

Table 1 – Parameters related to active compounds analysed by GC-MS/MS

Active compound	Ret Time (min)	Parent ion (M/Z)	Product ion (M/Z)	Collision Energy (eV)	Time Window (min)
Allidochlor	7.4	132	56	6	2
Allidochlor	7.4	138	81	8	2
Allidochlor	7.4	138	96	8	2
Dichloroaniline. 3.4'	9.75	161	99	21	2
Dichloroaniline. 3.4'	9.75	161	126	8	2
Dichloroaniline. 3.4'	9.75	163	90	16	2
Pebulate	9.94	128	57	8	2
Pebulate	9.94	161	128	6	2
Pebulate	9.94	203	128.1	8	2
Methacrifos	10.5	125	79	6	2
Methacrifos	10.5	180	93	8	2
Methacrifos	10.5	240	180	10	2
Chloroneb	10.72	191	113	13	2
Chloroneb	10.72	191	141	10	2
Tetrahydrophthalimide	10.73	151	77	32	2
Tetrahydrophthalimide	10.73	151	80	6	2
Tetrahydrophthalimide	10.73	151	122	10	2
Pentachlorobenzene	10.9	250	142	30	2
Pentachlorobenzene	10.9	250	179	30	2
Pentachlorobenzene	10.9	250	215	20	2
2-Phenylphenol	10.95	141	115	12	2
2-Phenylphenol	10.95	170	115	34	2
2-Phenylphenol	10.95	170	141	22	2n
Tecnazene	11.91	215	144	22	2
Tecnazene	11.91	215	179	8	2
Tecnazene	11.91	261	203	13	2
Propachlor	12.11	120	77	19	2
Propachlor	12.11	120	92	8	2
Propachlor	12.11	176	57	8	2
Tetrachloroaniline. 2.3.5.6-	12.45	231	122	30	2
Tetrachloroaniline. 2.3.5.6-	12.45	231	158	20	2
Tetrachloroaniline. 2.3.5.6-	12.45	231	160	22	2
Diphenylamine	12.46	167	166	17	2
Diphenylamine	12.46	169	167	25	2
Diphenylamine	12.46	169	168	12	2
Ethalfuralin	12.46	276	202	15	2
Ethalfuralin	12.46	316	202	26	2
Ethalfuralin	12.46	316	276	10	2
Cycloate	12.49	154	83	8	2
Cycloate	12.49	215	83	30	2
Cycloate	12.49	215	154	12	2
Trifluralin	12.66	306	160	23	2
Trifluralin	12.66	306	206	12	2
Trifluralin	12.66	306	264	8	2
Benfluralin	12.74	292	160	20	2
Benfluralin	12.74	292	206	12	2
Benfluralin	12.74	292	264	8	2
Chlorpropham	12.8	127	65	22	2
Chlorpropham	12.8	171	127	8	2
Chlorpropham	12.8	213	171	8	2
Sulfotep	12.87	202	146	10	2
Sulfotep	12.87	322	146.1	23	2
Sulfotep	12.87	322	202	10	2
Phorate	13.24	121	65	10	2
Phorate	13.24	121	93	6	2
Phorate	13.24	260	75	8	2
BHC. alpha-	13.47	181	145	13	2
BHC. alpha-	13.47	217	145	18	2
BHC. alpha-	13.47	219	183	8	2
Hexachlorobenzene	13.47	249	214.1	14	2
Hexachlorobenzene	13.47	284	214	30	2
Hexachlorobenzene	13.47	284	249	18	2
Profluralin	14.03	318	199	17	2
Profluralin	14.03	318	264	8	2
Profluralin	14.03	330	69	25	2
Quintozene	14.1	235	141	26	2
Quintozene	14.1	237	119	22	2
Quintozene	14.1	295	237	15	2
Clomazone	14.11	125	89	13	2
Clomazone	14.11	125	99	17	2

Clomazone	14.11	204	107	18	2
BHC. beta-	14.22	181	109	27	2
BHC. beta-	14.22	181	145	15	2
BHC. beta-	14.22	219	183	8	2
Pentachlorobenzonitrile	14.25	273	177	25	2
Pentachlorobenzonitrile	14.25	273	238	17	2
Pentachlorobenzonitrile	14.25	275	205	30	2
Terbufos	14.26	231	129	23	2
Terbufos	14.26	231	175	12	2
Terbufos	14.26	231	203	8	2
BHC. gamma-	14.33	181	109	29	2
BHC. gamma-	14.33	181	145	13	2
BHC. gamma-	14.33	219	183	8	2
Terbutylazine—	14.34	173	138.1	8	2
Terbutylazine—	14.34	229	138	12	2
Terbutylazine—	14.34	229	173	8	2
Propyzamide	14.37	173	74	46	2
Propyzamide	14.37	173	109	27	2
Propyzamide	14.37	173	145	13	2
Fluchloralin	14.38	264.1	160.1	15	2
Fluchloralin	14.38	306	160	20	2
Fluchloralin	14.38	306	264	8	2
Fonofos	14.43	137	109	6	2
Fonofos	14.43	246	109	16	2
Fonofos	14.43	246	137	8	2
Tefluthrin	14.61	177	127	15	2
Tefluthrin	14.61	177	137	15	2
Tefluthrin	14.61	197	161	6	2
Disulfoton	14.72	88	60	6	2
Disulfoton	14.72	142	109	6	2
Disulfoton	14.72	153	97	12	2
Triallate	14.86	268	184	20	2
Triallate	14.86	268	226	10	2
Triallate	14.86	270	186	18	2
Terbacil	14.87	160	117	8	2
Terbacil	14.87	161	88	22	2
Terbacil	14.87	161	144	14	2
BHC. delta-	15.14	181	109	28	2
BHC. delta-	15.14	181	145	13	2
BHC. delta-	15.14	219	183	8	2
Endosulfan ether	15.39	239	204	13	2
Endosulfan ether	15.39	241	206	13	2
Endosulfan ether	15.39	272	237	10	2
Dimethachlor	15.48	134	77	25	2
Dimethachlor	15.48	134	105	13	2
Dimethachlor	15.48	197	148	8	2
Acetochlor	15.53	174	146	12	2
Acetochlor	15.53	223	132	20	2
Acetochlor	15.53	223	147	10	2
Chlorpyrifos-methyl	15.61	286	93	24	2
Chlorpyrifos-methyl	15.61	286	208	10	2
Chlorpyrifos-methyl	15.61	286	271	12	2
Alachlor	15.74	146	118	8	2
Alachlor	15.74	188	130	32	2
Alachlor	15.74	188	160	10	2
Transfluthrin	15.76	127	91.1	8	2
Transfluthrin	15.76	163	91	12	2
Transfluthrin	15.76	163	143	13	2
Propisochlor	15.81	162	120	13	2
Propisochlor	15.81	162	144	10	2
Propisochlor	15.81	223	132	18	2
Tolclofos-methyl	15.82	265	93	25	2
Tolclofos-methyl	15.82	265	250	10	2
Tolclofos-methyl	15.82	267	252	10	2
Methyl parathion	15.83	263	79	30	2
Methyl parathion	15.83	263	109	10	2
Methyl parathion	15.83	263	136	8	2
Heptachlor	15.97	100	65	12	2
Heptachlor	15.97	270	235	13	2
Heptachlor	15.97	272	237	13	2
Fenchlorphos	16.01	285	240	23	2
Fenchlorphos	16.01	285	270	11	2
Fenchlorphos	16.01	287	272	11	2
Pirimiphos-methyl	16.21	290	125	20	2
Pirimiphos-methyl	16.21	290	233	10	2
Pirimiphos-methyl	16.21	305	180	8	2
Malathion	16.52	127	99	6	2

Malathion	16.52	173	99	13	2
Malathion	16.52	173	127	6	2
Pentachlorothioanisole	16.53	296	246	32	2
Pentachlorothioanisole	16.53	296	263	12	2
Pentachlorothioanisole	16.53	298	265	8	2
Metolachlor	16.63	162	133	13	2
Metolachlor	16.63	238	133	27	2
Metolachlor	16.63	238	162	10	2
Chlorpyrifos	16.67	197	107	36	2
Chlorpyrifos	16.67	197	169	14	2
Chlorpyrifos	16.67	314	258	12	2
Aldrin	16.82	263	191	35	2
Aldrin	16.82	263	193	31	2
Aldrin	16.82	298	263	16	2
Fenthion	16.86	278	109	18	2
Fenthion	16.86	278	125	22	2
Fenthion	16.86	278	169	17	2
Parathion	16.92	109	81	8	2
Parathion	16.92	139	109	8	2
Parathion	16.92	291	109.1	10	2
Anthraquinone	17.06	180.1	152.1	15	2
Anthraquinone	17.06	208	152	23	2
Anthraquinone	17.06	208	180	20	2
Pirimiphos-ethyl	17.09	318	166	12	2
Pirimiphos-ethyl	17.09	318	182	8	2
Pirimiphos-ethyl	17.09	333	168	22	2
Dichlorobenzophenone. 4.4'-	17.2	111.1	75.1	12	2
Dichlorobenzophenone. 4.4'-	17.2	139	75	27	2
Dichlorobenzophenone. 4.4'-	17.2	139	111	13	2
MGK 264 1	17.25	164	80	26	2
MGK 264 1	17.25	164	93	12	2
MGK 264 1	17.25	164	121	8	2
Isopropalin	17.25	280	118	25	2
Isopropalin	17.25	280	180	10	2
Isopropalin	17.25	280	238	8	2
Bromophos-methyl	17.25	329	314	13	2
Bromophos-methyl	17.25	331	286	26	2
Bromophos-methyl	17.25	331	316	13	2
Fenson	17.33	141	77	8	2
Fenson	17.33	268	77	18	2
Fenson	17.33	268	141	8	2
Fipronil	17.45	213	143	28	2
Fipronil	17.45	367	213	30	2
Fipronil	17.45	369	215	30	2
Metazachlor	17.58	133	117.1	25	2
Metazachlor	17.58	209	117	35	2
Metazachlor	17.58	209	132	15	2
Chlozolate	17.62	186	145	16	2
Chlozolate	17.62	259	153	26	2
Chlozolate	17.62	331	259	8	2
Penconazole	17.67	159	89	30	2
Penconazole	17.67	248	157	26	2
Penconazole	17.67	248	192	16	2
Chlorfenvinphos 1	17.7	267	159	15	2
Chlorfenvinphos 1	17.7	295	267.1	5	2
Chlorfenvinphos 1	17.7	323	267	10	2
Bromfenvinphos-methyl	17.78	109	79	10	2
Bromfenvinphos-methyl	17.78	295	93	20	2
Bromfenvinphos-methyl	17.78	295	109	15	2
Bromophos-ethyl	18.14	331	303	8	2
Bromophos-ethyl	18.14	357	301	15	2
Bromophos-ethyl	18.14	359	303	17	2
Chlordane. trans-	18.31	272	237	13	2
Chlordane. trans-	18.31	373	264	18	2
Chlordane. trans-	18.31	375	266	18	2
DDE. o.p'-	18.32	246	176	32	2
DDE. o.p'-	18.32	316	246	15	2
DDE. o.p'-	18.32	318	176	56	2
Chlorbenside	18.36	125	89	17	2
Chlorbenside	18.36	125	99	19	2
Chlorbenside	18.36	268	125	8	2
Chlordane. cis-	18.58	272	237	12	2
Chlordane. cis-	18.58	375	266	21	2
Chlordane. cis-	18.58	377	268	19	2
Nonachlor. trans-	18.6	409	263	25	2
Nonachlor. trans-	18.6	409	300	20	2
Nonachlor. trans-	18.6	409	302	22	2

Endosulfan I	18.62	195	125	19	2
Endosulfan I	18.62	195	159	6	2
Endosulfan I	18.62	241	206	10	2
Bromfenvinphos	18.62	267	159	15	2
Bromfenvinphos	18.62	323	267	10	2
Bromfenvinphos	18.62	325	269	15	2
Fenamiphos	18.67	217	202	9	2
Fenamiphos	18.67	303	154	15	2
Fenamiphos	18.67	303	195	8	2
Pretilachlor	18.78	162	117	30	2
Pretilachlor	18.78	162	132	18	2
Pretilachlor	18.78	262	202	8	2
Prothiofos	18.81	267	221	16	2
Prothiofos	18.81	267	239	8	2
Prothiofos	18.81	309	239	15	2
Iodofenfos	18.81	377	93	34	2
Iodofenfos	18.81	377	332	30	2
Iodofenfos	18.81	377	362	15	2
Chlorfenson	18.91	175	111	15	2
Chlorfenson	18.91	177	113	15	2
Chlorfenson	18.91	302	175	15	2
Oxadiazon	18.94	175	112	13	2
Oxadiazon	18.94	175	147	8	2
Oxadiazon	18.94	258	175	8	2
Fludioxonil	18.96	154	127	8	2
Fludioxonil	18.96	248	127	30	2
Fludioxonil	18.96	248	154	20	2
Profenofos	18.96	337	267	13	2
Profenofos	18.96	339	188	30	2
Profenofos	18.96	339	269	13	2
DDE. p.p'-	19.06	246	176	28	2
DDE. p.p'-	19.06	316	246	20	2
DDE. p.p'-	19.06	318	248	22	2
Oxyfluorfen	19.1	252	146	33	2
Oxyfluorfen	19.1	252	170	27	2
Oxyfluorfen	19.1	300	223	15	2
DDD. o.p'-	19.23	235	165	22	2
DDD. o.p'-	19.23	235	199	14	2
DDD. o.p'-	19.23	235	200	10	2
Dieldrin	19.26	263	193	34	2
Dieldrin	19.26	277	241	8	2
Dieldrin	19.26	279	243	10	2
Fluazifop-P-butyl	19.45	383	254	20	2
Fluazifop-P-butyl	19.45	383	268	8	2
Fluazifop-P-butyl	19.45	383	282	12	2
Chlorthiophos 1	19.49	257	165	26	2
Chlorthiophos 1	19.49	257	193	16	2
Chlorthiophos 1	19.49	257	239	12	2
Ethylan	19.6	223	167	12	2
Ethylan	19.6	223	179	22	2
Ethylan	19.6	223	193	28	2
Chlorobenzilate	19.7	139	111	12	2
Nitrofen	19.7	202	139	20	2
Chlorobenzilate	19.7	251	111	32	2
Chlorobenzilate	19.7	251	139	14	2
Nitrofen	19.7	283	162	18	2
Nitrofen	19.7	283	202	10	2
Chlorthiophos 2	19.72	269	205	15	2
Chlorthiophos 2	19.72	297	269	8	2
Chlorthiophos 2	19.72	325	269	14	2
Endrin	19.76	245	173	25	2
Endrin	19.76	263	193	30	2
Endrin	19.76	279	243	8	2
Chlorthiophos 3	20	269	205	15	2
Chlorthiophos 3	20	297	269	8	2
Chlorthiophos 3	20	325	269	14	2
Nonachlor. cis-	20.02	272	237	15	2
Nonachlor. cis-	20.02	409	300	23	2
Nonachlor. cis-	20.02	409	302	20	2
DDD. p.p'-	20.05	235	165	24	2
DDD. p.p'-	20.05	235	199	12	2
DDD. p.p'-	20.05	237	165	22	2
DDT. o.p'-	20.07	235	165	21	2
DDT. o.p'-	20.07	235	199	16	2
DDT. o.p'-	20.07	237	165	22	2
Sulprofos	20.35	156	141	13	2
Sulprofos	20.35	322	97	24	2

Sulprofos	20.35	322	156	8	2
Carfentrazone ethyl	20.39	330	141	44	2
Carfentrazone ethyl	20.39	330	310	8	2
Carfentrazone ethyl	20.39	340	312	10	2
4.4'-Methoxychlor olefin	20.57	238	152	35	2
4.4'-Methoxychlor olefin	20.57	238	195	20	2
4.4'-Methoxychlor olefin	20.57	308	223	30	2
Carbophenothion	20.6	125	97	6	2
Carbophenothion	20.6	199	143	10	2
Carbophenothion	20.6	342	157	10	2
Norflurazon	20.69	145	75	25	2
Norflurazon	20.69	145	95	18	2
Norflurazon	20.69	303	145	17	2
DDT, p.p'-	20.86	235	165	21	2
DDT, p.p'-	20.86	235	199	16	2
DDT, p.p'-	20.86	237	165	22	2
Endosulfan sulfate	20.87	241	206	15	2
Endosulfan sulfate	20.87	272	237	15	2
Endosulfan sulfate	20.87	274	239	15	2
2.4'-Methoxychlor	20.97	121	78	20	2
2.4'-Methoxychlor	20.97	121	91	12	2
2.4'-Methoxychlor	20.97	227	121	12	2
Hexazinone	21.06	128	83	10	2
Hexazinone	21.06	171	71	16	2
Hexazinone	21.06	171	85	16	2
Piperonyl butoxide	21.19	176	103	26	2
Piperonyl butoxide	21.19	176	117	20	2
Piperonyl butoxide	21.19	176	131	14	2
Resmethrin 1	21.24	123	81	8	2
Resmethrin 1	21.24	143	128	10	2
Resmethrin 1	21.24	171	143	6	2
Pyridaphenthion	21.69	340	97	34	2
Pyridaphenthion	21.69	340	109	20	2
Pyridaphenthion	21.69	340	199	8	2
Bifenthrin	21.7	165	115	30	2
Bifenthrin	21.7	181	165	25	2
Bifenthrin	21.7	181	166	10	2
Iprodione	21.71	187	124.1	24	2
Iprodione	21.71	314	245	10	2
Iprodione	21.71	314	271	12	2
Tetramethrin 1	21.73	164	77	22	2
Tetramethrin 1	21.73	164	107	12	2
Tetramethrin 1	21.73	164	135	8	2
Tetramethrin 2	21.91	164	77	25	2
Tetramethrin 2	21.91	164	107	12	2
Tetramethrin 2	21.91	164	135	8	2
Bromopropylate	21.91	183	155	12	2
Bromopropylate	21.91	341	183	15	2
Bromopropylate	21.91	341	185	13	2
EPN	21.95	157	110	14	2
EPN	21.95	169	77	22	2
EPN	21.95	169	141	8	2
Fenpropathrin	22.01	181	127	24	2
Fenpropathrin	22.01	181	152	24	2
Fenpropathrin	22.01	265	210	16	2
Methoxychlor	22.06	227	115	50	2
Methoxychlor	22.06	227	141	33	2
Methoxychlor	22.06	227	169	25	2
Tebufenpyrad	22.14	276	171	10	2
Tebufenpyrad	22.14	318	131	13	2
Tebufenpyrad	22.14	333	276	8	2
Phenothrin 1	22.3	123	81	20	2
Phenothrin 1	22.3	183	153	20	2
Phenothrin 1	22.3	183	168	20	2
Phenothrin 2	22.43	123	81	8	2
Phenothrin 2	22.43	183	153	14	2
Phenothrin 2	22.43	183	168	12	2
Tetradifon	22.61	159	111	20	2
Tetradifon	22.61	159	131	10	2
Tetradifon	22.61	227	199	10	2
Phosalone	22.68	121.1	65	10	2
Phosalone	22.68	182	74.8	30	2
Phosalone	22.68	182	111	16	2
Pyriproxyfen	22.83	136	78	20	2
Pyriproxyfen	22.83	136	96	12	2
Pyriproxyfen	22.83	226	186	10	2
Cyhalothrin, lambda-	22.87	181	152	23	2

Cyhalothrin. lambda-	22.87	197	141	10	2
Cyhalothrin. lambda-	22.87	208	181	8	2
Acrinathrin	22.95	181	152	22	2
Acrinathrin	22.95	181.1	127.1	30	2
Acrinathrin	22.95	208	181	8	2
Pyrazophos	23.17	221	193	8	2
Pyrazophos	23.17	232	204	8	2
Pyrazophos	23.17	265	210	10	2
Mirex	23.27	272	237	15	2
Mirex	23.27	274	143	40	2
Mirex	23.27	274	239	15	2
Azinphos-ethyl	23.52	132	77	12	2
Azinphos-ethyl	23.52	160	77	18	2
Azinphos-ethyl	23.52	160	132	6	2
Pyraclofos	23.62	194	138	18	2
Pyraclofos	23.62	360	96.9	35	2
Pyraclofos	23.62	360	194	20	2
Permethrin. cis	23.93	163	127	12	2
Permethrin. cis	23.93	183	153	12	2
Permethrin. cis	23.93	183	168	10	2
Permethrin. trans	24.07	163	127	6	2
Permethrin. trans	24.07	183	153	14	2
Permethrin. trans	24.07	183	168	10	2
Coumaphos	24.15	210	182	10	2
Coumaphos	24.15	362	109	17	2
Coumaphos	24.15	362	226	13	2
Pyridaben	24.17	147	117	20	2
Pyridaben	24.17	147	119	8	2
Pyridaben	24.17	147	132	13	2
Fluquinconazole	24.2	340	108	42	2
Fluquinconazole	24.2	340	298	14	2
Fluquinconazole	24.2	340	313	12	2
Cyfluthrin+Cypermethrin	24.86	163	91.1	14	2
Cyfluthrin+Cypermethrin	24.86	163	127	6	2
Cyfluthrin+Cypermethrin	24.86	165.1	91	15	2
Cyfluthrin+Cypermethrin	24.86	181.1	152.1	18	2
Cyfluthrin+Cypermethrin	24.86	206	151	15	2
Flucythrinate 1	25.08	157	107	13	2
Flucythrinate 1	25.08	199	107	24	2
Flucythrinate 1	25.08	199	157	8	2
Flucythrinate 2	25.31	157	107	13	2
Flucythrinate 2	25.31	199	107	24	2
Flucythrinate 2	25.31	199	157	8	2
Etofenprox	25.32	163	77	34	2
Etofenprox	25.32	163	107	18	2
Etofenprox	25.32	163	135	10	2
Fenvalerate 1	26	167	125	8	2
Fenvalerate 1	26	169	127	10	2
Fenvalerate 1	26	225	119	15	2
tau-Fluvalinate 1	26.01	250	55	23	2
tau-Fluvalinate 1	26.01	250	200	19	2
tau-Fluvalinate 1	26.01	252	55.1	17	2
tau-Fluvalinate 2	26.09	250	55	23	2
tau-Fluvalinate 2	26.09	250	200	19	2
tau-Fluvalinate 2	26.09	252	55.1	17	2
Fenvalerate 2	26.24	167	125	8	2
Fenvalerate 2	26.24	169	127	10	2
Fenvalerate 2	26.24	225	119	15	2

Table 2 – Parameters related to active compounds analysed by LC-MS/MS

Active compound	Ret. Time (min)	Parent ion (M/Z)	Product ion (M/Z)	Collision Energy (eV)	Time Windows (min)
Propamocarb	0.6	189.2	102	25	1.2
Propamocarb	0.6	189.2	144	19	1.2
Omethoate	0.6	214	124.9	31	1.2
Omethoate	0.6	214	182.8	17	1.2
Pymetrozine	0.57	218	78	61	1.1
Pymetrozine	0.57	218	105	27	1.1
Methamidophos	0.58	142	94	19	1.1
Methamidophos	0.58	142	125	19	1.1
Formetanate HCl	0.59	222.1	120	37	1.1
Formetanate HCl	0.59	222.1	165	23	1.1
Carbendazim	0.63	192.1	132.1	25	1.2
Carbendazim	0.63	192.1	160.1	20	1.2
Dinotefuran	1.38	203.1	129.2	17	2
Dinotefuran	1.38	203.1	157.2	11	2
Nitenpyram	1.46	271	126	35	2
Nitenpyram	1.46	271	225.2	17	2
Clothianidin	3.93	250	132	21	2
Clothianidin	3.93	250	169	19	2
Imidacloprid	4.02	256	175.1	25	2
Imidacloprid	4.02	256	209.1	21	2
Dimethoate	4.17	230	125	29	2
Dimethoate	4.17	230	199	13	2
Acetamiprid	4.2	223	99	53	2
Acetamiprid	4.2	223	126	29	2
Pirimicarb	4.28	239.2	72.1	33	2
Pirimicarb	4.28	239.2	182.1	21	2
Cymoxanil	4.39	198.9	111.2	23	2
Cymoxanil	4.39	198.9	128.2	12	2
Ethirimol	4.5	210.2	98.1	39	2
Ethirimol	4.5	210.2	140.1	31	2
Thiacloprid	4.54	253	99	59	2
Thiacloprid	4.54	253	126	29	2
Thiophanate-methyl	5.1	343	151.1	31	2
Thiophanate-methyl	5.1	343	311	17	2
Metribuzin	5.14	215.1	84.1	31	2
Metribuzin	5.14	215.1	187.1	25	2
Imazalil	5.35	297	159	29	2
Imazalil	5.35	297	201	25	2
Flutriafol	5.7	302.1	70.1	59	2
Flutriafol	5.7	302.1	123	37	2
Metalaxyl	5.8	280.1	192.2	25	2
Metalaxyl	5.8	280.1	220.2	19	2
Fenpropimorph	6	304	117	73	2
Fenpropimorph	6	304	147	39	2
Chlorantraniliprole	6.14	484	285.9	17	2
Chlorantraniliprole	6.14	484	452.9	21	2
Spiroxamine	6.33	298.2	100.1	43	2
Spiroxamine	6.33	298.2	144.2	29	2
Azoxystrobin	6.42	404.1	344.1	33	2
Azoxystrobin	6.42	404.1	372.1	19	2
Ethofumesate	6.49	287.1	121.1	23	2
Ethofumesate	6.49	287.1	259.1	15	2
Linuron	6.5	249.1	160	25	2
Linuron	6.5	249.1	182.1	21	2
Methiocarb	6.6	226.1	121.1	27	2
Methiocarb	6.6	226.1	169.1	13	2
Dimethomorph	6.75	388.1	165.1	45	2
Dimethomorph	6.75	388.1	301	29	2
Boscalid	6.75	343	140	25	2
Boscalid	6.75	343	307	27	2
Mandipropamid	6.82	412.1	328.1	19	2
Mandipropamid	6.82	412.1	356.1	15	2
Bupirimate	6.96	317	166.1	33	2
Bupirimate	6.96	317	108	35	2

Methoxyfenozide	7.08	369.1	149.1	21	2
Methoxyfenozide	7.08	369.1	313.2	11	2
Cyprodinil	7.15	226	77	61	2
Cyprodinil	7.15	226	93	47	2
Myclobutanil	7.17	289	70	41	2
Myclobutanil	7.17	289	125	39	2
Clethodim Isomer 1	7.21	360.1	164	29	2
Clethodim Isomer 1	7.21	360.1	268.1	17	2
Bifenazate	7.33	301.1	170.1	27	2
Bifenazate	7.33	301.1	198.1	13	2
Mepanipyrim	7.34	224	77	55	2
Mepanipyrim	7.34	224	106	35	2
Iprovalicarb	7.43	321.2	119	47	2
Iprovalicarb	7.43	321.2	203.1	13	2
Fenhexamid	7.54	302	55	61	2
Fenhexamid	7.54	302	97	33	2
Fenarimol	7.57	331	81	55	2
Fenarimol	7.57	331	268	35	2
Flutriafol	5.7	302.1	70.1	59	2
Flutriafol	5.7	302.1	123	37	2
Metalaxyl	5.8	280.1	192.2	25	2
Metalaxyl	5.8	280.1	220.2	19	2
Fenpropimorph	6	304	117	73	2
Fenpropimorph	6	304	147	39	2
Chlorantraniliprole	6.14	484	285.9	17	2
Chlorantraniliprole	6.14	484	452.9	21	2
Spiroxamine	6.33	298.2	100.1	43	2
Spiroxamine	6.33	298.2	144.2	29	2
Azoxystrobin	6.42	404.1	344.1	33	2
Azoxystrobin	6.42	404.1	372.1	19	2
Ethofumesate	6.49	287.1	121.1	23	2
Ethofumesate	6.49	287.1	259.1	15	2
Linuron	6.5	249.1	160	25	2
Linuron	6.5	249.1	182.1	21	2
Methiocarb	6.6	226.1	121.1	27	2
Methiocarb	6.6	226.1	169.1	13	2
Dimethomorph	6.75	388.1	165.1	45	2
Dimethomorph	6.75	388.1	301	29	2
Boscalid	6.75	343	140	25	2
Boscalid	6.75	343	307	27	2
Mandipropamid	6.82	412.1	328.1	19	2
Mandipropamid	6.82	412.1	356.1	15	2
Bupirimate	6.96	317	166.1	33	2
Bupirimate	6.96	317	108	35	2
Methoxyfenozide	7.08	369.1	149.1	21	2
Methoxyfenozide	7.08	369.1	313.2	11	2
Cyprodinil	7.15	226	77	61	2
Cyprodinil	7.15	226	93	47	2
Myclobutanil	7.17	289	70	41	2
Myclobutanil	7.17	289	125	39	2
Clethodim Isomer 1	7.21	360.1	164	29	2
Clethodim Isomer 1	7.21	360.1	268.1	17	2
Bifenazate	7.33	301.1	170.1	27	2
Bifenazate	7.33	301.1	198.1	13	2
Mepanipyrim	7.34	224	77	55	2
Mepanipyrim	7.34	224	106	35	2
Iprovalicarb	7.43	321.2	119	47	2
Iprovalicarb	7.43	321.2	203.1	13	2
Fenhexamid	7.54	302	55	61	2
Fenhexamid	7.54	302	97	33	2
Fenarimol	7.57	331	81	55	2
Fenarimol	7.57	331	268	35	2
Spirotetramat	7.59	374.2	302.2	27	2
Spirotetramat	7.59	374.2	330.2	23	2
Etaconazole	7.62	328.1	159	31	2
Etaconazole	7.62	328.1	205	23	2
Triticonazole	7.64	318.1	70	35	2
Triticonazole	7.64	318.1	125	49	2
Tetraconazole	7.73	372.1	70	47	2
Tetraconazole	7.73	372.1	159	35	2

Fenbuconazole	8.09	337	70	39	2
Fenbuconazole	8.09	337	124.9	55	2
Tebufenozide	8.31	353.2	133	23	2
Tebufenozide	8.31	353.2	297.2	11	2
Neburon	8.43	275	88	23	2
Neburon	8.43	275	114	21	2
Prochloraz	8.6	376	70	43	2
Prochloraz	8.6	376	308	15	2
Tebuconazole	8.74	308.2	70	51	2
Tebuconazole	8.74	308.2	125	55	2
Flubendiamide	8.75	683.1	274.1	41	2
Flubendiamide	8.75	683.1	408	9	2
Propiconazole	8.88	342.1	69	39	2
Propiconazole	8.88	342.1	159	31	2
Zoxamide	9.02	336.1	159	55	2
Zoxamide	9.02	336.1	187	29	2
Spinosad (Spinosyn A)	9.3	732.5	98.1	95	2
Spinosad (Spinosyn A)	9.3	732.5	142.2	39	2
Pyraclostrobin	9.34	388	163	31	2
Pyraclostrobin	9.34	388	194	17	2
Triflumuron	9.5	359.1	139	45	2
Triflumuron	9.5	359.1	156.2	23	2
Difenoconazole	9.77	406.1	251.1	41	2
Difenoconazole	9.77	408.2	253.1	31	2
Triflumizole	9.82	346.1	73	27	2
Triflumizole	9.82	346.1	278.1	17	2
Spinosad (Spinosyn D)	9.83	746.8	98	55	2
Spinosad (Spinosyn D)	9.83	746.8	142.1	35	2
Trifloxystrobin	10	409	186	21	2
Trifloxystrobin	10	409	206	19	2
Indoxacarb	10.04	528	203	47	2
Indoxacarb	10.04	528	218	35	2
Clethodim Isomer 2	10.2	360.101	164	29	2
Clethodim Isomer 2	10.2	360.101	268.1	17	2
Buprofezin	10.23	306.2	116.2	23	2
Buprofezin	10.23	306.2	201.1	17	2
Tebufenpyrad	10.47	334	117	47	2
Tebufenpyrad	10.47	334	145	37	2
Quinoxifen	10.64	308.1	162.1	63	2
Quinoxifen	10.64	308.1	197.1	45	2
Metaflumizone	10.65	507.1	178.1	33	2
Metaflumizone	10.62	507.1	287.1	33	2
Lufenuron	10.75	511.1	141.2	61	2
Lufenuron	10.75	511.1	158.1	27	2
Hexythiazox	10.81	353.1	168	37	2
Hexythiazox	10.81	353.1	228	19	2
Spiromesifen	11	371.2	255.2	31	2
Spiromesifen	11	371.2	273.2	11	2
Etoxazole	11.01	360.1	57.2	51	2
Etoxazole	11.01	360.1	141	59	2
Propargite	11.01	368.2	175.1	23	2
Propargite	11.01	368.2	231.1	15	2
Fenpyroximate	11.21	422	135.1	53	2
Fenpyroximate	11.21	422	366.1	23	2

Table 3 - Parameters related to active compounds analyzed by Selected Reaction Monitoring acquisition (SRM)

Active compound	Ret Time (min)	Parent ion (M/Z)	Product ion (M/Z)	Collision Energy (eV)	Time Windows (min)
Propamocarb	0.6	189.2	102	25	1.2
Propamocarb	0.6	189.2	144	19	1.2
Omethoate	0.6	214	124.9	31	1.2
Omethoate	0.6	214	182.8	17	1.2
Pymetrozine	0.57	218	78	61	1.1
Pymetrozine	0.57	218	105	27	1.1
Methamidophos	0.58	142	94	19	1.1
Methamidophos	0.58	142	125	19	1.1
Formetanate HCl	0.59	222.1	120	37	1.1
Formetanate HCl	0.59	222.1	165	23	1.1
Carbendazim	0.63	192.1	132.1	25	1.2
Carbendazim	0.63	192.1	160.1	20	1.2
Dinotefuran	1.38	203.1	129.2	17	2
Dinotefuran	1.38	203.1	157.2	11	2
Nitenpyram	1.46	271	126	35	2
Nitenpyram	1.46	271	225.2	17	2
Clothianidin	3.93	250	132	21	2
Clothianidin	3.93	250	169	19	2
Imidacloprid	4.02	256	175.1	25	2
Imidacloprid	4.02	256	209.1	21	2
Dimethoate	4.17	230	125	29	2
Dimethoate	4.17	230	199	13	2
Acetamiprid	4.2	223	99	53	2
Acetamiprid	4.2	223	126	29	2
Pirimicarb	4.28	239.2	72.1	33	2
Pirimicarb	4.28	239.2	182.1	21	2
Cymoxanil	4.39	198.9	111.2	23	2
Cymoxanil	4.39	198.9	128.2	12	2
Ethirimol	4.5	210.2	98.1	39	2
Ethirimol	4.5	210.2	140.1	31	2
Thiacloprid	4.54	253	99	59	2
Thiacloprid	4.54	253	126	29	2
Thiophanate-methyl	5.1	343	151.1	31	2
Thiophanate-methyl	5.1	343	311	17	2
Metribuzin	5.14	215.1	84.1	31	2
Metribuzin	5.14	215.1	187.1	25	2
Imazalil	5.35	297	159	29	2
Imazalil	5.35	297	201	25	2
Imidacloprid	5.44	256	175.1	25	2
Imidacloprid	5.44	256	209.1	21	2
Fluometuron	5.53	233.1	46	37	2
Fluometuron	5.53	233.1	72.1	35	2
Flutriafol	5.7	302.1	70.1	59	2
Flutriafol	5.7	302.1	123	37	2
Metalaxyl	5.8	280.1	192.2	25	2
Metalaxyl	5.8	280.1	220.2	19	2
Pyrimethanil	5.81	200	82	37	2
Pyrimethanil	5.81	200	107	33	2
Fenpropimorph	6	304	117	73	2
Fenpropimorph	6	304	147	39	2
Chlorantraniliprole	6.14	484	285.9	17	2
Chlorantraniliprole	6.14	484	452.9	21	2
Spiroxamine	6.33	298.2	100.1	43	2
Spiroxamine	6.33	298.2	144.2	29	2
Azoxystrobin	6.42	404.1	344.1	33	2
Azoxystrobin	6.42	404.1	372.1	19	2
Ethofumesate	6.49	287.1	121.1	23	2
Ethofumesate	6.49	287.1	259.1	15	2
Linuron	6.5	249.1	160	25	2
Linuron	6.5	249.1	182.1	21	2

Methiocarb	6.6	226.1	121.1	27	2
Methiocarb	6.6	226.1	169.1	13	2
Dimethomorph	6.75	388.1	165.1	45	2
Dimethomorph	6.75	388.1	301	29	2
Boscalid	6.75	343	140	25	2
Boscalid	6.75	343	307	27	2
Mandipropamid	6.82	412.1	328.1	19	2
Mandipropamid	6.82	412.1	356.1	15	2
Bupirimate	6.96	317	166.1	33	2
Bupirimate	6.96	317	108	35	2
Methoxyfenozide	7.08	369.1	149.1	21	2
Methoxyfenozide	7.08	369.1	313.2	11	2
Cyprodinil	7.15	226	77	61	2
Cyprodinil	7.15	226	93	47	2
Myclobutanil	7.17	289	70	41	2
Myclobutanil	7.17	289	125	39	2
Cyproconazole	7.2	292	70	31	2
Cyproconazole	7.2	292	125	29	2
Clethodim Isomer 1	7.21	360.1	164	29	2
Clethodim Isomer 1	7.21	360.1	268.1	17	2
Bifenazate	7.33	301.1	170.1	27	2
Bifenazate	7.33	301.1	198.1	13	2
Mepanipyrim	7.34	224	77	55	2
Mepanipyrim	7.34	224	106	35	2
Iprovalicarb	7.43	321.2	119	47	2
Iprovalicarb	7.43	321.2	203.1	13	2
Fenhexamid	7.54	302	55	61	2
Fenhexamid	7.54	302	97	33	2
Fenarimol	7.57	331	81	55	2
Fenarimol	7.57	331	268	35	2
Spirotetramat	7.59	374.2	302.2	27	2
Spirotetramat	7.59	374.2	330.2	23	2
Etaconazole	7.62	328.1	159	31	2
Etaconazole	7.62	328.1	205	23	2
Triticonazole	7.64	318.1	70	35	2
Triticonazole	7.64	318.1	125	49	2
Tetraconazole	7.73	372.1	70	47	2
Tetraconazole	7.73	372.1	159	35	2
Cyazofamid	7.91	325.2	108	18	2
Cyazofamid	7.91	325.2	261.2	14	2
Fenbuconazole	8.09	337	70	39	2
Fenbuconazole	8.09	337	124.9	55	2
Tebuconazole	8.31	353.2	133	23	2
Tebuconazole	8.31	353.2	297.2	11	2
Neburon	8.43	275	88	23	2
Neburon	8.43	275	114	21	2
Prochloraz	8.6	376	70	43	2
Prochloraz	8.6	376	308	15	2
Tebuconazole	8.74	308.2	70	51	2
Tebuconazole	8.74	308.2	125	55	2
Flubendiamide	8.75	683.1	274.1	41	2
Flubendiamide	8.75	683.1	408	9	2
Propiconazole	8.88	342.1	69	39	2
Propiconazole	8.88	342.1	159	31	2
Zoxamide	9.02	336.1	159	55	2
Zoxamide	9.02	336.1	187	29	2
Spinosad (Spinosyn A)	9.3	732.5	98.1	95	2
Spinosad (Spinosyn A)	9.3	732.5	142.2	39	2
Pyraclostrobin	9.34	388	163	31	2
Pyraclostrobin	9.34	388	194	17	2
Triflumuron	9.5	359.1	139	45	2
Triflumuron	9.5	359.1	156.2	23	2
Difenoconazole	9.77	406.1	251.1	41	2
Difenoconazole	9.77	408.2	253.1	31	2
Triflumizole	9.82	346.1	73	27	2

Triflumizole	9.82	346.1	278.1	17	2
Spinosad (Spinosyn D)	9.83	746.8	98	55	2
Spinosad (Spinosyn D)	9.83	746.8	142.1	35	2
Trifloxystrobin	10	409	186	21	2
Trifloxystrobin	10	409	206	19	2
Indoxacarb	10.04	528	203	47	2
Indoxacarb	10.04	528	218	35	2
Clethodim Isomer 2	10.2	360.101	164	29	2
Clethodim Isomer 2	10.2	360.101	268.1	17	2
Buprofezin	10.23	306.2	116.2	23	2
Buprofezin	10.23	306.2	201.1	17	2
Tebufenpyrad	10.47	334	117	47	2
Tebufenpyrad	10.47	334	145	37	2
Quinoxifen	10.64	308.1	162.1	63	2
Quinoxifen	10.64	308.1	197.1	45	2
Metaflumizone	10.65	507.1	178.1	33	2
Metaflumizone	10.62	507.1	287.1	33	2
Lufenuron	10.75	511.1	141.2	61	2
Lufenuron	10.75	511.1	158.1	27	2
Hexythiazox	10.81	353.1	168	37	2
Hexythiazox	10.81	353.1	228	19	2
Spiromesifen	11	371.2	255.2	31	2
Spiromesifen	11	371.2	273.2	11	2
Etoxazole	11.01	360.1	57.2	51	2
Etoxazole	11.01	360.1	141	59	2
Propargite	11.01	368.2	175.1	23	2
Propargite	11.01	368.2	231.1	15	2
Fenpyroximate	11.21	422	135.1	53	2
Fenpyroximate	11.21	422	366.1	23	2

Table 4 - Materials and dilutions to prepare solutions for GC-MS/MS calibration curves

Solution	Concentration	Volume of standard solution	Final volume	Solvent
MRmix1	10 mg L ⁻¹	100 µL MRC Restek 1	1 mL	Acetonitrile
MRmix2	10 mg L ⁻¹	100 µL MRC Restek 2	1 mL	Acetonitrile
MRmix3	10 mg L ⁻¹	100 µL MRC Restek 3	1 mL	Acetonitrile
MRmix4	10 mg L ⁻¹	100 µL MRC Restek 4	1 mL	Acetonitrile
MRmix5	10 mg L ⁻¹	100 µL MRC Restek 5	1 mL	Acetonitrile
MRmix6	10 mg L ⁻¹	100 µL MRC Restek 6	1 mL	Acetonitrile
MRmix7	10 mg L ⁻¹	100 µL MRC Restek 7	1 mL	Acetonitrile
MRmix8	10 mg L ⁻¹	100 µL MRC Restek 8	1 mL	Acetonitrile
MRmix9	10 mg L ⁻¹	100 µL MRC Restek 9	1 mL	Acetonitrile
MRmix	1 mg L ⁻¹	100 µL MRmix1 100 µL MRmix2 100 µL MRmix3 100 µL MRmix4 100 µL MRmix5 100 µL MRmix6 100 µL MRmix7 100 µL MRmix8 100 µL MRmix9	1 mL	Acetonitrile
MRsur1 TPP	1000 mg L ⁻¹	10 mg di MRC TPP solido	10 mL	Acetonitrile
MRsur2 TPP	10 mg L ⁻¹	100 µL MRsur1 TPP (1000 mg L ⁻¹)	10 mL	Acetonitrile
MRsur3 TPP	1 mg L ⁻¹	1 mL MRsur2 TPP (10 mg L ⁻¹)	10 mL	Acetonitrile
MRcal1	25 µg L ⁻¹	25 µL MRmix (1 mg L ⁻¹) 25 µL MRsur3 (1 mg L ⁻¹)	1 mL	Matrix extract
MRcal2	50 µg L ⁻¹	50 µL MRmix (1 mg L ⁻¹) 50 µL MRsur3 (1 mg L ⁻¹)	1 mL	Matrix extract
MRcal3	75 µg L ⁻¹	75 µL MRmix (1 mg L ⁻¹) 75 µL MRsur3 (1 mg L ⁻¹)	1 mL	Matrix extract
MRcal4	100 µg L ⁻¹	100 µL MRmix (1 mg L ⁻¹) 100 µL MRsur3 (1 mg L ⁻¹)	1 mL	Matrix extract
MRcal5	150 µg L ⁻¹	150 µL MRmix (1 mg L ⁻¹) 150 µL MRsur3 (1 mg L ⁻¹)	1 mL	Matrix extract
MRcal6	300 µg L ⁻¹	300 µL MRmix (1 mg L ⁻¹) 300 µL MRsur3 (1 mg L ⁻¹)	1 mL	Matrix extract

Table 5 - Materials and dilutions to prepare solutions for LC-MS/MS calibration curves.

Solution	Concentration	Volume of standard	Final Volume	Solvent
MRmix1	10 mg L ⁻¹	100 µL MRC Restek 1	1 mL	Acetonitrile
MRmix2	10 mg L ⁻¹	100 µL MRC Restek 2	1mL	Acetonitrile
MRmix3	10 mg L ⁻¹	100 µL MRC Restek 3	1mL	Acetonitrile
MRmix4	10 mg L ⁻¹	100 µL MRC Restek 4	1mL	Acetonitrile
MRmix5	10 mg L ⁻¹	100 µL MRC Restek 5	1mL	Acetonitrile
MRmix6	10 mg L ⁻¹	100 µL MRC Restek 6	1mL	Acetonitrile
MRmix7	10 mg L ⁻¹	100 µL MRC Restek 7	1mL	Acetonitrile
MRmix8	10 mg L ⁻¹	100 µL MRC Restek 8	1mL	Acetonitrile
MRmix9	10 mg L ⁻¹	100 µL MRC Restek 9	1mL	Acetonitrile
MRmix10	10 mg L ⁻¹	100 µL MRC Restek 10	1mL	Acetonitrile
MRmix1*	1 mg L ⁻¹	100 µL MRmix1 100 µL MRmix2 100 µL MRmix3 100 µL MRmix4 100 µL MRmix5 100 µL MRmix6 100 µL MRmix7 100 µL MRmix8 100 µL MRmix9 100 µL MRmix10	1 mL	Acetonitrile
MRmix2*	0.1 mg L ⁻¹	100 µL MRmix1*	1 mL	Acetonitrile
MRsur1 Ethion	1000 mg L ⁻¹	10 mg di MRC Ethion solido	10 mL	Acetonitrile
MRsur2 Ethion	10 mg L ⁻¹	100 µL MRsur1 Ethion (1000 mg/l)	10 mL	Acetonitrile
MRsur3 Ethion	1 mg L ⁻¹	1 mL MRsur2 Ethion (10 mg/l)	10 mL	Acetonitrile
MRsur4 Ethion	0.1 mg L ⁻¹	100 µL MRsur3 Ethion (1 mg/l)	1 mL	Acetonitrile
MRcal1	2.5 µg L ⁻¹	25 µL MRmix2 (0.1 mg/l) 25 µL MRsur4 (0.1 mg/l)	1 mL	Matrix extract
MRcal2	5 µg L ⁻¹	50 µL MRmix2 (0.1 mg/l) 50 µL MRsur4 (0.1 mg/l)	1 mL	Matrix extract
MRcal3	10 µg L ⁻¹	10 µL MRmix1 (1 mg/l) 10 µL MRsur3 (1 mg/l)	1 mL	Matrix extract
MRcal4	20 µg L ⁻¹	20 µL MRmix1 (1 mg/l) 20 µL MRsur3 (1 mg/l)	1 mL	Matrix extract
MRcal5	40 µg L ⁻¹	40 µL MRmix1 (1 mg/l) 40 µL MRsur3 (1 mg/l)	1 mL	Matrix extract
MRcal6	100 µg L ⁻¹	100 µL MRmix1 (1 mg/l) 100 µL MRsur3 (1 mg/l)	1 mL	Matrix extract

Figure 1. Calibration curve for Chlorpyrifos. an analyte detectable by GC-MS/MS.

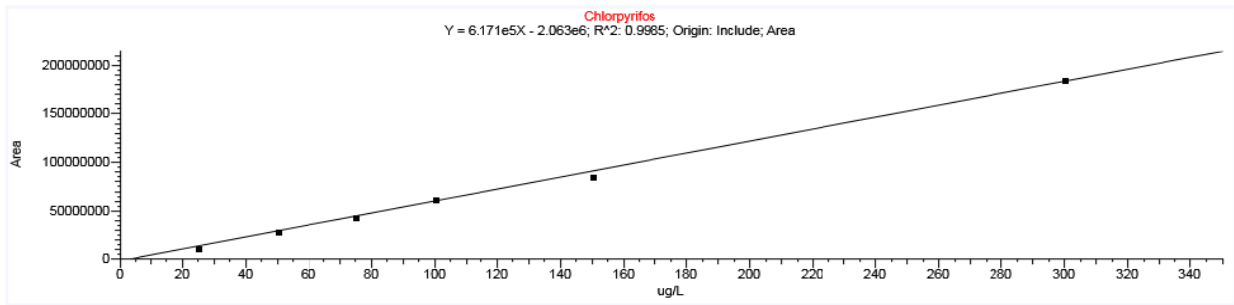


Figure 2. Calibration curve for Etofenprox. an analyte detectable by GC-MS/MS.

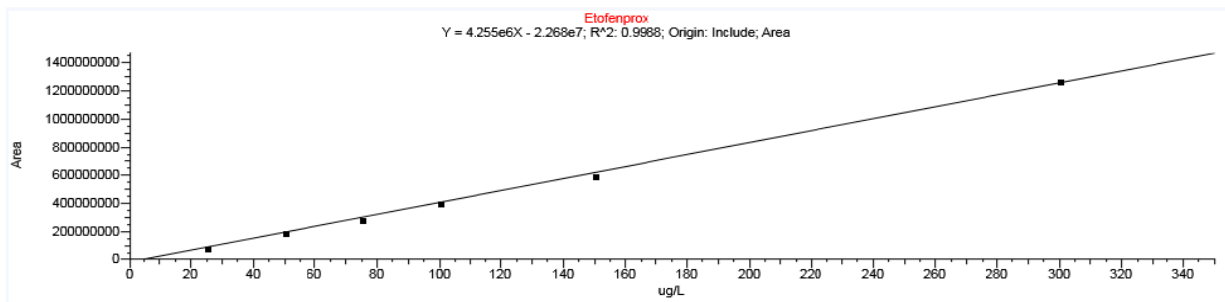


Figure 3. Calibration curve for Acetamiprid. an analyte detectable by LC-MS/MS.

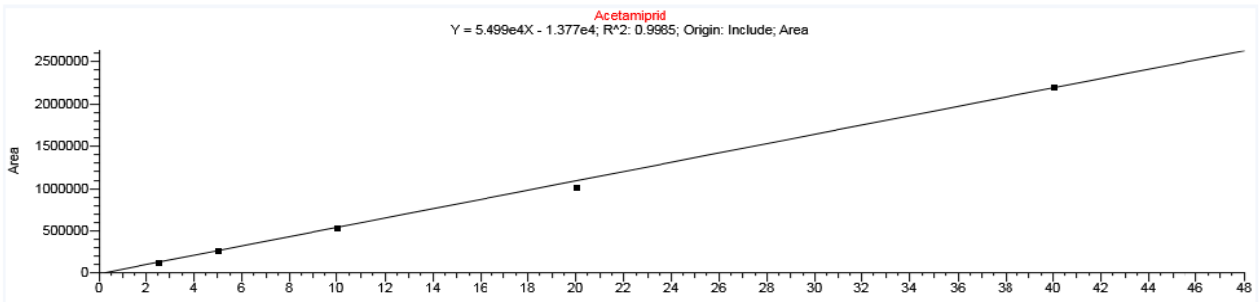


Figure 4. Calibration curve for Tebuconazole. an analyte detectable by LC-MS/MS.

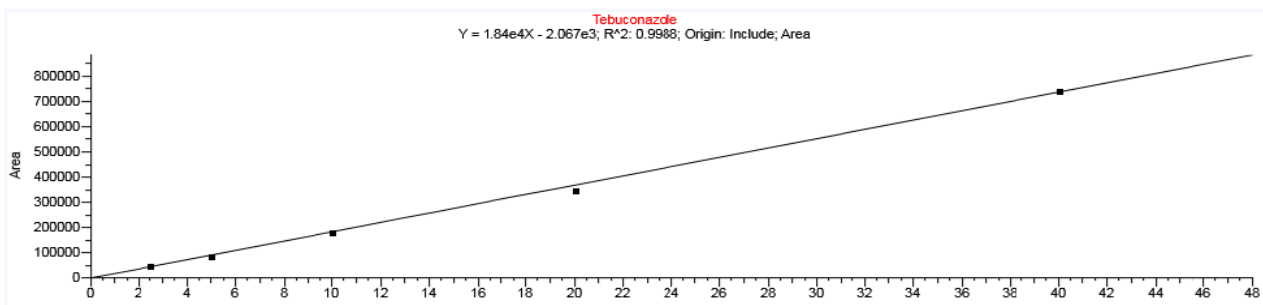


Figure 5. GC-MS/MS chromatogram of the standards

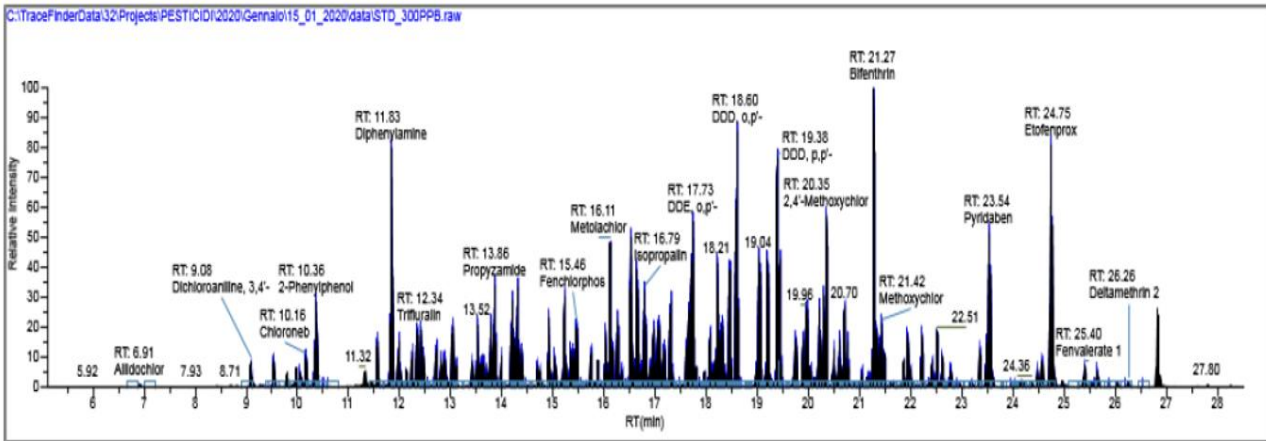


Figure 6. Calibration line. quantifier ion peak. qualifier ion peak and peak overlap of the analyte Chlorpyrifos

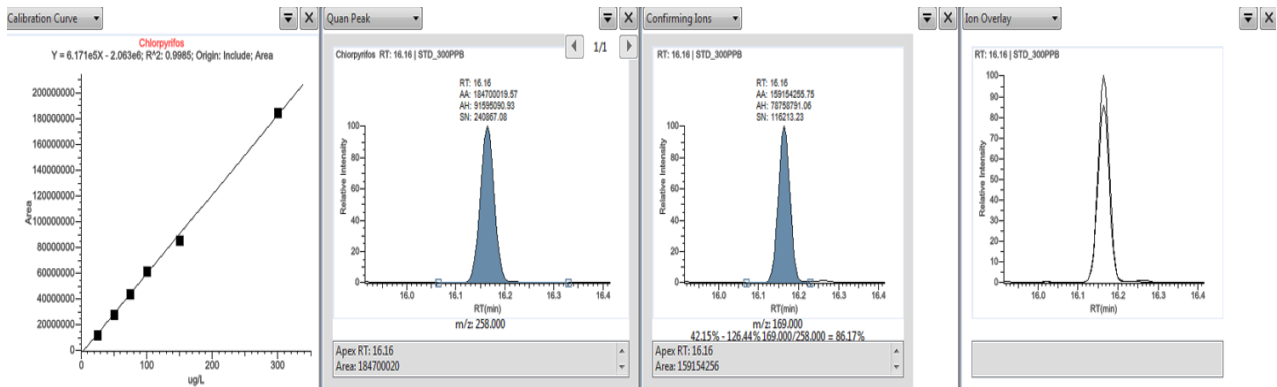


Figure 7. GC-MS/MS chromatogram of the analyzed peach sample. which tested positive for Deltamethrin

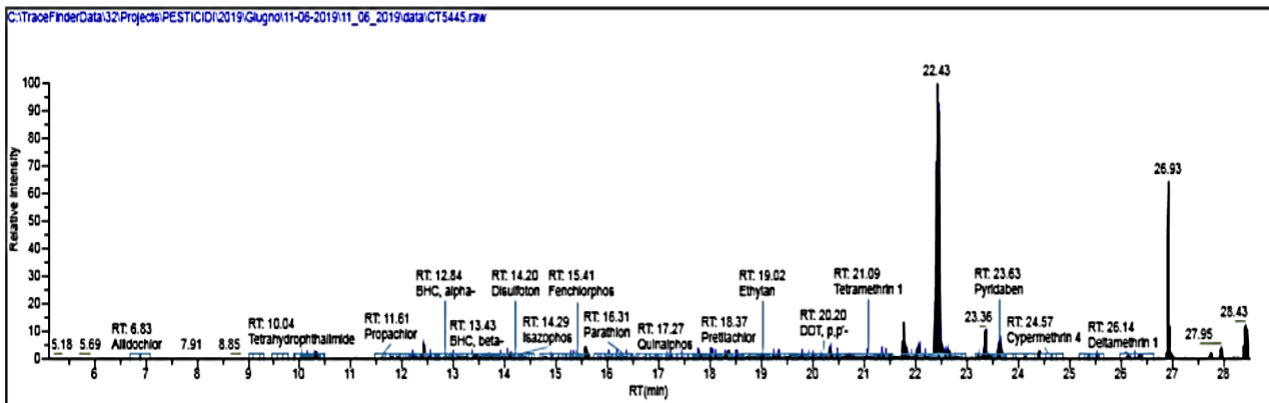


Figure 8. Calibration line. quantifier ion peak. qualifier ion peak and peak overlap of the analyte Deltamethrin. found in the analyzed peach sample.

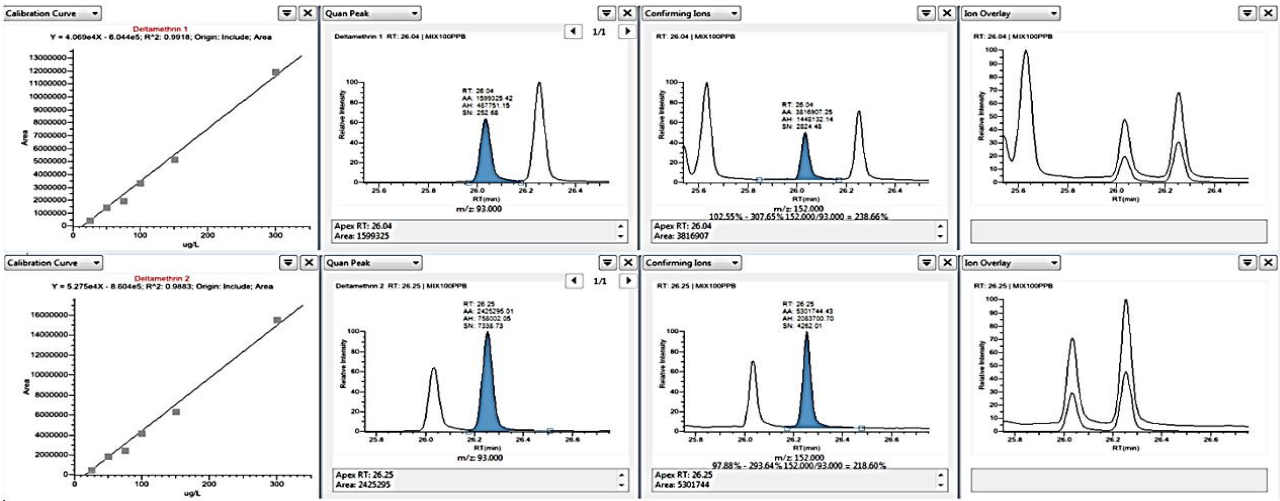


Figure 9. LC-MS/MS chromatogram of the standards

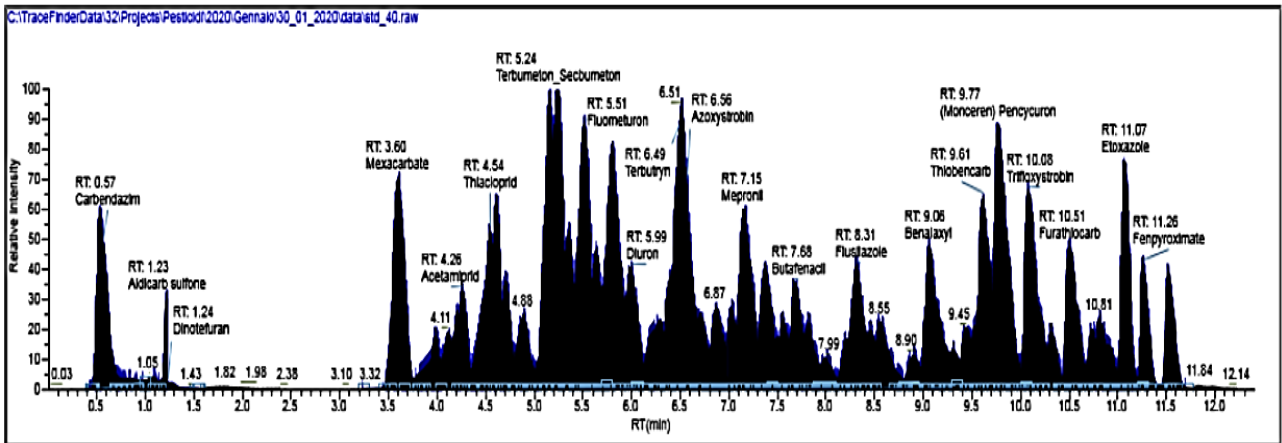


Figure 10. Calibration line. quantifier ion peak. qualifier ion peak and peak overlay of the analyte Tebuconazole.

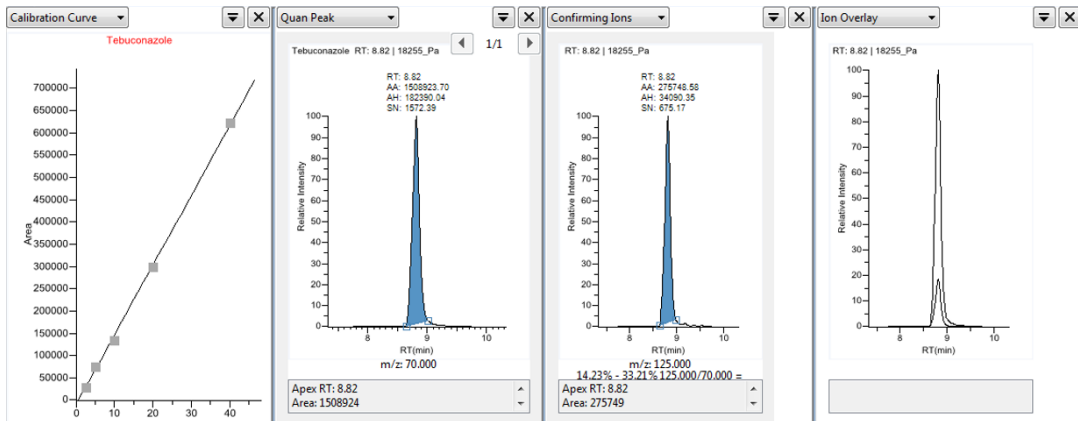


Figure 11. LC-MS/MS chromatogram of a sample of solanaceous plants (tomatoes, peppers, aubergines) tested positive for Acetamiprid

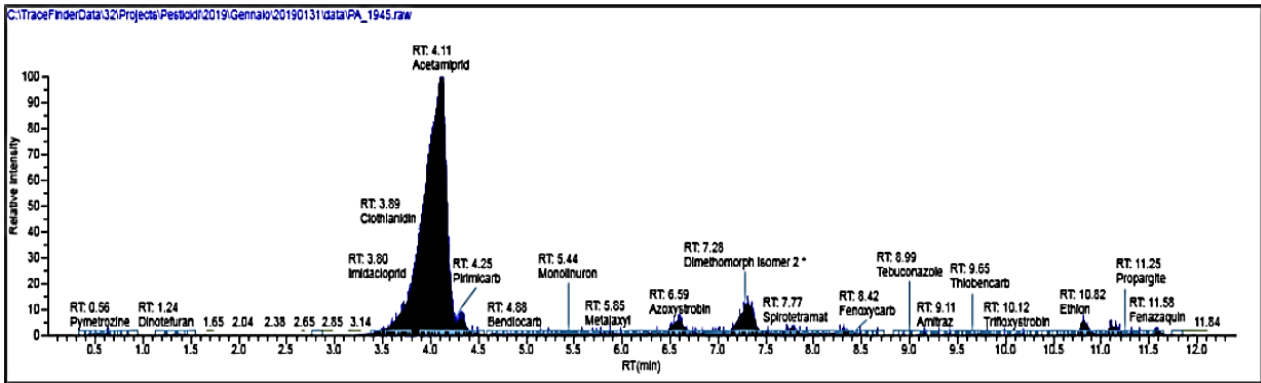


Figure 12. Calibration line, quantifier ion peak, qualifier ion peak and overlap of the peaks of the analyte Acetamiprid, found in the sample of solanaceae plants (tomatoes, peppers, aubergines) analysed

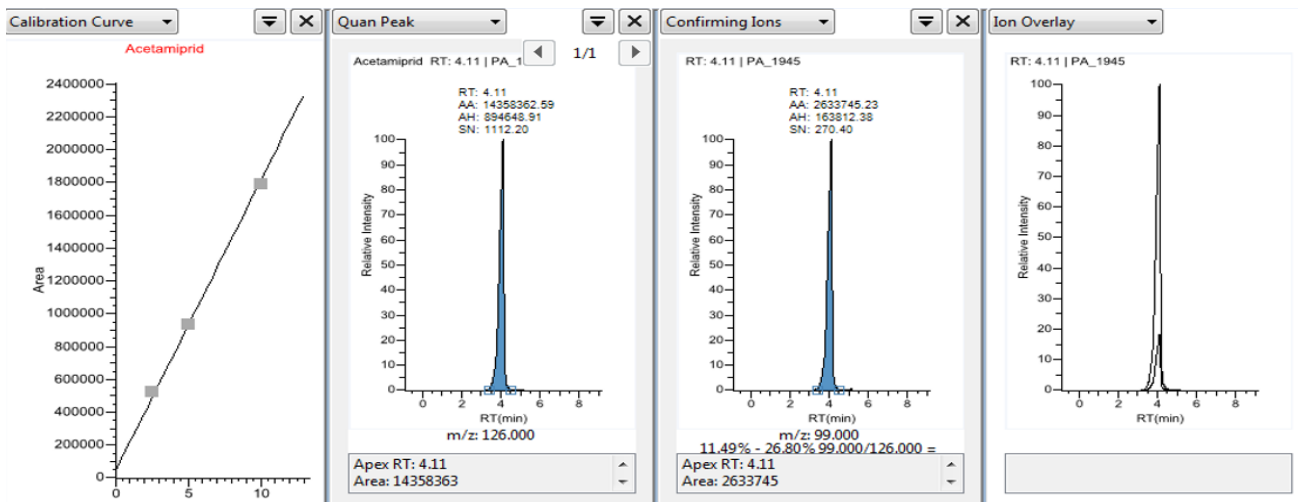


Table 6. - Quantification limits and measurement range obtained on a tomato sample

Active compound	LOQ	Range	Active compound	LOQ	Range
	(mg/Kg)	(mg/Kg)		(mg/Kg)	(mg/Kg)
2,4'-Methoxychlor	0.005	0.005-0.03	Flucythrinate	0.005	0.005-0.03
2-Phenylphenol	0.005	0.005-0.03	Fludioxonil	0.005	0.005-0.03
4,4'-Methoxychlor olefin	0.005	0.005-0.03	Fluquinconazole	0.005	0.005-0.03
Acetochlor	0.005	0.005-0.03	Fonofos	0.005	0.005-0.03
Acrinathrin	0.005	0.005-0.03	Heptachlor	0.005	0.005-0.03
Alachlor	0.005	0.005-0.03	Hexachlorobenzene	0.005	0.005-0.03
Aldrin	0.005	0.005-0.03	Hexazinone	0.005	0.005-0.03
Aldrin + dieldrin	0.010	0.005-0.03	Iodofenfos	0.005	0.005-0.03
Allidochlor	0.005	0.005-0.03	Iprodione	0.01	0.005-0.03
Azinphos-ethyl	0.005	0.005-0.03	Isopropalin	0.01	0.005-0.03
Azinphos-methyl	0.005	0.005-0.03	Malathion	0.005	0.005-0.03
Benfluralin	0.005	0.005-0.03	Metazachlor	0.005	0.005-0.03
BHC. alpha-	0.005	0.005-0.03	Methacrifos	0.005	0.005-0.03
BHC. beta-	0.005	0.005-0.03	Methoxychlor	0.01	0.005-0.03
BHC. delta	0.005	0.005-0.03	Methyl parathion	0.005	0.005-0.03
BHC. gamma	0.005	0.005-0.03	Metolachlor	0.005	0.005-0.03
Bifenthrin	0.005	0.005-0.03	MGK 264	0.005	0.005-0.03
Bromfenvinphos	0.005	0.005-0.03	Mirex	0.005	0.005-0.03
Bromfenvinphos-methyl	0.01	0.005-0.03	Nitrofen	0.005	0.005-0.03
Bromophos-ethyl	0.005	0.005-0.03	Nonachlor. cis	0.005	0.005-0.03
Bromophos-methyl	0.005	0.005-0.03	Nonachlor. trans	0.005	0.005-0.03
Bromopropylate	0.005	0.005-0.03	Norflurazon	0.005	0.005-0.03
Carbophenothion	0.005	0.005-0.03	Oxadiazon	0.005	0.005-0.03
Carfentrazone ethyl	0.005	0.005-0.03	Oxyfluorfen	0.01	0.005-0.03
Chlorbenside	0.005	0.005-0.03	Parathion	0.005	0.005-0.03
Chlordane. cis	0.005	0.005-0.03	Pebulate	0.005	0.005-0.03
Chlordane. trans	0.01	0.005-0.03	Penconazole	0.005	0.005-0.03
Clordano (somma di cis- e trans-clordano)	0.015	0.005-0.03	Pentachlorobenzene	0.005	0.005-0.03
Chlorfenson	0.005	0.005-0.03	Pentachlorobenzonitrile	0.005	0.005-0.03
Chlorfenvinphos (I+II)	0.005	0.005-0.03	Pentachlorothioanisole	0.005	0.005-0.03
Chloroneb	0.005	0.005-0.03	Permethrin. cis	0.005	0.005-0.03
Chlorpropham	0.005	0.005-0.03	Permethrin. trans	0.005	0.005-0.03
Chlorpyrifos	0.005	0.005-0.03	Phenothrin	0.005	0.005-0.03
Chlorpyrifos-methyl	0.005	0.005-0.03	Phorate	0.005	0.005-0.03
Chlorthiophos	0.005	0.005-0.03	Phosalone	0.005	0.005-0.03
Chlozolate	0.005	0.005-0.03	Piperonyl Butoxide	0.005	0.005-0.03
Clomazone	0.005	0.005-0.03	Pirimiphos-ethyl	0.005	0.005-0.03
Coumaphos	0.005	0.005-0.03	Pirimiphos-methyl	0.005	0.005-0.03
Cycloate	0.005	0.005-0.03	Pretilachlor	0.005	0.005-0.03
Cyfluthrin (somma di isomeri)	0.005	0.005-0.03	Profenofos	0.005	0.005-0.03
Cyhalothrin. lambda	0.005	0.005-0.03	Profluralin	0.005	0.005-0.03
Cypermethrin (somma di isomeri)	0.005	0.005-0.03	Propachlor	0.005	0.005-0.03
DDD. o.p'	0.005	0.005-0.03	Propisochlor	0.005	0.005-0.03
DDD. p.p'	0.005	0.005-0.03	Propyzamide	0.005	0.005-0.03
DDE. o.p'	0.005	0.005-0.03	Prothiofos	0.005	0.005-0.03
DDE. p.p'	0.005	0.005-0.03	Pyraclufos	0.005	0.005-0.03
DDT. o.p'	0.005	0.005-0.03	Pyrazophos	0.005	0.005-0.03
DDT. p.p'	0.005	0.005-0.03	Pyridaben	0.005	0.005-0.03
Dichloroaniline. 3,4'	0.005	0.005-0.03	Pyridaphenthion	0.01	0.005-0.03
Dichlorobenzophenone. 4,4'	0.005	0.005-0.03	Pyriproxyfen	0.005	0.005-0.03
Dieldrin	0.01	0.005-0.03	Quintozene	0.005	0.005-0.03
Diphenylamine	0.005	0.005-0.03	Resmethrin isomeri	0.005	0.005-0.03
Disulfoton	0.005	0.005-0.03	Sulfotep	0.005	0.005-0.03
Endosulfan ether	0.005	0.005-0.03	Sulprofos	0.005	0.005-0.03
Endosulfan I	0.01	0.005-0.03	tau-Fluvalinate	0.005	0.005-0.03
Endosulfan II	0.01	0.005-0.03	Tebufenpyrad	0.005	0.005-0.03
Endosulfan sulfate	0.005	0.005-0.03	Tecnazene	0.005	0.005-0.03
Endrin	0.005	0.005-0.03	Tefluthrin	0.005	0.005-0.03
EPN	0.005	0.005-0.03	Terbacil	0.005	0.005-0.03

Ethalfuralin	0.005	0.005-0.03	Terbufos	0.005	0.005-0.03
Ethylan	0.005	0.005-0.03	Terbutylazine	0.005	0.005-0.03
Etofenprox	0.005	0.005-0.03	Tetrachloroan. 2.3.5.6-	0.005	0.005-0.03
Fenamiphos	0.005	0.005-0.03	Tetradifon	0.005	0.005-0.03
Fenchlorphos	0.005	0.005-0.03	Tetrahydrophthalimide	0.005	0.005-0.03
Fenpropathrin	0.005	0.005-0.03	Tetramethrin	0.005	0.005-0.03
Fenson	0.005	0.005-0.03	Tolclofos-methyl	0.005	0.005-0.03
Fenthion	0.005	0.005-0.03	Transfluthrin	0.005	0.005-0.03
Fenvalerate	0.005	0.005-0.03	Triallate	0.005	0.005-0.03
Fipronil	0.01	0.005-0.03	Trifluralin	0.005	0.005-0.03
Fluazifop-P-butyl	0.005	0.005-0.03			
Fluchloralin	0.005	0.005-0.03			

Table 7 - Detection limits, quantification limits and measurement range obtained on a tomato sample

Active compound	LOD	LOQ	Range	Active compound	LOD	LOQ	Range
	(mg/Kg)	(mg/Kg)	(mg/Kg)		(mg/Kg)	(mg/Kg)	(mg/Kg)
Acetamiprid	0.00028	0.00092	0.005 – 0.040	Lufenuron	0.00084	0.00277	0.005 – 0.040
Azoxystrobin	0.00042	0.0014	0.005 – 0.040	Mandipropamid	0.00082	0.0027	0.005 – 0.040
Bifenazate	0.00035	0.00116	0.005 – 0.040	Mepanipyrim	0.00076	0.0025	0.005 – 0.040
Boscalid	0.00045	0.00148	0.005 – 0.040	Metaflumizone	0.00063	0.002.08	0.005 – 0.040
Bupirimate	0.00068	0.00224	0.005 – 0.040	Metalaxyl	0.00020	0.00067	0.005 – 0.040
Buprofezin	0.00051	0.00167	0.005 – 0.040	Methamidophos	0.00058	0.00191	0.005 – 0.040
Carbendazim	0.00044	0.00145	0.005 – 0.040	Methiocarb	0.00064	0.00211	0.005 – 0.040
Clethodim	0.00032	0.00106	0.005 – 0.040	Methoxyfenozide	0.00174	0.00577	0.005 – 0.040
Cyazofamid	0.00021	0.00071	0.005 – 0.040	Myclobutanil	0.00061	0.00202	0.005 – 0.040
Cymoxanil	0.00062	0.00206	0.005 – 0.040	Neburon	0.00025	0.00082	0.005 – 0.040
Cyproconazole	0.00055	0.00181	0.005 – 0.040	Nitenpyram	0.00059	0.00194	0.005 – 0.040
Cyprodinil	0.00064	0.0021	0.005 – 0.040	Omethoate	0.00025	0.00083	0.005 – 0.040
Difenoconazole	0.00034	0.00113	0.005 – 0.040	Pirimicarb	0.00018	0.00058	0.005 – 0.040
Dimethoate	0.00038	0.00124	0.005 – 0.040	Prochloraz	0.00070	0.00231	0.005 – 0.040
Dimethomorph	0.00058	0.00192	0.005 – 0.040	Propamocarb	0.00030	0.00099	0.005 – 0.040
Dinotefuran	0.00056	0.00184	0.005 – 0.040	Propargite	0.00070	0.00232	0.005 – 0.040
Etaconazole	0.00013	0.00043	0.005 – 0.040	Propiconazole	0.00043	0.00142	0.005 – 0.040
Ethirimol	0.00098	0.00323	0.005 – 0.040	Pymetrozine	0.00034	0.00114	0.005 – 0.040
Ethofumesate	0.00082	0.00271	0.005 – 0.040	Pyraclostrobin	0.00082	0.00272	0.005 – 0.040
Etoxazole	0.0002	0.00067	0.005 – 0.040	Pyrimethanil	0.00059	0.00194	0.005 – 0.040
Fenarimol	0.00068	0.00226	0.005 – 0.040	Quinoxifen	0.00049	0.00162	0.005 – 0.040
Fenbuconazole	0.0012	0.00395	0.005 – 0.040	Spinosad (Spinosyn A)	0.00083	0.00274	0.005 – 0.040
Fenhexamid	0.00061	0.00202	0.005 – 0.040	Spiromesifen	0.00126	0.00417	0.005 – 0.040
Fenpropimorph	0.00039	0.00129	0.005 – 0.040	Spirotetramat	0.00126	0.00415	0.005 – 0.040
Fenpyroximate	0.00052	0.00172	0.005 – 0.040	Tebufenozide	0.00117	0.00385	0.005 – 0.040
Flubendiamide	0.00067	0.00222	0.005 – 0.040	Tebufenpyrad	0.00144	0.00474	0.005 – 0.040
Fluometuron	0.00024	0.0008	0.005 – 0.040	Tetraconazole	0.00048	0.00158	0.005 – 0.040
Flutriafol	0.00116	0.00382	0.005 – 0.040	Thiacloprid	0.00023	0.00077	0.005 – 0.040
Formetanate HCl	0.00051	0.00168	0.005 – 0.040	Thiophanate-methyl	0.00051	0.00169	0.005 – 0.040
Hexythiazox	0.00078	0.00259	0.005 – 0.040	Thiophanate-methyl	0.00039	0.00129	0.005 – 0.040
Imazalil	0.00076	0.00249	0.005 – 0.040	Trifloxystrobin	0.00052	0.00170	0.005 – 0.040
Imidacloprid	0.00087	0.00287	0.005 – 0.040	Triflumizole	0.00118	0.00391	0.005 – 0.040
Imidacloprid	0.00026	0.00087	0.005 – 0.040	Triflumuron	0.00066	0.00216	0.005 – 0.040
Indoxacarb	0.00092	0.00302	0.005 – 0.040	Triticonazole	0.00058	0.00192	0.005 – 0.040
Iprovalicarb	0.00125	0.00413	0.005 – 0.040	Zoxamide	0.00038	0.00124	0.005 – 0.040
Linuron	0.00084	0.00277	0.005 – 0.040				

Table 8 - Validation data obtained on a tomato sample fortified at LOQ

Active compound	Mean	Uncertainty (±mg/Kg)	Repeatability (mg/Kg)	Recovery %	Active compound	Mean	Uncertainty (±mg/Kg)	Repeatability (mg/Kg)	Recovery %
	(mg/Kg)					(mg/Kg)			
Acetamiprid	0.00415	0.00208	0.00071	83.0	Metaflumizone	0.00364	0.00182	0.00169	72.7
Azoxystrobin	0.00392	0.00196	0.00043	78.3	Metaxyl	0.00436	0.00218	0.00114	87.1
Bifenazate	0.00422	0.00211	0.00122	84.4	Methamidophos	0.00392	0.00196	0.00118	78.5
Boscalid	0.00429	0.00215	0.00045	85.8	Methiocarb	0.00456	0.00228	0.00124	91.2
Buprofezin	0.00472	0.00236	0.00113	94.5	Methoxyfenozide	0.0052	0.0026	0.00074	104.0
Carbendazim	0.00454	0.00227	0.00021	90.7	Metribuzin	0.00473	0.00237	0.00222	94.6
Chlorantraniliprole	0.00510	0.00255	0.00113	102.1	Neburon	0.00428	0.00214	0.00177	85.7
Clethodim	0.00341	0.00171	0.00152	68.2	Nitenpyram	0.00454	0.00227	0.00020	90.9
Clothianidin	0.00436	0.00218	0.00046	87.2	Omethoate	0.00348	0.00174	0.00015	69.6
Cyazofamid	0.00475	0.00238	0.00120	95.0	Pirimicarb	0.0045	0.00225	0.00047	90.0
Cymoxanil	0.00517	0.00259	0.00223	103.4	Prochloraz	0.00497	0.00249	0.00159	99.4
Cyproconazole	0.00412	0.00206	0.00076	82.3	Propamocarb	0.00305	0.00153	0.00003	62.1
Cyprodinil	0.00444	0.00222	0.00057	88.8	Propargite	0.00481	0.00241	0.00119	96.3
Difenoconazole	0.00480	0.00240	0.00082	96.0	Propiconazole	0.00427	0.00214	0.00118	85.4
Dimethoate	0.00411	0.00206	0.00052	82.2	Prothiofos	0.00349	0.00175	0.0002	69.9
Dimethomorph	0.00435	0.00218	0.00209	86.9	Pyraclostrobin	0.00416	0.00208	0.00056	83.2
Dinotefuran	0.00509	0.00255	0.00040	101.8	Pyrimethanil	0.00453	0.00227	0.00071	90.6
Etaconazole	0.00427	0.00214	0.00061	85.4	Quinoxifen	0.00451	0.00226	0.00105	90.1
Ethirimol	0.00374	0.00187	0.00230	74.8	Spinosad A	0.0046	0.0023	0.00067	92.1
Ethofumesate	0.00471	0.00236	0.00121	94.2	Spiromesifen	0.00464	0.00232	0.00192	92.8
Fenarimol	0.00511	0.00256	0.00161	102.1	Spirotetramat	0.00491	0.00246	0.00219	98.2
Fenbuconazole	0.00445	0.00223	0.00077	89.1	Spiroxamine	0.00418	0.00209	0.00159	83.7
Fenpropimorph	0.00425	0.00213	0.00059	85.0	Tebuconazole	0.00399	0.002	0.00019	79.8
Fenpyroximate	0.00458	0.00229	0.00054	91.5	Tebufenozide	0.00496	0.00248	0.00098	99.2
Flubendiamide	0.00469	0.00235	0.00063	93.8	Tebufenpyrad	0.00469	0.00235	0.00136	93.8
Fluometuron	0.00416	0.00208	0.00026	83.1	Tetraconazole	0.00443	0.00222	0.00065	88.6
Flutriafol	0.00431	0.00216	0.00014	86.2	Thiacloprid	0.00463	0.00232	0.00012	92.6
Formetanate HCl	0.00375	0.00188	0.00039	75.0	Thiophanate-met	0.00491	0.00246	0.00051	98.2
Hexythiazox	0.00413	0.00207	0.00071	82.7	Thiophanate-met	0.00396	0.00198	0.00029	79.2
Imidacloprid	0.00496	0.00248	0.00045	99.3	Trifloxystrobin	0.00444	0.00222	0.00024	88.7
Indoxacarb	0.00481	0.00241	0.00101	96.2	Triflumizole	0.00496	0.00248	0.00068	99.2
Iprovalicarb	0.00459	0.0023	0.00111	91.8	Triflumuron	0.00462	0.00231	0.00055	92.5
Linuron	0.00468	0.00234	0.00157	93.5	Triticonazole	0.00445	0.00223	0.00051	89.0
Lufenuron	0.00495	0.00248	0.00099	98.9	Zoxamide	0.00438	0.00219	0.00071	87.7
Mandipropamid	0.00503	0.00252	0.00012	100.6					

Table 9 -Validation data obtained on a tomato sample fortified to double the LOQ

Active compound	Mean	Uncertainty (±mg/Kg)	Repeatability	Recovery	Active compound	Mean	Uncertainty (±mg/Kg)	Repeatability	Recovery
	(mg/Kg)		(mg/Kg)	%		(mg/Kg)		(mg/Kg)	(mg/Kg)
Acetamiprid	0.00955	0.00478	0.00008	95.5	Mepanipyrim	0.00962	0.00481	0.00137	96.2
Azoxystrobin	0.00856	0.00428	0.00060	85.6	Metaflumizone	0.00845	0.00423	0.00321	84.5
Bifenazate	0.01006	0.00503	0.00190	100.6	Metalaxyl	0.00907	0.004535	0.00070	90.7
Boscalid	0.01055	0.00528	0.00150	105.5	Methamidophos	0.00767	0.003835	0.00074	76.7
Bupirimate	0.01026	0.00513	0.00214	102.6	Methiocarb	0.00967	0.004835	0.00069	96.7
Buprofezin	0.01016	0.00508	0.00052	101.6	Methoxyfenozide	0.00889	0.004445	0.00445	88.9
Chlorantraniliprole	0.01090	0.00545	0.00172	109.0	Metribuzin	0.00989	0.004945	0.00087	98.9
Clethodim	0.00744	0.00372	0.00071	74.4	nMyclobutanil	0.01019	0.005095	0.00138	101.9
Clothianidin	0.00957	0.00479	0.00094	95.7	Neburon	0.00972	0.00486	0.00192	97.2
Cyazofamid	0.01041	0.00521	0.00081	104.1	Nitenpyram	0.00713	0.003565	0.0021	71.3
Cymoxanil	0.01142	0.00571	0.00498	114.2	Omethoate	0.00793	0.003965	0.00076	79.3
Cyproconazole	0.00952	0.00476	0.00087	95.2	Pirimicarb	0.01037	0.005185	0.00087	103.7
Cyprodinil	0.00998	0.00499	0.00081	99.8	Prochloraz	0.01102	0.00551	0.00197	110.2
Difenoconazole	0.01085	0.00543	0.00224	108.5	Propamocarb	0.00697	0.003485	0.00016	69.7
Dimethoate	0.00957	0.00479	0.00067	95.7	Propargite	0.01052	0.00526	0.00083	105.2
Dimethomorph	0.00107	0.00053	0.00154	106.7	Propiconazole	0.00942	0.00471	0.00042	94.2
Dinotefuran	0.00867	0.00434	0.00208	86.7	Pymetrozine	0.00701	0.003505	0.00048	70.1
Etaconazole	0.00981	0.00491	0.00053	98.1	Pyraclostrobin	0.00882	0.00441	0.00218	88.2
Ethirimol	0.0083	0.00415	0.00454	83.0	Pyrimethanil	0.01041	0.00521	0.00124	104.1
Ethofumesate	0.00928	0.00464	0.00556	92.8	Quinoxifen	0.00949	0.00475	0.00106	94.9
Etoxazole	0.00918	0.00459	0.00086	91.8	Spinosad	0.00809	0.00405	0.00102	80.9
Fenarimol	0.00947	0.00474	0.0035	94.7	Spiromesifen	0.00946	0.00473	0.00354	94.6
Fenbuconazole	0.01025	0.00513	0.00306	102.5	Spirotetramat	0.0094	0.0047	0.00217	94.0
Fenhexamid	0.00986	0.00493	0.00205	98.6	Spiroxamine	0.00938	0.00469	0.00131	93.8
Fenpropimorph	0.01029	0.00515	0.00103	102.9	Tebuconazole	0.01022	0.00511	0.00040	102.2
Fenpyroximate	0.01021	0.00511	0.00058	102.1	Tebufenozide	0.01106	0.00553	0.00386	110.6
Flubendiamide	0.01037	0.00519	0.00367	103.7	Tebufenpyrad	0.01039	0.0052	0.00163	103.9
Fluometuron	0.00969	0.00485	0.00073	96.9	Tetraconazole	0.00991	0.00496	0.00095	99.1
Flutriafol	0.01026	0.00513	0.00185	102.6	Thiacloprid	0.01022	0.00511	0.00067	102.2
Hexythiazox	0.01009	0.00505	0.00179	100.9	Thiophanate-met	0.01043	0.00522	0.00139	104.3
Hydramethylnon	0.00923	0.00462	0.00171	92.3	Thiophanate-met	0.01125	0.00563	0.00203	112.5
Imazalil	0.01025	0.00513	0.00052	102.5	Trifloxystrobin	0.00953	0.00477	0.00589	95.3
Imidacloprid	0.01059	0.0053	0.00112	105.9	Triflumizole	0.0106	0.0053	0.00136	106.0
Indoxacarb	0.01028	0.00514	0.00183	102.8	Triflumuron	0.01106	0.00553	0.00076	110.6
Iprovalicarb	0.00994	0.00497	0.00172	99.4	Triticonazole	0.0101	0.00505	0.00047	101.0
Lufenuron	0.01015	0.00508	0.00226	101.5	Zoxamide	0.00993	0.00497	0.00124	99.3
Mandipropamid	0.00945	0.00473	0.00388	94.5					

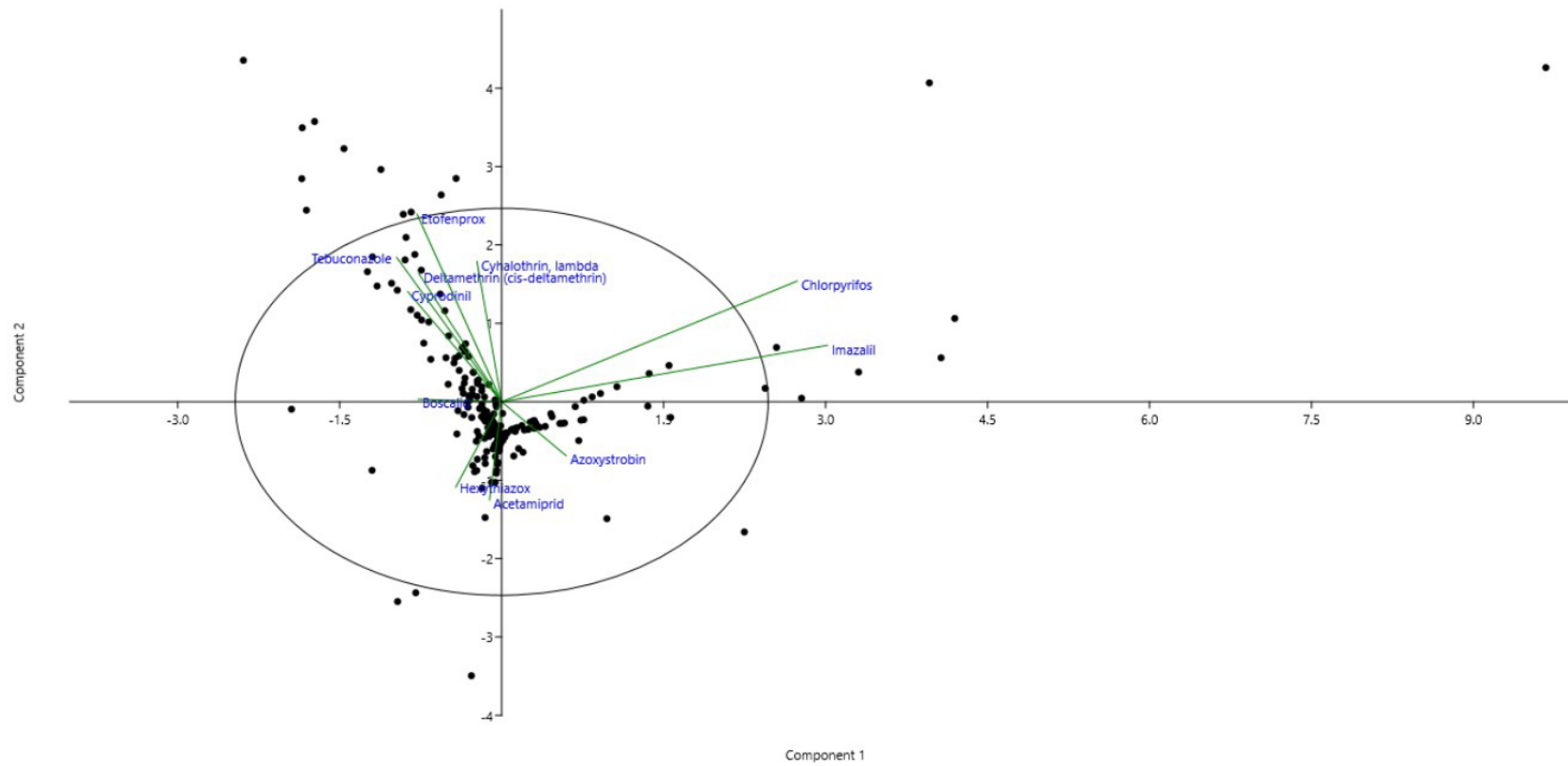


Figure 14 - Principal Component Analysis