

Supplementary material

Table S1. Sample information of the 45 species plants worked.

Family	Specie	Common name	# Collection	Obtaining or collection site	State and used parts
Anacardiaceae	<i>Schinus molle</i> *	Falso pimiento	Nd	Universidad Nacional de Colombia (Bogotá)	Fresh fruits
Annonaceae	<i>Xilopia discreta</i>	-	COL518691	Barrancabermeja (Santander)	Dry Fruits
Apiaceae	<i>Foeniculum vulgare</i> *	Hinojo	Nd	Market place (Bogotá)	Fresh aerial parts
Asteraceae	<i>Ambrosia cumanensis</i>	Altamisa	COL595396	San Mateo (Boyacá)	Fresh aerial parts
	<i>Artemisia drancunculus</i> *	Estragón	Nd	Market place (Bogotá)	Fresh aerial parts
Cupressaceae	<i>Cupressus sempervirens</i>	Ciprés	COL595397	Universidad Nacional de Colombia (Bogotá)	Fresh leaves
Hypericaceae	<i>Hypericum mexicanum</i>	Chite	JBB10659	Usme (Bogotá)	Fresh aerial parts
	<i>Hypericum myricariifolium</i>	Chite	JBB00350	Usme (Bogotá)	Aerial parts
	<i>Hypericum juniperinum</i>	Chite, Guardarocío	JBB00348	Usme (Bogotá)	Aerial parts
Illiciaceae	<i>Illicium verum</i>	Anís estrellado	COL595400	Market place (Bogotá)	Dry fruits
Lamiaceae	<i>Rosmarinus officinalis</i>	Romero	COL595398	Market place (Bogotá)	Fresh leaves
	<i>Satureja viminea</i>	Menta	COL596919	Botanical garden (Bogotá)	Fresh aerial parts
	<i>Minthostachys septentrionalis</i>	-	COL596918	Botanical garden (Bogotá)	Fresh aerial parts
	<i>Ocimum basilicum</i>	Albahaca	COL595395	Market place (Bogotá)	Fresh leaves
	<i>Lavandula stoechas</i>	Lavanda	JBB03053	Botanical garden (Bogotá)	Fresh aerial parts
Lauraceae	<i>Aniba puchury-minor</i>	-	COL544559	Fusagasugá (Cundinamarca)	Fresh leaves
	<i>Beilschmiedia costaricensis</i>	-	COL563246	La Vega (Cundinamarca)	Fresh leaves
	<i>Aniba robusta</i>	-	COL563245	La Vega (Cundinamarca)	Fresh leaves
	<i>Ocotea</i> sp.*	Cascarillo	Nd	Arauca (Arauca)	Fresh leaves
	<i>Nectandra acutifolia</i>	-	COL566240	Fusagasugá (Cundinamarca)	Fresh leaves
	<i>Cinnamomum triplinerve</i>	-	COL548028	Nocaima (Cundinamarca)	Fresh leaves
	<i>Ocotea longifolia</i>	Laurel	COL563466	Lerida (Tolima)	Fresh leaves

Myristicaceae	<i>Virola carinata</i>	-	COL563244	Granada (Meta)	Fresh leaves
Myrtaceae	<i>Eucalyptus</i> sp.**	Eucalipto	COL596913	Usme (Bogotá)	Fresh leaves
	<i>Syzygium aromaticum</i>	Clavo	Nd	Market place (Bogotá)	Fresh leaves
Piperaceae	<i>Piper nubigenum</i>	Cordoncillo	COL595897	San Mateo (Boyacá)	Fresh aerial parts
	<i>Piper aduncum</i>	Cordoncillo	COL593727	La sierra (Cundinamarca)	Fresh leaves
	<i>Piper holtonii</i>	Cordoncillo	COL593726	El Colegio (Cundinamarca)	Fresh aerial parts
	<i>Piper bogotense</i>	Cordoncillo	COL511095	Sopó (Cundinamarca)	Fresh leaves
	<i>Piper eriopodon</i>	Cordoncillo	COL595898	Santa bárbara (Santander)	Fresh leaves
	<i>Piper marginatum</i>	Cordoncillo	COL591820	El Colegio (Cundinamarca)	Fresh leaves
	<i>Piper imperiale</i>	Cordoncillo	COL519826	Duitama (Boyacá)	Fresh leaves
	<i>Piper pesaresanum</i>	Cordoncillo	COL553307	Santa Bárbara (Santander)	Fresh leaves
	<i>Piper el-metanum</i>	Cordoncillo	COL553310	Acacias (meta)	Fresh leaves
	<i>Piper</i> cf. <i>asperiusculum</i>	Cordoncillo	COL579924	San Mateo (Boyacá)	Fresh inflorescences
	<i>Piper pertomentellum</i>	Cordoncillo	COL579920	San Mateo (Boyacá)	Fresh inflorescences
	<i>Piper aequale</i>	Cordoncillo	COL510622	Nocaima (Cundinamarca)	Fresh leaves
	<i>Peperomia</i> sp.**	-	COL526963	Acacias (Meta)	Fresh leaves
Poaceae	<i>Cymbopogon nardus</i> *	Citronela	Nd	Market place Manizales (Caldas)	Fresh leaves
	<i>Cymbopogon citratus</i>	Limonaria	COL595393	Fusagasugá (Cundinamarca)	Fresh leaves
Rutaceae	<i>Coleonema album</i>	Diosme	COL526771	Market place (Bogotá)	Fresh aerial parts
	<i>Citrus × sinensis</i> *	Naranja	Nd	Market place (Bogotá)	Fresh shell
Verbenaceae	<i>Lippia origanoides</i> *	Orégano de monte	Nd	Cañon del Chicamocha (Santander)	Fresh leaves
	<i>Lippia alba</i>	Pronto alivio	COL595394	San Mateo (Boyacá)	Fresh aerial parts
Zingiberaceae	<i>Curcuma longa</i> *	Cúrcuma	Nd	Market place (Bogotá)	Fry roots

* Common species were taxonomically determined in a herbarium, but were not deposited in the collection.

** The analyzed specimen only allowed taxonomic characterization to be performed until the genus.

Table S2.
Chemical composition of the EOs of 24 spices with potential insecticidal activity.

		DB-5MS	HP-INNOWax	<i>Ambrosia cumanensis</i>	<i>Citrus × sinensis</i>	<i>Colconema album</i>	<i>Cupressus sempervirens</i>	<i>Cymbopogon citratus</i>	<i>Cymbopogon nardus</i>	<i>Eucalyptus</i> sp.	<i>Hypericum mexicanum</i>	<i>Hypericum myricanifolium</i>	<i>Illicium verum</i>	<i>Lavandula stoechas</i>	<i>Lippia alba</i>	<i>Lippia origanoides</i>	<i>Minthostachys septentrionalis</i>	<i>Ocimum basilicum</i>	<i>Ocotea</i> sp.	<i>Piper aduncum</i>	<i>Piper cf. asperiusculum</i>	<i>Piper el-metanum</i>	<i>Piper nubigenum</i>	<i>Piper pertomentellum</i>	<i>Rosmarinus officinalis</i>	<i>Satureja vininea</i>	<i>Xylopia discreta</i>	
Nº	Components	RI a	RI b																									
1	Octane	797	-	-	-	-	-	-	-	-	0.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
2	2-Hexenal	851	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
3	2-Methyloctane	866	-	-	-	-	-	-	-	-	-	0.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	
4	Nonane	904	-	-	-	-	-	-	-	-	53.08	1.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
5	Tricyclene	927	1009	-	-	-	0.3	-	-	-	0	-	-	0.06	-	-	-	-	0.04	-	-	-	-	-	-	0.25	-	
6	α-Tuyene	928	1026	-	-	0.42	1.95	-	-	-	0.08	0.05	-	-	-	0.09	-	-	-	-	0.05	0.88	0.09	-	-	0.35	-	0.38
7	α-Pinene	939	1023	0.66	0.29	7.12	16.89	-	-	6.6	25.28	45.52	0.26	2.8	0.08	0.14	0.69	0.03	24.01	6.14	2	8.48	0.9	0.81	23.2	0.18	24.71	
8	α-Fenchene	955	1055	-	-	-	0.45	-	-	-	-	0.05	-	0.1	-	-	-	-	0.48	0.08	-	-	-	-	-	-	-	
9	Camphene	956	1064	0.43	-	0.03	0.54	-	-	0.03	-	0.28	-	1.22	0.13	0.04	-	-	1.79	0.23	0.09	0.07	-	-	8.71	-	0.69	
10	2,4-Tuyadiene	958	1124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	-	-	
11	3-Methylnonane	971	976	-	-	-	-	-	-	-	1.24	0.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
12	Sabinene	976	1119	0.45	0.29	3.62	9.39	-	-	-	0.32	-	-	0.19	-	-	0.33	0.05	-	-	-	0.46	0.23	0.18	0.16	0.12	5.08	
13	β-Pinene	983	1105	5.33	-	11.42	0.46	-	-	0.11	3.6	2.86	0.02	0.54	-	1.73	0.8	0.09	3.19	0.34	1.22	0.27	2.01	1.55	4.87	0.26	36.04	
14	Sulcatone	984	1347	-	-	-	-	0.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
15	Myrcene	990	1172	1	1.37	3.09	3.75	2.04	0.08	0.26	1.11	1.67	0.08	0.25	0.56	-	-	0.8	0.6	1.82	0.67	1.4	0.42	0.22	1.13	-	1.07	
16	3-Octanol	996	1397	-	-	-	-	-	-	-	-	-	-	-	-	-	0.09	-	-	-	-	-	-	-	-	-	-	
17	Decane	1000	1000	-	-	-	-	-	-	-	0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
18	Octanal	1004	1298	-	2.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19	Pseudolimonene	1007	1174	-	-	0.87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
20	α-Phellandrene	1010	1167	-	-	2.02	0.51	-	-	-	-	-	0.08	0.07	-	0.07	-	-	-	2.48	0.86	43.47	0.28	-	2.89	-	1.71	
21	Δ-3-Carene	1012	1149	-	-	0.11	11.93	-	-	-	-	-	0.22	3.99	-	0.09	-	-	-	0.2	0.03	0.24	0.07	-	0.05	-	0.03	
22	Isocineole	1017	1180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.23	-	-	-	-	-	-	-	-	
23	α-Terpinene	1020	1184	-	-	0.39	4.85	-	-	-	-	0.07	0.05	0.09	-	0.92	-	-	0.16	0.36	0.11	0.21	5.1	-	0.69	-	-	
24	o-Cimene	1022	1277	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	
25	p-Cimene	1028	1279	-	-	1.2	1.9	-	-	0.76	0.14	0.55	0.1	0.5	-	12.26	-	-	1.9	4.73	0.06	4.96	0.55	-	0.55	-	3.4	
26	Limonene	1033	1205	1.48	91.22	-	6.58	-	5.94	6.5	0.28	1.9	2.33	1.73	53.1	0.56	1.84	0.07	5.93	6.59	2.82	19.36	0.61	0.24	3.72	1.05	3.04	
27	cis-β-oCimene	1035	1242	-	-	18.05	-	-	-	-	-	1.12	-	1.15	-	-	-	-	-	-	-	-	-	28.49	-	-	-	
28	β-Phellandrene	1036	1215	0.35	0.03	37.62	7.07	-	0.04	-	0.05	-	0.2	-	-	-	0.04	0.03	-	4.87	1.13	7.78	0.14	-	-	1.56		
29	1,8-Cineole	1038	1217	-	-	-	-	-	-	66.65	-	-	0.27	17.12	-	-	-	0.26	1.74	-	6.3	-	-	-	23.22	0.14	10.06	
30	Phenylacetaldehyde	1045	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	0.04	-	-	
31	trans β-oCimene	1046	1259	0.45	-	2.2	0.05	-	-	-	-	0.22	-	-	0.33	0.06	-	0.55	-	0.11	0.94	0.06	-	21.02	-	-	-	
32	Bergamal	1052	1363	-	-	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
33	γ-Terpinene	1060	1253	-	0.05	0.47	5.72	-	-	0.06	-	0.23	0.09	0.09	-	2.93	-	-	0.21	0.39	0.2	0.24	9.81	-	1.59	-	-	
34	2-Methyldecane	1062	1051	-	-	-	-	-	-	-	0.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
35	p-Ment-3,8-diene	1072	1273	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	
36	Linalool oxide	1072	1448	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	

[illegible]

	Myrtenyl acetate	1331	1705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.13	-	
	1,5,5-Trimethyl-6-methylene-Cyclohexene	1342	1488	-	-	-	-	-	-	-	-	-	-	-	-	0.69	-	-	-	-	-	-	-	-	-	-	-	-	-
91																													
92	δ-Elemene	1345	1477	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.02	1.18	-	-	-	
93	Piperitenone	1348	1944	-	-	-	-	-	-	-	-	-	-	-	1.13	-	0.27	-	-	-	-	-	-	-	-	-	0.36	-	
94	Citronellyl acetate	1350	1675	-	-	-	-	-	10.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	
95	Thymol acetate	1350	1869	-	-	-	-	-	-	-	-	-	-	-	-	3.69	-	-	-	-	-	-	-	-	-	-	-	-	
96	α-Cubebene	1353	1463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	0.39	-	-	0.08	
97	Terpinyl acetate	1354	1714	-	-	-	2.81	-	-	12.2	-	-	-	-	-	-	-	-	1.83	-	-	-	-	-	-	-	-	0.09	
98	Geranic acid	1355	2354	-	-	-	-	3.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
99	Eugenol	1358	2189	-	-	-	-	-	1.14	-	-	-	-	-	-	0.22	-	0.33	-	-	-	-	-	-	-	-	-	-	
100	Carvacrol acetate	1368	1892	-	-	-	-	-	-	-	-	-	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-	-	
101	Piperitenone oxide	1369	1984	-	-	-	-	-	-	-	-	-	-	-	-	-	2.86	-	-	-	-	-	-	-	-	-	-	-	
102	Geranyl acetate	1377	1768	-	-	-	-	0.52	15.93	0.08	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
103	Methyl anisate	1379	2119	-	-	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
104	α-Ylengene	1381	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	
105	Ciclosativene	1381	1489	-	-	-	-	-	-	-	0.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.08	
106	α-Copaene	1385	1500	0.67	-	-	-	-	-	-	0.41	-	-	-	0.08	0.06	0.1	0.07	-	0.11	1.01	0.28	0.15	0.53	-	0.34	0.34		
107	Methyl cinnamate	1391	2104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.1	-	-	-	-	-	-	-	-	-	-	
108	β-Bourbonene	1395	1529	-	-	-	-	-	0.15	-	-	-	-	-	1.16	-	0.03	-	-	-	-	-	-	-	-	0.08	-	-	
109	β-Elemene	1396	1599	-	-	-	-	-	-	-	-	-	-	-	-	-	0.98	-	-	-	-	-	-	1.31	-	-	-	-	
110	β-Cubebene	1396	1548	-	-	-	-	-	-	-	0.22	-	-	-	0.95	-	-	-	-	-	0.1	0.1	0.71	-	-	-	-	-	
111	Methyl eugenol	1399	2029	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	-	0.13	-	-	-	-	
112	Cyperene	1415	1538	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.14	-	-	-	-	-	0.04	
113	α-Gurjunene	1416	1540	0.27	-	-	-	-	-	-	0.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.04	-	-	
114	α-Santalene	1424	1581	-	-	-	-	-	-	-	0.4	0.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
115	β-Copaene	1426	1500	-	-	-	-	-	-	-	-	-	-	-	0.22	-	-	-	-	-	-	-	-	-	-	-	-	-	
116	β-Caryophyllene	1430	1610	1.99	-	1.02	0.26	-	-	-	2.01	13.59	-	-	0.12	4.76	16.51	-	-	-	0.5	0.17	7.09	4.78	6.47	2.17	0.14	-	
117	γ-Elemene	1433	1652	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.2	-	-	-	-	-	
118	α-Bergamotene	1436	1594	-	-	-	-	-	-	-	0.86	0.09	-	-	-	0.14	-	1.01	-	-	-	-	-	-	-	-	-	0.39	
119	α-Guaiene	1440	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.25	-	-	-	-	-	-	-	-	-	-	-	
120	β-Gurjunene	1440	1602	-	-	-	-	-	-	0.08	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
121	Aromadendrene	1447	1619	-	-	-	-	-	-	1.06	-	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	-	-	-	
122	β-Farnesene	1450	1679	0.7	-	-	-	-	-	-	0.26	-	-	0.42	0.11	-	0.23	-	-	-	-	-	-	-	-	-	-	-	
123	α-Caryophyllene	1465	1687	0.7	-	0.12	0.53	-	-	-	0.46	4.69	-	-	-	2.69	2.84	0.19	-	-	0.04	-	0.79	0.66	0.8	0.11	-	-	
124	Alloaromadendrene	1469	1661	-	-	-	-	-	-	0.36	-	-	-	0.36	0.04	0.18	-	-	-	0.05	0.31	0.68	0.14	-	2.38	0.08	-	-	
125	γ-Selinene	1481	1692	-	-	-	-	-	-	-	0.64	-	-	-	-	-	-	-	-	-	0.21	-	-	-	-	-	-	-	
126	γ-Curcumene	1484	1711	34.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
127	α-Curcumene	1485	1786	2.45	-	-	-	-	-	-	-	1.46	-	-	-	0.28	-	-	-	-	-	-	-	-	-	-	-	-	
128	Germacreno D	1491	1726	17.25	-	0.39	-	-	2.7	-	-	-	-	0.67	11.2	-	0.53	1.67	-	0.08	0.41	0.75	1.85	26.88	-	0.39	1.05		
129	Valencene	1491	1735	-	0.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
130	trans-Methyl isoegenol	1495	2200	-	-	0.15	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
131	δ-Selinene	1495	1709	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6	-	-	-	-	-	-	-	
132	1,10-Calamenene oxide	1495	1903	-	-	-	-	-	-	-	-	-	1.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
133	Eremofilene	1498	-	-	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
134	α-Zingiberene	1499	1734	-	-	-	-	-	-	-	-	1.34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
135	β-Selinene	1501	1749	-	-	-	-	-	-	-	0.32	3.09	-	-	-	-	-	-	-	-	-	0.37	-	-	-	-	-	-	
136	Viridiflorene	1502	1727	-	-	-	-	-	-	0.37	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	epi-			-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
137	Bicyclosesquiphe llan drene	1504	1731																										

138	cis α -Bisabolene	1505	1741	-	-	-	-	-	-	-	-	2.4	-	-	-	-	-	-	-	-	-	-	0.21	-	-	1.29	
139	α -Farnesene	1506	1759	-	-	-	-	-	-	-	-	-	-	-	-	-	0.55	-	-	-	1.43	-	-	-	-	-	
140	Bicyclgermacrene	1507	1750	16.79	-	-	-	-	-	-	-	-	-	0.37	-	8.67	-	-	-	0.14	-	5.78	2.14	-	0.66	-	
141	α -Muurolene	1507	1739	-	-	-	-	-	0.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
142	α -Selinene	1508	1750	-	-	-	-	-	-	-	0.51	2.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
143	β -Bisabolene	1514	1740	1.01	-	-	-	-	-	-	-	0.85	-	-	-	0.1	-	-	-	-	0.13	-	-	0.1	-	0.21	
144	γ -Bisabolene	1519	1769	-	-	-	-	-	-	-	-	0.24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
145	δ -Cadinene	1527	1771	-	-	0.08	0.09	-	1.2	-	0.46	0.07	-	0.59	0.01	0.24	0.1	0.06	-	0.2	0.33	0.18	0.12	0.59	-	0.53	-
146	Myristicin	1532	2293	1.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	38.12	-	36.68	-	-	-	-	
147	Calamenene	1532	1849	-	-	-	-	-	-	-	0.14	-	-	0.1	-	0.07	-	-	-	0.08	-	-	-	-	-	0.06	
148	β -Sesquiphellandrene	1532	1781	0.4	-	-	-	-	-	-	-	0.37	-	-	-	-	-	-	-	-	-	-	-	0.05	-	-	
149	7-Epi- α -selinene	1534	1779	-	-	-	-	-	-	-	-	0.94	-	-	-	-	-	-	-	-	0.13	-	-	-	-	-	
150	Elemicin	1548	2246	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.16	-	0.25	-	-	-	-	
151	trans α -Bisabolene	1553	1784	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.79	
152	α -Calacorene	1553	1938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.19	-	-	-	-	-	-	-	
153	Selina-3,7(11)-diene	1555	1793	-	-	-	-	-	-	-	-	-	-	0.1	-	-	-	-	-	-	0.07	-	-	-	-	-	
154	Elemol	1562	2097	-	-	-	-	-	5.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
155	Germacrene B	1573	1847	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.37	-	-	-	
156	Caryophyllene Oxide	1600	2006	-	-	-	-	-	-	-	-	-	-	-	1.12	0.14	-	-	-	-	0.27	-	-	0.4	0.96	-	
157	Spathulenol	1601	2144	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.43	
158	Globulol	1601	2096	-	-	-	-	-	-	0.92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
159	Dillapiole	1622	2386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	35.38	-	-	0.05	1.06	-	
160	Isoelemecin	1637	2420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	-	-	-	-	
161	Apiole	1662	2506	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.26	0.08	-	-	11.83	-	-	-	
162	Cembrene A	1834	2207	-	-	-	-	-	-	-	1.38	1.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
163	13-Isopimaradiene	1868	2286	-	-	-	0.15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
164	Isophyllocladene	1874	2282	-	-	-	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
165	Abietatriene	1936	2521	-	-	-	0.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
166	Abietadiene	1969	2492	-	-	-	8.35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Oxygenated monoterpenes (%)	10.51	0.52	0.52	1.97	3.25	5.82	80.91	69.21	81.19	-	-	1.9	78.93	30.08	65.25	57.61	2.82	56.01	68.29	10.95	-	0.16	0.26	42.39
Non-oxygenated monoterpenes (%)	77.77	10.15	10.15	93.25	89.77	78.92	2.04	6.14	14.35	30.86	54.73	3.43	13.31	54.2	18.97	3.81	1.62	41.98	28.43	10.25	90.75	22.55	53.71	49.07
Total monoterpenes (%)	88.28	10.67	10.67	95.22	93.02	84.74	82.95	75.35	95.54	30.86	54.73	5.33	92.24	84.28	81.22	61.42	4.44	97.99	96.72	21.2	90.75	22.71	53.97	91.46
Oxygenated sesquiterpenes (%)	3.43	-	-	-	-	-	-	3.86	0.92	-	-	-	1.03	-	1.12	0.14	-	-	-	-	0.27	-	-	0.4
Non-oxygenated sesquiterpenes (%)	5.55	76.34	76.34	0.57	1.61	0.88	-	5.65	2.2	5.46	33.68	0.09	1.46	14.89	8.49	28.96	5.01	-	0.66	2.78	4.87	21.24	39.38	7.42
Total sesquiterpenes (%)	8.98	76.34	76.34	0.57	1.61	0.88	-	9.51	3.12	5.46	33.68	0.09	2.49	14.89	9.61	29.1	5.01	-	0.66	2.78	5.14	21.24	39.38	7.82
Diterpenes (%)	-	-	-	-	-	9.2	-	-	-	1.38	1.13	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenylpropanes (%)	-	1.16	1.16	-	0.2	0.18	-	-	-	-	-	93.85	-	-	3.95	0.76	86.95	0.26	0.15	73.69	-	49.18	-	0.18
Others (%)	-	-	-	3.89	-	-	0.42	0.21	-	61.89	3.81	-	-	-	-	2.5	-	-	-	-	-	0.17	0.07	0.04
Total identified (%)	97.26	88.17	88.17	99.68	94.83	95	83.37	85.07	98.66	99.59	93.35	99.27	94.73	99.17	97.78	93.78	96.4	98.25	97.53	97.67	95.89	93.3	93.42	99.5
Density (25 °C) (g/mL)	0.885	0.86	0.86	0.845	0.837	0.871	0.944	0.852	0.903	0.775	0.852	0.968	0.872	0.853	0.895	0.964	0.96	0.879	0.895	1.035	0.862	0.988	0.886	0.913
Refractive index (27 °C)	1.477	1.494	1.494	1.468	1.479	1.481	1.492	1.467	1.46	1.422	1.475	1.553	1.449	1.483	1.507	1.47	1.516	1.476	1.476	1.517	1.478	1.511	1.497	1.467

RI: Retention index (a) DB-5MS not polar column, (b) HP-INNOWax polar column

Table S3.

Repellent effect of the 24 active EOs on adults of *S. zeamais* * .

Essential Oil specie	Repellency percentage ± SD							Essential Oil specie	Repellency percentage ± SD						
	Concentration (µL/L air)	2 hours		6 hours		24 hours			Concentration (µL/L air)	2 hours		6 hours		24 hours	
A. cumanensis	6.2	66.7 ± 6.7	IV	76.7 ± 12.0	IV	53.3 ± 6.7	III	Lippia sp.	6,2	60.0 ± 5.8	III	73.3 ± 3.3	IV	-3.3 ± 3.3	0
	10.0	66.7 ± 6.7	IV	60.0 ± 5.8	V	80.0 ± 0.0	IV		10,0	60.0 ± 10.0	III	53.3 ± 6.7	III	33.3 ± 6.7	II
	14.1	76.7 ± 12.0	IV	80.0 ± 10.0	IV	76.7 ± 8.8	IV		14,1	50.0 ± 5.8	III	56.7 ± 6.7	III	80.0 ± 5.8	IV
	18.0	43.3 ± 3.3	III	70.0 ± 5.8	IV	76.7 ± 6.7	IV		18,0	73.3 ± 3.3	IV	63.3 ± 8.8	IV	83.3 ± 6.7	V
	22.7	73.3 ± 8.8	IV	80.0 ± 10.0	IV	76.7 ± 6.7	IV		22,7	70.0 ± 5.8	IV	86.7 ± 3.3	V	83.3 ± 6.7	V
C. album	6.2	90.0 ± 5.8	V	83.3 ± 8.8	V	50.0 ± 5.8	III	M. septentrionalis	6,2	80.0 ± 15.3	IV	76.7 ± 3.3	IV	56.7 ± 6.7	III
	10.0	86.7 ± 3.3	V	80.0 ± 10.0	IV	50.0 ± 10.0	III		10,0	63.3 ± 8.8	IV	80.0 ± 10.0	IV	76.7 ± 6.7	IV
	14.1	76.7 ± 12.0	IV	73.3 ± 3.3	IV	80.0 ± 5.8	IV		14,1	70.0 ± 5.8	IV	93.3 ± 6.7	V	80.0 ± 5.8	IV
	18.0	80.0 ± 5.8	IV	93.3 ± 3.3	V	90.0 ± 5.8	V		18,0	76.7 ± 8.8	IV	83.3 ± 6.7	V	83.3 ± 6.7	V
	22.7	66.7 ± 8.8	II	80.0 ± 5.8	IV	76.7 ± 8.8	IV		22,7	70.0 ± 5.8	IV	76.7 ± 6.7	IV	70.0 ± 5.8	IV
C. citratus	6.2	73.3 ± 3.3	IV	80.0 ± 5.8	IV	86.7 ± 3.3	V	O. basilicum	6,2	73.3 ± 6.7	IV	83.3 ± 8.8	V	40.0 ± 5.8	II
	10.0	70.0 ± 0.0	IV	83.3 ± 3.3	V	93.3 ± 6.7	V		10,0	53.3 ± 8.8	III	83.3 ± 12.0	V	46.7 ± 8.8	III
	14.1	73.3 ± 6.7	IV	73.3 ± 6.7	IV	90.0 ± 5.8	V		14,1	46.7 ± 3.3	III	73.3 ± 14.5	IV	40.0 ± 10.0	II
	18.0	70.0 ± 10.0	IV	73.3 ± 12.0	IV	73.3 ± 6.7	IV		18,0	50.0 ± 5.8	III	86.7 ± 6.7	V	66.7 ± 6.7	IV
	22.7	63.3 ± 12.0	IV	63.3 ± 6.7	IV	80.0 ± 5.8	IV		22,7	50.0 ± 5.8	III	70.0 ± 5.8	IV	73.3 ± 6.7	IV
C. nardus	6.2	100.0 ± 0.0	V	96.7 ± 3.3	V	90.0 ± 5.8	V	Ocotea sp.	6,2	76.7 ± 3.3	IV	93.3 ± 3.3	V	96.7 ± 3.3	V
	10.0	93.3 ± 6.7	V	70.0 ± 5.8	IV	86.7 ± 3.3	V		10,0	66.7 ± 3.3	IV	86.7 ± 3.3	V	96.7 ± 3.3	V
	14.1	70.0 ± 10.0	IV	66.7 ± 8.8	IV	80.0 ± 10.0	IV		14,1	96.7 ± 3.3	V	100.0 ± 0.0	V	96.7 ± 3.3	V
	18.0	93.3 ± 6.7	V	100.0 ± 0.0	V	93.3 ± 3.3	V		18,0	100.0 ± 0.0	V	100.0 ± 0.0	V	96.7 ± 3.3	V
	22.7	80.0 ± 5.8	IV	100.0 ± 0.0	V	90.0 ± 0.0	V		22,7	100.0 ± 0.0	V	100.0 ± 0.0	V	93.3 ± 3.3	V
C. sempervirens	6.2	73.3 ± 6.7	IV	3.3 ± 3.3	IV	30.0 ± 5.8	II	P. aduncum	6,2	70.0 ± 10.0	IV	90.0 ± 0.0	V	93.3 ± 3.3	V
	10.0	73.3 ± 3.3	IV	76.7 ± 3.3	IV	46.7 ± 46.7	III		10,0	96.7 ± 3.3	V	96.7 ± 3.3	V	76.7 ± 6.7	IV
	14.1	76.7 ± 8.8	IV	76.7 ± 3.3	IV	73.3 ± 6.7	IV		14,1	86.7 ± 3.3	V	83.3 ± 8.8	V	80.0 ± 5.8	IV
	18.0	73.3 ± 6.7	IV	76.7 ± 3.3	IV	73.3 ± 8.8	IV		18,0	86.7 ± 8.8	V	73.3 ± 6.7	IV	83.3 ± 6.7	V

<i>Citrus × sinensis</i>	22.7	73.3 ± 6.7	IV	73.3 ± 6.7	IV	93.3 ± 3.3	IV	<i>P. asperiusculum</i>	22,7	83.3 ± 3.3	V	90.0 ± 5.8	V	93.3 ± 3.3	V
	6.2	93.3 ± 3.3	V	73.3 ± 6.7	IV	86.7 ± 8.8	V		6,2	86.7 ± 3.3	V	86.7 ± 6.7	V	73.3 ± 17.6	IV
	10.0	83.3 ± 8.8	V	90.0 ± 5.8	V	86.7 ± 8.8	V		10,0	76.7 ± 6.7	IV	53.3 ± 17.6	III	80.0 ± 10.0	IV
	14.1	53.3 ± 8.8	III	66.7 ± 6.7	V	36.7 ± 6.7	II		14,1	53.3 ± 6.7	III	70.0 ± 5.8	IV	66.7 ± 6.7	IV
	18.0	83.3 ± 8.8	V	90.0 ± 5.8	V	93.3 ± 6.7	V		18,0	23.3 ± 3.3	II	56.7 ± 0.0	III	16.7 ± 6.7	I
	22.7	83.3 ± 3.3	V	90.0 ± 10.0	V	93.3 ± 6.7	V		22,7	46.7 ± 6.7	III	36.7 ± 12.0	III	33.3 ± 3.3	III
<i>Eucalyptus</i> sp.	6.2	53.3 ± 3.3	III	26.7 ± 3.3	II	53.3 ± 6.7	III	<i>P. el-metanum</i>	6,2	50.0 ± 5.8	II	63.3 ± 3.3	IV	53.3 ± 12.0	III
	10.0	20.0 ± 5.8	II	26.7 ± 3.3	II	33.3 ± 8.8	II		10,0	76.7 ± 3.3	IV	70.0 ± 5.8	IV	96.7 ± 3.3	V
	14.1	30.0 ± 5.8	II	46.7 ± 3.3	III	53.3 ± 6.7	III		14,1	73.3 ± 6.7	IV	76.7 ± 6.7	IV	100.0 ± 0.0	V
	18.0	53.3 ± 8.8	III	73.3 ± 3.3	IV	93.3 ± 3.3	V		18,0	80.0 ± 5.8	IV	96.7 ± 3.3	V	93.3 ± 3.3	V
	22.7	63.3 ± 8.8	IV	80.0 ± 5.8	IV	83.3 ± 8.8	V		22,7	66.7 ± 6.7	IV	83.3 ± 3.3	V	83.3 ± 8.8	V
	6.2	90.0 ± 5.8	V	80.0 ± 10.0	IV	73.3 ± 6.7	IV		6,2	66.7 ± 8.8	IV	33.3 ± 3.3	II	40.0 ± 5.8	II
<i>H. mexicanum</i>	10.0	80.0 ± 11.5	IV	86.7 ± 6.7	V	73.3 ± 6.7	IV	<i>P. nubigenum</i>	10,0	43.3 ± 8.8	III	66.7 ± 8.8	IV	93.3 ± 6.7	V
	14.1	83.3 ± 6.7	V	90.0 ± 10.0	V	90.0 ± 0.0	V		14,1	50.0 ± 5.8	III	60.0 ± 11.5	III	73.3 ± 6.7	IV
	18.0	90.0 ± 5.8	V	80.0 ± 10.0	IV	93.3 ± 3.3	V		18,0	63.3 ± 3.3	IV	80.0 ± 11.5	IV	83.3 ± 3.3	V
	22.7	90.0 ± 10.0	V	90.0 ± 10.0	V	86.7 ± 3.3	V		22,7	43.3 ± 6.7	III	86.7 ± 6.7	V	96.7 ± 3.3	V
	6.2	93.3 ± 3.3	V	93.3 ± 6.7	V	90.0 ± 5.8	V		6,2	70.0 ± 10.0	IV	70.0 ± 5.8	IV	86.7 ± 3.3	V
	10.0	93.3 ± 3.3	V	86.7 ± 8.8	V	80.0 ± 0.0	IV		10,0	80.0 ± 5.8	IV	76.7 ± 3.3	IV	96.7 ± 3.3	V
<i>H. myricariifolium</i>	14.1	96.7 ± 3.3	V	96.7 ± 3.3	V	83.3 ± 8.8	V	<i>P. pertomentellum</i>	14,1	76.7 ± 3.3	IV	73.3 ± 3.3	IV	96.7 ± 3.3	V
	18.0	90.0 ± 5.8	V	93.3 ± 3.3	V	96.7 ± 3.3	V		18,0	80.0 ± 0.0	IV	80.0 ± 5.8	IV	96.7 ± 3.3	V
	22.7	100.0 ± 0.0	V	100.0 ± 0.0	V	90.0 ± 0.0	V		22,7	86.7 ± 6.7	V	93.3 ± 6.7	V	96.7 ± 3.3	V
	6.2	30.0 ± 10.0	II	16.7 ± 3.3	I	56.7 ± 8.8	III		6,2	80.0 ± 0.0	IV	63.3 ± 8.8	IV	-16.7 ± 3.3	0
	10.0	43.3 ± 17.6	III	26.7 ± 8.8	II	20.0 ± 5.8	I		10,0	80.0 ± 5.8	IV	86.7 ± 3.3	V	40.0 ± 5.8	II
	14.1	33.3 ± 12.0	II	26.7 ± 6.7	II	20.0 ± 10.0	I		14,1	100.0 ± 0.0	V	100.0 ± 0.0	V	73.3 ± 6.7	IV
<i>I. verum</i>	18.0	23.3 ± 12.0	II	46.7 ± 8.8	III	20.0 ± 10.0	I	<i>R. officinalis</i>	18,0	93.3 ± 6.7	V	80.0 ± 5.8	V	93.3 ± 6.7	V
	22.7	83.3 ± 8.8	IV	63.3 ± 6.7	III	46.7 ± 3.3	III		22,7	93.3 ± 3.3	V	90.0 ± 0.0	V	93.3 ± 6.7	V
	6.2	-3.3 ± 3.3	0	3.3 ± 6.7	I	73.3 ± 6.7	IV		6,2	73.3 ± 12.0	IV	63.3 ± 6.7	IV	53.3 ± 3.3	III
	10.0	23.3 ± 3.3	II	16.7 ± 3.3	I	70.0 ± 5.8	IV		10,0	60.0 ± 10.0	III	73.3 ± 3.3	IV	70.0 ± 5.8	IV
	14.1	33.3 ± 3.3	II	36.7 ± 3.3	II	33.3 ± 6.7	II		14,1	73.3 ± 6.7	IV	80.0 ± 0.0	IV	76.7 ± 3.3	IV
	18.0	33.3 ± 5.8	II	40.0 ± 0.0	II	33.3 ± 6.7	II		18,0	63.3 ± 6.7	IV	73.3 ± 8.8	IV	70.0 ± 11.5	IV
<i>L. alba</i>	22.7	50.0 ± 5.8	III	46.7 ± 3.3	III	40.0 ± 5.8	II	<i>S. viminea</i>	22,7	76.7 ± 6.7	IV	73.3 ± 6.7	IV	70.0 ± 5.8	IV

<i>L. stoechas</i>	6.2	83.3 ± 3.3	V	93.3 ± 3.3	V	80.0 ± 10.0	IV	<i>X. discreta</i>	6,2	66.7 ± 8.8	IV	56.7 ± 8.8	III	80.0 ± 10.0	IV
	10.0	93.3 ± 6.7	V	100.0 ± 0.0	V	96.7 ± 3.3	V		10,0	56.7 ± 8.8	III	76.7 ± 6.7	IV	83.3 ± 8.8	V
	14.1	86.7 ± 8.8	V	86.7 ± 8.8	V	83.3 ± 3.3	V		14,1	66.7 ± 6.7	IV	63.3 ± 6.7	IV	83.3 ± 8.8	V
	18.0	93.3 ± 3.3	V	96.7 ± 3.3	V	80.0 ± 5.8	IV		18,0	80.0 ± 5.8	IV	80.0 ± 5.8	IV	93.3 ± 3.3	V
	22.7	90.0 ± 5.8	V	93.3 ± 6.7	V	90.0 ± 10.0	V		22,7	76.7 ± 6.7	IV	80.0 ± 5.8	IV	93.3 ± 3.3	V
Negative control								-	0.0 ± 5.8	0	1.0 ± 3.3	0	-0.8 ± 3.3	0	

*% repellency = class: <0.1 % = 0; 0.1 - 20 % = I; 20.1 - 40.0 % = II; 40.1 - 60.0 = III; 60.1 - 80.0% = IV; 80.1 - 100 % = V.