

Table S1Amounts of free sterols in various organs of *Olea europaea* tree

	floral bud	stem	leaf bud	young leaf	mature leaf	young fruit ^a	mature fruit ^b
4.4-dimethylsterols							
cycloartenol	nd	nd	nd	nd	nd	nd	31
24-methylenecycloartanol	2.7	3	2.9	2.6	2.5	nd	255
4α-methylsterols							
	0.5	5.4	4.9	1.2	1.2	traces	24.9
4-demethylsterols							
brassicasterol	2.9	0.3	traces	traces	traces	1	0
24-methylcholesterol	43.3	4.6	2.7	2.1	1.6	3.8	19.4
stigmasterol	11.7	4.8	0.9	5.6	4.6	3.6	7.7
$\Delta^{5,23}$ -stigmastadienol	0.2	0.1	0.1	0.1	traces	nd	nd
clerosterol	2.8	1.8	0.5	1.2	1	1.8	6
sitosterol	590	189	37.2	197	143	237	588
isofucosterol	0.8	0.2	0.5	0.3	traces	nd	26.2
Total amount ($\mu\text{g/g}$ dry wt)	655 \pm 37	210 \pm 15	50 \pm 6	210 \pm 15	155 \pm 8	250 \pm 22	960 \pm 54

^aPicked at 12 WAF (weeks after flowering); ^bPicked at 30 WAF [18]; nd: not detectable.

Table S2Amounts of esterified sterols in various organs of *Olea europaea* tree

	floral bud	stem	leaf bud	young leaf	mature leaf	young fruit ^a	mature fruit ^b
4.4-dimethylsterols							
cycloartenol	nd	nd	nd	nd	nd	nd	4.3
24-methylenecycloartanol	3	1.8	6.7	6.3	3	2	31.5
4α-methylsterols							
obtusifoliol	18.2	7.5	22.1	21.4	11.5	0.2	2.1
24-methylenelophenol	1.8	0.2	nd	nd	nd	1.2	1.1
cycloeucalenol	0.7	0.1	0.4	9.1	nd	0.7	1.9
24-ethylidenelophenol	1.5	nd	0.3	0.9	nd	0.5	9.9
4-demethylsterols							
24-methylcholesterol	9.6	0.9	3.4	2.2	0.7	1	7
stigmasterol	2.4	0.6	3.8	5.7	1.8	3.2	2.2
$\Delta^{5,23}$ -stigmastadienol	0.1	traces	0.2	0.2	nd	nd	nd
clerosterol	0.8	0.3	1	1.2	0.3	0.3	2
sitosterol	83	36.6	94	117	39.4	27.3	188
isofucoesterol	1.6	0.6	1.8	4.7	1.2	7.1	12.3
Total amount ($\mu\text{g/g}$ dry wt)	125 \pm 15	50 \pm 6	135 \pm 15	170 \pm 15	60 \pm 7	45 \pm 5	260 \pm 24

^{a,b} see legend of table S1.

Table S3Amounts of free and esterified sterols in *Olea europaea* callus cultures

	Free sterols	Esterified sterols
4.4-dimethylsterols		
cycloartanol	14 ^a	
24-methylene cycloartanol	84	9.4
Total	98	9.4
4α-methylsterols		
obtusifoliol	16	5.4
24-methylenelophenol	32	3.8
24-methyllophenol	11.4	6.8
cycloeucalenol	6.5	2.6
24-ethyl- <i>E</i> -23-dehydrolophenol	10.5	0.4
24-ethyl lophenol	39	0.9
24-ethylidene lophenol	147	0.9
Total	261	21
4-demethylsterols		
24-methylcholesterol	25.1	12.8
stigmasterol	15.3	5.0
$\Delta^{5,23}$ -stigmastadienol	0.74	3.8
clerosterol	8.6	5.1
sitosterol	729	324
sitostanol	6.6	
isofucosterol	3.9	8.8
$\Delta^{5,24}$ -stigmastadienol	2.9	2.4
Δ^7 -stigmastenol	2.9	
Δ^7 -avenasterol	0.6	
Total	796	362
Total amount ($\mu\text{g/g}$ dry wt)	1155 \pm 120	392 \pm 47