Genetic characterisation of Greek olive cultivars using microsatellite markers

Olea europaea L. – SSR genotype data

1. Dataset description

A total of 54 olive samples were analysed for the genetic characterisation of Greek olive cultivars. Of these, 51 were Greek cultivars. For comparison, two international cultivars, Arbequina and Picual, were also included, along with one sample of *Olea europaea* subsp. *cuspidata*. All samples were genotyped at ten microsatellite (simple sequence repeat, SSR) loci. Most of these loci belong to the set of markers proposed by an international consortium of research groups as a common standard for olive genotyping (Baldoni et al., 2009).

Species	*Olea europaea* L.
Samples	54 (51 Greek cultivars; Arbequina, Picual; *O. europaea* subsp. *cuspidata*)
Markers	10 SSR loci
Data	Allele sizes (bp) at each locus for each sample

2. SSR markers

Table 1. SSR loci, number of alleles and allele size range

Locus	No. of alleles	Size range (bp)	Samples with missing data	Reference
DCA03	9	229–255	1	Sefc et al. (2000)
DCA05	10	196–216	0	Sefc et al. (2000)
DCA09	21	165–233	0	Sefc et al. (2000)
DCA13	8	117–153	1	Sefc et al. (2000)
DCA16	20	124–214	0	Sefc et al. (2000)
DCA18	15	160–196	0	Sefc et al. (2000)
GAPU71B	10	121–148	0	Carriero et al. (2002)
GAPU103A	17	138–190	1	Carriero et al. (2002)
IAS-oli23	12	215–239	0	Díaz et al. (2006)
UDO43	21	151–221	0	Cipriani et al. (2002)

3. SSR genotypes

Table 2. Allele sizes (bp) of 54 olive samples at ten SSR loci

Sample	DCA03	DCA05	DCA09	DCA13	DCA16	DCA18	GAPU71B	GAPU103A	IAS-oli23	UDO43
Greek cultivars (n = 51)										
ADRAMYTINI	241/243	196/210	197/209	117	152/156	168/176	127/131	152/176	221/235	177/215
AGGOUROMANAKOLIA	241/243	208	175/189	121	152/156	168/176	127/148	152/176	221/235	177/215
AMYGDALOLIA	237/247	196/208	165/175	119/137	126/152	176/182	131/145	138/152	219/235	177/199
ASPROLIA_ALEXANDROUPOLIS	247/249	208	187/211	117	124/128	160/168	122/125	152/180	219/225	175
ASPROLIA_LEFKADOS	237/243	196/208	189/209	117	124	168/176	127/131	150/160	221/233	177
CHALKIDIKIS	241/251	208	165/207	119/137	124/126	168/178	122/127	138/152	231	175
CHONDROLIA_CHALKIDIKIS	241/251	208	165/207	119/137	124/126	168/178	122/127	138/152	231	175/215
CHRYSOLIA	229	204	223/233	117/131	140/158	162/194	127	152/162	217/223	151
CHRYSOPHYLLA-1	229	204	231	117/131	140/158	162/194	127	150	217/223	151/213
CHRYSOPHYLLA-2	229/241	196/204	211/223	121/131	124/140	162/168	125	150/176	223/235	151/213
CHRYSOPHYLLA-3	229/–	202/206	169	117	150/156	186	127	152	215/223	153
DAFNELIA	229/255	208	179	121	156/214	174/196	122/127	142/152	225/235	197/217
FRANTOIO_RODOU	235/241	200/208	185/209	117	152/158	176	125/145	164/176	231/235	177/215
GAIDOURELIA	247/251	208/210	165/185	119/137	156/182	168/174	121/125	138/162	219	175/177
GALATISTAS_AG.OROUS	243/251	208/210	197/207	121/137	156/176	168/174	145	138/152	219/221	177/211
KALAMON	229/251	208	169/197	117	124/126	184	122/127	164/188	217/219	209/213
KALOKAIRIDA	229/247	208	189/197	121	148	176	122/125	138/152	219/235	207/209
KAROLIA	243/247	210	165/207	119/137	124/152	168/182	125/145	152/176	219/231	177/215
KARYDOLIA	237/243	208/210	175	117	124/126	168/176	127/131	138/176	219/231	177/199
KOLYBADA	229/237	208	165/189	117	124/152	176/184	125/145	138/152	219/221	177
KOLYREIKI	251	208	169/175	119/137	124/126	168/182	122/128	166/172	219/239	175/205
KONSERVOLIA_AMFISSIS	229/251	208	175/197	119/137	124/176	168/182	122/127	170/176	219/235	175/177
KORONEIKI	237	196	185/209	121	148/152	172	125/131	152/162	221/237	173/215
KOTHREIKI	241/243	208	197/207	117	152/156	168/176	127/131	176	221/235	217/221
KOUTSOURELIA	237/241	196	185/211	121	124/152	168/170	125	152/176	221/235	215/217
LEFKOLIA_SERRON	229/251	208	189/197	119/137	156/174	170/180	122/127	138/176	219/231	177/211
LIANOLIA_KERKYRAS	229/241	208/216	169/175	121/127	152	176/184	128/145	152/162	217/221	177/203
LIANOMAKO_TYROY	229/241	208/212	169/197	121/149	124/200	170/182	125/131	166/172	225/235	177/217
MAKRIS	229/247	208	197/211	117	124/176	160/174	122/125	152/188	219/235	175/217
MASTOIDIS_TSOUNATI	229/241	196/208	185/213	121	124/148	160/168	131/145	152/162	221/237	177/187
MATOLIA_ILIAS	229/251	200/208	175/193	121	124/148	172	127	160/188	219/233	173/177
MAVRELIA	229/237	208/214	185/209	121	124/170	172/174	128/145	152/180	219/231	177/179
MAVRELIA_SERRON	229/251	208	189/197	117	126/152	168/174	145	176/178	231/235	209/217
MAVROLIA_LEFKADOS	229/247	208/214	175/193	119/137	124/172	168/174	122/128	160/188	235/237	175/177
MEGARITIKI	243/247	208	165	117	152/176	170/182	131/145	176/188	231/235	177/209
MYRTOLIA	237/241	208	169/209	117/121	152/196	166/170	125/131	152/166	225/235	177/181
NTOPIA_ZAKYNTHOU	237	208/216	175/213	121/153	124/154	166/176	125/131	164/176	235/237	215
PETROLIA	241/247	208	165/189	119/137	152/176	168/180	122/127	150/160	219/231	175/217
PIERIAS	241/247	208	165/209	121/137	126/156	174/176	127/145	176/190	219/235	177/211
PIERIAS_SKOTINIS	241/247	208	165/209	121/137	126/156	174/176	127/145	178/188	219/235	177/211
PIKROLIA	241	210/216	169/189	121/137	124/152	160/174	125/128	138/152	217/221	175/203
RACHATI	237/241	196	185/211	121	124/152	168/170	125	152/176	221/235	215/217

Sample	DCA03	DCA05	DCA09	DCA13	DCA16	DCA18	GAPU71B	GAPU103A	IAS-oli23	UDO43
STROGYLOLIA	241/251	208/210	165/175	117	152	176/180	127/145	162/188	221/231	177/211
THIAKI	229/241	204/208	185/189	127	156/194	168/172	125/131	178	235/237	183/221
THROUBA	229/243	208/210	197/207	117	124/156	168/174	127	152/176	231/235	177/217
THROUBA-NAXOU	229/243	208/210	197/205	117	124/156	168/174	127	176	231/235	177/217
THROUBOLIA	229/243	208/210	197/207	117	124/156	168/174	125/127	152/176	231/235	177/219
THROUMPA_THASOU	237/247	208/210	165/203	117	156/176	174/180	121	138/152	227/231	207/211
TRAGOLIA	237/251	196/208	185/197	117	126/148	170/184	127/131	162/164	217/237	213/215
VALANOLIA	243/247	208/210	175/197	117	156/176	168/170	127/145	152	221/231	177/213
VASILIKADA	241/247	208/210	189/197	119/137	174/176	160/182	125/145	138/176	219/231	175/177
Reference samples (n = 3)										
ARBEQUINA	237/251	208	197/209	119/137	156/176	170/178	127/131	152/174	219/231	175/213
CUSPIDATA	243	204	181/219	–	160/172	172	127/131	–	223/233	179/213
PICUAL	237/247	208	187/195	119	126/156	168/174	124/133	140	219/231	209/213

One value = one allele detected (homozygous); two values (e.g. 241/243) = two alleles. – = no amplification. 229/– = only one allele scored.

References

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