**Supplementary data**

**Characterization of five passive sampling devices for monitoring of pesticides in water**

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**Instrumental Analysis**

Instrument control was enabled by ChemStation software (Agilent Technologies, Santa Clara, CA, USA), while MassHunter software version 5 (Agilent Technologies, Santa Clara, CA, USA) was used for data analysis using GC-MS. For LC-MS/MS, both instrument control and data analysis was performed using MassHunter software version 5.

**Table S1. Limit of detection (LOD), limit of quantification (LOQ), recovery (*n* = 3), and repeatability (*n* = 6) for silicone rubber (SR)a**

| **Substance** | **Method** | **Silicone rubber (SR)** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOD** | | **LOQ** | | **Recovery** | | **Repeatability** |
| **(ng L-1)** | **(pg absolut)c** | **(ng L-1)** | **(pg absolut)c** | **%** | | **%** |
|  | |  | | **Mean** | **SD** |  |
| acetamiprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 58 | 11 | 5.0 |
| aclonifenb | GC-EI-MS | 5.5 | 0.017 | 18 | 0.057 | 110 | 1.7 | 12 |
| alachlorb | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 100 | 8.9 | 13 |
| alpha-cypermethrin | GC-CI-MS | 0.74 | 0.0022 | 2.5 | 0.0073 | 83 | 9.3 | 21 |
| amidosulfuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 2.1 | 0.20 | 42 |
| atrazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 82 | 4.5 | 5.8 |
| desethylatrazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 71 | 4.7 | 12 |
| desisopropylatrazine | LC-ESI(+)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 71 | 11 | 7.5 |
| azoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 120 | 3.5 | 8.4 |
| 2,6-dichlorobenzamide (BAM) | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 92 | 2.0 | 6.3 |
| benazolin | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 25 | 4.5 | - |
| bentazone | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 25 | 1.7 | - |
| bifenoxb | GC-EI-MS | 38 | 0.11 | 130 | 0.37 | 100 | 7.0 | 6.6 |
| bifenox acid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 92 | 3.1 | - |
| bitertanol | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 120 | 21 | 79 |
| boscalid | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | ND | ND | - |
| carbendazim | LC-ESI(+)-MS/MS | 110 | 55 | 360 | 180 | 110 | 2.5 | 8.1 |
| carbofuran | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 61 | 8.8 | 81 |
| carfentrazone-acid | LC-ESI(-)-MS/MS | 7.5 | 3.8 | 25 | 13 | 57 | 3.5 | - |
| carfentrazone-ethyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 46 | 6.7 | 28 |
| chlorfenvinphosb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 53 | 4.5 | 25 |
| chloridazon | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 79 | 12 | 7.7 |
| chlorpyrifosb | GC-CI-MS | 0.057 | 0.00017 | 0.19 | 0.00057 | 80 | 9.1 | 7.5 |
| clomazone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 45 | 0.23 | 6.6 |
| clopyralid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 98 | 6.8 | - |
| clothianidin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 110 | 15 | - |
| cyanazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 100 | 4.1 | 8.1 |
| cyazofamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 3 | 0.093 | 25 |
| cybutryneb | LC-ESI(+)-MS/MS | 550 | 280 | 1800 | 930 | 70 | 3.3 | 11 |
| cyflufenamid | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 21 | 7.9 | 56 |
| cyfluthrin | GC-CI-MS | 2.6 | 0.0078 | 8.6 | 0.026 | 87 | 8.2 | 6.8 |
| cycloxydim | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 18 | 4.2 | 43 |
| cyprodinil | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 6.1 | 0.64 | 10 |
| 2,4-D | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 100 | 3.2 | - |
| deltamethrin | GC-CI-MS | 1.9 | 0.0057 | 6.4 | 0.019 | 80 | 11 | 18 |
| difenoconazole | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 100 | 4.3 | 45 |
| diflufenican | GC-EI-MS | 2.2 | 0.0066 | 7.3 | 0.022 | 160 | 7.5 | 23 |
| dichlorprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 68 | 2.0 | - |
| dichlorvosb | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 44 | 5.3 | - |
| dimethoate | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 50 | 5.7 | 9.9 |
| diuronb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 37 | 3.9 | - |
| *α*-endosulfanb | GC-CI-MS | 0.021 | 0.000063 | 0.07 | 0.00021 | 89 | 4.8 | 9.4 |
| *β*-endosulfanb | GC-CI-MS | 0.46 | 0.0014 | 1.5 | 0.0047 | 89 | 8.0 | 7.2 |
| endosulfan sulfate | GC-CI-MS | 0.072 | 0.00022 | 0.24 | 0.00073 | 100 | 5.9 | 8.6 |
| epoxiconazole | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 74 | 1.9 | 11 |
| esfenvalerate | GC-CI-MS | 0.45 | 0.0014 | 1.5 | 0.0047 | 97 | 7.9 | 3.7 |
| ethofumesate | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 40 | 1.7 | 5.9 |
| fenitrothion | GC-EI-MS | 4.9 | 0.015 | 16 | 0.050 | 130 | 8.7 | 15 |
| fenpropidin | LC-ESI(+)-MS/MS | 9.6 | 4.8 | 32 | 16 | 130 | 14 | 11 |
| fenpropimorph | LC-ESI(+)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | 94 | 5.9 | - |
| florasulam | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 9.6 | 0.037 | - |
| fluazinam | LC-ESI(-)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 4.4 | 63 |
| fludioxonil | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 60 | 5.6 | 5.2 |
| flupyrsulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 12 | 0.085 | - |
| fluroxypyr | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 49 | 2.8 | - |
| flurprimidol | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 61 | 4.8 | 14 |
| flurtamone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 78 | 2.3 | 6.6 |
| flusilazole | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 84 | 10 | 22 |
| flutriafol | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 75 | 7.7 | 7.8 |
| foramsulfuron | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 0.57 | 0.17 | 19 |
| fuberidazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 6.4 | 4.8 |
| *α*-hexachlorocyclohexaneb | GC-CI-MS | 0.36 | 0.0011 | 1.2 | 0.0037 | 77 | 1.9 | 12 |
| *β*-hexachlorocyclohexaneb | GC-CI-MS | 10 | 0.03 | 34 | 0.10 | 100 | 2.2 | 13 |
| *γ*-hexachlorocyclohexaneb | GC-CI-MS | 3.6 | 0.011 | 12 | 0.037 | 100 | 2.2 | 5.9 |
| *δ*-hexachlorocyclohexaneb | GC-CI-MS | 0.40 | 0.0012 | 1.3 | 0.0040 | 97 | 8.1 | 6.4 |
| hexazinone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 82 | 4.7 | 9.1 |
| hexythiazox | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 75 | 9.4 | 90 |
| imazalil | LC-ESI(+)-MS/MS | 25 | 13 | 83 | 43 | 84 | 3.1 | 30 |
| imidacloprid | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 110 | 22 | 7.1 |
| iodosulfuron-methyl-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 5.9 | 2.1 | - |
| iprodione | GC-EI-MS | 11 | 0.033 | 35 | 0.11 | 180 | 14 | 22 |
| isoproturonb | LC-ESI(+)-MS/MS | 16 | 8.0 | 53 | 27 | 50 | 1.8 | 11 |
| lambda-cyhalothrin | GC-CI-MS | 0.51 | 0.0015 | 1.7 | 0.0050 | 82 | 6.3 | 4.9 |
| linuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 19 | 0.91 | 15 |
| mandipropamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 2.2 | 9.2 |
| MCPA | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 59 | 2.5 | - |
| mecoprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 92 | 12 | - |
| mesosulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 1.4 | 2.0 | - |
| methabenzthiazuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 75 | 4.4 | 7.7 |
| metalaxyl | LC-ESI(+)-MS/MS | 210 | 110 | 690 | 370 | 84 | 6.2 | 7.1 |
| metamitron | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 88 | 8.9 | 11 |
| metazachlor | LC-ESI(+)-MS/MS | 48 | 24 | 160 | 80 | 81 | 0.17 | 8.5 |
| methiocarb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 5.1 | 4.8 | 37 |
| metolachlor | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 75 | 6.5 | 18 |
| metrafenone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 7.2 | 39 |
| metribuzin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 70 | 4.1 | 17 |
| metsulfuron-methyl | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 61 | 8.3 | 17 |
| penconazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 56 | 6.3 | 23 |
| pendimethalin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 2.3 | 0.23 | 85 |
| permethrin | GC-CI-MS | 15 | 0.045 | 52 | 0.15 | 61 | 4.4 | 6.8 |
| phenmedipham | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 2.4 | 0.37 | - |
| picloram | LC-ESI(-)-MS/MS | 20 | 10 | 67 | 33 | 100 | 2.8 | - |
| picoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 1.9 | 21 |
| pirimicarb | LC-ESI(+)-MS/MS | 140 | 70 | 470 | 230 | 73 | 0.63 | 8.5 |
| prochloraz | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 79 | 2.6 | 63 |
| propamocarb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 2.3 | 6.6 |
| propiconazole | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 55 | 1.9 | 17 |
| propoxycarbazone-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 1.6 | 2.2 | - |
| propyzamide | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 25 | 16 | 11 |
| prosulfocarb | GC-EI-MS | 5.7 | 0.017 | 19 | 0.057 | 110 | 1.2 | 20 |
| prothioconazole-desthio | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 71 | 3.1 | 6.0 |
| pyraclostrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 9.7 | 58 |
| pyroxulam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 100 | 4.0 | 8.3 |
| quinmerac | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 88 | 3.3 | 38 |
| quinoxyfenb | GC-EI-MS | 12 | 0.036 | 38 | 0.12 | 150 | 4.8 | 28 |
| rimsulfuron | LC-ESI(+)-MS/MS | 1.2 | 0.60 | 4.0 | 2.0 | 0.95 | 0.71 | - |
| silthiofam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 40 | 3.2 | 7.7 |
| simazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 62 | 2.5 | 7.8 |
| spiroxamine | LC-ESI(+)-MS/MS | 2.4 | 1.2 | 8.0 | 4.0 | 96 | 2.4 | 42 |
| sulfosulfuron | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 12 | 2.4 | 10 |
| tau-fluvalinate | GC-CI-MS | 2.3 | 0.0069 | 7.7 | 0.023 | 110 | 6.6 | 8.4 |
| terbutrynb | LC-ESI(+)-MS/MS | 20 | 10 | 67 | 33 | 99 | 2.6 | 8.4 |
| terbuthylazine | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 18 | 2.1 | 6.6 |
| desethyl-terbuthylazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 34 | 2.8 | 12 |
| thiacloprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 55 | 5.3 | 11 |
| thiamethoxam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 95 | 2.4 | 7.0 |
| thifensulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 4.0 | 1.1 | - |
| thiophanate-methyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 66 | 1.6 | - |
| tolclofos-methyl | GC-EI-MS | 0.82 | 0.0025 | 2.7 | 0.0083 | 96 | 12 | 30 |
| tolylfluanid | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 4.1 | 1.4 | - |
| tribenuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 0.25 | 0.24 | - |
| trifloxystrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 2.8 | 59 |
| trifluralinb | GC-EI-MS | 1.6 | 0.0048 | 5.2 | 0.016 | 90 | 4.2 | 17 |
| triflusulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 0.97 | 1.4 | - |
| trinexapac-acid | LC-ESI(-)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | 100 | 3.9 | - |
| trinexapac-ethyl | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 97 | 6.2 | 42 |
| triticonazole | LC-ESI(+)-MS/MS | 590 | 300 | 2000 | 1000 | 110 | 1.3 | 5.3 |

**a ND = not detected. b priority substances in the EU Water Framework Directive. c pg absolut on column based on 500 *μ*L injection volume for LC-ESI(+)-MS/MS, LC-ESI(-)-MS/MS, and 3 *μ*L injection volume for GC-EI-MS, GC-CI-MS.**

**Table S2. Limit of detection (LOD), limit of quantification (LOQ), recovery (*n* = 3), and repeatability (*n* = 8) for polar organic chemical integrative sampler (POCIS)-Aa**

| **Substance** | **Method** | **POCIS-A** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOD** | | **LOQ** | | **Recovery** | | **Repeatability** |
| **(ng L-1)** | **(pg absolut)c** | **(ng L-1)** | **(pg absolut)c** | **%** | | **%** |
|  | |  | | **Mean** | **SD** |  |
| acetamiprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 98 | 6.4 | 13 |
| aclonifenb | GC-EI-MS | 5.5 | 0.017 | 18 | 0.057 | 93 | 4.1 | - |
| alachlorb | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 120 | 2.8 | 14 |
| alpha-cypermethrin | GC-CI-MS | 0.59 | 0.0018 | 2.0 | 0.0060 | 100 | 13 | - |
| amidosulfuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 130 | 19 | 16 |
| atrazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 1.1 | 12 |
| desethylatrazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 97 | 7.3 | 13 |
| desisopropylatrazine | LC-ESI(+)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 100 | 9.9 | 17 |
| azoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 15 | 15 |
| 2,6-dichlorobenzamide (BAM) | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 110 | 7.1 | 14 |
| benazolin | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 39 | 30 | 8.7 |
| bentazone | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 100 | 10 | 47 |
| bifenoxb | GC-EI-MS | 38 | 0.11 | 130 | 0.37 | 91 | 5.3 | - |
| bifenox acid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 93 | 71 | 3.8 |
| bitertanol | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 130 | 8.4 | 22 |
| boscalid | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | ND | ND | - |
| carbendazim | LC-ESI(+)-MS/MS | 59 | 30 | 200 | 100 | 120 | 8.0 | 14 |
| carbofuran | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 100 | 2.2 | 13 |
| carfentrazone-acid | LC-ESI(-)-MS/MS | 7.5 | 3.8 | 25 | 13 | 96 | 26 | 1.9 |
| carfentrazone-ethyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 130 | 3.6 | 52 |
| chlorfenvinphosb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 120 | 7.9 | 20 |
| chloridazon | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 17 | 13 |
| chlorpyrifosb | GC-CI-MS | 0.053 | 0.00016 | 0.18 | 0.00053 | 120 | 3.2 | - |
| clomazone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 18 | 13 |
| clopyralid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 94 | 17 | - |
| clothianidin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 87 | 21 | 15 |
| cyanazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 22 | 14 |
| cyazofamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 130 | 6.8 | 14 |
| cybutryneb | LC-ESI(+)-MS/MS | 34 | 17 | 110 | 57 | 85 | 13 | 44 |
| cyflufenamid | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 120 | 9.8 | 56 |
| cyfluthrin | GC-CI-MS | 1.3 | 0.0039 | 4.2 | 0.013 | 100 | 4.4 | - |
| cycloxydim | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 110 | 3.3 | 17 |
| cyprodinil | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 120 | 3.1 | 41 |
| 2,4-D | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 94 | 8.3 | 3.0 |
| deltamethrin | GC-CI-MS | 1.7 | 0.0051 | 5.7 | 0.017 | 110 | 3.0 | - |
| difenoconazole | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 120 | 1.8 | 34 |
| diflufenican | GC-EI-MS | 2.2 | 0.0066 | 7.3 | 0.022 | 110 | 2.5 | - |
| dichlorprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 77 | 17 | 1.4 |
| dichlorvosb | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 100 | 1.4 | 29 |
| dimethoate | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 94 | 13 | 14 |
| diuronb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 2.1 | 12 |
| *α*-endosulfanb | GC-CI-MS | 0.068 | 0.0002 | 0.23 | 0.00067 | 97 | 0.045 | - |
| *β*-endosulfanb | GC-CI-MS | 0.20 | 0.0006 | 0.67 | 0.0020 | 110 | 9.3 | - |
| endosulfan sulfate | GC-CI-MS | 0.27 | 0.00081 | 0.91 | 0.0027 | 100 | 7.1 | - |
| epoxiconazole | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 110 | 8.0 | 16 |
| esfenvalerate | GC-CI-MS | 0.29 | 0.00087 | 0.96 | 0.0029 | 100 | 5.7 | - |
| ethofumesate | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 120 | 11 | 14 |
| fenitrothion | GC-EI-MS | 4.9 | 0.015 | 16 | 0.050 | 99 | 13 | - |
| fenpropidin | LC-ESI(+)-MS/MS | 9.6 | 4.8 | 32 | 16 | 110 | 4.6 | 45 |
| fenpropimorph | LC-ESI(+)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | 140 | 5.5 | 56 |
| florasulam | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 120 | 9.9 | 18 |
| fluazinam | LC-ESI(-)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 100 | 19 | - |
| fludioxonil | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 2.2 | 27 |
| flupyrsulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 11 | 53 |
| fluroxypyr | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 110 | 16 | 4.8 |
| flurprimidol | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 100 | 0.57 | 18 |
| flurtamone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 120 | 11 | 15 |
| flusilazole | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 87 | 15 | 18 |
| flutriafol | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 18 | 13 |
| foramsulfuron | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 98 | 13 | 17 |
| fuberidazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 150 | 0.17 | 11 |
| *α*-hexachlorocyclohexaneb | GC-CI-MS | 0.17 | 0.00051 | 0.57 | 0.0017 | 56 | 0.31 | - |
| *β*-hexachlorocyclohexaneb | GC-CI-MS | 1.5 | 0.0045 | 5.0 | 0.015 | 88 | 2.0 | - |
| *γ*-hexachlorocyclohexaneb | GC-CI-MS | 0.76 | 0.0023 | 2.5 | 0.0077 | 69 | 2.8 | - |
| *δ*-hexachlorocyclohexaneb | GC-CI-MS | 0.40 | 0.0012 | 1.3 | 0.0040 | 77 | 0.84 | - |
| hexazinone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 7.4 | 14 |
| hexythiazox | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 120 | 14 | 62 |
| imazalil | LC-ESI(+)-MS/MS | 25 | 13 | 83 | 43 | 130 | 5.0 | 17 |
| imidacloprid | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 110 | 18 | 16 |
| iodosulfuron-methyl-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 95 | 14 | 1.8 |
| iprodione | GC-EI-MS | 11 | 0.033 | 35 | 0.11 | 110 | 7.8 | - |
| isoproturonb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 98 | 4.4 | 13 |
| lambda-cyhalothrin | GC-CI-MS | 0.20 | 0.0006 | 0.68 | 0.0020 | 100 | 10 | - |
| linuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 97 | 21 | 14 |
| mandipropamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 2.1 | 26 |
| MCPA | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 110 | 18 | 3.6 |
| mecoprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 110 | 23 | 0.98 |
| mesosulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 120 | 12 | 12 |
| methabenzthiazuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 130 | 7.4 | 12 |
| metalaxyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 100 | 5.5 | 14 |
| metamitron | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 100 | 25 | 13 |
| metazachlor | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 100 | 21 | 13 |
| methiocarb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 110 | 26 | 57 |
| metolachlor | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 4.3 | 16 |
| metrafenone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 14 | 23 |
| metribuzin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 100 | 11 | 13 |
| metsulfuron-methyl | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 96 | 6.4 | 19 |
| penconazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 85 | 6.1 | 15 |
| pendimethalin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 120 | 4.0 | 76 |
| permethrin | GC-CI-MS | 8.9 | 0.027 | 30 | 0.090 | 94 | 5.3 | - |
| phenmedipham | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 8.4 | - |
| picloram | LC-ESI(-)-MS/MS | 20 | 10 | 67 | 33 | 100 | 3.0 | - |
| picoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 8.5 | 14 |
| pirimicarb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 10 | 13 |
| prochloraz | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 110 | 4.7 | 13 |
| propamocarb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 120 | 8.0 | 18 |
| propiconazole | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 110 | 6.4 | 21 |
| propoxycarbazone-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 96 | 38 | 9.5 |
| propyzamide | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 70 | 0.36 | 15 |
| prosulfocarb | GC-EI-MS | 15 | 0.045 | 50 | 0.15 | 100 | 7.1 | - |
| prothioconazole-desthio | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 110 | 5.8 | 12 |
| pyraclostrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 9.2 | 61 |
| pyroxulam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 24 | 17 |
| quinmerac | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 100 | 8.0 | 28 |
| quinoxyfenb | GC-EI-MS | 2.6 | 0.0078 | 8.8 | 0.026 | 110 | 9.7 | - |
| rimsulfuron | LC-ESI(+)-MS/MS | 1.2 | 0.60 | 4.0 | 2 | 120 | 3.6 | - |
| silthiofam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 15 | 16 |
| simazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 97 | 1.9 | 13 |
| spiroxamine | LC-ESI(+)-MS/MS | 2.4 | 1.2 | 8.0 | 4 | 130 | 12 | 43 |
| sulfosulfuron | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 98 | 27 | 19 |
| tau-fluvalinate | GC-CI-MS | 1.7 | 0.0051 | 5.6 | 0.017 | 110 | 18 | - |
| terbutrynb | LC-ESI(+)-MS/MS | 20 | 10 | 67 | 33 | 94 | 9.8 | 43 |
| terbuthylazine | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 110 | 0.20 | 14 |
| desethyl-terbuthylazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 84 | 2.1 | 12 |
| thiacloprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 110 | 11 | 12 |
| thiamethoxam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 3.9 | 14 |
| thifensulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 89 | 3.2 | 13 |
| thiophanate-methyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 150 | 18 | 18 |
| tolclofos-methyl | GC-EI-MS | 0.82 | 0.0025 | 2.7 | 0.0083 | 110 | 9.7 | - |
| tolylfluanid | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 120 | 6.1 | - |
| tribenuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 11 | 12 |
| trifloxystrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 4.4 | 50 |
| trifluralinb | GC-EI-MS | 1.6 | 0.0048 | 5.2 | 0.016 | 95 | 3.5 | - |
| triflusulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 7.3 | 19 |
| trinexapac-acid | LC-ESI(-)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | 83 | 52 | - |
| trinexapac-ethyl | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 110 | 8.4 | 19 |
| triticonazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 86 | 12 | 15 |

**a ND = not detected. b priority substances in the EU Water Framework Directive. c pg absolut on column based on 500 *μ*L injection volume for LC-ESI(+)-MS/MS, LC-ESI(-)-MS/MS, and 3 *μ*L injection volume for GC-EI-MS, GC-CI-MS.**

**Table S3. Limit of detection (LOD), limit of quantification (LOQ), recovery (*n* = 3), and repeatability (*n* = 6) for polar organic chemical integrative sampler (POCIS)-Ba**

| **Substance** | **Method** | **POCIS-B** | | | | | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOD** | | | | **LOQ** | | | | **Recovery** | | | | **Repeatability** | |
| **(ng L-1)** | | **(pg absolut)c** | | **(ng L-1)** | | **(pg absolut)c** | | **%** | | | | **%** | |
|  | | | |  | | | | **Mean** | | **SD** | |  | |
| acetamiprid | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 110 | | 4.7 | | 15 | | |
| aclonifenb | GC-EI-MS |  | - | | - | | - | | - | | 2.4 | | 0.96 | | - | | |
| alachlorb | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 120 | | 4.4 | | 17 | | |
| alpha-cypermethrin | GC-CI-MS |  | - | | - | | - | | - | | 80 | | 4.1 | | - | | |
| amidosulfuron | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 10 | | 14 | | |
| atrazineb | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 110 | | 3.3 | | 17 | | |
| desethylatrazine | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 72 | | 8.4 | | 13 | | |
| desisopropylatrazine | LC-ESI(+)-MS/MS |  | 1.5 | | 0.75 | | 5.0 | | 2.5 | | 67 | | 13 | | 12 | | |
| azoxystrobin | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 130 | | 3.3 | | 4.4 | | |
| 2,6-dichlorobenzamide (BAM) | LC-ESI(+)-MS/MS |  | 4.0 | | 2.0 | | 13 | | 6.7 | | 130 | | 5.6 | | 13 | | |
| benazolin | LC-ESI(-)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 74 | | 20 | | 3.6 | | |
| bentazone | LC-ESI(-)-MS/MS |  | 1.5 | | 0.75 | | 5.0 | | 2.5 | | 89 | | 2.7 | | 54 | | |
| bifenoxb | GC-EI-MS |  | - | | - | | - | | - | | 71 | | 3.7 | | - | | |
| bifenox acid | LC-ESI(-)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 110 | | 6 | | 7.5 | | |
| bitertanol | LC-ESI(+)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 140 | | 0.76 | | 19 | | |
| boscalid | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | ND | | - | | - | | |
| carbendazim | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 12 | | 1.7 | | 9.9 | | |
| carbofuran | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 110 | | 13 | | 7.7 | | |
| carfentrazone-acid | LC-ESI(-)-MS/MS |  | 7.5 | | 3.8 | | 25 | | 13 | | 110 | | 17 | | 11 | | |
| carfentrazone-ethyl | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 130 | | 5.6 | | 14 | | |
| chlorfenvinphosb | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 140 | | 1.1 | | 15 | | |
| chloridazon | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 110 | | 17 | | 13 | | |
| chlorpyrifosb | GC-CI-MS |  | - | | - | | - | | - | | 64 | | 3.5 | | - | | |
| clomazone | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 130 | | 13 | | 15 | | |
| clopyralid | LC-ESI(-)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 100 | | 19 | | 18 | | |
| clothianidin | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 66 | | 1.3 | | 16 | | |
| cyanazine | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 16 | | 16 | | |
| cyazofamid | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 130 | | 29 | | 19 | | |
| cybutryneb | LC-ESI(+)-MS/MS |  | 8.0 | | 4.0 | | 27 | | 13 | | 4.0 | | 3.0 | | 20 | | |
| cyflufenamid | LC-ESI(+)-MS/MS |  | 4.0 | | 2.0 | | 13 | | 6.7 | | 110 | | 12 | | 12 | | |
| cyfluthrin | GC-CI-MS |  | - | | - | | - | | - | | 89 | | 4.9 | | - | | |
| cycloxydim | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 130 | | 3.5 | | 18 | | |
| cyprodinil | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 38 | | 32 | | 7.4 | | |
| 2,4-D | LC-ESI(-)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 100 | | 5.7 | | 6.1 | | |
| deltamethrin | GC-CI-MS |  | - | | - | | - | | - | | 82 | | 6.9 | | - | | |
| difenoconazole | LC-ESI(+)-MS/MS |  | 4.0 | | 2.0 | | 13 | | 6.7 | | 110 | | 24 | | 58 | | |
| diflufenican | GC-EI-MS |  | - | | - | | - | | - | | 0.87 | | 0.18 | | - | | |
| dichlorprop | LC-ESI(-)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 73 | | 23 | | 7.9 | | |
| dichlorvosb | LC-ESI(+)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 110 | | 17 | | 12 | | |
| dimethoate | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 95 | | 3.3 | | 12 | | |
| diuronb | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 26 | | 11 | | |
| *α*-endosulfanb | GC-CI-MS |  | - | | - | | - | | - | | 77 | | 5.5 | | - | | |
| *β*-endosulfanb | GC-CI-MS |  | - | | - | | - | | - | | 100 | | 1.2 | | - | | |
| endosulfan sulfate | GC-CI-MS |  | - | | - | | - | | - | | 100 | | 9.2 | | - | | |
| epoxiconazole | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 110 | | 3.6 | | 18 | | |
| esfenvalerate | GC-CI-MS |  | - | | - | | - | | - | | 62 | | 4.3 | | - | | |
| ethofumesate | LC-ESI(+)-MS/MS |  | 4.0 | | 2.0 | | 13 | | 6.7 | | 110 | | 4.7 | | 20 | | |
| fenitrothion | GC-EI-MS |  | - | | - | | - | | - | | 91 | | 14 | | - | | |
| fenpropidin | LC-ESI(+)-MS/MS |  | 9.6 | | 4.8 | | 32 | | 16 | | 6 | | 0.48 | | 13 | | |
| fenpropimorph | LC-ESI(+)-MS/MS |  | 3.0 | | 1.5 | | 10 | | 5.0 | | 4.3 | | 2.8 | | 17 | | |
| florasulam | LC-ESI(-)-MS/MS |  | 1.5 | | 0.75 | | 5.0 | | 2.5 | | 82 | | 13 | | 9.0 | | |
| fluazinam | LC-ESI(-)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 120 | | 2.2 | | - | | |
| fludioxonil | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 64 | | 16 | | 24 | | |
| flupyrsulfuron-methyl | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 88 | | 27 | | 12 | | |
| fluroxypyr | LC-ESI(-)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 120 | | 32 | | 5.2 | | |
| flurprimidol | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 110 | | 17 | | 16 | | |
| flurtamone | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 120 | | 4.1 | | 19 | | |
| flusilazole | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 100 | | 1.9 | | 21 | | |
| flutriafol | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 13 | | 15 | | |
| foramsulfuron | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 130 | | 54 | | 17 | | |
| fuberidazole | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 18 | | 6.2 | | 10 | | |
| *α*-hexachlorocyclohexaneb | GC-CI-MS |  | - | | - | | - | | - | | 58 | | 3.0 | | - | | |
| *β*-hexachlorocyclohexaneb | GC-CI-MS |  | - | | - | | - | | - | | 70 | | 5.8 | | - | | |
| *γ*-hexachlorocyclohexaneb | GC-CI-MS |  | - | | - | | - | | - | | 63 | | 2.2 | | - | | |
| *δ*-hexachlorocyclohexaneb | GC-CI-MS |  | - | | - | | - | | - | | 69 | | 0.53 | | - | | |
| hexazinone | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 100 | | 9.2 | | 12 | | |
| hexythiazox | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 130 | | 23 | | 35 | | |
| imazalil | LC-ESI(+)-MS/MS |  | 25 | | 13 | | 83 | | 43 | | 6.2 | | 1.2 | | 19 | | |
| imidacloprid | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 110 | | 23 | | 16 | | |
| iodosulfuron-methyl-Na | LC-ESI(-)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 140 | | 59 | | 5.9 | | |
| iprodione | GC-EI-MS |  | - | | - | | - | | - | | 85 | | 23 | | - | | |
| isoproturonb | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 100 | | 16 | | 17 | | |
| lambda-cyhalothrin | GC-CI-MS |  | - | | - | | - | | - | | 97 | | 2.0 | | - | | |
| linuron | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 110 | | 0.61 | | 22 | | |
| mandipropamid | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 10 | | 46 | | |
| MCPA | LC-ESI(-)-MS/MS |  | 1.5 | | 0.75 | | 5.0 | | 2.5 | | 78 | | 22 | | 3.7 | | |
| mecoprop | LC-ESI(-)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 120 | | 10 | | 5.3 | | |
| mesosulfuron-methyl | LC-ESI(-)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 100 | | 4.8 | | 7.9 | | |
| methabenzthiazuron | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 67 | | 3.4 | | 14 | | |
| metalaxyl | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 92 | | 8.0 | | 9.6 | | |
| metamitron | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 26 | | 1.8 | | 12 | | |
| metazachlor | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 110 | | 5.5 | | 14 | | |
| methiocarb | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 120 | | 9.4 | | 16 | | |
| metolachlor | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 8.2 | | 22 | | |
| metrafenone | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 0.77 | | 10 | | |
| metribuzin | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 120 | | 7.2 | | 10 | | |
| metsulfuron-methyl | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 100 | | 36 | | 20 | | |
| penconazole | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 130 | | 24 | | 16 | | |
| pendimethalin | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 110 | | 13 | | 34 | | |
| permethrin | GC-CI-MS |  | - | | - | | - | | - | | 64 | | 2.6 | | - | | |
| phenmedipham | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 15 | | 2.6 | | - | | |
| picloram | LC-ESI(-)-MS/MS |  | 20 | | 10 | | 67 | | 33 | | 130 | | 34 | | - | | |
| picoxystrobin | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 130 | | 3.0 | | 14 | | |
| pirimicarb | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 9.4 | | 2.4 | | 14 | | |
| prochloraz | LC-ESI(+)-MS/MS |  | 5.0 | | 2.5 | | 17 | | 8.3 | | 15 | | 4.8 | | 21 | | |
| propamocarb | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 7.7 | | 7.9 | | 9.1 | | |
| propiconazole | LC-ESI(+)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 120 | | 15 | | 21 | | |
| propoxycarbazone-Na | LC-ESI(-)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 110 | | 14 | | 7.5 | | |
| propyzamide | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 110 | | 6.1 | | 18 | | |
| prosulfocarb | GC-EI-MS |  | - | | - | | - | | - | | 110 | | 3.8 | | - | | |
| prothioconazole-desthio | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 100 | | 0.40 | | 17 | | |
| pyraclostrobin | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 14 | | 25 | | |
| pyroxulam | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 88 | | 26 | | 19 | | |
| quinmerac | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 8.4 | | 10 | | 7.9 | | |
| quinoxyfenb | GC-EI-MS |  | - | | - | | - | |  | | 0.97 | | 0.59 | | - | | |
| rimsulfuron | LC-ESI(+)-MS/MS |  | 1.2 | | 0.60 | | 4.0 | | 2.0 | | 110 | | 9.9 | | 12 | | |
| silthiofam | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 98 | | 0.70 | | 16 | | |
| simazineb | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 95 | | 1.9 | | 12 | | |
| spiroxamine | LC-ESI(+)-MS/MS |  | 2.4 | | 1.2 | | 8.0 | | 4.0 | | 6.7 | | 1.4 | | 8.2 | | |
| sulfosulfuron | LC-ESI(+)-MS/MS |  | 4.0 | | 2.0 | | 13 | | 6.7 | | 100 | | 51 | | 18 | | |
| tau-fluvalinate | GC-CI-MS |  | - | | - | | - | | - | | 85 | | 7.1 | | - | | |
| terbutrynb | LC-ESI(+)-MS/MS |  | 20 | | 10 | | 67 | | 33 | | 14 | | 1.2 | | 4.0 | | |
| terbuthylazine | LC-ESI(+)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 100 | | 4.9 | | 16 | | |
| desethyl-terbuthylazine | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 68 | | 13 | | 15 | | |
| thiacloprid | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 110 | | 2.8 | | 10 | | |
| thiamethoxam | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 130 | | 16 | | 12 | | |
| thifensulfuron-methyl | LC-ESI(-)-MS/MS |  | 2.0 | | 1.0 | | 6.7 | | 3.3 | | 130 | | 30 | | 8.1 | | |
| thiophanate-methyl | LC-ESI(+)-MS/MS |  | 0.30 | | 0.15 | | 1.0 | | 0.50 | | 140 | | 25 | | 5.7 | | |
| tolclofos-methyl | GC-EI-MS |  | - | | - | | - | | - | | 97 | | 15 | | - | | |
| tolylfluanid | LC-ESI(+)-MS/MS |  | 10 | | 5.0 | | 33 | | 17 | | 97 | | 4.6 | | - | | |
| tribenuron-methyl | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 110 | | 17 | | 33 | | |
| trifloxystrobin | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 17 | | 26 | | |
| trifluralinb | GC-EI-MS |  | - | | - | | - | | - | | 95 | | 12 | | - | | |
| triflusulfuron-methyl | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 120 | | 0.21 | | 17 | | |
| trinexapac-acid | LC-ESI(-)-MS/MS |  | 3.0 | | 1.5 | | 10 | | 5.0 | | 120 | | 0.98 | | - | | |
| trinexapac-ethyl | LC-ESI(+)-MS/MS |  | 4.0 | | 2.0 | | 13 | | 6.7 | | 100 | | 14 | | 20 | | |
| triticonazole | LC-ESI(+)-MS/MS |  | 1.0 | | 0.50 | | 3.3 | | 1.7 | | 95 | | 24 | | 17 | | |

**a ND = not detected. b priority substances in the EU Water Framework Directive. c no blank available. c pg absolut on column based on 500 *μ*L injection volume for LC-ESI(+)-MS/MS, LC-ESI(-)-MS/MS, and 3 *μ*L injection volume for GC-EI-MS, GC-CI-MS.**

**Table S4. Limit of detection (LOD), limit of quantification (LOQ), recovery (*n* = 3), and repeatability (*n* = 10) for Chemcatcher® SDB-RPSa**

| **Substance** | **Method** | **Chemcatcher® SDB-RPS** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOD** | | **LOQ** | | **Recovery** | | **Repeatability** |
| **(ng L-1)** | **(pg absolut)c** | **(ng L-1)** | **(pg absolut)c** | **%** | | **%** |
|  | |  | | **Mean** | **SD** |  |
| acetamiprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 76 | 3.1 | 11 |
| aclonifenb | GC-EI-MS | 2.3 | 0.0069 | 7.5 | 0.023 | 140 | 43 | - |
| alachlorb | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 26 | 37 | 23 |
| alpha-cypermethrin | GC-CI-MS | 0.075 | 0.00023 | 0.25 | 0.00077 | 130 | 8.2 | - |
| amidosulfuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 100 | 23 | 53 |
| atrazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 23 | 5.4 | 20 |
| desethylatrazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 42 | 5.1 | 27 |
| desisopropylatrazine | LC-ESI(+)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 48 | - | 23 |
| azoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 25 | 9.0 | 37 |
| 2,6-dichlorobenzamide (BAM) | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 100 | 8.7 | 21 |
| benazolin | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | - | - | - |
| bentazone | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 310 | 17 | 8.6 |
| bifenoxb | GC-EI-MS | 10 | 0.03 | 33 | 0.10 | 160 | 54 | - |
| bifenox acid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 340 | 32 | 18 |
| bitertanol | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | NC | - | 44 |
| boscalid | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | 21 |
| carbendazim | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 75 | - | 78 |
| carbofuran | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 470 | 18 | 16 |
| carfentrazone-acid | LC-ESI(-)-MS/MS | 7.5 | 3.8 | 25 | 13 | 220 | 44 | 29 |
| carfentrazone-ethyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 12 | 17 | - |
| chlorfenvinphosb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | NC | - | 26 |
| chloridazon | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 80 | 22 | 33 |
| chlorpyrifosb | GC-CI-MS | 1.2 | 0.0036 | 3.9 | 0.012 | 170 | 62 | - |
| clomazone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 39 | 2.7 | 21 |
| clopyralid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | - | - | - |
| clothianidin | LC-ESI(+)-MS/MS | 380 | 190 | 1300 | 630 | - | - | 45 |
| cyanazine | LC-ESI(+)-MS/MS | 33 | 17 | 110 | 57 | 63 | 0.82 | 32 |
| cyazofamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | - | - | - |
| cybutryneb | LC-ESI(+)-MS/MS | 8.0 | 4.0 | 27 | 13 | 55 | 21 | 59 |
| cyflufenamid | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | - | - | 45 |
| cyfluthrin | GC-CI-MS | 0.15 | 0.00045 | 0.50 | 0.0015 | 130 | 9.2 | - |
| cycloxydim | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | - |
| cyprodinil | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | 140 |
| 2,4-D | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | - |
| deltamethrin | GC-CI-MS | 0.75 | 0.0023 | 2.5 | 0.0077 | 140 | 9.6 | - |
| difenoconazole | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 77 | 1.9 | 64 |
| diflufenican | GC-EI-MS | 1.3 | 0.0039 | 4.2 | 0.013 | 270 | 130 | 20 |
| dichlorprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | NC | - | 5.9 |
| dichlorvosb | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 92 | 7.1 | - |
| dimethoate | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 100 | 5.1 | 24 |
| diuronb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 96 | 9.7 | - |
| *α*-endosulfanb | GC-CI-MS | 0.11 | 0.00033 | 0.36 | 0.0011 | 120 | 9.4 | - |
| *β*-endosulfanb | GC-CI-MS | 0.66 | 0.0020 | 2.2 | 0.0067 | 120 | 14 | - |
| endosulfan sulfate | GC-CI-MS | 0.089 | 0.00027 | 0.30 | 0.00090 | 110 | 6.4 | 23 |
| epoxiconazole | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 45 | - | 17 |
| esfenvalerate | GC-CI-MS | 0.30 | 0.00090 | 1.0 | 0.0030 | 130 | 12 | - |
| ethofumesate | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 62 | 5.3 | 24 |
| fenitrothion | GC-EI-MS | 0.98 | 0.0029 | 3.3 | 0.0097 | 210 | 67 | - |
| fenpropidin | LC-ESI(+)-MS/MS | 9.6 | 4.8 | 32 | 16 | NC | - | - |
| fenpropimorph | LC-ESI(+)-MS/MS | 3.0 | 1.5 | 10 | 5 | 230 | - | - |
| florasulam | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 360 | 140 | 7.7 |
| fluazinam | LC-ESI(-)-MS/MS | 0.3 | 0.15 | 1.0 | 0.50 | - | - | - |
| fludioxonil | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | - | - | 39 |
| flupyrsulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 160 | 17 | - |
| fluroxypyr | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | - |
| flurprimidol | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 110 | - | 24 |
| flurtamone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 26 | 0.58 | 29 |
| flusilazole | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 63 | 37 | 30 |
| flutriafol | LC-ESI(+)-MS/MS | 18 | 9.0 | 59 | 30 | 28 | 17 | 22 |
| foramsulfuron | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | 79 |
| fuberidazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 49 | 24 | 9.5 |
| *α*-hexachlorocyclohexaneb | GC-CI-MS | 0.045 | 0.00014 | 0.15 | 0.00047 | 130 | 9.5 | 16 |
| *β*-hexachlorocyclohexaneb | GC-CI-MS | 0.18 | 0.00054 | 0.6 | 0.0018 | 220 | 53 | 18 |
| *γ*-hexachlorocyclohexaneb | GC-CI-MS | 0.054 | 0.00016 | 0.18 | 0.00053 | 180 | 9.4 | 14 |
| *δ*-hexachlorocyclohexaneb | GC-CI-MS | 0.09 | 0.00027 | 0.30 | 0.0009 | 110 | 1.7 | 15 |
| hexazinone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 99 | 10 | 24 |
| hexythiazox | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 24 | 9.3 | 56 |
| imazalil | LC-ESI(+)-MS/MS | 25 | 13 | 83 | 43 | 120 | 14 | 58 |
| imidacloprid | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 120 | 29 | 30 |
| iodosulfuron-methyl-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | 27 |
| iprodione | GC-EI-MS | 19 | 0.057 | 64 | 0.19 | NC | - | 7.5 |
| isoproturonb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 74 | 9.4 | 27 |
| lambda-cyhalothrin | GC-CI-MS | 0.012 | 0.000036 | 0.038 | 0.00012 | 140 | 8.4 | - |
| linuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | - | - | 21 |
| mandipropamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 39 | 17 | 49 |
| MCPA | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 240 | 67 | - |
| mecoprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | 16 |
| mesosulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | 24 |
| methabenzthiazuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 82 | 16 | 16 |
| metalaxyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 77 | 1.9 | 28 |
| metamitron | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | 25 |
| metazachlor | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 69 | 0.76 | 27 |
| methiocarb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | - |
| metolachlor | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 82 | 17 | 31 |
| metrafenone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 37 | 8.9 | 43 |
| metribuzin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 73 | 7.2 | 27 |
| metsulfuron-methyl | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 80 | 3.1 | 67 |
| penconazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 73 | - | 27 |
| pendimethalin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | NC | - | 34 |
| permethrin | GC-CI-MS | 2.5 | 0.0075 | 8.2 | 0.025 | 130 | 8.4 | 8.1 |
| phenmedipham | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 36 | 0.26 | - |
| picloram | LC-ESI(-)-MS/MS | 20 | 10 | 67 | 33 | - | - | - |
| picoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 28 | 3.2 | 45 |
| pirimicarb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 7.5 | 1.4 | 25 |
| prochloraz | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 66 | 22 | 80 |
| propamocarb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 15 | 1.5 | 58 |
| propiconazole | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | NC | - | 24 |
| propoxycarbazone-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | 41 |
| propyzamide | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 33 | 14 | 24 |
| prosulfocarb | GC-EI-MS | 27 | 0.081 | 90 | 0.27 | 190 | 41 | - |
| prothioconazole-desthio | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 56 | - | 24 |
| pyraclostrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 55 | 1.9 | 86 |
| pyroxulam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 86 | 10 | 54 |
| quinmerac | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 59 | 12 | 57 |
| quinoxyfenb | GC-EI-MS | 6.5 | 0.020 | 22 | 0.067 | 110 | 37 | - |
| rimsulfuron | LC-ESI(+)-MS/MS | 1.2 | 0.60 | 4.0 | 2.0 | - | - | 71 |
| silthiofam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 41 | 6.6 | 23 |
| simazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 58 | 1.1 | 21 |
| spiroxamine | LC-ESI(+)-MS/MS | 2.4 | 1.2 | 8.0 | 4.0 | 140 | 17 | 82 |
| sulfosulfuron | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 79 | - | 58 |
| tau-fluvalinate | GC-CI-MS | 0.26 | 0.00078 | 0.88 | 0.0026 | 140 | 7.2 | - |
| terbutrynb | LC-ESI(+)-MS/MS | 20 | 10 | 67 | 33 | - | - | 60 |
| terbuthylazine | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 10 | 1.5 | 23 |
| desethyl-terbuthylazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 38 | 7.2 | 25 |
| thiacloprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 76 | 5.0 | 11 |
| thiamethoxam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 92 | 7.0 | 29 |
| thifensulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | 7.2 |
| thiophanate-methyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | - | - | - |
| tolclofos-methyl | GC-EI-MS | 0.60 | 0.0018 | 2.0 | 0.006 | 160 | 22 | - |
| tolylfluanid | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | - | - | - |
| tribenuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 49 | 0.81 | 37 |
| trifloxystrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 32 | 0.77 | 22 |
| trifluralinb | GC-EI-MS | 1.3 | 0.0039 | 4.2 | 0.013 | 160 | 28 | 12 |
| triflusulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 39 | - | 57 |
| trinexapac-acid | LC-ESI(-)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | - | - | - |
| trinexapac-ethyl | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | - | - | 43 |
| triticonazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | NC | - | 31 |

**a ND = not detected. NC = not calculable due to interferences instrumental analysis. b priority substances in the EU Water Framework Directive. c pg absolut on column based on 500 *μ*L injection volume for LC-ESI(+)-MS/MS, LC-ESI(-)-MS/MS, and 3 *μ*L injection volume for GC-EI-MS, GC-CI-MS.**

**Table S5. Limit of detection (LOD), limit of quantification (LOQ), recovery (*n* = 3), and repeatability (*n* = 10) for Chemcatcher® C18a**

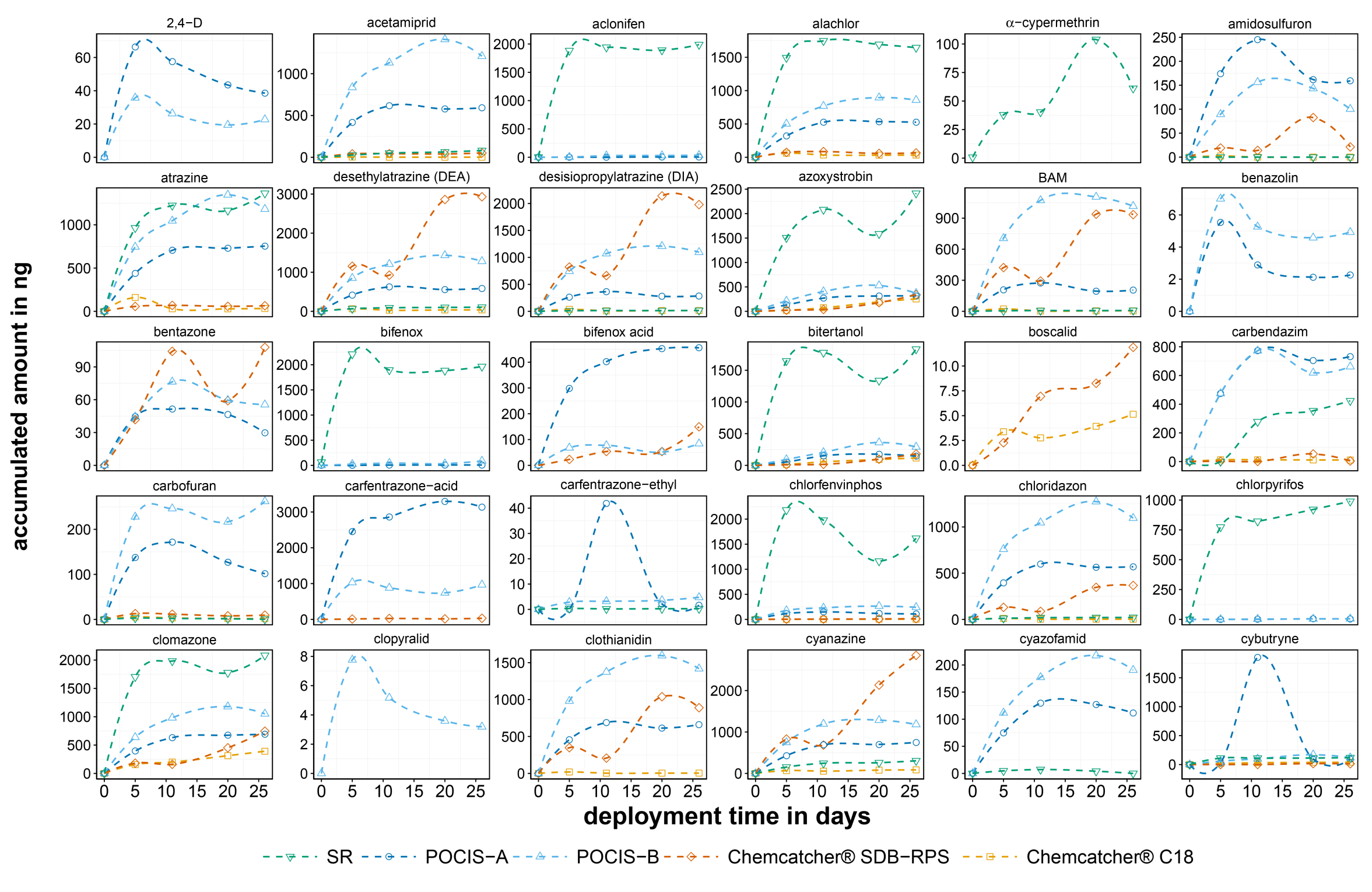
| **Substance** | **Method** | **Chemcatcher® C18** | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LOD** | | **LOQ** | | **Recovery** | | **Repeatability** |
| **(ng L-1)** | **(pg absolut)c** | **(ng L-1)** | **(pg absolut)c** | **%** | | **%** |
|  | |  | | **Mean** | **SD** |  |
| acetamiprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 91 | 2.7 | 21 |
| aclonifenb | GC-EI-MS | 5.5 | 0.017 | 18 | 0.057 | 95 | 22 | - |
| alachlorb | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 51 | 16 | 23 |
| alpha-cypermethrin | GC-CI-MS | 0.49 | 0.0015 | 1.6 | 0.005 | 81 | 0.17 | - |
| amidosulfuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 53 | 24 | 37 |
| atrazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 72 | 13 | 31 |
| desethylatrazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 95 | 14 | 26 |
| desisopropylatrazine | LC-ESI(+)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 55 | 33 | 32 |
| azoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 45 | 23 | 50 |
| 2,6-dichlorobenzamide (BAM) | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 11 | 9.5 | 38 |
| benazolin | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 37 | 4.3 | - |
| bentazone | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5 | 2.5 | 20 | 5.8 | - |
| bifenoxb | GC-EI-MS | 38 | 0.11 | 130 | 0.37 | 83 | 16 | - |
| bifenox acid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 23 | 7.2 | - |
| bitertanol | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 66 | 14 | 25 |
| boscalid | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | 28 |
| carbendazim | LC-ESI(+)-MS/MS | 68 | 34 | 230 | 110 | 110 | 28 | 7.2 |
| carbofuran | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 83 | 12 | 17 |
| carfentrazone-acid | LC-ESI(-)-MS/MS | 7.5 | 3.8 | 25 | 13 | 27 | 8.4 | - |
| carfentrazone-ethyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 62 | 11 | - |
| chlorfenvinphosb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 57 | 27 | 21 |
| chloridazon | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 62 | 15 | 29 |
| chlorpyrifosb | GC-CI-MS | 0.018 | 0.000054 | 0.060 | 0.00018 | 140 | 2.0 | 140 |
| clomazone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 18 | 5.3 | 44 |
| clopyralid | LC-ESI(-)-MS/MS | 10 | 5.0 | 33 | 17 | 6.4 | - | - |
| clothianidin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 82 | 20 | 32 |
| cyanazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 79 | 15 | 35 |
| cyazofamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 32 | 13 | - |
| cybutryneb | LC-ESI(+)-MS/MS | 8.0 | 4.0 | 27 | 13 | 37 | 12 | 9.4 |
| cyflufenamid | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 53 | 41 | 25 |
| cyfluthrin | GC-CI-MS | 0.72 | 0.0022 | 2.4 | 0.0073 | 85 | 0.94 | - |
| cycloxydim | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | - | - | - |
| cyprodinil | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 56 | 4.9 | 27 |
| 2,4-D | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 27 | 5.3 | - |
| deltamethrin | GC-CI-MS | 1.0 | 0.0030 | 3.4 | 0.01 | 87 | 4.3 | - |
| difenoconazole | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 65 | 26 | 38 |
| diflufenican | GC-EI-MS | 2.2 | 0.0066 | 7.3 | 0.022 | 170 | 29 | 40 |
| dichlorprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 31 | 5.7 | - |
| dichlorvosb | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 81 | 15 | - |
| dimethoate | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 79 | 4.0 | 26 |
| diuronb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 44 | 24 | - |
| *α*-endosulfanb | GC-CI-MS | 0.021 | 0.000063 | 0.07 | 0.00021 | 68 | 4.6 | 75 |
| *β*-endosulfanb | GC-CI-MS | 0.11 | 0.00033 | 0.37 | 0.0011 | 78 | 0.97 | 140 |
| endosulfan sulfate | GC-CI-MS | 0.072 | 0.00022 | 0.24 | 0.00073 | 82 | 0.11 | 20 |
| epoxiconazole | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 55 | 26 | 16 |
| esfenvalerate | GC-CI-MS | 0.052 | 0.00016 | 0.17 | 0.00053 | 97 | 4.6 | - |
| ethofumesate | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 130 | 33 | 43 |
| fenitrothion | GC-EI-MS | 4.9 | 0.015 | 16 | 0.050 | 97 | 12 | - |
| fenpropidin | LC-ESI(+)-MS/MS | 9.6 | 4.8 | 32 | 16 | 46 | 11 | 50 |
| fenpropimorph | LC-ESI(+)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | 35 | 17 | 64 |
| florasulam | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 32 | 7 | - |
| fluazinam | LC-ESI(-)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 1.7 | 0.58 | - |
| fludioxonil | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 48 | 29 | 27 |
| flupyrsulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 180 | 31 | - |
| fluroxypyr | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 38 | 4.4 | - |
| flurprimidol | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 97 | 16 | 44 |
| flurtamone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 2.0 | 1.4 | 19 |
| flusilazole | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 47 | 13 | 10 |
| flutriafol | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 110 | 20 | 37 |
| foramsulfuron | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 100 | 26 | - |
| fuberidazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 82 | 11 | - |
| *α*-hexachlorocyclohexaneb | GC-CI-MS | 0.17 | 0.00051 | 0.57 | 0.0017 | 62 | 0.51 | 10 |
| *β*-hexachlorocyclohexaneb | GC-CI-MS | 4.1 | 0.012 | 14 | 0.040 | 71 | 1.6 | 8.7 |
| *γ*-hexachlorocyclohexaneb | GC-CI-MS | 0.76 | 0.0023 | 2.5 | 0.0077 | 67 | 3.2 | 11 |
| *δ*-hexachlorocyclohexaneb | GC-CI-MS | 0.40 | 0.0012 | 1.3 | 0.004 | 60 | 0.50 | 12 |
| hexazinone | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 77 | 22 | 23 |
| hexythiazox | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 37 | 7.8 | 58 |
| imazalil | LC-ESI(+)-MS/MS | 25 | 13 | 83 | 43 | 48 | 8.6 | 22 |
| imidacloprid | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 160 | 47 | 29 |
| iodosulfuron-methyl-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 57 | 17 | - |
| iprodione | GC-EI-MS | 11 | 0.033 | 35 | 0.11 | 350 | 75 | 14 |
| isoproturonb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | - | - | 16 |
| lambda-cyhalothrin | GC-CI-MS | 0.20 | 0.0006 | 0.67 | 0.002 | 98 | 6.3 | - |
| linuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 59 | 17 | 35 |
| mandipropamid | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 86 | 86 | 59 |
| MCPA | LC-ESI(-)-MS/MS | 1.5 | 0.75 | 5.0 | 2.5 | 26 | 5.3 | - |
| mecoprop | LC-ESI(-)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 27 | 9.5 | - |
| mesosulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 31 | 13 | - |
| methabenzthiazuron | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 86 | 5.0 | 31 |
| metalaxyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 80 | 35 | 35 |
| metamitron | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 32 | 6.0 | 28 |
| metazachlor | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 88 | 19 | 36 |
| methiocarb | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | - | - | - |
| metolachlor | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 51 | 26 | 51 |
| metrafenone | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 60 | 32 | 34 |
| metribuzin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 72 | 7 | 21 |
| metsulfuron-methyl | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 100 | 27 | 37 |
| penconazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 69 | 4.8 | 43 |
| pendimethalin | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 39 | 7.7 | 52 |
| permethrin | GC-CI-MS | 18 | 0.054 | 59 | 0.18 | 81 | 1.4 | - |
| phenmedipham | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 73 | 3.9 | - |
| picloram | LC-ESI(-)-MS/MS | 20 | 10 | 67 | 33 | 14 | 0.41 | - |
| picoxystrobin | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 64 | 16 | 18 |
| pirimicarb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 74 | 11 | 37 |
| prochloraz | LC-ESI(+)-MS/MS | 5.0 | 2.5 | 17 | 8.3 | 57 | 11 | 34 |
| propamocarb | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 4.3 | 1.2 | 41 |
| propiconazole | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 60 | 24 | 13 |
| propoxycarbazone-Na | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 23 | 13 | - |
| propyzamide | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 68 | 21 | 43 |
| prosulfocarb | GC-EI-MS | 5.7 | 0.017 | 19 | 0.057 | 130 | 11 | 71 |
| prothioconazole-desthio | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 48 | 4.0 | 40 |
| pyraclostrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 44 | 7.0 | 70 |
| pyroxulam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 32 | 36 |
| quinmerac | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 27 | 17 | 37 |
| quinoxyfenb | GC-EI-MS | 2.6 | 0.0078 | 8.8 | 0.026 | 190 | 23 | - |
| rimsulfuron | LC-ESI(+)-MS/MS | 1.2 | 0.60 | 4.0 | 2.0 | 91 | 19 | - |
| silthiofam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 57 | 5.3 | 49 |
| simazineb | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 140 | 12 | 24 |
| spiroxamine | LC-ESI(+)-MS/MS | 2.4 | 1.2 | 8.0 | 4.0 | 13 | 5.5 | 69 |
| sulfosulfuron | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | 150 | 27 | 42 |
| tau-fluvalinate | GC-CI-MS | 1.6 | 0.0048 | 5.4 | 0.016 | 110 | 1.2 | - |
| terbutrynb | LC-ESI(+)-MS/MS | 20 | 10 | 67 | 33 | 33 | 3.0 | 11 |
| terbuthylazine | LC-ESI(+)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 39 | 2.6 | 45 |
| desethyl-terbuthylazine | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 52 | 5.2 | 30 |
| thiacloprid | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | 88 | 7.2 | 19 |
| thiamethoxam | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 59 | 20 | 33 |
| thifensulfuron-methyl | LC-ESI(-)-MS/MS | 2.0 | 1.0 | 6.7 | 3.3 | 26 | 0.26 | - |
| thiophanate-methyl | LC-ESI(+)-MS/MS | 0.30 | 0.15 | 1.0 | 0.50 | - | - | - |
| tolclofos-methyl | GC-EI-MS | 0.82 | 0.0025 | 2.7 | 0.0083 | 87 | 16 | - |
| tolylfluanid | LC-ESI(+)-MS/MS | 10 | 5.0 | 33 | 17 | 83 | 110 | - |
| tribenuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 120 | 15 | 32 |
| trifloxystrobin | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 51 | 15 | 55 |
| trifluralinb | GC-EI-MS | 1.6 | 0.0048 | 5.2 | 0.016 | 47 | 8.8 | 76 |
| triflusulfuron-methyl | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 62 | 19 | 34 |
| trinexapac-acid | LC-ESI(-)-MS/MS | 3.0 | 1.5 | 10 | 5.0 | - | - | - |
| trinexapac-ethyl | LC-ESI(+)-MS/MS | 4.0 | 2.0 | 13 | 6.7 | - | - | 37 |
| triticonazole | LC-ESI(+)-MS/MS | 1.0 | 0.50 | 3.3 | 1.7 | 83 | 18 | 38 |

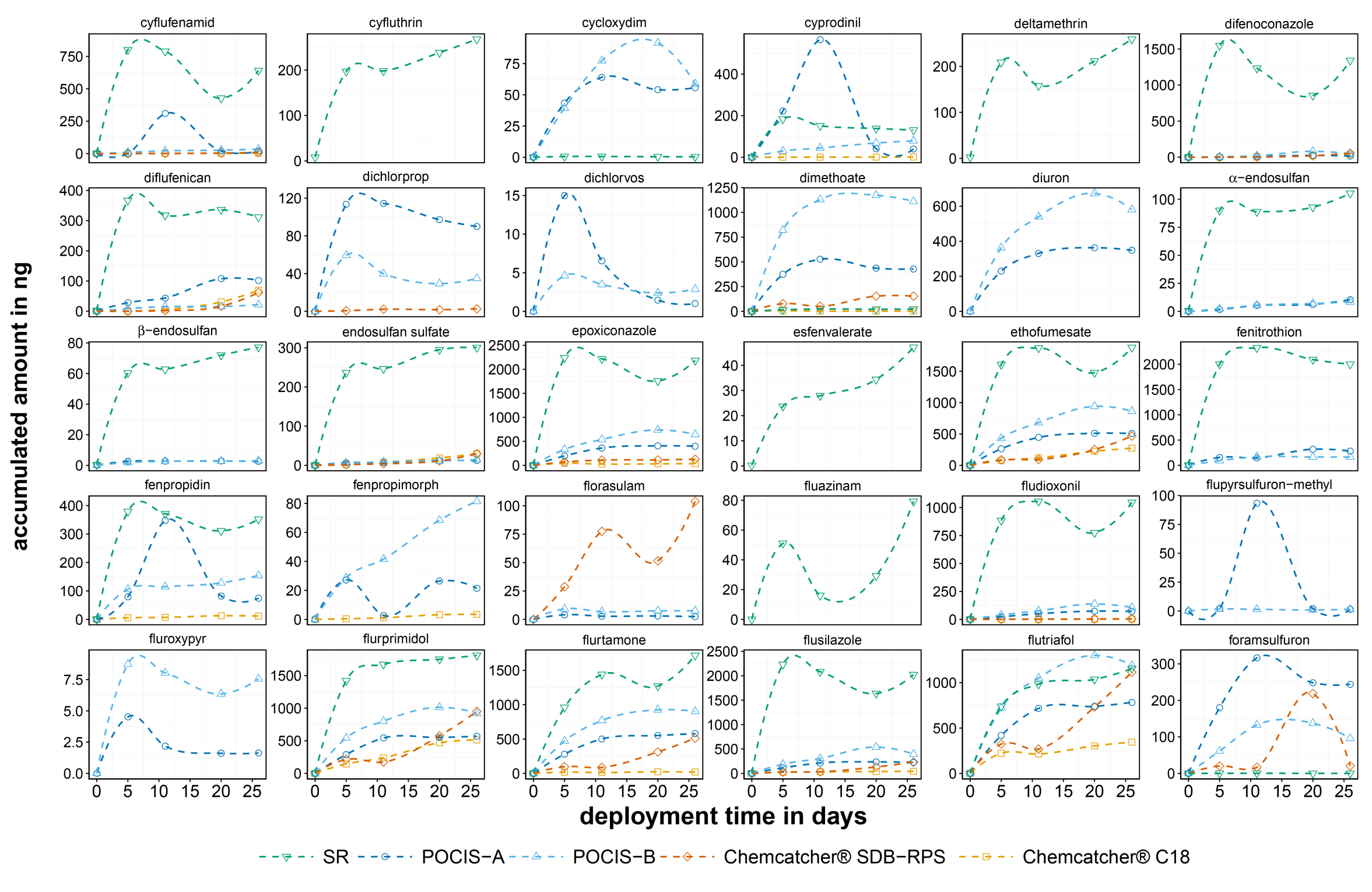
**a ND = not detected. b priority substances in the EU Water Framework Directive. c pg absolut on column based on 500 *μ*L injection volume for LC-ESI(+)-MS/MS, LC-ESI(-)-MS/MS, and 3 *μ*L injection volume for GC-EI-MS, GC-CI-MS.**

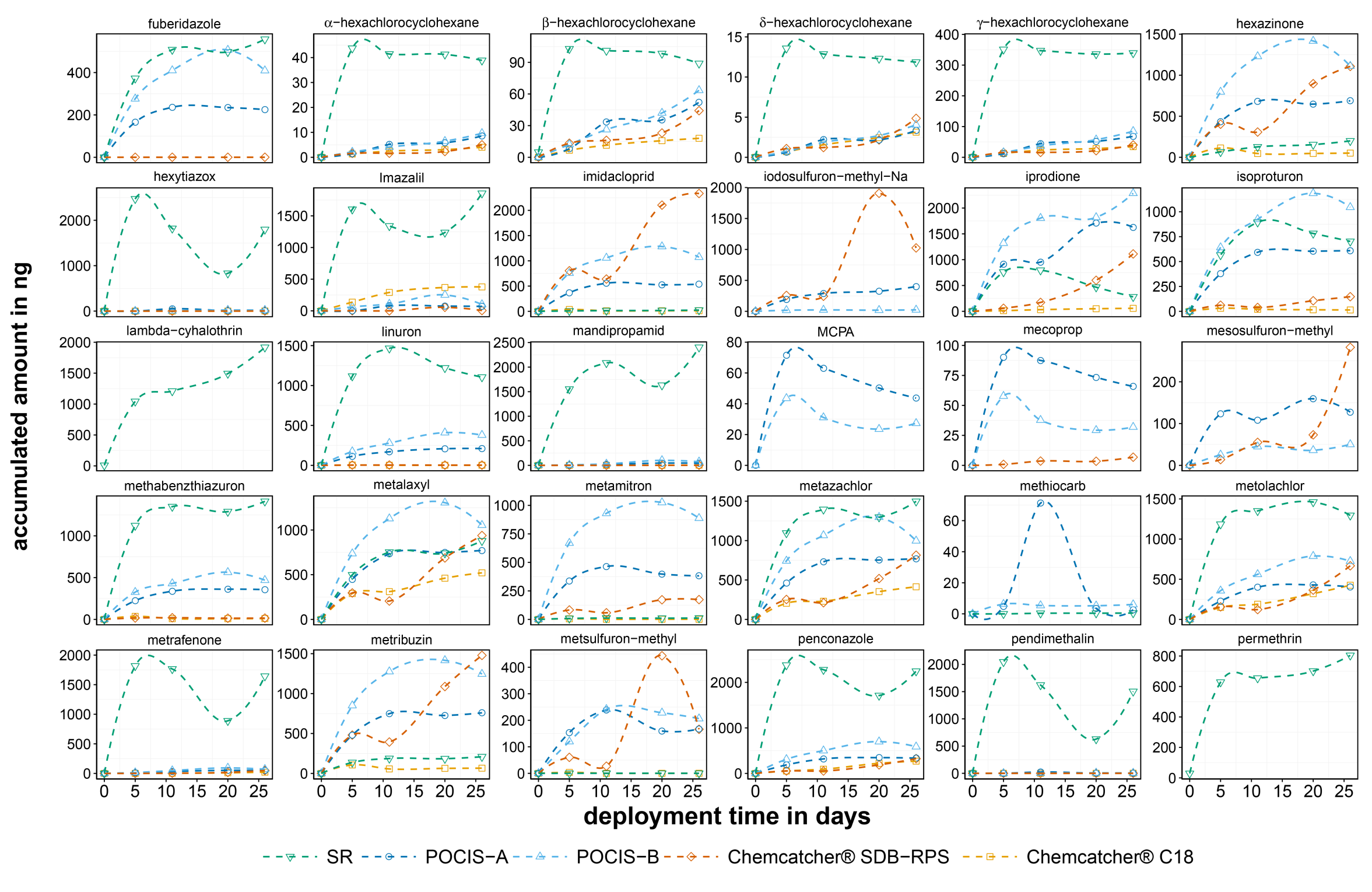
**Table S6. Positive detections at Halland for active sampling (A), Chemcatcher® C18(C18), polar organic chemical integrative sampler (POCIS)-A (P-A), and silicone rubber (SR)**

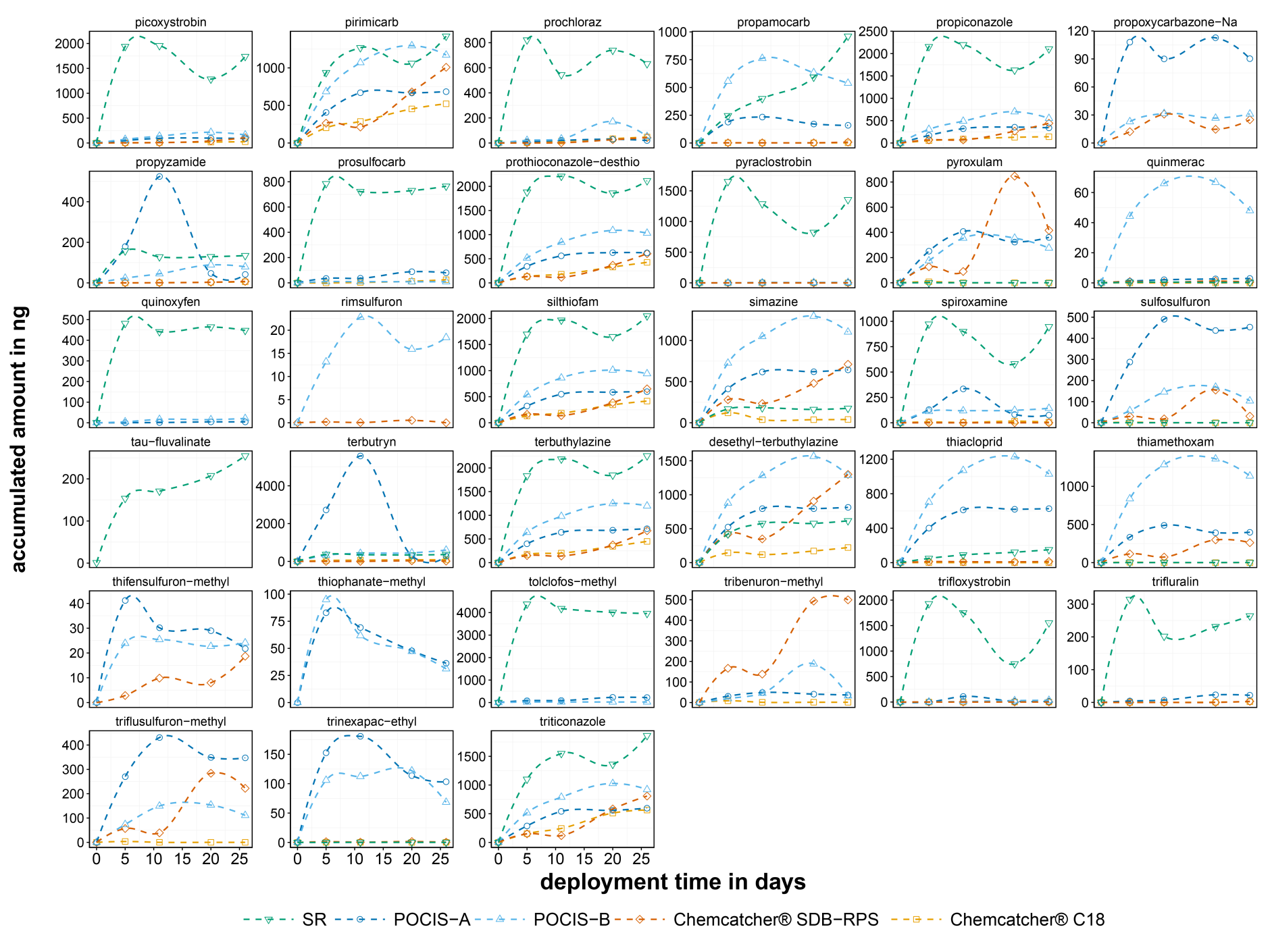
| **Substance** | **Week 1** | | | | **Week 2** | | | | **Week 3** | | | | **Week 4** | | | | **Week 5** | | | | **Week 6** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | A | C18 | P-A | SR | Aa | C18 | P-A | SR | A | C18 | P-A | SR | A | C18 | P-A | SR | A | C18 | P-A | SR | A | C18 | P-A | SR |
| acetamiprid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| aclonifenb |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  |  |  |  |  | + |  |  |  | + |
| alachlorb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| alpha-cypermethrin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  |
| amidosulfuron |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |
| atrazineb | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| desethylatrazine | + |  | + | + |  |  | + | + | + |  | + | + | + |  | + | + | + | + | + | + |  |  | + | + |
| desisopropylatrazine |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |
| azoxystrobin |  |  |  | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 2,6-dichlorobenzamide (BAM) | + |  | + | + |  |  | + | + | + |  | + | + | + |  | + | + | + |  | + | + | + |  | + | + |
| benazolin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| bentazone | + |  | + |  |  |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  |
| bifenoxb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| bifenox acid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| bitertanol |  |  |  | + |  |  |  | + |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  |  |
| boscalid |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  | + | + |  |  |  | + |  |  |
| carbendazim |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| carbofuran |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| carfentrazone-acid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| carfentrazone-ethyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| chlorfenvinphosb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| chloridazon | + |  | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | + | + |
| chlorpyrifosb |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  | + | + |
| clomazone |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  | + |  | + |  | + |
| clopyralid | + |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  |
| clothianidin |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |
| cyanazine |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| cyazofamid |  |  |  |  |  |  |  | + | + |  |  | + | + |  | + | + | + |  | + | + |  |  | + | + |
| cybutryneb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  |  |  |
| cyflufenamid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| cyfluthrin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| cycloxydim |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| cyprodinil | + |  |  | + |  | + |  | + | + |  |  | + | + |  |  | + |  |  |  | + |  |  |  | + |
| 2,4-D |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| deltamethrin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| difenoconazole |  |  |  | + |  |  |  | + | + |  |  | + | + |  |  | + |  |  |  | + |  |  |  | + |
| diflufenican |  |  |  | + |  |  |  | + |  |  |  | + | + |  |  | + | + |  |  | + | + |  |  | + |
| dichlorprop |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |
| dichlorvosb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| dimethoate |  |  | + |  |  |  |  |  |  |  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |
| diuronb |  |  |  |  |  |  |  |  |  |  | + |  |  |  |  |  |  |  | + |  |  |  | + |  |
| *α*-endosulfanb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *β*-endosulfanb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| endosulfan sulfate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| epoxiconazole |  |  |  | + |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  |  |
| esfenvalerate |  |  |  |  |  |  |  | + | + |  |  | + | + |  |  | + | + |  |  | + | + |  |  | + |
| ethofumesate | + | + | + | + |  | + | + | + |  | + |  | + |  |  |  | + |  | + | + | + |  | + | + | + |
| fenitrothion |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fenpropidin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fenpropimorph |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  | + |  |  |
| florasulam |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fluazinam | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fludioxonil |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |
| flupyrsulfuron-methyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fluroxypyr |  |  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  | + |  |
| flurprimidol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| flurtamone |  |  | + | + |  |  |  | + |  |  |  | + |  |  | + | + |  |  | + | + |  |  |  | + |
| flusilazole |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| flutriafol |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  |  |
| foramsulfuron |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| fuberidazole |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *α*-hexachlorocyclohexaneb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  |  |  |  |  |  |
| *β*-hexachlorocyclohexaneb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *γ*-hexachlorocyclohexaneb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| *δ*-hexachlorocyclohexaneb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| hexazinone |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  |  |  |
| hexythiazox |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| imazalil |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| imidacloprid | + |  | + | + |  | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| iodosulfuron-methyl-Na |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| iprodione |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  | + |
| isoproturonb | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| lambda-cyhalothrin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| linuron |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mandipropamid |  |  |  | + |  |  |  | + | + |  |  | + | + |  |  | + | + |  |  | + | + |  |  | + |
| MCPA | + |  | + |  |  |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  |  |  | + |  |
| mecoprop | + |  | + |  |  |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  | + |  |
| mesosulfuron-methyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| methabenzthiazuron |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |
| metalaxyl | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| metamitron | + |  | + |  |  |  | + |  |  |  | + |  |  |  | + | + | + |  | + |  | + |  | + | + |
| metazachlor | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| methiocarb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| metolachlor |  |  | + | + |  |  |  |  |  |  |  |  |  | + |  | + |  | + | + | + |  | + | + |  |
| metrafenone |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| metribuzin | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| metsulfuron-methyl |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |
| penconazole |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| pendimethalin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| permethrin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| phenmedipham |  |  |  |  |  |  |  |  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| picloram |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| picoxystrobin | + |  |  | + |  | + |  | + | + | + |  | + | + | + |  | + | + | + |  | + | + | + | + | + |
| pirimicarb |  | + | + |  |  | + | + |  |  |  |  |  |  | + | + |  |  | + | + |  |  | + | + |  |
| prochloraz |  |  |  | + |  |  |  | + | + |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |
| propamocarb | + |  | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| propiconazole | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| propoxycarbazone-Na |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| propyzamide |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |
| prosulfocarb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| prothioconazole-desthio |  | + | + | + |  | + | + | + |  | + | + | + | + | + | + | + |  | + | + | + |  | + | + | + |
| pyraclostrobin |  |  |  | + |  |  |  | + | + |  |  | + | + |  | + | + | + |  | + | + | + |  |  | + |
| pyroxulam |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| quinmerac | + |  |  |  |  |  |  |  | + |  |  |  | + |  | + |  | + |  | + |  | + |  | + |  |
| quinoxyfenb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| rimsulfuron |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| silthiofam |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| simazineb |  |  | + | + |  |  |  | + |  |  |  | + |  |  | + | + |  | + |  | + |  |  |  | + |
| spiroxamine |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |  |  |  | + |
| sulfosulfuron |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tau-fluvalinate |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| terbutrynb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| terbuthylazine |  | + | + | + |  | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + |  | + | + | + |
| desethyl-terbuthylazine | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  | + | + | + |
| thiacloprid |  |  |  |  |  |  |  |  |  |  | + | + | + | + | + | + | + | + | + | + |  |  | + | + |
| thiamethoxam |  |  |  |  |  |  |  |  |  |  | + |  |  |  | + |  |  |  |  |  |  |  | + |  |
| thifensulfuron-methyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| thiophanate-methyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tolclofos-methyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tolylfluanid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| tribenuron-methyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| trifloxystrobin |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| trifluralinb |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| triflusulfuron-methyl |  |  | + |  |  |  | + |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| trinexapac-acid |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| trinexapac-ethyl |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| triticonazole |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ∑positive detected | 22 | 11 | 32 | 31 | NA | 17 | 28 | 34 | 27 | 14 | 29 | 34 | 29 | 18 | 33 | 39 | 28 | 22 | 36 | 40 | 22 | 19 | 35 | 37 |

**a not analysed. b priority substances in the EU Water Framework Directive.**

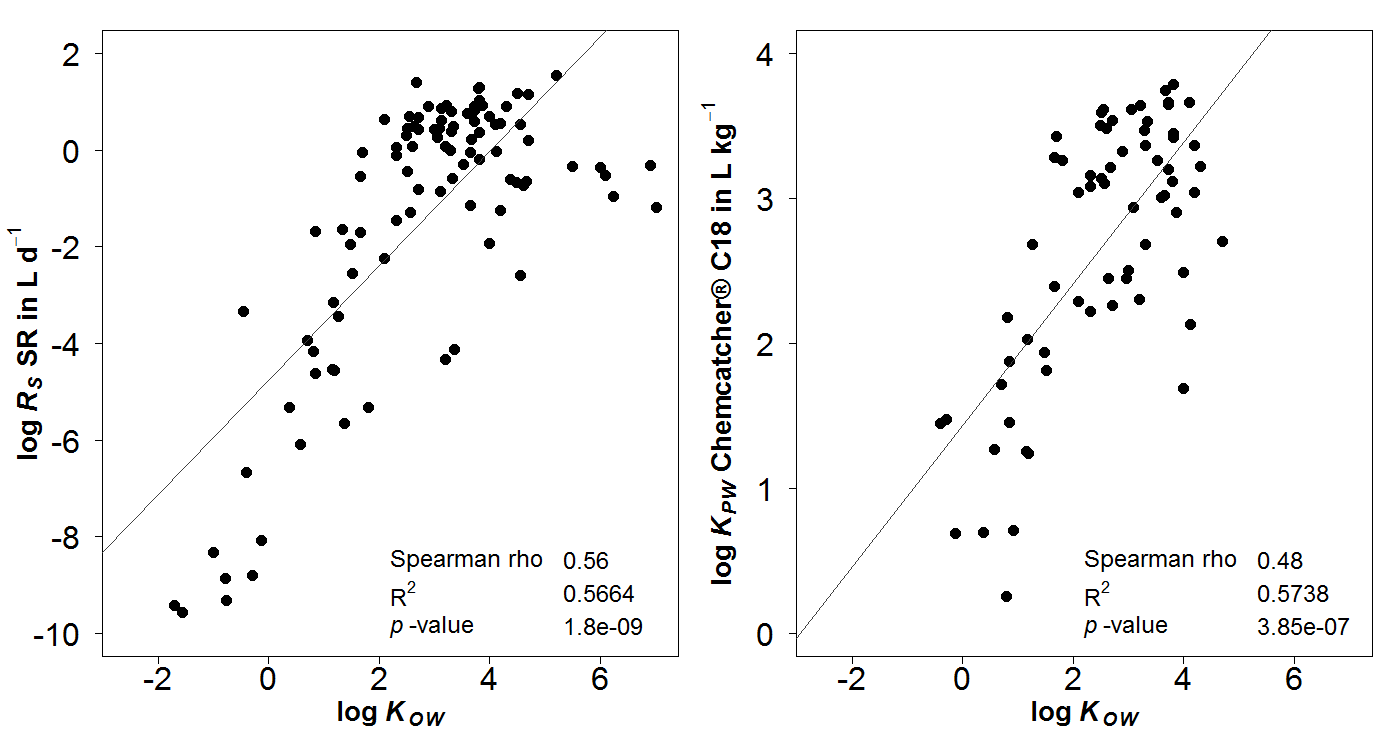
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**Figure S1. Uptake profiles of individual pesticides in water for silicone rubber (SR), polar organic chemical integrative sampler (POCIS)-A, POCIS-B, Chemcatcher® SDB-RPS, and Chemcatcher® C18 at time intervals of 0, 5, 11, 20 and 26 days.**

**Figure S2. Regression analysis** of the s**ampling rates (*RS*) against octanol-water partition coefficient (*KOW*) for silicone rubber (SR) and the passive sampler-water partition coefficients (*KPW*) against the *KOW* for Chemcatcher® C18.**