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Title: Coupling epidemiological and tree growth models to control fungal diseases spread in fruit orchards.

Table 1: Management scenario (MS) characterized by crop load (CL (fruit tree⁻¹)) and the value of stem water potential at midday, at the fruit growth period j (RDI_j). Estimated yield per plant in absence of disease (Y), and in presence of the disease, hence structured into susceptible (Y_S), exposed (Y_E) and infected fruit (Y_I), average fruit fresh mass (m) and sweetness (s) at harvest, monetary value per unit of mass yield (MV). See the text for details on the computation of presented values.

MS	CL	RDI _I	RDI _{II}	RDI _{III}	Y(kg)	Y _S (kg)	Y _E (kg)	Y _I (kg)	m (g)	s (%)	MV
1	53	-0.7	-0.7	-0.7	11.03	10.87	0.01	0.05	208	5.9	0.25
2	157	-0.7	-0.7	-0.7	30.91	18.46	2.95	6.26	197	5.7	0.22
3	471	-0.7	-0.7	-0.7	74.91	0.91	2.22	31.21	159	4.8	0.10
4	53	-0.7	-1.4	-0.7	10.82	10.73	0.01	0.03	204	5.9	0.25
5	157	-0.7	-1.4	-0.7	30.35	26.64	1.10	1.79	193	5.7	0.22
6	471	-0.7	-1.4	-0.7	73.08	3.71	10.77	38.83	155	4.8	0.10
7	53	-0.7	-2.2	-0.7	10.59	10.52	0.01	0.02	200	5.8	0.25
8	157	-0.7	-2.2	-0.7	29.68	27.28	0.73	1.13	190	5.7	0.21
9	471	-0.7	-2.2	-0.7	71.10	6.94	15.97	34.95	151	4.8	0.10
10	53	-0.7	-0.7	-1.4	6.93	6.85	0.01	0.02	131	9.0	0.72
11	157	-0.7	-0.7	-1.4	18.97	14.82	1.33	1.75	121	8.9	0.64
12	471	-0.7	-0.7	-1.4	42.48	2.01	5.58	17.67	90	8.3	0.30
13	53	-0.7	-0.7	-2.2	4.66	4.61	0.01	0.01	86	12.3	0.35
14	157	-0.7	-0.7	-2.2	12.91	10.41	0.88	0.92	82	12.5	0.29
15	471	-0.7	-0.7	-2.2	29.56	23.89	3.34	1.41	63	11.8	0.14
16	53	-0.7	-1.4	-1.4	6.81	6.77	0.00	0.01	128	9.0	0.71
17	157	-0.7	-1.4	-1.4	18.68	18.08	0.20	0.23	119	8.9	0.62
18	471	-0.7	-1.4	-1.4	41.54	35.17	3.90	1.91	88	8.4	0.29
19	53	-0.7	-1.4	-2.2	4.55	4.53	0.00	0.00	86	12.3	0.33
20	157	-0.7	-1.4	-2.2	12.64	12.54	0.03	0.03	81	12.5	0.28
21	471	-0.7	-1.4	-2.2	28.15	28.03	0.04	0.00	60	12.1	0.12
22	53	-0.7	-2.2	-1.4	6.63	6.59	0.00	0.01	125	9.0	0.68
23	157	-0.7	-2.2	-1.4	18.18	17.77	0.14	0.15	116	8.8	0.59
24	471	-0.7	-2.2	-1.4	40.27	36.49	2.34	1.09	86	8.4	0.26
25	53	-0.7	-2.2	-2.2	4.46	4.44	0.00	0.00	84	12.5	0.31
26	157	-0.7	-2.2	-2.2	12.25	12.17	0.02	0.02	78	12.5	0.25
27	471	-0.7	-2.2	-2.2	27.26	27.14	0.04	0.00	58	12.1	0.11
28	53	-1.4	-0.7	-0.7	10.97	10.84	0.01	0.04	207	5.9	0.25
29	157	-1.4	-0.7	-0.7	30.76	22.87	2.14	3.91	196	5.7	0.22
30	471	-1.4	-0.7	-0.7	74.42	1.37	3.89	35.44	158	4.8	0.10
31	53	-1.4	-1.4	-0.7	10.77	10.68	0.01	0.02	203	5.9	0.25
32	157	-1.4	-1.4	-0.7	30.24	26.96	0.98	1.58	193	5.7	0.22

33	471	-1.4	-1.4	-0.7	72.63	4.44	12.30	38.18	154	4.8	0.10
34	53	-1.4	-1.4	-1.4	6.76	6.73	0.00	0.01	128	9.0	0.70
35	157	-1.4	-1.4	-1.4	18.60	18.07	0.18	0.20	118	8.9	0.62
36	471	-1.4	-1.4	-1.4	41.25	35.04	3.81	1.86	88	8.4	0.28
37	53	-1.4	-1.4	-2.2	4.52	4.50	0.00	0.00	85	12.3	0.33
38	157	-1.4	-1.4	-2.2	12.58	12.49	0.03	0.02	80	12.5	0.27
39	471	-1.4	-1.4	-2.2	27.94	27.82	0.04	0.00	59	12.1	0.12
40	53	-1.4	-2.2	-0.7	10.52	10.45	0.01	0.02	199	5.8	0.24
41	157	-1.4	-2.2	-0.7	29.55	27.20	0.71	1.11	188	5.6	0.21
42	471	-1.4	-2.2	-0.7	70.80	7.07	16.10	34.60	150	4.8	0.10
43	53	-1.4	-2.2	-1.4	6.58	6.54	0.00	0.01	124	9.0	0.67
44	157	-1.4	-2.2	-1.4	18.07	17.68	0.13	0.15	115	8.8	0.58
45	471	-1.4	-2.2	-1.4	39.98	36.28	2.29	1.06	84	8.3	0.26
46	53	-1.4	-2.2	-2.2	4.45	4.44	0.00	0.00	84	12.6	0.31
47	157	-1.4	-2.2	-2.2	12.17	12.09	0.02	0.02	77	12.5	0.25
48	471	-1.4	-2.2	-2.2	27.04	26.92	0.04	0.00	57	12.1	0.11
49	53	-1.4	-0.7	-1.4	6.89	6.86	0.00	0.00	130	9.0	0.72
50	157	-1.4	-0.7	-1.4	18.90	16.99	0.66	0.79	120	8.9	0.63
51	471	-1.4	-0.7	-1.4	42.19	25.52	9.54	5.57	89	8.4	0.30
52	53	-1.4	-0.7	-2.2	4.63	4.61	0.00	0.00	87	12.3	0.35
53	157	-1.4	-0.7	-2.2	12.84	12.47	0.13	0.12	82	12.5	0.29
54	471	-1.4	-0.7	-2.2	28.81	28.68	0.04	0.00	61	12.1	0.13