Supplementary Materials

(A) (B) (C)

Figure S1. A – Pheromone trap, June. B,C – Sticky insert after replacing at the end of July (B - the illuminated side of the crown, C – the shady side of the crown).

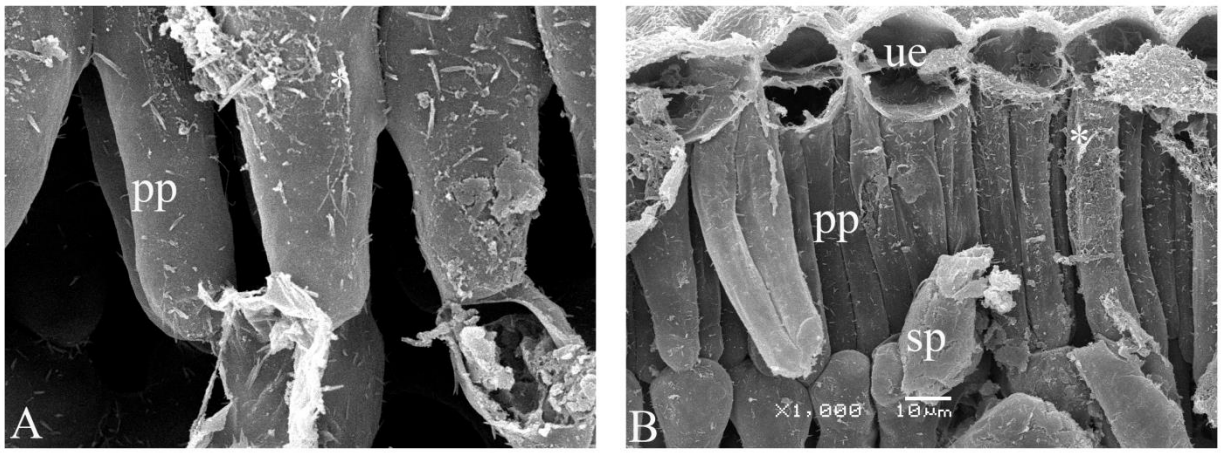

Figure S2. Calcium oxalate crystals in palisade parenchyma cells of *A. hippocastanum* leaves. A - the sunny side of the crown, B – the shady side of the crown. Abbreviations: ue-upper epidermis, pp-palisade parenchyma, sp-spongy parenchyma, * - calcium oxalate crystals.

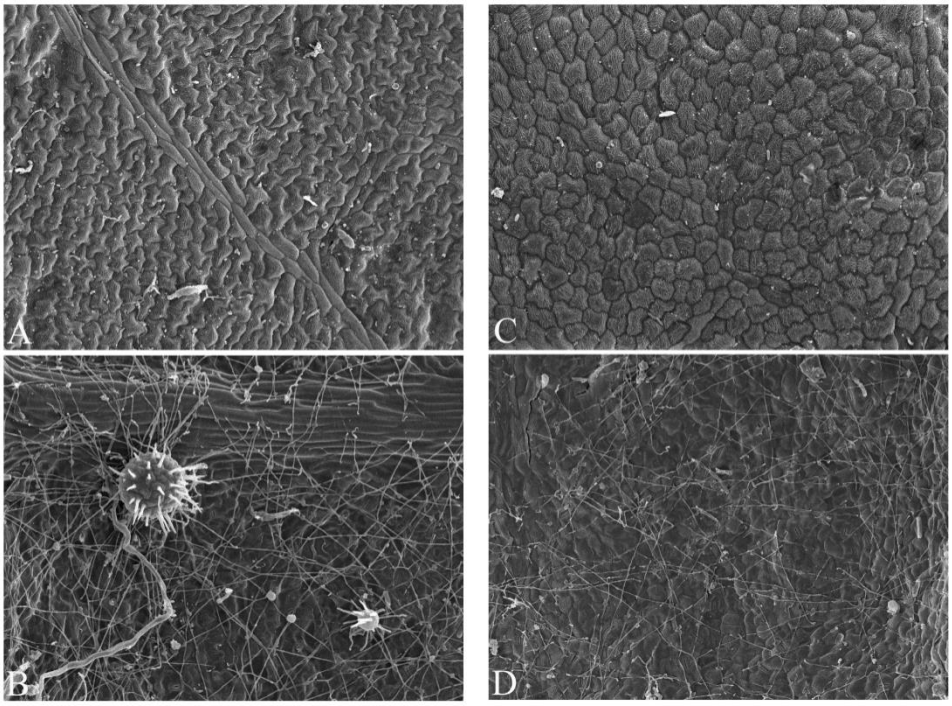

Figure S3. Fungal infection on the surface of *A. hippocastanum* leaves, on the sunny (A,B) and shady(C,D) sides of the crown.

Table S1. Organic compounds detected in the leaf extracts of *A. hippocastanum*, mass. % of the extract

	Rt, (min)	Metabolite	Peak height, mass. % of the extract	
			Shady side	Sunny side
1	10:01	D-erythro-2-pentulose	**0.41**	**0.60**
2	10:03	Glucopyranuronic acid	**0.49**	**0.14**
3	10:29	Butanedioic acid	0.08	0.02
4	10:32	Metanephrine	0.01	0.01
5	10:36	Cis-1.4-Cyclohexanedicarboxylic acid	0.05	0.02
6	10:47	Propanoic acid	0.05	0.04
7	10:52	Itaconoc acid	0.03	0.01
8	11:16	Erytrono-1.4-lactone	0.01	0.01
9	11:23	Ethoxyacetic acid	0.01	0.07
10	11:29	L-Alanine	0.06	0.01
11	11:51	Malonic acid	0.05	0.05
12	12:06	Monoamidoethelmalonic acid	0.04	0.03
13	12:12	2-Deoxyribolacton	0.01	0.01
14	12:47	Tetrmethyl-succinimide	0.19	0.07
15	12:52	Gluconic acid	0.05	0.03
16	12:53	3-Amino-2-piperidone	0.01	0.04

17	13:05	Arabinitol	0.01	0.01
18	13:08	L-5-Oxoproline	0.08	0.04
19	13:19	L-(+)—Lactic acid	0.03	0.03
20	13:22	Bucindolol	0.03	0.02
21	13:33	1-Deoxypentitol	0.06	0.07
22	13:37	2.3.4-Trihydroxybutiric acid	0.01	0.01
23	13:46	2-Amino-4.6-dihidroxypyrimidine	0.08	0.08
24	13:58	2-Butene-1,4 -diol	0.05	0.21
25	14:08	Glycolic acid	0.02	0.01
26	14:22	2-Imidazolidinon	0.06	0.08
27	14:29	D-(+)-Ribono-1,4-lactone	0.31	0.23
28	14:40	Phloroglucitol	0.05	0.10
29	14:42	Arabinaric acid	0.01	0.02
30	15:03	Arabinonic acid	0.05	0.02
31	15:08	D-(+)-Ribofuranose	0.01	0.01
32	15:14	4-Nitrophenil-b-D-galactofuranose	0.06	0.05
33	15:19	2-Hidroxyoctanoic acid	0.01	0.10
34	15:23	Levoglucosan	0.01	0.01
35	15:38	L-(-)-Arabitol	0.29	1.70
36	15:48	D-Fucitol	0.44	0.95
37	15:56	1,5-Anhydroglucitol	0.06	1.34
38	16:05	D-Mannotol	0.55	0.01
39	16:06	Gluconolactone	0.01	1.25
40	16:11	Ribonic acid	0.36	0.97
41	16:25	Methyl-a-D-glucofuranoside	0.70	0.55
42	16:32	D-Psicofuranose	9.48	9.15
43	16:37	1,5-Angidroglucitol	10.33	8.71
44	16:39	D-(-)-Tagatofuranose	0.48	0.01
45	16:52	DL- Arabinofuranoside	3.04	2.66
46	16:57	Methyl galactoside	5.25	6.12
47	17:06	Quininic acid	11.75	7.50
48	17:18	Idonic acid	0.01	0.06
49	17:24	Gluonic acid	8.29	7.39
50	17:30	b-D-(+)-Talophyranose	2.40	1.87
51	17:38	Scillo-Inositol	1.26	1.80
52	17:49	D-Sorbitol	0.03	0.01
53	17:53	D-Galactose	0.09	0.13
54	17:55	Gallic acid	0.12	0.42

55	18:07	Talofuranose	1.30	1.63
56	18:20	Galactinol	15.19	10.59
57	18:27	D-Glucitol	0.60	0.94
58	18:34	Palmitic acid	0.01	0.27
59	18:35	1.5-Angydroglucitol	0.08	0.01
60	18:49	D-Fucitol	0.04	0.05
61	19:03	Maltose	0.03	0.07
62	19:06	Deoxyglucose	0.19	0.12
63	19:13	a-D-Ribofuranose	0.28	0.12
64	19:22	L-Sorbopyranose	0.15	0.09
65	19:41	Arabinofuranose	0.07	0.11
66	20:03	9,12-Octadecadienoic acid	0.03	0.01
67	20:13	Ethyl-a-D-glucopyranoside	0.01	0.04
68	20:15	D-(+)- Cellobiose	0.13	0.01
69	20:19	Ethyl-a-D-glucopyranoside	0.01	0.04
70	20:21	Lactulose	0.03	0.01
71	21:22	Glyceril glicoside	0.01	0.06
72	20:43	D-Psicopyranose	0.03	0.05
73	21:51	D-(+)-Galacturonic acid	0.03	0.49
74	22:07	Dodecanoic acid	0.01	0.07
75	22:11	L-Rhamnose	0.03	0.04
76	22:20	D-Lactitol	0.02	0.01
77	22:35	L-Fucose	0.01	0.08
78	22:43	D-Xylose	0.01	0.01
79	22:50	N-Acetyl-D-glucosamine	0.01	0.51
80	23:04	Glucosylspingosine	2.31	6.67
81	23:10	1-Monopalmitin	0.77	0.01
82	23:17	Scopolin	0.03	0.09
83	23:39	D-Turanose	3.28	0.06
84	23:42	Methyl-a-N-acetyl-D-galactoside	0.01	5.20
85	23:55	D-(-)-Sorbofuranose	1.85	1.55
86	24:08	Maltitol	3.96	0.12
87	24:12	D-Trehalose	1.50	2.52
88	24:18	D-(-)-Xylophyranose	0.01	5.63
89	24:36	1-c-Octylhexopyranose	2.13	1.95
90	25:14	b-GentiobioseD-(+)_ScoDimethyl hexopyranose	0.01	0.02
91	25:23	DL-Arabinopyranose	2.62	2.54
92	25:37	4-Aminosalicylic acid	2.03	0.01

93	25:54	b-Lyxopyranose	0.44	0.01
94	26:15	5-Aminosalicylic acid	0.01	0.31
95	27:51	a-D-Lactose	0.01	0.31
96	36:40	Sinapinic acid	0.27	0.36
97	34:46	Thymol-b-a-glucopyranoside	0.16	0.01
98	37:50	D-Ribofuranose	0.72	0.38
99	38:02	Betulinic acid	0.41	0.44
100	38:16	Oleanolic acid	0.01	0.05