**Supporting Material**

**Table ESI1.** Chromatographic parameters for LC-MS/MS analysis of the target compounds. Precursor ion classified as adduct type, fragment ions, $t_R$= Retention time, in minutes; DP= declustering potential and CE=collision energies, in V

| Compounds | Precursor ion $[M+H]^+$ | SRM 1 | SRM 2 | $t_R$ (min) | DP (V) | CE SRM 1 (V) | CE SRM 2 (V) |
|---|---|---|---|---|---|---|---|
| Albendazole | 266.1 | 234.1 | 191.1 | 14.8 | 76 | 27 | 43 |
| Alachlor | 270.2 | 162.1 | 238.2 | 15.6 | 31 | 25 | 15 |
| Ametryn | 228.1 | 186.2 | 96.1 | 14.5 | 36 | 25 | 35 |
| Atrazine | 216 | 174 | 103.9 | 14.4 | 21 | 25 | 27 |
| Azinphos methyl | 318.1 | 160.0 | 132.1 | 17.2 | 61 | 11 | 21 |
| Boscalid | 343.1 | 139.8 | 112.2 | 20.0 | 89 | 57 | 24 |
| Chlorantranilip role | 484.1 | 453.0 | 286.0 | 19.5 | 44 | 22 | 21 |
| Clomazone | 240.0 | 125.0 | 89.3 | 20.0 | 78 | 24 | 25 |
| Diazinon | 305.2 | 169.2 | 153.1 | 21.2 | 51 | 27 | 29 |
| Difenoconazole | 406.1 | 337.2 | 188.2 | 15.9 | 51 | 25 | 59 |
| Emamectin benzoate | 886.8 | 158.0 | 126.0 | 16.1 | 52 | 40 | 46 |
| Eprinomectin | 914.8 | 186.1 | 154.0 | 17.0 | 18 | 20 | 40 |
| Enrofloxacin | 360.2 | 316.4 | 245.3 | 10.7 | 35 | 20 | 25 |
| Ethion | 385.1 | 198.9 | 143.0 | 16.3 | 66 | 13 | 15 |
| Fluazuron | 505.9 | 158.1 | 348.9 | 21.7 | 86 | 36 | 33 |
| Flutriafol | 302.0 | 123.3 | 70.1 | 13.9 | 100 | 37 | 35 |
| Haloxifop methyl | 376.1 | 316.1 | 288.1 | 15.8 | 85 | 22 | 36 |
| Hexythiazox | 353.1 | 228.1 | 168.1 | 16.7 | 70 | 23 | 34 |
| Isoprothilane | 291.1 | 231.0 | 189.0 | 15.2 | 51 | 17 | 31 |
| Kresoxym methyl | 314.0 | 206.0 | 116.0 | 20.9 | 10 | 10 | 19 |
| Linuron d6 | 254.9 | 185.0 | 160.1 | 14.9 | 72 | 21 | 24 |
| Malaoxon | 315.4 | 127.0 | 99.0 | 13.5 | 66 | 17 | 31 |
| Malathion | 331.2 | 284.9 | 99.0 | 15.0 | 56 | 11 | 35 |
| Mebendazole | 296.2 | 264.1 | 105.1 | 14.0 | 81 | 29 | 47 |
| Metconazole | 320.2 | 70.2 | 125.1 | 21.3 | 58 | 45 | 52 |
| Methiocarb | 226.2 | 121.1 | 169.1 | 14.9 | 78 | 26 | 13 |
| Moxidectin | 640.4 | 528.3 | 496.2 | 25.0 | 40 | 12 | 17 |
| Propiconazole | 342.1 | 159.0 | 69.1 | 21.2 | 46 | 37 | 33 |
| Pyraclostrobin | 388.1 | 194.1 | 163.1 | 15.8 | 67 | 17 | 39 |
| Spinosyd A | 732.6 | 142.2 | 98.3 | 20.6 | 198 | 44 | 43 |
| Spinosyd D | 746.4 | 142.5 | 189.4 | 21.0 | 110 | 41 | 45 |
| Spiroxamine | 298.1 | 100.2 | 144.2 | 19.7 | 90 | 28 | 40 |
| Tebufenozide | 353.5 | 297.1 | 133.1 | 15.5 | 41 | 11 | 23 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Tetraconazole | 374.0 | 161.2 | 69.9 | 15.0 | 76 | 35 | 37 |
| Triclabendazole | 358.9 | 343.9 | 274.0 | 16.1 | 101 | 39 | 55 |
| Trifloxystrobin | 409.0 | 206.0 | 145.0 | 15.8 | 70 | 18 | 56 |
| | **Precursor ion $[M+NH_4]^+$** | **SRM 1** | **SRM 2** | **$t_R$ (min)** | **DP (V)** | **CE SRM 1 (V)** | **CE SRM 2 (V)** |
| Abamectin | 890.6 | 567.3 | 305.4 | 20.3 | 75 | 18 | 34 |
| Doramectin | 916.9 | 331.3 | 145.0 | 17.9 | 22 | 26 | 48 |
| Ivermectin | 892.5 | 569.3 | 307.2 | 18.8 | 75 | 16 | 48 |
| Monensin | 688.6 | 461.3 | 617.6 | 18.4 | 62 | 35 | 33 |
| | **Precursor ion $[M-H]^-$** | **SRM 1** | **SRM 2** | **$t_R$ (min)** | **DP (V)** | **CE SRM 1 (V)** | **CE SRM 2 (V)** |
| Fenhexamid | 302.0 | 265.9 | 263.9 | 6,7 | -80 | -26 | -28 |
| Oxyclozanide | 399.9 | 363.8 | 261.8 | 7.1 | -40 | -32 | -31 |
| Triflumuron | 357.0 | 154.0 | 175.9 | 7,0 | -16 | -14 | -22 |

**Table ESI2.** Gas chromatography and mass spectrometer optimization parameters for the selected analytes; precursor ion, $t_R$= Retention time, in minutes; EC=collision energy, in kV at 70 eV.

| **Compound** | **Precursor ion** | **SRM1** | **SRM2** | **$t_R$ (min)** | **CE SRM 1 (kV)** | **CE SRM 2 (kV)** |
|---|---|---|---|---|---|---|
| Beta cyfluthrin | 226.1 | 206.1 | 199.1 | 25.8/26.0/26.1/26.2 | 14 | 6 |
| Bifenthrin | 181.1 | 166.1 | 153.1 | 21.4 | 12 | 8 |
| Carbofuran | 164.1 | 149.1 | 103.1 | 10,766 | 18 | 24 |
| Chlorfenvinphos | 323.0 | 267.0 | 295.0 | 14.8/15.2 | 16 | 6 |
| Chlorpyrifos | 313.9 | 257.9 | 285.9 | 13.8 | 14 | 8 |
| Chlorpyrifos methyl | 285.9 | 93 | 270.9 | 12.8 | 22 | 14 |
| Coumaphos | 362.0 | 109.0 | 226.0 | 25.1 | 16 | 14 |
| Cypermethrin | 181.1 | 152.1 | 127.1 | 26.4/26.6/26.7/26.8 | 22 | 22 |
| Deltamethrin | 252.9 | 93.0 | 171.9 | 29.2/29.5 | 20 | 8 |
| Endosulfan sulphate | 386.8 | 282.8 | 252.9 | 19.5 | 10 | 16 |
| Fenthion | 278.0 | 109.0 | 125.0 | 14.0 | 20 | 20 |
| Fenvalerate | 419.1 | 225.1 | 167.1 | 28.5 | 6 | 12 |
| Fipronil | 366.9 | 212.9 | 254.9 | 15.0 | 30 | 22 |
| Iprodione | 314 | 56.0 | 245.0 | 21.1 | 12 | 22 |
| Lambda cyhalothrin | 197.0 | 141.0 | 161.0 | 23.2 | 8 | 12 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Mirex | 271.8 | 236.8 | 238.8 | 23.3 | 18 | 18 |
| p,p-DDD | 235.0 | 165.0 | 199.0 | 18.4 | 24 | 14 |
| p,p-DDE | 246.0 | 176.0 | 211.0 | 17.0 | 30 | 22 |
| p,p-DDT | 235.0 | 165.0 | 199.0 | 19.7 | 24 | 16 |
| Parathion methyl | 263.0 | 109.0 | 136.0 | 12.7 | 14 | 8 |
| Permethrin | 183.1 | 153.1 | 168.1 | 24.7/25.0 | 14 | 14 |
| Pirimifos methyl | 305.1 | 180.1 | 290.1 | 13.3 | 8 | 12 |
| Tau-Fluvalinate | 250.1 | 55.0 | 200.0 | 28.4/28.6 | 20 | 20 |
| Vinclozolin | 285.0 | 212.0 | 178.0 | 12.7 | 12 | 14 |