

Supplementary Materials: High-Resolution UAV Imagery for Field Olive (*Olea europaea* L.) Phenotyping

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Table S1. Canonical details calculated from the overall pooled within-group covariance matrix referred to discriminant analysis reported on Figure 7 and carried out using different vegetation indices (NDVI, MSAVI, GRNDVI, GNDVI, RVI, GRVI) to separate eight olive tree cultivars (Cerasuola, N. Belice, Biancolilla, N. Etnea, Minuta, Calatina, Abunara, Koroneiki) trained on a hedgerow system and three different planting distances (4 × 2 m, 4 × 3 m, and 4 × 4 m).

Eigenvalue	Percent	Cum Percent	Canonical Corr	Likelihood Ratio	Approx. F	NumDF	DenDF	Prob>F
4.112	81.799	81.799	0.897	0.091	16.919	42	1068.2	<.0001*
0.568	11.306	93.105	0.603	0.467	6.378	30	914	<.0001*
0.287	5.700	98.806	0.472	0.733	3.730	20	760.46	<.0001*
0.058	1.154	99.960	0.234	0.943	1.132	12	608.81	0.330
0.002	0.040	100.000	0.044	0.998	0.077	6	462	0.998

Test	Value	Approx. F	NumDF	DenDF	Prob>F
Wilks' Lambda	0.0914	16.919	42	1068.2	<.0001*
Pillai's Trace	1.446	10.527	42	1392	<.0001*
Hotelling-Lawley	5.027	27.007	42	698.27	<.0001*
Roy's Max Root	4.112	136.282	7	232	<.0001*

Table S2. Projected canopy area and canopy volume of olive trees of different cultivars planted at 4 × 2, 4 × 3 and 4 × 4 m measured on 27 February 2019. Values are means ± standard error of 10 trees per each cultivar-planting distance combination.

Cultivar	Planting distance	Projected canopy area (m ²)	Canopy volume (m ³)
Cerasuola	4 × 2	3.42 ± 0.12	6.32 ± 0.33
Cerasuola	4 × 3	4.73 ± 0.12	7.82 ± 0.39
Cerasuola	4 × 4	4.71 ± 0.28	8.05 ± 0.58
N. Belice	4 × 2	3.18 ± 0.17	5.43 ± 0.49
N. Belice	4 × 3	4.53 ± 0.20	7.20 ± 0.41
N. Belice	4 × 4	5.03 ± 0.33	8.40 ± 0.56
Biancolilla	4 × 2	3.30 ± 0.10	5.65 ± 0.31
Biancolilla	4 × 3	4.36 ± 0.21	7.41 ± 0.39
Biancolilla	4 × 4	4.55 ± 0.24	7.29 ± 0.41
Etnea	4 × 2	3.22 ± 0.11	5.64 ± 0.36
Etnea	4 × 3	4.52 ± 0.23	7.37 ± 0.35
Etnea	4 × 4	4.61 ± 0.24	7.08 ± 0.42
Minuta	4 × 2	3.48 ± 0.15	6.18 ± 0.39
Minuta	4 × 3	4.45 ± 0.12	7.12 ± 0.20
Minuta	4 × 4	4.48 ± 0.40	8.92 ± 0.89
Calatina	4 × 2	3.19 ± 0.12	5.36 ± 0.15
Calatina	4 × 3	3.40 ± 0.11	5.36 ± 0.22
Calatina	4 × 4	3.28 ± 0.10	5.07 ± 0.31
Abunara	4 × 2	3.57 ± 0.13	6.49 ± 0.41
Abunara	4 × 3	3.87 ± 0.26	6.31 ± 0.57
Abunara	4 × 4	5.36 ± 0.22	7.95 ± 0.35
Koroneiki	4 × 2	3.47 ± 0.12	6.31 ± 0.35
Koroneiki	4 × 3	4.50 ± 0.20	7.04 ± 0.42
Koroneiki	4 × 4	4.51 ± 0.33	7.22 ± 0.83