

SUPPLEMENTARY MATERIALS

Assessment of five pesticides as endocrine-disrupting chemicals: effects on estrogen receptors and aromatase

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Table S.1. Characteristics of the five tested pesticides (PubChem database, available at <https://pubchem.ncbi.nlm.nih.gov/>).

Name	CAS number	Molecular weight	Molecular formula	Octanol/water partition coefficient (log Kow)	Bioconcentration factor (BCF)
Acetamiprid	160430-64-8	222.67	C ₁₀ H ₁₁ ClN ₄	0.8	3
Clothianidin	210880-92-5	249.68	C ₆ H ₈ ClN ₅ O ₂ S	0.7	3
Thiamethoxam	153719-23-4	291.71	C ₈ H ₁₀ ClN ₅ O ₃ S	-0.13	3
Methiocarb	2032-65-7	225.31	C ₁₁ H ₁₅ NO ₂ S	2.92	35
Oxadiazon	19666-30-9	345.22	C ₁₅ H ₁₈ Cl ₂ N ₂ O ₃	4.80	from 24.1 to 708

Table S.2 Environmental concentrations of the five tested pesticides in comparison with the concentrations tested in the present study with the MELN gene reporter assay.

Pesticide	Environmental concentrations (ng/L) - see references	Tested concentrations using MELN gene reporter assay (ng/L) - present study	Effect on gene reporter assay - present study	References
Acetamiprid	Surface water = 20 - 380 ng/L	434,210 - 222,670,000	None	[1]
Clothianidin	Surface water = 20 - 420 ng/L	486,880 - 249,680,000	None	[1]
Thiamethoxam	Surface water = 40 - 1580 ng/L	568,830 - 291,710,000	None	[1]
Methiocarb	Groundwater = 300 - 5,400 ng/L; wastewaters = 4.73 - 14.92 ng/L	439,350 - 22,531,000	effect starting from 880,962.1 ng/L	[1,2]
Oxadiazon	Surface water = 4 - 1440 ng/L	673,180 - 34,522,000	None	[1]

References

1. Barbosa, M.O.; Moreira, N.F.F.; Ribeiro, A.R.; Pereira, M.F.R.; Silva, A.M.T. Occurrence and Removal of Organic Micropollutants: An Overview of the Watch List of EU Decision 2015/495. *Water Research* **2016**, *94*, 257–279, doi:10.1016/j.watres.2016.02.047.
2. Jurado, A.; Walther, M.; Díaz-Cruz, M.S. Occurrence, Fate and Environmental Risk Assessment of the Organic Microcontaminants Included in the Watch Lists Set by EU Decisions 2015/495 and 2018/840 in the Groundwater of Spain. *Science of the Total Environment* **2019**, *663*, 285–296, doi:10.1016/j.scitotenv.2019.01.270.