

Supplementary Material

Table S1. Values of geometric characteristics (R_c , h_c , h_{tree} and h_{trunk}) obtained from the UAV survey and from manual measurements.

Density of plantation	TREE	R_c (m)		h_c (m)		h_{tree} (m)		h_{trunk} (m)	
plant ha ⁻¹	(row number and tree position per row)	UAV	manual	UAV	Manual	UAV	manual	UAV	manual
625	4_38	0.96	0.91	1.46	1.55	2.40	2.20	0.89	0.65
625	4_39	0.92	0.93	1.54	1.25	2.10	1.75	0.50	0.50
625	4_40	0.88	0.93	1.61	1.55	2.26	2.10	0.55	0.55
625	4_41	0.97	1.06	2.09	1.70	2.49	2.25	0.41	0.55
625	4_42	0.77	0.88	1.63	1.45	2.36	2.15	0.63	0.70
625	4_43	0.69	0.81	1.45	1.80	2.19	2.25	0.59	0.45
625	5_38	0.98	1.07	1.66	1.45	2.38	2.20	0.68	0.75
625	5_39	1.09	1.19	1.56	1.30	2.13	1.90	0.52	0.60
625	5_40	0.88	0.79	1.41	1.90	2.25	2.30	0.87	0.40
625	5_41	0.71	0.83	1.90	1.45	2.53	2.15	0.45	0.70
625	5_42	0.79	0.94	1.58	1.36	2.19	2.00	0.48	0.64
625	5_43	0.61	0.74	1.39	1.80	2.05	2.10	0.59	0.30
625	6_38	0.95	0.85	1.67	2.05	2.45	2.25	0.67	0.20
625	6_39	1.02	0.90	1.64	1.70	2.31	2.20	0.69	0.50
625	6_40	0.92	0.73	1.48	1.67	2.19	2.20	0.66	0.53
625	6_41	0.49	0.68	0.99	1.20	1.68	1.70	0.49	0.50
625	6_42	0.89	0.80	1.20	1.30	1.85	1.90	0.58	0.60
625	6_43	0.34	0.63	0.78	0.90	1.54	1.60	0.65	0.70
1250	4_26	0.74	0.71	1.60	1.70	2.36	2.20	0.73	0.50
1250	4_29	0.97	0.93	2.10	2.00	2.56	2.45	0.42	0.45
1250	4_31	0.91	0.89	1.62	1.85	2.38	2.35	0.70	0.50
1250	4_32	0.77	0.74	1.51	1.40	2.37	2.10	0.84	0.70
1250	4_35	0.94	0.85	2.21	1.70	3.01	2.45	0.77	0.75
1250	4_37	1.01	0.91	1.61	2.20	2.16	2.70	0.44	0.50
1250	5_26	1.15	1.03	2.20	1.75	2.76	2.30	0.57	0.55
1250	5_29	1.04	0.79	2.42	2.05	2.95	2.65	0.53	0.60

1250	5_31	0.84	0.84	1.73	1.40	2.28	2.20	0.54	0.80
1250	5_33	1.04	0.85	1.86	1.50	2.50	2.35	0.61	0.85
1250	5_34	0.92	0.91	1.68	1.70	2.42	2.35	0.67	0.65
1250	5_36	0.79	0.84	1.60	1.50	2.28	2.20	0.67	0.70
1250	6_25	0.92	0.86	1.79	1.85	2.42	2.30	0.64	0.45
1250	6_27	0.91	0.98	1.64	1.65	2.38	2.10	0.71	0.45
1250	6_28	0.98	0.98	1.44	1.70	2.16	2.25	0.69	0.55
1250	6_32	1.01	0.98	1.84	1.90	2.36	2.35	0.56	0.45
1250	6_34	0.91	0.89	1.88	1.80	2.68	2.40	0.80	0.60
1250	6_37	0.83	1.00	1.46	1.75	2.19	2.40	0.73	0.65

Table S2. Canopy volume obtained from UAV survey and manual measurements.

Density of plantation	TREE	Volume V ₁ (m ³)		Volume V ₂ (m ³)
plant ha ⁻¹	(row number and tree position per row)	UAV	manual	UAV
625	4_38	2.918	4.055	1.857
625	4_39	2.635	3.360	2.016
625	4_40	2.421	4.166	2.038
625	4_41	2.944	6.029	2.445
625	4_42	1.843	3.488	1.295
625	4_43	1.501	3.733	0.726
625	5_38	3.025	5.215	1.679
625	5_39	3.718	5.759	2.716
625	5_40	2.427	3.702	1.932
625	5_41	1.564	3.100	1.310
625	5_42	1.965	3.755	1.354
625	5_43	1.168	3.076	0.656
625	6_38	2.817	4.653	1.662
625	6_39	3.293	4.326	2.063
625	6_40	2.642	2.758	1.341
625	6_41	0.748	1.718	0.355
625	6_42	2.469	2.614	1.149
625	6_43	0.368	1.104	0.180
1250	4_26	1.698	2.711	0.923
1250	4_29	2.984	5.376	2.753
1250	4_31	2.618	4.578	2.111

1250	4_32	1.858	2.392	1.200
1250	4_35	2.790	3.859	2.370
1250	4_37	3.192	5.755	2.178
1250	5_26	4.152	5.776	4.188
1250	5_29	3.378	3.994	3.410
1250	5_31	2.218	3.085	1.922
1250	5_33	3.397	3.365	3.148
1250	5_34	2.638	4.447	1.932
1250	5_36	1.980	3.305	1.617
1250	6_25	2.656	4.324	1.776
1250	6_27	2.615	4.928	1.698
1250	6_28	2.993	5.077	1.794
1250	6_32	3.180	5.674	2.892
1250	6_34	2.583	4.454	1.673
1250	6_37	2.164	5.498	1.168
