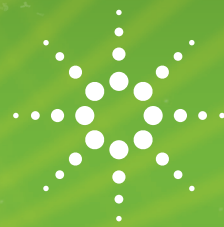


FOOD ANALYSIS

A GUARANTEED LC/MS/MS SOLUTION FOR THE ANALYSIS OF 298 PESTICIDES AND OTHER CHEMICALS IN FRUITS AND VEGETABLES



Solutions for Your Analytical Business
Markets and Applications Programs

Authors

With the collaboration of



and

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This Solution is dedicated to the analysis of 298 pesticides and growth regulators in compliance with DG SANCO requirements.

Pesticides and other chemicals are used widely in agriculture.

European Community regulations determine the maximum allowed amounts of those compounds in different matrices for its member states.

Agilent offers a turn-key Solution covering:

- UHPLC-Triple Quadrupole hardware
- Method set-up
- Sample analysis
- Data analysis
- Full Agilent support



Agilent Technologies

Authorized Partner Laboratory



Agilent
Guaranteed
Solution

Developed
Installed
Tested
Supported

Method validation has been performed on the following representative matrices

- Lettuce
- Olive Oil
- Grapes
- Orange

Target Compounds

- Pesticides
- Growth Regulators

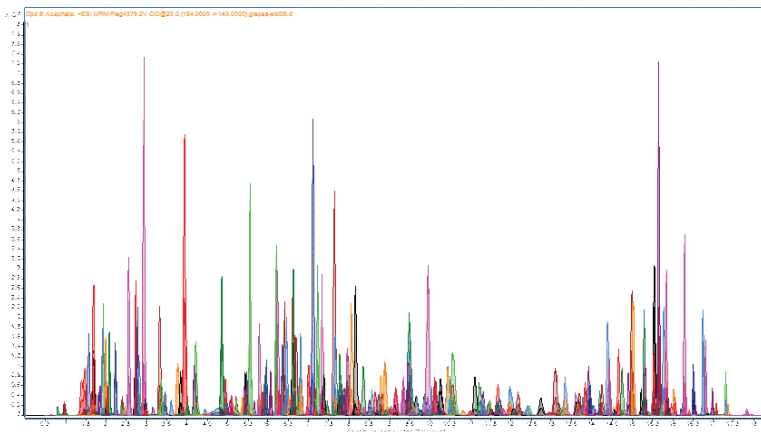
Sensitivity is guaranteed to be better than 1 µg/kg for most analytes and anyway better than 5 µg/kg for the remaining few. LOQs, LODs, precision and recoveries are in accordance to DG SANCO guidelines.

Sample preparation is done following QuEChERS approach: extraction with organic solvent followed by dispersive SPE with Bond Elut material. Sample analysis is performed with an Agilent UHPLC 1290 and an Agilent 6490 triple quadrupole.

The Measure of Confidence

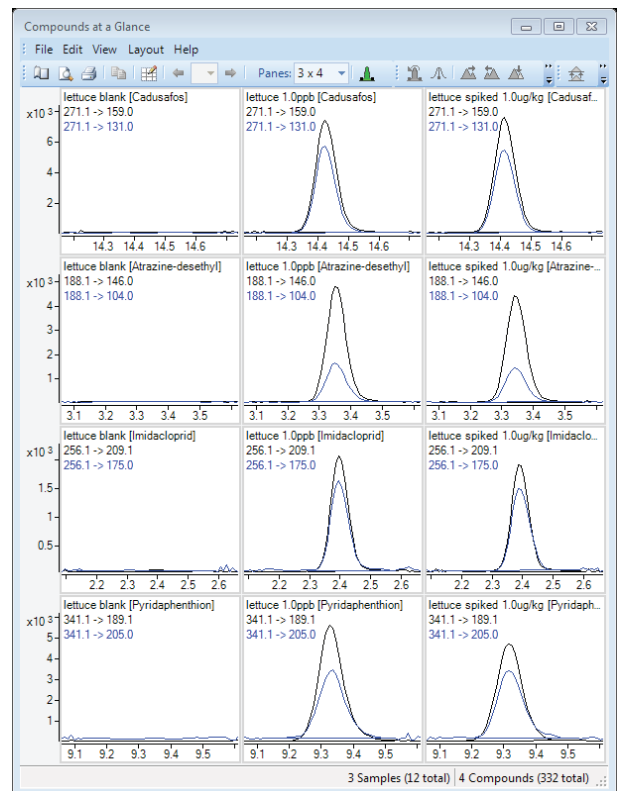
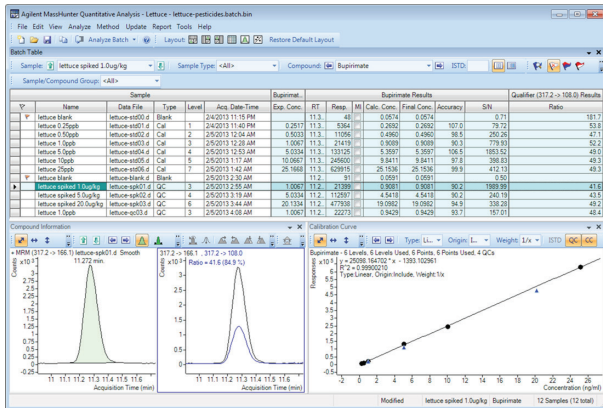


Agilent Technologies



The Agilent Pesticides Solution comprises the following:

- Complete hardware set-up (Agilent 1290 UHPLC and Agilent 6490 triple quadrupole) with dedicated analytical column;
- Analysis set up by Agilent;
- Standard operating procedure (SOP) with detailed description of the analysis;
- Method of analysis (a DVD/CD containing the sample analysis methods, recommended consumables and materials);
- Optional - One week training at Laboratorio Quimico-Microbiologico (Murcia, Spain) on sample prep, validation procedures and analytical methods;



Blank 1 ppb spiked into extracted matrix 1 ppb spiked into matrix before extraction

LIST OF TARGET COMPOUNDS

1. 1-Naphthylacetamide	55. Cymoxanil	109. Fenpropathrin
2. 2,4 Dimethylaniline	56. Cypermethrin I	110. Fenpropidin
3. 3-Hydroxy Carbofuran	57. Cypermethrin II	111. Fenpropimorph
4. Acephate	58. Cyproconazole I	112. Fenpyroximate
5. Acetamiprid	59. Cyproconazole II	113. Fenthion
6. Acetochlor	60. Cyprodinil	114. Fenuron
7. Acibenzolar-S-methyl	61. Cyromazine I	115. Flamprop-isopropyl
8. Aclonifen	62. Cyromazine II	116. Flonicamid
9. Alachlor	63. Deltamethrin	117. Fluazifop-P-butyl
10. Aldicarb	64. Demeton-S-methyl sulfone	118. Flubenzimine
11. Aldicarb-sulfone	65. Demeton-S-methyl-sulfoxide	119. Flucycloxuron
12. Ametryn	66. Desmedipham	120. Fludioxonil pos
13. Asulam	67. Desmethyl-pirimicarb	121. Flufenacet
14. Atrazine	68. Dialifos	122. Flufenoxuron
15. Atrazine-desethyl	69. Dichlorvos	123. Fluopicolide
16. Atrazine-desisopropyl	70. Diclobutrazol	124. Fluquinconazole
17. Avermectin B1a	71. Diclofop-methyl	125. Flusilazole
18. Azadirachtin	72. Dicrotophos	126. Flutriafol
19. Azinphos-ethyl	73. Diethofencarb	127. Forchlorfenuron
20. Azinphos-methyl	74. Difenoconazole	128. Formetanate
21. Azoxystrobin	75. Diflubenzuron	129. Formothion
22. Benalaxyl	76. Dimethoate	130. Fosthiazate
23. Bendiocarb	77. Dimethomorph I	131. Fuberidazole
24. Benthiavalicarb-isopropyl	78. Dimethomorph II	132. Furathiocarb
25. Benzoximate	79. Diniconazole	133. Haloxyfop-methyl
26. Bioresmethrin	80. Dioxacarb	134. Heptenophos
27. Boscalid	81. Diphenamid	135. Hexaconazole
28. Bromacil	82. Ditalimfos	136. Hexythiazox
29. Bupirimate	83. Diuron	137. Imazalil
30. Buprofezin	84. DMST	138. Imazamox
31. Butocarboxim	85. Dodine	139. Imidacloprid
32. Cadusafos	86. Emamectin B1a	140. Indoxacarb
33. Carbaryl	87. EPN	141. Iodosulfuron-Methyl
34. Carbensazim	88. Epoxyconazole	142. Iprodione
35. Carbofuran	89. EPTC	143. Isofenphos
36. Carfentrazone-ethyl	90. Ethiofencarb	144. Isofenphos-methyl
37. Chlorantraniliprole	91. Ethion	145. Isoprocarb
38. Chlorfenvinphos I	92. Ethofumesate	146. Isoproturon
39. Chlorfenvinphos II	93. Ethoprophos	147. Kresoxim-methyl
40. Chlorfluazuron	94. Etofenprox	148. Lenacil
41. Chloridazon	95. Etoxazole	149. Linuron
42. Chlorotoluron	96. Etrimfos	150. Lufenuron pos
43. Chloroxuron	97. Famoxadone	151. Malathion
44. Chlorpyrifos	98. Fenamidone	152. Mandipropamid
45. Chlorpyrifos-Methyl	99. Fenamiphos	153. Mecarbam
46. Chlorsulfuron	100. Fenamiphos-sulfone	154. Mefenpyr-Diethyl
47. Clodinafop-propargyl	101. Fenamiphos-sulfoxide	155. Mepanipyrim
48. Clofentezine	102. Fenarimol	156. Mepronil
49. Clomazone	103. Fenazaquin	157. Metalaxyl
50. Clothianidin	104. Fenbuconazol	158. Metamitron
51. Cyanazine	105. Fenhexamid	159. Metazachlor
52. Cyazofamid	106. Fenothiocarb	160. Metconazole
53. Cycloate	107. Fenoxaprop-ethyl	161. Methamidophos
54. Cymiazol	108. Fenoxycarb	162. Methidathion

163. Methiocarb	209. Phoxim	255. Spiroxamine II
164. Methiocarb Sulfone	210. Picoxystrobin	256. Sulfotep
165. Methiocarb Sulfoxide	211. Piperonyl butoxide	257. Sulprofos
166. Methomyl	212. Pirimicarb	258. Tau-Fluvalinate
167. Methoxifenozide	213. Pirimiphos-ethyl	259. TDCPP
168. Metobromuron	214. Pirimiphos-Methyl	260. Tebuconazole
169. Metolachlor	215. Prochloraz	261. Tebufenozide
170. Metosulam	216. Profenofos	262. Tebufenpyrad
171. Metoxuron	217. Promecarb	263. Teflubenzuron pos
172. Metrafenone	218. Prometon	264. Terbufos
173. Metribuzin	219. Prometryn	265. Terbumeton
174. Metsulfuron-methyl	220. Propachlor	266. Terbutylazin
175. Mevinphos I	221. Propamocarb	267. Terbutylazine-desethyl
176. Mevinphos II	222. Propanil	268. Terbutryn
177. Molinate	223. Propaquizafop	269. Terbutylazine-2-hydroxy
178. Monocrotophos	224. Propargite	270. Tetraconazole
179. Monolinuron	225. Propazine	271. Tetramethrin I
180. Myclobutanil	226. Propiconazole I	272. Tetramethrin II
181. Napropamide	227. Propiconazole II	273. Thiabendazole
182. Naptalam	228. Propoxur	274. Thiacloprid
183. Neburon	229. Propyzamide	275. Thiamethoxam
184. Nicosulfuron	230. Proquinazid	276. Thifensulfuron-methyl
185. Nitenpyram	231. Prosulfocarb	277. Thiobencarb
186. Nuarimol	232. Prosulfuron	278. Thiodicarb
187. Omethoate	233. Pymetrozine	279. Thionazin
188. Oxadiazon	234. Pyraclostrobin	280. Thiophanate-Methyl
189. Oxadixyl	235. Pyrazophos	281. Tolclofos-methyl
190. Oxamyl	236. Pyridaben	282. Tolyfluanid
191. Oxyfluorfen I	237. Pyridaphenthion	283. TPP
192. Oxyfluorfen II	238. Pyrifenox I	284. Triadimefon
193. Paclobutrazol	239. Pyrifenox II	285. Triadimenol I
194. Paraoxon	240. Pyrimethanil	286. Triadimenol II
195. Paraoxon-methyl	241. Pyriproxifen	287. Tri-Allat
196. Parathion	242. Quinalphos	288. Triasulfuron
197. Penconazol	243. Quinoxifen	289. Triazophos
198. Pencycuron	244. Quizalofop-ethyl	290. Trichlorfon
199. Pendimethalin	245. Rimsulfuron	291. Trifloxystrobin
200. Pethoxamid	246. Rotenone	292. Triflumizole
201. Phenmedipham	247. Simazine	293. Triflumuron
202. Phenthoate	248. Simetryn	294. Triflusulfuron-methyl
203. Phorat	249. Spinosad A	295. Triforine
204. Phosalone	250. Spinosad D	296. Triticonazole
205. Phosmet	251. Spirodiclofen	297. Vamidothion
206. Phosmet-oxon	252. Spiromesifen	298. Zoxamide
207. Phosphamidon I	253. Spirotetramat	
208. Phosphamidon II	254. Spiroxamine I	



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