***Supporting Information for***

**Multiresidue GC-MS/MS pesticide analysis for evaluation of tea and herbal infusion safety**

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**Fig. S1**. Comparison of peak area for different injection techniques and liners



**Fig. S2**. Comparison of peak area for different capillary columns

**Table S1.** Specific MRM transitions, collision cell energies and retention times for all the pesticides

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Name** | **Ret. Time (min)** | **MRM1****Quantifier Ion** | **CE1** | **MRM2****Reference1** | **CE2** | **MRM3****Reference2** | **CE3** |  |
| (E)-Chlorfenvinphos | 14.119 | 252.10>162.10 | 10.00 | 230.00>137.10 | 20.00 | 230.00>111.10 | 22.00 |  |
| (Z)-Chlorfenvinphos | 14.317 | 323.00>267.00 | 16.00 | 284.90>93.00 | 24.00 | 264.90>219.90 | 22.00 |  |
| 1-Chloronaphthalene | 7.269 | 188.20>173.20 | 4.00 | 188.20>72.00 | 4.00 | 162.10>101.00 | 4.00 |  |
| 2-Phenylphenol | 8.746 | 170.10>141.10 | 24.00 | 170.10>115.10 | 28.00 | 170.10>155.10 | 14.00 |  |
| 3-Hydroxycarbofuran | 8.070 | 180.10>137.00 | 10.00 | 180.10>162.10 | 6.00 | 180.10>151.10 | 8.00 |  |
| Acetochlor | 12.507 | 285.90>93.00 | 22.00 | 223.10>147.10 | 10.00 | 223.10>174.10 | 8.00 |  |
| Acrinathrin-1 | 18.765 | 289.10>93.00 | 14.00 | 248.10>157.10 | 26.00 | 248.10>206.10 | 18.00 |  |
| Acrinathrin-2 | 18.977 | 289.10>93.00 | 14.00 | 248.10>157.10 | 26.00 | 248.10>206.10 | 18.00 |  |
| Alachlor | 12.690 | 188.10>160.10 | 10.00 | 304.10>162.10 | 8.00 | 214.00>104.00 | 16.00 |  |
| Aldrin | 13.507 | 267.10>225.10 | 8.00 | 257.00>119.00 | 18.00 | 257.00>146.00 | 18.00 |  |
| Allethrin-3,4 (Bioallethrin) | 14.393 | 136.10>93.10 | 14.00 | 263.00>136.00 | 8.00 | 263.00>246.00 | 6.00 |  |
| Allidochlor | 6.311 | 138.10>96.00 | 6.00 | 138.10>110.10 | 6.00 | 138.10>81.00 | 8.00 |  |
| alpha-Endosulfan | 14.992 | 372.80>336.80 | 10.00 | 210.90>96.00 | 14.00 | 241.20>184.10 | 12.00 |  |
| alpha-HCH | 10.689 | 218.90>182.90 | 10.00 | 218.90>144.90 | 12.00 | 218.90>109.00 | 14.00 |  |
| Ametryn | 12.838 | 227.10>170.10 | 14.00 | 231.00>128.90 | 26.00 | 231.00>202.90 | 8.00 |  |
| Amitraz | 18.773 | 197.00>161.00 | 8.00 | 145.00>58.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Anthraquinone | 13.536 | 262.90>193.00 | 28.00 | 262.90>203.00 | 26.00 | 238.10>77.00 | 24.00 |  |
| Atrazine | 11.205 | 215.10>58.00 | 14.00 | 215.10>200.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Azinphos-ethyl | 19.127 | 160.10>132.10 | 6.00 | 330.90>186.00 | 20.00 | 330.90>216.00 | 8.00 |  |
| Azinphos-methyl | 18.532 | 160.10>132.10 | 6.00 | 330.90>186.00 | 20.00 | 330.90>216.00 | 8.00 |  |
| Azoxystrobin | 22.323 | 344.10>183.10 | 24.00 | 235.00>199.00 | 14.00 | 145.00>71.00 | 6.00 |  |
| Benalaxyl | 16.651 | 148.10>105.10 | 16.00 | 323.00>295.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Bendiocarb | 10.367 | 166.10>151.10 | 10.00 | 166.10>126.10 | 20.00 | 166.10>108.10 | 26.00 |  |
| Benfluralin | 10.335 | 292.10>264.00 | 8.00 | 306.10>206.10 | 14.00 | 213.10>154.10 | 8.00 |  |
| Benfuracarb | 19.014 | 353.10>190.10 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| beta-Endosulfan | 16.119 | 338.90>160.00 | 18.00 | 250.00>215.00 | 6.00 | 173.10>145.00 | 6.00 |  |
| beta-HCH | 11.216 | 218.90>182.90 | 6.00 | 218.90>144.90 | 6.00 | 218.90>109.00 | 8.00 |  |
| Bifenazate | 17.930 | 227.10>169.10 | 24.00 | 235.00>199.00 | 14.00 | 210.90>183.00 | 6.00 |  |
| Bifenox | 18.151 | 340.90>309.90 | 10.00 | 244.10>243.10 | 10.00 | 340.90>188.90 | 10.00 |  |
| Bifenthrin | 17.809 | 181.10>166.10 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| Biphenyl | 7.339 | 154.10>128.10 | 22.00 | 154.10>115.10 | 24.00 | 154.10>102.10 | 28.00 |  |
| Bitertanol-1 | 19.538 | 170.10>141.10 | 22.00 | 303.00>173.00 | 10.00 | 157.10>102.00 | 24.00 |  |
| Bitertanol-2 | 19.662 | 170.10>141.00 | 22.00 | 303.00>173.00 | 10.00 | 157.10>102.00 | 24.00 |  |
| Boscalid | 20.528 | 181.10>152.10 | 22.00 | 181.10>127.10 | 22.00 | 181.10>77.00 | 24.00 |  |
| Bromacil | 13.271 | 223.90>123.10 | 8.00 | 257.00>119.00 | 18.00 | 257.00>146.00 | 18.00 |  |
| Bromophos | 13.892 | 330.90>315.90 | 14.00 | 198.10>110.10 | 10.00 | 223.10>174.10 | 8.00 |  |
| Bromophos-ethyl | 14.693 | 358.90>302.90 | 16.00 | 284.90>93.00 | 24.00 | 284.90>239.90 | 26.00 |  |
| Bromopropylate | 17.857 | 164.10>107.10 | 14.00 | 336.00>204.00 | 28.00 | 336.00>164.00 | 24.00 |  |
| Bromuconazole-1 | 17.745 | 294.90>172.90 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Bromuconazole-2 | 18.167 | 160.20>145.10 | 8.00 | 145.00>58.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Bupirimate | 15.553 | 273.10>193.10 | 8.00 | 305.10>290.10 | 12.00 | 305.10>125.00 | 28.00 |  |
| Buprofezin | 15.561 | 206.10>116.10 | 6.00 | 241.20>170.10 | 14.00 | 204.90>132.00 | 24.00 |  |
| Butafenacil | 19.915 | 331.00>180.00 | 14.00 | 136.10>77.10 | 26.00 | 136.10>121.10 | 10.00 |  |
| Captan | 14.468 | 201.10>174.10 | 16.00 | 284.90>93.00 | 24.00 | 264.90>219.90 | 22.00 |  |
| Carbaryl | 12.809 | 249.20>190.10 | 8.00 | 257.00>119.00 | 18.00 | 198.10>118.10 | 28.00 |  |
| Carbetamide | 13.750 | 250.00>139.00 | 18.00 | 250.00>215.00 | 6.00 | 227.10>58.00 | 14.00 |  |
| Carbofuran | 11.079 | 164.10>149.10 | 8.00 | 260.00>231.00 | 4.00 | 322.00>174.00 | 18.00 |  |
| Carbophenothion | 16.709 | 341.90>157.00 | 14.00 | 313.90>285.90 | 8.00 | 313.90>193.90 | 28.00 |  |
| Carboxin | 15.596 | 235.10>143.00 | 12.00 | 207.00>144.00 | 20.00 | 207.00>128.00 | 20.00 |  |
| Carfentrazone-ethyl | 16.651 | 340.10>312.10 | 14.00 | 313.90>285.90 | 8.00 | 313.90>193.90 | 28.00 |  |
| Chlorantraniliprole | 17.954 | 359.10>187.10 | 14.00 | 250.00>215.00 | 8.00 | 250.00>111.00 | 28.00 |  |
| Chlorbenside | 14.738 | 372.80>336.80 | 10.00 | 188.10>132.10 | 18.00 | 188.10>117.10 | 26.00 |  |
| Chlorfenapyr | 15.736 | 247.10>227.00 | 16.00 | 250.00>61.00 | 16.00 | 247.10>75.00 | 16.00 |  |
| Chlorfenson | 15.209 | 128.10>72.00 | 6.00 | 241.20>58.00 | 14.00 | 241.20>184.10 | 12.00 |  |
| Chloridazon | 16.944 | 221.00>77.00 | 24.00 | 235.00>199.00 | 14.00 | 267.10>168.10 | 20.00 |  |
| Chlorobenzilate | 16.041 | 251.00>139.00 | 14.00 | 173.10>127.00 | 6.00 | 173.10>145.00 | 6.00 |  |
| Chlorothalonil | 11.720 | 265.90>230.80 | 14.00 | 215.10>200.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Chlorpropham | 10.216 | 213.10>171.10 | 6.00 | 200.00>114.00 | 14.00 | 200.00>97.00 | 24.00 |  |
| Chlorpyrifos | 13.468 | 313.90>257.90 | 14.00 | 161.00>118.00 | 14.00 | 161.00>88.00 | 20.00 |  |
| Chlorpyrifos-methyl | 12.527 | 198.10>82.00 | 14.00 | 231.00>128.90 | 26.00 | 204.10>68.00 | 24.00 |  |
| Chlorthal-dimethyl | 13.556 | 300.90>222.90 | 26.00 | 300.90>272.90 | 14.00 | 161.00>88.00 | 20.00 |  |
| Chlorthiophos-1 | 15.832 | 256.90>239.00 | 14.00 | 204.90>162.00 | 14.00 | 204.90>132.00 | 24.00 |  |
| Chlorthiophos-2 | 16.015 | 324.90>268.90 | 14.00 | 173.10>127.00 | 6.00 | 173.10>145.00 | 6.00 |  |
| Chlorthiophos-3 | 16.241 | 235.00>165.00 | 24.00 | 235.00>199.00 | 14.00 | 267.10>168.10 | 20.00 |  |
| Chlozolinate | 14.270 | 352.80>289.00 | 6.00 | 241.20>58.00 | 14.00 | 285.00>241.00 | 4.00 |  |
| cis-Chlordane | 14.974 | 223.10>222.10 | 10.00 | 210.90>96.00 | 14.00 | 241.20>184.10 | 12.00 |  |
| cis-Nonachlor | 16.189 | 163.10>132.10 | 8.00 | 223.90>77.00 | 28.00 | 223.90>96.00 | 24.00 |  |
| Clomazone | 11.247 | 204.10>107.00 | 20.00 | 234.10>192.10 | 14.00 | 234.10>107.00 | 26.00 |  |
| Clothianidin | 8.497 | 132.00>71.00 | 14.00 | 132.00>45.00 | 22.00 | 132.00>88.00 | 14.00 |  |
| Coumaphos | 19.713 | 362.00>109.00 | 16.00 | 323.00>295.00 | 6.00 | 323.00>159.00 | 28.00 |  |
| Cyfluthrin-1 | 20.139 | 198.10>129.10 | 10.00 | 283.00>255.00 | 12.00 | 352.80>316.90 | 10.00 |  |
| Cyfluthrin-2 | 20.240 | 226.10>206.10 | 14.00 | 226.10>199.10 | 6.00 | 226.10>151.10 | 28.00 |  |
| Cyfluthrin-3 | 20.298 | 226.10>206.10 | 14.00 | 226.10>199.10 | 6.00 | 226.10>151.10 | 28.00 |  |
| Cyfluthrin-4 | 20.347 | 226.10>206.10 | 14.00 | 226.10>199.10 | 6.00 | 226.10>151.10 | 28.00 |  |
| Cyhalothrin-1 | 18.625 | 136.10>78.00 | 20.00 | 167.10>128.10 | 26.00 | 167.10>141.10 | 22.00 |  |
| Cyhalothrin-2 | 18.796 | 293.10>162.10 | 8.00 | 145.00>58.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Cypermethrin-1 | 20.465 | 342.10>140.10 | 14.00 | 238.00>91.10 | 28.00 | 238.00>110.10 | 26.00 |  |
| Cypermethrin-2 | 20.570 | 181.10>152.10 | 22.00 | 181.10>127.10 | 22.00 | 181.10>77.00 | 24.00 |  |
| Cypermethrin-3 | 20.619 | 199.10>157.10 | 10.00 | 283.00>255.00 | 12.00 | 283.00>68.00 | 24.00 |  |
| Cypermethrin-4 | 20.668 | 181.10>152.10 | 22.00 | 181.10>127.10 | 22.00 | 181.10>77.00 | 24.00 |  |
| Cyproconazole-1 | 15.797 | 222.10>125.10 | 24.00 | 222.10>82.00 | 12.00 | 222.10>153.10 | 12.00 |  |
| Cyproconazole-2 | 15.823 | 222.10>125.10 | 24.00 | 222.10>82.00 | 12.00 | 222.10>153.10 | 12.00 |  |
| Cyprodinil | 14.138 | 224.10>208.10 | 16.00 | 284.90>93.00 | 24.00 | 224.10>131.10 | 22.00 |  |
| DEET | 9.288 | 190.10>175.00 | 18.00 | 190.10>117.00 | 24.00 | 190.10>145.00 | 18.00 |  |
| delta-HCH | 11.945 | 218.90>182.90 | 6.00 | 218.90>144.90 | 6.00 | 218.90>109.00 | 8.00 |  |
| Deltamethrin-1 (Tralomethrin deg.-1) | 21.914 | 323.00>265.00 | 14.00 | 323.00>202.00 | 28.00 | 323.00>209.00 | 28.00 |  |
| Deltamethrin-2 (Tralomethrin deg.-2) | 22.130 | 252.90>93.00 | 20.00 | 328.90>313.90 | 18.00 | 125.00>63.00 | 24.00 |  |
| Di-allate-1 | 10.572 | 234.10>150.00 | 20.00 | 234.10>192.10 | 14.00 | 213.10>154.10 | 8.00 |  |
| Di-allate-2 | 10.763 | 283.80>248.80 | 24.00 | 283.80>213.80 | 28.00 | 283.80>176.90 | 38.00 |  |
| Diazinon | 11.595 | 256.00>186.00 | 24.00 | 258.00>186.00 | 24.00 | 279.90>119.00 | 36.00 |  |
| Dichlobenil | 6.886 | 170.90>100.00 | 24.00 | 170.90>136.00 | 14.00 | 170.90>110.00 | 12.00 |  |
| Dichlofluanid | 13.291 | 204.90>187.90 | 14.00 | 198.10>158.10 | 18.00 | 257.00>146.00 | 18.00 |  |
| Dichlorvos | 5.925 | 185.00>93.00 | 14.00 | 185.00>109.00 | 14.00 | 185.00>63.00 | 22.00 |  |
| Diclobutrazol | 15.605 | 270.00>159.00 | 14.00 | 204.90>162.00 | 14.00 | 277.00>228.00 | 14.00 |  |
| Dicloran | 10.963 | 206.00>176.00 | 10.00 | 166.10>126.10 | 20.00 | 166.10>108.10 | 26.00 |  |
| Dicofol deg. (DCBP) | 13.769 | 250.00>139.00 | 18.00 | 250.00>215.00 | 6.00 | 227.10>58.00 | 14.00 |  |
| Dicrotophos | 10.292 | 127.10>109.00 | 12.00 | 127.10>95.00 | 18.00 | 127.10>79.00 | 20.00 |  |
| Dieldrin | 15.499 | 179.10>125.00 | 14.00 | 204.90>162.00 | 14.00 | 277.00>228.00 | 14.00 |  |
| Diethofencarb | 13.527 | 278.00>109.00 | 20.00 | 271.80>117.00 | 32.00 | 271.80>201.90 | 38.00 |  |
| Difenoconazole-1 | 21.810 | 323.00>265.00 | 14.00 | 323.00>202.00 | 28.00 | 323.00>209.00 | 28.00 |  |
| Difenoconazole-2 | 21.870 | 252.90>93.00 | 20.00 | 252.90>171.90 | 8.00 | 252.90>77.00 | 26.00 |  |
| Diflufenican | 17.229 | 394.10>266.00 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Dimethenamid (Dimethenamid-P) | 12.425 | 230.00>154.10 | 10.00 | 304.10>162.10 | 8.00 | 214.00>104.00 | 16.00 |  |
| Dimethoate | 10.963 | 125.00>79.00 | 8.00 | 292.10>206.00 | 12.00 | 292.10>160.00 | 22.00 |  |
| Dimethomorph-1 | 22.461 | 301.10>165.10 | 14.00 | 236.10>167.00 | 10.00 | 358.90>238.90 | 38.00 |  |
| Dimethomorph-2 | 22.833 | 301.10>165.10 | 14.00 | 236.10>167.00 | 10.00 | 358.90>238.90 | 38.00 |  |
| Diniconazole | 16.128 | 268.00>232.00 | 12.00 | 207.00>144.00 | 20.00 | 207.00>128.00 | 20.00 |  |
| Diphenamid | 13.911 | 167.10>152.10 | 20.00 | 271.80>117.00 | 32.00 | 271.80>201.90 | 38.00 |  |
| Diphenylamine | 9.893 | 169.10>66.00 | 24.00 | 169.10>77.00 | 28.00 | 152.10>92.00 | 24.00 |  |
| Disulfoton | 11.802 | 186.00>97.00 | 16.00 | 294.80>264.80 | 12.00 | 294.80>142.90 | 30.00 |  |
| Disulfoton sulfone | 14.901 | 213.00>153.10 | 6.00 | 241.20>58.00 | 14.00 | 241.20>184.10 | 12.00 |  |
| Edifenphos | 16.760 | 222.10>190.10 | 4.00 | 149.10>79.10 | 14.00 | 267.10>168.10 | 20.00 |  |
| Endosulfan sulfate | 16.844 | 153.10>136.10 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Endrin | 15.893 | 262.90>191.00 | 30.00 | 366.90>254.90 | 22.00 | 91.00>64.00 | 10.00 |  |
| EPN | 17.833 | 169.10>140.90 | 8.00 | 145.00>58.00 | 14.00 | 210.90>183.00 | 6.00 |  |
| Epoxiconazole | 17.439 | 192.00>138.00 | 14.00 | 336.00>204.00 | 28.00 | 336.00>164.00 | 24.00 |  |
| Ethalfluralin | 10.098 | 316.10>276.00 | 10.00 | 316.10>202.00 | 24.00 | 316.10>248.00 | 20.00 |  |
| Ethiofencarb | 12.262 | 168.10>107.00 | 6.00 | 236.10>166.00 | 16.00 | 236.10>88.00 | 22.00 |  |
| Ethion | 16.207 | 408.80>372.90 | 16.00 | 323.00>295.00 | 6.00 | 173.10>145.00 | 6.00 |  |
| Ethofumesate | 13.202 | 289.90>219.90 | 24.00 | 160.90>90.00 | 22.00 | 265.90>133.00 | 28.00 |  |
| Ethoprophos | 9.968 | 200.00>158.00 | 6.00 | 200.00>114.00 | 14.00 | 200.00>97.00 | 24.00 |  |
| Etofenprox | 20.779 | 181.10>152.10 | 24.00 | 235.00>199.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Etoxazole | 17.962 | 265.10>210.10 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| Etridiazole | 7.985 | 210.90>182.90 | 15.00 | 210.90>139.90 | 18.00 | 210.90>108.00 | 34.00 |  |
| Famoxadone | 22.545 | 330.10>224.10 | 10.00 | 372.80>263.90 | 28.00 | 372.80>265.90 | 22.00 |  |
| Fenamidone | 18.026 | 268.10>180.10 | 16.00 | 323.00>295.00 | 6.00 | 289.10>108.00 | 28.00 |  |
| Fenamiphos | 15.127 | 173.00>145.00 | 14.00 | 227.10>185.10 | 6.00 | 227.10>58.00 | 14.00 |  |
| Fenarimol | 18.999 | 251.00>139.00 | 14.00 | 248.10>157.10 | 26.00 | 248.10>206.10 | 18.00 |  |
| Fenazaquin | 18.183 | 294.90>172.90 | 14.00 | 119.10>64.00 | 22.00 | 91.00>64.00 | 10.00 |  |
| Fenbuconazole | 20.124 | 226.10>206.10 | 14.00 | 226.10>199.10 | 6.00 | 226.10>151.10 | 28.00 |  |
| Fenchlorphos | 12.868 | 284.90>269.90 | 16.00 | 172.90>74.00 | 28.00 | 172.90>109.00 | 26.00 |  |
| Fenitrothion | 13.163 | 100.10>72.00 | 8.00 | 257.00>119.00 | 18.00 | 198.10>118.10 | 28.00 |  |
| Fenobucarb | 9.656 | 150.10>121.10 | 10.00 | 150.10>103.10 | 24.00 | 150.10>77.00 | 28.00 |  |
| Fenoxaprop-ethyl (Fenoxaprop-P-ethyl) | 19.336 | 361.10>288.10 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| Fenoxycarb | 17.906 | 186.10>109.10 | 14.00 | 289.10>113.00 | 6.00 | 289.10>108.00 | 28.00 |  |
| Fenpropathrin | 18.002 | 278.00>249.00 | 20.00 | 167.10>128.10 | 26.00 | 167.10>141.10 | 22.00 |  |
| Fenpropimorph | 13.595 | 128.10>110.10 | 8.00 | 100.10>58.00 | 12.00 | 100.10>99.10 | 14.00 |  |
| Fenthion | 13.556 | 208.10>180.00 | 12.00 | 238.10>72.00 | 24.00 | 238.10>96.00 | 28.00 |  |
| Fenvalerate-1 | 21.350 | 354.10>326.10 | 8.00 | 145.00>58.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Fenvalerate-2 (Esfenvalerate) | 21.554 | 250.10>200.10 | 16.00 | 250.10>55.00 | 18.00 | 19.10>125.10 | 16.00 |  |
| Fipronil | 14.213 | 366.90>212.90 | 30.00 | 366.90>254.90 | 22.00 | 249.20>217.10 | 6.00 |  |
| Flucythrinate-1 | 20.633 | 372.10>299.10 | 14.00 | 157.10>93.00 | 10.00 | 157.10>102.00 | 24.00 |  |
| Flucythrinate-2 | 20.828 | 199.10>157.10 | 10.00 | 199.10>107.10 | 22.00 | 199.10>171.10 | 8.00 |  |
| Fludioxonil | 15.263 | 309.00>238.90 | 14.00 | 204.90>162.00 | 14.00 | 277.00>228.00 | 14.00 |  |
| Flufenacet | 13.635 | 210.90>123.00 | 10.00 | 230.00>137.10 | 20.00 | 268.10>125.00 | 34.00 |  |
| Flumioxazin | 21.343 | 419.10>225.10 | 6.00 | 419.10>167.10 | 12.00 | 419.10>125.10 | 26.00 |  |
| Fluquinconazole | 19.734 | 340.00>298.00 | 20.00 | 328.90>313.90 | 18.00 | 386.80>253.00 | 32.00 |  |
| Fluridone | 21.023 | 328.10>259.00 | 24.00 | 235.00>199.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Flusilazole | 15.535 | 233.10>165.10 | 14.00 | 204.90>162.00 | 14.00 | 168.10>45.00 | 22.00 |  |
| Flutolanil | 15.200 | 301.90>175.00 | 8.00 | 249.20>146.10 | 22.00 | 249.20>217.10 | 6.00 |  |
| Flutriafol | 15.091 | 408.80>372.90 | 16.00 | 284.90>93.00 | 24.00 | 284.90>239.90 | 26.00 |  |
| Fluvalinate-1 | 21.466 | 164.10>132.10 | 14.00 | 259.90>95.00 | 20.00 | 259.90>102.00 | 28.00 |  |
| Fluvalinate-2 | 21.534 | 419.10>225.10 | 6.00 | 278.10>55.00 | 12.00 | 283.00>68.00 | 24.00 |  |
| Folpet | 14.591 | 278.10>73.00 | 6.00 | 241.20>58.00 | 14.00 | 241.20>184.10 | 12.00 |  |
| Fonofos | 11.532 | 246.00>109.10 | 18.00 | 246.00>137.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Furathiocarb | 18.260 | 325.10>194.00 | 6.00 | 330.90>186.00 | 20.00 | 330.90>216.00 | 8.00 |  |
| Furilazole | 11.058 | 262.00>220.00 | 8.00 | 292.10>206.00 | 12.00 | 292.10>160.00 | 22.00 |  |
| gamma-HCH (Lindane) | 11.363 | 218.90>182.90 | 6.00 | 218.90>144.90 | 6.00 | 218.90>109.00 | 8.00 |  |
| Heptachlor | 12.799 | 144.10>116.10 | 12.00 | 238.10>72.00 | 24.00 | 271.80>201.90 | 8.00 |  |
| Heptachlor-endo-epoxide | 14.346 | 386.80>287.00 | 26.00 | 300.90>272.90 | 14.00 | 285.00>241.00 | 4.00 |  |
| Heptachlor-exo-epoxide | 14.270 | 330.90>258.90 | 6.00 | 241.20>58.00 | 14.00 | 285.90>240.90 | 26.00 |  |
| Hexachlorobenzene | 10.742 | 234.10>150.00 | 20.00 | 234.10>192.10 | 14.00 | 306.10>160.10 | 22.00 |  |
| Hexaconazole | 15.236 | 248.00>182.00 | 14.00 | 204.90>162.00 | 14.00 | 241.20>184.10 | 12.00 |  |
| Hexazinone | 17.028 | 171.10>71.00 | 16.00 | 323.00>295.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Imazalil | 15.236 | 214.00>172.00 | 20.00 | 278.00>125.00 | 20.00 | 207.00>128.00 | 20.00 |  |
| Indoxacarb | 21.974 | 264.00>176.00 | 14.00 | 259.90>95.00 | 20.00 | 259.90>102.00 | 28.00 |  |
| Iprodione | 17.664 | 314.00>245.00 | 12.00 | 208.10>152.10 | 24.00 | 208.10>151.00 | 28.00 |  |
| Isazofos | 11.843 | 161.00>144.00 | 14.00 | 215.10>200.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Isocarbophos | 13.703 | 289.10>136.00 | 14.00 | 198.10>110.10 | 10.00 | 223.10>174.10 | 8.00 |  |
| Isoprocarb | 8.898 | 136.00>121.00 | 10.00 | 136.00>103.00 | 22.00 | 136.00>77.00 | 26.00 |  |
| Kelthane | 13.722 | 119.10>91.00 | 14.00 | 198.10>110.10 | 10.00 | 223.10>174.10 | 8.00 |  |
| Kresoxim-methyl | 15.579 | 172.10>57.00 | 14.00 | 204.90>162.00 | 14.00 | 241.20>111.00 | 24.00 |  |
| lambda-Cyhalothrin | 18.788 | 181.10>152.10 | 24.00 | 235.00>199.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Lenacil | 16.886 | 386.80>288.80 | 10.00 | 210.90>96.00 | 14.00 | 300.90>257.90 | 22.00 |  |
| Leptophos | 18.462 | 376.90>361.90 | 24.00 | 235.00>199.00 | 14.00 | 149.10>70.00 | 18.00 |  |
| Linuron | 13.261 | 248.00>61.00 | 16.00 | 186.00>153.00 | 6.00 | 186.00>125.00 | 10.00 |  |
| Malathion | 13.340 | 173.10>99.00 | 14.00 | 198.10>158.10 | 18.00 | 198.10>118.10 | 28.00 |  |
| Mefenacet | 18.703 | 192.00>136.00 | 14.00 | 248.10>157.10 | 26.00 | 248.10>206.10 | 18.00 |  |
| Mepanipyrim | 15.001 | 338.90>160.00 | 18.00 | 250.00>215.00 | 6.00 | 227.10>58.00 | 14.00 |  |
| Mepronil | 16.483 | 257.00>162.00 | 8.00 | 257.10>72.00 | 20.00 | 257.10>224.00 | 4.00 |  |
| Metalaxyl (Mefenoxam) | 12.838 | 271.80>236.90 | 20.00 | 271.80>117.00 | 32.00 | 271.80>201.90 | 38.00 |  |
| Methacrifos | 8.475 | 240.00>208.00 | 4.00 | 240.00>180.00 | 10.00 | 240.00>110.00 | 20.00 |  |
| Methamidophos | 5.852 | 141.00>95.00 | 8.00 | 141.00>126.00 | 4.00 | 95.00>79.00 | 14.00 |  |
| Methidathion | 14.711 | 145.00>85.00 | 8.00 | 249.20>146.10 | 22.00 | 249.20>217.10 | 6.00 |  |
| Methiocarb | 13.202 | 168.10>153.00 | 8.00 | 257.00>119.00 | 18.00 | 198.10>118.10 | 28.00 |  |
| Methoxychlor | 17.954 | 300.10>258.10 | 8.00 | 145.00>58.00 | 14.00 | 210.90>183.00 | 6.00 |  |
| Metolachlor (S-Metolachlor) | 13.428 | 238.10>162.10 | 12.00 | 238.10>72.00 | 24.00 | 238.10>96.00 | 28.00 |  |
| Metribuzin | 12.547 | 256.00>186.00 | 24.00 | 258.00>186.00 | 24.00 | 198.10>153.10 | 22.00 |  |
| Mevinphos-1 | 7.623 | 192.00>164.00 | 4.00 | 192.00>127.00 | 12.00 | 192.00>109.00 | 24.00 |  |
| Mevinphos-2 | 7.655 | 192.00>164.00 | 4.00 | 192.00>127.00 | 12.00 | 192.00>109.00 | 24.00 |  |
| Mirex | 18.910 | 271.80>236.80 | 18.00 | 338.90>266.90 | 8.00 | 338.90>195.90 | 20.00 |  |
| Monocrotophos | 10.486 | 127.10>109.00 | 12.00 | 127.10>95.00 | 18.00 | 127.10>79.00 | 20.00 |  |
| Myclobutanil | 15.508 | 361.00>300.00 | 14.00 | 204.90>162.00 | 14.00 | 277.00>228.00 | 14.00 |  |
| Napropamide | 15.146 | 303.10>195.10 | 8.00 | 249.20>146.10 | 22.00 | 249.20>217.10 | 6.00 |  |
| Nicotine | 6.947 | 133.10>118.10 | 16.00 | 133.10>106.10 | 16.00 | 133.10>92.00 | 14.00 |  |
| Nitralin | 17.351 | 316.10>274.00 | 8.00 | 267.10>196.10 | 14.00 | 210.90>183.00 | 6.00 |  |
| Nitrofen | 15.884 | 282.90>162.00 | 24.00 | 235.00>199.00 | 14.00 | 204.90>132.00 | 24.00 |  |
| Norflurazon | 16.760 | 310.00>173.00 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| o,p'-DDD | 15.535 | 276.90>241.00 | 8.00 | 168.10>109.00 | 14.00 | 168.10>45.00 | 22.00 |  |
| o,p'-DDE | 14.783 | 246.00>176.00 | 30.00 | 366.90>254.90 | 22.00 | 249.20>217.10 | 6.00 |  |
| o,p'-DDT | 16.241 | 324.90>268.90 | 14.00 | 313.90>285.90 | 8.00 | 313.90>193.90 | 28.00 |  |
| Omethoate | 9.580 | 156.00>110.00 | 8.00 | 152.10>64.00 | 28.00 | 152.10>92.00 | 24.00 |  |
| Oxadiazon | 15.426 | 258.00>175.00 | 8.00 | 305.10>290.10 | 12.00 | 305.10>125.00 | 28.00 |  |
| Oxadixyl | 16.189 | 230.90>174.90 | 14.00 | 204.90>162.00 | 14.00 | 204.90>132.00 | 24.00 |  |
| oxy-Chlordane | 14.270 | 238.00>137.10 | 14.00 | 198.10>110.10 | 10.00 | 198.10>153.10 | 8.00 |  |
| Oxyfluorfen | 15.544 | 235.00>165.00 | 24.00 | 291.90>221.90 | 24.00 | 361.00>317.00 | 16.00 |  |
| p,p'-DDD | 16.207 | 235.00>165.00 | 24.00 | 235.00>199.00 | 14.00 | 267.10>168.10 | 20.00 |  |
| p,p'-DDE | 15.408 | 258.00>202.00 | 4.00 | 149.10>79.10 | 14.00 | 241.20>111.00 | 24.00 |  |
| p,p'-DDT | 16.911 | 235.00>165.00 | 24.00 | 235.00>199.00 | 14.00 | 267.10>168.10 | 20.00 |  |
| Paclobutrazol | 14.865 | 236.10>125.00 | 14.00 | 227.10>185.10 | 6.00 | 227.10>58.00 | 14.00 |  |
| Parathion | 13.625 | 291.10>109.00 | 14.00 | 268.10>184.00 | 20.00 | 218.90>109.00 | 28.00 |  |
| Parathion-methyl | 12.670 | 100.10>72.00 | 8.00 | 218.90>144.90 | 20.00 | 218.90>109.00 | 28.00 |  |
| Penconazole | 14.242 | 248.10>192.10 | 14.00 | 198.10>110.10 | 10.00 | 223.10>174.10 | 8.00 |  |
| Pendimethalin | 14.109 | 323.00>267.00 | 16.00 | 284.90>93.00 | 24.00 | 252.10>208.10 | 18.00 |  |
| Pentachloroanisole | 10.858 | 279.90>265.00 | 10.00 | 322.00>294.00 | 4.00 | 322.00>174.00 | 18.00 |  |
| Permethrin-1 | 19.597 | 183.10>168.10 | 14.00 | 183.10>165.10 | 14.00 | 183.10>153.10 | 14.00 |  |
| Permethrin-2 | 19.727 | 183.10>168.10 | 14.00 | 238.00>91.10 | 28.00 | 238.00>110.10 | 26.00 |  |
| Phenothrin-1 | 18.260 | 183.10>168.10 | 14.00 | 250.00>215.00 | 8.00 | 250.00>111.00 | 28.00 |  |
| Phenothrin-2 | 18.369 | 183.10>168.10 | 14.00 | 183.10>153.10 | 14.00 | 183.10>115.10 | 20.00 |  |
| Phorate | 10.583 | 260.00>75.00 | 8.00 | 306.10>206.10 | 14.00 | 306.10>160.10 | 22.00 |  |
| Phosalone | 18.454 | 235.10>217.10 | 6.00 | 330.90>186.00 | 20.00 | 330.90>216.00 | 8.00 |  |
| Phosmet | 17.785 | 160.00>133.00 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Piperonyl butoxide | 17.319 | 176.10>131.10 | 12.00 | 208.10>152.10 | 24.00 | 208.10>151.00 | 28.00 |  |
| Pirimicarb | 12.088 | 238.10>166.10 | 12.00 | 238.10>72.00 | 24.00 | 238.10>96.00 | 22.00 |  |
| Pirimiphos-methyl | 13.104 | 305.10>180.10 | 8.00 | 257.00>119.00 | 18.00 | 198.10>118.10 | 28.00 |  |
| Pretilachlor | 15.290 | 262.10>202.10 | 10.00 | 210.90>96.00 | 14.00 | 277.00>228.00 | 14.00 |  |
| Prochloraz | 19.792 | 180.10>138.10 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| Procymidone | 14.506 | 283.00>96.00 | 10.00 | 188.10>132.10 | 18.00 | 188.10>117.10 | 26.00 |  |
| Profenofos | 15.336 | 189.00>161.90 | 12.00 | 207.00>144.00 | 20.00 | 207.00>128.00 | 20.00 |  |
| Prometryn | 12.897 | 241.20>199.10 | 6.00 | 236.10>166.00 | 16.00 | 236.10>88.00 | 22.00 |  |
| Propachlor | 9.677 | 152.10>110.10 | 8.00 | 156.00>141.00 | 4.00 | 156.00>79.00 | 22.00 |  |
| Propamocarb | 7.349 | 162.10>127.00 | 18.00 | 162.10>77.00 | 28.00 | 162.10>101.00 | 28.00 |  |
| Propanil | 12.476 | 160.90>99.00 | 24.00 | 258.00>186.00 | 24.00 | 160.90>126.00 | 24.00 |  |
| Propargite-1 | 17.196 | 135.10>107.10 | 16.00 | 135.10>77.00 | 24.00 | 135.10>95.00 | 14.00 |  |
| Propargite-2 | 17.221 | 135.10>107.10 | 16.00 | 135.10>77.00 | 24.00 | 135.10>95.00 | 14.00 |  |
| Propentamphos | 11.448 | 231.00>174.90 | 14.00 | 215.10>200.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Propiconazole-1 | 16.785 | 259.00>69.00 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Propiconazole-2 | 16.894 | 259.00>69.00 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Propoxur | 9.677 | 176.10>57.00 | 8.00 | 176.10>120.00 | 12.00 | 176.10>77.00 | 24.00 |  |
| Propyzamide | 11.542 | 304.10>179.10 | 10.00 | 279.90>237.00 | 24.00 | 279.90>119.00 | 36.00 |  |
| Prothiofos | 15.245 | 215.00>173.00 | 6.00 | 241.20>170.10 | 14.00 | 241.20>111.00 | 24.00 |  |
| Pyraclofos | 19.269 | 360.10>194.00 | 14.00 | 238.00>91.10 | 28.00 | 238.00>110.10 | 26.00 |  |
| Pyraclostrobin | 21.452 | 250.10>55.00 | 20.00 | 250.10>200.00 | 20.00 | 250.10>208.00 | 20.00 |  |
| Pyrazophos | 18.977 | 221.10>193.10 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| Pyrethrin I | 16.550 | 123.10>81.00 | 8.00 | 267.10>196.10 | 14.00 | 267.10>168.10 | 20.00 |  |
| Pyridaben | 19.756 | 147.10>117.10 | 22.00 | 303.00>173.00 | 10.00 | 157.10>102.00 | 24.00 |  |
| Pyridaphenthion | 17.640 | 340.00>199.10 | 8.00 | 267.10>196.10 | 14.00 | 267.10>168.10 | 20.00 |  |
| Pyrimethanil | 11.679 | 198.10>183.10 | 14.00 | 215.10>200.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Pyriproxyfen | 18.625 | 181.10>152.10 | 24.00 | 163.10>127.00 | 14.00 | 163.10>91.00 | 22.00 |  |
| Quinalphos | 14.440 | 157.10>129.00 | 14.00 | 263.00>136.00 | 8.00 | 263.00>246.00 | 6.00 |  |
| Quinoclamine | 13.389 | 207.00>172.00 | 12.00 | 238.10>72.00 | 24.00 | 238.10>96.00 | 28.00 |  |
| Quinoxyfen | 16.810 | 237.10>208.10 | 28.00 | 262.90>203.00 | 26.00 | 262.90>191.00 | 34.00 |  |
| Quintozene | 11.258 | 294.80>236.80 | 16.00 | 294.80>264.80 | 12.00 | 294.80>142.90 | 30.00 |  |
| Quizalofop-ethyl (Quizalofop-P-ethyl) | 20.640 | 163.10>135.10 | 10.00 | 283.00>255.00 | 12.00 | 283.00>68.00 | 24.00 |  |
| Resmethrin-1 | 17.246 | 326.00>169.10 | 28.00 | 237.10>182.10 | 28.00 | 336.00>164.00 | 24.00 |  |
| Resmethrin-2 (Bioresmethrin) | 17.375 | 171.10>128.10 | 12.00 | 208.10>152.10 | 24.00 | 208.10>151.00 | 28.00 |  |
| Simazine | 11.121 | 201.10>173.10 | 6.00 | 201.10>186.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Simetryn | 12.760 | 213.10>170.10 | 12.00 | 238.10>72.00 | 24.00 | 213.10>198.10 | 10.00 |  |
| Spirodiclofen | 19.455 | 312.00>109.00 | 20.00 | 328.90>313.90 | 18.00 | 386.80>253.00 | 32.00 |  |
| Spiroxamine-1 | 12.649 | 263.00>109.00 | 14.00 | 231.00>128.90 | 26.00 | 231.00>202.90 | 8.00 |  |
| Spiroxamine-2 | 13.163 | 277.00>260.00 | 6.00 | 168.10>77.00 | 28.00 | 172.90>109.00 | 26.00 |  |
| Sulfotep | 10.367 | 322.00>202.00 | 10.00 | 166.10>126.10 | 20.00 | 166.10>108.10 | 26.00 |  |
| Sulprofos | 16.508 | 322.00>156.00 | 8.00 | 267.10>196.10 | 14.00 | 267.10>168.10 | 20.00 |  |
| tau-Fluvalinate-1 | 21.459 | 250.10>200.10 | 16.00 | 250.10>55.00 | 18.00 | 0.00>0.00 | 0.00 |  |
| tau-Fluvalinate-2 | 21.527 | 250.10>55.00 | 20.00 | 250.10>200.00 | 20.00 | 250.10>208.00 | 20.00 |  |
| Tebuconazole | 17.179 | 250.10>125.10 | 22.00 | 303.00>173.00 | 10.00 | 128.10>84.00 | 18.00 |  |
| Tebufenpyrad | 18.089 | 333.10>171.10 | 20.00 | 167.10>128.10 | 26.00 | 167.10>141.10 | 22.00 |  |
| Tebuthiuron | 8.800 | 171.10>156.10 | 10.00 | 171.10>129.10 | 6.00 | 171.10>74.00 | 26.00 |  |
| Tecnazene | 9.505 | 260.90>202.90 | 14.00 | 260.90>202.90 | 10.00 | 260.90>195.90 | 14.00 |  |
| Tefluthrin | 11.884 | 257.00>162.00 | 8.00 | 262.00>83.00 | 24.00 | 262.00>93.00 | 22.00 |  |
| Terbacil | 11.894 | 177.00>127.10 | 16.00 | 294.80>264.80 | 12.00 | 294.80>142.90 | 30.00 |  |
| Terbufos | 11.458 | 214.00>214.10 | 4.00 | 214.00>132.10 | 8.00 | 214.00>104.00 | 16.00 |  |
| Terbuthylazine | 11.405 | 236.10>194.00 | 6.00 | 201.10>186.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Terbutryn | 13.143 | 241.20>185.10 | 6.00 | 168.10>77.00 | 28.00 | 172.90>109.00 | 26.00 |  |
| Tetrachlorvinphos | 14.829 | 328.90>109.00 | 20.00 | 271.80>117.00 | 32.00 | 271.80>201.90 | 38.00 |  |
| Tetraconazole | 13.694 | 336.00>218.00 | 14.00 | 198.10>110.10 | 10.00 | 223.10>174.10 | 8.00 |  |
| Tetradifon | 18.346 | 355.90>228.90 | 12.00 | 189.00>135.00 | 18.00 | 386.80>253.00 | 32.00 |  |
| Tetramethrin-1 | 17.721 | 164.10>107.10 | 14.00 | 291.10>137.00 | 6.00 | 291.10>81.00 | 24.00 |  |
| Tetramethrin-2 | 17.881 | 340.90>182.90 | 18.00 | 250.00>215.00 | 6.00 | 289.10>108.00 | 28.00 |  |
| Thiabendazole | 14.468 | 149.10>105.10 | 4.00 | 149.10>79.10 | 14.00 | 241.20>184.10 | 12.00 |  |
| Thiacloprid | 21.152 | 251.00>224.00 | 18.00 | 338.90>266.90 | 8.00 | 338.90>195.90 | 20.00 |  |
| Thiobencarb | 13.497 | 257.10>100.00 | 8.00 | 257.00>119.00 | 18.00 | 257.00>146.00 | 18.00 |  |
| Tolclofos-methyl | 12.680 | 264.90>249.90 | 14.00 | 231.00>128.90 | 26.00 | 231.00>202.90 | 8.00 |  |
| Tolylfluanid | 14.289 | 352.80>262.90 | 14.00 | 263.00>136.00 | 8.00 | 263.00>246.00 | 6.00 |  |
| trans-Chlordane | 14.729 | 125.00>89.00 | 16.00 | 284.90>93.00 | 24.00 | 284.90>239.90 | 26.00 |  |
| trans-Nonachlor | 15.028 | 219.10>123.10 | 14.00 | 227.10>185.10 | 6.00 | 227.10>58.00 | 14.00 |  |
| Triadimefon | 13.684 | 208.10>181.00 | 10.00 | 230.00>137.10 | 20.00 | 230.00>111.10 | 22.00 |  |
| Triadimenol-1 | 14.516 | 168.10>70.00 | 10.00 | 188.10>132.10 | 18.00 | 188.10>117.10 | 26.00 |  |
| Triadimenol-2 | 14.666 | 259.90>130.00 | 14.00 | 227.10>185.10 | 6.00 | 227.10>58.00 | 14.00 |  |
| Tri-allate | 11.955 | 268.10>226.00 | 14.00 | 215.10>200.10 | 6.00 | 201.10>138.10 | 12.00 |  |
| Triazophos | 16.500 | 269.10>119.10 | 14.00 | 313.90>285.90 | 8.00 | 313.90>193.90 | 28.00 |  |
| Tribufos | 15.463 | 246.00>176.00 | 30.00 | 366.90>254.90 | 22.00 | 91.00>64.00 | 10.00 |  |
| Tricyclazole | 15.354 | 336.90>266.90 | 14.00 | 204.90>162.00 | 14.00 | 168.10>45.00 | 22.00 |  |
| Trifloxystrobin | 16.743 | 303.00>145.00 | 22.00 | 303.00>173.00 | 10.00 | 128.10>84.00 | 18.00 |  |
| Triflumizole | 14.544 | 168.10>70.00 | 10.00 | 188.10>132.10 | 18.00 | 188.10>117.10 | 26.00 |  |
| Trifluralin | 10.270 | 306.10>264.10 | 8.00 | 306.10>206.10 | 14.00 | 200.00>97.00 | 24.00 |  |
| Triphenylmethane | 13.807 | 244.10>167.10 | 10.00 | 230.00>137.10 | 20.00 | 230.00>111.10 | 22.00 |  |
| Triticonazole | 18.454 | 182.00>111.00 | 14.00 | 119.10>64.00 | 22.00 | 91.00>64.00 | 10.00 |  |
| Vinclozolin | 12.619 | 285.00>212.00 | 12.00 | 238.10>72.00 | 24.00 | 285.00>241.00 | 10.00 |  |
| Zoxamide | 17.456 | 258.10>187.00 | 14.00 | 289.10>113.00 | 6.00 | 289.10>108.00 | 28.00 |  |

**Table S2**. Determination coefficient, recovery and precision for all investigated pesticides

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **Determination coefficient, R2** | **Recovery (%) for 10 µg/kg**  | **Intra-day precision (%)a for 10 µg/kg**  | **Inter-day precision (%)a for 10 µg/kg** |
| (E)-Chlorfenvinphos | 0,999 | 63 | 16 | 19 |
| (Z)-Chlorfenvinphos | 0,999 | 64 | 5 | 6 |
| 1-Chloronaphthalene | 0,999 | 98 | 8 | 19 |
| 2-Phenylphenol | 0,999 | 76 | 3 | 9 |
| 3-Hydroxycarbofuran | 0,999 | 81 | 4 | 9 |
| Acetochlor | 0,999 | 77 | 6 | 7 |
| Acrinathrin-1 | 0,998 | 65 | 15 | 19 |
| Acrinathrin-2 | 0,997 | 63 | 18 | 20 |
| Alachlor | 0,999 | 85 | 4 | 6 |
| Aldrin | 0,999 | 63 | 16 | 16 |
| Allethrin-3,4 (Bioallethrin) | 0,999 | 78 | 18 | 20 |
| Allidochlor | 0,999 | 93 | 4 | 17 |
| alpha-Endosulfan | 0,999 | 88 | 21 | 15 |
| alpha-HCH | 0,999 | 84 | 7 | 9 |
| Ametryn | 0,998 | 33 | 6 | 9 |
| Amitraz | 0,999 | 46 | 19 | 17 |
| Anthraquinone | 0,999 | 64 | 8 | 11 |
| Atrazine | 0,999 | 87 | 6 | 12 |
| Azinphos-ethyl | 0,999 | 68 | 17 | 19 |
| Azinphos-methyl | 0,999 | 62 | 16 | 20 |
| Azoxystrobin | 0,999 | 61 | 11 | 14 |
| Benalaxyl | 0,999 | 72 | 9 | 10 |
| Bendiocarb | 0,995 | 48 | 2 | 8 |
| Benfluralin | 0,999 | 82 | 6 | 7 |
| Benfuracarb | 0,999 | 74 | 15 | 17 |
| beta-Endosulfan | 0,999 | 81 | 17 | 20 |
| beta-HCH | 0,999 | 74 | 9 | 11 |
| Bifenazate | 0,999 | 91 | 8 | 12 |
| Bifenox | 0,995 | 60 | 19 | 20 |
| Bifenthrin | 0,999 | 73 | 12 | 11 |
| Biphenyl | 0,999 | 99 | 4 | 7 |
| Bitertanol-1 | 0,999 | 68 | 17 | 19 |
| Bitertanol-2 | 0,999 | 71 | 16 | 20 |
| Boscalid | 0,996 | 59 | 32 | 42 |
| Bromacil | 0,999 | 74 | 17 | 19 |
| Bromophos | 0,999 | 66 | 11 | 15 |
| Bromophos-ethyl | 0,999 | 72 | 7 | 9 |
| Bromopropylate | 0,999 | 77 | 3 | 7 |
| Bromuconazole-1 | 0,999 | 74 | 15 | 17 |
| Bromuconazole-2 | 0,999 | 67 | 17 | 20 |
| Bupirimate | 0,999 | 77 | 12 | 18 |
| Buprofezin | 0,999 | 63 | 13 | 20 |
| Butafenacil | 0,999 | 46 | 11 | 12 |
| Captan | 0,999 | 60 | 17 | 19 |
| Carbaryl | 0,999 | 90 | 9 | 9 |
| Carbetamide | 0,999 | 76 | 7 | 8 |
| Carbofuran | 0,998 | 27 | 18 | 20 |
| Carbophenothion | 0,999 | 68 | 6 | 7 |
| Carboxin | 0,999 | 66 | 5 | 8 |
| Carfentrazone-ethyl | 0,999 | 65 | 12 | 16 |
| Chlorantraniliprole | 0,999 | 71 | 12 | 13 |
| Chlorbenside | 0,999 | 70 | 7 | 8 |
| Chlorfenapyr | 0,999 | 45 | 17 | 19 |
| Chlorfenson | 0,999 | 63 | 5 | 6 |
| Chloridazon | 0,997 | 34 | 14 | 18 |
| Chlorobenzilate | 0,999 | 77 | 5 | 7 |
| Chlorothalonil | 0,999 | 71 | 8 | 8 |
| Chlorpropham | 0,999 | 74 | 13 | 14 |
| Chlorpyrifos | 0,999 | 82 | 9 | 10 |
| Chlorpyrifos-methyl | 0,999 | 69 | 2 | 2 |
| Chlorthal-dimethyl | 0,999 | 80 | 10 | 11 |
| Chlorthiophos-1 | 0,999 | 76 | 15 | 17 |
| Chlorthiophos-2 | 0,999 | 64 | 13 | 19 |
| Chlorthiophos-3 | 0,999 | 65 | 6 | 9 |
| Chlozolinate | 0,999 | 88 | 14 | 15 |
| cis-Chlordane | 0,995 | 53 | 17 | 18 |
| cis-Nonachlor | 0,995 | 32 | 20 | 22 |
| Clomazone | 0,999 | 82 | 4 | 10 |
| Clothianidin | 0,999 | 67 | 8 | 12 |
| Coumaphos | 0,998 | 55 | 6 | 12 |
| Cyfluthrin-1 | 0,997 | 41 | 21 | 33 |
| Cyfluthrin-2 | 0,995 | 35 | 24 | 42 |
| Cyfluthrin-3 | 0,995 | 43 | 18 | 20 |
| Cyfluthrin-4 | 0,995 | 57 | 22 | 18 |
| Cyhalothrin-1 | 0,999 | 67 | 5 | 6 |
| Cyhalothrin-2 | 0,999 | 62 | 4 | 8 |
| Cypermethrin-1 | 0,999 | 62 | 10 | 11 |
| Cypermethrin-2 | 0,999 | 122 | 18 | 20 |
| Cypermethrin-3 | 0,999 | 91 | 9 | 10 |
| Cypermethrin-4 | 0,999 | 68 | 5 | 8 |
| Cyproconazole-1 | 0,999 | 73 | 14 | 15 |
| Cyproconazole-2 | 0,995 | 28 | 15 | 15 |
| Cyprodinil | 0,999 | 77 | 6 | 9 |
| DEET | 0,999 | 75 | 5 | 9 |
| delta-HCH | 0,999 | 78 | 9 | 9 |
| Deltamethrin-1 (Tralomethrin deg.-1) | 0,999 | 111 | 13 | 14 |
| Deltamethrin-2 (Tralomethrin deg.-2) | 0,999 | 55 | 15 | 20 |
| Di-allate-1 | 0,999 | 84 | 5 | 8 |
| Di-allate-2 | 0,999 | 63 | 7 | 9 |
| Diazinon | 0,999 | 66 | 6 | 8 |
| Dichlobenil | 0,999 | 87 | 3 | 7 |
| Dichlofluanid | 0,999 | 70 | 8 | 9 |
| Dichlorvos | 0,999 | 66 | 8 | 9 |
| Diclobutrazol | 0,999 | 73 | 11 | 12 |
| Dicloran | 0,999 | 72 | 7 | 8 |
| Dicofol deg. (DCBP) | 0,999 | 82 | 3 | 3 |
| Dicrotophos | 0,999 | 71 | 15 | 17 |
| Dieldrin | 0,999 | 97 | 8 | 9 |
| Diethofencarb | 0,999 | 117 | 7 | 9 |
| Difenoconazole-1 | 0,999 | 63 | 14 | 15 |
| Difenoconazole-2 | 0,999 | 123 | 13 | 13 |
| Diflufenican | 0,999 | 64 | 3 | 7 |
| Dimethenamid (Dimethenamid-P) | 0,999 | 62 | 4 | 8 |
| Dimethoate | 0,999 | 60 | 18 | 20 |
| Dimethomorph-1 | 0,999 | 61 | 17 | 20 |
| Dimethomorph-2 | 0,999 | 76 | 13 | 14 |
| Diniconazole | 0,999 | 66 | 12 | 17 |
| Diphenamid | 0,999 | 79 | 15 | 19 |
| Diphenylamine | 0,999 | 77 | 15 | 16 |
| Disulfoton | 0,999 | 69 | 5 | 7 |
| Disulfoton sulfone | 0,999 | 94 | 16 | 19 |
| Edifenphos | 0,999 | 63 | 18 | 19 |
| Endosulfan sulfate | 0,999 | 69 | 21 | 28 |
| Endrin | 0,999 | 67 | 14 | 17 |
| EPN | 0,999 | 69 | 10 | 12 |
| Epoxiconazole | 0,999 | 63 | 9 | 10 |
| Ethalfluralin | 0,999 | 81 | 12 | 14 |
| Ethiofencarb | 0,999 | 98 | 17 | 19 |
| Ethion | 0,999 | 71 | 7 | 10 |
| Ethofumesate | 0,999 | 74 | 4 | 5 |
| Ethoprophos | 0,999 | 83 | 13 | 15 |
| Etofenprox | 0,999 | 92 | 18 | 20 |
| Etoxazole | 0,999 | 90 | 16 | 19 |
| Etridiazole | 0,999 | 78 | 7 | 8 |
| Famoxadone | 0,999 | 64 | 14 | 17 |
| Fenamidone | 0,999 | 87 | 6 | 7 |
| Fenamiphos | 0,999 | 67 | 16 | 19 |
| Fenarimol | 0,999 | 71 | 15 | 19 |
| Fenazaquin | 0,999 | 88 | 18 | 22 |
| Fenbuconazole | 0,999 | 64 | 12 | 14 |
| Fenchlorphos | 0,999 | 61 | 6 | 7 |
| Fenitrothion | 0,999 | 103 | 9 | 11 |
| Fenobucarb | 0,999 | 81 | 18 | 20 |
| Fenoxaprop-ethyl (Fenoxaprop-P-ethyl) | 0,999 | 64 | 20 | 26 |
| Fenoxycarb | 0,999 | 61 | 9 | 10 |
| Fenpropathrin | 0,999 | 60 | 11 | 15 |
| Fenpropimorph | 0,999 | 63 | 10 | 12 |
| Fenthion | 0,999 | 88 | 5 | 6 |
| Fenvalerate-1 | 0,997 | 62 | 21 | 32 |
| Fenvalerate-2 (Esfenvalerate) | 0,995 | 36 | 29 | 35 |
| Fipronil | 0,999 | 75 | 6 | 8 |
| Flucythrinate-1 | 0,999 | 65 | 12 | 14 |
| Flucythrinate-2 | 0,999 | 63 | 18 | 26 |
| Fludioxonil | 0,999 | 82 | 7 | 8 |
| Flufenacet | 0,999 | 85 | 16 | 19 |
| Flumioxazin | 0,999 | 63 | 15 | 18 |
| Fluquinconazole | 0,999 | 62 | 10 | 12 |
| Fluridone | 0,999 | 67 | 12 | 14 |
| Flusilazole | 0,999 | 70 | 17 | 20 |
| Flutolanil | 0,999 | 98 | 13 | 16 |
| Flutriafol | 0,999 | 83 | 8 | 10 |
| Fluvalinate-1 | 0,995 | 56 | 32 | 38 |
| Fluvalinate-2 | 0,996 | 58 | 26 | 31 |
| Folpet | 0,999 | 71 | 18 | 22 |
| Fonofos | 0,999 | 83 | 5 | 6 |
| Furathiocarb | 0,999 | 75 | 15 | 16 |
| Furilazole | 0,999 | 67 | 17 | 18 |
| gamma-HCH (Lindane) | 0,999 | 72 | 8 | 10 |
| Heptachlor | 0,999 | 110 | 11 | 13 |
| Heptachlor-endo-epoxide | 0,999 | 71 | 16 | 19 |
| Heptachlor-exo-epoxide | 0,999 | 66 | 14 | 17 |
| Hexachlorobenzene | 0,999 | 69 | 7 | 8 |
| Hexaconazole | 0,999 | 64 | 18 | 20 |
| Hexazinone | 0,999 | 73 | 14 | 17 |
| Imazalil | 0,999 | 82 | 13 | 16 |
| Indoxacarb | 0,999 | 65 | 16 | 17 |
| Iprodione | 0,999 | 62 | 20 | 29 |
| Isazofos | 0,999 | 72 | 16 | 19 |
| Isocarbophos | 0,999 | 76 | 14 | 17 |
| Isoprocarb | 0,999 | 64 | 12 | 14 |
| Kelthane | 0,999 | 61 | 4 | 9 |
| Kresoxim-methyl | 0,999 | 72 | 8 | 11 |
| lambda-Cyhalothrin | 0,999 | 86 | 6 | 10 |
| Lenacil | 0,999 | 52 | 6 | 7 |
| Leptophos | 0,999 | 58 | 13 | 16 |
| Linuron | 0,999 | 71 | 17 | 17 |
| Malathion | 0,999 | 85 | 12 | 14 |
| Mefenacet | 0,999 | 96 | 17 | 20 |
| Mepanipyrim | 0,999 | 89 | 15 | 18 |
| Mepronil | 0,999 | 65 | 4 | 5 |
| Metalaxyl (Mefenoxam) | 0,999 | 73 | 11 | 13 |
| Methacrifos | 0,999 | 77 | 8 | 10 |
| Methamidophos | 0,999 | 62 | 13 | 16 |
| Methidathion | 0,999 | 83 | 16 | 19 |
| Methiocarb | 0,999 | 55 | 12 | 15 |
| Methoxychlor | 0,999 | 91 | 16 | 19 |
| Metolachlor (S-Metolachlor) | 0,999 | 84 | 8 | 12 |
| Metribuzin | 0,999 | 73 | 9 | 14 |
| Mevinphos-1 | 0,999 | 83 | 8 | 9 |
| Mevinphos-2 | 0,999 | 62 | 17 | 20 |
| Mirex | 0,999 | 62 | 20 | 24 |
| Monocrotophos | 0,999 | 131 | 2 | 17 |
| Myclobutanil | 0,999 | 79 | 3 | 6 |
| Napropamide | 0,999 | 65 | 4 | 9 |
| Nicotine | 0,998 | 58 | 12 | 14 |
| Nitralin | 0,999 | 54 | 13 | 17 |
| Nitrofen | 0,999 | 71 | 14 | 14 |
| Norflurazon | 0,999 | 63 | 15 | 20 |
| o,p'-DDD | 0,999 | 68 | 4 | 9 |
| o,p'-DDE | 0,999 | 75 | 7 | 8 |
| o,p'-DDT | 0,999 | 71 | 6 | 8 |
| Omethoate | 0,998 | 59 | 18 | 22 |
| Oxadiazon | 0,999 | 87 | 5 | 9 |
| Oxadixyl | 0,999 | 67 | 7 | 10 |
| oxy-Chlordane | 0,999 | 61 | 13 | 14 |
| Oxyfluorfen | 0,999 | 95 | 1 | 1 |
| p,p'-DDD | 0,999 | 63 | 18 | 22 |
| p,p'-DDE | 0,999 | 72 | 11 | 13 |
| p,p'-DDT | 0,999 | 86 | 15 | 18 |
| Paclobutrazol | 0,999 | 78 | 3 | 4 |
| Parathion | 0,999 | 63 | 12 | 14 |
| Parathion-methyl | 0,999 | 74 | 13 | 16 |
| Penconazole | 0,999 | 81 | 5 | 7 |
| Pendimethalin | 0,999 | 84 | 17 | 20 |
| Pentachloroanisole | 0,999 | 69 | 13 | 16 |
| Permethrin-1 | 0,999 | 103 | 12 | 18 |
| Permethrin-2 | 0,999 | 81 | 11 | 13 |
| Phenothrin-1 | 0,999 | 62 | 14 | 17 |
| Phenothrin-2 | 0,999 | 49 | 12 | 15 |
| Phorate | 0,999 | 86 | 3 | 9 |
| Phosalone | 0,999 | 66 | 14 | 17 |
| Phosmet | 0,999 | 76 | 5 | 12 |
| Piperonyl butoxide | 0,999 | 77 | 15 | 18 |
| Pirimicarb | 0,999 | 76 | 7 | 9 |
| Pirimiphos-methyl | 0,999 | 67 | 10 | 12 |
| Pretilachlor | 0,999 | 81 | 8 | 10 |
| Prochloraz | 0,999 | 55 | 2 | 2 |
| Procymidone | 0,999 | 91 | 4 | 5 |
| Profenofos | 0,999 | 111 | 18 | 22 |
| Prometryn | 0,999 | 84 | 6 | 8 |
| Propachlor | 0,999 | 71 | 10 | 12 |
| Propamocarb | 0,999 | 65 | 17 | 20 |
| Propanil | 0,999 | 67 | 11 | 13 |
| Propargite-1 | 0,999 | 56 | 43 | 65 |
| Propargite-2 | 0,999 | 63 | 21 | 33 |
| Propentamphos | 0,999 | 88 | 5 | 12 |
| Propiconazole-1 | 0,999 | 62 | 8 | 10 |
| Propiconazole-2 | 0,999 | 63 | 17 | 20 |
| Propoxur | 0,999 | 93 | 6 | 7 |
| Propyzamide | 0,999 | 76 | 16 | 19 |
| Prothiofos | 0,999 | 69 | 8 | 13 |
| Pyraclofos | 0,999 | 73 | 14 | 17 |
| Pyraclostrobin | 0,999 | 70 | 15 | 18 |
| Pyrazophos | 0,999 | 60 | 10 | 12 |
| Pyrethrin I | 0,995 | 35 | 14 | 17 |
| Pyridaben | 0,999 | 64 | 12 | 14 |
| Pyridaphenthion | 0,999 | 57 | 16 | 19 |
| Pyrimethanil | 0,999 | 94 | 14 | 17 |
| Pyriproxyfen | 0,999 | 68 | 15 | 18 |
| Quinalphos | 0,999 | 77 | 14 | 17 |
| Quinoclamine | 0,999 | 85 | 6 | 11 |
| Quinoxyfen | 0,999 | 59 | 7 | 11 |
| Quintozene | 0,999 | 58 | 13 | 16 |
| Quizalofop-ethyl (Quizalofop-P-ethyl) | 0,999 | 76 | 12 | 14 |
| Resmethrin-1 | 0,999 | 82 | 6 | 13 |
| Resmethrin-2 (Bioresmethrin) | 0,999 | 68 | 8 | 18 |
| Simazine | 0,999 | 65 | 9 | 11 |
| Simetryn | 0,999 | 117 | 14 | 19 |
| Spirodiclofen | 0,999 | 85 | 6 | 7 |
| Spiroxamine-1 | 0,999 | 60 | 15 | 18 |
| Spiroxamine-2 | 0,999 | 85 | 10 | 12 |
| Sulfotep | 0,999 | 75 | 7 | 8 |
| Sulprofos | 0,999 | 66 | 5 | 16 |
| tau-Fluvalinate-1 | 0,999 | 73 | 15 | 18 |
| tau-Fluvalinate-2 | 0,999 | 71 | 17 | 20 |
| Tebuconazole | 0,999 | 67 | 3 | 4 |
| Tebufenpyrad | 0,999 | 86 | 20 | 24 |
| Tebuthiuron | 0,996 | 57 | 7 | 11 |
| Tecnazene | 0,999 | 83 | 8 | 10 |
| Tefluthrin | 0,999 | 86 | 4 | 4 |
| Terbacil | 0,999 | 123 | 19 | 21 |
| Terbufos | 0,999 | 108 | 7 | 16 |
| Terbuthylazine | 0,999 | 77 | 11 | 13 |
| Terbutryn | 0,999 | 95 | 3 | 9 |
| Tetrachlorvinphos | 0,999 | 62 | 15 | 18 |
| Tetraconazole | 0,999 | 76 | 13 | 16 |
| Tetradifon | 0,999 | 82 | 18 | 20 |
| Tetramethrin-1 | 0,999 | 69 | 11 | 13 |
| Tetramethrin-2 | 0,999 | 75 | 20 | 24 |
| Thiabendazole | 0,998 | 65 | 19 | 23 |
| Thiacloprid | 0,999 | 61 | 18 | 22 |
| Thiobencarb | 0,999 | 81 | 55 | 66 |
| Tolclofos-methyl | 0,999 | 82 | 21 | 25 |
| Tolylfluanid | 0,999 | 70 | 17 | 20 |
| trans-Chlordane | 0,998 | 62 | 47 | 92 |
| trans-Nonachlor | 0,997 | 53 | 54 | 77 |
| Triadimefon | 0,999 | 74 | 12 | 14 |
| Triadimenol-1 | 0,999 | 93 | 9 | 11 |
| Triadimenol-2 | 0,999 | 76 | 5 | 6 |
| Tri-allate | 0,999 | 62 | 8 | 13 |
| Triazophos | 0,999 | 62 | 17 | 20 |
| Tribufos | 0,999 | 55 | 15 | 18 |
| Tricyclazole | 0,999 | 84 | 18 | 22 |
| Trifloxystrobin | 0,999 | 77 | 11 | 13 |
| Triflumizole | 0,999 | 63 | 12 | 14 |
| Trifluralin | 0,999 | 79 | 7 | 7 |
| Triphenylmethane | 0,999 | 76 | 4 | 5 |
| Triticonazole | 0,999 | 75 | 15 | 18 |
| Vinclozolin | 0,999 | 77 | 10 | 15 |
| Zoxamide | 0,999 | 60 | 11 | 15 |

a Expressed as RSD values (n=5).

**Table S3.** Input parameters for calculation of risk assesment on human health

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Pesticide | ADI (mg/kg bw per day) | ARfD (mg/kg bw) | Source for ADI, ARfD and MRLs | Highest residue levela(µg/kg) | Mean residue levela(µg/kg) |
| Chlorpyrifos | 0.001 | 0.005 | EFSA 2014, EU Pesticides Database | 10.996 | 0.258 |
| DEET | - | - |  - | 0.899 | 0.025 |
| Tebuconazole | 0.030 | 0.030 | EFSA 08, EU Pesticides Database | 1.213 | 0.043 |
| Terbuthylazine | 0.040 | 0.080 | EFSA 11, EU Pesticides Database | 0.414 | 0.020 |
| Piperonyl butoxide | 0.200 | - | WHO, JMPR Database | 0.324 | 0.016 |
| Biphenyl | 0.038 | - | WHO1999, EU Pesticides Database | 0.094 | 0.006 |
| Pendimethalin | 0.125 | 1.000 | Dir 03/31, EU Pesticides Database / WHO, JMPR Database | 0.207 | 0.013 |
| Pirimiphos-methyl | 0.040 | 0.150 | EFSA 05, EU Pesticides Database | 0.626 | 0.040 |
| p,p'-DDE | 0.010 | - | JMPR 2000, EU Pesticides Database | 0.245 | 0.017 |

aHighest residue level and mean residue level are measured concentrations in positive samples of monitoring measurements