

Supplemental Table 1 The retention time, linear equations, correlation coefficient and product ion for 379 pesticides determined by LC-Q-TOFMS

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
1	1-Naphthyl Acetamide	C12H11NO	4.456	y=0.024783x-0.003124	0.9942	186.0913	115.0542,141.0699,142.0733,116.0576,91.0542
2	2,6-Dichlorobenzamide	C7H5Cl2NO	3.116	y=0.003082x-9.245050E-004	0.9950	189.9821	172.9556,108.9840,144.9606,74.0151,100.0182
3	3,4,5-Trimethacarb	C11H15NO2	7.181	y=0.060431x-0.004187	0.9907	194.1176	137.0961,122.0726,109.1012,67.0542,55.0542
4	6-Isopentenyl aminopurine	C10H13N5	3.439	y=0.077057x-0.008831	0.9902	204.1244	136.0618,69.0699,148.0618,137.0636,119.0352
5	Akton	C12H14Cl3O3PS	18.036	y=0.004092x-1.614208E-004	0.9964	374.9540	96.9508,124.9821,153.0134,348.9198,346.9227
6	Aldicarb-sulfone	C7H14N2O4S	2.625	y=0.052194x-0.003355	0.9839	223.0747	62.9899,86.0600,59.0491,58.0287,76.0393
7	Aldicarb-sulfoxide	C7H14N2O3S	2.261	y =0.0001x-0.00019	0.9487	207.0798	89.0419,49.0106,46.9950,58.0287,65.0056
8	Allidochlor	C8H12ClNO	4.923	y=0.009911x+0.011239	0.7690	174.0680	98.0964,56.0495,58.0651,76.9789,70.0651
9	Ametryn	C9H17N5S	6.688	y=0.830644x-0.047664	0.9986	228.1277	186.0808,68.0243,71.0604,96.0556,74.0059
10	Amidosulfuron	C9H15N5O7S2	6.014	y=0.041843x-0.001970	0.9987	370.0486	261.0288,139.0376,218.0230,69.0083,127.0502
11	Aminocarb	C11H16N2O2	2.157	y=0.107714x-0.008440	0.9884	209.1285	137.0835,152.1070,122.0600,136.0757,94.0651
12	Ancymidol	C15H16N2O2	5.157	y=0.099929x-0.001833	0.9986	257.1285	81.0447,135.0441,54.0338,107.0491,121.0648
13	Anilofos	C13H19ClNO3PS2	14.744	y=0.278381x-0.016035	0.9980	368.0305	124.9821,198.9647,170.9698,156.9541,78.9943
14	Aramite	C15H23ClO4S	17.347	y=7.544803E-004x-9.345558E-005	0.9843	352.1344	191.1430,111.0474,83.0855,193.1223,135.0804
15	Atraton	C9H17N5O	4.313	y=0.709890x-0.047357	0.9969	212.1506	68.0243,170.1036,100.0505,57.0447,69.0083
16	Atrazine-desethyl	C6H10ClN5	3.677	y=0.017835x-0.002359	0.9957	188.0697	146.0228,68.0243,79.0058,104.0010,61.9792
17	Atrazine-desisopropyl	C5H8ClN5	2.937	y=0.024747x-2.123759E-004	0.9907	174.0541	68.0243,96.0556,104.0010,132.0323,79.0058
18	Azaconazole	C12H11Cl2N3O2	6.754	y=0.104602x-0.004254	0.9993	300.0301	158.9763,230.9974,172.9556,70.0400,122.9996
19	azadirachtin	C35H44O16	6.429	y=0.011539x+9.734910E-004	0.9983	743.2522	565.1704,665.2228,725.2407,625.1916,83.0491
20	Azimsulfuron	C13H16N10O5S	6.581	y=0.087567x-0.003026	0.9996	425.1099	182.0560,139.0489,83.0240,155.9988,227.0339
21	Aziprotryne	C7H11N7S	9.559	y=0.132004x-0.005120	0.9987	226.0869	68.0243,156.0338,125.0822,89.0168,58.0651
22	Beflubutamid	C18H17F4NO2	14.318	y=0.041342x-5.704840E-004	0.9997	356.1268	91.0542,162.0913,177.1148,65.0386,221.0584
23	Benalaxyl	C20H23NO3	14.052	y=0.530541x-0.032163	0.9984	326.1751	91.0542,148.1121,208.1332,294.1489,121.0886
24	Bendiocarb	C11H13NO4	5.741	y=0.015469x+4.082036E-005	0.9927	224.0917	81.0335,109.0284,167.0703,53.0386,59.0491
25	Benodanil	C13H10INO	8.287	y=0.178853x-0.002745	0.9990	323.9880	230.9301,202.9352,76.0308,105.0335,104.0257
26	Benoxacor	C11H11Cl2NO2	9.74	y=0.004275x-0.001203	0.9865	260.0240	120.0444,134.0600,149.0835,106.0651,82.9450
27	Bensulide	C14H24NO4PS3	15.158	y=0.051703x-0.001597	0.9995	398.0678	313.9736,77.0386,158.0270,218.0304,141.0005

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
28	Benzobicyclon	C22H19ClO4S2	12.993	y=0.238077x-0.010775	0.9989	447.0486	257.0631,411.0719,258.0663,109.0107,259.0618
29	Benzovindiflupyr	C18H15Cl2F2N3O	14.366	y=0.175731x-0.008260	0.9992	398.0633	159.0364,342.0804,378.0571,344.0780,330.0195
30	Benzoylprop	C16H13Cl2NO3	9.286	y=0.006410x-6.199676E-004	0.9968	338.0345	105.0335,77.0386,188.0028,189.9999,106.0369
31	Benzoylprop-Ethyl	C18H17Cl2NO3	15.18	y=0.062794x-0.002844	0.9990	366.0658	105.0335,77.0386,320.0240,51.0229
32	Bitertanol	C20H23N3O2	12.674	y=0.050504x-9.181565E-004	0.9962	338.1863	70.0400,99.0804,269.1536,57.0699,153.0699
33	Boscalid	C18H12Cl2N2O	11.199	y=0.055426x-8.254602E-004	0.9993	343.0399	271.0866,307.0633,272.0944,111.9949,78.0338
34	Brodifacoum	C31H23BrO3	18.802	y=0.034913x-0.001059	0.9982	523.0903	256.1247,337.0411,335.0430,175.0390,189.0546
35	Bromacil	C9H13BrN2O2	4.781	y=0.002550x-3.023146E-004	0.9834	261.0233	204.9607,131.9443,54.0338,187.9342,161.9549
36	Bromadiolon	C30H23BrO4	16.297	y=0.006417 x - 0.001615	0.9916	549.0672	273.0546,274.0580,185.0233
37	Bromfenvinfos-Methyl	C10H10BrCl2O4P	11.021	y=0.018422x-4.075994E-004	0.9988	374.8950	127.0155,169.9685,109.0051,248.8868,94.9894
38	Bromobutide	C15H22BrNO	13.752	y=0.057818x-0.003164	0.9972	312.0958	119.0855,194.0175,139.9529,137.9549,91.0542
39	Bromuconazole	C13H12BrCl2N3O	10.312	y=0.027617x-0.001646	0.9984	375.9614	158.9763,70.0400,172.9556,227.0007,306.9273
40	Bupirimate	C13H24N4O3S	12.67	y=1.071121x-0.066077	0.9985	317.1642	44.0495,166.0975,108.0114,210.1601,96.0444
41	Butafenacil	C20H18ClF3N2O6	14.18	y=0.180775x-0.012843	0.9974	492.1144	331.0092,349.0197,333.0067,475.0878,351.0172
42	Butamifos	C13H21N2O4PS	16.465	y=0.038883x-0.001339	0.9983	333.1032	95.9668,152.0293,180.0607,260.0141,231.9828
43	Butocarboxim-Sulfoxide	C7H14N2O3S	2.145	y=0.007255x+9.756283E-004	0.9841	207.0798	46.9950,75.0263,68.0495,88.0215,44.9793
44	Cadusafos	C10H23O2PS2	14.62	y=0.140668x-0.005138	0.9989	271.0950	96.9508,130.9385,158.9698,215.0324,57.0699
45	Cafenstrole	C16H22N4O3S	12.779	y=0.047225x+4.603080E-004	0.9994	351.1485	72.0444,100.0757,101.0787,73.0472
46	Carbofuran	C12H15NO3	5.793	y=0.094197x-0.004093	0.9899	222.1125	123.0441,165.0910,77.0386,55.0542,91.0542
47	Carbofuran-3-Hydroxy	C12H15NO4	3.547	y=0.006714x+0.005460	0.6065	238.1074	107.0491,163.0754,135.0804,181.0859,115.0542
48	Carboxin	C12H13NO2S	6.472	y=0.202972x+1.588127E-004	0.9999	236.0740	93.0573,143.0161,86.9899,124.0215,77.0386
49	Carfentrazone-ethyl	C15H14Cl2F3N3O 3	14.241	y=0.041454x-0.001464	0.9989	412.0437	345.9956,347.9929,302.0302,366.0018,367.9991
50	Carpropamid	C15H18Cl3NO	14.613	y=0.022857x-5.487415E-004	0.9998	334.0527	139.0309,196.0291,198.0262,160.0524,81.0699
51	Chlorbenzuron	C14H10Cl2N2O2	12.865	y=0.005750x-2.405377E-004	0.9989	309.0192	156.0211,138.9945,158.0182,140.9917,157.0242
52	Chlordimeform	C10H13ClN2	3.249	y=0.074560x+0.008066	0.9935	197.0840	117.0573,152.0262,125.0153,116.0495,58.0651
53	Chlorfenvinphos	C10H10Cl3O4P	13.7	y=0.086179x-0.005803	0.9970	358.9768	98.9843,155.0468,127.0155,169.9683,204.9371
54	Chloridazon	C10H8ClN3O	3.612	y=0.054476x-0.003185	0.9975	222.0429	77.0386,65.0386,92.0495,104.0495,100.9901
55	Chlorimuron-ethyl	C15H15ClN4O6S	10.662	y=0.131025x-0.004836	0.9996	415.0474	186.0060,83.0240,121.0284,184.9895,143.0002

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
56	Chlorphonium	C19H32Cl2P	14.194	y=1.262013x-0.084797	0.9980	362.1691	361.1613,76.0436,363.1587,158.9763,160.9734
57	Chlorphoxim	C12H14ClN2O3PS	16.4	y=0.003682x-2.694268E-004	0.9988	333.0224	96.9508,110.9994,163.0053,124.9821,75.0229
58	Chlorsulfuron	C12H14ClN2O3PS	5.936	y=0.045476x-0.002479	0.9982	358.0371	56.0495,141.0771,167.0564,110.9996,58.0287
59	Cimidon-Ethyl	C19H17Cl2NO4	17.011	y=0.0003459454-1.788104E-004	0.6038	394.0607	107.0491,348.0189,79.0542,366.0294,77.0386
60	Clodinafop	C14H11ClFNO4	8.31	y=0.008235x- 0.0006427265	0.9989	312.0433	266.0379,268.0353,239.0144,267.0411,222.0116
61	Clodinafop-propargyl	C17H13ClFNO4	15.087	y=0.071633x-0.002263	0.9997	350.0590	91.0542,266.0367,222.0105,238.0418,159.0479
62	Clofencet	C13H11ClN2O3	6.31	y=0.021514x-4.186275E-004	0.9991	279.0531	166.0418,261.0425,263.0399,168.0390,262.0456
63	Clomazone	C12H14ClNO2	7.907	y=0.085083x-0.003130	0.9976	240.0786	125.0153,89.0386,98.9996,90.0464,126.0231
64	Clomeprop	C16H15Cl2NO2	16.567	y=0.012414x-4.259705E-004	0.9983	324.0553	120.0808,203.0025,148.0757,204.9996,121.0839
65	Cloransulam-Methyl	C15H13ClFN5O5S	7.701	y=0.077137x-0.002048	0.9996	430.0383	369.9807,398.0121,152.9976,400.0094,371.9781
66	Coumaphos	C14H16ClO5PS	15.571	y=0.018216x-9.805136E-004	0.9982	363.0217	226.9926,306.9591,211.0155,225.9848,334.9904
67	coumaphos-oxon	C14H16ClO6P	8.294	y=0.093510x-0.001987	0.9995	347.0446	211.0157,290.9820,137.0153,165.0102,292.9795
68	Crufomate	C12H19ClNO3P	10.7	y=0.572764x-0.024357	0.9993	292.0864	108.0209,236.0238,57.0699,238.0211,260.0602
69	Cyanazine	C9H13ClN6	5.143	y=0.081235x+8.134993E-004	0.9984	241.0963	68.0243,214.0854,71.0604,104.0010,96.0556
70	Cyazofamid	C13H13ClN4O2S	14.217	y=0.030898x-4.344388E-004	0.9994	325.0521	108.0114,216.0323,190.0292,182.0713,155.0604
71	Cycloate	C11H21NOS	15.349	y=0.014132x-2.445511E-004	0.9862	216.1417	55.0542,83.0855,63.0263,154.1226,72.0444
72	Cycluron	C11H22N2O	6.404	y=0.469723x-0.017673	0.9994	199.1805	72.0444,69.0699,89.0709,55.0542,56.0131
73	Cyenopyrafen	C24H31N3O2	18.594	y=1.148579x-0.068748	0.9982	394.2489	310.1914,254.1301,57.0699,294.1601,184.0757
74	Cyflufenamid	C20H17F5N2O2	16.565	y=0.051628x-0.002433	0.9978	413.1283	203.0227,241.0395,295.0864,223.0289,221.0321
75	Cymiazole	C12H14N2S	3.846	y=0.179826x-0.038982	0.9822	219.0950	77.0386,144.0808,130.0651,105.0699,120.0808
76	Cymoxanil	C7H10N4O3	4.179	y=0.0007871132x-6.227709E-004	0.9994	199.0826	53.0134,111.0189,128.0455,83.0240,58.0287
77	Cyprazine	C9H14ClN5	6.364	y=0.209943x-0.001717	0.9994	228.1010	186.0541,108.0556,68.0243,83.0604,56.0495
78	Cyproconazole	C15H18ClN3O	9.118	y=0.092243x-0.003687	0.9987	292.1211	70.0400,125.0153,126.0212,89.0386,110.9996
79	Cyprofuram	C14H14ClNO3	6.844	y=0.124302x-0.005570	0.9990	280.0735	69.0340,130.0651,131.0730,184.0519,166.0413
80	Cyromazine	C6H10N6	1.534	y=0.019564x+8.281125E-004	0.9944	167.1040	85.0509,60.0556,68.0243,83.0604,125.0822
81	Daimuron	C17H20N2O	11.163	y=0.456244x-0.024444	0.9991	269.1648	91.0542,119.0855,151.0866,108.0808,106.0651
82	Desmetryn	C8H15N5S	5.209	y=0.950583x-0.044510	0.9991	214.1121	172.0651,82.0400,57.0447,68.0243,91.0324
83	Diallate	C10H17Cl2NOS	16.691	y=0.005218x-6.554210E-004	0.9941	270.0481	86.0600,108.9606,128.1070,110.9577,142.9483

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
84	Diazinon	C12H21N2O3PS	14.971	y=0.469267x-0.025445	0.9984	305.1083	96.9508,169.0794,153.1022,249.0454,277.0770
85	Dibutyl succinate	C12H22O4	14.176	y=0.002172x-5.432691E-004	0.9805	231.1591	101.0233
86	Dichlormid	C8H11Cl2NO	6.707	y=0.002225x-3.303057E-004	0.9916	208.0290	84.0808,100.1121,98.0964,86.0964,58.0651
87	Diclobutrazol	C15H19Cl2N3O	11.649	y=0.061545x-0.002975	0.9985	328.0978	70.0400,158.9763,59.0491,69.0699,57.0699
88	Diclocymet	C15H18Cl2N2O	13.362	y=0.001600x-8.139587E-004	0.9254	313.0869	172.9919,174.9890,114.0913,141.1022,100.1121
89	Diclosulam	C13H10Cl2FN5O3 S	8.156	y=0.030586x-0.002019	0.9984	405.9938	160.9794,377.9625,223.9327,314.0006,175.9658
90	Diethyl Aminoethyl Hexanoate	C12H25NO2	3.949	y=0.091409x-0.007503	0.9933	216.1958	143.1067,100.1121,71.0855,72.0808,118.1226
91	Diethyltoluamide	C12H17NO	6.635	y=0.625923x-0.014661	0.9995	192.1383	91.0542,119.0491,65.0386,44.0131,72.0444
92	Difenacoum	C31H24O3	17.976	y=0.128006x-0.009452	0.9954	445.1798	179.0855,257.1325,175.0390,258.1359,291.1016
93	Difenoconazole	C19H17Cl2N3O3	14.57	y=0.138539x-0.006582	0.9985	406.0720	251.0025,252.9997,337.0393,339.0366,252.0059
94	Difenoaxuron	C16H18N2O3	7.009	y=0.583073x-0.034350	0.9980	287.1390	72.0444,46.0651,123.0441,95.0491,214.0863
95	Diflufenican	C19H11F5N2O2	16.288	y=0.013957x-8.936309E-004	0.9997	395.0813	266.0412,238.0463,246.0350,218.0401,183.0416
96	Dimethachlor	C13H18ClNO2	7.636	y=0.209510x-0.007632	0.9994	256.1099	148.1121,224.0837,105.0699,132.0808,48.9840
97	Dimethametryn	C11H21N5S	10.934	y=1.324929x-0.071824	0.9987	256.1590	186.0808,68.0243,71.0604,96.0556,91.0324
98	Dimethenamid	C12H18ClNO2S	9.562	y=0.185919x-0.010335	0.9980	276.0820	244.0557,111.0263,126.0372,168.0842,45.0335
99	Dimethomorph	C21H22ClNO4	8.727	y=0.198956x-0.008929	0.9990	388.1310	165.0546,301.0626,138.9945,70.0287,242.0493
100	Dimethylvinphos (E)	C10H10Cl3O4P	11.412	y=0.008651x-1.807386E-004	0.9984	330.9455	127.0155,109.0049,169.9685,171.9656,206.9344
101	Dimethylvinphos (Z)	C10H10Cl3O4P	10.493	y=0.038237x-3.508269E-004	0.9997	330.9455	127.0155,206.9344,204.9373,169.9685,171.9656
102	Dimetilan	C10H16N4O3	3.806	y=0.063247x-0.001867	0.9934	241.1295	72.0444,196.0717,56.0131
103	Dinitramine	C11H13F3N4O4	14.955	y=0.003753x-1.767729E-004	0.9964	323.0962	305.0856,215.0665,195.0603,289.0907,247.0426
104	Dioxabenzofos	C8H9O3PS	9.641	y=15.391691x+0.059626	0.9966	217.0083	77.0386,107.0491,79.0542,186.9977,184.9821
105	Dioxacarb	C11H13NO4	3.807	y=0.003818x+0.005882	0.9023	224.0917	77.0386,123.0441,167.0703,95.0491,162.0550
106	Dioxathion	C12H26O6P2S4	17.622	y=0.019510x-7.721143E-004	0.9992	457.0160	96.9508,271.0222,124.9821,153.0134,184.9854
107	Diphenamid	C16H17NO	7.857	y=0.741208x-0.043124	0.9980	240.1383	134.0964,165.0699,152.0621,91.0542,167.0855
108	Dipropetryn	C11H21N5S	11.506	y=0.918472x-0.055681	0.9969	256.1590	102.0120,144.0338,214.1121,68.0243,172.0651
109	Dipropyl Isocinchomerate	C13H17NO4	10.244	y=0.544680x-0.027419	0.9990	252.1230	164.0706,210.0761,192.0655,211.0793,165.0738
110	Dithiopyr	C15H16F5NO2S2	17.166	y=0.008871x-5.089910E-004	0.9974	402.0615	248.0351,354.0582,296.0363,312.0135,334.0519
111	DMST	C9H14N2O2S	6.297	y=0.003640x+2.540694E-004	0.9547	215.0849	77.0386,106.0651,79.0542,107.0730,151.1230

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
112	Dodemorph	C18H35NO	7.442	y=0.889957x-0.023668	0.9976	282.2791	98.0964,116.1070,97.1012,117.1101
113	Drazoxolon	C10H8CIN3O2	12.194	y=0.008033 x- 0.0002672055	0.9940	238.0378	130.0651,98.9996,126.0105,177.0214,131.0730
114	Enestroburin	C22H22CINO4	17.011	y=0.355632x-0.026290	0.9973	400.1310	145.0648,205.0859,178.0418,180.0390,146.0682
115	EPN	C14H14NO4PS	16.54	y=0.012216x-3.836625E-004	0.9973	324.0454	296.0141,156.9872,62.9453,94.0413,110.0185
116	Epoxiconazole	C17H13CIFN3O	11.181	y=0.140536x-0.004037	0.9997	330.0804	121.0448,141.0102,70.0400,122.0482,261.0477
117	Eprinomectin B1b	C49H73NO14	17.855	y=0.001180x-3.119993E-004	0.9931	914.5260	186.1125,154.0863,144.1019,199.1117,298.1649
118	EPTC	C9H19NOS	13.008	y=0.001257x-4.422518E-005	0.8981	190.1260	128.1070,86.0600,162.1311,93.0699,89.0056
119	Esprocarb	C15H23NOS	17.201	y=0.106374x-0.007475	0.9954	266.1573	91.0542,71.0855,196.0791,92.0576,72.0890
120	Etaconazole	C14H15Cl2N3O2	10.778	y=0.052258x-8.057958E-005	0.9993	328.0614	158.9745,55.0542,204.9804,160.9753,186.9698
121	Ethiofencarb	C11H15NO2S	6.546	y=0.006314x+0.001021	0.9814	226.0896	107.0491,77.0386,79.0542,164.0706,108.0478
122	Ethiofencarb-sulfone	C11H15NO4S	3.522	y=0.019169x+0.002648	0.9962	258.0795	107.0491,77.0386,79.0542,108.0570,201.0580
123	Ethiofencarb-sulfoxide	C11H15NO3S	3.157	y=0.050601x+5.457084E-004	0.9975	242.0845	107.0491,77.0386,79.0542,185.0631,164.0706
124	Ethofumesate	C13H18O5S	11.965	y=19.355391x+1.051677	0.9956	287.0948	121.0648,161.0597,259.0635,162.0675,241.0529
125	Ethoprophos	C8H19O2PS2	10.857	y=0.231636x-0.009643	0.9989	243.0637	96.9508,130.9385172.9854,215.0324,201.0167
126	Ethoxyquin	C14H19NO	10.414	y=0.481633x-0.029216	0.9989	218.1539	160.0757,174.0913,146.0600,133.0522,148.0757
127	ethychlozate	C11H11CIN2O2	7	y=0.052215x-0.001303	0.9996	239.0582	165.0214,138.0105,110.9996,167.0186,140.0076
128	Etofenprox	C25H28O3	19.608	y=0.017471x-8.627508E-004	0.9816	394.2377	135.0804,177.1274,107.0491,183.0804,149.0961
129	Etoxazole	C21H23F2NO2	18.166	y=1.520812x-0.081869	0.9989	360.1770	141.0146,57.0699,304.1132,177.1274,113.0197
130	Etrimfos	C10H17N2O4PS	14.57	y=0.269022x-0.014171	0.9981	293.0719	124.982,178.9943,265.0406,46.9950,56.0495,
131	Famphur	C10H16NO5PS2	9.351	y=0.022532x-7.780911E-004	0.9997	326.0280	93.0100,217.0073,280.9702,44.0495,109.0049
132	Fenamidone	C17H17N3OS	10.844	y=0.211954x-0.009983	0.9990	312.1165	92.0495,236.1182,65.0386,264.1131,103.0542
133	Fenamiphos	C13H22NO3PS	10.471	y=0.563829x-0.022969	0.9995	304.1131	201.9848,217.0083,234.0345,276.0818,262.0661
134	Fenamiphos-sulfone	C13H22NO5PS	5.572	y=0.225759x-0.007631	0.9991	336.1029	266.0247,308.0716,108.0573,188.0468,91.0545
135	Fenamiphos-sulfoxide	C13H22NO4PS	4.572	y=0.203156x-0.002039	0.9996	320.1080	108.0573,233.0032,171.0474,292.0767,156.0240
136	Fenazaquin	C20H22N2O	18.424	y=0.530956x-0.036111	0.9957	307.1805	57.0699,161.1325,146.1090,131.0855,147.0553
137	Fenclorphos-Oxon	C8H8Cl3O4P	10.303	y=0.012479x-6.583171E-004	0.9973	304.9299	109.0049,78.9943,303.9220,259.8773,257.8802
138	Fenfuram	C12H11NO2	6.686	y=0.115924x+5.763073E-005	0.9994	202.0863	109.0284,53.0386,83.0491,120.0444,77.0386
139	Fenhexamid	C14H17Cl2NO2	11.036	y=0.034815x-0.001039	0.9997	302.0709	55.0542,97.1012,69.0699,143.0128,98.1090
140	Fenothiocarb	C13H19NO2S	12.838	y=0.124847x-0.002108	0.9994	254.1209	72.0444,160.0791,161.0819,73.0472,149.0961

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
141	Fenoxaprop-Ethyl	C18H16ClNO5	16.622	y=0.222222x-0.013750	0.9968	362.0790	91.0542,288.0422,121.0648,103.0542,77.0386
142	Fenoxaprop-P	C18H16ClNO5	10.415	y=0.024286x-4.741559E-004	0.9977	334.0477	94.0413,288.0422,121.0648,92.0257,262.0266
143	Fenoxycarb	C17H19NO4	12.974	y=0.039683x+1.557556E-004	0.9999	302.1387	88.0393,116.0706,44.0495,256.0968,70.0287
144	Fenpropidin	C19H31N	7.99	y=1.782649x-0.109025	0.9986	274.2529	147.1168,86.0964,132.0934,57.0699,119.0855
145	Fenpyrazamine	C17H21N3O2S	11.839	y=0.492287x-0.021557	0.9993	332.1427	189.0897,216.1131,230.1288,231.1366,131.0730
146	Fensulfothion-Oxon-Sulfone	C11H17O6PS	4.794	y=0.057701x-0.002668	0.9991	309.0556	252.9930,175.0155,281.0243,253.9961,254.9911
147	Fentrazamide	C16H20ClN5O2	15.233	y=0.098935x+ 0.007874	0.9930	350.1378	55.0542,83.0855,154.1226,197.1284,72.0449
148	Fenuron	C9H12N2O	3.587	y=0.040950x-0.001672	0.9917	165.1022	72.0444,46.0651,77.0386,56.0131,44.0495
149	Ferimzone	C15H18N4	5.466	y=0.128510x+0.003767	0.9983	255.1604	132.0808,124.0869,117.0573,123.0791,96.0682
150	Flamprop-isopropyl	C19H19ClFNO3	15.102	y=0.126646x-0.005935	0.9982	364.1110	105.0335,77.0386,304.0530,106.0413,172.0319
151	Flonicamid	C9H6F3N3O	3.153	y=0.002531x-3.747544E-004	0.9828	230.0536	203.0427,98.0401,148.0369,174.0161,146.0212
152	Florasulam	C12H8F3N5O3S	5.856	y=0.037935x-0.002449	0.9970	360.0373	129.0385,191.9914,130.0413,109.0318,128.0304
153	Fluacrypyrim	C20H21F3N2O5	16.687	y=0.023946x-0.001152	0.9970	427.1475	145.0648,205.0859,117.0699,115.0542,146.0686
154	Fluazifop	C15H12F3NO4	8.557	y=0.037934x-8.262605E-004	0.9997	328.0791	91.0542,282.0736,254.0412,238.0463,65.0386
155	Fluazifop-butyl	C19H20F3NO4	17.646	y=0.460236x-0.033773	0.9967	384.1417	91.0542,282.0725,328.0791,238.0474,254.0412
156	Fluazuron	C20H10Cl2F5N3O3	17.392	y=0.014999x-0.001042	0.9914	506.0092	141.0135,158.0401,348.9742,312.9980,152.9969
157	Flubenzimine	C17H10F6N4S	17.583	y=0.010168x+0.001108	0.9823	417.0603	167.0415,397.0541,187.0478,77.0386,136.0213
158	Flucarbazone	C12H11F3N4O6S	4.365	y=0.033757x-0.001321	0.9993	397.0424	130.0611,115.0376,131.0633,73.0396,129.0533
159	Flucetosulfuron	C18H22FN5O8S	7.494	y=0.162026x-0.008294	0.9989	488.1246	156.0768,273.0340,182.0560,398.0929,307.0758
160	Flucycloxuron	C25H20ClF2N3O3	17.803	y=0.023809x-2.022398E-004	0.9973	484.1234	132.0444,289.0783,290.0814,170.0412,133.0475
161	Flufenacet	C14H13F4N3O2S	13.064	y=0.074607x-0.002208	0.9994	364.0737	124.0557,152.0506,194.0976,109.0448,97.0448
162	Flufenoxuron	C21H11ClF6N2O3	17.788	y=0.003246x-3.479785E-004	0.9937	489.0435	141.0146,158.0401,159.0441,142.0173,306.0298
163	Flufenpyr-Ethyl	C16H13ClF4N2O4	13.894	y=0.080928x-0.003831	0.9983	409.0573	307.0256,335.0205,337.0179,309.0229,381.0260
164	Flufiprole	C16H10Cl2F6N4O5	16.426	y=0.0009394693x-8.039184E-005	0.9895	508.0195	404.9950,376.0600,406.9922,423.9934,387.0289
165	Flumetralin	C16H12ClF4N3O4	17.973	y=0.0005185033x-3.578452E-004	0.8865	422.0525	143.0087,107.0303,108.0381,341.0908
166	Flumetsulam	C12H9F2N5O2S	4.116	y=0.053662x-0.003173	0.9984	326.0518	129.0385,262.0899,128.0306,130.0413,109.0320
167	Flumiclorac-Pentyl	C21H23ClFNO5	17.492	y=0.025345x-0.001077	0.9974	441.1587	308.0484,354.0539,424.1321,356.0516,310.0460

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
168	Flumioxazin	C19H15FN2O4	9.788	y=0.002732x-8.770537E-004	0.9971	355.1089	148.0557,299.0826,81.0699,100.0757,204.0455,
169	Fluopyram	C16H11ClF6N2O	12.15	y=0.302929x-0.019125	0.9978	397.0537	173.0209,208.0135,145.0260,210.0107,170.0412
170	Fluoroglycofen-ethyl	C18H13ClF3NO7	17.141	y=0.0003863177x-6.531661E-005	0.8455	465.0671	300.0034,343.9932,345.9908,302.0008,344.9964
171	Fluquinconazole	C16H8Cl2FN5O	11.419	y=0.020933x-7.961274E-004	0.9995	376.0163	306.9836,108.0244,349.0054,351.0026,308.9808
172	Flurochloridone	C12H10Cl2F3NO	12.972	y=0.004553x-2.828865E-004	0.9925	312.0164	53.0386,292.0102,89.0153,145.0260,172.0369
173	fluroxypyr-meptyl	C15H21Cl2FN2O3	18.23	y=0.008043x-3.765405E-004	0.9993	367.0986	254.9723,180.9725,208.9674,236.9617,178.9574
174	Flurprimidol	C15H15F3N2O2	9.346	y=0.093551x-0.002264	0.9993	313.1158	269.0533,270.0611,185.0709,295.1053,189.0158
175	Flusilazole	C16H15F2N3Si	12.384	y=0.239370x-0.009309	0.9994	316.1076	165.0697,247.0749,219.0436,157.0280,125.0217
176	Flutolanil	C17H16F3NO2	12.895	y=0.219080x-0.004201	0.9999	324.1206	262.0663,65.0386,242.0600,282.0725,93.0335
177	Flutriafol	C16H13F2N3O	6.377	y=0.071443x-6.982328E-004	0.9995	302.1099	70.0400,123.0241,109.0448,95.0292 233.0773
178	Fluxapyroxad	C18H12F5N3O	11.388	y=0.118410x-0.003353	0.9997	382.0973	342.0849,362.0911,314.0900,234.0525,363.0941
179	Fonofos	C10H15OPS2	15.244	y=0.003959x-4.714141E-004	0.9913	247.0375	80.9558,108.9871,62.9453,137.0184,77.0386
180	Foramsulfuron	C17H20N6O7S	4.975	y=0.085301x-0.004539	0.9980	453.1187	182.0560,139.0502,83.0240,272.0693,255.0427
181	Formetanate	C11H15N3O2	1.876	y=0.033643x+0.001755	0.9833	222.1237	165.1022,93.0335,65.0386,120.0444,109.0522
182	Fuberidazole	C11H8N2O	3.026	y=0.346212x-0.025319	0.9902	185.0709	156.0682,157.0760,65.0386,155.0604,92.0495
183	Furalaxyl	C17H19NO4	9.281	y=0.351109x-0.019520	0.9984	302.1387	95.0128,242.1176,270.1125,67.0178
184	Furathiocarb	C18H26N2O5S	17.281	y=0.444679x-0.030996	0.9971	383.1635	195.0474,162.0675,167.0525,125.0056,164.0832
185	Furmecyclox	C14H21NO3	13.09	y=0.390119x-0.019841	0.9988	252.1594	55.0542,110.0600,170.0812,83.0855,123.0441
186	Griseofulvin	C17H17ClO6	7.001	y=0.201500x-0.005712	0.9987	353.0786	69.0335,165.0546,215.0106,285.0524,199.9871
187	Halofenozide	C18H19ClN2O2	10.158	y=0.250077x-0.001455	0.9996	331.1208	105.0335,77.0386,138.9945,275.0582,110.9996
188	Halosulfuron-methyl	C13H15ClN6O7S	9.92	y=0.057554x-0.003333	0.9984	435.0484	182.0560,83.0245,139.0502,403.0222,183.0587
189	Haloxyfop	C15H11ClF3NO4	11.999	y=0.002659x-8.942253E-004	0.9828	362.0401	91.0542,316.0347,272.0073,288.0022,65.0386
190	Haloxyfop-2-ethoxyethyl	C19H19ClF3NO5	17.076	y=0.061120x-0.004691	0.9960	434.0977	91.0542,316.0347,272.0080,73.0653,288.0381
191	Haloxyfop-methyl	C19H19ClF3NO5	16.232	y=0.025996x-0.001894	0.9957	376.0558	272.0085,316.0347,318.0321,288.0034,317.0379
192	Hexazinone	C12H20N4O2	4.646	y=0.247091x+0.048650	0.9991	253.1659	71.0604,171.0876,85.0760,55.0542,83.0240
193	Hydroprene	C17H30O2	21.074	y=0.001745x+7.050836E-004	0.9815	267.2319	55.0542,123.1168,109.1012,95.0855,69.0699
194	Imazamethabenz-methyl	C16H20N2O3	4.776	y=0.712335x-0.038086	0.9987	289.1547	86.0964,144.0444,229.1335,161.0709,69.0699
195	Imazosulfuron	C14H13ClN6O5S	7.801	y=0.037356x-8.612654E-004	0.9992	413.0429	156.0768,153.0214,257.9735,261.0288,218.0230

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
196	Imibenconazole	C17H13Cl3N4S	16.44	y=0.033616x-0.002174	0.9955	410.9999	125.0153,171.0030,341.9672,70.0400,84.0556
197	Imicyafos	C11H21N4O2PS	4.767	y=0.361114x-0.004523	0.9996	305.1196	201.0536,235.0413,139.0978,277.0883,202.0559
198	Imidaclothiz	C7H8ClN5O2S	3.807	y=0.003669x-1.125224E-004	0.9908	262.0160	122.0713,181.0542,123.0791,131.9669,70.9950
199	Imiprothrin	C17H22N2O4	12.453	y=0.049889x-7.126921E-004	0.9996	319.1652	151.1117,123.1168,210.1488,227.1754,182.1539
200	Inabenfide	C19H15ClN2O2	7.831	y=0.059919x-0.001501	0.9980	339.0895	80.0495,321.0789,79.0416,323.0766,322.0821
201	Indanofan	C20H17ClO3	13.696	y=0.004686x-1.955723E-004	0.9966	341.0939	175.0754,187.0754,323.0833,159.0804,176.0788
202	Iodosulfuron-methyl	C14H14IN5O6S	7.815	y=0.066228x-0.002594	0.9989	507.9782	167.0564,56.0495,141.0771,83.0240,260.9394
203	Ipconazole	C18H24ClN3O	14.154	y=0.013141x+7.652130E-004	0.9988	334.1681	70.0400,125.0153,71.0478,109.1012
204	Iprodione	C13H13Cl2N3O3	12.449	y=0.0006559229x-3.384501E-004	0.8233	330.0407	56.0131,244.9879,246.9851,173.9872,161.9872
205	Isazofos	C9H17ClN3O3PS	13.636	y=0.303753x-0.020831	0.9974	314.0490	119.9957,96.9508,162.0424,124.9821,272.0020
206	Isocarbamid	C8H15N3O2	3.561	y=0.018640x+0.001480	0.9967	186.1237	87.0553,70.0287,130.0611,59.0604,57.0699
207	Isofenphos-Methyl	C14H22NO4PS	15.288	y=0.098973x-0.001754	0.9990	332.1080	121.0284,230.9868,137.0056,93.0335,109.9824
208	Isomethiozin	C12H20N4OS	13.349	y=0.326852x-0.020247	0.9974	269.1431	57.0699,200.0852,89.0168,116.0277,84.0808
209	Isoprocarb	C11H15NO2	7.027	y=0.057545x+0.003577	0.9895	194.1176	95.0491,77.0386,137.0961,152.0706,51.0229
210	Isopropalin	C15H23N3O4	18.802	y=0.013866x+8.660636E-004	0.9997	310.1761	188.1308,226.0822,118.0624,160.0968,145.0760
211	Isoprothiolane	C12H18O4S2	12.231	y=0.147036x-0.006875	0.9985	291.0719	144.9776,231.0144,188.9675,61.0106,88.9514
212	Isoproturon	C12H18N2O	6.632	y=0.437626x-0.009106	0.9999	207.1492	72.0444,46.0651,165.1022,91.0542,134.0964
213	Isoxadifen-ethyl	C18H17NO3	14.451	y=0.015163x-4.910890E-004	0.9985	296.1281	232.0757,203.0730,204.0808,,263.1067,176.0621
214	Isoxaflutole	C15H12F3NO4S	10.689	y=0.0004658909x-2.280141E-004	0.9593	360.0512	250.9984,219.9800,204.0029,220.9879,252.0015
215	Karbutilate	C14H21N3O3	5.524	y=0.402346x-0.015166	0.9996	280.1656	72.0444,181.0972,136.0393,93.0335,108.0444
216	Maleic hydrazide	C4H4N2O2	0.73	y=0.011043x+0.056090	0.9836	113.0346	40.0182,67.0291,53.0022,55.0178,54.0100
217	Mefenacet	C16H14N2O2S	10.859	y=0.415547x-0.023053	0.9983	299.0849	120.0808,148.0757,91.0542,192.011479.0542
218	Mefenpyr-diethyl	C16H18Cl2N2O4	15.57	y=0.193837x-0.011939	0.9980	373.0716	159.9715,327.0298,144.9606,185.9872,132.9606
219	Mepanipyrim	C14H13N3	11.505	y=0.983451x-0.034295	0.9996	224.1182	77.0386,106.0651,79.0542,104.0495,66.0338
220	Mepronil	C17H19NO2	12.208	y=0.355447x-0.012750	0.9991	270.1489	91.0542119.0491,228.1019,229.1097,120.0570
221	Metaflumizone	C24H16F6N4O2	17.4	y=0.006959x-6.852776E-004	0.9954	507.1250	178.0463,287.0791,116.0495,221.0521,267.0728
222	Metalaxyl	C15H21NO4	6.684	y=0.363769x-0.010502	0.9994	280.1543	45.0335,192.1383,220.1332,160.1121,248.1281
223	Metamifop	C23H18ClFN2O4	16.44	y=0.435353x-0.034374	0.9965	441.1012	288.0422,180.0819,152.0870,290.0397,126.0714

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
224	Metamitron	C10H10N4O	3.468	y=0.038685x-0.003165	0.9972	203.0927	104.0495,175.0978,77.0386,174.0788,57.0447
225	Metazachlor	C14H16ClN3O	7.48	y=0.113219x-0.007980	0.9940	278.1055	134.0964,210.0662,105.0699,211.0740,135.1042
226	Metconazole	C17H22ClN3O	12.67	y=0.170399x-0.006145	0.9990	320.1524	70.0400,125.0153,71.0478,177.0447,95.0855
227	Methabenzthiazuron	C10H11N3OS	5.934	y=0.047754x-0.003285	0.9979	222.0696	165.0481,150.0246,124.0215,123.0137,80.0495
228	Methamidophos	C2H8NO2PS	1.586	y=0.010830x-0.001038	0.9967	142.0086	63.9947,94.0052,124.9821,78.9943,79.9896
229	Methfuroxam	C14H15NO2	9.307	y=0.280119x-0.010522	0.9988	230.1176	137.0597,67.0542,111.0804,77.0386,95.0491
230	Methoprotryne	C11H21N5OS	6.576	y=1.080238x-0.048240	0.9990	272.1540	170.0495,198.0808,240.1277,125.0822,230.1070
231	Metobromuron	C9H11BrN2O2	7.048	y=0.022585x-3.949919E-004	0.9986	259.0077	91.0416,169.9600,148.0631,119.0604,170.9678
232	Metribuzin	C8H14N4OS	5.253	y=0.023079x-0.005604	0.7813	215.0961	49.0106,57.0699,187.1012,46.9950,58.0400
233	Metsulfuron-Methyl	C14H15N5O6S	5.525	y=0.115402x-0.003170	0.9998	382.0816	167.0564,56.0495,135.0441,77.0386,58.0287
234	Mexacarbate	C12H18N2O2	3.858	y=0.031844x-0.001484	0.9983	223.1441	151.0992,136.0757,166.1226,108.0808,134.0726
235	Molinate	C9H17NOS	9.956	y=0.012142x-6.636000E-004	0.9911	188.1104	55.0542,126.0913,83.0855,98.0964,70.0651
236	Monalide	C13H18ClNO	13.657	y=0.122469x-4.528613E-004	0.9990	240.1150	85.1012,93.0573,57.0699,128.0257,110.9996
237	Monocrotophos	C7H14NO5P	2.768	y=0.029447x-0.001543	0.9963	224.0682	58.0287,127.0155,98.0600,109.0049,67.0182
238	Monolinuron	C9H11ClN2O2	6.569	y=0.035737x-5.688367E-004	0.9993	215.0582	98.9996,126.0105,148.0631,127.0183,62.0600
239	Monuron	C9H11ClN2O	4.936	y=0.106269x-0.006307	0.9976	199.0633	72.0444,46.0651,98.9996,126.0105,44.0495
240	Myclobutanil	C15H17ClN4	10.545	y=0.103428x-7.049851E-004	0.9998	289.1215	70.0400,125.0153,151.0309,116.0620,220.0888
241	Naphthalophos	C16H16NO6P	8.45	y=0.426705x-0.020868	0.9993	350.0788	214.0499,304.0369,276.0056,322.0475,294.0162
242	Neburon	C12H16Cl2N2O	13.14	y=0.239331x-0.009940	0.9993	275.0712	57.0699,88.1121,58.0287,114.0913,159.9710
243	Norflurazon	C12H9ClF3N3O	7.052	y=0.463035x-0.022949	0.9992	304.0459	140.0306,87.9949,160.0369,284.0397,102.0105
244	Noruron	C13H22N2O	7.247	y=0.753023x-0.041390	0.9986	223.1805	72.0444,89.0709,135.1168,69.0699,136.1202
245	Novaluron	C17H9ClF8N2O4	16.656	y=0.0003505723x-1.965297E-004	0.3825	493.0196	141.0146,158.0412,113.0197,140.0306,107.0491
246	Noviflumuron	C17H7Cl2F9N2O3	17.504	y=0.0001905077x-2.287198E-004	1.0000	528.9763	158.0412,141.0146
247	Nuarimol	C17H12ClFN2O	8.104	y=0.071564x-0.001831	0.9989	315.0695	81.0447,243.0371,252.0819,288.0586,245.0345
248	Ofurace	C14H16ClNO3	6.65	y=0.175827x-0.002577	0.9999	282.0891	160.1121,254.0942,148.1121,145.0886,178.1226
249	Orbencarb	C12H16ClNOS	14.852	y=0.062453x-0.002288	0.9994	258.0714	125.0153,100.0757,89.0386,72.0444,98.9996
250	Oxadiazyl	C15H14Cl2N2O3	15.749	y=8.238251E-004 x-0.0003653208	0.9493	341.0454	223.0031,229.9765,257.9746,221.9953,213.9821
251	oxadiazon	C15H18Cl2N2O3	17.647	y=8.897920E-004x-3.395148E-	0.9923	345.0767	303.0298,184.9874,219.9563,176.9505,148.9556

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
				004			
252	Oxadixyl	C14H18N2O4	4.975	y=0.167431x-0.004462	0.9991	279.1339	132.0808,133.0886,219.1128,45.0335,102.0550
253	Oxasulfuron	C17H18N4O6S	5.256	y=0.184332x-0.009939	0.9987	407.1020	150.0662,107.0604,124.0869,284.0210,209.9842
254	Oxycarboxin	C12H13NO4S	4.409	y=0.045588x-0.001595	0.9934	268.0638	175.0060,146.9747,83.0128,67.0178,68.9971
255	Oxyfluorfen	C15H11ClF3NO4	17.491	y=1.686131E-004x-2.697809E-004	1.0000	362.0401	237.0374,315.99832,97.9877,273.9877,252.0011
256	Pebulate	C10H21NOS	15.321	y=0.008109x+9.773801E-004	0.9950	204.1417	57.0699,128.1070,72.0444,176.1467,162.0947
257	Penconazole	C13H15Cl2N3	12.415	y=0.094878x-0.002784	0.9996	284.0716	70.0400,158.9763,122.9996,172.9919,159.9823
258	Penflufen	C18H24FN3O	12.964	y=0.575925x-0.023120	0.9994	318.1976	234.1037,141.0459,115.0666,57.0699,142.0486
259	Penoxsulam	C16H14F5N5O5S	7.767	y=0.517334x-0.028511	0.9991	484.0709	195.0751,194.0672,164.0567,166.0712,139.0500
260	Pentanochlor	C13H18ClNO	13.475	y=0.158324x-0.009289	0.9957	240.1150	107.0730,142.0413,71.0855,106.0651,127.0178
261	Pethoxamid	C16H22ClNO2	12.367	y=0.347812x-0.015590	0.9991	296.1412	91.0542,131.0855,250.0993,116.0620,251.1071
262	Phorate	C7H17O2PS3	15.674	y=23.907432x-0.129039	0.9953	261.0201	46.9950,75.0263,96.9508,142.9385,170.9698
263	Phorate-Sulfone	C7H17O4PS3	8.564	y=0.014808x-2.045123E-004	0.9986	293.0099	96.9508,124.9821,247.0222,153.0134,142.9385
264	Phorate-Sulfoxide	C7H17O3PS3	6.287	y=0.116850x-0.004366	0.9989	277.0150	96.9508,142.9385,199.0011,170.9698,153.0134
265	Phosfolan	C7H14NO3PS2	4.126	y=0.141001x-0.009115	0.9973	256.0225	139.9566,167.9879,61.0106,227.9912,199.9599
266	Phosfolan-Methyl	C5H10NO3PS2	3.015	y=0.119197x-0.007888	0.9971	227.9912	61.0106,167.9879,109.0049,78.9943,135.9617
267	Phosphamidon	C10H19ClNO5P	4.661	y=0.224503x-0.010605	0.9989	300.0762	127.0155,174.0678,75.9949,72.0444,109.0049
268	Phthalic Acid, Benzyl Butyl Ester	C19H20O4	16.645	y=0.024207x+7.586579E-005	0.9986	313.1434	149.0233,205.0859,206.0893,239.0703
269	Phthalic Acid, Bis-Butyl Ester	C16H22O4	16.869	y=0.050638x+0.569695	0.9271	279.1591	149.0233,205.0859,150.0267,206.0893
270	Picolinafen	C19H12F4N2O2	17.064	y=0.041410x-0.002612	0.9959	377.0908	238.0474,359.0802,145.0260,266.0412,239.0503
271	Piperalin	C16H21Cl2NO2	6.104	y=0.723167x-0.043231	0.9986	330.1022	140.1434,172.9556,112.1121,230.9974,174.9527
272	Pirimiphos-methyl-N-desethyl	C9H16N3O3PS	7.514	y=0.596821x-0.036978	0.9980	278.0723	67.0291,108.0556,124.9821,109.0049,78.9943
273	Primisulfuron-Methyl	C15H12F4N4O7S	11.96	y=0.042006x-0.002338	0.9989	469.0436	254.0179,204.0211,135.0439,186.0100,199.0053
274	Profoxydim	C24H32ClNO4S	19.036	y=0.095896x-0.006557	0.9944	466.1813	180.1019,280.1366,132.0444,101.0419,194.0634
275	Promecarb	C12H17NO2	9.705	y=0.041188x+0.004899	0.9950	208.1332	91.0542,109.0648,151.1117,94.0413,81.0699
276	Prometon	C10H19N5O	5.352	y=1.780140x-0.080489	0.9993	226.1662	142.0723,86.0349,184.1193,57.0447,100.0505
277	Prometryn	C10H19N5S	8.751	y=1.135868x-0.067990	0.9983	242.1434	68.0243,158.0495,200.0964,85.0509,74.0059

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
278	Propachlor	C11H14ClNO	7.364	y=0.148294x+0.012351	0.9956	212.0837	94.0651,170.0367,77.0386,106.0651,48.9840
279	Propaquizafop	C22H22ClN3O5	16.933	y=0.156116x-0.011029	0.9966	444.1321	56.0495,100.0757,70.0651,299.0577,371.0793
280	Propazine	C9H16ClN5	8.108	y=0.422275x-0.022223	0.9979	230.1167	146.0228,79.0058,68.0243,188.0697,104.0010
281	Propisochlor	C15H22ClNO2	14.315	y=0.041185x+0.003649	0.9943	284.1412	224.0832,133.0886,148.1121,73.0653,212.0832
282	Propyzamide	C12H11Cl2NO	11.025	y=0.015032x-3.366525E-004	0.9984	256.0290	189.9821,144.9606172.9556,44.0131,67.0542
283	Proquinazid	C14H17N2O2	18.284	y=0.113272x-0.006746	0.9963	373.0407	330.9938,288.9383,271.9203,215.9305,162.0424
284	Prosulfocarb	C14H21NOS	16.53	y=0.119438x-0.005194	0.9975	252.1417	91.0542,128.1070,65.0386,86.0600,92.0620
285	Prosulfuron	C15H16F3N5O4S	9.546	y=0.108390x-0.003925	0.9993	420.0948	141.0771,167.0564,142.0792,128.0693,168.0586
286	Prothioconazole	C14H15Cl2N3OS	12.518	y=0.006084x-8.519791E-004	0.9941	344.0386	102.0120,326.0280,114.0120,328.0251,125.0153
287	Prothiofos	C11H15Cl2O2PS2	19.092	y=0.002080x-4.197536E-004	0.9892	344.9701	240.9041,160.9554,132.9604,161.9632,112.9279
288	Prothoate	C9H20NO3PS2	7.791	y=0.272923x-0.014844	0.9984	286.0695	96.9508,226.9960,142.9385,124.9821,74.0059
289	Pyracarbolid	C13H15NO2	6.001	y=0.197765x-0.007777	0.9977	218.1176	125.0597,55.0178,97.0284,83.0491,77.0386
290	Pyraclufos	C14H18ClN2O3PS	14.661	y=0.260892x-0.009813	0.9994	361.0537	138.0103,256.9874,140.0260,96.9508,195.0315
291	Pyraflufen	C13H9Cl2F3N2O4 xH2O	8.324	y=0.007040x-0.0006109862	0.9997	384.9964	338.9909,275.9863,213.0226,253.0175,334.9996
292	Pyraflufen-Ethyl	C15H13Cl2F3N2O 4	14.994	y=0.089223x-0.001864	0.9996	413.0277	253.0163,338.9904,260.9987,288.9930,254.0241
293	Pyrametostrobin	C21H23N3O4	12.501	y=0.381610x-0.024767	0.9980	382.1761	194.0812,163.0628,164.0706,149.0471,162.0550
294	Pyraoxystrobin	C22H21ClN2O4	14.907	y=0.265092x-0.018108	0.9979	413.1263	145.0648,205.0859,206.0893,146.0682,173.0597
295	Pyrazosulfuron-Ethyl	C14H18N6O7S	9.658	y=0.139834x-0.007890	0.9989	415.1030	182.0560,139.0502,83.0240,369.0625,188.0124
296	Pyrazoxyfen	C20H16Cl2N2O3	13.893	y=0.303876x-0.020102	0.9967	403.0611	105.0335,139.0502,172.9556,119.0491,174.9527
297	Pyribenzoxim	C32H27N5O8	17.791	y=0.023151x-0.0007011515	0.9986	610.1932	180.0808,488.1565,489.1595,456.1316,181.0840
298	Pyributicarb	C18H22N2O2S	17.842	y=0.395120x-0.016000	0.9991	331.1475	181.0430,133.1012,108.0444,190.1226,182.0456
299	Pyridaphenthion	C14H17N2O4PS	11.606	y=0.261403x-0.012688	0.9987	341.0719	92.0498,189.0659,96.9508,205.0430 65.0389
300	Pyrifthalid	C15H14N2O4S	10.528	y=1.299737x-0.073368	0.9990	319.0747	139.0502,179.0161,83.0240,71.0604,93.0083
301	Pyrimethanil	C12H13N3	7.576	y=0.440681x-0.022194	0.9980	200.1182	77.0386,82.0651,80.0495,53.0386,168.0682
302	Pyrimitate	C11H20N3O3PS	14.726	y=0.679444x-0.045486	0.9959	306.1036	154.0975,96.9508,71.0604,95.0604,136.0869
303	Pyriproxyfen	C20H19NO3	17.531	y=0.328968x-0.023350	0.9963	322.1438	96.0444,78.0338,77.0386,129.0699,185.0597
304	Pyrisoxazole	C16H17ClN2O	6.625	y=0.144092x-0.006699	0.9980	289.1102	120.0444,151.0866,80.0495,122.0600,135.0917
305	Pyriithlobac	C13H10ClN2O4SN a	6.556	y=0.036419x-8.037478E-004	0.9989	327.0201	309.0095,311.0068,310.0124,139.0502,312.0095

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
306	Pyroquilon	C11H11NO	4.856	y=0.224529x-0.007123	0.9985	174.0913	117.0573,132.0808,130.0651,105.0699,90.0464
307	Quinoclamine	C10H6ClNO2	5.092	y=0.013797x-0.001020	0.9938	208.0160	77.0386,89.0386,126.0338,105.0335,172.0393
308	Quinoxifen	C15H8Cl2FNO	16.788	y=0.158570x-0.011990	0.9936	308.0040	196.9789,213.9821,162.0100,95.0292,272.0273
309	Quizalofop	C17H13ClN2O4	9.974	y=0.016684x-0.001255	0.9995	345.0637	164.0131,244.0398,299.0582,163.0053,273.0425
310	Quizalofop-Ethyl	C19H17ClN2O4	16.634	y=0.129231x-0.005155	0.9982	373.0950	91.0542,299.0577,255.0315,163.0053,192.0682
311	Rabenzazole	C12H12N4	6.429	y=0.438711x-0.024404	0.9979	213.1135	118.0526,172.0869,157.0634,92.0495,77.0386
312	Resmethrin	C22H26O3	19.023	y=0.005007x+1.624435E-005	0.9904	339.1955	171.0804,128.0621,143.0855,91.0542,105.0335
313	Sebuthylazine	C9H16ClN5	7.883	y=0.244777x-0.011916	0.9989	230.1167	174.0541,68.0243,104.0010,79.0058,96.0556
314	Sebuthylazine-desethyl	C7H12ClN5	4.455	y=0.026984x-6.574169E-004	0.9951	202.0854	146.0228,68.0243,79.0058,104.0010,61.9792
315	Secbumeton	C10H19N5O	5.29	y=1.781498x-0.081486	0.9993	226.1662	170.1036,68.0243,100.0505,69.0083,57.0447
316	Sedaxane	C18H19F2N3O	11.776	y=0.542728x-0.047397	0.9975	332.1569	159.0364,292.1444,312.1507,160.0392,293.1475
317	Siduron	C14H20N2O	8.545	y=0.472509x-0.019353	0.9993	233.1648	55.0542,137.0709,94.0651,77.0386,97.1012
318	Silthiofam	C13H21NOSSi	13.373	y=0.166226x-0.008058	0.9989	268.1186	73.0468,252.0873,139.0212,75.0261,45.0155
319	Simazine	C7H12ClN5	4.973	y=0.141217x-0.012435	0.9942	202.0854	132.0323,68.0243,124.0869,96.0556,104.0010
320	Simeton	C8H15N5O	3.555	y=0.214222x-0.009321	0.9959	198.1349	68.0243,100.0505,128.0818,71.0604,96.0556
321	Simetryn	C8H15N5S	5.208	y=0.950583x-0.044510	0.9991	214.1121	68.0243,124.0869,96.0556,144.0590,71.0604
322	Spirodiclofen	C21H24Cl2O4	18.988	y=0.013842x-8.760555E-004	0.9969	411.1124	71.0855,313.0393,212.9505,184.9556,295.0287
323	Spiromesifen	C23H30O4	18.816	y=0.397764x-0.024533	0.9969	371.2217	67.0542,273.1485,255.1380,131.0855,157.1012
324	Spirotetramat	C21H27NO5	10.06	y=0.447572x-0.023957	0.9984	374.1962	302.1751,216.1019,330.2064,270.1489,298.1775
325	Spirotetramat-enol-glucoside	C24H33NO8	2.702	y=0.005541x-0.0005473715	0.9670	464.2279	216.1019,302.1751,270.1489,303.1783,217.1051
326	Spirotetramat-keto-hydroxy	C18H23NO4	5.793	y=0.037972x-0.001935	0.9992	318.1700	268.1332,300.1594,214.0863,100.1121,301.1627
327	Spirotetramat-mono-hydroxy	C18H25NO3	4.598	y=0.189733x-0.007560	0.9987	304.1907	119.0855,131.0855,254.1539,81.0699,272.1645
328	Spiroxamine	C18H35NO2	8.167	y=0.389286x-0.023369	0.9962	298.2741	100.1121,144.1383,72.0808,58.0651,84.0808
329	Sulfometuron-Methyl	C15H16N4O5S	5.872	y=0.191637x-0.010703	0.9986	365.0914	150.0662,151.0688,199.0060,124.0869,107.0604
330	Sulfosulfuron	C16H18N6O7S2	7.156	y=0.118752x-0.006582	0.9989	471.0751	211.0536,218.0223,165.0117,261.0281,156.0768
331	Sulfotep	C8H20O5P2S2	15.76	y=0.096022x-0.005821	0.9963	323.0300	96.9508,171.0239,142.9926,114.9613,124.9821
332	Sulprofos	C12H19O2PS3	18.01	y=0.017655x-7.782705E-004	0.9970	323.0358	218.9698,139.0212,247.0011,154.9715,124.0341
333	TCMTB	C9H6N2S3	10.618	y=0.008723x-3.905902E-004	0.9987	238.9766	179.9936,136.0215,109.0107,180.9962,77.0386

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
334	Tebufenpyrad	C18H24CIN3O	16.647	y=0.169665x-0.003523	0.9987	334.1681	117.0209,145.0522,132.0934,147.1168,119.0855
335	Tebupirimfos	C13H23N2O3PS	17.608	y=0.132548x-0.008028	0.9967	319.1240	153.1022,277.0770,249.0457,231.0352,57.0702
336	Tebutam	C15H23NO	12.361	y=0.586407x-0.028049	0.9987	234.1852	91.0542,65.0386,57.0699 192.1383 92.0620
337	Tebuthiuron	C9H16N4OS	4.519	y=0.055666x-0.004476	0.9980	229.1118	172.0903,62.0059,116.0277,57.0447,74.0059
338	Teflubenzuron	C14H6C12F4N2O2	15.819	y=5.754620E-004x-8.394251E-004	1.0000	380.9815	141.0146,158.0412,113.0197,197.9695,140.0306
339	Tembotrione	C17H16CIF3O6S	9.865	y=0.054648x-0.003057	0.9982	458.0646	262.0391,341.0245,305.0478,343.0219,264.0366
340	Temephos	C16H20O6P2S3	17.776	y=0.024780x-4.672633E-004	0.9993	466.9970	124.9821,418.9936,404.9780,248.9803,341.0066
341	Terbucarb	C17H27NO2	15.765	y=0.147906x-0.001813	0.9980	278.2115	109.0648,166.0863,222.1488,223.1521,167.0894
342	Terbufos	C9H21O2PS3	17.142	y=22.372887x-0.039700	0.9939	289.0514	57.0699,103.0576,96.9508,187.0011,199.0011
343	Terbufos-Sulfone	C9H21O4PS3	11.609	y=0.052398x-0.002510	0.9979	321.0412	275.0535,124.9821,142.9385,264.9786,153.0134
344	Terbufos-Sulfoxide	C9H21O3PS3	8.233	y=0.125798x-0.005303	0.9993	305.0463	130.9385,187.0011,158.9698,96.9508,57.0699
345	Terbumeton	C10H19N5O	5.598	y=0.808581x-0.047750	0.9986	226.1662	170.1036,69.0083,57.0447,68.0243,100.0505
346	Terbutylazine	C9H16CIN5	8.803	y=0.216914x-0.003510	0.9993	230.1167	174.0541,68.0243,104.0010,79.0058,96.0556
347	Terbutryn	C10H19N5S	9.143	y=0.740144x-0.044256	0.9983	242.1434	186.0808,68.0243,71.0604,91.0324,96.0556
348	Tetraconazole	C13H11C12F4N3O	11.834	y=0.067988x-0.002623	0.9988	372.0288	70.0400,158.9763,160.9734,159.9797,161.9767
349	Thenylchlor	C16H18CINO2S	12.973	y=0.048380x-8.640404E-004	0.9989	324.0820	127.0212,128.0242,129.0179,134.0964
350	Thiazafluron	C6H7F3N4OS	5.064	y=0.022227x-0.001060	0.9984	241.0365	74.0059,184.0151,111.0165,91.0102,164.0089
351	Thiazopyr	C16H17F5N2O2S	15.439	y=0.348784x-0.027827	0.9948	397.1004	377.0941,335.0472,61.0106,275.0261,303.0210
352	Thifluzamide	C13H6Br2F6N2O2S	14.168	y=0.001411x-7.595095E-004	0.9947	526.8494	148.0027,168.0089,488.8326,508.8388,486.8369
353	Thiobencarb	C12H16CINOS	15.18	y=0.015128x-0.001005	0.9981	258.0714	125.0153,89.0386,100.0757,98.9996,90.0464
354	Thiodicarb	C10H18N4O4S3	5.715	y=0.107117x-0.006019	0.9975	355.0563	88.0189,107.9902,62.0025,46.9950,72.9981
355	Thiofanox	C9H18N2O2S	6.412	y=5.136789E-004x+4.493891E-004	0.4310	241.0981	57.0699,184.0791,61.0106,98.0185,58.0733
356	Thiofanox-Sulfone	C9H18N2O4S	3.854	y=0.007197x+0.091156	0.9859	251.1060	57.0699,76.0393,58.0287,63.9977,104.0165
357	Thionazin	C8H13N2O3PS	8.053	y=0.046400x-0.002341	0.9985	249.0457	174.9726,192.9831,124.9821,221.0144,153.0134
358	Tiadinil	C11H10CIN3OS	10.108	y=0.004110x-9.803356E-004	0.9955	268.0306	101.0168,251.9993
359	Tiocarbazil	C16H25NOS	18.296	y=0.193212x-0.010600	0.9977	280.1730	91.0542,100.0757,57.0699,224.1104,92.0576
360	Tolclofos-Methyl	C9H11C12O3PS	15.665	y=0.004144x-3.117758E-004	0.9847	300.9616	124.9821,110.9994,174.9710,78.9943,268.9354
361	Tolfenpyrad	C21H22CIN3O2	16.915	y=0.129208x-0.008035	0.9968	384.1473	197.0961,117.0214,145.0527,198.0995,171.0320

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
362	triallate	C10H16Cl3NOS	18.089	y=0.005827x-5.140676E-004	0.9966	304.0091	142.9217,86.0600,82.9450,140.9327,128.1070
363	Triamiphos	C12H19N6OP	5.468	y=0.583398x-0.019163	0.9997	295.1431	135.0679,92.0260,73.0760,91.0182
364	Triapenthenol	C15H25N3O	11.337	y=0.480950x-0.018785	0.9994	264.2070	70.0400,109.1012,55.0542,57.0699,81.0699
365	Triasulfuron	C14H16ClN5O5S	6	y=0.127618x-0.007833	0.9974	402.0633	141.0771,167.0537,56.0495,137.0042,91.0542
366	Tribufos	C12H27OPS3	18.88	y=0.348288x-0.020001	0.9982	315.1034	168.9905,57.0699,112.9279,170.9866,259.0408
367	Triclopyricarb	C15H13Cl3N2O4	16.648	y=6.427994E-004x-2.520985E-004	0.9339	391.0014	163.0628,194.0812,164.0706,149.0471,162.0550
368	Trietazine	C9H16ClN5	11.351	y=0.518566x-0.022880	0.9982	230.1167	71.0604,68.0243,104.0010,99.0917,202.0854
369	Trifloxystrobin	C20H19F3N2O4	16.698	y=0.288157x-0.019888	0.9977	409.1370	145.0260,186.0525,116.0495,206.0812,131.0730
370	Triflumizole	C15H15ClF3N3O	14.986	y=0.200985x-0.013114	0.9977	346.0929	69.0447,73.0648,278.0554,280.0527,205.9979
371	Trifluralin	C13H16F3N3O4	17.978	y=5.881016E-005x-2.407119E-005	0.7375	336.1166	202.0349,248.0278,252.0227,302.1111,236.0278
372	Triflusulfuron-Methyl	C17H19F3N6O6S	11.909	y=0.278738x-0.017356	0.9987	493.1112	264.0698,96.0556,265.0720,461.0850,238.0901
373	Tri-Isobutyl Phosphate	C12H27O4P	14.48	y=0.136099x-0.008029	0.9952	267.1720	98.9842,155.0468,211.1094,57.0699,80.9736
374	Trinexapac-Ethyl	C13H16O5	7.508	y=0.031602x+2.247316E-004	0.9976	253.1071	69.0335,207.0652,185.0808,165.0182,139.0390
375	Triticonazole	C17H20ClN3O	9.293	y=0.106410x-0.005022	0.9977	318.1368	70.0400,125.0153,59.0496,71.0478,191.0622
376	Tritosulfuron	C13H9F6N5O4S	9.389	y=0.010185x-6.421644E-004	0.9952	446.0352	145.0258,195.0479,110.0212,221.0270,127.0478
377	Uniconazole	C15H18ClN3O	10.568	y=0.127361x-6.437661E-005	0.9997	292.1211	70.0400,125.0153,57.0699,71.0413,69.0699
378	Vernolate	C10H21NOS	15.321	y=0.007981x+9.947211E-004	0.9989	204.1417	86.0600,128.1070,100.0757,88.1121,84.0808
379	Zoxamide	C14H16Cl3NO2	14.934	y=0.087853x-0.002351	0.9998	336.0319	186.9712,158.9763,203.9973,122.9996,132.0574

Supplemental Table 2 The retention time, linear equations, correlation coefficient and product ion for 327 pesticides determined by GC-Q-TOFMS

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
1	1,4-Dimethylnaphthalene	C12H12	9.095	$y=6.367566x+0.048192$	0.9982	141.0699	156.0934,115.0542,155.0855,153.0699,152.0621
2	2,3,4,5-Tetrachloroaniline	C6H3Cl4N	14.987	$y=3.064808x-0.008777$	0.9982	230.8985	228.9014,232.8956,157.9559,168.9187,166.9217
3	2,4'-DDT	C14H9Cl5	24.006	$y=2.269468x-3.381249E-004$	0.9983	235.0076	237.0048,165.0699,245.9998,176.0621,247.9970
4	2,4-D-ethylhexyl	C16H22Cl2O3	22.749	$y=2.055010x-0.007474$	0.9981	219.9689	221.9660,161.9634,163.9605,332.0941,185.0000
5	2,4'-Dicofol	C14H9Cl5O	17.962	$y=4.941586x+0.001051$	0.9974	138.9945	110.9996,140.9893,249.9947,75.0229,251.9933
6	4,4'-DDD	C14H10Cl4	23.902	$y=3.207233x+0.002176$	0.9997	235.0076	237.0048,165.0699,212.0387,199.0309,236.0110
7	4,4'-DDE	C14H8Cl4	22.41	$y=4.203621x+0.044326$	0.9928	245.9998	247.9970,317.9346,315.9375,176.0621,319.9318
8	4-Bromo-3,5-Dimethylphenyl-N-Methylcarbamate	C10H12BrNO2	9.523	$y=2.091885x+0.001732$	0.9956	199.9831	201.9824,121.0648,91.0542,77.0386,200.9857
9	4'-Chloro-2,2,2-trifluoroacetophenone	C8H4ClF3O	4.594	$y=0.795438x-0.003469$	0.9961	138.9945	110.9996,140.9911,75.0229,112.9959,74.0151
10	Acibenzolar-S-methyl	C8H6N2OS2	17.309	$y=0.695378x+0.010159$	0.9973	181.9855	180.9776,134.9899,106.9950,63.0229,152.9827
11	Akton	C12H14Cl3O3PS	21.442	$y=2.970024x+0.018400$	0.9968	282.9147	96.9508,284.9118,172.9556,338.9773,169.9685
12	Aldicarb-sulfone	C7H14N2O4S	5.354	$y=0.386407x+4.634212E-004$	0.9977	64.9693	68.0495,79.9927,69.0524,78.9848,62.9899
13	Aldrin	C12H8Cl6	18.636	$y=1.424664x-0.001631$	0.9971	262.8564	66.0464,264.8535,260.8594,91.0542,65.0386
14	alpha-Endosulfan	C9H6Cl6O3S	21.427	$y=0.514179x+0.003223$	0.9962	236.8408	240.9043,169.9685,242.9014,206.9344,205.9266
15	alpha-HCH	C6H6Cl6	13.585	$y=2.361040x-0.013213$	0.9954	180.9373	182.9344,218.9111,108.9606,112.0074,216.9140
16	Amidosulfuron	C9H15N5O7S2	7.372	$y=1.045191x-0.040479$	0.9954	154.0611	155.0689,126.0662,68.0131,109.0396,140.0455
17	Anthraquinone	C14H8O2	18.608	$y=1.423970x-0.012122$	0.8465	208.0519	152.0621,180.0570,151.0542,76.0308,150.0464
18	Aspon	C12H28O5P2S2	18.995	$y=5.742287x+0.031351$	0.9988	210.9048	209.8970,252.9518,114.9613,192.8943,251.9439
19	Benazolin-ethyl	C9H6ClNO3S	20.222	$y=3.922936x+0.005888$	0.9999	169.9826	197.9775,134.0059,171.9796,271.0064,199.9745
20	Benzovindiflupyr	C18H15Cl2F2N3O	32.505	$y=1.139925x-0.078377$	0.2780	159.0364	236.9743,238.9715,362.0866,369.0242,260.0585
21	Benzoximate	C18H18ClNO5	11.19	$y=0.333669x+0.012732$	0.9929	213.0187	170.0003,197.9953,215.0153,154.9769,171.9972
22	beta-Endosulfan	C9H6Cl6O3S	23.478	$y=0.336002x+0.003815$	0.9971	236.8408	63.9613,240.9043,242.9014,159.9841,206.9433
23	beta-HCH	C6H6Cl6	14.565	$y=2.067124x-0.017151$	0.9949	180.9373	182.9344,218.9111,108.9606,112.0074,216.9140
24	Bixafen	C18H12Cl2F3N3O	32.079	$y=19.075757x+0.773999$	0.9824	159.0364	413.0304,160.0394,415.0276,139.0302,184.0557
25	Bromfenvinfos-Methyl	C10H10BrCl2O4P	20.531	$y=0.399193x-5.446563E-004$	0.9942	109.0049	294.9688,172.9556,296.9661,169.9685,174.9526
26	Bromphos-Methyl	C8H8BrCl2O3PS	19.637	$y=1.113102x+0.004725$	0.9978	330.8775	328.8798,124.9821,332.8749,78.994,393.0100

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
27	Butamifos	C13H21N2O4PS	22.01	y=1.681211x+0.001688	0.9979	95.9668	286.1025,200.0107,202.0083,231.9828,153.0420
28	Butylate	C11H23NOS	8.821	y=2.627883x+0.004503	0.9998	146.0998	156.1383,57.0699,174.0947,75.0263,89.0056
29	Cadusafos	C10H23O2PS2	13.353	y=4.078223x-0.011557	0.9964	158.9698	56.0620,96.9508,55.0542,157.9620,89.0419
30	Carbofuran	C12H15NO3	14.406	y=7.661463x+0.252546	0.9845	164.0832	149.0597,131.0491,121.0648,103.0542,123.0441
31	Carbofuran-3-Hydroxy	C12H15NO4	17.262	y=0.034441x+0.014016	0.9806	137.0233	147.0441,180.0781,57.0209,162.0675,137.0597
32	Carfentrazone-ethyl	C15H14C12F3N3O3	25.07	y=0.748563x+0.011396	0.9944	312.0591	330.0252,340.0904,310.0190,290.0302,134.0401
33	Chlorbenzuron	C14H10Cl2N2O2	9.159	y=1.095649x+0.007143	0.9933	138.9945	140.9911,110.9996,75.0229,155.0132,112.9961
34	Chlorbufam	C11H10ClNO2	14.441	y=0.0006x+0.0115	0.9576	152.9976	125.0027,154.9952,90.0338,127.0183,63.0229
35	Chlordimeform	C10H13ClN2	12.774	y=4.393947x+109.238095	0.0104	181.0527	117.0573,196.0762,152.0262,89.0386,154.0418
36	Chlorethoxyfos	C6H11Cl4O3PS	12.156	y=3.325654x-0.016895	0.9957	96.9508	153.0134,124.9821,262.9460,264.9431,165.8719
37	Chlorfenethol	C14H12Cl2O	20.29	y=3.710892x-0.017387	0.9937	138.9945	251.0025,178.0777,252.9997,248.0154,140.9917
38	Chlormephos	C5H12ClO2PS2	8.996	y=3.043549x-0.012054	0.9981	96.9508	121.0413,64.9787,93.0100,154.0212,124.9821
39	Chlorpropham	C10H12ClNO2	12.65	y=1.228873x+3.865749E-004	0.9971	171.0082	152.9976,127.0183,129.0148,213.0551,154.0418
40	Chlorsulfuron	C12H12ClN5O4S	6.942	y=-0.206392x+0.336683	1.0000	110.0587	140.0693,69.0322,139.0614,111.0647,68.0257
41	Chlorthion	C8H9ClNO5PS	19.389	y=0.210973x+0.005988	0.9935	124.9821	109.0049,296.9622,266.9642,78.9943,298.9594
42	Chlorthiophos	C11H15Cl2O3PS2	24.28	y=1.429695x+0.003733	0.9988	268.9257	96.9508,324.9883,270.9227,296.9570,207.9511
43	Cinidon-Ethyl	C19H17Cl2NO4	34.95	y=4.310876x+0.257626	0.8045	330.0528	332.0504,358.0841,331.0560,79.0542,77.0386
44	cis-Diallate	C10H17Cl2NOS	13.467	y=1.805471x-0.017766	0.9958	234.0714	236.0704,86.0600,108.9606,110.9577,235.0762
45	Clodinafop-propargyl	C17H13ClFNO4	25.405	y=0.783445x+0.008463	0.9944	238.0066	266.0379,349.0512,91.0542,239.0144,129.9854
46	Coumaphos	C14H16ClO5PS	30.492	y=0.737478x-1.900838E-004	0.9996	96.9508	225.9850,109.0049,362.0139,210.0078,64.9787
47	Crimidine	C7H10ClN3	10.286	y=3.187393x-0.072504	0.9921	142.0292	156.0323,171.0558,144.0263,120.0556,93.0447
48	Crufomate	C12H19ClNO3P	19.466	y=0.474105x+0.001515	0.9929	169.0415	182.0731,256.1097,141.0102,108.0209,184.0689
49	Cyenopyrafen	C24H31N3O2	27.916	y=0.753586x+0.008162	0.9984	309.1836	294.1601,310.1866,57.0699,295.1631,184.0757
50	Cyhalofop-Butyl	C20H20FNO4	28.726	y=0.827146x+0.004506	0.9906	256.0768	229.0534,120.0570,357.1371,228.0455,158.0401
51	Cymiazole	C12H14N2S	17.37	y=3.469760x-0.001532	0.9939	218.0872	144.0808,119.0855,185.1073,130.0651,177.0607
52	DDT	C14H9Cl5	25.22	y=1.108576x-0.001695	0.9967	235.0076	237.0048,165.0699,245.9998,212.0387,176.0621
53	delta-HCH	C6H6Cl6	15.673	y=0.382650x+0.002177	0.9926	180.9373	182.9344,218.9111,112.0074,216.9140,145.9685
54	Demeton-O	C8H19O3PS2	11.989	y=0.890399x+0.002440	0.9970	114.9613	60.0028,88.0341,89.0419,61.0106,96.9508

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
55	Demeton-S	C8H19O3PS2	14.083	y=5.186557x-0.034918	0.9976	60.0028	88.0341,58.9950,113.9535,114.9613,75.0263
56	Desethylterbuthylazine	C7H12CIN5	13.185	y=4.419154x-0.034518	0.9986	186.0541	188.0513,145.0150,83.0604,104.0010,110.0461
57	Desmetryn	C8H15N5S	16.743	y=3.291256x-0.025722	0.9949	213.1043	198.0808,171.0573,82.0463,58.0651,57.0447
58	Dicofol	C14H9Cl5O	26.971	y=19.043272x+0.047104	0.9982	138.9945	140.9916,110.9996,75.0229,249.9946,82.9449
59	Dieldrin	C12H8Cl6O	22.367	y=0.676931x+0.001993	0.9975	79.0542	262.8564,81.0335,264.8535,260.8594,77.0386
60	Diethyl-Ethyl	C16H22ClNO3	22.016	y=2.673389x-0.009821	0.9990	188.1070	160.1121,162.1277,132.0808,262.1438,146.0964
61	Difenoconazole	C19H17Cl2N3O3	33.127	y=6.195746x+0.041444	0.9889	264.9818	323.0236,266.9795,325.0211,202.0180,265.9850
62	Difenoconazole	C16H18N2O3	18.807	y=9.741958x-0.058077	0.9899	241.0733	226.0499,198.0550,90.0338,170.0600,242.0758
63	Diflufenican	C19H11F5N2O2	26.041	y=3.696959x-0.021014	0.9954	266.0423	246.0361,267.0461,394.0735,218.0412,238.0474
64	Dimepiperate	C15H21NOS	20.597	y=7.104542x+0.072419	0.9930	119.0855	118.0777,91.0542,117.0699,145.0556,146.0634
65	Dimethachlon	C10H7Cl2NO2	19.534	y=0.811852x+0.010554	0.9983	242.9848	186.9950,188.9921,55.0178,123.9949,152.0262
66	Dimethachlor	C13H18ClNO2	16.898	y=5.861492x+0.051953	0.9993	134.0964	197.0602,132.0808,148.0757,117.0573,135.0993
67	Dimethametryn	C11H21N5S	20.25	y=10.466594x+0.017111	0.9985	212.0964	213.0994,122.0713,68.0243,153.0104,199.0073
68	Dimethenamid	C12H18ClNO2S	16.935	y=7.096479x+0.001507	0.9957	154.0685	230.0401,203.0166,232.0380,138.0372,155.0720
69	Dimethomorph	C21H22ClNO4	33.947	y=0.017097x+0.099443	0.0004	301.0626	303.0571,387.1232,165.0573,302.0685,260.0468
70	Dimethylvinphos (E)	C10H10Cl3O4P	18.499	y=0.564687x+0.012280	0.9957	294.9688	296.9661,109.0049,172.9556,298.9636,295.9722
71	Dimetilan	C10H16N4O3	17.579	y=10.451594x-0.047624	0.9943	72.0444	170.0924,73.0479,225.0982,152.0818,56.0131
72	Dinitramine	C11H13F3N4O4	15.85	y=0.884856x-0.004384	0.9938	305.0856	261.0594,307.0649,244.0580,216.0352,141.0270
73	Dioxabenzofos	C8H9O3PS	13.01	y=1.592262x+0.006434	0.9982	216.0005	153.0100,78.0464,183.0206,200.9770,137.0056
74	Dioxacarb	C11H13NO4	8.654	y=1.169523x+0.059031	0.9983	121.0284	57.0209,165.0546,122.0362,56.0131,166.0624
75	Dioxathion	C12H26O6P2S4	30.677	y=0.079137x+0.003908	0.9399	96.9508	124.9821,271.0222,64.9787,128.9228,86.0362
76	Diphenamid	C16H17NO	19.701	y=7.623997x+0.060238	0.9965	167.0855	72.0444,165.0699,152.0621,166.0777,168.0891
77	Dipropetryn	C11H21N5S	18.663	y=0.728592x-0.005581	0.9864	255.1512	184.0651,240.1277,222.1713,68.0243,58.0651
78	Dipropyl Isocinchomeronate	C13H17NO4	17.237	y=4.670976x+0.088309	0.9955	165.0784	123.0315,164.0706,179.0941,192.0655,77.0260
79	Dithiopyr	C15H16F5NO2S2	18.22	y=3.141114x+0.009978	0.9979	286.0486	306.0548,354.0582,237.0208,258.0536,287.0529
80	Dodemorph	C18H35NO	19.535	y=8.370335x+0.056582	0.9983	154.1226	238.2165,155.1251,281.2713,128.1070,126.0913
81	Endosulfan-sulfate	C9H6Cl6O4S	25.027	y=0.104006x+0.001769	0.9920	271.8096	273.8067,236.8408,228.8954,269.8126,226.8983
82	Enestroburin	C22H22ClNO4	34.071	y=9.741958x-0.058077	0.9899	145.0648	178.0418,130.0413,131.0491,161.0597,102.0464

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
83	EPN	C14H14NO4PS	27.101	y=0.901054x+0.002947	0.9978	156.9872	141.0100,169.0413,62.9453,185.0184,77.0386
84	Epoxiconazole	C17H13ClFN3O	26.342	y=1.190390x-0.001735	0.9980	192.0336	165.0214,194.0306,138.0105,157.0634,183.0605
85	EPTC	C9H19NOS	7.775	y=2.472994x+8.815286E-004	0.9994	128.1070	86.0600,132.0842,129.1100,75.0263,70.0651
86	Esprocarb	C15H23NOS	18.38	y=3.649050x+8.424918E-004	0.9994	91.0542	222.0947,71.0855,162.1277,92.0580,65.0386
87	Etaconazole	C14H15Cl2N3O2	23.819	y=0.885975x+0.001640	0.9981	172.9556	245.0131,55.0542,174.9527,190.9648,247.0103
88	Ethiolate	C7H15NOS	5.966	y=2.114762x+0.017863	0.9980	100.0757	72.0444,101.0789,56.0495,161.0869,118.0685
89	Ethofumesate	C13H18O5S	18.399	y=3.816864x+0.100316	0.9985	161.0597	207.1016,137.0597,133.0648,179.0703,105.0699
90	Ethoprophos	C8H19O2PS2	12.358	y=3.622029x-0.010118	0.9979	96.9508	157.9620,126.9977,138.9977,93.0100,64.9787
91	Ethoxyquin	C14H19NO	14.241	y=10.113736x-0.011272	0.9965	202.1226	174.0913,203.1305,145.0886,173.0835,217.1461
92	ethychlozate	C11H11ClN2O2	20.296	y=-1.732562x+1.226529	1.0000	165.0214	167.0184,238.0504,166.0292,138.0105,75.0229
93	Etofenprox	C25H28O3	31.869	y=2.970617x+0.030148	0.9952	163.1117	135.0804,107.0491,133.0648,176.1196,77.0386
94	Etoxazole	C21H23F2NO2	27.547	y=1.265383x-0.011334	0.9937	141.0146	187.1117,204.1383,300.1194,139.0228,176.1081
95	Eugenol	C10H12O2	7.782	y=0.872384x+2.549079	0.2906	164.0832	103.0542,149.0597,131.0491,77.0386,91.0542
96	Famphur	C10H16NO5PS2	24.826	y=6.630637x+0.016844	0.9922	218.0161	93.0100,124.9821,217.0083,109.0049,78.9943
97	Fenamidone	C17H17N3OS	27.559	y=1.243430x-0.013660	0.9920	238.1101	268.0903,77.0386,237.1022,103.0542,91.0416
98	Fenamiphos	C13H22NO3PS	21.985	y=0.775921x+0.013383	0.9964	154.0447	303.1053,217.0083,260.0505,139.0212,79.9896
99	Fenamiphos-sulfone	C13H22NO5PS	26.836	y=1.970065x-0.013118	0.9895	292.0403	320.0716,79.9896,214.0628,107.0491,77.0386
100	Fenamiphos-sulfoxide	C13H22NO4PS	26.674	y=0.686982x-0.050290	0.9637	304.0767	303.1053,196.0791,122.0362,154.0447,260.0505
101	Fenazaquin	C20H22N2O	27.61	y=6.067166x-0.054826	0.9972	145.1012	117.0699,160.1246,146.1051,91.0542,115.0542
102	Fenchlorphos	C8H8Cl3O3PS	17.743	y=2.008262x+0.004358	0.9991	284.9303	286.9275,124.9821,78.9943,93.0100,109.0049
103	Fenchlorphos-Oxon	C8H8Cl3O4P	16.594	y=0.378720x-0.001438	0.9909	268.9532	270.9504,109.0049,78.9943,195.9244,253.9297
104	Fenfuram	C12H11NO2	15.705	y=6.903033x+0.073653	0.9947	109.0284	201.0784,110.0317,184.0519,202.0816,65.0386
105	Fenoprop	C10H9Cl3O3	14.672	y=0.069929x+6.559388E-004	0.9957	197.9210	195.9244,199.9180,222.9479,224.9441,207.0305
106	Fenothiocarb	C13H19NO2S	21.369	y=5.814580x+0.008724	0.9973	72.0444	94.0413,88.0341,160.0791,60.0028,77.0386
107	Fenoxaprop-Ethyl	C18H16ClNO5	29.759	y=0.396940x+0.022419	0.9816	288.0422	361.0712,290.0397,261.0187,119.0491,182.0600
108	Fenoxasulfone	C14H17Cl2NO4S	28.467	y=0.831553x+0.013851	0.9905	174.9722	176.9823,203.0014,260.0603,178.9731,205.0098
109	Fenoxycarb	C17H19NO4	27.101	y=6.853316x-0.066909	0.9967	186.0675	255.0890,77.0386,88.0393,129.0699,185.0597
110	Fenpropidin	C19H31N	17.952	y=31.703955x-0.450391	0.9950	98.0964	96.0808,99.0996,70.0651,117.0699,91.0542
111	Fenpropimorph	C20H33NO	19.038	y=23.504342x-0.266829	0.9936	128.1070	129.1101,126.0913,70.0651,110.0964,128.1434

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
112	Fenpyrazamine	C17H21N3O2S	29.38	y=0.610316x-0.046429	0.8150	230.1301	130.0651,132.0808,256.1444,115.0542,117.0573
113	Fensulfothion	C11H17O4PS2	23.748	y=0.089858x-0.002438	0.6602	292.0351	156.0062,293.0066,264.0038,96.9508,140.0290
114	Fensulfothion-Oxon-Sulfone	C11H17O6PS	23.16	y=0.249988x-0.010720	0.9975	109.0284	98.9842,201.0311,119.0491,103.0542,90.9943
115	Fensulfothion-sulfone	C11H17O5PS2	24.364	y=0.391274x-0.009688	0.3949	96.9508	187.9960,109.0049,109.0235,324.0250,156.9954
116	fentin hydroxide	C18H16OSn	31.006	y=0.038130x+4.153730E-004	0.9828	351.0190	349.0184,196.9412,347.0166,350.0207,194.9405
117	Ferimzone	C15H18N4	21.036	y=0.508610x+0.059140	0.9464	239.1291	132.0808,123.0791,137.0947,130.0651,96.0682
118	Fipronil	C12H4Cl2F6N4OS	20.684	y=1.983045x-0.005620	0.9966	366.9430	368.9400,212.9480,350.9480,254.9698,352.9451
119	Fipronil Desulfinyl	C12H4Cl2F6N4	17.734	y=2.146960x-0.001878	0.9979	332.9961	387.9712,389.9684,334.9934,280.9899,333.9988
120	Fipronil-sulfide	C12H4Cl2F6N4S	20.427	y=2.401534x-0.012922	0.9963	350.9480	352.9451,254.9698,419.9432,256.9669,421.9403
121	Fipronil-sulfone	C12H4Cl2F6N4O2S	22.95	y=0.645462x+0.012084	0.9978	382.9379	384.9349,254.9698,212.9480,240.9566,256.9669
122	Flamprop-isopropyl	C19H19ClFNO3	23.965	y=15.482574x-0.131559	0.9945	105.0335	77.0386,276.0586,106.0369,156.0011,128.9902
123	Flamprop-methyl	C17H15ClFNO3	22.798	y=11.886395x-0.073299	0.9948	105.0335	77.0386,230.0379,106.0371,276.0586,156.0011
124	Flonicamid	C9H6F3N3O	11.815	y=3.016780x-0.036492	0.9864	174.0161	146.0212,172.0243,126.0150,147.0280,68.9947
125	Fluacrypyrim	C20H21F3N2O5	24.812	y=3.329614x+0.150506	0.9962	145.0648	189.0546,204.0781,115.0542,103.0542,320.0428
126	Fluazifop	C15H12F3NO4	19.548	y=0.167256x+0.004480	0.9932	282.0736	254.0412,146.0212,227.0553,255.0444,126.0150
127	Fluazifop-butyl	C19H20F3NO4	23.462	y=3.939156x+0.040063	0.9980	282.0736	254.0423,383.1339,255.0502,268.0580,91.0542
128	Fluazuron	C20H10Cl2F5N3O3	19.509	y=0.116927x-0.003808	0.9915	287.0193	289.0160,288.0218,269.9928,271.9901,290.0183
129	Flubenzimine	C17H10F6N4S	22.575	y=0.076950x-0.001192	0.9984	135.0137	186.0399,77.0386,416.0525,212.0430,91.0416
130	Fluensulfone	C7H5ClNS2O2F3	11.651	y=2.217103x-0.005935	0.9990	118.9591	91.9482,225.9700,187.9732,120.9551,108.0181
131	Flufenacet	C14H13F4N3O2S	19.277	y=0.323218x+0.006523	0.9986	210.9784	151.0792,123.0439,136.0557,122.0412,68.9947
132	Flufenoxuron	C21H11ClF6N2O3	16.183	y=0.583017x+0.008754	0.9929	305.0225	126.0350,307.0206,306.0265,270.0536,98.0401
133	Flufiprole	C16H10Cl2F6N4OS	21.678	y=1.110673x-0.004827	0.9959	402.9834	404.9818,420.9899,212.9491,371.0090,422.9892
134	Flumetralin	C16H12ClF4N3O4	21.769	y=2.047968x-2.679598E-005	0.9984	143.0058	145.0037,156.9885,107.0292,404.0420,144.0103
135	Flumioxazin	C19H15FN2O4	32.668	y=3.794768x+0.033231	0.9961	354.1010	326.1061,287.0826,355.1042,259.0514,312.0905
136	Fluopyram	C16H11ClF6N2O	20.647	y=5.036580x+0.012046	0.9971	173.0209	145.0260,223.0244,195.0069,207.0069,208.0135
137	Fluoroglycofen-ethyl	C18H13ClF3NO7	29.541	y=0.003079x-0.001295	0.9515	343.9932	207.0441,345.0010,222.9768,75.0229,223.0354
138	Fluotrimazole	C22H16F3N3	26.339	y=2.191302x+0.055832	0.9927	165.0697	311.1042,312.1120,233.0573,241.1010,166.0775

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
139	Fluquinconazole	C16H8Cl2FN5O	30.465	y=0.961502x-0.023259	0.4731	340.0396	342.0367,108.0244,341.0419,298.0178,313.0287
140	Flurochloridone	C12H10Cl2F3NO	19.5	y=0.633831x+0.010765	0.9991	311.0086	174.0525,187.0240,313.0056,145.0260,172.0369
141	fluroxypyr-meptyl	C15H21Cl2FN2O3	25.962	y=0.783850x+0.006503	0.9987	180.9730	208.9679,182.9699,210.9657,55.0542,209.9758
142	Flurprimidol	C15H15F3N2O2	16.973	y=6.663562x+0.028710	0.9976	269.0533	107.0240,189.0158,79.0291,270.0555,95.0292
143	Flusilazole	C16H15F2N3Si	22.86	y=3.678769x+0.004689	0.9983	233.0593	206.0544,234.0621,96.0370,165.0699,220.0701
144	Flutolanil	C17H16F3NO2	22.149	y=8.914388x-0.108609	0.9936	173.0209	145.0260,281.0658,174.0248,323.1128,282.0705
145	Flutriafol	C16H13F2N3O	21.743	y=3.959201x+0.002749	0.9980	123.0241	164.0619,219.0616,95.0292,83.0478,82.0400
146	Fluxapyroxad	C18H12F5N3O	27.245	y=4.178230x+0.029896	0.9994	159.0364	381.0895,160.0392,139.0302,382.0926,221.0447
147	Fonofos	C10H15OPS2	15.128	y=9.712048x-0.040653	0.9976	108.9872	137.0184,110.0185,109.0107,62.9453,80.9558
148	Fuberidazole	C11H8N2O	17.164	y=13.427743x-0.509778	0.9894	184.0631	156.0682,155.0604,183.0553,185.0665,129.0573
149	Furalaxyl	C17H19NO4	20.814	y=8.517960x-0.019377	0.9985	95.0128	242.1176,152.0706,146.0964,132.0808,96.0164
150	furametpyr	C17H20ClN3O2	28.116	y=0.732135x+0.004262	0.9940	157.0163	159.0132,298.1550,291.1133,188.0706,158.0190
151	Furathiocarb	C18H26N2O5S	28.226	y=1.826380x-0.014555	0.9987	163.0754	135.0804,194.0396,164.0832,325.1342,107.0491
152	Furilazole	C11H13Cl2NO3	14.326	y=1.461550x + 1.122685E-004	0.9984	219.9927	221.9894,70.0651,146.0367,81.0335,262.0032
153	Furmecyclox	C14H21NO3	16.49	y=12.805949x-0.110296	0.9936	123.0440	81.0335,124.0476,53.0386,67.0542,22.0362
154	Griseofulvin	C17H17ClO6	31.23	y=0.151823x+0.002852	0.9899	321.0524	310.0239,138.0675,352.0708,215.0106,214.0027
155	Haloxypof	C15H11ClF3NO4	21.375	y=2.642129x-0.009487	0.9984	316.0347	288.0058,375.0480,289.0119,318.0337,290.0043
156	Haloxypof-2-ethoxyethyl	C19H19ClF3NO5	26.392	y=1.703054x+0.004634	0.9973	302.0190	288.0034,316.0335,304.0161,91.0542,289.0112
157	Haloxypof-methyl	C16H13ClF3NO4	21.376	y=2.642129x-0.009487	0.9984	316.0347	288.0034,375.0480,318.0321,289.0067,290.0004
158	Hexazinone	C12H20N4O2	25.614	y=1.665882x-0.084441	0.3610	171.0876	83.0240,71.0604,128.0818,67.0542,85.0760
159	Imazamethabenz-methyl	C16H20N2O3	21.738	y=1.129695x+6.445813E-005	0.9931	187.0502	256.1206,144.0444,117.0573,214.0737,172.0757
160	Indanofan	C20H17ClO3	27.571	y=0.339538x+0.003427	0.9982	138.9945	159.0441,174.0675,105.0335,103.0542,131.0491
161	Indaziflam	C16H20FN5	27.144	y=1.348972x+0.036672	0.9965	158.0836	286.1462,129.0699,128.0619,138.0774,144.0932
162	Iodofenphos	C8H8Cl2IO3PS	22.055	y=0.711829x+0.012288	0.9994	376.8659	378.8631,124.9821,78.9943,93.0100,96.9840
163	Ipconazole	C18H24ClN3O	29.049	y=7.309368x+0.005143	0.9921	125.0153	83.0491,70.0400,129.0699,127.0124,249.1041
164	Ipfencarbazone	C18H14Cl2F2N4O ₂	30.055	y=0.298323x+0.011960	0.9954	198.0725	156.0255,156.0581,194.0116,228.9804,158.9637
165	Iprodione	C13H13Cl2N3O3	26.744	y=0.187632x+0.005876	0.5138	314.0094	186.9586,316.0066,188.9557,244.9879,187.9664
166	Isazofos	C9H17ClN3O3PS	16.034	y=2.291801x-0.007771	0.9990	96.9508	118.9881,161.0350,162.0429,120.9855,119.9959

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
167	Isocarbamid	C8H15N3O2	14.846	y=3.833870x-0.113953	0.9975	142.0611	130.0611,70.0287,113.0346,85.0396,143.0635
168	Isocarbophos	C11H16NO4PS	19.295	y=2.192220x+0.0006436130	0.9981	135.9977	120.0206,121.0284,92.0257,45.0335,109.9824
169	Isofenphos-Methyl	C14H22NO4PS	20.035	y=4.414576x+0.027191	0.9976	199.0155	121.0284,120.0209,58.0651,92.0260,109.9824
170	Isomethiozin	C12H20N4OS	19.105	y=2.949183x+0.010565	0.9993	225.0805	198.0662,226.0883,184.0539,199.0740,82.0651
171	Isoprocab	C11H15NO2	10.638	y=8.753542x-0.087035	0.9984	121.0648	136.0883,91.0542,77.0386,103.0542,93.0699
172	Isopropalin	C15H23N3O4	19.994	y=3.297614x+0.008617	0.9963	280.1292	238.0822,264.1343,281.1321,222.0873,180.0893
173	Isoprothiolane	C12H18O4S2	22.26	y=3.569801x+0.003385	0.9994	117.9905	161.9804,188.9675,204.0273,144.9776,159.9283
174	Isoproturon	C12H18N2O	17.535	y=1.849168x-0.026338	0.9992	146.0600	128.0495,72.0444,161.0835,91.0542,206.1414
175	Isopyrazam	C20H23F2N3O	29.734	y=0.274319x+0.014439	0.9946	159.0364	303.1178,359.1804,316.1256,276.1131,184.0757
176	Isoxadifen-ethyl	C18H17NO3	24.759	y=3.249693x-0.018342	0.9981	204.0808	165.0699,105.0335,222.0913,232.0757,182.0726
177	Isoxaflutole	C15H12F3NO4S	19.495	y=0.532250x-0.040271	0.8639	279.0505	160.0135,252.0400,189.0163,253.0413,132.0186
178	Lenacil	C13H18N2O2	25.063	y=27.835647x-0.228977	0.9890	153.0659	136.0393,154.0687,110.0600,80.0495,67.0542
179	Lindane	C6H6Cl6	14.773	y=2.261958x-0.002014	0.9988	180.9373	182.9344,218.9111,112.0074,216.9140,77.0386
180	MCPA-2-ETHYLHEXYL ESTER	C17H25ClO3	21.494	y=2.921070x+0.091040	0.9996	200.0235	141.0102,312.1487,202.0208,125.0153,155.0258
181	MCPA-isooctyl	C17H25ClO3	22.23	y=1.523069x+0.002554	0.9992	312.1487	200.0235,155.0258,314.1463,141.0102,202.0208
182	Mecarbam	C10H20NO5PS2	20.661	y=2.511644x-0.033560	0.9973	131.0036	96.9508,160.0427,159.0349,124.9821,64.9787
183	Mefenacet	C16H14N2O2S	28.654	y=13.918891x+0.185108	0.9943	192.0114	77.0386,136.0215,106.0651,120.0808,118.0651
184	Mefenpyr-diethyl	C16H18Cl2N2O4	26.601	y=2.280238x-0.075305	0.9903	252.9930	254.9902,185.9872,299.0349,227.0137,187.9843
185	Mepanipyrim	C14H13N3	21.609	y=4.646827x-0.071901	0.9940	222.1026	223.1104,221.0947,207.0791,38.5190,224.1129
186	Mepronil	C17H19NO2	24.432	y=4.341646x-0.110195	0.6425	119.0491	91.0542,269.1410,65.0386,210.0675,120.0528
187	Metalaxyl	C15H21NO4	17.729	y=2.237503x-0.004404	0.9979	160.1121	206.1176,132.0808,146.0964,192.1383,130.0863
188	Metamitron	C10H10N4O	22.782	y=0.178600x-0.016270	0.9955	202.0849	174.0900,104.0495,173.0822,186.0662,77.0386
189	Metazachlor	C14H16ClN3O	20.139	y=1.193485x-0.001059	0.9959	132.0808	133.0886,117.0573,81.0447,209.0602,134.0964
190	Metconazole	C17H22ClN3O	27.574	y=0.627675x+0.017865	0.9978	125.0134	70.0400,83.0491,82.0400,125.0961,127.0165
191	Methabenzthiazuron	C10H11N3OS	12.774	y=1.445045x+0.273855	0.9973	136.0215	164.0403,135.0137,108.0028,163.0324,68.9793
192	Methacrifos	C7H13O5PS	10.034	y=2.002969x-0.002101	0.9996	124.9821	207.9954,180.0005,93.0100,78.9943,110.0127
193	Methamidophos	C2H8NO2PS	6.221	y=0.491105x-0.037458	0.7132	94.0052	95.0131,141.0008,63.9947,46.9950,48.0028
194	Methfuroxam	C14H15NO2	19.189	y=1.262343x+0.004733	0.9995	229.1097	137.0597,67.0542,138.0627,95.0491,109.0648

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
195	Methoprotetryne	C11H21N5OS	22.908	y=1.829768x+0.003630	0.9993	256.1227	212.0964,184.0665,213.1043,170.0495,171.0573
196	Metobromuron	C9H11BrN2O2	16.398	y=0.288404x+0.031018	0.7498	198.9451	196.9471,170.9501,168.9522,61.0522,90.0338
197	Metrafenone	C19H21BrO5	29.767	y=0.564900x+0.010686	0.9932	393.0332	395.0314,379.0363,377.0383,209.0808,378.0417
198	Metribuzin	C8H14N4OS	16.941	y=3.216293x-0.039473	0.9952	198.0696	199.0697,46.9950,144.0464,82.0651,74.0059
199	Mexacarbate	C12H18N2O2	15.917	y=2.280394x+0.005566	0.9995	165.1148	57.0209,150.0913,164.1070,56.0131,134.0726
200	Molinate	C9H17NOS	10.6	y=5.490722x+0.003767	0.9965	126.0913	55.0542,98.0964,83.0855,127.0946,70.0651
201	Monalide	C13H18ClNO	16.358	y=2.889353x-0.008776	0.9951	127.0182	85.1012,197.0604,129.0154,57.0699,199.0575
202	Monocrotophos	C7H14NO5P	13.274	y=4.541140x+0.025208	0.9962	127.0155	109.0049,67.0178,97.0522,58.0287,192.0182
203	Monolinuron	C9H11ClN2O2	14.482	y=0.125916x+0.002215	0.9418	152.9976	125.0025,90.0338,154.9948,127.0106,61.0522
204	Musk Ketone	C14H18N2O5	18.945	y=2.520735x-0.010305	0.9993	279.0975	128.0621,115.0542,91.0542,280.1009,77.0386
205	Musk Moskene	C14H18N2O4	17.161	y=3.311710x-1.642025E-004	0.9970	263.1026	128.0621,115.0542,141.0699,264.105,129.0699
206	Musk Tibetene	C13H18N2O4	18.123	y=3.599497x+0.019387	0.9922	251.1026	91.0542,115.0542,128.0621,77.0386,252.1057
207	Myclobutanil	C15H17ClN4	22.722	y=0.916887x+0.004833	0.9984	179.0245	150.0105,179.0622,152.0387,152.0077,82.0400
208	Nitrapyrin	C6H3Cl4N	9.229	y=0.456427x+0.001102	0.9923	193.9326	195.9296,197.9267,132.9606,76.0182,123.9949
209	Nitrofen	C12H7Cl2NO3	23.135	y=0.521376x+0.008365	0.9931	282.9797	202.0180,284.9770,139.0542,204.0153,252.9818
210	Nitrothal-Isopropyl	C14H17NO6	19.416	y=1.745560x-0.016301	0.9985	194.0084	236.0553,212.0190,254.0659,148.0155,195.0162
211	Norflurazon	C12H9ClF3N3O	25.147	y=5.905172x+0.097038	0.9927	303.0381	145.0260,173.0321,102.0105,302.0302,305.0355
212	Noruron	C13H22N2O	18.434	y=1.589218x-0.028192	0.9974	72.0444	80.0620,79.0542,91.0542,153.1022,67.0542
213	Novaluron	C17H9ClF8N2O4	8.178	y=0.499268x-0.006645	0.9933	142.0054	308.9986,144.0023,114.0105,310.9954,68.9947
214	Noviflumuron	C17H7Cl2F9N2O3	11.186	y=1.492709x+0.005575	0.9972	193.9570	195.9538,344.9553,165.9621,346.9522,167.9587
215	Nuarimol	C17H12ClFN2O	25.702	y=1.231931x-0.005733	0.9995	107.0240	138.9945,235.0302,203.0604,123.0229,314.0617
216	Octhilinone	C11H19NOS	16.205	y=1.490837x-0.009246	0.9949	114.0008	100.9930,102.0008,115.0086,86.9899,180.1383
217	Ofurace	C14H16ClNO3	24.742	y=1.867572x-0.017437	0.9882	232.0968	132.0808,186.0913,160.0160,204.1019,144.0808
218	Orbencarb	C12H16ClNOS	18.088	y=3.374692x-0.028247	0.9961	222.0947	100.0757,72.0444,125.0153,223.0977,127.0124
219	Ortho-Dichlorobenzene	C6H4Cl2	4.717	y=0.386869x+0.009607	0.9855	145.9685	147.9655,110.9996,75.0229,112.9967,149.9627
220	Oryastrobin	C18H25N5O5	28.172	y=1.047556x-0.001300	0.9919	116.0495	205.0972,132.0444,58.0287,140.0818,170.0924
221	oxadiazon	C15H18Cl2N2O3	22.671	y=3.751548x+0.021162	0.9984	174.9586	176.9557,258.0321,302.0219,260.0292,111.9949
222	Oxadixyl	C14H18N2O4	24.079	y=8.827054x-1.156465	0.9797	132.0808	163.0992,105.0699,120.0808,77.0386,118.0651
223	Oxycarboxin	C12H13NO4S	26.168	y=0.187237x+0.003685	0.9964	119.0366	91.0416,175.0060,64.0308,63.0229,93.0573

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
224	Oxyfluorfen	C15H11ClF3NO4	22.893	y=1.245871x-0.001566	0.9956	252.0393	300.0034,317.0061,253.0430,280.0216,361.0323
225	parathion	C10H14NO5PS	19.072	y=0.506395x+0.005250	0.9949	291.0325	96.9508,109.0049,155.0036,139.0264,261.0345
226	Parathion-Methyl	C8H10NO5PS	17.202	y=0.566279x-3.784450E-004	0.9953	109.0049	124.9821,263.0012,78.9943,93.0100,245.9984
227	Pebulate	C10H21NOS	9.305	y=2.136928x-0.008008	0.9987	128.1070	57.0699,72.0444,161.0869,132.0842,58.0666
228	Penconazole	C13H15Cl2N3	20.246	y=4.608096x+0.013161	0.9978	158.9763	248.0949,160.9734,250.0922,249.0978,162.9705
229	Pentanochlor	C13H18ClNO	18.339	y=5.838964x-0.033208	0.9923	141.0340	143.0310,197.0602,106.0651,140.0262,71.0855
230	Penthiopyrad	C16H20F3N3OS	24.163	y=4.706454x+0.012310	0.9966	177.0270	302.0569,152.0165,151.0574,166.0811,178.0288
231	Pentoxazone	C17H17ClFNO4	28.359	y=2.476352x-0.023944	0.9958	70.0413	285.0187,186.9831,286.0266,67.054,287.0163
232	Pethoxamid	C16H22ClNO2	20.834	y=0.791635x+0.002530	0.9965	260.1645	91.0542,186.9831,286.0266,67.0542,287.0163
233	Phenothrin	C23H26O3	28.189	y=1.580151x-0.015875	0.9963	183.0804	123.1168,81.0699,77.0386,184.0859,79.0542
234	Phorate	C7H17O2PS3	13.48	y=6.490644x-0.129021	0.9962	75.0263	96.9508,64.9787,121.0413,46.9950,93.0100
235	Phorate-Sulfone	C7H17O4PS3	18.827	y=1.993645x+0.011267	0.9995	96.9508	124.9821,153.0134,199.0011,170.9698,45.9872
236	Phorate-Sulfoxide	C7H17O3PS3	18.522	y=1.185241x+0.010379	0.9979	96.9508	124.9821,75.0263,153.0134,199.0011,45.9872
237	Phosfolan	C7H14NO3PS2	20.373	y=0.472359x-0.001362	0.9961	139.9566	91.9749,60.0028,58.9950,167.9879,80.9736
238	Phosphamidon	C10H19ClNO5P	16.924	y=0.412353x+0.008889	0.9930	127.0155	72.0808,264.0995,109.0049,138.0913,58.0651
239	Phthalide	C8H2Cl4O2	19.461	y=1.210916x+0.015353	0.9960	242.8747	240.8776,244.8718,269.8803,212.8827,246.8689
240	Picolinafen	C19H12F4N2O2	27.207	y=1.059991x+0.017625	0.9952	238.0474	376.0829,239.0553,145.0260,377.0868,83.0292
241	Piperalin	C16H21Cl2NO2	25.476	y=0.934558x+0.017353	0.9984	314.0709	172.9556,112.1121,316.0682,174.9527,230.9974
242	Pirimiphos-methyl-N-desethyl	C9H16N3O3PS	17.639	y=0.739502x+8.546102E-004	0.9984	277.0645	262.0410,135.0791,124.9821,152.0818,168.0590
243	Plifenatate	C10H7Cl5O2	17.234	y=0.199448x+0.002219	0.9971	241.9032	169.9685,239.9062,171.9656,174.9684,243.9003
244	Prodiamine	C13H17F3N4O4	18.44	y=1.000544x-0.003199	0.9925	321.0805	279.0336,275.0750,216.0291,305.0856,203.0377
245	Profluralin	C14H16F3N3O4	15.242	y=0.759143x+0.004896	0.9995	318.0696	55.0542,330.1060,264.0227,69.0335,248.0278
246	Profoxydim	C24H32ClNO4S	9.169	y=2.688195x-0.006498	0.9950	128.0023	129.9988,65.0386,100.0074,129.0047,91.0542
247	Promecarb	C12H17NO2	13.45	y=4.177696x-0.031385	0.9965	135.0804	57.0209,150.1039,56.0131,91.0542,107.0855
248	Prometon	C10H19N5O	14.379	y=3.427406x-0.021365	0.9967	168.0880	210.1349,183.1115,225.1584,58.0651,112.0505
249	Prometryn	C10H19N5S	17.717	y=3.902703x+0.015813	0.9992	184.0651	241.1356,226.1121,105.5440,58.0651,199.0886
250	Propachlor	C11H14ClNO	11.952	y=2.466518x-0.075990	0.9954	120.0808	93.0573,77.0386,176.1070,120.0444,118.0651
251	Propazine	C9H16ClN5	14.687	y=2.965820x-0.016453	0.9971	214.0854	172.0385,229.1089,58.0651,187.0619,174.0355

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
252	Propisochlor	C15H22ClNO2	17.685	y=6.238989x+0.045070	0.9974	162.0913	132.0808,146.0964,117.0573,144.0808,223.0758
253	Propyzamide	C12H11Cl2NO	15.168	y=4.542358x+0.015510	0.9981	172.9556	174.9527,144.9606,170.9637,254.0134,239.9977
254	Prosulfocarb	C14H21NOS	17.865	y=3.876137x+0.002316	0.9994	128.1069	91.0541,86.0600,251.1337,65.0386,77.0386
255	Prothioconazole-desthio	C14H15Cl2N3O	22.857	y=3.810987x+0.010657	0.9994	186.0429	188.0401,125.0153,82.0400,70.0400,89.0386
256	Prothiofos	C11H15Cl2O2PS2	22.189	y=2.668461x-0.002414	0.9986	112.9279	161.9634,266.9465,308.9934,163.9605,238.9152
257	Pyracarbolid	C13H15NO2	19.57	y=4.953142x-0.040654	0.9991	125.0597	97.0284,55.0178,107.0491,126.0629,83.0491
258	Pyrametostrobin	C21H23N3O4	8.073	y=1.749333x-0.095973	0.9982	133.0495	104.0495,105.0546,132.0444,77.0386,162.0550
259	Pyributicarb	C18H22N2O2S	26.672	y=5.520428x-0.029621	0.9996	165.0659	108.0444,135.0804,59.9664,181.0430,109.0522
260	Pyridaphenthion	C14H17N2O4PS	26.907	y=0.198591x+0.003304	0.4203	340.0641	199.0866,96.9508,188.0580,204.0352,77.0386
261	Pyrifthalid	C15H14N2O4S	29.436	y=0.356524x+0.001018	0.5221	274.0771	273.0692,318.0669,317.0580,303.0434,275.0708
262	Pyrimethanil	C12H13N3	15.322	y=11.042643x-0.029871	0.9969	198.1026	199.1104,77.0386,200.1127,183.0791,91.0416
263	Pyrimorph	C22H25ClN2O2	34.123	y=0.139496x+0.027734	0.9527	242.0367	244.0326,298.0988,384.1599,299.1067,243.0397
264	Pyriofenone	C18H20ClNO5	26.66	y=2.311233x-0.005190	0.9987	350.0790	334.0841,352.0767,209.0808,336.0818,351.0822
265	Pyriproxyfen	C20H19NO3	28.526	y=-0.161965x+0.143519	1.0000	226.0988	136.0757,77.0386,96.0444,186.0675,78.0338
266	Pyroquilon	C11H11NO	15.055	y=3.936159x-0.033883	0.9987	173.0835	130.0651,172.0757,144.0808,115.0542,117.0573
267	Quinoclamine	C10H6ClNO2	18.337	y=0.056910x-0.004314	0.9992	172.0393	207.0082,209.0056,144.0444,89.0386,76.0308
268	Quinoxifen	C15H8Cl2FNO	24.989	y=2.052041x+0.016650	0.9976	237.0584	272.0273,306.9962,238.0617,274.0247,308.9934
269	Quizalofop-Ethyl	C19H17ClN2O4	31.669	y=7.618428x-0.011928	0.9834	299.0582	372.0871,163.0058,301.0558,244.0398,243.0320
270	Rabenzazole	C12H12N4	19.058	y=2.760821x+0.023986	0.9964	212.1057	170.0713,195.0791,118.0526,211.0978,194.0713
271	Resmethrin	C22H26O3	26.268	y=1.944152x+0.094249	0.9977	128.0621	123.1168,143.0855,171.0804,81.0699,91.0542
272	Schradan	C8H24N4O3P2	14.328	y=0.0009x+0.0007	0.9995	135.0682	153.0787,92.0260,243.0896,199.0393,196.1209
273	Sebuthylazine	C9H16ClN5	16.18	y=5.594330x+0.012166	0.9990	200.0697	202.0673,214.0854,201.0737,68.0243,122.0713
274	Sebuthylazine-desethyl	C7H12ClN5	14.554	y=5.666025x-0.001108	0.9998	172.0385	174.0355,104.0010,68.0243,186.0541,69.0447
275	Secbumeton	C10H19N5O	15.772	y=6.832757x-0.047519	0.9957	196.1193	169.0958,210.1349,197.1245,154.0723,112.0505
276	Sedaxane	C18H19F2N3O	29.041	y=2.658732x+0.032519	0.9882	159.0364	172.1121,130.0651,234.0839,139.0302,160.0394
277	Silthiofam	C13H21NOSSi	16.644	y=7.744171x+0.003004	0.9966	252.0873	253.0894,75.0261,197.0451,254.0851,210.0403
278	Simazine	C7H12ClN5	14.299	y=1.299262x-0.013953	0.9946	201.0776	186.0541,173.0463,68.0243,138.0774,96.0556
279	Simeconazole	C14H20FN3OSi	17.354	y=6.293869x+0.026595	0.9986	121.0448	75.0261,73.0468,195.0636,83.0478,123.0247
280	Simeton	C8H15N5O	13.831	y=2.003621x+0.018336	0.9956	169.0958	139.0614,197.1271,182.1036,154.0723,68.0243

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
281	Simetryn	C8H15N5S	17.351	y=4.256864x-0.069577	0.9915	213.1043	155.0386,170.0495,68.0243,198.0808,185.0730
282	Spirodiclofen	C21H24Cl2O4	30.168	y=1.874694x+0.081036	0.1814	71.0855	156.9606,259.0520,109.0648,312.0315,158.9588
283	Spiromesifen	C23H30O4	26.71	y=1.260708x+2.814890E-004	0.9984	272.1407	254.1301,273.1485,57.0699,83.0491,255.1380
284	Spirotetramat-mono-hydroxy	C18H25NO3	30.028	y=6.705001x+10.096078	0.4628	123.0804	230.1176,119.0855,303.1829,286.1801,146.0726
285	Spiroxamine	C18H35NO2	17.19	y=9.766720x-0.053675	0.9958	100.1121	72.0808,98.0726,57.0699,58.0651,98.0964
286	Sulfallate	C8H14ClNS2	13.587	y=5.952942x+0.016300	0.9980	188.0562	59.9902,88.0215,72.0808,189.0589,190.0525
287	Sulfluramid	C10H6F17NO2S	5.897	y=2.946348x-0.014078	0.9929	108.0114	79.9801,68.9947,447.9988,130.9915,168.9883
288	Sulfotep	C8H20O5P2S2	13.374	y=2.166755x-0.008157	0.9974	322.0222	237.9283,201.9882,293.9909,265.9596,209.8970
289	TCMTB	C9H6N2S3	21.725	y=2.646649x+0.012179	0.9948	179.9936	136.0215,108.0028,180.9995,135.0137,68.9793
290	Tebufenpyrad	C18H24ClN3O	27.573	y=1.103022x+0.007965	0.9962	318.1368	171.0320,276.0898,333.1602,173.0295,145.0525
291	Tebupirimfos	C13H23N2O3PS	16.298	y=2.569434x-0.019606	0.9976	234.0222	261.0457,276.0692,152.0944,318.1161,137.0709
292	Tebutam	C15H23NO	13.377	y=3.039085x+0.014719	1.0000	190.1224	57.0699,91.0538,92.0581,106.0650,65.0386
293	Tebuthiuron	C9H16N4OS	10.226	y=1.333635x-0.042694	0.9966	171.0825	156.0590,170.0746,172.0848,57.0699,157.0634
294	Teflubenzuron	C14H6Cl2F4N2O2	8.076	y=0.715899x+0.010550	0.9973	196.9605	198.9576,134.9808,141.9861,200.9547,99.0041
295	Terbacil	C9H13ClN2O2	15.723	y=1.793257x+0.007335	0.9943	161.0112	160.0034,163.0084,116.9976,56.0620,162.0005
296	Terbucarb	C17H27NO2	17.247	y=12.096218x-0.063863	0.9931	205.1587	220.1822,177.1274,206.1620,57.0699,161.0961
297	Terbufos	C9H21O2PS3	15.054	y=4.234770x+0.037155	0.9940	230.9732	57.0699,56.0620,96.9508,64.9787,55.0542
298	Terbufos-Sulfone	C9H21O5PS2	20.254	y=2.681909x+0.003543	0.9996	96.9508	124.9821,199.0011,153.0134,57.0699,170.9698
299	Terbumeton	C10H19N5O	14.749	y=5.027016x+0.023964	0.9945	169.0958	210.1349,154.0723,141.0645,192.0880,168.0880
300	Terbuthylazine	C9H16ClN5	15.046	y=5.862237x+0.007813	0.9985	214.0854	173.0463,216.0826,138.0774,172.0385,229.1089
301	Terbutryn	C10H19N5S	18.163	y=4.600924x+0.016783	0.9985	185.0730	226.1121,170.0495,68.0243,241.1356,105.5440
302	Tetraconazole	C13H11Cl2F4N3O	19.423	y=3.317369x+0.013362	0.9977	336.0521	338.0494,170.9774,158.9763,337.0550,172.9747
303	Tetrasul	C12H6Cl4S	24.271	y=2.223237x-0.010203	0.9961	251.9562	253.9533,323.8910,321.8939,325.8880,252.9593
304	Thenylchlor	C16H18ClNO2S	25.732	y=1.530259x-8.471053E-004	0.9997	127.0212	288.1053,141.0369,58.9950,111.9977,287.0974
305	Thiazopyr	C16H17F5N2O2S	19.049	y=1.175057x-0.007532	0.9943	327.0973	60.0028,363.1126,306.0081,58.9950,349.0970
306	Thifluzamide	C13H6Br2F6N2O2S	23.038	y=2.040262x-0.025376	0.9944	193.9882	165.9933,124.9667,448.9212,446.9232,428.9149
307	Thiobencarb	C12H16ClNOS	18.617	y=6.334599x+0.014253	0.9984	100.0757	72.0444,125.0153,89.0386,137.0027,138.9984
308	Thiofanox	C9H18N2O2S	6.773	y=0.505659x-0.002328	0.9937	115.0992	161.0869,55.0542,61.0106,73.0522,83.0855

No.	Pesticides	Elemental composition	Rt/min	Linear equations	Correlation coefficient (R ²)	Precursor	Product ion
309	Thiometon	C6H15O2PS3	13.842	y=2.341782x-0.004672	0.9992	124.9821	88.0341,60.0028,61.0106,89.0419,93.0100
310	Tiocarbazil	C16H25NOS	19.339	y=2.343573x-0.004359	0.9970	91.0542	57.0699,100.0757,156.1383,70.0287,65.0386
311	Tolclofos-Methyl	C9H11Cl2O3PS	17.364	y=4.800039x+0.045508	0.9972	264.9850	266.9821,124.9821,249.9615,93.0100,78.9943
312	Tolfenpyrad	C21H22ClN3O2	34.028	y=5.170900x-0.256428	0.9941	171.0320	197.0961,383.1395,137.0709,211.0992,145.0527
313	trans-Diallate	C10H17Cl2NOS	13.768	y=0.616933x-0.008092	0.9922	234.0714	86.0600,108.9606,236.0685,110.9577,70.0287
314	triallate	C10H16Cl3NOS	15.977	y=2.970806x-0.002003	0.9985	86.0600	268.0324,142.9217,144.9187,270.0295,72.9840
315	Triamiphos	C12H19N6OP	24.125	y=2.885165x+0.056808	0.9978	160.0743	135.0682,104.0495,294.1353,161.0773,103.0416
316	Triapenthenol	C15H25N3O	18.415	y=5.817410x+0.025404	0.9972	206.1288	70.0400,124.0505,91.0542,207.1335,67.0542
317	Tribufos	C12H27OPS3	22.455	y=1.597447x+3.307548E-004	0.9979	168.9905	56.0620,57.0699,146.9156,112.9279,114.9436
318	Trichloronat	C10H12Cl3O2PS	19.478	y=4.099580x+0.006649	0.9999	108.9872	268.9354,296.9667,270.9325,298.9638,80.9558
319	Trietazine	C9H16ClN5	15.098	y=4.073755x+0.015940	0.9953	200.0697	186.0541,214.0854,229.1089,202.0669,68.0243
320	Trifloxystrobin	C20H19F3N2O4	25.47	y=3.740790x-0.045063	0.9986	116.0495	172.0369,145.0260,187.0603,131.0730,103.0428
321	Triflumizole	C15H15ClF3N3O	21.048	y=0.926031x+0.007677	0.9927	205.9979	278.0554,178.9881,287.0432,185.9917,68.0369
322	Trifluralin	C13H16F3N3O4	13.218	y=2.549009x+0.003376	0.9993	264.0227	306.0696,248.0278,206.0298,290.0747,265.0254
323	Tri-Isobutyl Phosphate	C12H27O4P	10.148	y=23.336699x-0.260239	0.9934	98.9842	139.0155,112.9998,81.9814,80.9736,111.9920
324	Triticonazole	C17H20ClN3O	28.159	y=4.837751x+0.038857	0.9839	235.0884	217.0779,215.0622,182.1090,299.1184,237.0858
325	Uniconazole	C15H18ClN3O	22.384	y=2.738779x+0.010141	0.9959	234.0429	70.0400,236.0402,235.0457,165.0102,131.0491
326	Vernolate	C10H21NOS	9.076	y=2.832197x-0.013398	0.9996	128.1070	86.0600,146.0998,161.0869,70.0651,72.0808
327	Zoxamide	C14H16Cl3NO2	20.795	y=1.394086x-7.320401E-004	0.9979	186.9712	242.0134,188.9683,244.0106,185.9872,187.9893

Supplemental Table 3 Recovery and precision data for 482 pesticide residues in Radix Codonopsis using automated QuEChERS procedure (n=5)

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
1	1,4-Dimethylnaphthalene							91.16	6.35	90.46	10.88	92.66	7.24
2	1-Naphthyl Acetamide			94.38	9.49	93.99	3.53						
3	2,3,4,5-Tetrachloroaniline							84.65	6.21	82.75	4.86	79.74	4.86
4	2,4'-DDT							90.65	4.34	95.48	4.68	85.88	3.71
5	2,4-D-ethylhexyl							92.27	1.95	95.27	3.00	88.73	4.95
6	2,4'-Dicofol							93.40	5.77	93.60	3.86	93.27	3.63
7	2,6-Dichlorobenzamide	83.87	26.11	113.26	4.81	98.80	8.77						
8	3,4,5-Trimethacarb	108.13	19.09	91.80	9.63	97.76	8.38						
9	4,4'-DDD							85.20	5.20	99.76	4.43	93.38	5.20
10	4,4'-DDE							95.28	3.67	86.82	4.40	94.23	6.14
11	4-Bromo-3,5-Dimethylphenyl-N-Methylcarbamate							101.59	6.27	96.48	5.04	92.14	2.79
12	4'-Chloro-2,2,2-trifluoroacetophenone											91.82	7.02
13	6-Isopentenyl aminopurine							79.80	11.27	70.47	43.30	87.00	8.36
14	Acibenzolar-S-methyl	19.35	16.68	19.35	11.10	22.38	10.91						
15	Akton							82.36	8.10	91.41	2.43	94.24	3.83
16	Aldicarb-sulfone	86.11	13.05	88.85	14.11	94.62	7.69	97.62	4.04	101.36	4.44	98.09	5.44
17	Aldicarb-sulfoxide	92.27	9.65	105.12	10.13	89.63	7.24	91.24	14.34	87.08	14.50	95.69	3.57
18	Aldrin					73.10	17.54						
19	Allidochlor							78.45	10.91	87.70	8.88	82.13	6.67
20	alpha-Endosulfan	119.10	3.33	89.01	15.51	94.55	7.11						
21	alpha-HCH							105.64	6.12	96.11	5.62	91.07	8.63
22	Ametryn							89.58	2.81	93.71	3.47	93.68	3.44
23	Amidosulfuron	99.62	1.09	95.09	1.78	91.84	4.98						
24	Aminocarb	50.30	6.36	54.85	10.20	47.60	7.78					55.91	4.33
25	Ancymidol	86.42	4.65	92.96	5.50	90.15	9.48						
26	Anilofos	98.35	5.69	91.44	2.92	93.79	5.67						
27	Anthraquinone	105.63	1.92	100.60	2.05	103.30	5.25						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
28	Aramite							86.53	3.36	75.89	8.33	57.37	4.76
29	Aspon					65.09	17.55						
30	Atraton							99.20	4.67	99.43	3.47	94.77	4.99
31	Atrazine-desethyl	99.58	1.08	91.52	2.24	89.09	4.13						
32	Atrazine-desisopropyl	141.63	24.83	96.93	8.32	66.73	8.23						
33	Azaconazole	100.76	16.62	70.88	9.87	83.96	5.36						
34	azadirachtin	89.56	22.02	87.32	8.81	91.31	5.32						
35	Azimsulfuron	107.59	15.22	84.39	7.30	89.64	8.13						
36	Aziprotryne	73.99	4.44	68.81	5.69	61.65	5.95						
37	Beflubutamid	110.12	10.37	111.28	7.22	96.08	4.52						
38	Benalaxyl	107.48	4.30	106.18	2.56	122.52	11.63						
39	Benazolin-ethyl	102.75	0.58	102.36	2.37	102.56	5.22						
40	Bendiocarb							100.07	2.47	101.28	3.26	92.40	5.13
41	Benodanil	77.90	10.89	107.76	15.00	104.39	5.91						
42	Benoxacor	107.11	0.72	103.51	2.35	102.84	3.35						
43	Bensulide					78.45	5.41						
44	Benzobicyclon	113.18	7.04	110.76	1.74	104.34	9.05						
45	Benzovindiflupyr	97.96	3.15	93.63	3.01	88.68	5.88						
46	Benzoximate	101.73	1.40	99.31	2.16	107.44	11.71					94.08	9.76
47	Benzoylprop							77.68	4.97	89.05	8.57	99.94	5.06
48	Benzoylprop-Ethyl			21.74	8.39	28.29	12.50						
49	beta-Endosulfan	108.70	3.44	101.71	2.24	102.25	7.43						
50	beta-HCH							83.51	11.08	103.89	6.46	95.42	3.44
51	Bitertanol							75.97	6.88	77.62	5.74	73.68	2.63
52	Bixafen	101.22	2.73	98.44	3.54	97.75	3.62						
53	Boscalid											101.62	5.77
54	Brodifacoum	99.83	2.80	97.90	3.15	98.14	5.14						
55	Bromacil	46.25	11.25	36.55	8.81	39.73	9.42						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
56	Bromadiolon	159.85	14.93	81.03	9.27	72.35	5.62						
57	Bromfenvinfos-Methyl					41.74	8.77						
58	Bromobutide	99.32	4.39	107.96	4.73	102.09	7.34	111.13	14.87	99.85	5.40	96.82	7.39
59	Bromophos-Methyl	101.66	2.57	100.15	2.51	100.89	4.01						
60	Bromuconazole							98.34	6.92	99.86	5.33	89.36	3.66
61	Bupirimate	104.87	8.62	91.69	8.81	96.05	6.14						
62	Butafenacil	98.48	0.71	97.97	2.95	97.11	5.24						
63	Butamifos	106.92	1.52	105.13	2.03	101.23	8.83						
64	Butocarboxim-Sulfoxide	104.84	4.56	103.56	3.16	104.86	3.85	88.88	8.09	106.71	3.52	107.32	8.27
65	Butylate	93.82	13.25	64.66	17.74	98.78	8.51						
66	Cadusafos							85.24	5.00	92.80	6.93	89.52	3.57
67	Cafenstrole	100.69	3.46	92.84	3.58	96.88	5.51	94.00	5.75	95.40	4.25	93.63	4.65
68	Carbofuran	105.30	7.57	101.47	6.70	101.85	6.88						
69	Carbofuran-3-Hydroxy	100.51	13.13	78.48	11.65	97.76	3.36					103.21	5.19
70	Carboxin					93.94	5.68						
71	Carfentrazone-ethyl	92.06	4.98	74.16	3.70	91.77	8.69						
72	Carpropamid	110.21	3.20	100.52	2.36	140.59	15.17	97.79	2.77	97.25	2.44	92.16	6.13
73	Chlorbenzuron	103.15	3.23	90.09	4.05	96.96	5.40						
74	Chlorbufam	83.14	7.29	74.69	9.53	71.40	6.98	81.82	8.43	86.10	4.99	74.54	4.93
75	Chlordimeform											105.00	8.52
76	Chlorethoxyfos			87.45	14.83	71.71	11.72					93.21	1.90
77	Chlorfenethol							88.44	5.65	88.49	4.79	93.03	3.43
78	Chlorfenvinphos							100.18	4.25	95.09	2.68	90.47	4.12
79	Chloridazon	103.44	6.70	101.86	4.99	98.41	4.86						
80	Chlorimuron-ethyl	117.76	8.67	85.72	6.98	70.75	7.71						
81	Chlormepfos	83.72	3.09	83.47	5.25	72.00	7.48						
82	Chlorphonium							95.78	5.17	94.75	6.61	97.96	4.37
83	Chlorphoxim	33.97	6.82	37.08	12.24	42.78	13.75						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
84	Chlorpropham	111.93	8.02	95.26	7.23	99.01	7.17						
85	Chlorsulfuron							93.25	7.95	95.70	2.04	94.67	5.20
86	Chlorthion	77.49	2.51	75.92	8.81	71.59	7.35					64.22	9.15
87	Chlorthiophos							92.73	11.58	97.40	6.66	88.63	5.55
88	Cinidon-Ethyl							90.21	6.91	93.62	6.54	86.31	3.89
89	cis-Diallate					27.00	37.65					107.17	9.24
90	Clodinafop							94.71	11.27	102.48	1.61	92.20	4.64
91	Clodinafop-propargyl					15.71	25.60						
92	Clofencet	98.71	2.99	98.39	3.32	94.90	9.21	97.71	2.38	101.21	2.38	92.98	6.87
93	Clomazone	24.16	19.03	23.80	9.49	17.21	13.83						
94	Clomeprop	97.32	1.54	104.11	2.99	102.06	4.06						
95	Cloransulam-Methyl	74.26	8.69	84.88	6.49	81.53	7.69						
96	Coumaphos	76.24	2.13	86.43	7.77	80.83	5.95						
97	coumaphos-oxon	93.77	1.94	80.66	6.30	86.75	6.83					58.96	12.63
98	Crimidine	99.87	2.95	94.74	4.88	92.58	3.62						
99	Crufomate							104.18	5.19	98.91	2.94	94.94	3.34
100	Cyanazine	102.44	1.02	100.30	2.30	100.74	6.24	102.28	9.37	95.89	5.02	100.75	6.98
101	Cyazofamid	101.21	3.12	95.14	1.99	97.85	6.20						
102	Cycloate	111.56	6.12	107.85	3.29	123.47	12.93						
103	Cycluron	108.69	9.87	99.02	6.40	101.61	5.49						
104	Cyenopyrafen	97.39	1.16	93.05	1.80	92.03	5.27						
105	Cyflufenamid	104.92	2.74	96.34	3.26	80.31	8.57	109.59	8.64	106.81	2.18	83.42	7.16
106	Cyhalofop-Butyl	105.55	3.34	102.58	3.73	106.15	4.24						
107	Cymiazole							88.84	3.20	97.63	3.42	91.12	2.69
108	Cymoxanil	110.11	4.23	97.05	5.26	58.15	9.17	90.33	12.73	78.77	9.63	77.14	5.41
109	Cyprazine	94.47	23.69	86.34	15.12	126.33	22.43						
110	Cyproconazole	106.36	2.71	97.92	2.41	96.45	4.91						
111	Cyprofuram	98.52	2.53	96.33	3.19	96.48	5.37						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
112	Cyromazine	111.95	2.36	103.55	3.89	96.98	6.11						
113	Daimuron	54.05	26.92	57.77	24.30	24.30	10.32						
114	DDT	103.42	2.02	102.98	2.80	101.66	6.11						
115	delta-HCH							102.72	6.38	91.07	5.74	81.78	6.62
116	Demeton-O							97.53	3.53	98.11	4.67	91.65	7.64
117	Demeton-S							71.24	8.38	76.83	7.03	65.83	7.87
118	Desethylterbutylazine							76.29	9.42	75.53	6.04	68.29	7.41
119	Desmetryn							92.68	3.34	93.05	3.56	94.95	4.80
120	Diallate	98.00	0.73	88.28	2.37	87.48	6.08	94.52	5.88	97.31	6.23	89.26	4.01
121	Diazinon	110.62	14.19	84.97	6.47	106.14	6.01						
122	Dibutyl succinate	102.44	1.18	99.95	1.71	100.25	6.24						
123	Dichlormid	72.27	31.89	67.41	49.01	82.50	25.66						
124	Diclobutrazol	111.28	17.39	78.29	8.70	98.84	10.20						
125	Diclocymet	109.15	3.31	95.89	1.72	99.31	4.68						
126	Diclosulam	130.87	53.17	98.90	27.54	100.41	8.91						
127	Dicofol	80.29	7.83	76.81	7.11	62.09	11.27						
128	Dieldrin							111.85	5.72	98.01	7.31	100.18	4.30
129	Diethyl-Ethyl							83.08	26.38	98.52	5.41	96.43	7.20
130	Diethyl Aminoethyl Hexanoate	23.57	10.07	20.11	6.46	21.86	8.06						
131	Diethyltoluamide	105.06	2.95	97.50	2.67	97.59	4.68						
132	Difenacoum	73.56	2.64	64.82	7.38	67.85	9.20						
133	Difenoconazole	98.79	1.24	87.45	2.91	88.60	5.55					86.35	5.59
134	Difenoxuron	102.72	0.89	96.24	2.04	93.96	7.56						
135	Diflufenican	103.66	11.92	94.46	8.07	83.15	4.44	96.45	6.27	88.97	3.48	81.76	3.59
136	Dimepiperate							84.79	7.32	87.88	4.12	97.41	5.55
137	Dimethachlon							106.35	4.83	98.01	2.97	99.05	7.20
138	Dimethachlor	98.39	3.33	106.27	2.35	100.06	5.32	99.89	4.93	98.59	2.41	94.11	4.59
139	Dimethametryn	98.99	1.53	97.86	2.23	96.90	6.17	91.58	6.90	100.17	2.81	90.84	6.16

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
140	Dimethenamid	109.12	2.39	100.23	4.15	100.24	5.20	100.65	2.72	97.56	3.57	90.32	4.15
141	Dimethomorph	100.82	1.98	103.97	4.54	97.43	5.21					87.32	6.37
142	Dimethylvinphos (E)	109.20	5.48	93.31	4.15	105.46	6.74	99.08	9.64	95.97	4.93	98.07	4.45
143	Dimethylvinphos (Z)	101.90	3.06	105.90	4.42	106.09	6.72						
144	Dimetilan	112.98	5.68	87.79	4.79	74.44	6.97	98.90	6.03	98.71	3.74	85.42	5.01
145	Dinitramine					101.40	7.69	92.30	9.66	98.32	4.09	92.68	6.64
146	Dioxabenzofos	132.26	5.23	98.99	7.08	99.70	5.43	94.41	3.76	92.65	3.89	95.33	3.51
147	Dioxacarb											101.28	5.52
148	Dioxathion					98.99	7.36	92.09	8.90	92.60	6.71	94.68	10.83
149	Diphenamid	97.99	1.18	103.76	2.28	102.24	5.73	96.43	5.45	97.36	4.07	98.03	3.32
150	Dipropetryn	102.86	0.91	99.72	1.83	97.86	6.53	95.75	8.73	102.16	3.59	52.35	7.56
151	Dipropyl Isocinchomeronate	101.10	1.65	99.31	2.51	97.45	5.86	94.32	7.98	96.91	4.01	87.75	4.92
152	Dithiopyr	88.84	5.28	109.86	2.98	104.21	7.39	101.56	4.59	100.08	5.07	92.61	5.33
153	DMST	76.29	5.76	106.25	11.69	106.95	6.44						
154	Dodemorph	33.27	12.08	40.53	12.61	40.80	24.99	46.01	12.41	48.64	10.76	40.47	9.55
155	Drazoxolon	42.44	12.47	32.05	18.15	16.43	7.37						
156	Endosulfan-sulfate							102.36	8.80	97.18	10.54	94.50	8.13
157	Enestroburin	95.19	5.46	90.87	5.65	93.66	10.38			87.78	8.49	86.89	8.13
158	EPN	80.60	10.02	83.14	8.37	81.66	7.40	88.31	6.29	100.85	0.80	84.44	4.55
159	Epoxiconazole	99.11	1.04	99.41	1.20	98.58	5.63	99.15	7.94	96.39	9.64	91.04	7.24
160	Eprinomectin B1b	97.70	6.87	78.28	1.88	89.10	11.15						
161	EPTC							95.11	5.65	88.95	16.62	91.16	6.32
162	Esprocarb	110.58	9.24	97.74	1.06	97.54	6.41	89.50	5.33	82.62	10.58	88.87	3.49
163	Etaconazole	100.75	3.59	100.21	2.95	98.04	5.20	88.89	4.93	97.04	5.00	85.59	5.08
164	Ethiofencarb	79.05	21.46	63.13	22.95	101.13	5.36						
165	Ethiofencarb-sulfone	122.41	8.64	80.84	15.44	81.89	8.13						
166	Ethiofencarb-sulfoxide	110.75	12.02	102.69	6.97	73.16	6.10						
167	Ethiolate							87.32	7.30	70.75	28.31	84.68	9.12

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
168	Ethofumesate							84.71	6.21	82.96	9.34	96.38	4.58
169	Ethoprophos	102.14	1.46	99.86	2.17	100.88	5.45	100.92	3.62	104.55	2.22	94.48	5.10
170	Ethoxyquin	90.83	2.93	85.60	3.14	98.43	8.59	80.56	9.69	84.28	5.55	65.53	6.07
171	ethychlozate	104.37	3.28	93.65	4.09	95.76	6.81	91.66	8.67	97.35	7.38	91.27	4.93
172	Etofenprox					98.19	8.74	96.75	6.33	80.26	2.93	79.50	3.90
173	Etoxazole	101.82	0.93	97.24	1.90	100.34	8.89	89.97	4.32	93.73	1.39	91.51	6.41
174	Etrimfos	105.26	0.91	96.47	1.90	98.50	5.56						
175	Eugenol							90.92	4.08	88.40	2.45	94.53	5.33
176	Famphur	104.20	6.72	102.10	3.43	101.50	6.04	90.67	9.57	100.71	7.26	88.57	5.33
177	Fenamidone	105.19	1.36	100.59	2.45	102.56	5.64	93.16	9.02	85.73	2.83	87.50	4.57
178	Fenamiphos	97.86	2.89	91.70	3.38	97.13	6.88	85.22	13.77	95.93	3.66	90.94	5.27
179	Fenamiphos-sulfone	108.28	2.28	95.67	2.69	97.36	5.34					95.65	6.75
180	Fenamiphos-sulfoxide	97.03	3.76	93.57	4.95	85.78	3.85					76.14	13.85
181	Fenazaquin	71.55	2.42	65.45	4.52	56.24	21.23	79.99	3.03	77.89	3.90	63.57	5.40
182	Fenchlorphos							50.64	3.22	37.30	4.78	43.67	6.87
183	Fenchlorphos-Oxon	103.97	10.37	95.62	6.06	102.65	4.78	106.85	9.59	100.14	5.01	89.93	8.08
184	Fenfuram	111.66	5.36	90.96	7.49	91.80	6.74	94.17	3.66	100.89	5.13	87.87	0.97
185	Fenhexamid	83.88	47.43	93.33	2.01	95.55	5.48					93.42	6.82
186	Fenoprop							83.91	29.36	72.21	4.65	130.72	23.78
187	Fenothiocarb	99.85	3.36	99.31	2.10	100.54	5.05	100.88	5.94	96.92	4.90	92.17	6.52
188	Fenoxaprop-Ethyl	100.19	3.45	94.14	3.26	95.56	2.80	89.02	6.46	97.52	2.05	90.60	4.74
189	Fenoxaprop-P	9.34	16.75	14.27	10.45	17.56	23.51						
190	Fenoxasulfone							84.79	5.00	94.52	3.69	92.81	3.66
191	Fenoxycarb	104.52	3.45	105.71	3.38	105.80	5.27					88.76	4.60
192	Fenpropidin	25.58	7.16	28.27	10.68	32.45	15.85	25.84	43.06	26.35	13.64	21.76	9.97
193	Fenpropimorph							71.19	9.53	68.88	3.57	60.03	6.46
194	Fenpyrazamine	113.74	5.31	91.71	3.33	101.78	5.98	85.30	3.54	86.66	6.45	81.38	4.39
195	Fensulfothion							94.52	15.74	93.12	6.87	84.23	6.79

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
196	Fensulfothion-Oxon-Sulfone	108.62	3.42	95.95	3.34	94.33	4.92						
197	Fensulfothion-sulfone							94.12	4.96	106.04	8.80	105.83	5.90
198	fentin hydroxide											89.97	19.52
199	Fentrazamide	98.33	12.08	103.81	11.32	94.68	6.93						
200	Fenuron	94.98	13.92	101.49	7.99	77.99	9.29						
201	Ferimzone	131.05	3.91	103.37	2.99	129.48	7.67						
202	Fipronil							73.08	10.14	70.98	12.98	71.33	8.20
203	Fipronil Desulfinyl							88.99	12.03	93.07	3.97	86.78	6.39
204	Fipronil-sulfide							106.14	3.23	102.00	2.90	95.16	4.99
205	Fipronil-sulfone							95.22	12.65	103.35	4.55	91.48	3.55
206	Flamprop-isopropyl	103.13	1.66	102.10	2.37	100.23	8.27	95.14	4.27	97.51	5.02	75.53	5.56
207	Flamprop-methyl							100.97	4.88	101.35	4.01	100.39	6.52
208	Flonicamid					83.21	15.57					84.10	5.62
209	Florasulam	65.66	5.11	63.63	4.63	77.68	7.19						
210	Fluacrypyrim	97.73	4.63	106.90	5.00	100.46	5.87	95.59	4.68	85.55	3.33	89.30	6.32
211	Fluazifop	25.50	4.67	26.28	13.22	25.73	16.28						
212	Fluazifop-butyl	106.76	2.24	98.86	2.38	92.31	7.22	95.76	5.97	101.32	3.99	95.55	6.00
213	Fluazuron	99.18	8.56	89.36	4.25	69.61	8.91						
214	Flubenzimine	14.07	30.42	18.18	7.75	3.69	31.15						
215	Flucarbazone	11.46	9.94	13.13	24.71	22.39	26.41						
216	Flucetosulfuron	70.13	3.56	76.98	4.89	58.98	7.22						
217	Flucycloxuron	52.76	8.91	46.15	6.87	51.53	6.55						
218	Fluensulfone							95.95	6.07	98.39	2.95	96.24	5.87
219	Flufenacet	104.67	2.24	105.07	3.68	108.01	4.99	102.18	6.29	89.36	4.66	99.79	5.75
220	Flufenoxuron	107.86	14.87	87.12	20.76	103.39	6.36	81.20	13.65	101.62	8.30	92.25	7.61
221	Flufenpyr-Ethyl	101.91	3.65	101.54	1.83	103.09	4.42						
222	Flufiprole	114.59	10.11	93.61	15.02	96.58	8.90	100.60	8.96	92.16	9.57	106.31	8.17
223	Flumetralin					100.00	28.51	77.97	15.38	99.52	12.20	90.08	5.54

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
224	Flumetsulam	77.46	6.87	73.18	2.54	64.44	6.17						
225	Flumiclorac-Pentyl	107.53	5.82	93.54	4.16	81.04	7.29						
226	Flumioxazin					87.25	8.00					101.32	8.47
227	Fluopyram	102.54	2.05	102.07	1.94	101.31	5.11	94.44	3.05	96.35	4.10	96.71	4.01
228	Fluoroglycofen-ethyl			93.68	9.62	90.24	19.15						
229	Fluotrimazole							98.49	5.63	89.82	4.42	83.40	5.60
230	Fluquinconazole	99.98	8.15	98.82	4.04	101.11	6.71	87.99	3.61	101.64	4.29	94.15	2.24
231	Flurochloridone	80.76	17.74	91.92	10.03	93.93	9.55	93.83	5.80	94.36	5.55	95.47	8.72
232	fluroxypyr-meptyl	77.14	10.32	56.37	8.43	68.85	10.25	93.81	3.38	93.82	6.40	87.48	6.66
233	Flurprimidol	82.69	55.00	99.44	3.06	100.65	5.78	99.73	4.98	100.15	1.79	92.74	4.96
234	Flusilazole	101.47	6.23	99.71	4.67	101.54	5.89	100.60	4.55	95.63	2.20	96.34	6.11
235	Flutolanil	108.05	1.70	102.82	1.08	103.78	5.63	93.36	4.97	103.24	5.25	101.53	5.88
236	Flutriafol	104.23	5.17	94.96	1.58	100.39	5.34	89.13	11.65	99.32	1.94	92.18	7.18
237	Fluxapyroxad	104.62	2.19	106.67	2.58	104.40	3.70	95.31	2.08	95.53	0.82	99.96	5.61
238	Fonofos	110.28	22.98	110.92	8.54	92.05	6.80	95.37	3.74	92.05	4.52	85.63	7.03
239	Foramsulfuron	62.16	5.25	57.53	6.56	46.71	5.39						
240	Formetanate	81.90	52.70	146.60	23.73	21.18	16.67						
241	Fuberidazole	82.75	3.86	79.55	3.29	63.85	7.68					67.08	7.07
242	Furalaxyl	104.39	1.34	101.86	2.35	100.40	5.21	29.31	11.46	31.45	9.55	35.58	5.51
243	furametpyr							93.51	5.89	78.25	5.25	92.37	4.42
244	Furathiocarb	103.14	2.40	98.30	2.74	80.70	9.93	98.37	4.04	96.48	2.36	84.19	5.29
245	Furilazole							92.38	10.11	84.21	7.85	87.63	7.14
246	Furmecyclox	93.72	3.80	85.93	3.06	68.09	7.82	77.15	8.54	77.24	7.57	46.15	4.98
247	Griseofulvin	104.65	1.57	97.10	1.75	96.91	5.86	81.83	5.51	87.33	3.83	96.28	8.67
248	Halofenozide	105.03	3.24	104.58	3.49	105.21	5.76						
249	Halosulfuron-methyl	57.18	3.25	56.38	10.81	54.55	10.85						
250	Haloxypop			18.01	21.42	14.66	31.82	96.76	6.28	95.34	5.75	94.06	6.27
251	Haloxypop-2-ethoxyethyl	109.27	4.06	98.70	2.17	102.34	5.31	100.53	1.22	97.62	0.97	92.25	5.32

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
252	Haloxypop-methyl	101.54	7.96	103.41	1.90	87.51	6.19					94.06	6.27
253	Hexazinone	106.76	1.69	93.18	3.41	99.26	4.40			91.83	6.69	81.15	4.92
254	Hydroprene					100.55	8.45						
255	Imazamethabenz-methyl	104.56	1.57	95.30	1.94	93.78	5.76	84.21	10.53	80.49	7.18	90.47	6.81
256	Imazosulfuron	55.88	4.38	63.22	8.97	57.89	8.71						
257	Imibenconazole	83.17	2.50	78.27	2.81	74.63	5.55						
258	Imicyafos	99.09	4.38	91.65	6.03	96.91	4.08						
259	Imidaclothiz	125.42	27.04	87.10	4.33	77.20	8.40						
260	Imiprothrin	107.78	5.33	97.22	3.34	96.53	4.75						
261	Inabenfide	56.41	3.36	54.33	4.36	60.69	6.80						
262	Indanofan	112.73	9.26	102.18	7.24	105.73	3.35	97.50	5.37	102.61	2.37	98.01	5.92
263	Indaziflam							86.06	8.50	97.94	2.26	84.60	6.24
264	Iodofenphos							87.51	26.07	99.82	6.99	90.92	5.33
265	Iodosulfuron-methyl	43.37	6.75	50.53	11.29	49.25	9.61						
266	Ipconazole	99.82	5.25	96.52	4.84	106.68	7.07			91.09	16.92	90.62	4.48
267	Ipfencarbazone											91.22	7.29
268	Iprodione					101.00	9.68	103.56	7.35	89.23	10.12	89.48	5.40
269	Isazofos	105.24	0.75	104.32	2.97	99.89	5.55	95.65	7.31	97.11	2.89	93.90	3.97
270	Isocarbamid	101.85	10.02	86.21	5.47	80.14	4.94	92.93	9.00	94.67	2.08	86.96	6.94
271	isocarbophos							92.16	2.42	93.79	6.26	92.95	5.56
272	Isofenphos-Methyl					88.97	3.80	98.18	3.96	98.39	2.82	97.42	4.60
273	Isomethiozin	86.32	1.86	83.73	2.89	77.11	5.63	77.15	7.22	75.04	4.14	72.75	3.94
274	Isoprocarb	96.74	10.19	94.27	15.28	87.78	8.27	86.63	7.33	96.34	5.73	92.34	4.82
275	Isopropalin	135.84	12.28	87.08	7.34	73.91	11.15	93.83	7.54	100.29	5.18	90.10	3.87
276	Isoprothiolane	105.53	1.76	105.43	2.64	102.79	5.37	92.60	8.21	102.21	4.24	98.37	6.86
277	Isoproturon	105.45	1.03	96.91	1.86	97.35	4.73						
278	Isopyrazam							86.53	6.08	96.78	3.94	92.46	7.40
279	Isoxadifen-ethyl	104.69	2.14	86.28	3.53	97.21	9.96	85.55	7.35	97.79	3.80	86.71	4.86

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
280	Isoxaflutole					87.50	6.86	91.32	7.56	83.71	9.77	75.96	6.26
281	Karbutilate	103.90	1.70	100.56	2.04	97.29	5.57						
282	Lenacil											77.68	1.79
283	Lindane							98.13	6.57	104.41	4.05	107.33	6.16
284	Maleic hydrazide	142.52	3.00	97.87	3.76	119.38	7.16						
285	MCPA-2-ETHYLHEXYL ESTER							100.20	2.72	86.38	5.38	88.48	4.38
286	MCPA-isooctyl							99.44	8.73	92.49	5.48	88.96	4.80
287	Mecarbam							114.01	8.27	100.42	2.98	100.69	5.70
288	Mefenacet	100.42	0.83	99.67	2.50	97.84	6.04	82.88	9.11	87.56	7.40	88.10	6.07
289	Mefenpyr-diethyl	106.29	0.83	106.09	1.78	99.63	5.36	104.46	6.78	96.03	2.08	94.39	4.75
290	Mepanipyrim	66.19	21.06	66.04	9.29	64.06	9.10	80.01	6.19	96.49	7.22	58.32	4.41
291	Mepronil	104.60	1.92	102.35	2.39	101.25	4.53	91.75	5.71	95.16	3.04	96.32	3.59
292	Metaflumizone	61.78	9.13	69.43	14.58	55.80	12.12						
293	Metalaxyl	105.20	2.68	96.98	1.65	98.25	4.65	40.02	4.17	32.29	9.67	46.12	7.14
294	Metamifop	91.87	1.88	88.65	3.11	87.33	5.36						
295	Metamitron	119.23	4.79	69.29	11.28	79.49	9.51						
296	Metazachlor	102.89	3.50	105.77	3.66	98.80	10.99					101.86	6.94
297	Metconazole	100.96	3.63	90.31	8.47	92.65	4.02	97.53	11.46	97.78	3.89	87.54	4.14
298	Methabenzthiazuron	94.70	4.92	76.40	5.56	74.95	4.54					92.13	4.53
299	Methacrifos							109.17	2.81	94.24	5.74	94.29	4.62
300	Methamidophos	94.10	7.41	77.92	7.34	65.83	9.99	93.71	8.90	89.35	5.42	86.45	8.67
301	Methfuroxam	94.37	3.78	83.64	3.15	58.24	11.82	90.24	9.49	90.10	5.42	59.84	5.42
302	Methoprotryne	97.57	1.52	95.01	2.72	92.94	6.11	86.62	3.50	103.31	2.42	90.64	3.75
303	Metobromuron	102.32	3.12	104.87	3.97	97.18	4.65					99.57	11.28
304	Metrafenone							77.77	4.57	97.71	4.13	89.95	4.34
305	Metribuzin	136.73	5.21	109.85	4.66	96.68	6.15	103.98	4.06	102.54	2.42	114.84	4.79
306	Metsulfuron-Methyl	79.67	4.93	74.36	5.55	70.79	8.13						
307	Mexacarbate	106.01	5.21	91.29	10.99	74.68	8.64	97.65	5.45	94.64	3.09	92.24	4.79

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
308	Molinate	94.91	7.24	98.85	8.38	102.83	7.53	98.61	4.47	101.64	2.36	88.67	1.55
309	Monalide	106.59	3.18	101.06	2.60	103.46	3.90	93.81	3.43	100.08	0.74	96.25	4.57
310	Monocrotophos	106.77	9.24	82.98	5.53	74.79	4.76					78.79	8.56
311	Monolinuron	120.08	5.32	96.17	5.18	95.85	4.94					110.59	6.04
312	Monuron	106.57	2.70	88.90	2.72	89.15	5.12						
313	Musk Ketone							95.20	7.09	98.93	6.84	96.60	3.96
314	Musk Moskene							96.69	3.52	95.71	3.90	87.61	2.79
315	Musk Tibetene							93.36	6.98	94.90	4.20	90.34	3.18
316	Myclobutanil	97.29	3.71	100.55	2.97	102.66	5.09	91.91	1.24	94.26	2.96	100.10	8.55
317	Naphthalophos	58.47	4.75	57.51	6.43	55.06	7.62						
318	Neburon	98.07	0.73	94.38	2.50	97.75	5.52						
319	Nitrapyrin							98.00	7.22	90.44	9.98	94.46	1.25
320	Nitrofen							84.62	5.15	102.43	7.58	93.83	6.29
321	Nitrothal-Isopropyl							95.76	10.44	96.79	5.00	88.91	6.31
322	Norflurazon	104.05	1.29	96.39	2.33	95.56	5.98	96.62	7.38	104.26	4.03	95.49	7.54
323	Noruron	94.89	9.03	112.11	9.68	96.84	15.72					92.12	7.05
324	Novaluron					118.10	9.95	76.29	63.53	97.63	39.83	70.63	34.67
325	Noviflumuron							84.78	5.43	96.36	3.74	87.95	6.29
326	Nuarimol	98.25	7.75	103.82	12.17	94.21	10.33	98.77	9.55	94.02	11.55	92.20	3.59
327	Octhilineone							19.40	20.08	14.94	15.83	10.14	7.63
328	Ofurace	104.46	2.20	97.99	3.33	100.08	3.36					87.89	7.26
329	Orbencarb	107.93	1.47	101.76	3.44	99.76	5.35	85.14	2.84	98.84	5.87	90.25	5.73
330	Ortho-Dichlorobenzene							91.28	11.64	76.63	28.47	108.23	8.30
331	Orysastrobins							96.29	4.79	99.24	0.95	94.72	4.95
332	Oxadiargyl			89.33	19.84	80.00	7.72						
333	oxadiazon			82.48	16.63	80.66	14.74	97.98	2.91	98.64	2.97	95.58	6.18
334	Oxadixyl	106.21	1.65	99.47	3.07	94.63	5.62					80.80	12.93
335	Oxasulfuron	89.27	3.75	82.94	1.72	67.35	6.53						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
336	Oxycarboxin	115.22	12.05	98.46	6.55	91.05	8.76						
337	Oxyfluorfen					62.50	9.32	99.05	5.47	97.74	6.10	92.33	5.20
338	parathion							87.49	12.68	103.39	4.58	95.52	5.97
339	Parathion-Methyl							103.13	6.54	96.23	3.08	92.41	5.36
340	Pebulate	96.14	6.39	95.03	9.89	94.87	7.96	86.43	6.67	93.36	6.56	90.31	2.17
341	Penconazole	98.57	3.44	96.47	7.96	94.33	6.53	93.23	2.30	94.35	5.09	95.84	6.69
342	Penflufen	103.89	1.27	97.83	2.16	99.38	5.99						
343	Penoxsulam	76.97	1.42	88.00	4.31	85.75	6.84						
344	Pentanochlor	107.40	2.91	100.54	2.84	94.34	5.83	96.31	6.14	96.56	4.95	90.58	5.27
345	Penthiopyrad							90.81	2.68	101.88	2.15	97.44	4.44
346	Pentoxazone							90.45	5.97	97.86	2.69	92.18	5.65
347	Pethoxamid	105.46	2.56	102.15	3.10	101.54	5.97	11.21	56.56	12.83	12.11	29.86	9.88
348	Phenothrin							95.80	4.61	81.92	1.91	84.99	3.23
349	Phorate							95.00	2.63	84.34	5.14	93.91	3.32
350	Phorate-Sulfone	112.31	5.16	106.34	5.25	107.33	6.54	99.46	2.10	100.49	6.27	92.61	7.72
351	Phorate-Sulfoxide	111.84	2.75	105.18	2.69	102.36	3.86	104.84	7.77	94.47	5.44	99.50	6.65
352	Phosfolan	101.28	2.01	95.30	2.50	86.33	4.53	98.18	8.38	104.26	3.12	91.43	6.73
353	Phosfolan-Methyl	99.45	3.07	88.55	5.07	79.03	5.61						
354	Phosphamidon	101.87	1.32	99.83	3.48	98.45	4.12	94.23	9.64	98.78	6.41	85.92	6.59
355	Phthalic Acid, Benzyl Butyl Ester	103.11	10.32	90.78	3.09	104.39	3.34						
356	Phthalic Acid, Bis-Butyl Ester	107.19	3.59	97.37	4.56	93.11	7.21						
357	Phthalide							85.99	6.89	90.06	4.26	84.23	5.54
358	Picolinafen	92.25	4.98	83.47	3.08	85.06	3.79	76.37	5.20	87.48	5.50	79.64	5.49
359	Piperalin	21.36	6.33	22.07	12.90	26.54	15.70	36.14	13.12	30.97	5.96	28.35	9.05
360	Pirimiphos-methyl-N-desethyl	102.81	1.58	97.63	1.60	95.86	8.67	79.96	6.25	84.48	8.01	74.00	8.65
361	Plifenate							114.18	9.59	92.49	4.79	101.36	7.24
362	Primisulfuron-Methyl	76.75	5.97	78.28	6.86	67.89	8.59						
363	Prodiamine							90.63	6.58	83.65	7.86	95.56	4.67

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
364	Profluralin							85.09	8.21	103.73	6.63	88.24	3.42
365	Profoxydim	70.71	9.47	63.95	6.61	101.87	16.85	86.27	6.84	96.81	3.96	79.68	4.67
366	Promecarb	94.72	14.33	99.60	3.51	107.06	3.83	92.84	5.03	92.40	5.74	99.55	6.02
367	Prometon	99.22	0.65	92.73	2.16	92.20	4.70	84.49	8.21	88.53	6.56	94.97	4.83
368	Prometryn	102.63	1.34	97.76	2.58	97.93	6.23	92.53	5.60	81.62	5.76	84.72	8.18
369	Propachlor	93.95	7.93	114.97	10.60	95.55	17.95					85.87	5.49
370	Propaquizafop	88.56	3.24	87.48	3.34	83.74	3.34						
371	Propazine	105.82	4.24	100.35	5.88	90.25	10.78	93.70	3.65	96.76	5.20	97.53	4.52
372	Propisochlor	99.00	3.70	98.43	2.96	120.13	10.96	77.92	2.30	85.90	1.08	76.99	2.93
373	Propyzamide	99.65	4.23	93.03	3.18	102.14	5.18	94.87	5.14	97.30	0.99	95.28	6.03
374	Proquinazid	66.13	3.30	57.77	5.89	48.51	12.07						
375	Prosulfocarb	105.74	6.09	100.53	2.55	100.49	4.80	91.91	2.83	94.46	2.22	85.75	5.31
376	Prosulfuron	72.51	3.83	71.35	5.91	65.19	7.95						
377	Prothioconazole	63.20	23.16	42.59	8.00	53.69	11.90						
378	Prothioconazole-desthio							95.23	5.11	100.83	2.81	91.09	5.05
379	Prothiofos	103.55	31.48	105.65	21.82	102.50	10.39	92.64	7.92	96.27	5.86	90.61	6.02
380	Prothoate	91.80	2.07	101.35	1.74	104.90	5.45						
381	Pyracarbolid	104.67	2.61	97.45	3.29	91.14	5.96					92.08	5.70
382	Pyraclufos	93.42	1.54	91.64	3.27	89.58	6.49						
383	Pyraflufen			12.07	22.61	9.73	59.83						
384	Pyraflufen-Ethyl	106.20	1.64	100.75	2.00	106.56	8.55						
385	Pyrametostrobin	98.18	1.61	96.92	2.79	95.45	6.30						
386	Pyraoxystrobin	91.44	1.02	86.74	3.64	84.73	6.62						
387	Pyrazosulfuron-Ethyl	79.92	3.89	75.69	6.56	71.46	6.90						
388	Pyrazoxyfen	105.88	1.24	98.97	2.61	98.56	4.23						
389	Pyribenzoxim					83.09	7.22						
390	Pyributicarb	107.63	1.23	98.11	1.93	101.53	5.55	94.75	4.79	97.87	1.76	89.67	5.23
391	Pyridaphenthion	99.56	2.98	96.14	4.42	99.69	5.10	98.05	4.22	99.75	4.06	91.08	4.82

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
392	Pyrifthalid	101.91	2.45	101.67	2.45	99.24	6.13	96.73	3.37	95.41	3.32	98.29	3.16
393	Pyrimethanil	63.87	5.30	63.50	5.52	64.15	8.19	81.50	10.69	76.02	3.27	59.77	5.78
394	Pyrimitate	103.79	1.56	99.27	1.85	95.83	5.56						
395	Pyrimorph							93.06	6.07	94.47	5.38	96.32	2.78
396	Pyriofenone							95.51	2.42	99.05	5.16	87.74	4.78
397	Pyriproxyfen	101.58	2.71	90.94	2.27	84.18	6.35	97.25	4.28	92.69	5.55	82.67	6.33
398	Pyrisoxazole	90.45	4.25	86.39	4.21	82.53	5.58						
399	Pyrithlobac	5.23	34.72	7.84	26.41	12.05	31.84						
400	Pyroquilon	95.36	2.92	93.23	4.39	86.85	5.07	87.02	2.86	91.16	2.39	85.92	4.14
401	Quinoclamine	84.82	9.52	80.28	5.58	83.33	9.51						
402	Quinoxifen	76.46	4.59	71.16	4.43	70.70	5.00	75.25	6.61	77.74	4.15	64.94	1.42
403	Quizalofop	8.98	33.74	15.13	16.17	17.34	18.83						
404	Quizalofop-Ethyl	94.24	3.37	88.79	5.46	90.99	3.21	86.38	11.70	93.93	9.65	92.44	8.23
405	Rabenzazole	82.76	1.75	74.70	3.21	75.45	4.26	81.89	5.97	92.50	4.72	79.24	6.78
406	Resmethrin	96.57	7.85	105.34	11.55	105.71	7.77	88.94	2.90	82.95	9.03	77.91	6.95
407	Schradan							70.27	6.86	82.93	11.24	87.60	8.69
408	Sebuthylazine	92.07	3.84	99.07	2.32	102.13	5.69	91.39	3.96	98.71	3.82	90.97	4.32
409	Sebuthylazine-desethyl	98.25	9.38	95.69	3.87	108.88	6.83	90.92	6.06	98.51	3.20	90.53	5.41
410	Secbumeton	99.08	0.66	92.72	2.12	92.24	4.66	80.50	7.93	89.34	6.73	86.61	9.79
411	Sedaxane	103.15	4.28	100.53	4.45	100.51	7.21					90.31	13.27
412	Siduron	108.91	2.23	102.54	2.63	99.74	6.62						
413	Silthiofam	104.89	1.35	98.03	2.47	102.31	4.95	97.62	3.88	100.66	2.47	94.09	4.69
414	Simazine	100.23	5.28	87.94	3.82	91.04	5.78	103.37	2.58	94.70	5.76	89.21	9.39
415	Simeconazole							98.36	5.21	91.07	1.57	91.77	2.88
416	Simeton	95.94	1.99	80.25	4.21	72.06	9.04	89.27	5.45	84.87	7.85	81.24	5.32
417	Simetryn	98.00	0.73	88.28	2.37	87.48	6.08	92.34	14.46	84.87	6.79	89.54	3.55
418	Spirodiclofen	103.79	13.20	89.10	5.50	100.71	13.19					95.10	3.30
419	Spiromesifen	104.16	4.12	91.56	3.13	86.60	6.28	94.82	5.93	97.25	3.07	81.97	7.11

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
420	Spirotetramat	97.30	2.89	94.59	2.49	85.96	8.69						
421	Spirotetramat-enol-glucoside			30.25	45.99	39.64	17.72						
422	Spirotetramat-keto-hydroxy	100.60	7.47	93.11	3.05	90.45	5.01						
423	Spirotetramat-mono-hydroxy	99.98	7.95	93.70	4.68	96.15	2.51					105.61	24.53
424	Spiroxamine	28.97	6.77	26.00	13.11	29.60	14.92	27.29	32.96	25.00	8.39	27.20	6.81
425	Sulfallate							86.50	8.12	93.64	5.29	88.00	3.81
426	Sulfluramid							90.24	10.84	94.09	12.99	92.03	2.80
427	Sulfometuron-Methyl	90.44	2.79	87.67	5.08	73.56	6.97						
428	Sulfosulfuron	59.04	7.51	61.49	9.03	51.44	8.03						
429	Sulfotep	111.29	2.57	104.40	2.78	103.19	4.95	97.48	6.01	95.43	4.08	91.96	4.16
430	Sulprofos	108.92	9.87	89.77	5.03	109.76	4.61						
431	TCMTB	86.64	5.68	84.78	2.54	71.49	8.71	89.83	9.29	74.27	5.23	49.54	5.78
432	Tebufenpyrad	97.30	4.21	97.51	3.30	97.51	4.47	89.80	5.00	93.31	2.45	90.01	3.85
433	Tebupirimfos	104.85	3.41	93.66	2.40	91.71	6.64	96.40	4.74	95.80	3.26	89.86	4.03
434	Tebutam	101.06	3.09	101.58	2.82	101.95	6.25	98.59	3.87	93.90	3.42	93.39	4.72
435	Tebuthiuron	96.94	14.44	96.21	7.03	107.25	2.59	96.95	5.87	101.32	5.93	77.52	9.07
436	Teflubenzuron							98.93	6.52	95.86	2.73	98.23	10.10
437	Tembotrione	25.55	3.26	26.52	13.18	27.93	13.93						
438	Temephos	119.57	4.01	90.82	4.24	97.95	5.71						
439	Terbacil							89.85	6.94	99.90	5.64	93.09	5.46
440	Terbucarb	102.04	3.72	102.63	4.61	102.55	6.40	103.16	5.60	99.45	3.32	88.53	5.68
441	Terbufos							86.01	2.70	91.90	4.18	92.75	2.82
442	Terbufos-Sulfone	107.54	4.30	101.97	4.10	105.49	5.00	97.72	2.38	105.63	4.59	97.25	4.87
443	Terbufos-Sulfoxide	108.88	4.95	110.96	6.77	96.45	5.08						
444	Terbumeton	99.36	1.00	95.61	3.01	95.85	4.77	96.65	5.74	89.04	5.08	90.04	6.84
445	Terbuthylazine	104.27	2.39	95.99	3.96	95.98	5.93	96.81	4.52	92.30	1.92	91.86	4.35
446	Terbutryn	102.72	1.51	98.38	3.10	95.64	6.10	93.59	6.29	78.40	6.35	87.46	4.81
447	Tetraconazole	113.65	5.04	106.83	5.52	100.19	4.43	101.44	2.44	95.13	3.27	98.23	6.58

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
448	Tetrasul							77.27	7.00	74.24	5.82	69.15	3.35
449	Thenylchlor	103.62	3.33	102.17	1.66	104.03	4.58	98.12	3.45	107.04	2.93	91.59	5.36
450	Thiazafluron	109.18	5.18	92.31	5.47	86.21	7.08						
451	Thiazopyr	106.27	0.82	100.78	0.92	101.38	5.09	89.28	9.74	104.48	4.99	97.62	2.88
452	Thifluzamide			127.98	21.03	125.72	8.07	91.91	2.97	100.49	3.52	97.03	7.33
453	Thiobencarb	108.99	10.49	170.82	88.54	97.42	7.31					90.83	8.08
454	Thiodicarb	78.95	4.00	59.68	9.09	40.03	12.76						
455	Thiofanox											92.65	7.33
456	Thiofanox-Sulfone			75.83	19.80	80.65	5.85						
457	Thiometon							74.25	3.90	69.86	5.18	63.78	9.28
458	Thionazin	104.81	4.91	106.57	5.21	94.19	8.81						
459	Tiadinil	71.89	26.43	101.74	15.86	86.48	8.68						
460	Tiocarbazil	102.83	5.61	83.50	2.58	78.24	12.77	102.63	8.59	89.53	3.29	90.27	4.08
461	Tolclofos-Methyl	102.88	7.77	117.59	11.99	89.56	7.53	93.90	5.77	96.14	3.86	90.75	2.65
462	Tolfenpyrad	105.31	2.85	98.54	3.35	92.33	3.55					83.29	6.96
463	trans-Diallate							90.43	6.79	94.33	5.85	87.88	8.29
464	triallate	114.57	10.28	97.69	11.16	99.21	7.70	96.32	11.91	95.59	5.16	89.05	3.74
465	Triamiphos	94.05	2.41	90.44	2.75	89.09	4.42	84.72	4.89	96.15	3.40	97.97	6.61
466	Triapenthenol	107.05	2.23	96.41	3.01	101.14	5.29	95.82	3.07	94.67	3.77	90.32	5.18
467	Triasulfuron	94.84	1.17	88.80	3.06	82.05	6.47						
468	Tribufos	96.71	6.38	81.82	2.51	87.25	5.70	102.46	7.64	102.61	3.86	89.87	6.33
469	Trichloronat							97.07	4.47	92.35	4.63	89.00	4.63
470	Triclopyricarb	98.82	11.16	90.21	9.19	75.93	9.25						
471	Trietazine	105.99	2.60	98.18	2.73	99.33	4.88	99.76	4.06	95.27	3.09	91.85	2.84
472	Trifloxystrobin	109.99	2.89	100.89	1.72	102.10	4.00	78.77	40.62	94.93	4.80	93.65	5.40
473	Triflumizole	98.47	2.30	93.65	2.69	93.70	6.61	95.16	1.72	99.60	6.77	98.27	5.66
474	Trifluralin							97.52	4.95	95.40	4.02	89.69	2.87
475	Triflusulfuron-Methyl	97.93	7.36	89.85	5.16	76.79	8.25						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
476	Tri-Isobutyl Phosphate	101.92	2.68	101.07	0.93	105.09	6.73	96.53	4.89	96.40	4.70	101.49	4.51
477	Trinexapac-Ethyl	87.82	10.33	76.67	2.68	71.06	7.41						
478	Triticonazole		3.97	76.03	2.36	90.28	7.15	77.77	4.86	96.00	10.41	87.67	8.77
479	Tritosulfuron	40.36	35.90	54.81	23.02	64.21	14.69						
480	Uniconazole	99.62	3.57	91.60	1.25	95.31	4.49	94.89	7.80	94.59	4.43	90.77	4.84
481	Vernolate	92.69	7.84	91.78	10.17	92.77	8.17	82.87	4.97	95.21	6.64	99.70	4.56
482	Zoxamide	100.95	5.12	100.25	1.75	99.95	5.11	71.13	4.32	73.78	4.98	77.34	7.73

Supplemental Table 4 Recovery and precision data for 482 pesticide residues in *Radix Codonopsis* using manual QuEChERS procedure (n= 5)

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
1	1,4-Dimethylnaphthalene							83.52	9.30	90.60	5.96	85.95	3.84
2	1-Naphthyl Acetamide			89.64	9.69	87.87	4.53						
3	2,3,4,5-Tetrachloroaniline							73.49	8.03	84.09	7.32	77.49	7.04
4	2,4'-DDT							78.69	12.84	87.05	4.69	85.83	3.56
5	2,4-D-ethylhexyl							83.84	12.82	89.83	5.11	88.98	3.46
6	2,4'-Dicofol							90.73	10.16	95.63	7.11	95.85	3.22
7	2,6-Dichlorobenzamide			120.06	13.82	87.09	4.42						
8	3,4,5-Trimethacarb	102.91	8.87	92.46	6.30	100.19	5.15						
9	4,4'-DDD							84.18	9.17	93.98	7.40	87.98	4.42
10	4,4'-DDE							81.90	5.22	84.98	5.20	85.79	2.26
11	4-Bromo-3,5-Dimethylphenyl-N-Methylcarbamate							85.21	9.05	93.90	9.74	92.76	4.22
12	4'-Chloro-2,2,2-trifluoroacetophenone							66.16	10.71	73.96	7.34	76.61	7.00
13	6-Isopentenyl aminopurine							87.29	3.98	89.75	3.75	85.27	3.51
14	Acibenzolar-S-methyl	11.06	17.79	11.54	19.52	10.67	9.86						
15	Akton							99.75	5.13	85.17	7.17	76.81	4.07
16	Aldicarb-sulfone	98.41	12.70	92.42	10.21	79.30	6.16	92.17	5.53	97.42	3.37	94.37	2.26
17	Aldicarb-sulfoxide	96.82	6.24	92.75	8.19	94.63	3.41	81.24	12.28	85.41	4.52	93.92	3.37
18	Aldrin					87.02	12.08						
19	Allidochlor							89.40	4.79	86.21	2.42	85.87	3.15
20	alpha-Endosulfan	98.17	5.81	83.95	8.86	79.09	4.90						
21	alpha-HCH							84.72	3.96	91.94	6.06	92.09	2.15
22	Ametryn							94.11	4.69	105.87	7.82	98.32	4.32
23	Amidosulfuron	90.20	3.25	90.02	5.76	84.69	3.69						
24	Aminocarb	41.83	6.88	41.30	7.46	40.53	5.66					54.75	6.12
25	Ancymidol	89.98	3.81	93.27	3.19	91.88	2.55						
26	Anilofos	97.84	6.69	94.04	4.42	88.46	2.87						
27	Anthraquinone	96.86	3.44	100.16	5.49	91.90	3.00						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
28	Aramite							66.26	13.27	89.00	11.22	66.80	3.73
29	Aspon					81.37	14.80						
30	Atraton							91.44	3.83	94.12	4.26	93.13	2.80
31	Atrazine-desethyl	86.06	3.70	86.90	3.98	83.19	3.48						
32	Atrazine-desisopropyl	90.68	19.81	85.34	16.62	80.80	5.45						
33	Azaconazole	83.82	16.01	79.29	8.11	87.78	5.95						
34	azadirachtin	81.17	21.81	83.26	5.74	79.27	3.28						
35	Azimsulfuron	106.73	9.21	93.99	4.11	86.67	3.80						
36	Aziprotryne	59.23	6.48	59.33	8.93	56.85	5.91						
37	Beflubutamid	101.55	5.89	86.29	7.73	91.20	3.25						
38	Benalaxyl	95.70	3.51	97.85	4.38	93.77	3.90						
39	Benazolin-ethyl	95.38	3.29	98.64	6.24	92.97	4.01						
40	Bendiocarb							90.45	10.62	88.92	8.42	92.12	3.14
41	Benodanil	87.35	8.26	100.12	3.97	95.94	6.54						
42	Benoxacor	98.90	2.91	99.88	4.71	97.60	2.58						
43	Bensulide			89.63	18.00	73.56	6.27						
44	Benzobicyclon	104.89	6.05	105.26	7.38	97.33	4.38						
45	Benzovindiflupyr	80.18	6.54	82.09	10.65	81.84	7.13						
46	Benzoximate	98.74	3.15	97.71	5.20	90.63	3.66			82.28	8.14	100.97	6.14
47	Benzoylprop							95.13	17.63	101.39	10.24	106.29	1.72
48	Benzoylprop-Ethyl			12.67	46.04	16.58	14.52						
49	beta-Endosulfan	105.20	2.94	100.58	4.73	94.04	3.63						
50	beta-HCH							98.05	4.80	98.05	9.04	94.50	4.13
51	Bitertanol							95.26	5.10	97.64	8.40	91.78	3.83
52	Bixafen	94.39	10.33	88.64	7.53	90.28	3.76						
53	Boscalid									79.65	6.62	87.30	7.17
54	Brodifacoum	88.28	6.01	89.49	7.47	93.43	4.07						
55	Bromacil	27.15	15.18	28.83	10.29	24.81	7.59						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
56	Bromadiolon	77.84	8.02	91.30	8.31	89.61	3.45						
57	Bromfenvinfos-Methyl	41.89	39.64	28.27	18.98	31.14	7.72						
58	Bromobutide	79.86	5.72	97.59	4.48	91.52	4.37	93.41	22.31	100.16	6.96	99.26	3.97
59	Bromophos-Methyl	104.74	4.62	101.77	5.83	94.00	3.59						
60	Bromuconazole							85.73	12.14	90.08	7.50	88.71	4.19
61	Bupirimate	93.75	4.84	92.04	4.35	86.40	2.70						
62	Butafenacil	91.12	3.72	94.42	4.98	90.37	3.75						
63	Butamifos	96.09	4.23	100.79	6.16	92.76	4.50						
64	Butocarboxim-Sulfoxide	102.53	4.17	105.48	5.80	92.80	2.25	90.49	7.96	117.37	7.63	109.43	7.04
65	Butylate	104.81	15.77	74.74	9.54	74.37	6.80						
66	Cadusafos							99.88	12.84	89.53	7.18	88.74	1.74
67	Cafenstrole	93.74	5.06	95.87	4.29	87.59	3.57	94.45	8.23	90.45	5.05	97.45	3.35
68	Carbofuran	93.11	5.67	100.87	7.66	95.74	6.70						
69	Carbofuran-3-Hydroxy	98.10	14.65	99.81	4.64	92.54	1.37						
70	Carboxin					94.70	4.40						
71	Carfentrazone-ethyl	83.63	3.19	85.13	3.99	80.37	1.58						
72	Carpropamid	96.14	4.86	98.68	5.67	92.00	4.06	86.96	9.88	98.74	10.29	100.76	4.20
73	Chlorbenzuron	96.21	4.87	94.70	4.46	92.83	2.80						
74	Chlorbufam	66.07	6.68	66.44	4.46	63.18	4.58	76.71	8.54	78.38	9.31	73.44	3.03
75	Chlordimeform									82.84	4.10	95.57	8.81
76	Chlorethoxyfos					14.52	36.53					95.30	10.93
77	Chlorfenethol							91.08	6.43	107.34	4.06	93.77	3.98
78	Chlorfenvinphos							87.52	10.74	89.06	9.71	98.63	2.34
79	Chloridazon	91.77	9.93	99.23	6.60	91.19	6.00						
80	Chlorimuron-ethyl	98.76	3.85	78.52	6.07	71.93	3.84						
81	Chlormephos	73.54	6.32	71.24	11.64	73.62	6.79						
82	Chlorphonium							93.26	8.61	94.95	4.60	98.66	3.43
83	Chlorphoxim	25.83	7.93	25.88	14.65	24.08	9.57						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
84	Chlorpropham	117.27	8.45	96.52	4.68	92.22	3.73						
85	Chlorsulfuron							89.06	21.53	87.57	10.77	102.50	7.06
86	Chlorthion	41.34	12.12	39.91	10.81	37.31	6.47						
87	Chlorthiophos							108.25	13.68	96.21	12.17	90.93	4.64
88	Cinidon-Ethyl							78.06	10.71	79.26	6.66	82.99	5.06
89	cis-Diallate					64.40	25.35						
90	Clodinafop							100.76	2.63	100.37	6.89	96.07	5.04
91	Clodinafop-propargyl			12.29	36.78	10.84	10.34						
92	Clofencet	99.76	1.73	96.26	4.64	90.67	3.04	88.47	14.42	92.50	8.74	93.24	8.44
93	Clomazone	17.57	9.23	16.61	11.93	17.56	9.60						
94	Clomeprop	100.72	2.77	101.04	3.50	94.63	3.95						
95	Cloransulam-Methyl	67.40	9.12	71.50	8.28	64.14	4.73						
96	Coumaphos	67.52	6.07	69.14	11.35	70.40	7.94						
97	coumaphos-oxon	78.68	11.26	73.51	5.60	72.45	3.35						
98	Crimidine	81.77	7.12	81.86	6.32	82.03	5.82						
99	Crufomate							87.24	11.15	97.28	8.26	96.20	3.86
100	Cyanazine	90.76	4.97	95.19	7.09	90.83	4.86	77.08	15.00	103.32	8.42	102.88	4.24
101	Cyazofamid	97.10	7.87	93.28	6.40	91.44	2.92						
102	Cycloate	101.21	4.97	95.26	5.73	93.62	4.20						
103	Cycluron	86.05	8.65	106.70	7.19	90.66	5.57						
104	Cyenopyrafen	88.82	4.31	88.34	3.87	85.54	3.23						
105	Cyflufenamid	92.89	3.00	93.25	5.79	87.82	3.05	77.08	13.84	94.94	5.60	95.91	3.48
106	Cyhalofop-Butyl	109.10	3.29	102.13	5.28	94.82	4.35						
107	Cymiazole							85.86	12.20	89.46	9.36	100.05	4.07
108	Cymoxanil	69.61	20.57	78.25	4.28	65.27	5.20	74.61	7.84	75.95	5.68	76.95	3.66
109	Cyprazine					87.65	11.53						
110	Cyproconazole	94.79	3.32	92.77	3.54	90.32	3.02						
111	Cyprofuram	94.94	3.85	91.50	1.54	88.74	2.19						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
112	Cyromazine	100.93	2.18	98.57	2.42	94.08	2.89						
113	Daimuron	55.23	21.46	50.08	18.41	21.8	19.31						
114	DDT	95.54	3.76	98.47	5.98	94.34	4.39						
115	delta-HCH							92.14	8.32	100.33	9.13	95.45	6.64
116	Demeton-O							87.00	7.00	97.58	11.48	97.15	3.57
117	Demeton-S							86.96	10.25	91.91	9.47	89.35	8.32
118	Desethylterbutylazine							80.91	9.05	86.01	7.61	86.26	6.29
119	Desmetryn							87.78	8.60	95.11	8.45	96.28	4.17
120	Diallate	81.21	2.97	83.59	5.82	79.20	3.46	82.65	11.20	86.00	7.29	86.16	2.41
121	Diazinon	92.68	19.43	98.41	8.47	94.06	6.43						
122	Dibutyl succinate	97.13	2.17	97.15	4.96	90.43	3.43						
123	Dichlormid			126.38	24.85	84.83	6.17						
124	Diclobutrazol	116.00	21.35	107.06	15.59	99.88	5.31						
125	Diclocymet	96.25	2.89	93.00	4.87	88.92	2.83						
126	Diclosulam			68.18	29.99	84.65	7.19						
127	Dicofol	50.40	4.99	61.14	16.10	55.34	5.15						
128	Dieldrin							95.65	4.12	94.16	3.80	91.22	2.12
129	Diethyl-Ethyl							88.90	13.51	92.86	3.40	96.06	2.35
130	Diethyl Aminoethyl Hexanoate	18.53	10.13	17.13	9.85	16.18	1.52						
131	Diethyltoluamide	96.95	2.43	96.00	4.61	91.70	1.98						
132	Difenacoum	56.50	6.28	52.40	7.09	47.50	4.64						
133	Difenoconazole	87.44	4.46	91.03	6.77	80.00	4.04					104.74	5.89
134	Difenoxyuron	96.06	1.72	94.32	3.58	89.71	2.79						
135	Diflufenican	73.02	13.42	82.43	7.59	72.12	4.22	82.36	11.90	75.14	8.07	76.00	7.92
136	Dimepiperate							91.99	9.50	94.92	4.58	96.27	3.04
137	Dimethachlon							85.70	12.22	90.32	8.01	100.96	7.16
138	Dimethachlor	94.93	0.87	97.31	4.01	96.30	4.19	95.07	18.26	100.20	3.63	98.49	3.32
139	Dimethametryn	89.82	3.89	91.39	5.90	86.26	4.75	85.28	6.88	90.32	3.64	85.49	2.56

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
140	Dimethenamid	90.71	3.42	95.42	4.48	95.62	3.27	91.51	8.39	95.96	4.49	95.78	2.45
141	Dimethomorph	91.54	5.70	91.66	8.13	92.35	4.16			94.91	8.56	104.34	6.70
142	Dimethylvinphos (E)	96.95	6.04	91.15	3.91	95.38	5.00	79.19	15.51	94.36	10.35	86.57	8.75
143	Dimethylvinphos (Z)	99.69	6.69	102.13	8.21	92.80	3.84						
144	Dimetilan	103.55	9.74	92.45	5.46	81.77	2.99	85.47	11.76	91.56	7.79	92.92	6.57
145	Dinitramine	83.85	18.37	86.35	18.92	97.98	7.86	105.28	8.91	109.74	2.93	100.41	8.88
146	Dioxabenzofos	111.72	8.00	113.19	15.35	95.99	4.11	89.01	9.53	102.81	10.97	96.43	6.59
147	Dioxacarb					74.63	7.14			95.55	21.08	91.50	13.09
148	Dioxathion									86.71	56.29	91.70	12.03
149	Diphenamid	96.23	3.02	99.61	5.14	95.62	3.48	91.69	6.46	95.97	7.89	93.21	3.19
150	Dipropetryn	91.48	3.49	93.84	6.26	87.86	4.44	92.28	4.54	90.30	6.76	90.02	2.88
151	Dipropyl Isocinchomeronate	92.30	5.80	91.89	7.83	89.80	5.21	80.59	15.82	79.23	18.11	103.47	4.62
152	Dithiopyr	115.66	13.49	106.12	4.70	91.72	1.90	92.18	3.24	96.29	5.54	99.35	2.07
153	DMST	66.36	20.75	133.92	6.97	97.66	3.15						
154	Dodemorph	27.66	8.03	27.12	11.02	26.41	6.28	27.66	8.25	28.75	5.9	28.56	3.57
155	Drazoxolon	44.45	9.13	45.30	14.48	44.67	9.70						
156	Endosulfan-sulfate							84.61	20.61	111.22	7.28	100.88	1.63
157	Enestroburin	112.40	22.87	82.25	6.56	79.98	7.59					96.63	10.60
158	EPN	67.32	9.55	70.93	9.60	64.21	5.62					97.16	12.99
159	Epoxiconazole	90.08	4.54	95.66	7.31	88.18	4.11	86.00	17.73	84.51	13.46	83.89	5.28
160	Eprinomectin B1b	64.93	9.23	76.23	9.81	69.84	1.85						
161	EPTC	67.32	35.12	81.31	5.57	109.76	16.49	91.97	3.00	95.04	4.53	93.95	3.26
162	Esprocarb	102.97	2.93	96.53	4.05	88.91	2.30	99.69	8.11	101.42	6.12	95.98	3.06
163	Etaconazole	89.41	4.57	93.07	6.78	88.86	4.44	86.34	6.71	86.61	9.06	85.91	5.70
164	Ethiofencarb	85.17	7.81	79.29	17.97	76.46	15.17						
165	Ethiofencarb-sulfone	93.10	16.14	97.10	8.60	88.70	1.72						
166	Ethiofencarb-sulfoxide	85.37	11.47	89.29	9.31	88.79	3.54						
167	Ethiolate							94.80	5.60	95.43	3.90	91.64	2.81

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
168	Ethofumesate							99.24	3.91	101.73	6.20	98.06	3.20
169	Ethoprophos	94.45	2.49	99.49	5.88	93.02	3.59	84.67	12.25	103.72	1.95	98.46	5.44
170	Ethoxyquin							82.97	9.95	94.41	6.52	84.78	4.90
171	ethychlozate	92.05	6.34	90.40	4.85	88.44	1.57			85.19	13.13	96.28	6.49
172	Etofenprox	94.25	7.29	111.55	13.95	91.95	6.61	84.45	7.15	89.41	9.90	91.35	5.65
173	Etozazole	95.34	3.67	93.67	5.34	88.38	3.71	97.41	6.39	96.04	10.27	93.21	5.16
174	Etrimfos	96.38	4.11	93.95	5.20	89.77	4.41						
175	Eugenol							105.37	11.06	96.74	6.70	101.56	5.51
176	Famphur	93.15	2.67	99.13	2.91	93.20	2.70			95.72	7.59	87.27	7.91
177	Fenamidone	95.27	3.01	97.49	4.34	94.05	3.70	85.86	9.43	97.18	10.44	91.32	5.45
178	Fenamiphos	86.08	3.76	90.06	6.61	86.79	4.64	87.99	14.70	89.31	10.67	89.56	8.52
179	Fenamiphos-sulfone	94.13	4.44	95.14	5.11	94.36	3.54						
180	Fenamiphos-sulfoxide	85.53	4.40	80.21	7.79	77.78	4.11			101.48	13.11	83.08	10.05
181	Fenazaquin	59.64	4.42	58.48	8.69	53.06	4.14	73.76	11.65	70.98	8.95	64.19	6.75
182	Fenchlorphos							78.03	10.14	72.02	7.93	76.01	2.73
183	Fenchlorphos-Oxon	100.91	8.31	93.01	6.35	88.17	1.37	75.16	29.19	107.17	13.95	94.93	6.43
184	Fenfuram	89.97	2.54	98.77	2.92	91.54	2.74	82.90	19.17	103.59	12.54	101.26	6.63
185	Fenhexamid	91.20	4.64	91.93	6.10	83.46	3.79					89.36	9.43
186	Fenoprop											93.75	15.54
187	Fenothiocarb	96.60	3.82	96.48	5.65	91.16	3.41	85.25	16.52	88.78	11.68	90.39	7.15
188	Fenoxaprop-Ethyl	92.61	2.92	90.57	6.13	82.57	4.52	74.45	16.88	87.35	7.83	91.93	9.90
189	Fenoxaprop-P			6.54	24.77	8.32	12.82						
190	Fenoxasulfone							92.92	7.23	97.10	11.42	99.28	9.64
191	Fenoxycarb	100.81	4.91	98.60	7.80	95.40	3.45					84.23	8.70
192	Fenpropidin	19.08	10.03	19.57	13.82	18.84	8.43	20.21	9.09	19.07	5.52	18.16	7.04
193	Fenpropimorph							45.31	3.91	43.67	3.93	43.34	4.68
194	Fenpyrazamine	91.10	4.92	95.94	6.93	95.37	3.90			96.99	6.87	100.28	4.34
195	Fensulfothion							93.76	17.21	82.29	9.16	91.28	9.84

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
196	Fensulfothion-Oxon-Sulfone	104.08	3.46	92.47	5.06	94.49	1.84						
197	Fensulfothion-sulfone							81.72	11.34	99.49	6.44	103.19	5.14
198	fentin hydroxide							89.96	27.00	72.81	10.92	87.59	6.50
199	Fentrazamide	101.58	6.95	98.11	2.66	90.68	3.03						
200	Fenuron	124.67	22.40	89.29	7.82	82.07	4.57						
201	Ferimzone	77.63	3.83	82.03	6.48	76.16	4.07	78.54	10.94	88.62	15.41	81.95	6.77
202	Fipronil							88.40	9.50	94.51	4.97	93.50	3.33
203	Fipronil Desulfinyl							92.84	5.71	84.79	7.19	83.85	3.25
204	Fipronil-sulfide							101.49	8.78	93.78	5.59	98.42	2.56
205	Fipronil-sulfone							97.93	4.53	90.30	7.12	93.40	5.47
206	Flamprop-isopropyl	95.65	3.47	99.32	3.92	92.94	3.58	93.85	7.30	95.46	6.17	92.35	3.24
207	Flamprop-methyl							92.85	5.45	93.96	5.52	94.58	3.12
208	Flonicamid					78.87	10.16	84.51	19.77	88.24	7.55	91.70	6.05
209	Florasulam	55.93	4.37	49.19	8.08	48.26	3.86						
210	Fluacrypyrim	96.22	4.85	98.70	5.12	91.71	2.80	101.41	6.74	92.37	8.36	94.49	3.63
211	Fluazifop	12.34	26.18	13.48	20.71	13.11	7.87	80.16	31.06	81.72	8.82	87.41	6.20
212	Fluazifop-butyl	100.84	2.28	98.70	3.53	91.51	2.30	93.10	11.37	96.42	8.79	98.30	3.97
213	Fluazuron	85.98	10.88	80.90	8.87	76.47	3.97	109.67	2.63	91.34	8.76	74.79	4.08
214	Flubenzimine	67.76	9.32	60.15	10.41	60.44	6.78						
215	Flucarbazone	6.31	9.26	5.53	26.32	5.37	6.73						
216	Flucetosulfuron	58.89	7.99	60.25	11.28	58.78	7.89						
217	Flucycloxauron	36.78	9.52	37.06	13.85	33.05	8.73						
218	Fluensulfone							87.56	9.01	110.32	8.70	92.68	5.80
219	Flufenacet	96.02	3.06	103.94	7.40	94.49	3.97	87.97	16.89	105.00	8.91	99.70	4.54
220	Flufenoxuron	107.84	12.40	89.40	10.67	92.90	7.48	100.10	8.06	86.66	5.26	83.31	2.65
221	Flufenpyr-Ethyl	101.92	2.97	100.93	4.99	93.49	3.77						
222	Flufiprole	113.17	18.62	90.65	11.19	88.07	1.40	98.76	3.09	102.48	7.16	95.01	2.72
223	Flumetralin					89.84	7.11			103.17	18.77	103.35	11.95

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
224	Flumetsulam	68.80	5.76	62.64	5.64	62.02	2.70						
225	Flumiclorac-Pentyl	95.94	4.65	93.78	5.48	87.94	2.47						
226	Flumioxazin			92.52	39.04	95.19	10.35					93.27	11.29
227	Fluopyram	99.56	3.10	98.65	5.28	93.46	3.63	88.64	12.01	94.09	6.96	94.25	4.31
228	Fluoroglycofen-ethyl					67.68	3.48					87.45	7.12
229	Fluotrimazole							99.74	12.77	85.81	7.53	91.52	5.08
230	Fluquinconazole	81.46	6.70	95.07	6.19	93.08	2.08	88.87	6.64	87.26	7.43	89.42	6.45
231	Flurochloridone	95.95	18.66	101.30	9.29	93.51	7.04	80.36	8.62	102.78	3.63	104.17	5.92
232	fluroxypyr-meptyl	108.06	11.49	83.10	11.83	67.17	3.23	75.52	10.78	87.32	9.04	91.53	7.47
233	Flurprimidol	89.16	3.37	99.17	4.14	92.47	2.34	89.56	6.70	92.93	4.31	92.29	3.62
234	Flusilazole	95.98	2.60	96.69	5.01	91.06	3.14	86.75	8.63	91.19	5.81	92.51	4.52
235	Flutolanil	98.02	2.98	100.09	6.49	94.43	4.04	82.83	8.70	95.10	6.21	96.79	3.03
236	Flutriafol	98.88	8.61	92.18	2.92	94.55	3.75	85.95	5.24	84.89	4.41	88.15	2.59
237	Fluxapyroxad	97.46	2.64	99.33	4.24	95.54	3.89	91.14	9.15	82.50	4.01	87.55	8.05
238	Fonofos	104.74	30.65	77.09	15.95	92.59	8.81	89.86	4.95	96.22	7.84	96.32	3.14
239	Foramsulfuron	45.04	11.05	46.41	8.50	41.19	4.44						
240	Formetanate	9.79	28.83	18.6	14.6	14	8.98						
241	Fuberidazole	75.80	3.65	72.69	4.16	65.11	3.50						
242	Furalaxyl	99.31	4.04	98.93	5.23	92.93	3.38	76.10	5.08	65.31	5.34	62.52	2.09
243	furametpyr							74.01	12.32	81.48	8.20	85.20	4.22
244	Furathiocarb	94.49	2.95	99.02	4.47	91.02	3.18	73.61	25.27	108.53	8.71	102.78	9.90
245	Furilazole							89.56	8.68	100.22	7.25	103.68	6.02
246	Furmecyclox	90.69	3.47	94.62	6.19	86.78	3.83	89.15	8.60	95.67	5.29	87.74	5.59
247	Griseofulvin	93.70	2.09	96.50	5.17	91.06	3.39	89.26	16.05	103.16	7.01	93.51	4.19
248	Halofenozide	91.66	3.46	95.86	4.38	96.71	4.06						
249	Halosulfuron-methyl	39.89	9.73	41.46	14.70	38.21	7.73						
250	Haloxypop					10.94	33.12	93.39	10.02	97.19	7.23	93.67	3.01
251	Haloxypop-2-ethoxyethyl	99.78	5.84	97.66	4.05	89.03	1.98	94.71	10.36	102.03	9.29	95.74	7.25

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
252	Haloxypop-methyl	96.16	5.54	95.05	3.14	90.36	2.82	93.39	10.02	97.19	7.23	93.67	3.01
253	Hexazinone	99.12	2.88	95.89	3.93	90.64	2.70			82.35	9.14	86.75	5.77
254	Hydroprene	110.46	12.66	61.57	10.58	84.23	7.42						
255	Imazamethabenz-methyl	94.32	2.18	93.52	4.85	89.76	3.24	110.98	15.18	92.31	7.42	87.94	4.94
256	Imazosulfuron	54.81	3.92	52.67	11.42	52.44	7.25						
257	Imibenconazole	66.56	4.73	66.23	6.23	58.38	4.80						
258	Imicyafos	91.39	3.74	93.30	6.43	90.52	3.62						
259	Imidaclothiz	92.69	19.21	85.07	10.28	81.94	7.01						
260	Imiprothrin	89.69	2.24	96.77	7.33	91.10	3.96						
261	Inabenfide	39.49	9.12	45.79	10.47	40.92	6.59						
262	Indanofan	107.47	13.06	109.82	11.13	103.19	1.70	83.80	13.97	94.08	11.43	93.29	5.66
263	Indaziflam							93.05	16.12	92.42	12.28	85.68	9.62
264	Iodofenphos							67.37	16.11	88.84	8.41	82.49	3.86
265	Iodosulfuron-methyl	29.92	14.10	33.75	15.92	32.84	11.80						
266	Ipconazole	85.71	17.35	78.81	7.48	86.99	3.55					69.28	12.33
267	Ipfencarbazone									97.01	12.47	108.03	4.25
268	Iprodione					98.21	16.27			91.67	14.89	100.55	5.52
269	Isazofos	97.22	3.27	100.31	5.32	92.08	3.44	90.28	6.34	94.52	4.27	93.59	3.05
270	Isocarbamid	99.06	9.96	85.38	5.31	85.12	1.32	81.98	15.26	90.83	5.26	94.38	6.82
271	isocarbophos							85.00	14.38	102.62	5.49	101.94	4.08
272	Isofenphos-Methyl							80.73	13.91	109.82	7.28	98.73	4.79
273	Isomethiozin	79.07	3.27	77.54	5.53	80.49	3.85	72.82	3.99	72.19	4.51	73.98	3.28
274	Isoproc carb	95.86	11.52	106.89	11.23	98.24	4.92	99.73	16.48	110.89	6.71	105.35	7.06
275	Isopropalin	119.30	9.07	90.15	10.27	83.98	4.28	91.04	8.27	121.31	9.25	104.39	8.57
276	Isoprothiolane	97.65	4.74	101.60	5.38	95.69	3.21	92.84	10.13	88.66	5.33	88.35	2.29
277	Isoproturon	94.13	2.69	97.42	3.91	91.96	2.49						
278	Isopyrazam							92.99	10.20	93.30	8.01	91.25	5.92
279	Isoxadifen-ethyl	95.81	4.67	94.11	4.96	94.25	3.42	90.80	8.48	96.40	7.21	93.28	3.44

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
280	Isoxaflutole					90.08	5.87	79.29	7.44	88.45	7.21	77.98	6.64
281	Karbutilate	93.34	4.75	96.20	6.33	92.25	3.52						
282	Lenacil											88.50	5.31
283	Lindane							88.40	9.67	104.41	5.37	87.64	6.59
284	Maleic hydrazide	95.60	4.01	95.11	3.45	92.12	2.02						
285	MCPA-2-ETHYLHEXYL ESTER							82.96	8.06	85.22	5.41	84.10	2.60
286	MCPA-isooctyl							78.18	12.45	85.61	8.31	85.82	4.90
287	Mecarbam							85.39	10.78	95.72	5.97	95.97	2.59
288	Mefenacet	90.91	3.64	94.34	6.26	88.17	3.63					90.43	11.51
289	Mefenpyr-diethyl	93.66	2.57	98.07	5.12	93.13	3.66	88.75	15.96	89.63	9.04	96.02	3.27
290	Mepanipyrim	41.30	8.86	42.27	16.42	39.15	7.56	40.18	7.31	42.83	16.65	40.95	8.66
291	Mepronil	98.15	3.12	98.86	6.60	93.27	4.26	85.20	10.46	94.38	7.02	97.23	8.18
292	Metaflumizone	40.92	16.82	47.28	18.58	44.68	14.16						
293	Metaxyl	97.78	0.99	97.39	5.55	92.44	2.94	85.95	7.10	77.80	5.93	77.33	2.63
294	Metamifop	81.57	3.15	80.63	6.08	74.25	4.53						
295	Metamitron	76.72	11.22	90.22	2.46	82.16	1.50						
296	Metazachlor	100.98	2.06	97.57	5.84	94.80	3.31	89.50	14.42	93.30	2.82	98.13	5.59
297	Metconazole	87.51	3.68	91.20	5.00	83.75	3.57	88.31	8.94	87.45	12.67	80.69	4.41
298	Methabenzthiazuron	83.77	8.69	74.09	6.02	69.24	3.10	86.81	12.06	95.20	8.34	81.79	6.25
299	Methacrifos							87.62	11.45	96.35	9.34	99.79	3.12
300	Methamidophos			113.73	15.10	72.02	8.66						
301	Methfuroxam	88.20	4.38	91.09	2.88	85.38	2.00	90.11	12.08	91.90	6.00	82.66	3.27
302	Methoprotryne	83.72	3.28	86.33	8.07	83.07	4.60	81.26	4.91	88.24	9.55	86.00	4.99
303	Metobromuron	108.01	1.18	104.27	4.43	92.79	1.60					100.96	7.76
304	Metrafenone							82.16	9.98	85.21	11.51	88.34	4.22
305	Metribuzin	163.91	4.54	120.77	5.24	109.73	1.08	91.45	9.78	109.35	10.40	105.67	7.40
306	Metsulfuron-Methyl	49.30	6.78	51.73	12.02	48.73	7.65						
307	Mexacarbate	91.95	10.96	89.17	2.54	82.33	1.59	98.48	8.39	111.31	3.68	103.43	6.11

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
308	Molinate	74.40	6.46	69.29	13.24	76.90	7.26	87.29	13.46	101.58	3.92	97.15	2.56
309	Monalide	99.64	5.73	96.57	8.02	93.16	2.53	87.78	9.81	88.53	8.68	98.23	5.30
310	Monocrotophos	73.13	7.40	85.24	5.02	86.18	2.90						
311	Monolinuron	93.46	2.65	95.36	5.79	97.44	3.20			92.13	6.34	95.42	8.96
312	Monuron	95.17	2.86	96.40	2.29	86.23	1.60						
313	Musk Ketone							100.23	4.40	97.84	6.34	97.97	2.32
314	Musk Moskene							102.67	2.99	113.29	7.20	102.40	7.03
315	Musk Tibetene							91.22	4.53	93.10	6.04	90.11	3.57
316	Myclobutanil	91.68	3.74	98.63	8.45	93.11	4.63	89.13	5.60	90.92	8.96	89.96	4.34
317	Naphthalophos	39.56	10.15	42.29	16.73	39.48	10.52						
318	Neburon	92.78	3.79	92.77	6.26	85.04	3.87						
319	Nitrapyrin							86.92	11.89	92.89	9.04	101.38	4.20
320	Nitrofen							110.32	18.98	152.09	21.70	105.98	6.71
321	Nitrothal-Isopropyl							98.38	13.54	132.52	10.95	102.22	6.95
322	Norflurazon	95.24	1.50	96.01	3.73	90.83	2.68	93.08	14.28	99.27	7.91	96.06	7.82
323	Noruron	88.11	1.37	90.83	6.02	86.83	4.69	90.32	7.98	80.18	5.94	87.21	3.59
324	Novaluron					80.55	13.43			81.32	9.09	89.02	6.54
325	Noviflumuron							92.31	7.68	83.60	8.55	86.92	8.15
326	Nuarimol			81.94	13.44	86.50	10.43	82.00	11.65	80.97	6.42	89.81	3.48
327	Octhilinone							23.31	27.59	35.25	15.20	30.53	10.44
328	Ofurace	94.00	1.62	100.08	3.77	96.41	2.74						
329	Orbencarb	93.85	5.14	101.09	3.93	88.79	3.87	93.83	8.94	100.21	5.83	93.25	3.68
330	Ortho-Dichlorobenzene							89.09	19.70	77.73	6.76	84.57	5.90
331	Orysastrobin							66.16	10.71	73.96	7.34	76.61	7.00
332	Oxadiargyl					88.51	9.94						
333	oxadiazon					89.37	3.18	95.40	6.23	92.16	4.02	92.13	2.43
334	Oxadixyl	97.87	1.03	98.40	3.91	92.90	2.76			76.48	11.80	101.54	10.96
335	Oxasulfuron	81.19	2.93	78.99	4.55	76.91	3.21						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
336	Oxycarboxin	101.12	11.14	91.97	3.42	95.47	1.75						
337	Oxyfluorfen							82.64	8.04	139.39	4.01	109.04	10.28
338	parathion							101.24	15.99	143.59	6.23	104.73	9.27
339	Parathion-Methyl							76.16	15.33	161.04	27.37	97.21	7.94
340	Pebulate	84.13	16.25	92.33	9.43	90.96	2.39	91.61	13.64	94.24	8.63	98.79	3.98
341	Penconazole			80.57	15.00	86.72	7.75	90.50	10.09	89.49	4.28	86.05	3.97
342	Penflufen	95.35	2.96	95.64	6.22	88.50	3.80						
343	Penoxsulam	77.66	5.65	77.71	8.41	75.79	5.63						
344	Pentanochlor	97.15	3.74	99.82	5.88	90.44	2.72	97.87	10.80	85.25	14.23	92.62	6.69
345	Penthiopyrad							88.35	10.11	90.86	8.66	94.19	4.44
346	Pentoxazone							89.92	11.85	93.01	11.84	92.99	5.28
347	Pethoxamid	93.77	5.21	97.49	6.73	93.93	4.10	75.78	8.00	60.65	7.54	53.68	4.37
348	Phenothrin							66.16	10.71	73.96	7.34	76.61	7.00
349	Phorate					79.50	9.05	101.77	11.86	103.19	7.34	101.04	3.88
350	Phorate-Sulfone	89.83	4.47	100.72	7.86	100.26	5.45	85.22	16.64	98.41	8.03	99.62	2.83
351	Phorate-Sulfoxide	99.40	3.95	96.07	5.51	93.99	3.89	76.45	13.22	94.91	8.31	97.90	4.24
352	Phosfolan	91.77	2.99	90.95	5.45	86.17	2.48	84.45	21.48	85.79	7.48	91.46	3.71
353	Phosfolan-Methyl	88.16	1.65	89.76	4.07	83.23	2.34						
354	Phosphamidon	90.99	4.91	97.31	5.36	92.72	4.06						
355	Phthalic Acid, Benzyl Butyl Ester	90.83	5.32	104.68	12.40	90.46	2.42						
356	Phthalic Acid, Bis-Butyl Ester	97.21	1.89	99.91	6.47	102.28	4.03						
357	Phthalide							88.56	12.89	84.22	8.58	77.00	5.24
358	Picolinafen	84.93	4.97	77.50	6.29	69.97	3.81	83.96	14.53	85.74	12.22	81.44	4.93
359	Piperalin	15.87	12.44	15.53	10.84	14.58	8.84	24.06	21.83	20.12	18.53	15.96	10.12
360	Pirimiphos-methyl-N-desethyl	93.68	3.55	93.15	5.73	88.88	3.53	83.42	10.78	83.82	6.31	90.47	3.94
361	Plifenate							78.09	11.22	109.38	11.27	95.77	3.30
362	Primisulfuron-Methyl	61.25	7.11	61.72	8.89	57.12	5.10						
363	Prodiamine							105.26	9.78	103.79	5.92	105.48	8.46

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
364	Profluralin							89.70	12.41	120.07	10.53	98.32	9.52
365	Profoxydim	65.75	8.47	64.10	3.67	55.90	6.37			97.08	16.19	75.56	9.78
366	Promecarb	91.65	18.68	96.85	15.87	96.67	2.71			150.87	12.39	97.08	9.14
367	Prometon	88.57	2.09	90.35	5.24	84.97	2.97	85.23	11.24	95.20	3.13	89.97	3.24
368	Prometryn	89.90	3.77	94.08	7.33	90.79	4.09	87.25	7.13	74.36	5.79	77.70	1.69
369	Propachlor	91.09	6.95	99.80	7.92	96.75	5.23	77.84	47.38	98.56	6.15	95.88	9.55
370	Propaquizafop	74.91	4.75	76.89	7.77	70.36	4.20						
371	Propazine	90.47	3.67	95.04	4.65	90.23	3.43	91.88	13.05	91.39	6.57	93.26	3.83
372	Propisochlor	88.43	3.54	95.60	4.49	95.57	3.59	88.46	8.87	92.02	4.66	91.87	2.07
373	Propyzamide	112.72	9.48	91.86	7.42	97.27	5.85	91.19	9.53	95.40	4.56	95.53	4.51
374	Proquinazid	55.21	6.73	51.70	5.92	46.06	5.96						
375	Prosulfocarb	98.67	4.27	96.81	5.97	91.85	3.01	86.80	10.20	92.46	6.87	91.66	3.17
376	Prosulfuron	55.24	8.64	55.59	14.83	53.11	9.04						
377	Prothioconazole	57.45		36.11	14.92	42.45	7.56						
378	Prothioconazole-desthio							83.29	7.47	89.93	7.37	88.29	4.18
379	Prothiofos	142.85	16.62	86.06	7.49	78.66	7.50	82.43	5.45	84.15	7.45	87.87	3.84
380	Prothoate	99.29	1.60	104.45	5.01	99.19	4.14						
381	Pyracarbolid	96.77	2.97	95.76	2.10	89.49	1.49	98.01	14.31	97.36	11.27	93.81	5.45
382	Pyraclufos	83.15	4.47	82.53	7.02	79.15	4.83						
383	Pyraflufen					5.58	8.35						
384	Pyraflufen-Ethyl	97.61	2.00	96.08	4.38	89.63	3.58						
385	Pyrametostrobin	90.34	2.61	91.67	5.82	88.75	4.11						
386	Pyraoxystrobin	75.47	3.82	77.61	7.88	70.29	5.02						
387	Pyrazosulfuron-Ethyl	63.95	5.76	65.64	9.84	61.76	6.78						
388	Pyrazoxyfen	96.06	4.30	97.92	4.90	89.78	4.04						
389	Pyribenzoxim					61.13	24.84						
390	Pyributicarb	102.08	3.43	97.13	3.04	90.01	2.92	89.12	12.72	89.19	8.78	93.60	4.98
391	Pyridaphenthion	95.05	1.36	99.10	4.81	92.12	2.68	75.64	24.75	91.43	11.04	88.70	9.40

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
392	Pyrifthalid	90.59	5.21	94.48	7.50	91.32	5.16			88.81	8.63	104.07	7.63
393	Pyrimethanil	48.78	9.79	47.93	10.15	43.37	5.70	40.32	15.46	43.30	10.22	46.58	6.17
394	Pyrimitate	93.76	3.27	94.81	5.19	89.50	3.63						
395	Pyrimorph							66.16	10.71	73.96	7.34	76.61	7.00
396	Pyriofenone							83.81	7.74	91.30	6.74	91.16	3.35
397	Pyriproxifen	95.44	2.11	91.91	2.44	83.63	2.53	78.35	6.70	89.23	12.26	91.92	6.08
398	Pyrisoxazole	84.72	4.38	77.55	7.78	77.21	4.44						
399	Pyriithlobac			4.01	46.89	3.31	13.89						
400	Pyroquilon	93.15	7.86	91.28	7.03	83.29	2.82	87.20	17.77	94.03	7.73	88.18	5.70
401	Quinoclamine	82.37	4.90	72.57	7.98	77.67	8.26						
402	Quinoxifen	63.92	4.06	61.51	6.54	55.30	3.69	61.05	13.60	65.12	10.54	67.90	3.17
403	Quizalofop			7.37	15.66	10.03	11.38						
404	Quizalofop-Ethyl	82.97	5.11	83.86	5.17	77.15	4.61					74.93	11.54
405	Rabenzazole	67.34	5.11	68.32	6.75	64.84	3.92	74.87	11.30	74.52	5.85	70.92	8.39
406	Resmethrin							83.96	12.73	94.30	9.00	91.67	7.55
407	Schradan									38.12	12.37	36.32	5.42
408	Sebuthylazine	95.34	2.75	96.36	5.96	94.35	5.13	91.22	10.06	90.23	8.85	89.74	4.12
409	Sebuthylazine-desethyl	89.10	10.22	84.82	4.27	99.88	3.47	98.26	14.87	100.23	9.86	93.57	3.92
410	Secbumeton	88.47	2.17	90.37	5.31	84.92	3.02	83.68	8.47	86.83	6.39	84.29	3.41
411	Sedaxane	92.59	7.30	93.36	12.72	90.65	4.83					98.71	6.90
412	Siduron	97.33	6.74	96.13	6.99	97.49	4.45						
413	Silthiofam	102.37	4.09	94.97	6.31	92.33	3.80	93.19	4.32	95.26	4.23	95.12	3.66
414	Simazine	77.38	4.39	86.40	8.62	81.82	2.04	86.05	19.52	89.76	5.00	93.62	3.75
415	Simeconazole							86.69	13.54	92.52	7.12	90.17	2.59
416	Simeton	78.88	3.80	79.05	4.20	73.71	3.30	61.81	15.72	74.43	10.31	81.18	7.76
417	Simetryn	81.21	2.97	83.59	5.82	79.20	3.46	78.83	13.03	79.81	8.33	79.38	4.66
418	Spiroclufen	92.96	5.65	89.91	8.16	85.20	1.32			87.70	19.01	96.54	6.96
419	Spiromesifen	99.43	4.67	94.92	3.70	86.56	2.56	84.62	8.59	87.06	3.58	99.32	3.22

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
420	Spirotetramat	83.82	6.22	88.05	12.40	88.04	6.04						
421	Spirotetramat-enol-glucoside					38.09	5.61						
422	Spirotetramat-keto-hydroxy	89.27	4.32	94.74	4.21	89.85	4.64						
423	Spirotetramat-mono-hydroxy	85.50	7.00	82.13	6.02	86.41	2.83						
424	Spiroxamine	17.59	8.41	18.27	13.75	16.71	8.67	17.85	6.85	18.73	6.71	16.82	6.56
425	Sulfallate							80.89	12.20	104.42	6.12	93.61	3.62
426	Sulfluramid							96.62	4.73	96.39	5.49	94.09	3.54
427	Sulfometuron-Methyl	93.42	2.31	86.60	3.07	81.26	2.68						
428	Sulfosulfuron	40.47	9.39	41.27	13.00	39.30	9.75						
429	Sulfotep	99.86	4.35	100.68	2.69	94.55	3.55	95.56	5.77	101.17	5.57	97.03	2.66
430	Sulprofos	103.71	7.21	92.18	4.63	80.23	4.14						
431	TCMTB	104.75	8.27	90.28	5.06	91.07	2.38						
432	Tebufenpyrad	93.12	2.43	92.99	5.13	86.08	3.10	80.15	4.67	90.97	12.16	90.38	6.06
433	Tebupirimfos	100.67	6.22	97.10	6.06	91.16	2.91	98.44	4.87	93.53	5.20	93.40	3.05
434	Tebutam	95.86	3.46	97.30	7.02	93.94	4.23	98.61	5.28	100.54	2.51	98.33	4.33
435	Tebuthiuron	103.59	5.79	88.75	12.83	91.90	1.48	86.86	13.15	102.40	7.50	97.05	8.76
436	Teflubenzuron					73.15	16.80			100.20	26.16	105.23	8.87
437	Tembotrione	17.17	23.53	17.04	15.62	16.14	9.25						
438	Temephos	104.97	5.28	101.71	1.99	89.86	3.33						
439	Terbacil							84.56	14.63	92.58	7.28	95.07	3.15
440	Terbucarb	85.35	9.95	92.65	5.92	91.94	3.26	90.62	3.54	96.52	3.51	94.74	3.06
441	Terbufos							88.71	7.41	95.18	5.62	93.48	3.59
442	Terbufos-Sulfone	94.46	4.19	103.41	4.43	95.03	2.14	86.91	13.31	98.55	4.68	97.46	3.52
443	Terbufos-Sulfoxide	89.70	5.22	92.32	7.14	93.44	5.05						
444	Terbumeton	89.37	3.91	90.95	6.03	84.51	11.52	88.13	9.84	95.30	5.91	85.63	4.33
445	Terbutylazine	91.86	9.24	94.76	6.19	89.94	3.58	88.62	7.32	93.38	6.19	92.33	3.94
446	Terbutryn	91.44	4.63	92.76	6.09	88.59	4.33	83.03	5.74	88.70	4.85	89.47	2.45
447	Tetraconazole	92.12	4.44	94.88	4.51	91.51	4.37	91.17	7.63	91.06	7.32	92.13	2.74

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
448	Tetrasul							67.80	10.50	72.40	6.53	69.02	5.49
449	Thenylchlor	102.34	3.52	98.46	7.59	92.95	4.84	84.13	19.68	101.29	5.40	100.93	2.41
450	Thiazafluron	101.15	4.02	93.79	4.17	92.90	2.38						
451	Thiazopyr	101.47	1.82	99.65	3.88	91.40	2.97	99.88	4.65	93.86	4.38	95.43	3.47
452	Thifluzamide					102.77	5.77	89.13	8.11	95.07	5.84	94.37	4.10
453	Thiobencarb	93.51	5.11	94.36	6.54	91.97	2.18	93.34	10.13	97.68	7.18	92.86	3.76
454	Thiodicarb	83.23	3.16	86.18	7.00	82.91	4.12						
455	Thiofanox					62.68	16.65	109.62	17.53	73.61	18.36	93.32	2.21
456	Thiofanox-Sulfone	74.01	4.72	109.01	47.16	82.08	4.92						
457	Thiometon							82.82	7.92	87.96	8.68	86.69	3.17
458	Thionazin	90.63	5.98	94.40	4.67	95.19	4.45						
459	Tiadinil	68.69	14.95	89.64	6.17	81.20	11.88						
460	Tiocarbazil	101.01	3.32	93.22	2.85	83.11	2.22	91.54	10.12	93.80	7.38	86.68	3.40
461	Tolclofos-Methyl	94.67	27.51	111.60	9.09	88.41	7.66	88.68	6.32	94.98	6.09	94.11	3.31
462	Tolfenpyrad	91.72	2.87	90.15	5.20	82.07	3.10					86.25	10.55
463	trans-Diallate							90.19	15.21	102.26	9.05	100.56	6.58
464	triallate	114.35	14.44	84.87	11.81	88.02	7.13	87.97	8.82	91.81	4.04	88.32	4.11
465	Triamiphos	82.28	4.47	84.14	6.03	80.41	2.86	76.72	18.25	79.90	7.35	80.67	5.85
466	Triapthenol	89.15	4.44	92.66	6.09	89.29	3.53	89.63	11.98	92.63	5.63	92.75	2.99
467	Triasulfuron	84.77	3.27	83.67	7.11	82.64	4.00						
468	Tribufos	93.01	2.36	88.89	4.41	81.21	2.59	85.09	6.58	89.05	6.64	87.32	2.52
469	Trichloronat							83.02	3.73	83.32	5.86	84.66	3.02
470	Triclopyricarb			120.85	7.75	89.39	6.31						
471	Trietazine	89.00	3.74	91.56	6.41	88.31	3.87	90.01	9.65	95.16	7.78	90.76	3.88
472	Trifloxystrobin	98.54	1.50	99.64	3.77	90.55	2.79	111.02	11.10	102.74	9.08	85.67	3.28
473	Triflumizole	92.07	2.00	89.92	3.79	81.76	2.81	95.69	7.61	85.61	3.99	86.77	4.28
474	Trifluralin							102.37	6.90	116.01	7.74	98.51	7.34
475	Triflusulfuron-Methyl	78.06	6.06	80.84	9.03	76.37	5.13						

No.	Pesticides	GC-Q-TOF/MS						LC-Q-TOF/MS					
		10 µg/kg		20 µg/kg		100 µg/kg		10 µg/kg		20 µg/kg		100 µg/kg	
		REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%	REC%	RSD%
476	Tri-Isobutyl Phosphate	90.56	6.25	95.01	6.61	91.84	4.71	90.90	6.22	94.40	7.04	93.05	3.54
477	Trinexapac-Ethyl	73.47	13.80	66.69	9.22	67.08	4.52						
478	Triticonazole	95.33	14.01	70.34	8.89	75.73	15.02			75.26	11.12	84.87	5.11
479	Tritosulfuron			21.55	21.38	35.50	8.04						
480	Uniconazole	91.57	3.15	86.07	3.70	83.90	3.33	85.10	9.80	87.94	7.44	85.21	5.23
481	Vernolate	82.14	11.17	98.50	13.87	92.13	3.04	107.44	5.07	91.72	7.37	88.92	6.27
482	Zoxamide	97.85	3.11	94.64	4.72	90.47	3.26	81.77	3.74	75.59	5.28	75.03	1.77