Supplemental Materials for the paper: Pesticide exposure in small streams in Germany

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1 Data Cleaning

More then 30 datasets have been cleaned and homogenized separately, before combing into a common database. Cleaning steps comprised (Figure S1 gives a graphical overview).

1. Structure: Structure has been adjusted to the database structure.
2. Coordinates: Coordinates have been transformed to a common Coordinate Reference System (DHDN / 3-Grad Gauss-Krüger Zone 3 (EPSG:31467)) and duplicates merged.
3. Chemicals: Chemical names and identifiers have been unified using the webchem package (Szöcs, 2016).
4. Identifiers: Unique identifiers have been assigned.
5. Units: All concentrations have been converted to $\mu g/L$. Values below limit of quantification have be set to zero.
6. Other meta-data: meta-data has been standardised.
7. Temporal resolution: The temporal resolution of the database is 1 day. Date below this resolution has been aggregated by maximum.
8. Validity Checks: Simple rules for validity checks have been implemented (e.g. no negative concentrations).

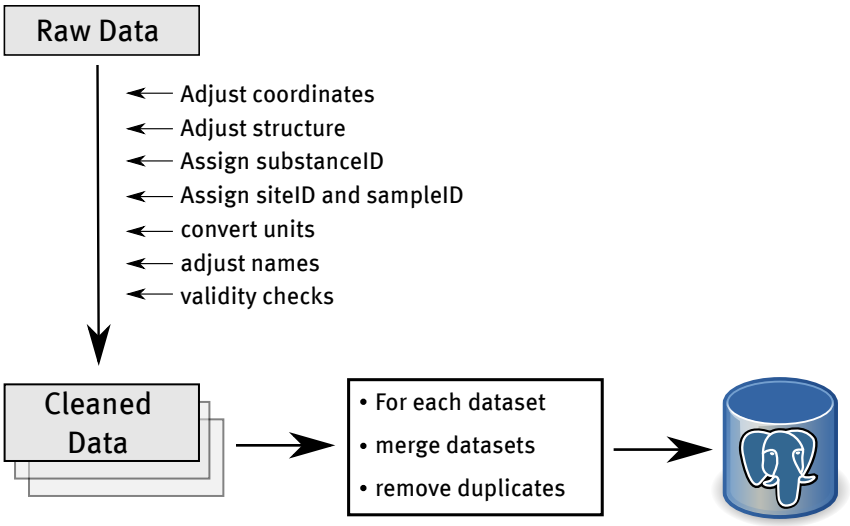

Figure S1: Overview on data cleaning steps. After cleaning data has been stored in a relational spatial PostgreSQL database.

2 Catchment size - stream width relationships

We studied the relationship between catchment size based on three datasets containing this informations: Data delivered by the federal state Thuringia, Voß et al. (2015) and Fernández et al. (2015) (both from Rhineland-Palatinate). We fitted to each dataset separately and to the combined dataset a power-function. The resulting models are shown in Figure S2.

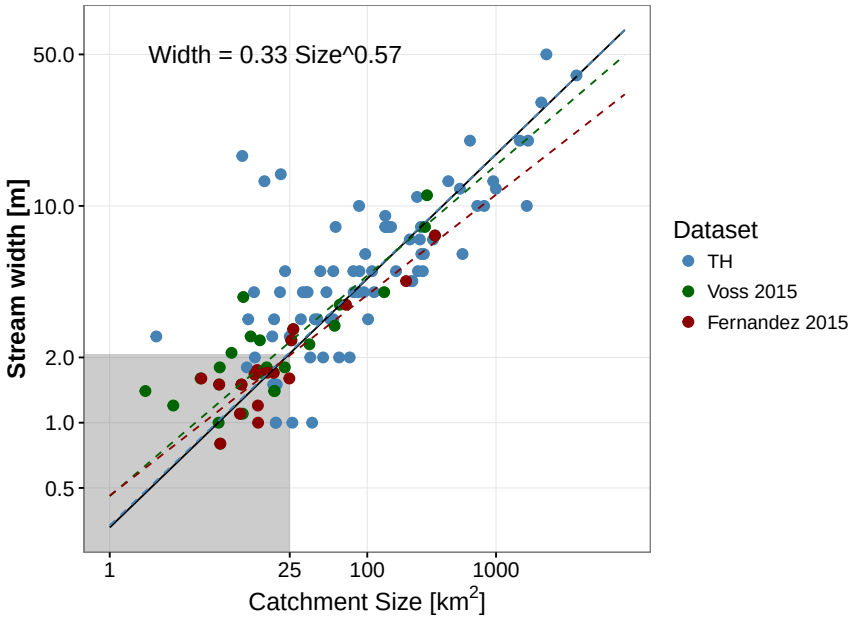

Figure S2: Relationship between catchment size and stream width. A power function has been fitted to each dataset separately and the combined dataset (black line and equation). The gray rectangle marks the estimated with for a catchment size of 25km^2.

3 Overview on compiled data

Table S1: Overview on chemical samples. Only data from running waters and grab sampling is shown. [a]: Abbreviations according to ISO 3166-2:DE. [b]: Including metabolites

state [a]	begin	end	no.sites	no.samples	no.compounds [b]
BW	2005-01-03	2014-10-02	118	4569	127
BY	2006-04-19	2013-12-18	19	297	157
HE	2007-01-15	2014-12-18	68	2512	144
MV	2005-03-08	2014-12-17	135	1535	227
NI	2014-03-24	2014-10-13	3	17	226
NW	2005-01-11	2015-01-22	1320	10985	204
RP	2005-01-05	2013-12-18	44	1277	278
SH	2005-04-26	2014-11-26	273	1419	180
SL	2005-01-03	2013-12-09	6	420	57
SN	2005-01-02	2013-12-18	917	17052	173
ST	2005-01-10	2015-03-25	46	712	93
TH	2005-01-31	2014-12-10	100	1441	76
Total	2005-01-02	2015-03-25	3049	42236	484

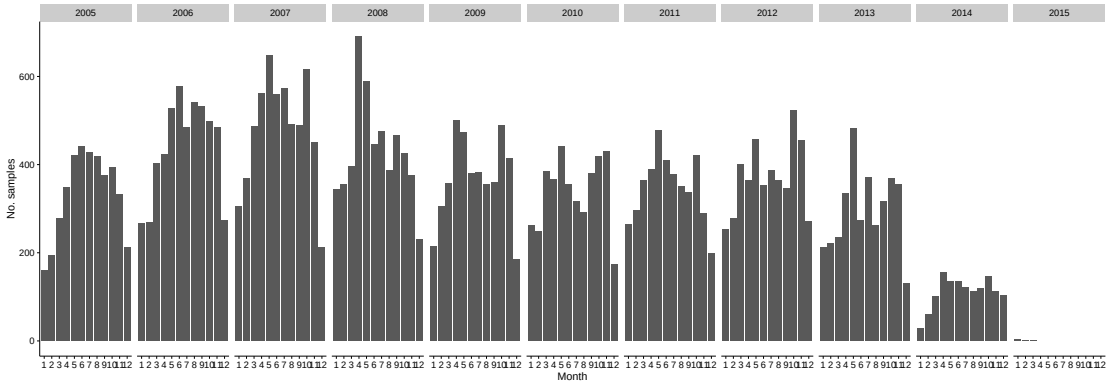

Figure S3: Number of sampling occasions per year and month.

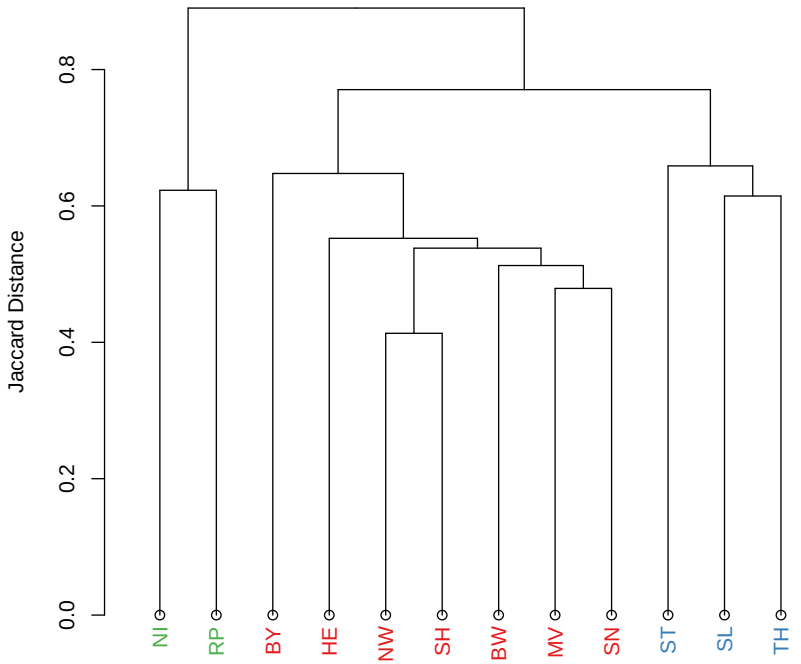

Figure S4: Complete Linkage Cluster Dendrogram of Jaccard Similarity of analysed compound spectra between federal states. Abbreviations of state names according to ISO 3166-2:DE.

Table S2: Overview on pesticides in the database. [a] Authorized in Germany (Source: BVL, 2015). [b] Authorized in the EU (Source: EU). [c] Regulatory Acceptable Concentration [ug/L] (Source: German EPA).

	Name	CAS	Group	Auth. GER[a]	Auth. EU[b]	RAC [c]
1	1,3-cis-Dichlorpropen	10061-01-5	other			
2	1,3-trans-Dichlorpropen	10061-02-6	other			
3	2,4-D	94-75-7	herbicide	x	x	1.10
4	2,4-DB	94-82-6	herbicide		x	
5	2,4-Dichlorphenol	120-83-2	metabolite			
6	2,4,5-T	93-76-5	herbicide			
7	2,4,6-Trichlorphenol	88-06-2	metabolite			
8	2,6-Dichlorobenzamid	2008-58-4	metabolite			
9	3-Hydroxy Carbofuran	16655-82-6	metabolite			
10	4,6-Dinitro-o-Cresol	534-52-1	insecticide			
11	Acetochlor	34256-82-1	herbicide			
12	Acetochlorsäure	194992-44-4	metabolite			

13	Acetochlorsulfonsäure	187022-11-3	metabolite			
14	Aclonifen	74070-46-5	herbicide	x	x	1.06
15	Alachlor	15972-60-8	herbicide			
16	Aldicarb	116-06-3	insecticide			
17	Aldrin	309-00-2	insecticide			
18	Ametryn	834-12-8	herbicide			
19	AMPA	1066-51-9	metabolite			
20	Atrazin	1912-24-9	herbicide			
21	Atrazin, 2-Hydroxy	2163-68-0	metabolite			
22	Avermectin B1a	71751-41-2	insecticide	x	x	
23	Azinphos-ethyl	2642-71-9	insecticide			
24	Azinphos-methyl	86-50-0	insecticide			
25	Azoxystrobin	131860-33-8	fungicide	x	x	0.55
26	Benalaxyl	71626-11-4	fungicide	x	x	20.00
27	Bensulfuron-methyl	83055-99-6	herbicide		x	
28	Bentazon	25057-89-0	herbicide	x	x	710.00
29	Bifenox	42576-02-3	herbicide	x	x	
30	Bifenthrin	82657-04-3	insecticide		x	
31	Boscalid	188425-85-6	fungicide	x	x	12.50
32	Bromacil	314-40-9	herbicide			
33	Bromocyclen	1715-40-8	insecticide			
34	Bromoxynil	1689-84-5	herbicide	x	x	3.30
35	Carbendazim	10605-21-7	fungicide			0.15
36	Carbofuran	1563-66-2	insecticide			
37	Chlordan	57-74-9	insecticide			
38	Chlorfenvinphos	470-90-6	insecticide			
39	Chloridazon	1698-60-8	herbicide	x	x	56.00
40	Chloroxuron	1982-47-4	herbicide			
41	Chlorpyrifos	2921-88-2	insecticide		x	0.00
42	Chlortoluron	15545-48-9	herbicide	x	x	2.30
43	Clomazon	81777-89-1	herbicide	x	x	5.70
44	Clopyralid	1702-17-6	herbicide	x	x	1080.00
45	Clothianidin	210880-92-5	insecticide	x	x	0.01
46	Coumaphos	56-72-4	insecticide			
47	Cyanazin	21725-46-2	herbicide			
48	Cyazofamid	120116-88-3	fungicide	x	x	
49	Cypermetryn	52315-07-8	insecticide	x	x	0.00
50	Cyprodinil	121552-61-2	fungicide	x	x	0.75
51	Demeton-O	298-03-3	insecticide			
52	Demeton-S	126-75-0	insecticide			
53	Demeton-S-methyl	919-86-8	insecticide			
54	Demeton-S-methylsulfon	17040-19-6	insecticide			
55	Desethylatrazin	6190-65-4	metabolite			
56	Desethylterbuthylazin	30125-63-4	metabolite			
57	Desisopropylatrazin	1007-28-9	metabolite			
58	Desmetryn	1014-69-3	herbicide			
59	Desphenyl-Chloridazon	6339-19-1	metabolite			
60	Diazinon	333-41-5	insecticide			
61	Dichlorprop	120-36-5	herbicide			
62	Dichlorvos	62-73-7	insecticide			
63	Dicofol	115-32-2	insecticide			
64	Dieldrin	60-57-1	insecticide			
65	Diflufenican	83164-33-4	herbicide	x	x	0.03
66	Dimefuron	34205-21-5	herbicide			0.83
67	Dimethachlor	50563-36-5	herbicide	x	x	3.50
68	Dimethachlorsäure		metabolite			
69	Dimethachlorsulfonsäure		metabolite			

70	Dimethenamid	87674-68-8	herbicide			1.35
71	Dimethenamidsulfonsäure		metabolite			
72	Dimethoat	60-51-5	insecticide	x	x	4.00
73	Dimethomorph	110488-70-5	fungicide	x	x	5.60
74	Dimoxystrobin	149961-52-4	fungicide	x	x	0.03
75	Disulfoton	298-04-4	insecticide			
76	Diuron	330-54-1	herbicide		x	0.79
77	Endosulfan, alpha	959-98-8	insecticide			
78	Endosulfan, beta	33213-65-9	insecticide			
79	Endrin	72-20-8	insecticide			
80	Epoxiconazol	133855-98-8	fungicide	x	x	0.54
81	Ethofenprox	80844-07-1	insecticide	x	x	
82	Ethofumesat	26225-79-6	herbicide	x	x	24.00
83	Etrimfos	38260-54-7	insecticide			
84	Fenhexamid	126833-17-8	fungicide	x	x	10.10
85	Fenitrothion	122-14-5	insecticide			
86	Fenoprop	93-72-1	herbicide			
87	Fenpropidin	67306-00-7	fungicide	x	x	
88	Fenpropimorph	67564-91-4	fungicide	x	x	0.20
89	Fenthion	55-38-9	insecticide			
90	Fenuron	101-42-8	herbicide			
91	Fluazifop-P-butyl	79241-46-6	herbicide			7.70
92	Flufenacet	142459-58-3	herbicide	x	x	2.40
93	Fluopicolide	239110-15-7	fungicide	x	x	
94	Fluoxastrobin	361377-29-9	fungicide	x	x	
95	Fluquinconazole	136426-54-5	fungicide	x	x	0.80
96	Fluroxypyr	69377-81-7	herbicide	x	x	16.00
97	Flurtamone	96525-23-4	herbicide	x	x	0.99
98	Flusilazol	85509-19-9	fungicide			1.10
99	Flutriafol	76674-21-0	fungicide		x	
100	Glufosinat	51276-47-2	herbicide	x	x	
101	Glyphosate	1071-83-6	herbicide	x	x	100.00
102	Haloxyfop	69806-34-4	herbicide			
103	HCH, gamma (Lindan)	58-89-9	insecticide			
104	Heptachlor	76-44-8	insecticide			
105	Heptachlorepoxid	1024-57-3	metabolite			
106	Heptenophos	23560-59-0	insecticide			
107	Hexachlorbenzen	118-74-1	fungicide			
108	Hexazinon	51235-04-2	herbicide			
109	Imidacloprid	138261-41-3	insecticide	x	x	0.01
110	Ioxynil	1689-83-4	herbicide	x		2.70
111	Isodrin	465-73-6	insecticide			
112	Isoproturon	34123-59-6	herbicide	x	x	1.30
113	Isoxaben	82558-50-7	herbicide	x	x	
114	Kresoxim-methyl	143390-89-0	fungicide	x	x	1.00
115	Lenacil	2164-08-1	herbicide	x	x	0.65
116	Linuron	330-55-2	herbicide		x	
117	Malathion	121-75-5	insecticide		x	
118	MCPA	94-74-6	herbicide	x	x	9.00
119	MCPB	94-81-5	herbicide		x	
120	Mecoprop	93-65-2	herbicide		x	160.00
121	Metalaxyl	57837-19-1	fungicide		x	46.00
122	Metaldehyd	108-62-3	other	x	x	
123	Metamitron	41394-05-2	herbicide	x	x	38.00
124	Metazachlor	67129-08-2	herbicide	x	x	0.88
125	Metazachlorsäure	1231244-60-2	metabolite			
126	Metazachlorsulfonsäure	172960-62-2	metabolite			
127	Metconazol	125116-23-6	fungicide	x	x	
128	Methabenzthiazuron	18691-97-9	herbicide			

129	Methamidophos	10265-92-6	insecticide			2.60
130	Methobromuron	3060-89-7	herbicide		x	2.00
131	Methoxychlor	72-43-5	insecticide			
132	Methyldesphenyl-Chloridazon	17254-80-7	metabolite			
133	Metolachlor	51218-45-2	herbicide			
134	Metolachlorsäure	152019-73-3	metabolite			
135	Metolachlorsulfonsäure	171118-09-5	metabolite			
136	Metoxuron	19937-59-8	herbicide			
137	Metribuzin	21087-64-9	herbicide	x	x	0.58
138	Mevinphos	7786-34-7	insecticide			
139	Mirex	2385-85-5	insecticide			
140	Monolinuron	1746-81-2	herbicide			
141	Napropamid	15299-99-7	herbicide	x	x	6.70
142	Nicosulfuron	111991-09-4	herbicide	x	x	0.09
143	o,p-DDE	3424-82-6	metabolite			
144	o,p-DDT	789-02-6	insecticide			
145	Omethoat	1113-02-6	insecticide			
146	Oxadixyl	77732-09-3	fungicide			
147	Oxydemeton-methyl	301-12-2	insecticide			1.10
148	p,p-DDD (p,p TDE)	72-54-8	insecticide			
149	p,p-DDE	72-55-9	metabolite			
150	p,p-DDT	50-29-3	insecticide			
151	Parathion-ethyl	56-38-2	insecticide			
152	Parathion-methyl	298-00-0	insecticide			
153	Penconazol	66246-88-6	fungicide	x	x	3.20
154	Pencycuron	66063-05-6	fungicide	x	x	
155	Pendimethalin	40487-42-1	herbicide	x	x	0.63
156	Pethoxamid	106700-29-2	herbicide	x	x	1.77
157	Phenmedipham	13684-63-4	herbicide	x	x	
158	Phoxim	14816-18-3	insecticide			0.01
159	Picolinafen	137641-05-5	herbicide	x	x	0.04
160	Picoxystrobin	117428-22-5	fungicide	x	x	0.60
161	Pirimicarb	23103-98-2	insecticide	x	x	0.09
162	Prochloraz	67747-09-5	fungicide	x	x	5.00
163	Prometryn	7287-19-6	herbicide			
164	Propamocarb	24579-73-5	fungicide	x	x	
165	Propanil	709-98-8	herbicide			
166	Propazin	139-40-2	herbicide			
167	Propiconazol	60207-90-1	fungicide	x	x	2.00
168	Propoxur	114-26-1	insecticide			
169	Propyzamid	23950-58-5	herbicide	x	x	34.00
170	Prosulfocarb	52888-80-9	herbicide	x	x	3.80
171	Pyraclostrobin	175013-18-0	fungicide	x	x	
172	Pyrimethanil	53112-28-0	fungicide	x	x	8.00
173	Quinmerac	90717-03-6	herbicide	x	x	316.00
174	Quinoxyfen (5,7-dichloro-4-(p-fluorophenoxy)quinoline)	124495-18-7	fungicide	x	x	
175	Sebuthylazin	7286-69-3	herbicide			
176	Simazin	122-34-9	herbicide			
177	Simazin, 2-Hydroxy	2599-11-3	metabolite			
178	Spiroxamin	118134-30-8	fungicide	x	x	0.13
179	Tebuconazol	107534-96-3	fungicide	x	x	0.58
180	Terbutryn	886-50-0	herbicide			
181	Terbuthylazin	5915-41-3	herbicide	x	x	1.20
182	Thiacloprid	111988-49-9	insecticide	x	x	0.00
183	Thiamethoxam	153719-23-4	insecticide	x	x	0.04
184	Thifensulfuron-methyl	79277-27-3	herbicide			

185	Tolclofos-methyl	57018-04-9	fungicide	x	x	
186	Tolylfluanid	731-27-1	fungicide			
187	trans-Chlordan	5103-74-2	insecticide			
188	Triadimenol	55219-65-3	fungicide	x	x	3.40
189	Triazophos	24017-47-8	insecticide			0.03
190	Tribenuron	106040-48-6	herbicide	x	x	
191	Trichlorfon	52-68-6	insecticide			
192	Trifloxystrobin	141517-21-7	fungicide	x	x	0.09
193	Trifluralin	1582-09-8	herbicide			
194	Tritosulfuron	142469-14-5	herbicide	x	x	
195	Tefluthrin	79538-32-2	insecticide	x	x	
196	tau-Fluvalinat	102851-06-9	insecticide	x	x	0.03
197	Sulcotrion	99105-77-8	herbicide	x	x	
198	Methiocarb	2032-65-7	insecticide	x	x	0.01
199	Mesotrion	104206-82-8	herbicide	x	x	
200	Fluazifop	69335-91-7	herbicide			
201	Fenoxaprop	95617-09-7	herbicide			
202	Esfenvalerat	66230-04-4	insecticide	x	x	
203	Dinoterb	1420-07-1	herbicide			
204	Dicamba	1918-00-9	herbicide	x	x	180.00
205	Deltamethrin	52918-63-5	insecticide	x	x	
206	Cyhalothrin (Summe Isomere)	91465-08-6	insecticide	x	x	
207	Cyfluthrin (Summe Isomere)	68359-37-5	insecticide			
208	Chlormequat	7003-89-6	other	x	x	
209	Thiometon	640-15-3	insecticide			
210	Quintozen	82-68-8	fungicide			
211	Vinclozolin	50471-44-8	fungicide			
212	Dichlofluanid	1085-98-9	fungicide			
213	Iprodion	36734-19-7	fungicide	x	x	
214	Dinoseb	88-85-7	herbicide			
215	Kresoximsäure		metabolite			
216	Quizalofop	76578-12-6	herbicide			
217	Acifluorfen	50594-66-6	herbicide			
218	Diclofop	40843-25-2	herbicide		x	
219	Flamprop	58667-63-3	herbicide			
220	Fludioxonil	131341-86-1	fungicide	x	x	0.50
221	Anthranilsäureisopropylamid	30391-89-0	metabolite			
222	Diflubenzuron	35367-38-5	insecticide		x	
223	Pyrifenox	88283-41-4	fungicide			
224	Difenoconazol	119446-68-3	fungicide	x	x	0.36
225	Amidosulfuron	120923-37-7	herbicide	x	x	
226	Triasulfuron	82097-50-5	herbicide	x	x	
227	Metsulfuron	79510-48-8	herbicide	x	x	
228	Rimsulfuron	122931-48-0	herbicide	x	x	0.46
229	Triflusulfuron	135990-29-3	herbicide	x	x	
230	Methidathion	950-37-8	insecticide			
231	Triflumuron	64628-44-0	insecticide		x	
232	Fluazinam	79622-59-6	fungicide	x	x	0.26
233	Oxamyl	23135-22-0	insecticide		x	
234	Acibenzolar-S-methyl	135158-54-2	fungicide		x	
235	Bromuconazol	116255-48-2	fungicide		x	
236	Carfentrazone-ethyl	128639-02-1	herbicide	x	x	0.31
237	Clodinafop-propargyl	105512-06-9	herbicide			
238	Cycloat	1134-23-2	herbicide			
239	Cyflufenamid	180409-60-3	fungicide	x	x	
240	Diniconazol	83657-24-3	fungicide			
241	Fenamidon	161326-34-7	fungicide	x	x	

242	Fenbuconazol	114369-43-6	fungicide		x	
243	Fosthiazat	98886-44-3	other	x	x	
244	Fuberidazol	3878-19-1	fungicide	x	x	
245	Hexaconazol	79983-71-4	fungicide			
246	Hexythiazox	78587-05-0	insecticide	x	x	
247	Indoxacarb	173584-44-6	insecticide	x	x	
248	Mandipropamid	374726-62-2	fungicide	x	x	7.60
249	Metrafenon	220899-03-6	fungicide	x	x	
250	Oxadiazon	19666-30-9	herbicide		x	
251	Proquinazid	189278-12-4	fungicide	x	x	
252	Tebufenpyrad	119168-77-3	insecticide	x	x	
253	Tetraconazol	112281-77-3	fungicide	x	x	
254	Zoxamid	156052-68-5	fungicide	x	x	
255	Hexaflumuron	86479-06-3	insecticide			
256	Neburon	555-37-3	herbicide			
257	Cyproconazol	94361-06-5	fungicide	x	x	
258	Fenarimol	60168-88-9	fungicide			
259	Iprovalicarb	140923-17-7	fungicide	x	x	189.00
260	Myclobutanil	88671-89-0	fungicide	x	x	2.40
261	Acetamiprid	135410-20-7	insecticide	x	x	0.24
262	Chlorfluazuron	71422-67-8	insecticide			
263	Cyromazin	66215-27-8	insecticide		x	
264	Etaconazol	60207-93-4	fungicide			
265	Ethidimuron	30043-49-3	herbicide			
266	Fenpyroximat	134098-61-6	insecticide	x	x	
267	Flazasulfuron	104040-78-0	herbicide	x	x	
268	Flufenoxuron	101463-69-8	insecticide			
269	Mepronil	55814-41-0	fungicide			
270	Methomyl	16752-77-5	insecticide		x	
271	Methoxyfenozid	161050-58-4	insecticide	x	x	
272	Pirimicarb-desmethyl	30614-22-3	metabolite			
273	Spirodiclofen	148477-71-8	insecticide	x	x	
274	Spiromesifen	283594-90-1	insecticide		x	
275	Tebufenozid	112410-23-8	insecticide	x	x	
276	Thiabendazol	148-79-8	fungicide	x	x	
277	Triflumizol	99387-89-0	fungicide		x	
278	Triforin	26644-46-2	fungicide			
279	Triticonazol	131983-72-7	fungicide	x	x	
280	Teflubenzuron	83121-18-0	insecticide		x	
281	Triadimefon	43121-43-3	fungicide			
282	cis-Chlordan	5103-71-9	insecticide			
283	Monuron	150-68-5	herbicide			
284	Propachlor	1918-16-7	herbicide			
285	Fluazifop-butyl	69806-50-4	herbicide			
286	Carbetamid	16118-49-3	herbicide		x	
287	Propetamphos	31218-83-4	insecticide			
288	Triallat	2303-17-5	herbicide		x	
289	Dichlobenil	1194-65-6	herbicide			
290	Propham	122-42-9	herbicide			
291	Endosulfansulfat	1031-07-8	metabolite			
292	Beflubutamid	113614-08-7	herbicide	x	x	
293	Flurochloridon	61213-25-0	herbicide		x	
294	Iodosulfuron	185119-76-0	herbicide	x	x	0.08
295	Metosulam	139528-85-1	herbicide	x	x	
296	Triclopyr	55335-06-3	herbicide	x	x	
297	Florasulam	145701-23-1	herbicide	x	x	
298	Famoxadone	131807-57-3	fungicide	x	x	
299	Folpet	133-07-3	fungicide	x	x	
300	Procymidon	32809-16-8	fungicide			

301	Thiophanat-methyl	23564-05-8	fungicide	x	x	
302	Fluometuron	2164-17-2	herbicide		x	
303	Bupirimat	41483-43-6	fungicide		x	
304	Carboxin	5234-68-4	fungicide		x	
305	Chlorantraniliprole	500008-45-7	insecticide	x	x	0.35
306	Dinotefuran	165252-70-0	insecticide			
307	Fenazaquin	120928-09-8	insecticide	x	x	
308	Fenoxycarb	72490-01-8	insecticide		x	
309	Flupyrsulfuron	150315-10-9	herbicide	x	x	
310	Foramsulfuron	173159-57-4	herbicide	x	x	0.95
311	Imazosulfuron	122548-33-8	herbicide	x	x	
312	Mesosulfuron	400852-66-6	herbicide	x	x	
313	Prothioconazol-desthio	120983-64-4	metabolite			
314	Quinoclamin	2797-51-5	herbicide	x	x	
315	Sulfosulfuron	141776-32-1	herbicide		x	
316	Triazoxid	72459-58-6	fungicide	x	x	
317	Tribenuron-methyl	101200-48-0	herbicide			
318	Ametoctradin	865318-97-4	fungicide	x	x	
319	Clodinafop	114420-56-3	herbicide	x	x	
320	Cyclanilide	113136-77-9	other			
321	Mepanipyrim	110235-47-7	fungicide	x	x	
322	Profoxydim	139001-49-3	herbicide		x	
323	Propoxycarbazone	145026-81-9	herbicide	x	x	
324	Thiencarbazon-methyl	317815-83-1	herbicide	x	x	
325	Fluopyram	658066-35-4	fungicide	x	x	5.12
326	Flutolanil	66332-96-5	fungicide	x	x	
327	Chlorthalonil-SA		metabolite			
328	Dimethachlor-CA		metabolite			
329	Dimethenamid-CA		metabolite			
330	Dimethenamid-SA		metabolite			
331	Flufenacet-SA		metabolite			
332	Metalaxyl-CA	75596-99-5	metabolite			
333	Metazachlordicarbonsäure		metabolite			
334	Metalaxyl-CA2	104390-56-9	metabolite			
335	Azoxystrobin-CA		metabolite			
336	Thiacloprid-SA		metabolite			
337	Trifloxystrobin-CA2		metabolite			
338	Clethodim	99129-21-2	herbicide	x	x	
339	Cycloxidim	101205-02-1	herbicide	x	x	
340	Imazamox	114311-32-9	herbicide	x	x	
341	Imazapic	104098-48-8	herbicide			
342	Imazaquin	81335-37-7	herbicide		x	
343	Imazethapyr	81335-77-5	herbicide			
344	Meptyldinocap	131-72-6	fungicide		x	
345	Tralkoxydim	87820-88-0	herbicide		x	
346	Saflufenacil	372137-35-4	herbicide			
347	Valifenalate	283159-90-0	fungicide	x	x	
348	Fluxapyroxad	907204-31-3	fungicide	x	x	
349	Isopyrazam	881685-58-1	fungicide	x	x	
350	Penflufen	494793-67-8	fungicide		x	
351	Pyroxsulam	422556-08-9	herbicide	x	x	
352	Fipronil	120068-37-3	insecticide		x	0.00
353	Hexachlorophen	70-30-4	other			
354	(E)7-(Z)9-Dodecadienylacetat	55774-32-8	other	x	x	
355	(Z)-9-Dodecenylacetat	16974-11-1	other	x	x	
356	1-Decanol	112-30-1	other	x	x	
357	1-Methylcyclopropen	3100-04-7	other	x	x	
358	Acequinocyl	57960-19-7	insecticide	x	x	9.00

359	alpha-Cypermethrin	67375-30-8	insecticide	x	x	
360	Aminopyralid	150114-71-9	herbicide	x	x	
361	Amisulbrom	348635-87-0	fungicide	x	x	
362	Azadirachtin (Neem)	11141-17-6	insecticide	x	x	
363	Benthiavalicarb	413615-35-7	fungicide	x	x	
364	Benzoesäure	65-85-0	fungicide	x	x	
365	Bifenazate	149877-41-8	insecticide	x	x	
366	Bixafen	581809-46-3	fungicide	x	x	0.46
367	Bromadiolon	28772-56-7	other		x	
368	Captan	133-06-2	fungicide	x	x	5.00
369	Chlorpropham	101-21-3	herbicide	x	x	
370	Chlorthalonil	1897-45-6	fungicide	x	x	
371	Cinidon-ethyl	142891-20-1	herbicide			
372	Clofentezin	74115-24-5	insecticide		x	
373	Codlemone (Codlelure)	33956-49-9	other	x	x	
374	Cymoxanil	57966-95-7	fungicide	x	x	4.40
375	Daminozid	1596-84-5	other	x	x	
376	Deiquat	2764-72-9	herbicide	x	x	
377	Desmedipham	13684-56-5	herbicide	x	x	
378	Dichlorprop-P	15165-67-0	herbicide	x	x	
379	Difenacoum	56073-07-5	other		x	
380	Dimethenamid-P	163515-14-8	herbicide	x	x	1.35
381	Dithianon	3347-22-6	fungicide	x	x	0.78
382	Dodin	2439-10-3	fungicide	x	x	5.33
383	Fenoxaprop-p-ethyl	71283-80-2	herbicide			
384	Flonicamid	158062-67-0	insecticide	x	x	310.00
385	Fluazifop-P	83066-88-0	herbicide	x	x	146.00
386	Flumioxazin	103361-09-7	herbicide	x	x	
387	Fluroxypyr-methylheptyl	81406-37-3	herbicide			
388	Fosetyl	15845-66-6	fungicide	x	x	
389	gamma-Cyhalothrin	76703-62-3	insecticide	x	x	
390	Haloxyfop-P	95977-29-0	herbicide	x	x	
391	Hymexazol	10004-44-1	fungicide	x	x	
392	Imazalil	35554-44-0	fungicide	x	x	
393	Isoxaflutole	141112-29-0	herbicide	x	x	
394	Mancozeb	8018-01-7	fungicide	x	x	0.22
395	Maneb	12427-38-2	fungicide	x	x	
396	Mepiquat	15302-91-7	other	x	x	
397	Metaflumizone	139968-49-3	insecticide	x	x	
398	Metalaxyl-M	70630-17-0	fungicide	x	x	46.00
399	Metiram	9006-42-2	fungicide	x	x	
400	Metsulfuron-methyl	74223-64-6	herbicide			
401	Milbemectin	51596-11-3	insecticide	x	x	
402	Paclobutrazol	76738-62-0	other	x	x	
403	Pelargonsäure	112-05-0	herbicide	x	x	
404	Penoxsulam	219714-96-2	herbicide	x	x	
405	Picloram	1918-02-1	herbicide	x	x	
406	Pinoxaden	243973-20-8	herbicide	x		
407	Pirimiphos-methyl	29232-93-7	insecticide	x	x	
408	Prohexadion	88805-35-0	other	x	x	
409	Propaquizafop	111479-05-1	herbicide	x	x	
410	Prosulfuron	94125-34-5	herbicide	x	x	
411	Prothioconazol	178928-70-6	fungicide	x	x	1.71
412	Pymetrozin	123312-89-0	insecticide	x	x	
413	Pyraflufen	129630-17-7	herbicide	x	x	
414	Pyridat	55512-33-9	herbicide	x	x	
415	Silthiofam	175217-20-6	fungicide	x	x	

416	Spinosad	168316-95-8	insecticide	x	x	0.06
417	Sulfurylfluorid	2699-79-8	insecticide	x	x	
418	Tembotrione	335104-84-2	herbicide	x	x	
419	Tepraloxydim	149979-41-9	herbicide	x	x	
420	Thiram	137-26-8	fungicide	x	x	0.11
421	Topramezone	210631-68-8	herbicide	x		0.90
422	Trinexapac-ethyl	95266-40-3	other	x	x	
423	Warfarin	81-81-2	other			
424	Aziprotryn	4658-28-0	herbicide			
425	Chlorsulfuron	64902-72-3	herbicide			
426	Norflurazon	27314-13-2	herbicide			
427	Primisulfuron-methyl	86209-51-0	herbicide			
428	Pyrazophos	13457-18-6	fungicide			
429	Quinalphos	13593-03-8	insecticide			
430	Secbumeton	26259-45-0	herbicide			
431	Tebutam	35256-85-0	herbicide			
432	Fluchloralin	33245-39-5	herbicide			
433	Furalaxyl	57646-30-7	fungicide			
434	Methoprotryn	841-06-5	herbicide			
435	Furmecyclox	60568-05-0	fungicide			
436	Desmethylisoproturon	34123-57-4	metabolite			
437	Metamitron-Desamino	36993-94-9	metabolite			
438	Orysastrobin	248593-16-0	fungicide			
439	Desethyl-2-hydroxyterbuthylazin	66753-06-8	metabolite			
440	Icaridinsäure		metabolite			
441	Desaminometribuzin	35045-02-4	metabolite			
442	Karbutylat	4849-32-5	herbicide			
443	Crimidin	535-89-7	other			
444	Buturon	3766-60-7	herbicide			
445	Chlorbromuron	13360-45-7	herbicide			
446	Fenoxaprop-p	113158-40-0	herbicide	x	x	
447	Fenamiphos	22224-92-6	insecticide		x	
448	Isophenphos	25311-71-1	insecticide			
449	4,4-Methoxychlor	2132-70-9	insecticide			
450	oxi-Chlordan	27304-13-8	metabolite			
451	3-Trifluormethylanilin	98-16-8	metabolite			
452	1-(3,4-Dichlorphenyl)urea	2327-02-8	metabolite			
453	1-(4-Isopropylphenyl)urea	56046-17-4	metabolite			
454	Telodrin	297-78-9	insecticide			
455	Terbumeton	33693-04-8	herbicide			
456	Nitenpyram	120738-89-8	insecticide			
457	Permethrin	52645-53-1	insecticide			
458	Quizalofop-ethyl	76578-14-8	herbicide			
459	Mefenpyr-diethyl	135591-00-3	other	x		
460	Iodosulfuron-methyl	144550-06-1	herbicide			
461	Haloxyfop-ethoxyethyl	87237-48-7	herbicide			
462	Desmethyldiuron	3567-62-2	metabolite			
463	Cloquintocet-mexyl	99607-70-2	other		x	
464	Chlorpyriphos methyl	5598-13-0	insecticide		x	
465	Ethirimol	23947-60-6	fungicide			
466	Desethylsimazin	6190-65-4	metabolite			
467	Nitrofen	1836-75-5	herbicide			
468	Thifenylsulfuron	79277-67-1	herbicide	x	x	
469	Acrinathrin	101007-06-1	insecticide		x	
470	Betacypermethrin	65731-84-2	insecticide		x	

471	4-tert. Cyclobutylhexanon	98-53-3	metabolite			
472	Pirimiphos-ethyl	23505-41-1	insecticide			
473	Pyrethrum	8003-34-7	insecticide	x	x	0.01
474	Pyridaben	96489-71-3	insecticide		x	
475	Iodosulfuron-methyl-sodium	144550-36-7	herbicide			
476	Benazolin	3813-05-6	herbicide			
477	Chloramben	133-90-4	herbicide			
478	Chlorfenac	85-34-7	herbicide			
479	Desethylsebuthylazin	37019-18-4	metabolite			
480	Prometon	1610-18-0	herbicide			
481	Atraton	1610-17-9	herbicide			
482	Terbutylazin-Metabolit SYN 545666		metabolite			
483	2-Hydroxydesethylatrazin	19988-24-0	metabolite			
484	Terbutylazin-Metabolit CGA 324007	309923-18-0	metabolite			

4 Thresholds for agricultural land use and catchment size

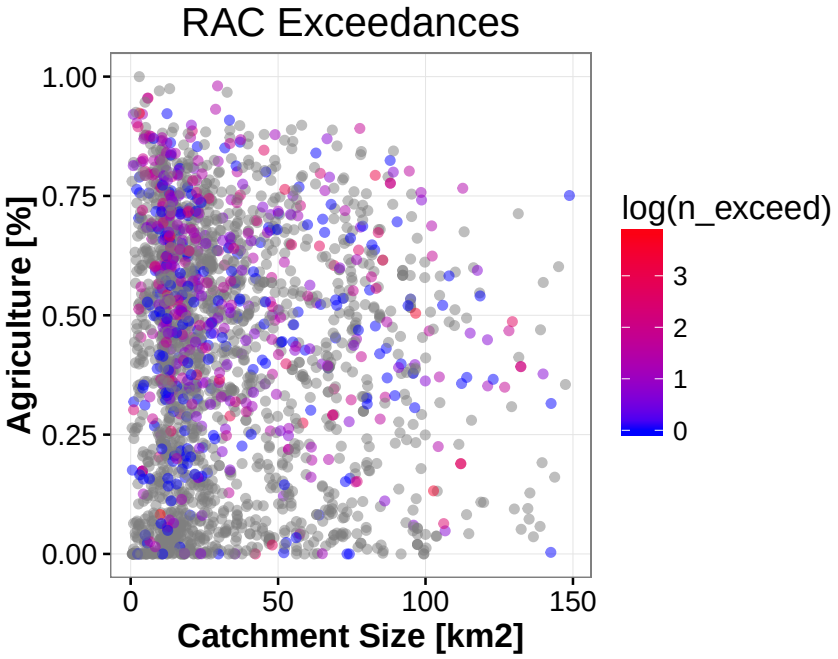

Figure S5: Raw data used for the model in equation 2 and Figure 3 of the main article. Color codes the number of RAC exceedances (on a log-scale). Grey points denote sites without any exceedance.

5 Effect of precipitation and season on RQ

Table S3: 24 pesticides for which we modelled the relationship with precipitation and seasonality. Order is the same as in Figure 5 of the articles. See Table S4 for model coefficients.

	Compound	CAS	Group	%>LOQ	no. > LOQ	total no.
1	Azoxystrobin	131860-33-8	fungicide	9.65	676	7002
2	Bentazon	25057-89-0	herbicide	19.09	2417	12660
3	Boscalid	188425-85-6	fungicide	23.24	2278	9802
4	Carbendazim	10605-21-7	fungicide	17.15	655	3819
5	Chlorpyrifos	2921-88-2	insecticide	6.38	956	14986
6	Clothianidin	210880-92-5	insecticide	6.74	158	2345
7	Diflufenican	83164-33-4	herbicide	12.71	1999	15729
8	Dimethenamid	87674-68-8	herbicide	6.17	588	9536
9	Dimoxystrobin	149961-52-4	fungicide	6.70	218	3252
10	Diuron	330-54-1	herbicide	12.24	2277	18610
11	Ethofumesat	26225-79-6	herbicide	5.11	1036	20290
12	Flufenacet	142459-58-3	herbicide	5.93	803	13549
13	Glyphosate	1071-83-6	herbicide	40.07	1412	3524
14	Imidacloprid	138261-41-3	insecticide	6.29	197	3133
15	Isoproturon	34123-59-6	herbicide	21.99	4216	19171
16	MCPA	94-74-6	herbicide	12.61	1638	12986
17	Mecoprop	93-65-2	herbicide	12.32	1569	12732
18	Metazachlor	67129-08-2	herbicide	9.67	2130	22029
19	Nicosulfuron	111991-09-4	herbicide	5.54	280	5053
20	Penconazol	66246-88-6	fungicide	5.94	297	5004
21	Propiconazol	60207-90-1	fungicide	7.29	1054	14458
22	Quinmerac	90717-03-6	herbicide	13.50	975	7223
23	Tebuconazol	107534-96-3	fungicide	6.01	1006	16735
24	Terbuthylazin	5915-41-3	herbicide	14.99	3395	22652

Table S4: Coefficients and CI from per compound models. Bold values denote coefficients where the CI for precipitation encompasses zero. Coefficients are on the link scale (log for mu and logit for u).

	Compound	effect	*log precip*$_0$	*log precip*$_{-1}$	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Azoxystrobin	μ	**0.23**	0.04	-3.4	-3.05	-3.17	-3.49
			(0.16 - 0.31)	(-0.04 - 0.11)	(-3.56 - -3.24)	(-3.17 - -2.93)	(-3.29 - -3.05)	(-3.65 - -3.33)
2	Bentazon	μ	-0.02	0.02	-9.72	-9.26	-9.44	-9.74
			(-0.06 - 0.01)	(-0.02 - 0.05)	(-9.79 - -9.65)	(-9.31 - -9.21)	(-9.5 - -9.38)	(-9.81 - -9.68)
3	Boscalid	μ	**0.05**	**0.09**	-6.74	-6.47	-6.55	-6.61
			(0.01 - 0.08)	(0.06 - 0.13)	(-6.81 - -6.67)	(-6.53 - -6.41)	(-6.61 - -6.49)	(-6.68 - -6.54)
4	Carbendazim	μ	**-0.08**	**0.12**	-2.25	-1.91	-2.12	-2.32
			(-0.14 - -0.01)	(0.06 - 0.18)	(-2.39 - -2.1)	(-2.01 - -1.81)	(-2.22 - -2.01)	(-2.45 - -2.19)
5	Chlorpyrifos	μ	**0.07**	0	0.96	1.17	0.98	1.01
			(0.03 - 0.12)	(-0.04 - 0.05)	(0.88 - 1.03)	(1.1 - 1.23)	(0.91 - 1.06)	(0.93 - 1.09)

6	Clothianidin	μ	0.04	-0.05	0.91	0.66	0.89	1.77
			(-0.07 - 0.15)	(-0.16 - 0.06)	(0.75 - 1.08)	(0.5 - 0.81)	(0.68 - 1.1)	(1.57 - 1.97)
7	Diflufenican	μ	-0.03	**0.06**	-0.59	-1.04	-1.1	-0.74
			(-0.07 - 0.01)	(0.03 - 0.1)	(-0.66 - -0.53)	(-1.1 - -0.97)	(-1.17 - -1.02)	(-0.8 - -0.68)
8	Dimethenamid	μ	**-0.09**	0.06	-4.02	-3.81	-3.77	-4.01
			(-0.16 - -0.03)	(-0.01 - 0.12)	(-4.16 - -3.87)	(-3.92 - -3.71)	(-3.88 - -3.66)	(-4.13 - -3.89)
9	Dimoxystrobin	μ	**0.35**	0.02	-1.19	-0.45	-0.09	-0.05
			(0.2 - 0.5)	(-0.14 - 0.18)	(-1.46 - -0.91)	(-0.67 - -0.23)	(-0.41 - 0.23)	(-0.37 - 0.28)
10	Diuron	μ	-0.01	**0.07**	-2.72	-2.46	-2.52	-2.71
			(-0.04 - 0.02)	(0.04 - 0.1)	(-2.83 - -2.61)	(-2.5 - -2.42)	(-2.57 - -2.48)	(-2.78 - -2.65)
11	Ethofumesat	μ	**0.11**	0.01	-6.14	-5.51	-6.18	-6.06
			(0.06 - 0.17)	(-0.05 - 0.06)	(-6.29 - -5.99)	(-5.57 - -5.44)	(-6.28 - -6.08)	(-6.2 - -5.92)
12	Flufenacet	μ	0.04	0.04	-3.73	-3.69	-3.32	-3.67
			(-0.01 - 0.09)	(0 - 0.08)	(-3.81 - -3.65)	(-3.8 - -3.59)	(-3.46 - -3.18)	(-3.72 - -3.61)
13	Glyphosate	μ	-0.04	**0.14**	-6.29	-6.08	-5.74	-6.12
			(-0.09 - 0.02)	(0.09 - 0.19)	(-6.45 - -6.13)	(-6.15 - -6)	(-5.81 - -5.67)	(-6.21 - -6.02)
14	Imidacloprid	μ	0.08	-0.01	0.8	1.18	1.35	1.28
			(-0.01 - 0.17)	(-0.09 - 0.07)	(0.54 - 1.05)	(1.06 - 1.31)	(1.23 - 1.48)	(1.1 - 1.45)
15	Isoproturon	μ	0.02	**0.2**	-3.28	-3.02	-3.42	-2.83
			(-0.02 - 0.05)	(0.16 - 0.23)	(-3.35 - -3.21)	(-3.07 - -2.97)	(-3.49 - -3.35)	(-2.88 - -2.78)
16	MCPA	μ	0.03	**0.08**	-5.27	-4.38	-4.65	-4.88
			(0 - 0.06)	(0.05 - 0.11)	(-5.36 - -5.18)	(-4.42 - -4.34)	(-4.69 - -4.6)	(-4.94 - -4.82)
17	Mecoprop	μ	0.04	0.05	-8.31	-7.63	-7.82	-8.12
			(0 - 0.09)	(0 - 0.09)	(-8.44 - -8.19)	(-7.69 - -7.57)	(-7.9 - -7.74)	(-8.22 - -8.03)
18	Metazachlor	μ	**-0.08**	**0.09**	-3.1	-3.03	-2.32	-2.86
			(-0.12 - -0.04)	(0.05 - 0.14)	(-3.19 - -3.01)	(-3.12 - -2.95)	(-2.39 - -2.26)	(-2.93 - -2.8)
19	Nicosulfuron	μ	**0.22**	**-0.26**	-1.08	-0.22	-0.05	-0.92
			(0.11 - 0.32)	(-0.36 - -0.16)	(-1.31 - -0.85)	(-0.37 - -0.06)	(-0.22 - 0.12)	(-1.1 - -0.73)
20	Penconazol	μ	0.08	**0.09**	-6.78	-5.2	-4.76	-6.08
			(-0.01 - 0.17)	(0.01 - 0.18)	(-7.05 - -6.51)	(-5.33 - -5.07)	(-4.92 - -4.6)	(-6.25 - -5.92)
21	Propiconazol	μ	**0.07**	0.04	-4.34	-3.84	-3.95	-3.96
			(0.02 - 0.12)	(-0.01 - 0.09)	(-4.46 - -4.21)	(-3.92 - -3.77)	(-4.04 - -3.86)	(-4.06 - -3.86)
22	Quinmerac	μ	0	**0.09**	-9.11	-9.1	-8.46	-8.64
			(-0.07 - 0.06)	(0.03 - 0.15)	(-9.23 - -8.99)	(-9.22 - -8.98)	(-8.59 - -8.33)	(-8.72 - -8.55)
23	Tebuconazol	μ	-0.01	**0.09**	-2.18	-1.96	-2.24	-2.18
			(-0.06 - 0.03)	(0.05 - 0.14)	(-2.29 - -2.07)	(-2.03 - -1.89)	(-2.32 - -2.16)	(-2.27 - -2.09)
24	Terbuthylazin	μ	**0.09**	**0.12**	-3.72	-2.85	-3.36	-3.64
			(0.06 - 0.13)	(0.09 - 0.15)	(-3.81 - -3.64)	(-2.9 - -2.8)	(-3.42 - -3.31)	(-3.71 - -3.57)
25	Azoxystrobin	ν	0	**0.23**	-3.48	-2.34	-2.11	-3.2
			(-0.13 - 0.13)	(0.1 - 0.35)	(-3.73 - -3.24)	(-2.54 - -2.14)	(-2.33 - -1.9)	(-3.44 - -2.95)
26	Bentazon	ν	0.01	0.05	-2.27	-1.56	-1.91	-2.29
			(-0.07 - 0.09)	(-0.03 - 0.13)	(-2.44 - -2.1)	(-1.68 - -1.44)	(-2.05 - -1.77)	(-2.43 - -2.15)
27	Boscalid	ν	-0.04	**0.48**	-2	-1.19	-1.21	-1.78
			(-0.13 - 0.04)	(0.39 - 0.56)	(-2.16 - -1.84)	(-1.33 - -1.05)	(-1.35 - -1.07)	(-1.93 - -1.63)
28	Carbendazim	ν	0.05	**0.19**	-2.63	-1.44	-1.19	-2.22
			(-0.07 - 0.18)	(0.07 - 0.32)	(-2.89 - -2.36)	(-1.63 - -1.24)	(-1.4 - -0.98)	(-2.45 - -1.99)
29	Chlorpyrifos	ν	0.1	**0.11**	-3.21	-2.63	-3.21	-3.35
			(0 - 0.19)	(0.01 - 0.2)	(-3.37 - -3.04)	(-2.78 - -2.47)	(-3.37 - -3.04)	(-3.54 - -3.17)
30	Clothianidin	ν	0	0.21	-2.61	-2.54	-3.26	-3.6
			(-0.24 - 0.24)	(-0.04 - 0.45)	(-3.01 - -2.22)	(-2.92 - -2.16)	(-3.75 - -2.77)	(-4.08 - -3.13)
31	Diflufenican	ν	0.07	**0.24**	-1.89	-2.42	-3.11	-2.07
			(-0.01 - 0.14)	(0.16 - 0.32)	(-2.03 - -1.76)	(-2.55 - -2.29)	(-3.26 - -2.96)	(-2.2 - -1.94)
32	Dimethenamid	ν	-0.07	**0.25**	-3.47	-2.69	-2.77	-2.95
			(-0.19 - 0.04)	(0.14 - 0.36)	(-3.71 - -3.22)	(-2.87 - -2.51)	(-2.96 - -2.58)	(-3.15 - -2.75)
33	Dimoxystrobin	ν	0.2	**0.24**	-3.42	-2.26	-3.18	-3.58
			(-0.02 - 0.42)	(0.01 - 0.46)	(-3.83 - -3.01)	(-2.59 - -1.93)	(-3.59 - -2.77)	(-4.01 - -3.15)
34	Diuron	ν	0.05	**0.3**	-3.86	-1.65	-1.73	-2.7
			(-0.02 - 0.11)	(0.23 - 0.36)	(-4.06 - -3.66)	(-1.74 - -1.56)	(-1.84 - -1.63)	(-2.82 - -2.58)

35	Ethofumesat	ν	0.08	**0.22**	-4.4	-2.24	-3.49	-4.24
			(-0.01 - 0.17)	(0.13 - 0.31)	(-4.63 - -4.17)	(-2.36 - -2.12)	(-3.66 - -3.33)	(-4.45 - -4.03)
36	Flufenacet	ν	**0.15**	**0.57**	-2.59	-3.77	-4.19	-1.78
			(0.05 - 0.25)	(0.47 - 0.67)	(-2.77 - -2.42)	(-3.98 - -3.56)	(-4.46 - -3.92)	(-1.9 - -1.67)
37	Glyphosate	ν	0.11	**0.28**	-1.81	-0.16	0.28	-0.56
			(0 - 0.22)	(0.17 - 0.39)	(-2.11 - -1.51)	(-0.33 - 0.01)	(0.11 - 0.45)	(-0.76 - -0.36)
38	Imidacloprid	ν	0.03	-0.06	-4.5	-2.97	-2.85	-3.92
			(-0.21 - 0.28)	(-0.3 - 0.17)	(-5.13 - -3.87)	(-3.32 - -2.62)	(-3.23 - -2.47)	(-4.39 - -3.45)
39	Isoproturon	ν	0.04	**0.29**	-1.81	-1.18	-2.1	-0.8
			(-0.01 - 0.09)	(0.24 - 0.34)	(-1.92 - -1.7)	(-1.26 - -1.11)	(-2.2 - -2)	(-0.88 - -0.72)
40	MCPA	ν	-0.05	**0.34**	-3.8	-1.29	-1.84	-2.8
			(-0.12 - 0.02)	(0.27 - 0.41)	(-4.05 - -3.56)	(-1.38 - -1.19)	(-1.96 - -1.72)	(-2.95 - -2.66)
41	Mecoprop	ν	**0.09**	**0.35**	-2.98	-1.54	-1.89	-2.71
			(0.01 - 0.16)	(0.27 - 0.42)	(-3.17 - -2.79)	(-1.65 - -1.44)	(-2.01 - -1.76)	(-2.85 - -2.56)
42	Metazachlor	ν	0.04	**0.22**	-2.77	-3.17	-2.07	-2.02
			(-0.03 - 0.1)	(0.15 - 0.28)	(-2.9 - -2.65)	(-3.29 - -3.04)	(-2.17 - -1.97)	(-2.12 - -1.92)
43	Nicosulfuron	ν	**0.23**	**0.23**	-3.81	-2.9	-2.96	-3.24
			(0.04 - 0.41)	(0.05 - 0.41)	(-4.19 - -3.43)	(-3.19 - -2.62)	(-3.27 - -2.65)	(-3.57 - -2.92)
44	Penconazol	ν	-0.05	**0.54**	-6.47	-4.16	-2.8	-4.32
			(-0.36 - 0.26)	(0.23 - 0.85)	(-7.21 - -5.72)	(-4.64 - -3.69)	(-3.35 - -2.26)	(-4.89 - -3.75)
45	Propiconazol	ν	-0.02	**0.41**	-3.83	-2.58	-2.73	-3.25
			(-0.12 - 0.08)	(0.31 - 0.51)	(-4.07 - -3.59)	(-2.73 - -2.44)	(-2.89 - -2.56)	(-3.43 - -3.06)
46	Quinmerac	ν	-0.04	**0.34**	-2.24	-2.58	-2.47	-1.19
			(-0.14 - 0.06)	(0.24 - 0.44)	(-2.44 - -2.04)	(-2.75 - -2.4)	(-2.66 - -2.27)	(-1.33 - -1.05)
47	Tebuconazol	ν	0.1	**0.32**	-3.44	-2.67	-2.92	-3.21
			(0 - 0.19)	(0.23 - 0.41)	(-3.64 - -3.24)	(-2.8 - -2.53)	(-3.07 - -2.76)	(-3.38 - -3.04)
48	Terbuthylazin	ν	**0.06**	**0.27**	-2.89	-1.42	-1.45	-2.44
			(0.01 - 0.11)	(0.22 - 0.32)	(-3.01 - -2.77)	(-1.5 - -1.35)	(-1.53 - -1.37)	(-2.54 - -2.34)

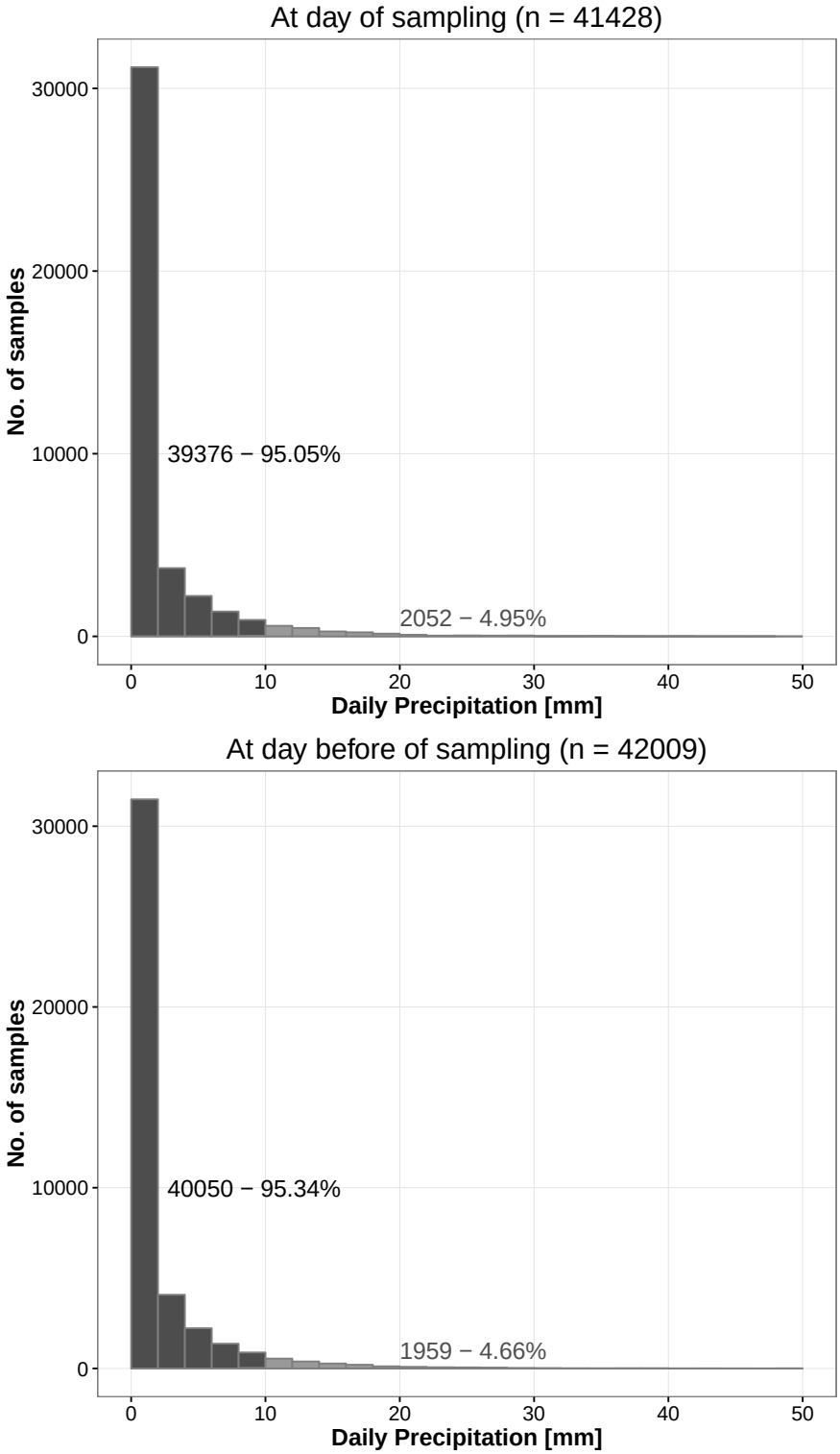

Figure S6: Distribution of precipitation at sampling occasions. top: at sampling date. bottom: at day before sampling.

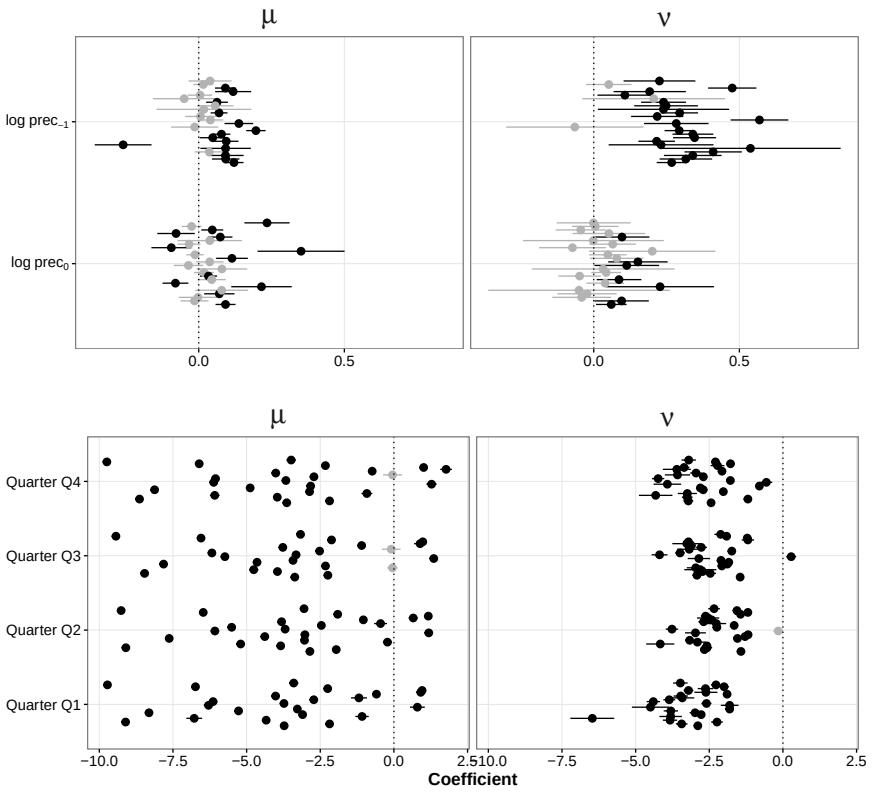

Figure S7: Graphical representation of coefficients from table S4. Top row: Effect of precipitation at day before sampling and at day of sampling. Bottom row: estimates for the four Quarters. Each dot represent one compound (in the order described in table S3). Coefficients where the CI encompasses zero are shown in gray colour. Coefficients are shown on the link scale (log for μ and logit for ν).

6 Pesticides in small water bodies

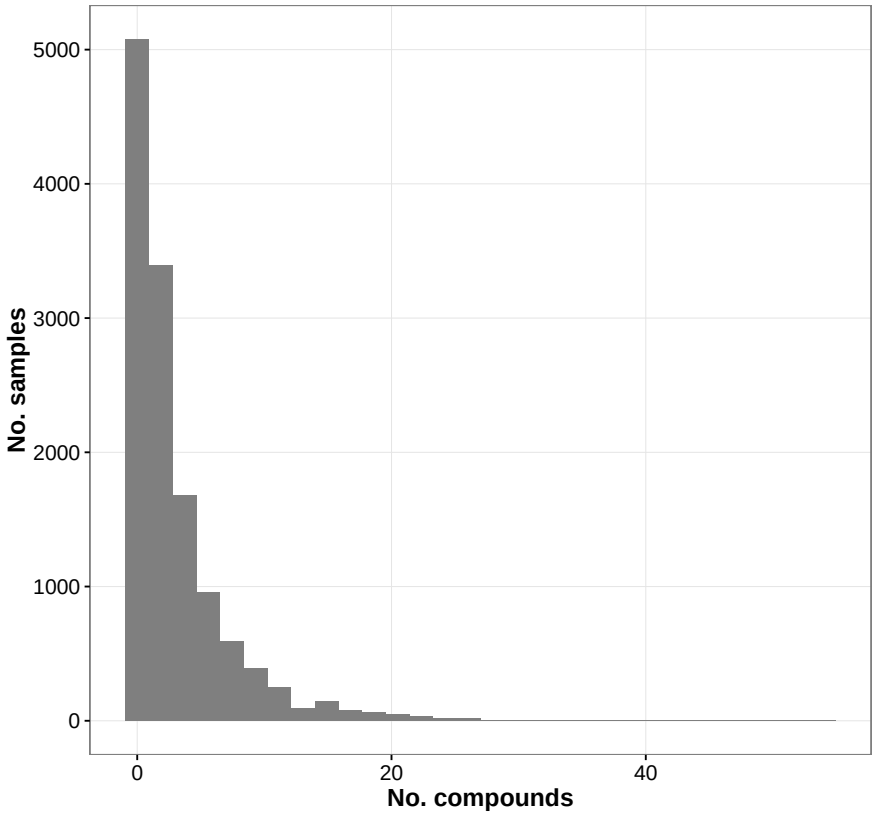

Figure S8: Distribution the number of quantified compounds in the samples from small water bodies.

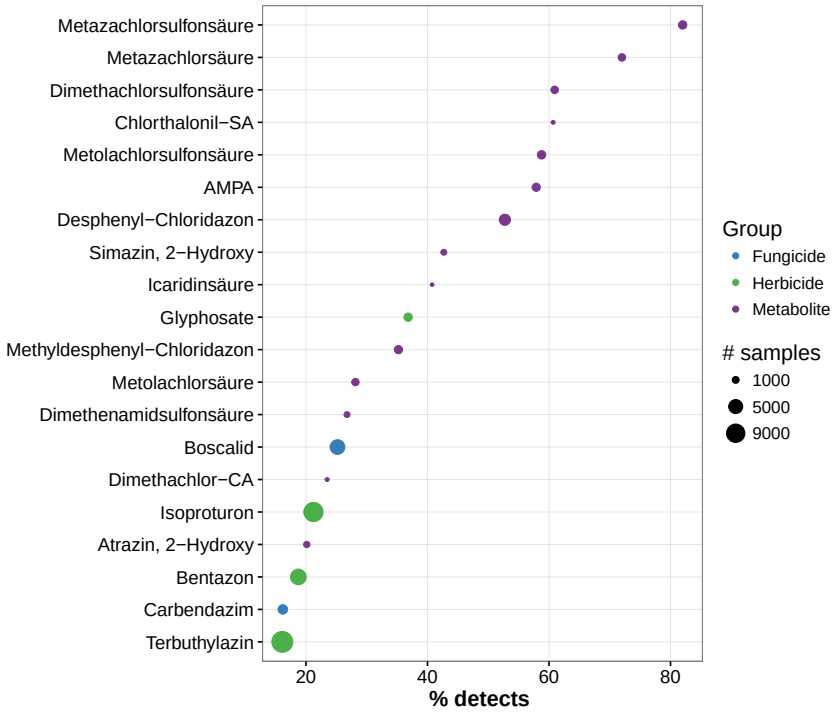

Figure S9: Proportion of samples with detects in SWB. Only Compounds with more than 100 samples and 15% of detects are show.

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Voß, K., Fernández, D., and Schäfer, R. (2015). Organic matter breakdown in streams in a region of contrasting anthropogenic land use. *Science of The Total Environment*, 527-528:179–184.