

Table S1. Soil analyses for Campazzo, Pedroni and Preci farms.

Granulometry	Unit of measurement	Campazzo	Pedroni	Preci
Sand	%	12,8	18,3	20,9
Silt	%	45,0	40,7	52,8
Clay	%	42,1	41,0	26,2
pH		7,9	7,7	7,9
Total limestone	%	21,7	12,0	26,8
Active limestone	%	10,20	6,20	11,00
Organic matter	%	2,39	3,21	1,45
Organic carbon	%	1,39	1,87	0,84
Total nitrogen	%	0,170	0,226	0,098
Ratio C/N		8,2	8,2	8,6
Cation exchange capacity	meq*100 g ⁻¹	27,1	22,0	17,4
Exchangeable calcium	p.p.m.	6198.0	4622.0	3012.0
Exchangeable calcium	meq*100 g ⁻¹	30,93	23,07	15,03
Exchangeable magnesium	p.p.m.	163.0	375.0	150.00
Exchangeable magnesium	meq*100 g ⁻¹	1,34	3,08	1,23
% Exchangeable magnesium on CEC	%	5,0	14,0	7,1
Exchangeable potassium	p.p.m.	368.0	262.0	218.00
Exchangeable potassium	meq*100 g ⁻¹	0,94	0,67	0,56
% Exchangeable potassium on CEC	%	3,5	3,0	3,2
Ca/Mg	ratio in meq*100 g ⁻¹	23,1	7,5	12,2
Ca/K	ratio in meq*100 g ⁻²	32,9	34,4	26,9
Mg/K	ratio in meq*100 g ⁻³	1,4	4,6	2,2
Assimilable phosphorus	p.p.m.	11.0	8.0	7.0
Assimilable phosphoric anhydride	p.p.m.	25.0	19.0	16

Table S2. One-way ANOVA results of significant differences between farms. The mean and the standard deviation (SD) of each terpene in each farm are reported and distinct letters statistically differ according to Tukey's post-hoc test ($p < 0.05$). Homogeneous subsets are indicated by the same letter.

Terpene	(p<)	Farm	Mean \pm SD (n=9)	*
α -pinene	0.0001	CA	0.64 \pm 0.04	b
		PE	0.57 \pm 0.03	a
		PR	0.63 \pm 0.05	b

Camphene	0.0001	CA	0.52 ± 0.02	b
		PE	0.32 ± 0.02	a
		PR	0.35 ± 0.03	a
Sabinene	0.005	CA	0.25 ± 0.04	b
		PE	0.21 ± 0.01	a
		PR	0.23 ± 0.02	ab
β -pinene	0.0001	CA	0.3 ± 0.04	a
		PE	0.7 ± 0.04	b
		PR	0.76 ± 0.06	c
Myrcene	0.0001	CA	1.15 ± 0.13	a
		PE	1.3 ± 0.09	b
		PR	1.35 ± 0.1	b
3-carene	0.0001	CA	0.28 ± 0.07	c
		PE	0.12 ± 0.01	a
		PR	0.16 ± 0.01	b
Limonene	0.0001	CA	5.52 ± 1.05	b
		PE	0.53 ± 0.07	a
		PR	0.6 ± 0.08	a
1.8-cineole	0.0001	CA	4.69 ± 0.46	a
		PE	7.53 ± 0.48	b
		PR	7.51 ± 0.73	b
<i>cis</i> -ocimene	0.0001	CA	3.81 ± 0.72	b
		PE	1.37 ± 0.13	a
		PR	1.55 ± 0.22	a
<i>trans</i> -ocimene	0.0001	CA	1.19 ± 0.22	b
		PE	0.6 ± 0.05	a
		PR	0.62 ± 0.06	a
γ -terpinene	0.0001	CA	0.19 ± 0.02	b
		PE	0.15 ± 0.01	a
		PR	0.18 ± 0.02	b

<i>cis</i> linalool oxide	0.0001	CA	0.21 ± 0.03	c
		PE	0.14 ± 0.01	b
		PR	0.04 ± 0.06	a
<i>trans</i> linalool oxide	0.0001	CA	0.47 ± 0.02	b
		PE	0.32 ± 0.02	a
		PR	0.33 ± 0.02	a
Linalool	0.0001	CA	47.86 ± 3.35	b
		PE	27.47 ± 0.73	a
		PR	28.72 ± 1.52	a
Camphor	0.0001	CA	3.26 ± 0.39	a
		PE	6.82 ± 0.36	b
		PR	7.07 ± 0.36	b
Borneol	0.0001	CA	11.11 ± 0.81	b
		PE	2.46 ± 0.31	a
		PR	2.11 ± 0.23	a
Terpinen-4-ol	0.0001	CA	3.97 ± 0.45	b
		PE	1.18 ± 0.07	a
		PR	1.2 ± 0.14	a
α -terpineol	0.0001	CA	0.29 ± 0.03	a
		PE	0.61 ± 0.03	b
		PR	0.61 ± 0.05	b
Myrtenal	0.0001	CA	0.49 ± 0.05	c
		PE	0.25 ± 0.02	b
		PR	0.19 ± 0.01	a
Pulegone	0.0001	CA	0.14 ± 0.01	b
		PE	0.15 ± 0.01	b
		PR	0.1 ± 0.04	a
Linalyl acetate	0.0001	CA	5.43 ± 0.54	a
		PE	35.37 ± 0.73	c
		PR	34.12 ± 1.4	b

Lavandulyl acetate	0.0001	CA	1.03 ± 0.15	a
		PE	3.1 ± 0.09	b
		PR	3.08 ± 0.14	b
β -caryophyllene	0.0001	CA	0.38 ± 0.11	a
		PE	1.67 ± 0.09	b
		PR	1.65 ± 0.17	b
α -humulene	0.0001	CA	1.92 ± 0.19	b
		PE	1.35 ± 0.08	a
		PR	1.27 ± 0.11	a
Ar curcumene	0.0001	CA	0.08 ± 0.05	a
		PE	0.5 ± 0.04	b
		PR	0.67 ± 0.09	c