

**Table S1.** Kruskal–Walli’s test for larval mosquito mortality (%) of plant oil groups

Oil groups	Mortality % (mean±SD)					
	0.0	3	6	12	24	48
Low	0±0	25.28±2.79	40.16±3.76	56.64±4.34	70.24±3.58	86.40±3.48
Medium	0±0	34.51±1.08	57.03±2.07	78.29±1.84	88.23±1.15	97.14±1.33
High	0±0	46.40±3.08	72.40±3.37	89.60±2.29	97.60±1.42	100.00±0.00
Chi-square	0.0	21.15	24.15	27.44	29.16	32.15
df	2	2	2	2	2	2
Asymp. sig	0.000	0.000	0.000	0.000	0.000	0.002

**Table S2.** The major chemical constituents of *Citrus aurantium* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	4.88	$\alpha$ -Pinene	1.40	937	C <sub>10</sub> H <sub>16</sub>	monoterpene
2	5.82	Sabinene	0.80	974	C <sub>10</sub> H <sub>16</sub>	monoterpene
3	6.26	$\beta$ -Myrcene	2.11	967	C <sub>10</sub> H <sub>16</sub>	monoterpene
4	7.24	$\beta$ -Cymene	0.66	1042	C <sub>10</sub> H <sub>14</sub>	monoterpene
5	7.40	Limonene	<b>91.35</b>	1030	C <sub>10</sub> H <sub>16</sub>	monoterpene
6	8.22	Terpinolene	<b>1.12</b>	1088	C <sub>10</sub> H <sub>16</sub>	monoterpene
7	12.77	Estragole	1.70	1196	C <sub>10</sub> H <sub>12</sub> O	phenylpropene

**Table S3.** The major chemical constituents of *Cymbopogon schoenanthus* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	2.02	1-Octanol, 2,7-dimethyl	1.15	975	C <sub>10</sub> H <sub>22</sub> O	fatty alcohol
2	6.26	$\beta$ -Myrcene	6.27	967	C <sub>10</sub> H <sub>16</sub>	monoterpene
3	9.58	Linalool	1.23	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
4	12.16	Isocitral	2.63	989	C <sub>10</sub> H <sub>16</sub> O	monoterpene
5	12.75	Estragole	1.70	1196	C <sub>10</sub> H <sub>12</sub> O	phenylpropene
6	14.06	Neral	<b>38.04</b>	1240	C <sub>10</sub> H <sub>16</sub> O	monoterpene
7	14.52	Geraniol	4.10	998	C <sub>10</sub> H <sub>18</sub> O	monoterpene
8	14.52	Neryl alcohol	5.33	1228	C <sub>10</sub> H <sub>18</sub> O	monoterpene
9	15.05	2,6-Octadienal, 3,7-dimethyl-, (e)-	<b>39.89</b>	1270	C <sub>10</sub> H <sub>16</sub> O	monoterpene
10	18.54	Geranyl acetate	3.38	1382	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	monoterpene
11	20.16	Trans- $\alpha$ -Bergamotene	0.47	1435	C <sub>15</sub> H <sub>24</sub>	sesquiterpene

**Table S4.** The major chemical constituents of *Lavandula angustifolia* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	2.02	1-Octanol, 2,7-dimethyl	0.59	965	C <sub>10</sub> H <sub>22</sub> O	fatty alcohol
2	7.23	O-cymene	0.39	1022	C <sub>10</sub> H <sub>14</sub>	phenol
3	7.43	Eucalyptol	1.69	1032	C <sub>10</sub> H <sub>18</sub> O	monoterpene
4	8.62	Linalool oxide	1.56	1124	C <sub>10</sub> H <sub>18</sub> O <sub>2</sub>	monoterpene
5	9.61	Linalool	<b>30.42</b>	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
6	11.65	Lavandulol	0.88	1025	C <sub>10</sub> H <sub>18</sub> O	monoterpene
7	11.85	Borneol	1.01	988	C <sub>10</sub> H <sub>18</sub> O	monoterpene
8	12.14	Terpinen-4-ol	5.72	1260	C <sub>10</sub> H <sub>18</sub> O	monoterpene
9	12.65	$\beta$ -Fenchol	1.28	980	C <sub>10</sub> H <sub>18</sub> O	monoterpene

10	12.76	Estragole	1.40	1196	C <sub>10</sub> H <sub>12</sub> O	phenylpropene
11	14.45	Linalyl acetate	<b>42.28</b>	1257	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	monoterpene
12	15.54	Lavandulol acetate	<b>4.36</b>	1257	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	monoterpene
13	18.55	Geranyl acetate	<b>0.49</b>	1382	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	monoterpene
14	19.68	Caryophyllene	2.98	1419	C <sub>15</sub> H <sub>24</sub>	sesquiterpene
15	20.83	Cis- $\beta$ -Farnesene	1.62	1589	C <sub>15</sub> H <sub>24</sub>	sesquiterpene
16	24.50	Caryophyllene oxide	3.33	1581	C <sub>15</sub> H <sub>24</sub> O	sesquiterpene

**Table S5.** The major chemical constituents of *Narcissus tazetta* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	4.36	$\beta$ -pinene	0.35	974	C <sub>10</sub> H <sub>16</sub>	monoterpene
2	5.24	$\beta$ -Cymene	0.11	1042	C <sub>10</sub> H <sub>14</sub>	monoterpene
3	5.35	D-Limonene	2.34	1030	C <sub>10</sub> H <sub>16</sub>	monoterpene
4	6.97	Linalool	5.51	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
5	7.29	Phenylethyl alcohol	0.42	914	C <sub>8</sub> H <sub>10</sub> O	phenyl
6	8.15	$\beta$ -Terpineol	0.16	1150	C <sub>10</sub> H <sub>18</sub> O	monoterpene
7	8.44	Acetic acid, phenylmethyl ester	1.35	1164	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	phenol
8	9.10	Phenylethyl acetate	0.12	1357	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	Phenylpropene
9	9.32	$\alpha$ -Terpineol	1.62	1260	C <sub>10</sub> H <sub>18</sub> O	monoterpene
10	9.45	Geraniol	2.04	998	C <sub>10</sub> H <sub>18</sub> O	monoterpene
11	9.91	Butanoic acid, 1-methyloctyl ester	3.50	1486	C <sub>13</sub> H <sub>26</sub> O <sub>2</sub>	flavonoid
12	10.16	Citronellol	<b>7.39</b>	1135	C <sub>10</sub> H <sub>20</sub> O	monoterpene
13	11.66	Estragole	0.39	1196	C <sub>10</sub> H <sub>12</sub> O	phenylpropene
14	13.05	Methyl anthranilate	0.85	1320	C <sub>8</sub> H <sub>9</sub> NO <sub>2</sub>	anthranilic acid
15	13.34	Eugenol	0.21	1357	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>	phenylpropene
16	13.95	Geranyl acetate	0.16	1382	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	monoterpene
17	14.68	$\beta$ -Ionone	0.14	1486	C <sub>13</sub> H <sub>20</sub> O	flavonoid
18	14.96	Caryophyllene	0.44	1419	C <sub>15</sub> H <sub>24</sub>	sesquiterpene
19	15.30	Dihydro- $\beta$ -ionone	1.43	1245	C <sub>13</sub> H <sub>22</sub> O	phenol
20	15.97	Cyclamen aldehyde	0.43	1330	C <sub>13</sub> H <sub>18</sub> O	fatty acid
21	16.46	Germacrene D	0.60	1435	C <sub>15</sub> H <sub>24</sub>	polyphenol
22	16.61	Benzyl dimethylcarbinyl butyrate	0.82	1370	C <sub>14</sub> H <sub>20</sub> O <sub>2</sub>	flavonoid
23	17.06	$\alpha$ -Farnesene	0.68	1419	C <sub>15</sub> H <sub>24</sub>	sesquiterpene
24	17.32	2-Phenoxyethyl isobutyrate	0.63	1346	C <sub>12</sub> H <sub>16</sub> O <sub>3</sub>	phenol ether
25	19.08	Diethyl phthalate	<b>13.35</b>	1594	C <sub>12</sub> H <sub>14</sub> O <sub>4</sub>	phthalic acid
26	19.76	Cedrenol	1.31	1581	C <sub>15</sub> H <sub>24</sub> O	sesquiterpene
27	19.93	Methyl- $\beta$ -ionone	8.00	1480	C <sub>14</sub> H <sub>22</sub> O	sesquiterpene
28	20.22	Dihydro-3-oxo- $\beta$ -ionol	0.21	1320	C <sub>13</sub> H <sub>22</sub> O <sub>2</sub>	phenol
29	20.52	Methyl dihydrojasmonate	<b>11.36</b>	1649	C <sub>13</sub> H <sub>22</sub> O <sub>3</sub>	ketone
30	20.85	Cis-3-Hexenyl salicylate	1.16	1211	C <sub>13</sub> H <sub>16</sub> O <sub>3</sub>	phenol
31	21.32	$\beta$ -Ionone	2.55	1456	C <sub>14</sub> H <sub>22</sub> O	sesquiterpene
32	21.89	Trans-farnesol	0.22	1522	C <sub>15</sub> H <sub>26</sub> O	sesquiterpene
33	22.50	Cinnamaldehyde, $\alpha$ -hexyl	3.04	1427	C <sub>15</sub> H <sub>20</sub> O	phenol
34	22.90	Acetyl cedrene	4.39	1645	C <sub>17</sub> H <sub>26</sub> O	ketone
35	23.65	6,7-diethyl-1,1,4,4-tetramethyl-2,3-dihydronaphthalene	4.74	1861	C <sub>18</sub> H <sub>28</sub>	phenol
36	24.49	7-Acetyl-6-ethyl-1,1,4,4-tetramethyltetralin	<b>17.98</b>	1851	C <sub>18</sub> H <sub>26</sub> O	phenol

**Table S6.** The major chemical constituents of *Origanum majorana* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
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1	4.71	Bicyclo[3.1.0]hex-2-ene, 4-methyl-1-(1-methylethyl)-	0.65	974	C <sub>10</sub> H <sub>16</sub>	monoterpene
2	4.87	$\alpha$ -Pinene	1.36	937	C <sub>10</sub> H <sub>16</sub>	monoterpene
3	5.82	Sabinene	7.59	974	C <sub>10</sub> H <sub>16</sub>	monoterpene
4	6.26	$\alpha$ -Myrcene	1.21	1030	C <sub>10</sub> H <sub>16</sub>	monoterpene
5	6.70	$\alpha$ -Phellandrene	0.33	955	C <sub>10</sub> H <sub>16</sub>	monoterpene
6	7.00	$\alpha$ -Terpinene	<b>7.82</b>	974	C <sub>10</sub> H <sub>16</sub>	monoterpene
7	7.23	M-Cymene	3.13	1042	C <sub>10</sub> H <sub>14</sub>	monoterpene
8	7.37	D-Limonene	4.77	1030	C <sub>10</sub> H <sub>16</sub>	monoterpene
9	8.23	$\gamma$ -Terpinene	<b>11.69</b>	1060	C <sub>10</sub> H <sub>16</sub>	monoterpene
10	8.62	Cis-4-Thujanol	<b>19.70</b>	1090	C <sub>10</sub> H <sub>18</sub> O	monoterpene
11	9.06	Terpinolene	2.85	1088	C <sub>10</sub> H <sub>16</sub>	monoterpene
12	10.91	1-Terpinenol	0.86	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
13	12.16	Terpinen-4-ol	<b>23.50</b>	1260	C <sub>10</sub> H <sub>18</sub> O	monoterpene
14	12.65	$\alpha$ -Terpinyl acetate	4.52	2110	C <sub>10</sub> H <sub>18</sub> O	monoterpene
15	13.11	Piperitol	0.43	1190	C <sub>10</sub> H <sub>18</sub> O	monoterpene
16	14.42	Linalyl acetate	2.83	1257	C <sub>12</sub> H <sub>20</sub> O <sub>2</sub>	monoterpene
17	19.68	Caryophyllene	3.83	1419	C <sub>15</sub> H <sub>24</sub>	sesquiterpene
18	22.00	Bicyclogermacrene	2.09	1419	C <sub>15</sub> H <sub>24</sub>	sesquiterpene
19	24.40	Sathulenol	0.24	1581	C <sub>15</sub> H <sub>24</sub> O	sesquiterpene

**Table S7.** The major chemical constituents of *Pelargonium graveolens* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	5.36	2-Propanol, 1,1'-oxydi	7.26	1046	C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	phenol
2	5.88	1-Propanol, 2-(2-hydroxypropoxy)	<b>15.77</b>	1046	C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>	phenol
3	6.69	Malonic acid	1.85	345	C <sub>3</sub> H <sub>4</sub> O	malonate
4	6.94	Linalool	0.29	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
5	7.45	Phenylethyl alcohol	<b>35.51</b>	914	C <sub>8</sub> H <sub>10</sub> O	phenyl
6	8.29	Menthone	0.09	1135	C <sub>10</sub> H <sub>18</sub> O	monoterpene
7	8.45	Acetic acid, phenylmethyl ester	3.17	1164	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	phenol
8	8.76	Benzenepropanoic acid, methyl ester	1.61	1224	C <sub>9</sub> H <sub>10</sub> O <sub>2</sub>	phenol
9	9.86	$\alpha$ -Citronellol	0.13	1135	C <sub>10</sub> H <sub>20</sub> O	fatty alcohol
10	10.15	$\beta$ -Citronellol	<b>7.60</b>	1135	C <sub>10</sub> H <sub>20</sub> O	monoterpene
11	10.25	3-Phenylpropanol	1.66	1340	C <sub>9</sub> H <sub>12</sub> O	phenol
12	10.75	Geraniol	3.08	998	C <sub>10</sub> H <sub>18</sub> O	monoterpene
13	12.33	Benzeneethanol, $\alpha,\alpha$ -dimethyl, acetate	1.51	1298	C <sub>12</sub> H <sub>16</sub> O <sub>2</sub>	flavonoid
14	13.23	Citronellol acetate	0.17	1298	C <sub>12</sub> H <sub>22</sub> O <sub>2</sub>	monoterpene
15	15.04	$\beta$ -Ionone	3.13	1486	C <sub>13</sub> H <sub>20</sub> O	flavonoid
16	16.29	2(E)-Decenal	1.66	960	C <sub>10</sub> H <sub>18</sub> O	aldehyde
17	16.42	Trans- $\beta$ -Ionone	1.82	1486	C <sub>13</sub> H <sub>20</sub> O	flavonoid
18	16.83	9-Octadecenoic acid (z)	0.15	2175	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	Oleic acid
19	18.03	Rose acetate	3.24	1094	C <sub>10</sub> H <sub>9</sub> Cl <sub>3</sub> O <sub>2</sub>	fatty acid
20	20.39	Methyl dihydrojasmonate	0.62	1649	C <sub>13</sub> H <sub>22</sub> O <sub>3</sub>	ketone
21	25.89	Benzeneacetic acid, 2-phenylethyl ester	<b>9.68</b>	1909	C <sub>16</sub> H <sub>16</sub> O <sub>2</sub>	Phenylacetic acid

**Table S8.** The major chemical constituents of *Punica granatum* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	13.27	Tetradecane, 2,6,10-trimethyl-	2.24	1780	C <sub>17</sub> H <sub>36</sub>	alkane
2	15.20	Ambreinolide	0.59	1645	C <sub>17</sub> H <sub>28</sub> O <sub>2</sub>	$\alpha$ -keto acid

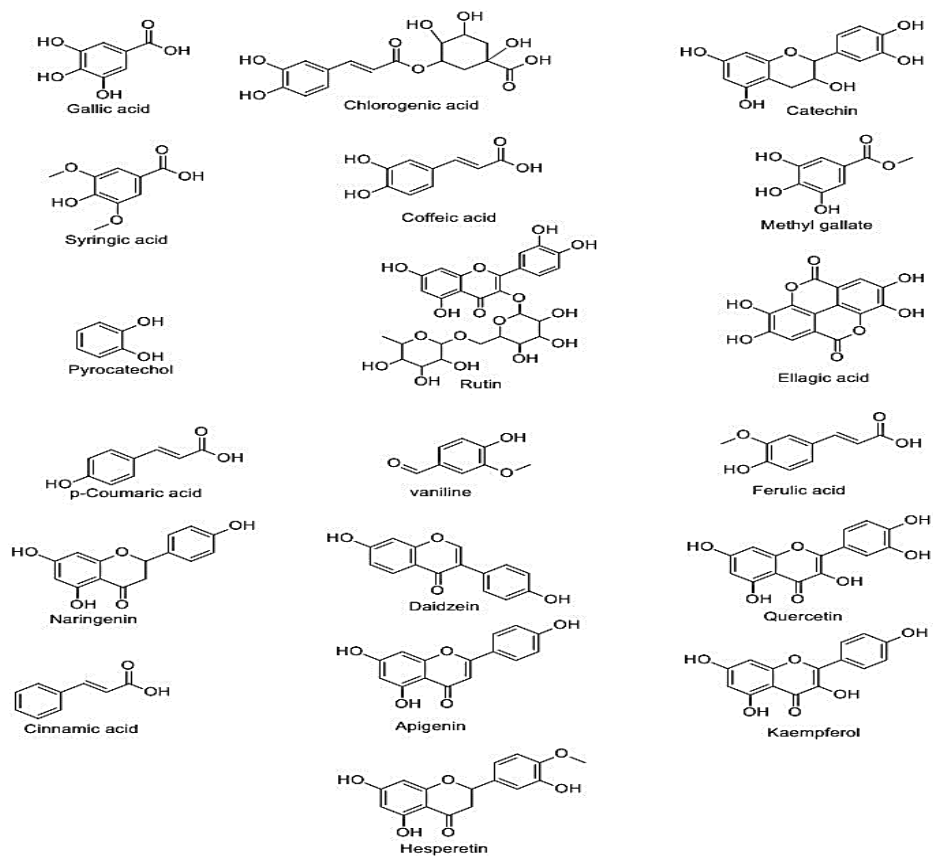
3	15.73	3,7,11-Trimethyl-1-dodecanol	3.40	1755	C <sub>17</sub> H <sub>36</sub>	alkane
4	15.73	1-Tetradecanol	0.45	1386	C <sub>14</sub> H <sub>30</sub> O	fatty alcohol
5	16.10	Docosane	1.88	1876	C <sub>22</sub> H <sub>46</sub>	alkanes
6	16.27	Tetradecane, 2,6,10-trimethyl	3.34	1780	C <sub>17</sub> H <sub>36</sub>	alkane
7	17.62	2-Hexadecanol	0.38	1890	C <sub>16</sub> H <sub>34</sub> O	fatty alcohol
8	18.48	Heptacosane	0.89	1986	C <sub>27</sub> H <sub>56</sub>	alkane
9	18.64	3-methyl-pentadecane	1.29	1925	C <sub>16</sub> H <sub>34</sub>	alkane
10	18.97	Diethyl Phthalate	27.97	1594	C <sub>12</sub> H <sub>14</sub> O <sub>4</sub>	Phthalic acid
11	19.32	14-β-H-pregna	42.39	2520	C <sub>21</sub> H <sub>36</sub>	fatty acid
12	20.33	1-(4-Bromobutyl)-2-piperidinone	2.99	1635	C <sub>9</sub> H <sub>16</sub> BrNO	fatty acid
13	20.86	Hexadecahydropyrene	3.85	1502	C <sub>16</sub> H <sub>26</sub>	fatty acid
14	21.97	Isocritonilide	7.50	1415	C <sub>15</sub> H <sub>20</sub> O <sub>2</sub>	sesquiterpene
15	23.27	2-Methyl-E,E-3,13-octadecadien-1-ol	1.20	2104	C <sub>19</sub> H <sub>36</sub> O	fatty acid

**Table S9.** The major chemical constituents of *Ricinus communis* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	2.02	Cyclobutane, 1,1-dimethyl-2-octyl	31.33	913	C <sub>14</sub> H <sub>28</sub>	cycloalkane
2	7.35	β-Pinene	7.27	937	C <sub>10</sub> H <sub>16</sub>	monoterpene
3	7.41	Eucalyptol	7.30	1032	C <sub>10</sub> H <sub>18</sub>	monoterpene
4	9.60	2-Methyl-1-Hexadecanol	4.10	1830	C <sub>17</sub> H <sub>36</sub> O	alkane
5	10.95	Chamazulene	6.44	1420	C <sub>14</sub> H <sub>16</sub>	phenol
6	12.15	Terpinen-4-ol	6.63	1260	C <sub>10</sub> H <sub>18</sub> O	monoterpene
7	12.80	Estragole	24.95	1196	C <sub>10</sub> H <sub>12</sub> O	phenylpropene
8	33.82	Oxiraneundecanoic acid, 3-pentyl-, methyl ester, cis	4.77	1775	C <sub>19</sub> H <sub>36</sub> O	fatty acid
9	36.65	Hexadecanoic acid, trimethylsilyl ester	3.85	2215	C <sub>19</sub> H <sub>40</sub> O <sub>2</sub> Si	palmitic acid
10	37.84	9-Octadecenoic acid (z)	3.36	2175	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	oleic acid

**Table S10.** The major chemical constituents of *Rosmarinus officinalis* essential oil

No.	RT	Compound name	Area (%)	R. I.	M. F.	Classification
1	2.02	Cyclobutane, 1,1-dimethyl-2-octyl	0.47	913	C <sub>14</sub> H <sub>28</sub>	cycloalkane
2	4.63	Tricyclene	1.63	937	C <sub>10</sub> H <sub>16</sub>	monoterpene
3	4.87	α-Pinene	20.85	937	C <sub>10</sub> H <sub>16</sub>	monoterpene
4	5.25	Camphene	8.04	952	C <sub>10</sub> H <sub>16</sub>	monoterpene
5	5.93	β-Pinene	6.69	988	C <sub>10</sub> H <sub>16</sub>	monoterpene
6	6.25	β-Myrcene	0.42	967	C <sub>10</sub> H <sub>16</sub>	monoterpene
7	6.77	3-Carene	3.53	952	C <sub>10</sub> H <sub>16</sub>	monoterpene
8	6.94	1,4-Cineole	0.32	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
9	7.23	O-Cymene	4.49	1022	C <sub>10</sub> H <sub>14</sub>	phenol
10	7.42	Eucalyptol	20.45	1032	C <sub>10</sub> H <sub>18</sub>	monoterpene
11	8.22	γ-Terpinene	2.96	976	C <sub>10</sub> H <sub>16</sub>	monoterpene
12	9.59	Linalool	1.54	1099	C <sub>10</sub> H <sub>18</sub> O	monoterpene
13	10.95	Camphor	14.65	937	C <sub>10</sub> H <sub>16</sub> O	monoterpene
14	11.54	Borneol	11.32	1150	C <sub>10</sub> H <sub>18</sub> O	monoterpene
15	12.13	Terpinen-4-ol	1.98	1260	C <sub>10</sub> H <sub>18</sub> O	monoterpene
16	12.64	α-Terpineol	1.64	1260	C <sub>10</sub> H <sub>18</sub> O	monoterpene
17	12.78	Estragole	0.69	1196	C <sub>10</sub> H <sub>12</sub> O	phenylpropene



**Figure S1.** Structure of the tested polyphenol active components by HPLC.

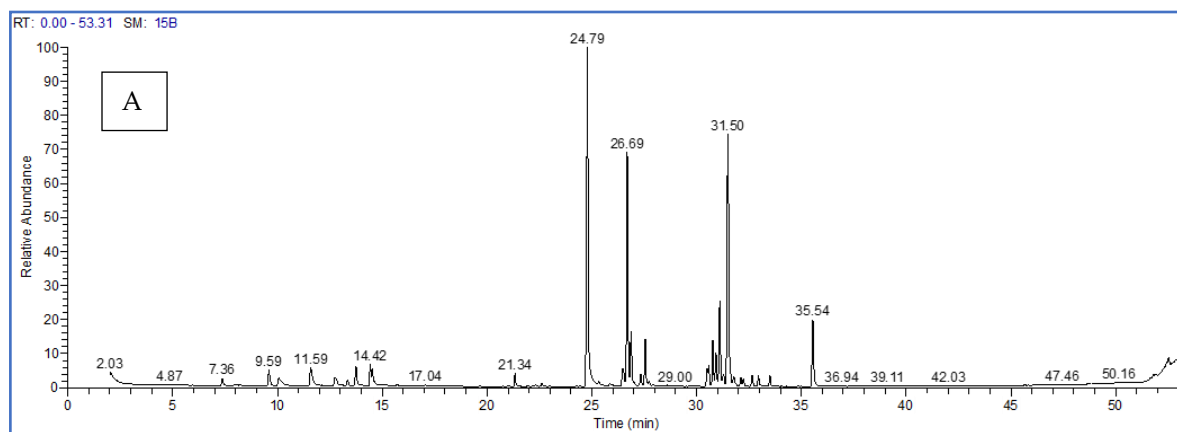


Figure S2. GC chromatogram of *Lonicera caprifolium* (a) and *Pogostemon cablin* (b) essential oils.

