S1 Appendix. Environmental half-lives and LD_{50} values used in AITL assessment

Active ingredient	Half-life (days)	Study Type	Citation	Contact LD50 (µg/bee)	Oral LD50 (µg/bee)	Citation
Abamectin	1	EU Field	[1]	0.0022	0.0063	[3] [4] [5]
Acephate	3	EU Field	[1]	1.1	1.4	[1] [5] [6]
Acetamiprid	3	EU Field	[1]	8.1	14.8	[1] [3] [5] [8]
Aldicarb	2	EU Field	[1]	0.31	0.12	[1] [5] [6] [7] [9]
Aldrin	365	EU Field	[1]	0.35	0.35	[1] [9] [16]
Azadirachtin	26	DPR Aerobic	[2]	25	8.1	[4] [5]
Azinphos-methyl	10	EU Soil	[1]	0.12	0.15	[1] [5] [15] [24]
Bifenazate	4.7	EU Field	[1]	7.9	110.0	[3] [5]
Bifenthrin	86.8	EU Field	[1]	0.074	0.29	[1] [3] [5] [6]
Carbaryl	16	EU Soil	[1]	0.54	0.18	[1] [5] [6] [7] [15] [32]
Carbofuran	14	EU Field	[1]	0.12	0.05	[1] [5] [6] [9]
Chlorantraniliprole	210	EU Soil	[1]	100	104	[1] [3] [5]
Chlordane	365	EU Soil	[1]	6.9	NR	[1] [5] [9] [15]
Chlorethoxyphos	3	EU Field	[1]	0.07	NR	[1] [5]
Chlorpyrifos	21	EU Field	[1]	0.059	0.25	[1] [3] [5] [6] [7] [15]
Clothianidin	121.2	EU Field	[1]	0.041	0.0079	[1] [3] [5] [6] [10]
Cyfluthrin-beta	13	EU Field	[1]	0.013	0.04	[1] [5] [6] [20]
Cyhalothrin-lambda	25	EU Soil	[1]	0.06	0.26	[1] [6] [7] [16] [23]
Cypermethrin	35	EU Field	[1]	0.027	0.058	[1] [3] [5] [6] [7] [18] [19]

Active ingredient	Half-life (days)	Study Type	Citation	Contact LD50 (µg/bee)	Oral LD50 (µg/bee)	Citation
Cypermethrin, zeta	10	EU Field	[1]	0.027	0.058	[1] [3] [5] [6] [7] [18] [19]
DDT	6200	EU Soil	[1]	5.5	5.3	[5] [6] [15]
Deltamethrin	21	EU Field	[1]	0.038	0.011	[1] [3] [5] [6] [7][16] [23]
Demeton	2.7	DPR Aerobic	[2]	2.6	NR	[1] [5]
Diazinon	18.4	EU Field	[1]	0.28	0.17	[1] [5] [6] [15]
Dicofol	80	EU Soil	[1]	12	50	[1] [5] [15]
Dicrotophos	28	EU Soil	[1]	0.076	0.068	[1] [5] [15]
Dienochlor	300	EU Soil	[1]	36	NR	[1]
Dimethoate	7.2	EU Field	[1]	0.12	0.12	[1] [5] [6] [7] [15]
Dinotefuran	75	EU Field	[1]	0.03	0.04	[1] [5] [6] [13]
Disulfoton	30	EU Soil	[1]	4.5	28	[1] [5] [7] [15]
Emamectin benzoate	211	DPR Aerobic	[2]	0.0035	NR	[3][5]
Endosulfan	86	EU Field	[1]	6.7	6.5	[5] [6] [7] [15]
Esfenvalerate	44	EU Field	[1]	0.04	0.21	[1] [3] [5] [6] [21]
Ethion	90	EU Soil	[1]	20.60	NR	[1] [5]
Ethoprop	23	EU Field	[1]	4.07	NR	[1] [3] [5]
Fenamiphos	1.8	EU Field	[1]	1.08	0.45	[1] [5]
Fenbutatin-oxide	95	EU Field	[1]	3982	200	[1] [5]
Fenoxycarb	5.94	EU Field	[1]	204	1000	[1] [3] [5]
Fenpropathrin	28	EU Field	[1]	0.050	NR	[1]
Fenvalerate	40	EU Soil	[1]	0.32	NR	[1] [5] [16]
Fipronil	65	EU Field	[1]	0.009	0.003	[1] [5] [6] [7]
Fonofos	40	EU Field	[1]	6.0	8.4	[1] [5] [15]

Active ingredient	Half-life (days)	Study Type	Citation	Contact LD50 (µg/bee)	Oral LD50 (µg/bee)	Citation
Hydramethylnon	7	EU Field	[1]	67	NR	[1] [5]
Imidacloprid	174	EU Field	[1]	0.043	0.0037	[1] [3] [5] [6] [7] [11]
Indoxacarb	20	EU Field	[1]	0.10	0.18	[1] [3] [5]
Isofenphos	150	EU Soil	[1]	0.049	NR	[5]
Lindane	148	EU Field	[1]	0.36	0.12	[1] [5] [6] [15]
Malathion	1	EU Field	[1]	0.21	0.38	[1] [3] [5] [15]
Methamidophos	4	EU Field	[1]	1.37	0.22	[1] [9]
Methidathion	7	EU Field	[1]	0.237	NR	[1] [5] [9] [11]
Methiocarb	35	EU Field	[1]	0.30	0.47	[1] [3] [5] [9]
Methomyl	7	EU Soil	[1]	0.47	0.72	[1] [3] [5] [6] [9]
Methoxychlor	120	EU Soil	[1]	23.6	5.0	[1] [5]
Methyl parathion	10	EU Field	[1]	0.22	NR	[5] [9] [16]
Mevinphos	1.2	EU Soil	[1]	0.07	0.027	[5] [15]
Monocrotophos	30	EU Field	[1]	0.36	0.02	[1] [9]
Naled	1	EU Soil	[1]	0.48	NR	[5] [9]
Oxamyl	11	EU Field	[1]	1.32	0.32	[1] [5] [7] [9] [15]
Oxydemeton-methyl	5	EU Field	[1]	0.90	0.25	[1] [5] [9] [15]
Parathion	17	EU Field	[1]	0.11	NR	[5] [9] [23]
Permethrin	42	EU Field	[1]	0.075	0.19	[1] [5] [6] [7] [9] [15]
Phorate	63	EU Field	[1]	0.89	0.44	[1] [5] [6] [9] [15]
Phosmet	7	EU Field	[1]	0.79	0.37	[1] [3] [5] [6] [7] [9]
Phosphamidon	12	EU Field	[1]	1.46	NR	[1] [5] [7] [9]
Pirimicarb	9	EU Field	[1]	35.5	3.7	[1] [3] [9] [10] [15]

Active ingredient	Half-life (days)	Study Type	Citation	Contact LD50 (µg/bee)	Oral LD50 (µg/bee)	Citation
Profenofos	7	EU Field	[1]	0.095	NR	[1] [5]
Propargite	16.7	EU Field	[1]	38	100	[1] [5]
Pyrethrins	8	DPR Aerobic	[2]	0.094	0.15	[3] [5] [15]
Pyridaben	29	EU Field	[1]	0.13	1.58	[1] [5] [6]
Spinetoram (mixture of J and L)	16.1	EU Soil	[1]	0.026	0.082	[1] [3] [5]
Spinosad (mixture ofA and D)	14	DPR Aerobic	[2]	0.0038	0.055	[4] [5] [7] [17]
Spirodiclofen	7	EU Soil	[1]	200	196	[1] [3] [5]
Spiromesifen	2.1	EU Field	[1]	200	792	[1] [5]
Sulfoxaflor	2.2	EU Soil	[1]	0.23	0.16	[1] [5] [14] [22]
Tau-fluvalinate	4	EU Soil	[1]	10	12.6	[1] [3] [7]
Tefluthrin	27.1	EU Field	[1]	0.22	1.81	[1] [3] [5]
Terbufos	12	EU Field	[1]	0.41	4.09	[1] [5] [9]
Thiacloprid	18	EU Field	[1]	26	18	[1] [3] [5] [7]
Thiamethoxam	39	EU Field	[1]	0.015	0.005	[1] [3] [5] [6] [7]
Toxaphene	9	EU Field	[1]	50	20	[5]
Tralomethrin	3	EU Soil	[1]	0.13	NR	[1] [5]
Trichlorfon	18	EU Soil	[1]	4.40	0.4	[1] [5] [7] [25]

NR: No values identified or reported in the published literature.

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