Supplementary Table 1

Comparison	Treatment (µg/L Diflubenzuron)	Result
Cohort 1 vs 2 avg worker weights[a]	Syrup-only	$t = 1.809$; df = 4; $P = 0.1448$
	VC	$t = 2.649$; df = 4; $P = 0.0571$
	0.1	$t = 0.09544$; df = 4; $P = 0.9286$
	1	$t = 1.326$; df = 4; $P = 0.2556$
	10	$t = 0.2926$; df = 4; $P = 0.7844$
	100	$t = 0.4010$; df = 4; $P = 0.7089$
	1000	$t = 0.7212$; df = 4; $P = 0.5107$
Cohort 1 vs 2 avg syrup consumption[a]	Syrup-only controls	$t = 0.1745$; df = 4; P = 0.5107
	VC	$t = 0.2605$; df = 4; $P = 0.8074$
	0.1	$t = 0.1305$; df = 4; $P = 0.9025$
	1	$t = 0.1950$; df = 4; $P = 0.8549$
	10	$t = 1.694$; df = 4; $P = 0.1655$
	100	$t = 0.8830$; df = 4; $P = 0.4271$
	1000	$t = 0.1562$; df = 4; $P = 0.8835$
Cohort 1 vs 2 avg pollen consumption[a]	Syrup-only controls	$t = 0.7722$; df = 4; $P = 0.4831$
	VC	$t = 1.995$; df = 4; $P = 0.1167$
	0.1	$t = 0.4318$; df = 4; $P = 0.6882$
	1	$t = 0.3326$; df = 4; $P = 0.7561$
	10	$t = 0.1615$; df = 4; $P = 0.8795$
	100	$t = 0.8961$; df = 4; $P = 0.4208$
	1000	$t = 1.381$; df = 4; $P = 0.2393$
Total avg syrup consumption[a]	Syrup-only vs VC	$t = 1.957$; df = 10; $P = 0.0788$
Total avg pollen consumption[a]	Syrup-only vs VC	$t = 0.2001$; df = 10; $P = 0.8054$
Avg drone weight[a]	Syrup-only vs VC	$t = 0.9623$; df = 10; $P = 0.3586$
Avg initiating worker weights[b]	VC, 0.1, 1, 10, 100, 1000	$F = 0.4697$; df = 6,35; $P = 0.8260$
Worker mortality[c]	VC, 0.1, 1, 10, 100, 1000	*Kruskal-Wallis statistic = 6.875; P = 0.2301*

[a]Student's t-test; [b]One-way ANOVA with Tukey's multiple comparisons test; [c]Kruskal-Wallis with Dunn's multiple comparisons test. VC = Vehicle control.

Supplementary Table 2

Mortality per treatment group of 30 bees	
Vehicle Control	1
0.1	0
1	1
10	2
100	1
1000	3

Supplementary Table 3

Microcolony syrup consumption		
Syrup consumption week 1	**Avg (g)**	**SD**
Vehicle Control	11.06	1.197
0.1	9.94	1.298
1	10.19	0.9452
10	10.10	1.769
100	10.29	1.953
1000	9.631	1.40
Syrup consumption week 2	**Avg (g)**	**SD**
Vehicle Control	14.67	1.103
0.1	14.07	0.9847
1	14.92	2.107
10	15.12	0.8946
100	15.00	1.312
1000	13.20	0.612
Syrup consumption week 3	**Avg (g)**	**SD**
Vehicle Control	18.03	1.477
0.1	18.29	2.014
1	16.70	1.787
10	18.28	2.076
100	19.23	2.469
1000	15.69	1.001
Syrup consumption week 4	**Avg (g)**	**SD**
Vehicle Control	19.76	0.821
0.1	18.49	1.274
1	18.63	2.372
10	18.95	0.8158
100	19.09	2.31
1000	16.55	1.268
Syrup consumption week 5	**Avg (g)**	**SD**
Vehicle Control	17.8	2.441
0.1	17.21	1.957
1	18.04	1.609
10	16.47	1.418
100	17.53	0.6213
1000	15.17	1.381
Syrup consumption week 6	**Avg (g)**	**SD**
Vehicle Control	13.72	1.2
0.1	13.65	1.631
1	13.5	1.611
10	14.66	2.416
100	14.14	1.709
1000	12.9	1.285
Total syrup consumption	**Avg (g)**	**SD**
Vehicle Control	94.96	4.921
0.1	91.57	7.306
1	91.9	7.374

10	93.5	4.714
100	95.19	7.092
1000	83.07	2.662

Supplementary Table 4

Microcolony pollen consumption		
Pollen consumption week 2	**Avg (g)**	**SD**
Vehicle Control	1.196	0.1558
0.1	1.033	0.1767
1	1.004	0.0836
10	1.098	0.1005
100	0.764	0.1103
1000	0.5647	0.1069
Pollen consumption week 3	**Avg (g)**	**SD**
Vehicle Control	2.477	0.2108
0.1	2.133	0.5551
1	2.431	0.5709
10	2.556	0.1786
100	1.424	0.2175
1000	0.7192	0.1399
Pollen consumption week 4	**Avg (g)**	**SD**
Vehicle Control	2.372	0.2900
0.1	2.250	0.1949
1	2.363	0.3729
10	2.335	0.4499
100	1.148	0.2308
1000	0.7673	0.2501
Pollen consumption week 5	**Avg (g)**	**SD**
Vehicle Control	1.773	0.1012
0.1	1.847	0.3669
1	1.926	0.5316
10	1.563	0.3294
100	0.8912	0.1507
1000	0.776	0.2443
Pollen consumption week 6	**Avg (g)**	**SD**
Vehicle Control	1.451	0.2025
0.1	1.347	0.1795
1	1.380	0.2892
10	1.337	0.1724
100	0.9147	0.1084
1000	0.640	0.0986
Total pollen consumption	**Avg (g)**	**SD**
Vehicle Control	8.798	0.4338
0.1	8.141	0.5191
1	8.635	0.9349
10	8.419	0.8890
100	4.673	0.5211

1000	2.998	0.6904

Supplementary Table 5

Microcolony drone production		
Drone emergence day 37	**Avg (g)**	**SD**
Vehicle Control	1.8	0.75
0.1	2.3	1.03
1	1.3	1.21
10	1.5	0.55
100	0.67	0.52
1000	0	0
Drone emergence day 40	**Avg (g)**	**SD**
Vehicle Control	5.5	1.52
0.1	5.5	1.64
1	5.67	1.37
10	3.3	1.75
100	2	1.1
1000	0	0
Drone emergence day 42	**Avg (g)**	**SD**
Vehicle Control	6.3	2.25
0.1	4.5	1.6
1	5.2	1.5
10	3.3	0.82
100	2.3	0.82
1000	0.17	0.41
Total drones emerged	**Avg (g)**	**SD**
Vehicle Control	13.2	2.8
0.1	12.5	1.4
1	12.2	1.9
10	8.2	2.2
100	5.0	1.4
1000	0.17	0.41