B	Heunisch Blau N	Heunisch Rot No 1 RG	Haenisch Rot = Pamid RG	Heunisch Schwarz N
<b>OIV003</b>	Young shoot: intensity of anthocyanin coloration on prostrate hairs of the shoot tip	1 none or very low	1 none or very low	1 none or very low	1 none or very low	3 medium	1 none or very low	1 none or very low	2 low
<b>OIV004</b>	Young shoot: density of prostrate hairs on the shoot tip	7 high	6 medium to high	6 medium to high	6 medium to high	7 high	7 high	7 high	5 medium
<b>OIV007</b>	Shoot: color of the dorsal side of internodes	3 red	3 red	3 red	3 red	2 green and red	1 green	2 green and red	3 red
<b>OIV008</b>	Shoot: color of the ventral side of internodes	3 red	3 red	3 red	3 red	1 green	1 green	2 green and red	3 red
<b>OIV051</b>	Young leaf: color of upper side of blade (4th leaf)	3 bronze	3 bronze	3 bronze	3 bronze	1 green	2 yellow	3 bronze	2 yellow
<b>OIV053</b>	Young leaf: density of prostrate hairs between main veins on lower side of blade (4th leaf)	7 high	6 medium to high	6 medium to high	6 medium to high	8 high to very high	7 high	7 high	5 medium
<b>OIV068</b>	Mature leaf: number of lobes	1 one (entire leaf)	1 one (entire leaf)	1 one (entire leaf)	1 one (entire leaf)	2 3 three to five	1 3 one to three	3 five	2 three
<b>OIV070</b>	Mature leaf: area of anthocyanin coloration of main veins on upper side of blade	2 3 petiole point up to 1 <sup>st</sup> bifurcation	5 beyond the 2 <sup>nd</sup> bifurcation	3 up to 1 <sup>st</sup> bifurcation	3 up to 1 <sup>st</sup> bifurcation	1 absent	1 absent	3 up to 1 <sup>st</sup> bifurcation	2 only at petiole point
<b>OIV075</b>	Mature leaf: blistering of upper side of blade	4 weak to medium	3 weak	3 weak	4 weak to medium	7 strong	5 medium	3 weak	7 strong
<b>OIV076</b>	Mature leaf: shape of teeth	5(2) mixture and with	5(2) between both preponderance	5(2) both sides sides of	5(2) straight convex straight	3 both sides convex	5 see same line	5(2) see same line	3 both sides convex

Tab. 2, continued

OIV-descriptor code	VIVC prime name / OIV-descriptor	Heunisch Weiss Seedless B	Heunisch Dreifarbig RS	Heunisch Rotgestreift B-RS	Heunisch Weiss B	Heunisch Blau N	Heunisch Rot No 1 RG	Haenisch Rot = Pamid RG	Heunisch Schwarz N
<b>OIV079</b>	Mature leaf: degree of opening / overlapping of petiole sinus	3 open	3(5) open and closed	3(5) open and closed	3 open	9 strongly overlapped	3 open	5 closed	3 open
<b>OIV084</b>	Mature leaf: density of prostrate hairs between main veins on lower side of blade	3 5 low to medium	3 low	3 low	3 low	5 medium	5 7 medium to high	3 low	5 medium
<b>OIV087</b>	Mature leaf: density of erect hairs on main veins on lower side of blade	7 9 high to very high	7 high	7 high	7 high	7 high	3 low	7 high	7 high
<b>OIV094</b>	Mature leaf: depth of upper lateral sinuses	1 absent or very shallow	1 absent or very shallow	1 absent or very shallow	1 absent or very shallow	5 medium	5 medium	5 medium	3 shallow
<b>OIV151</b>	Flower: sexual organs	3 hermaphrodite	3 hermaphrodite	3 hermaphrodite	3 hermaphrodite	4 female	3 hermaphrodite	3 hermaphrodite	3 hermaphrodite
<b>OIV204</b>	Bunch: density	5 6 medium to dense	5 6 medium to dense	4 loose to medium	5 6 medium to dense	5 medium	7 dense	9 very dense	6 medium to dense
<b>OIV208</b>	Bunch: shape	1 cylindrical	1 2 cylindrical and conical	1 2 cylindrical and conical	1 2 cylindrical and conical	1 2 cylindrical and conical	3 conical	1 2 cylindrical and conical	1 2 cylindrical and conical
<b>OIV220</b>	Berry: length	1-5 very short to edium	5 medium	5 medium	5 medium	3 short	5 medium	5 medium	5 medium
<b>OIV222</b>	Berry: uniformity of size	1 not uniform	2 uniform	1 not uniform	2 uniform	2 uniform	1 not uniform	2 uniform	2 uniform
<b>OIV223</b>	Berry: shape	2 globose	2 globose	1 obloid	2 globose	2 globose	1 obloid	3 broad ellipsoid	2 globose
<b>OIV225</b>	Berry: color of skin	1 green	2 rose	1 2 green and rose	1 green	6 black	3 red	3 red	6 black

Table 3 (supplemental material 2)

Nuclear microsatellite data of the 14 accessions examined in this study. 35 SSR loci were analyzed. ‘Heunisch Weiss’ B and its mutants were displaying identical allele sizes. Allele sizes different to ‘Heunisch Weiss’ B are indicated in grey (md = missing data)

<i>V</i> /VC prime name	<i>V</i> /VC variety number	VVS2	VVMD5	VVMD7	VVMD27	VrZAG62	VrZAG79	VVMD28	VVMD32	VVMD25	VMC 1B11	VMC 4F3.1	VVMD 21	relation												
Balsamina (non identified) N	42059	133	143	236	240	239	249	182	190	196	202	237	243	228	246	252	272	239	255	171	185	171	177	250	250	offspring
Heunisch Blau N	5370	139	151	228	240	243	253	180	192	188	200	245	249	236	248	240	240	239	263	167	189	177	188	244	250	unrelated
Heunisch Rot No 1 RG	5372	135	155	228	238	247	263	180	195	194	204	239	251	244	244	250	272	255	257	183	195	163	167	250	250	unrelated
Heunisch Schwarz N	699	133	151	230	242	239	257	180	190	194	196	237	245	228	246	240	272	239	249	185	189	171	171	250	258	offspring
Heunisch Weiss B, Heunisch Weiss Seedless B, Heunisch Dreifarbig RS, Heunisch Rotgestreift B-RG	5374, 699, 24544, 5373	133	143	236	242	239	249	180	182	196	204	237	243	228	246	250	272	239	255	171	185	171	171	250	250	
Iordan Seedless B	24152	133	133	242	248	239	249	180	186	196	204	237	251	228	260	250	252	239	241	183	185	171	171	244	250	offspring
Krkochia Pargava B	6512	133	133	228	242	239	249	182	195	188	204	243	249	246	278	250	272	239	241	185	185	165	171	244	250	offspring
Pamid RG	8899	135	143	228	248	239	239	184	190	188	188	243	251	248	258	252	256	249	255	183	185	185	226	250	250	unrelated
Kosinjot N*	23803	143	143	230	236	239	249	182	186	186	204	243	251	228	246	250	272	255	255	185	185	171	171	250	250	offspring
Tauberschwarz N	16156	143	151	236	240	239	257	180	186	196	200	237	251	228	228	240	272	249	255	185	189	171	171	250	250	offspring
Feteasca alba (non identified) B	41011	133	155	236	242	239	247	182	182	188	204	243	259	228	244	240	272	241	255	175	185	171	208	244	250	offspring
<i>V</i> /VC prime name	<i>V</i> /VC variety number	VVMD24	VVIB01	VVIH 54	VVIN 16	VVIN73	VVIP31	VVIP60	VVIQ 52	VVIV 37	VVIV67	VRZAG67	VRZAG83	relation												
Balsamina (non identified) N	42059	206	206	295	299	149	167	149	157	266	266	173	181	322	324	76	82	160	168	362	365	121	135	188	194	offspring
Heunisch Blau N	5370	206	210	289	291	165	179	149	151	266	266	177	187	306	322	76	82	150	150	358	358	149	149	201	201	unrelated
Heunisch Rot No 1 RG	5372	210	210	291	291	167	179	147	149	264	266	181	187	322	322	md	md	158	174	360	373	145	145	194	194	unrelated
Heunisch Schwarz N	699	206	214	295	295	149	163	149	149	266	266	173	185	320	322	76	76	160	160	360	365	127	135	188	201	offspring
Heunisch Weiss B, Heunisch Weiss Seedless B, Heunisch Dreifarbig RS, Heunisch Rotgestreift B-RG	5374, 699, 24544, 5373	206	206	295	299	149	167	149	149	266	266	173	181	322	324	76	82	160	168	365	366	135	135	188	194	
Iordan Seedless B	24152	206	210	295	299	165	167	149	149	266	266	181	181	322	330	76	82	150	160	362	365	135	145	194	194	offspring
Krkochia Pargava B	6512	206	215	291	295	165	167	149	149	258	266	175	181	318	324	76	82	156	168	358	365	135	145	190	194	offspring
Pamid RG	8899	206	210	295	295	165	167	149	149	266	268	175	193	318	322	76	78	150	160	358	362	121	145	190	201	unrelated
Kosinjot N*	23803	206	215	291	295	167	167	149	149	266	266	173	181	306	322	78	82	160	168	365	376	135	145	188	190	offspring
Tauberschwarz N	16156	206	214	295	295	167	167	149	149	266	266	173	191	306	324	76	82	160	168	365	366	127	135	188	201	offspring
Feteasca alba (non identified) B	41011	206	215	291	299	167	167	149	155	266	266	181	187	324	328	76	76	160	160	358	366	145	151	188	190	offspring
<i>V</i> /VC prime name	<i>V</i> /VC variety number	VMC1E11	VMC5G7	VMC 1A12	VMC 5G8	VMC 5H11	VMC 8G6	VVIB 23	VVIM 10	VVIN 33	VVIN78	VVIP33	relation													
Balsamina (non identified) N	42059	md	md	192	198	119	119	304	312	189	197	147	155	287	305	354	366	280	282	158	160	392	394		offspring	
Heunisch Weiss B, Heunisch Weiss Seedless B, Heunisch Dreifarbig RS, Heunisch Rotgestreift B-RG	5374, 699, 24544, 5373	192	196	198	198	119	119	304	312	189	203	147	155	287	305	354	366	280	290	160	160	394	400			
Iordan Seedless B	24152	192	198	198	216	119	144	304	322	199	203	147	167	287	293	366	366	280	290	160	160	400	400		offspring	
Krkochia Pargava B	6512	192	194	198	198	119	144	312	318	199	203	135	155	287	305	354	366	282	290	158	160	392	394		offspring	
Kosinjot N*	23803	192	200	198	202	119	135	312	314	197	203	135	155	287	293	366	368	284	290	158	160	400	404		offspring	
Tauberschwarz N	16156	192	196	194	198	119	149	312	314	183	189	147	169	287	305	366	366	278	280	158	160	394	402		offspring	
Feteasca alba (non identified) B	41011	194	196	198	198	119	121	304	304	189	199	147	147	287	313	366	366	278	280	158	160	394	404		offspring	

\* In the meanwhile ‘Servin chernyi’ was identified as ‘Kosinjot’ from Albania.

Table 4 (supplemental material 3)

## Bibliographic evidences for 'Heunisch' cultivars

VIVC prime name Bibliography	Heunisch Weiss B	Heunisch Dreifarbig RS	Heunisch Rotgestreift B-RG	Heunisch Grob B
Hieronymus Bock (1595)	Scheißtrauben, p. 392, 394 - owing to their fast effect			
Bauhin (1606) out of ROY-CHEVRIER (1900)	Guaches, p.210 -synonyms: Himschtraube, Scheischtraube			
Merlet (around 1630) out of ROY-CHEVRIER (1900)	Gouais blanc, p. 236			
SPRENGER (1766)	Gois, Gouais, p. 333 Heynische, p. 340 Heunisch Trauben, p. 394			
METZGER (1827)	Weißer Heunisch, p. 36 Gelber Heunisch, p. 37 - synonyms: Quadler, Bettschisser, etc.			
SCHÜBLER (1834)	Heinschen, p. 169 - synonym V. cathartica Dierbach			
GOK (1836)	Weißer Heunisch, p. 104 - synonyms: Gouais blanc, Goet, Goi, V. cathartica, etc.			
TRUMMER (1841)	Weißer Heunisch, p. 53 - synonyms: Belina, Weißstock, Große Weiße, Grob-Weiße, Vitis vinifera, variet. cathartica	Dreifarbiger Heunisch, p. 64 - synonyms: Vexirtraube, Boboleihs	Rothgestreifter Heunisch, p. 60 - occurrence: single vines west of Graz	Weißer Grob-Heunisch, p. 59
BABO (1844)	Weißer Heunisch, p. 542 - synonyms: Hütsch, Hinschene, Laxiertraube, Saurer Grober, etc.	Dreifarbiger Heunisch, p. 549 – description according to Trummer (1841)		
KREUZER, V., C. KREUZER out of PREMZL (2001)		Dreyfärbiger Heunisch, p. 88 - synonym: Tribarvna Belina	Rothgestreifter Heunisch, p. 86 - synonym: Rdečeprogasta belina	
BRONNER (1856)	Weißer Heunisch p. 163	Dreifarbiger Heunisch, p. 160 „named Vexirtraube in the Preßburger mountains in Hungary “		Weißer Grobheunisch, p. 171 - synonyms: Ausrisser, Absenger
AEBERHARD (2005)	Hajnos, Heunisch, Gouais, Gwäss, p. 154	Dreifarbiger Heunisch, p. 202	Rotgestreifter Heunisch, p. 201	Böse Hintschen, p. 101 - synonym: Grobheunisch
VIVC prime name Bibliography	Heunisch Weiss Seedless B	Heunisch Rot No1 RG	Heunisch Blau N	Heunisch Schwarz N
Bauhin (1606) out of ROY-CHEVRIER (1900)	Raisins blancs à petits grains, p. 210 - synonyms: Chenois, Bose Hintschen			
Merlet (around 1630) out of ROY-CHEVRIER (1900)	Raisin sans pepin (Bar-sur-Aube), p. 235 - synonym: Gros Corinthe			

Tab. 4, continued

IVC prime name Bibliography	Heunisch Weiss Seedless B	Heunisch Rot No1 RG	Heunisch Blau N	Heunisch Schwarz N
Noël Chomel (1709) out of ROY-CHEVRIER (1900)	Raisin Sans Pepin, p. 271			
BIDET (1709-1806) out of ROY-CHEVRIER (1900)	Bar-sur-Aube, p. 294			
CELS (1743-1806) out of ROY-CHEVRIER (1900)	Gros Corinthe, p. 195			
DU HAMEL DU MONCEAU (1783)	Gros Corinthe, p. 12			
METZGER (1827)	Aspirant Sans Pepin, p. 72 - synonym: Große Corinthe; Aspirant, p. 73 - synonym: Kleine Corinthe	Rother Heunisch, p. 38		Not identical: Schwarzer Tokayer, p. 19 - synonyms: Schwarzer Heinsch, Rothhinschene
GOK (1836)		Rother Heunisch, p. 105		Presumably not identical with: Schwarzer Heunisch, p. 105
TRUMMER (1841)		Rother Heunisch, p. 61 - synonyms: Ranfler, Ranfoliza, Redeja Belina, etc.		Not identical with: Schwarzer Heunisch, p. 64 - synonym: Piazhnek; Blauer Tokayer, p. 70 - synonym: Schwarzer Hünsch; Blauer Sylvaner, p. 179 - synonym: Debela Zhernina
BABO (1844)	Aspirant, p. 494 - synonyms: Weiße Corinthe, Große Corinthe, Aspirant Blanc Sans Pepin (name in Bordeaux region), Kernloser	Rother Heunisch, p. 547 – description according to Trummer (1841)	Not identical with: Blauer Heunisch, p. 550; Blaue Balsamina (syn. Blauer Heunisch), p. 407 and Schwarzer Elbling (syn. Blauer Heunisch), p. 242	Not identical with: Blauer Tokayer, p. 350 - synonyms: Schwarzer Heunisch, Schwarzer Hünsch, Rothinsch; Blaue Bodenseetraube, p. 256 - synonym: Debela Zhernina
KREUZER, V., C. KREUZER out of PREMZL (2001)		Rother Heunisch, p. 87 - synonyms: Rdeča belina, Ranfolina, Zgodnja Ranfolica	Not identical with: Blauer Tokayer, p. 91 - synonym: Modri tokaj	Not identical with: Schwarzer Heunisch, p. 89 - synonym: Debela črnina
BRONNER (1856)		Rother Heunisch, p. 160; Rothe Bellina, p. 170		
TRUMMER (1855)	Weißer Aspirant, p. 71 - synonyms: Weiße Corinthe, Große Corinthe, Große Kernlose Corinthe, Aspirant Blanc Sans Pepin			
AEBERHARD (2005)	Böse Hintschen, p. 101 - synonyms: Uvae Albae Acinis Minimis, Boese Hintschen, Chenois	Roter Heunisch, p. 187	Not identical with: Blauer Heunisch, p. 190	Not identical with: Schwarzer Heunisch p. 199; Blauer Tokayer, p. 200