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antiparasitaire

Table 1: Analytical results for samples collected in relation to 2015 honey bee mortality incidents in ‘Sand Yard’ and ‘A1 Dump Yard’ for ONBK6 (Schuitt)

Bee yard ID	Sample type	Sample ID	Description	Date Sampled (YYYY-MM-DD)	Active	Reportable value (ppb)
Sand Yard	Dead Bees	ON-2015-BEE-055	Affected hive- sampled by OMAFRA bee inspector	2015-07-15	Malathion	<LOQ (11)
					Methomyl	<LOQ (11)
	Live Bees	ON-2015-BEE-056	Affected hive- sampled by OMAFRA bee inspector	2015-07-15	Thiamethoxam	0.82
					Clothianidin	<LOQ (0.26)
	Comb Pollen	ON-2015-BEE-057	Affected hive- sampled by OMAFRA bee inspector	2015-07-15	Acetamiprid	1.87
A1 Dump Yard	Comb pollen	ON-2015-BEE-032	affected hive -sampled by omafra bee inspector	2015-07-12	Clothianidin	1.36
					Thiamethoxam	<LOQ (0.12)
	Comb pollen	ON-2015-BEE-033	affected hive -sampled by omafra bee inspector	2015-07-12	Clothianidin	4.21
					Cypermethrin	<LOQ (53)
	Comb pollen	ON-2015-BEE-029	Affected Hive. Collected by M.Stevenson	2015-07-14	Clothianidin	52.3
					Acetamiprid	<LOQ (0.0499)
					Fludioxonil	55
	Live bees	ON-2015-BEE-034	affected hive -sampled by omafra bee inspector	2015-07-12	Thiamethoxam	4.12
					Clothianidin	4.48
					Imidacloprid	<LOQ (0.42)
Live bees	ON-2015-BEE-035	affected hive -sampled by omafra bee inspector	2015-07-12	Cypermethrin	<LOQ (134)	
Vegetation	ON-2015-BEE-031	canola field in bloom approx 0.25 km from bee yard	2015-07-14	Clothianidin	<LOQ (0.62)	
Dead bees	ON-2015-BEE-030	Affected hive	2015-07-14	ND	ND	

IQ = insufficient quantity to analyze

ND = no detection of pesticides that were analyzed by the lab; see attached list

LOQ = Limit of quantification – see Table 4 for values

Table 2: Analytical results for samples collected in relation to 2015 honey bee mortality incidents in ‘Apple Jim Yard’, ‘Bear Yard’, Bull Yard’ and ‘Crevice Yard’ for ONBK6 (Schuitt)

Bee yard ID	Sample type	Sample ID	Description	Date Sampled (YYYY-MM-DD)	Active	Reportable value (ppb)
Apple Jim Yard	Comb Pollen	ON-2015-BEE-039	affected hive - sampled by omafra bee inspector	2015-07-08	Thiamethoxam	1.01
					Clothianidin	4.79
	Live Bees	ON-2015-BEE-040	affected hive - sampled by omafra bee inspector	2015-07-08	N.D.	N.D.
	Nectar	ON-2015-BEE-039	affected hive - sampled by omafra bee inspector	2015-07-08	Thiamethoxam	246
					Clothianidin	1.11
Imidacloprid					232	
Bear Yard	Dead bees	ON-2015-BEE-051	affected hives -sampled by M. Stevenson	2015-07-14	Thiamethoxam	<LOQ (0.001)
					Clothianidin	<LOQ (0.002)
	Comb pollen	ON-2015-BEE-052	affected hives -sampled by M. Stevenson	2015-07-14	Thiamethoxam	<LOQ (0.172)
					Clothianidin	<LOQ (0.15)
Bull Yard	Dead bees	ON-2015-BEE-036	affected hives	2015-07-14	Thiamethoxam	<LOQ (0.18)
					Clothianidin	5.53
					Coumaphos	<LOQ (11)
	Comb Pollen	ON-2015-BEE-037	affected hives	2015-07-14	Thiamethoxam	3.09
					Clothianidin	2.46
					Imidacloprid	<LOQ (0.09)
	Vegetation	ON-2015-BEE-038	affected hives	2015-07-14	Thiamethoxam	<LOQ (0.049)
Clothianidin					1.2	
Crevice Yard	Dead Bees	ON-2015-BEE-042	affected hives -sampled by M. Stevenson	2015-07-14	Malathion	<LOQ (11)
					Methomyl	<LOQ (11)
	Comb Pollen	ON-2015-BEE-041	affected hives -sampled by M. Stevenson	2015-07-14	Thiamethoxam	<LOQ (0.14)
					Clothianidin	<LOQ (0.46)
					Imidacloprid	<LOQ (0.14)
					Coumpahos	<LOQ (8)
	Comb Pollen	ON-2015-BEE-043	affected hives -sampled by M. Stevenson	2015-07-08	Fludioxonil	<LOQ (4)
	Comb Pollen	ON-2015-BEE-046	affected hives -sampled by M. Stevenson	2015-07-08	Thiamethoxam	16.2
Clothianidin					13.2	

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LOQ = Limit of quantification – see Table 4 for values

Table 3: Analytical results for samples collected in relation to 2015 honey bee mortality incidents in ‘Doug Yard’, ‘Pumpkin Toss Yard’ and ‘Railway Yard’ for ONBK6 (Schuitt)

Bee yard ID	Sample type	Sample ID	Description	Date Sampled (YYYY-MM-DD)	Active	Reportable value (ppb)
Doug Yard	Live Bees	ON-2015-BEE-049	affected hive -sampled by omafra bee inspector	2015-07-12	Thiamethoxam	8.11
					Clothianidin	11.6
	Comb Pollen	ON-2015-BEE-050	affected hive -sampled by omafra bee inspector	2015-07-12	Thiamethoxam	0.63
					Clothianidin	7.09
	Live Bees	ON-2015-BEE-047	affected hive -sampled by omafra bee inspector	2015-07-12	Thiamethoxam	10.1
					Clothianidin	7.77
	Comb Pollen	ON-2015-BEE-048	affected hive -sampled by omafra bee inspector	2015-07-12	Thiamethoxam	21.4
					Clothianidin	34.8
Pumpkin Toss Yard	Vegetation	ON-2015-BEE-028	canola field in bloom approx 2 km from bee yard	2015-07-14	Clothianidin	16.2
					Fludioxonil	32
	Comb Pollen	ON-2015-BEE-027	Comb with pollen collected by M. Stevenson	2015-07-14	Cypermethrin	<LOQ (53)
Railway Yard	Comb Pollen	ON-2015-BEE-054	affected hives -sampled by M. Stevenson	2015-07-15	Thiamethoxam	1.65
					Clothianidin	<LOQ (0.929)
	Dead Bees	ON-2015-BEE-053	affected hives -sampled by M. Stevenson	2015-07-15	Thiamethoxam	<LOQ (0.45)
					Clothianidin	7.02

IQ = insufficient quantity to analyze

ND = no detection of pesticides that were analyzed by the lab; see attached list

LOQ = Limit of quantification – see Table 4 for values

Table 4: Limit of Detection (LOD) and Limit of Quantification (LOQ) for all pesticides analyzed

Pesticide	Soil		Water		Vegetation		Pollen		Bees		Nectar	
	LOD (ppb)	LOQ (ppb)	LOD (ppb)	LOQ (ppb)	LOD (ppb)	LOQ (ppb)	LOD (ppb)	LOQ (ppb)	LOD (ppb)	LOQ (ppb)	LOD (ppb)	LOQ (ppb)
Thiamethoxam	0.005	0.064	0.0008	0.0128	0.018	0.064	0.09	0.48	0.12	0.48	0.02	0.064
Clothianidin	0.079	0.32	0.0022	0.064	0.1	0.32	0.25	0.96	0.21	0.96	0.035	0.32
Imidacloprid	0.086	0.32	0.0011	0.064	0.061	0.32	0.07	0.48	0.07	0.48	0.018	0.32
Acetamiprid	0.002	0.032	0.0002	0.0064	0.005	0.032	0.03	0.24	0.02	0.24	0.005	0.032
Azoxystrobin	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4
Carbaryl	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4
Carbofuran	11	32	0.17	1	2	6.4	4	13	11	32	2	6.4
Chlorpyrifos	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Coumaphos	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4
Cyhalothrin-lambda	533	1600	0.83	5	107	320	213	640	533	1600	107	320
Cypermethrin	53	160	0.08	0.5	11	32	21	64	53	160	11	32
Deltamethrin	53	160	0.08	0.5	11	32	21	64	53	160	11	32
Diazinon	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4
Dimethoate	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Fenbuconazole	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Fenitrothion	533	1600	0.83	5	107	320	213	640	533	1600	107	320
Fipronil	11	32	0.02	0.1	4	12.8	4	13	11	32	4	12.8
Fludioxonil	11	32	0.02	0.1	4	12.8	4	13	11	32	4	12.8
Ipconazole	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Iprodione	533	1600	0.83	5	107	320	213	640	533	1600	107	320
Malathion	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Metalaxyl-M	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4
Metconazole	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Methomyl	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Myclobutanil	11	32	0.02	0.1	2	6.4	8	26	11	32	2	6.4
Permethrin	53	160	0.08	0.5	11	32	21	64	53	160	11	32
Phosmet	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Propiconazole	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Prothioconazole	53	160	0.08	0.5	22	64	21	64	53	160	22	64
Spinetoram	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Spirotetramat	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Tau-fluvalinate	53	160	0.08	0.5	11	32	21	64	53	160	11	32
Tebuconazole	53	160	0.08	0.5	11	32	21	64	53	160	11	32
Thiacloprid	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4
Thiabendazole	11	32	0.02	0.1	2	6.4	4	13	11	32	2	6.4
Trichlorfon	53	160	0.08	0.5	11	32	21	64	53	160	11	32
Trifloxystrobin	11	32	0.02	1	2	6.4	4	13	11	32	2	6.4