

**Supplementary Table S5.** SSR allele data with four markers linked to the *Ren1* locus. Alleles associated with powdery mildew resistance are in bold. Two previously identified and 10 newly identified powdery mildew resistant accessions are underlined. Missing data are indicated with a hyphen.

Variety name and #id	VMCNg4e10.1	sc47-18	SC08-0071-014	UDV124
588421.a (PI# 588421)	239-271	219-221	<b>143</b> -147	226-234
588650.a (588650)	266-291	237-237	161-161	200- <b>216</b>
A Kalatchel (2076Mtp1)	236-257	231- <b>249</b>	159-173	208-218
A'asemi S1 (1979-0-2219-S1)	251-286	229-240	157-169	<b>216</b> -218
Ag Kiourdach p.e. (2842Mtp1)	254-263	241- <b>249</b>	159-161	188-194
Agaday (TYR VI 10-05)	254- <b>260</b>	<b>249-249</b>	-:-	188-214
Ahmeh Sal apyrène (2982Mtp1)	251-277	236-240	159-199	<b>216</b> -220
Alia boka (2858Mtp1)	251- <b>260</b>	216- <b>249</b>	169-173	198-212
Alloued Zeine (DVIT0337)	251-257	240- <b>249</b>	157-169	212-218
<i>amurensis</i> (DVIT1157.12)	<b>260</b> -271	222-226	141-164	176-190
<i>amurensis</i> (DVIT2006.1)	<b>260-260</b>	216-225	147-163	190-191
<i>amurensis</i> (DVIT1156.2)	266-269	221- <b>249</b>	141-164	189-192
<i>amurensis</i> (DVIT1157.2)	<b>260</b> -271	-:-	141-164	176-190
Aragatzi (2113Mtp1)	<b>260</b> -277	236- <b>249</b>	169-199	220-220
Arybata (DVIT2442.6)	251-251	242-242	169-169	208- <b>216</b>
Asgari 01 (2001-9-8093-01)	236-251	231-240	157-159	<b>216</b> -218
Askari (DVIT0343)	257-289	231-231	159-169	<b>216</b> -230
B-166-016 (597298.01)	271-289	231-233	161-169	200- <b>216</b>
Baharat Early (DVIT2306)	239-289	222-231	169-169	<b>216</b> -230
Baidh Ul Haman (DVIT0358)	236- <b>260</b>	242- <b>249</b>	159-169	212- <b>216</b>
Bargoon (DVIT2499)	254- <b>260</b>	<b>249-249</b>	161-169	188-212
Bayad1 (749Mtp1)	-:-	227-231	159-165	<b>216</b> -218
Berurargoon (DVIT2501)	251-254	242- <b>249</b>	161-165	<b>216</b> -220
Black Kishmish (DVIT2055)	<b>260</b> -277	236-240	157-199	218-220
Bouaki nor (2507Mtp1)	239- <b>260</b>	241- <b>249</b>	159-169	198-212
Boyalsing I (DVIT2496)	251-257	216- <b>249</b>	159-173	218-230
C-166-039 (597297.01)	<b>260</b> -263	-:-	166-178	194-194
C-166-043 (DVIT3192)	263-263	217-217	<b>143</b> -177	192-194
Chaani noir (2676Mtp1)	251-254	240- <b>249</b>	159-161	188- <b>216</b>

Chamo (DVIT2730)	254-254	242- <b>249</b>	161-161	190-190
<u>Chirai obak (1186Mtp1)</u>	<u>254-260</u>	<u>227-249</u>	<u>143-175</u>	<u>216-228</u>
Cirmisi Sap De Sudak (DVIT0313)	251-277	236-240	159-199	190- <b>216</b>
Dais-el-anz (DVIT0569)	236- <b>260</b>	231- <b>249</b>	159-169	212-218
DK #05 (Turkmn 13362)	251-257	216- <b>249</b>	169-173	212-212
DK Melkii Chernyi (Turkmn 13375)	251-257	216- <b>249</b>	169-173	198-220
Dschan Im Isium (DVIT0315)	239-251	240-240	159-159	194- <b>216</b>
Fayoumi (DVIT2636)	236-251	-:-	159-159	<b>216</b> -218
Gaschochi (DVIT2537)	248-254	222- <b>249</b>	159-173	218-230
Gechi Kyrilen (Turkmn 3028)	236-271	215-231	159-159	<b>216</b> -218
Guzal Kara (TYR VI 13-09)	251- <b>260</b>	241- <b>249</b>	162-169	212-212
Henab (DVIT0417)	236-251	231-240	157-173	198- <b>216</b>
Hisakasy (DVIT0759)	236-248	231- <b>249</b>	159-161	188-218
Hosargoon (DVIT2503)	254- <b>260</b>	242- <b>249</b>	169-169	190-212
Huseine Rozvoj (TYR VI 13-15)	-:-	241- <b>249</b>	159-169	198-212
<u>Husseine (DVIT0576)</u>	<u>251-260</u>	<u>242-249</u>	<u>143-167</u>	<u>216-220</u>
Irki (1752Mtp1)	251-254	-:-	157-165	<b>216-216</b>
JS23-416 (DVIT0197)	227-236	220-231	159-163	<b>216</b> -218
Kabuli (DVIT2497)	251-254	207- <b>249</b>	159-165	208-218
Kali Dakh II (DVIT2539)	248-254	227- <b>249</b>	159-161	188-218
Kara Dzhidzhigi (DVIT2322)	251- <b>260</b>	216-240	157-173	198-218
Kara Kaytak (DVIT2445.12)	251-257	<b>249-249</b>	169-169	230-232
Kara Palvan (2780Mtp1)	239-271	215- <b>249</b>	159-169	198-218
<u>Karadzhandal (DVIT2323)</u>	<u>254-260</u>	<u>227-249</u>	<u>143-175</u>	<u>216-220</u>
Kashiri (DVIT2451)	248-254	216- <b>249</b>	159-173	198-218
Katta Kurgan (DVIT0774)	251- <b>260</b>	242- <b>249</b>	165-169	212-222
<u>Khalchili (DVIT0431)</u>	<u>260-271</u>	<u>215-249</u>	<u>143-159</u>	<u>212-218</u>
Khatmi (2190Mtp1)	254-271	215- <b>249</b>	159-161	188-198
Khawngi (DVIT2919)	227-254	203- <b>249</b>	<b>143</b> -161	228-232
Khorestini (DVIT <b>2605</b> )	236- <b>260</b>	231- <b>249</b>	159-169	212-218

Kibraiski (2781Mtp1)	<b>260-266</b>	232-240	157-159	190-218
Kichmich rond (1678Mtp5)	257-277	236- <b>249</b>	169-199	198-220
Kishmish Sorkh (DVIT0437)	236-271	215-231	159-159	<b>216-218</b>
Kisil izium (0Mtp589)	236- <b>260</b>	231- <b>249</b>	159-169	218-230
<u>Kismish Vatkana (20008-14 B)</u>	<u>236-260</u>	<u>231-249</u>	<u>143-159</u>	<u>216-218</u>
Kouldjinski (DVIT2680)	236-239	231- <b>249</b>	159-169	198-218
Koz ouzioum (2635Mtp1)	236-254	231- <b>249</b>	159-161	-:-
Kule Dary (DVIT1070)	236-254	231-239	159-175	<b>216-218</b>
Kush Dzhumurtka (Turkmn 18820)	236-257	231- <b>249</b>	159-169	194-218
Lal Sorkh (DVIT0442)	<b>260-277</b>	236- <b>249</b>	169-199	212-220
<u>Late Vavilov (ARM Q01-16)</u>	<u>236-260</u>	<u>231-249</u>	<u>143-159</u>	<u>216-218</u>
Mamidon (Turkmn 3025)	257-271	215- <b>249</b>	159-169	212-218
Mamidon Deli (Turkmn 6984)	257-271	215- <b>249</b>	159-169	212-218
<u>Matrassa (2642Mtp2)</u>	<u>248-251</u>	<u>216-240</u>	<u>143-173</u>	<u>198-216</u>
Mehdi 01 (2001-9-8101-01)	251-271	-:-	159-159	<b>216-218</b>
Mellei (Turkmn 3030)	236-271	215-231	159-159	<b>216-218</b>
Monaca (1742Mtp1)	236-254	231- <b>249</b>	159-161	194-218
Mourvedre Famellestadt (DVIT0319)	254-257	215- <b>249</b>	161-173	<b>216-220</b>
Narma (2648Mtp2)	-:-	231- <b>249</b>	159-161	-:-
Neeli (DVIT2514)	<b>260-271</b>	237- <b>249</b>	163-169	192-218
Nimrang (TYR VI 15-17)	236-239	231- <b>249</b>	159-169	200-220
Noir D'automne (DVIT0330)	251-254	216- <b>249</b>	161-173	212-214
<u>O34-16 (DVIT1803)</u>	<u>260-271</u>	<u>215-249</u>	<u>143-159</u>	<u>216-218</u>
Pakistan Collection 25168 (DVIT2282)	254- <b>260</b>	216- <b>249</b>	161-169	188-212
Pakistan Collection 25180 (DVIT2269)	254- <b>260</b>	-:-	-:-	188-212
Pakistan Collection 25237 (DVIT2272)	257- <b>260</b>	<b>249-249</b>	169-169	212-214
Pakistan Collection 25241 (DVIT2271)	242- <b>260</b>	217-229	169-173	212-232
Pakistan Collection 25296	254-257	216- <b>249</b>	159-169	214-218

(DVIT2283)				
Pakistan Collection 25311	251-257	<b>249-249</b>	159-169	212-218
(DVIT2264)				
Parargoon (DVIT2502)	251- <b>260</b>	216- <b>249</b>	169-173	212-218
Persian R27 (DVIT2755)	248-254	<b>249-249</b>	161-161	202-228
Pervenetz Praskoveisky (2651Mtp2)	245-263	221- <b>249</b>	162-169	208-212
Précoce d'Astrakan (0Mtp928)	251-254	216- <b>249</b>	-:-	198-198
Rajoulan (0Mtp950)	257-268	240- <b>249</b>	-:-	212-220
Razakiia piembiana (2737Mtp1)	251-283	215-240	159-159	214- <b>216</b>
Red Ohanez (DVIT0499)	251-257	232- <b>249</b>	159-169	212- <b>216</b>
Rhazaki (Pa 1882) (TYR VI 16-09)	251-257	232-240	159-159	194- <b>216</b>
Rhazaki Anatolico (DVIT0608)	236-254	231-231	159-159	<b>216-218</b>
Rhazaki De Crete (DVIT0501)	251-257	232-240	159-159	194- <b>216</b>
Rhazaki Mavro (DVIT0555)	266-283	215-232	159-159	<b>216-218</b>
Rish BabaHOP L04-19)	254- <b>260</b>	227- <b>249</b>	169-175	212-220
Rizamat (DVIT2338)	251- <b>260</b>	216- <b>249</b>	169-173	198-212
Sabza angur (0Mtp1007)	239- <b>260</b>	227-231	157-159	218-220
Sary Kiriak (0Mtp1031)	257-257	<b>249-249</b>	169-169	198-212
Shahani 01 (2001-9-7097-01)	251-271	215-240	159-159	<b>216-218</b>
<u>Sochal (DVIT1126)</u>	<u>239-<b>260</b></u>	<u>216-<b>249</b></u>	<u>143-173</u>	<u>198-<b>216</b></u>
<u>Soiaki (2657Mtp1)</u>	<u>251-<b>260</b></u>	<u>216-<b>249</b></u>	<u>143-173</u>	<u>216-218</u>
Soultani (0Mtp1071)	236- <b>260</b>	231- <b>249</b>	159-169	218-218
Sourkhak biely (2856Mtp1)	<b>260-263</b>	240- <b>249</b>	157-169	-:-
sylvestris (DVIT3353.43)	251-271	216-242	145-165	190- <b>216</b>
sylvestris (DVIT3350.25)	251-254	216- <b>249</b>	161-173	198-228
sylvestris (DVIT3350.2)	251-251	216-219	193-193	<b>216-216</b>
sylvestris (DVIT3351.23)	<b>260-277</b>	216-236	<b>143-199</b>	198-198
<u>sylvestris (DVIT3351.27)</u>	<u>260-263</u>	<u>216-242</u>	<u>143-145</u>	<u>194-208</u>
sylvestris (DVIT3349.12)	263-263	203-216	<b>143-163</b>	218-231
Tagobi (2659Mtp1)	239-271	231- <b>249</b>	159-159	198-218
Taifi (DVIT2174)	233-239	231- <b>249</b>	159-169	198-218

Taka Sago (TYR VI 17-03)	242-283	215- <b>249</b>	159-159	204-214
Tarnau (TYR VI 17-07)	239-257	<b>249-249</b>	169-169	198-198
Tchatyrbac (664Mtp1)	251-251	240-240	159-162	208- <b>216</b>
Thomas (DVIT1772)	<b>260-274</b>	216-221	-:-	208-262
Tolstokory (1985Mtp2)	254-263	242- <b>249</b>	161-173	206-206
Trayshed (DVIT1756)	<b>260-260</b>	215-215	-:-	224-278
Tufachi S1 (1985-0-2415-S1)	257-263	241- <b>249</b>	159-169	194-212
Tuia-tiche (2760Mtp1)	251-257	242- <b>249</b>	167-169	198-220
Uzbekistanian Muscat (DVIT2072)	<b>260-289</b>	231- <b>249</b>	169-169	212-230
Varuschkin (0Mtp1165)	251-254	216- <b>249</b>	161-173	188-198
<u>Vassarga tchernaia (2510Mtp1)</u>	<u>251-260</u>	<u>231-249</u>	<u>143-159</u>	<u>198-216</u>
Volgo Don (TYR VI 17-17)	254- <b>260</b>	232- <b>249</b>	159-169	212-218
Zerk (DVIT0606)	251-271	-:-	159-173	<b>216-218</b>

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