



# Food Residue Surveillance Programme 2011-2012

Quarterly Report

Prepared by Food Assurance Programmes Team

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## Summary

The Food Residue Surveillance Programme (FRSP) is an annual surveillance programme that has been run by MAF (and formerly NZFSA) since 2003. The programme assesses the effectiveness of current controls of chemical residues on imported and locally-produced foods.

During quarter one feijoas, persimmons asparagus, eggplant, hops, pumpkins and tamarillos were tested. Due to the complexity of testing hops; results are not yet available for these samples.

Six non-compliant results were recorded against tamarillos. The pesticide that was above maximum residue limit (MRL) was deltamethrin. None of these non-compliances posed a risk to human health.

Five samples of organic feijoas were found to contain residues of captan and one sample of organic feijoas was found to contain residues of diazinon. While the residues were all within the MRL and do not represent a food safety issue, these compounds should not be present in organic feijoas. MAF is following up on both these issues.

## Introduction

The Food Residue Surveillance Programme (FRSP) is an annual surveillance programme that has been run by MAF (and formerly NZFSA) since 2003. The programme assesses the effectiveness of current controls of chemical residues on imported and locally-produced foods. Maximum residue limits (MRLs) for pesticides are established to promote good agricultural practice (GAP) in the use of insecticides, fungicides, herbicides and other agricultural compounds.

Results will be reported after each quarter of testing. Previously results were released in a spreadsheet format. This year MAF are releasing the results in report format. These quarterly reports will not provide an extensive analysis of results. A more comprehensive report analysing the results will be released at the end of the annual testing period (around August 2012).

FRSP 2011 is testing twelve food commodities during May 2011 through to April 2012. The products tested in quarter one includes:

- Asparagus
- Eggplant
- Feijoas
- Hops
- Persimmons
- Tamarillos

This report details the results received for quarter one, encompassing samples taken during May, June and July 2011.

# Products tested during quarter one

## SAMPLING

MAF are responsible for collecting samples.

Feijoa samples proved difficult to obtain during this period. This is due to the sampling occurring at the end of the feijoa season. This resulted in MAF being unable to receive the amount of samples we expected for feijoas. Thirty-seven out of a proposed forty-eight samples were obtained and tested.

## METHODOLOGY

Two techniques are being used to analyse the samples for pesticides, they are:

- Gas chromatography –mass spectrometry (GC-MS/MS)
- Liquid chromatography – tandem mass spectrometry (LC-MS/MS)

Dithiocarbamates are also being tested for (as carbon disulphide) using GC-MS/MS.

A total of 265 pesticides are being tested using GC-MS/MS for fruit and vegetables and 255 pesticides are being tested for in vegetable oils. 352 pesticides (some of these are also in the GC-MS suite) are being tested for using LC-MS/MS for fruit, vegetables and oils. Some pesticides are duplicated in the GC-MS/MS and LC-MS/MS suites.

A list of all pesticides being tested for can be found in appendix 1.

## Results

Testing of feijoas and persimmons has been completed during the first quarter (May through to July).

In this period asparagus, eggplant, hops, pumpkins and tamarillos were also tested. Further testing of these products will occur later in the sampling year.

Table 1 shows a summary of the samples collected in quarter 1 and results for Asparagus, eggplant, feijoas, pumpkins, persimmons and tamarillos. There are no results available yet for hops due to the complexity of testing that is peculiar to hops.

**Table 1: Quarter 1 Samples Taken**

Product	Total Samples Collected	Total Samples specified during reporting period	Total Number of residue detections
Asparagus (imported)	24	24	6
Eggplant (Domestic)	24	24	6
Feijoas (Domestic)	37	48	20

Hops (Domestic)	24	24	No Results recorded to date
Persimmons (Domestic)	47	48	11
Pumpkins (Domestic)	24	24	4
Tamarillos (Domestic)	23	24	23
<b>Table Totals</b>	<b>203</b>	<b>216</b>	<b>42</b>

## DETECTIONS (PESTICIDES)

Table 2: Detections in Asparagus

Sample #	Results (mg/kg)	Maximum Residue Limit (MRL)	Pesticide	Methodology
FRSP94	0.017	2mg/kg	Dimethoate	GC-MS/MS
FRSP97	0.018	2mg/kg	Dimethoate	GC-MS/MS
FRSP99	0.023	2mg/kg	Dimethoate	GC-MS/MS
FRSP102	0.015	2mg/kg	Dimethoate	GC-MS/MS
FRSP103	0.015	2mg/kg	Dimethoate	GC-MS/MS
FRSP106	0.015	2mg/kg	Dimethoate	GC-MS/MS

Table 3: Detections in Egg plant

Sample #	Results (mg/kg)	Maximum Residue Limit (MRL)	Pesticide	Methodology
FRSP24	0.14	7mg/kg (NZ)	Dithiocarbamates	GC-MS/MS
FRSP28	0.037	7mg/kg (NZ)	Dithiocarbamates	GC-MS/MS
FRSP32	0.038	7mg/kg (NZ)	Dithiocarbamates	GC-MS/MS
FRSP45	0.039	1 mg/kg (NZ)	Pirimiphos-methyl	GC-MS/MS
FRSP45	0.036	1mg/kg (NZ)	Pirimiphos-methyl	LC-MS/MS
FRSP50	0.023	0.1 (NZ default limit)	Spiromesifen-enol	LC-MS/MS

\*Spiromesifen-enol is a metabolite of spiromesifen but is not currently considered within the residue definition for MRL compliance.

Table 4: Detections in Feijoas

Sample #	Results (mg/kg)	Maximum Residue Limit (MRL)	Pesticide	Methodology
FRSP20	0.049	7 mg/kg (NZ)	Dithiocarbamates	GC-MS/MS
FRSP20	0.013	0.5 mg/kg (NZ)	Diazinon	GC-MS/MS
FRSP20	0.01	0.5 mg/kg (NZ)	Diazinon	LC-MS/MS
FRSP38	0.012	0.2 mg/kg (NZ)	Chlorpyrifos	GC-MS/MS
FRSP38	0.014	0.2 mg/kg (NZ)	Chlorpyrifos	LC-MS/MS
FRSP43	0.046	7 mg/kg (NZ)	Dithiocarbamates	GC-MS/MS
FRSP49	0.36	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP57	0.71	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP61	0.016	0.2 mg/kg (NZ)	Chlorpyrifos	GC-MS/MS
FRSP61	0.014	0.2 mg/kg (NZ)	Chlorpyrifos	LC-MS/MS
FRSP65	1.6	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP67	0.69	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP72	0.2	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP73	0.55	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP76	0.77	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP84	0.66	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP91	0.2	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP92	0.3	10 mg/kg (NZ)	Captan	GC-MS/MS

FRSP108	1.2	10 mg/kg (NZ)	Captan	GC-MS/MS
FRSP109	0.036	0.5 mg/kg (NZ)	Diazinon	GC-MS/MS

**Note:** Samples FRSP49, FRSP57, FRSP65, FRSP76, FRSP84 and FRSP109 were collected as organic samples of feijoas

**Note:** Sample FRSP109 Diazinon was detected in GC-MS/MS but was not in LC-MS/MS. Review of procedures indicated that the most likely cause was incomplete homogenisation of the sample prior to sub-sampling

**Table 5: Detections in Persimmons**

Sample #	Results (mg/kg)	Maximum Residue Limit (MRL)	Pesticide	Methodology
FRSP27	0.025	7 mg/kg (NZ)	Dithiocarbamates	GC-MS/MS
FRSP81	0.033	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP87	0.022	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP90	0.023	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP93	0.024	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP96	0.019	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP104	0.011	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP111	0.014	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP112	0.013	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP116	0.018	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP132	0.017	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS

**Table 6: Detections in Pumpkins**

Sample #	Results (mg/kg)	Maximum Residue Limit (MRL)	Pesticide	Methodology
FRSP135	0.011	0.1 mg/kg (default NZ limit)	Propham	GC-MS/MS
FRSP135	0.016	0.1 mg/kg (default NZ limit)	Propham	LC-MS/MS
FRSP185	0.021	0.1 mg/kg (NZ)	Dieldrin	GC-MS/MS
FRSP191	0.012	0.1 mg/kg (default NZ limit)	Propham	GC-MS/MS

**Table 7: Detections in Tamarillos**

Sample #	Results (mg/kg)	Maximum Residue Limit (MRL)	Pesticide	Methodology
FRSP136	0.034	0.02 mg/kg (NZ)	Deltamethrin	GC-MS/MS
FRSP136	0.029	0.1 mg/kg (default NZ limit)	Permethrin	GC-MS/MS
FRSP138	0.015	0.5 mg/kg (NZ)	Diazinon	LC-MS/MS
FRSP138	0.017	0.5 mg/kg (NZ)	Diazinon	GC-MS/MS
FRSP139	0.019	0.1 mg/kg (default NZ limit)	Fluvalinate	GC-MS/MS
FRSP145	0.035	0.02 mg/kg (NZ)	Deltamethrin	GC-MS/MS
FRSP145	0.065	0.1 mg/kg (default NZ limit)	Fluvalinate	GC-MS/MS
FRSP152	0.059	0.02 mg/kg (NZ)	Deltamethrin	GC-MS/MS
FRSP152	0.037	0.1 mg/kg (default NZ limit)	Pirimiphos-methyl	GC-MS/MS
FRSP152	0.042	0.1 mg/kg (default NZ limit)	Pirimiphos-methyl	LC-MS/MS
FRSP152	0.052	0.1 mg/kg (default NZ limit)	Permethrin	GC--MS/MS
FRSP153	0.032	0.02 mg/kg (NZ)	Deltamethrin	GC-MS/MS
FRSP153	0.022	0.1 mg/kg (default NZ limit)	Pirimiphos-methyl	LC-MS/MS
FRSP153	0.02	0.1 mg/kg (default NZ limit)	Pirimiphos-methyl	GC-MS/MS
FRSP153	0.028	0.1 mg/kg (default NZ limit)	Permethrin	GC--MS/MS



FRSP162	0.065	8 mg/kg (NZ)	Piperonyl butoxide	GC--MS/MS
FRSP162	0.11	8 mg/kg (NZ)	Piperonyl butoxide	LC-MS/MS
FRSP170	0.057	0.1 mg/kg (default NZ limit)	Permethrin	GC--MS/MS
FRSP170	0.045	0.02 mg/kg (NZ)	Deltamethrin	GC-MS/MS
FRSP170	0.012	0.1 mg/kg (default NZ limit)	Pirimiphos-methyl	GC-MS/MS
FRSP171	0.011	0.1 mg/kg (default NZ limit)	Methamidophos	LC-MS/MS
FRSP177	0.015	0.1 mg/kg (default NZ limit)	Methomyl	LC-MS/MS
FRSP207	0.03	0.02 mg/kg (NZ)	Deltamethrin	GC-MS/MS

6 non compliance identified in tamarillos (highlighted in table). (FRSP136, FRSP145, FRSP152, FRSP153, FRSP170 & FRSP207)

## Conclusion

Residues were found in all five product categories tested (excluding hops). However, no non-compliances were found in the feijoas, persimmons, asparagus, eggplant, hops and pumpkins tested so far. Breaches of the MRL for deltamethrin (0.02mg/kg) were found in a quarter of the tamarillos tested (six out of 23 samples). Non-compliant residues could suggest that GAP has not been complied with but none of these non-compliances posed a risk to human health.

Five samples of organic feijoas were found to contain residues of captan and one sample of organic feijoas was found to contain residues of diazinon. While the residues were all within the MRL and do not represent a food safety issue, these compounds should not be present in organic feijoas. MAF is following up on both these issues.

## Appendix 1: Pesticides tested in FRSP 2011

<i>Pesticides by GC-MS</i>	<i>Fruit and Vegetables*</i>		
Units	mg/kg		
Compound	Compound	Compound	Compound
Acetochlor	DDT (p,p')	Flumiclorac pentyl	Pirimicarb
Alachlor	Deltamethrin	Flumioxazin	Pirimiphos-methyl
Aldrin	Demeton-s-methyl	Fluquinconazole	Pretilachlor
Allidochlor	Diazinon	Flusilazole	Prochloraz
Ametryn	Dichlobenil	Flutolanil	Procymidone
Anilofos	Dichlofenthion	Flutriafol	Profenofos
Atrazine	Dichlofluamid	Fluvalinate	Promecarb
Azaconazole	Dichloran	Fonofos	Prometryn
Azinphos-methyl	Dicofol	Fosthiazate	Propachlor
Azoxystrobin	Dichlorvos	Furalaxyl	Propargite
Benalaxyl	Diclobutrazol	Furathiocarb	Propazine
Bendiocarb	Diclofop-methyl	Haloxyfop-etotyl	Propetamphos
Benfluralin	Dicrotophos	Haloxyfop-methyl	Propham
Benodanil	Dieldrin	Heptachlor	Propiconazole
Benoxacor	Diethofencarb	Heptachlor epoxide	Propoxur
BHC (alpha)	Difenoconazole	Heptenophos	Propyzamide
BHC (beta)	Diflufenican	Hexachlorobenzene	Prothiofos
BHC (delta)	Dimepiperate	Hexaconazole	Pyraclostrobin
Bifenox	Dimethenamid	Hexazinone	Pyraflufen ethyl
Bifenthrin	Dimethoate	Indoxacarb	Pyrazophos
Bioresmethrin	Dimethomorph	Iodofenphos	Pyributicarb
Bitertanol	Dimethylvinphos	Iprobenfos	Pyridaben
Bromacil	Dioxabenzofos	Iprodione	Pyridafenthion
Bromobutide	Diphenamid	Iprovalicarb	Pyrimethanil
Bromophos-ethyl	Diphenylamine	Isazophos	Pyrimidifen
Bromophos	Disulfoton	Isofenphos	Pyriminobac-methyl(E)
Bromopropylate	Dithiopyr	Isoprocarb	Pyriminobac-methyl(Z)
Bupirimate	Edifenphos	Isoprothiolane	Pyriproxyfen
Buprofezin	Endosulfan sulphate	Kresoxim-methyl	Quinalphos
Butachlor	Endosulfan (alpha)	Lactofen	Quinoclamine
Butafenacil	Endosulfan (beta)	Leptophos	Quinoxyfen
Butamifos	Endrin	Lindane	Quintozene
Cadusafos	EPN	Linuron	Quizalofop-ethyl
Captan#	Epoxiconazole	Malathion	Simazine

<i>Pesticides by GC-MS</i>	<i>Fruit and Vegetables*</i>		
Units	mg/kg		
Compound	Compound	Compound	Compound
Carbaryl	EPTC	Mepronil	Simeconazole
Carbofuran	Esfenvalerate	Metalaxyl	Simetryn
Carboxin	Esprocarb	Methacrifos	Sulfentrazone
Carfentrazone-ethyl	Ethalfuralin	Methidathion	Tebuconazole
Chlorfenapyr	Ethiofencarb	Methiocarb	Tebufenpyrad
Chlordane (cis)	Ethion	Metolachlor	Tecnazene
Chlordane (trans)	Ethoprosfos	Metribuzin	Tefluthrin
Chlorfenvinphos	Ethoxyquin	Mevinphos	Terbacil
Chlorobenzilate	Etoxazole	Molinate	Terbufos
Chlorothalonil	Etridiazole	Myclobutanil	Terbutylazine
Chlorpropham	Etrimfos	Napropamide	Terbutryn
Chlorpyrifos	Famphur	Nitrofen	Tetrachlorvinphos
Chlorpyrifos-methyl	Fenarimol	Nitrothal-isopropyl	Tetraconazole
Chlozolate	Fenamiphos	Norflurazon	Tetradifon
Chlorthal-dimethyl	Fenclorophos	Oxadiazon	Thenylchlor
Clodinafop-propargyl	Fenitrothion	Oxadixyl	Thiobencarb
Clomazone	Fenobucarb	Oxyfluorfen	Thiometon
Cloquintocet-mexyl	Fenoxanil	Paclobutrazol	Tolclofos-methyl
Coumafos	Fenoxaprop-ethyl	Parathion	Tolyfluanid
Cyanazine	Fenoxycarb	Parathion-methyl	Tralkoxydim
Cyanophos	Fenpiclonil	Penconazole	Triadimefon
Cyflufenamid	Fenpropathrin	Pendimethalin	Triadimenol
Cyfluthrin	Fenpropimorph	Permethrin (cis,trans)	Triallate
Cyhalofop-butyl	Fensulfthion	Phenthoate	Tribuphos
Cyhalothrin	Fenthion	Phorate	Triazophos
Cypermethrin	Fenvalerate	Phorate sulphone	Trifloxystrobin
Cyproconazole	Fipronil	Phorate sulphoxide	Trifluralin
Cyprodinil	Flamprop-methyl	Phosalone	Uniconazole P
DDD (o,p')	Fluacrypyrim	Phosmet	Vinclozolin
DDD (p,p')	Fluazifop-p-butyl	Phosphamidon	XMC
DDE (o,p')	Fluazinam	Picolinafen	
DDE (p,p')	Flucythrinate	Piperonyl butoxide	
DDT (o,p')	Fludioxonil	Piperophos	

#Note: Captan analysed by gas chromatography with electron capture detection.

\*Note: Results are reported on an as received basis. The limits of reporting given are those attainable in a relatively clean matrix. Limits of reporting may be higher for different product types should that product require dilutions be performed during the analysis. Additionally some pesticides may not be recoverable from all product types should that product prove intractable during analysis.

<i>Pesticides by LC-MS/MS (Extended)</i>	<i>Fruit , Vegetables and Oils*</i>		
Units	mg/kg		
Compound	Compound	Compound	Compound
Abamectin	Dicrotophos	Hexaconazole	Propachlor
Acephate	Diethofencarb	Hexaflumuron	Propamocarb
Acetamiprid	Difenoconazole	Hexazinone	Propanil
Acetochlor	Difflubenzuron	Hexythiazox	Propaphos
Acibenzolar-S-methyl	Diffufenican	Imazalil	Propaquizafop
Acifluorfen	Dimepiperate	Imazamethabenz-methyl	Propargite
Alachlor	Dimethenamid	Imazosulfuron	Propazine
Alanycarb	Dimethoate	Imidacloprid	Propham
Aldicarb	Dimethomorph	Inabenfide	Propiconazole
Aldicarb-sulfone	Dimethylvinphos	Indanofan	Propoxur
Aldicarb-sulfoxide	Dioxathion	Indoxacarb	Propyzamide
Allidochlor	Diphenamid	Iodofenphos	Prosulfocarb
Ametryn	Disulfoton	Iodosulfuron-methyl	Pymetrozine
Anilofos	Dithiopyr	Iprobenfos	Pyraclostrobin
Atrazine	Diuron	Iprovalicarb	Pyrazophos
Azaconazole	Dodine	Isazophos	Pyributicarb
Azamethiphos	Edifenphos	Isofenphos	Pyridaben
Azinphos-methyl	Emamectin Benzoate	Isofenphos-methyl	Pyridafenthion
Azoxystrobin	Epoxiconazole	Isoprocarb	Pyrifenox
Benalaxyl	EPTC	Isoprothiolane	Pyriftalid
Bendiocarb	Esprocarb	Isoproturon	Pyrimethanil
Benfluralin	Ethalfuralin	Isoxathion	Pyrimidifen
Benfuracarb	Ethametsulfuron-methyl	Karbutilate	Pyriminobac-methyl(E)
Benodanil	Ethion	Lactofen	Pyriminobac-methyl(Z)
Benoxacor	Ethiprole	Lenacil	Pyriproxyfen
Bensulfuron-methyl	Ethoprofos	Linuron	Pyroquilon
Bensulide	Ethoxyquin	Lufenuron	Quinalphos
Bifenox	Ethoxysulfuron	Malathion	Quinoclamine
Bitertanol	Ethychnozate	Mandipropamid	Quinoxyfen
Boscalid	Etobenzanid	Mefenacet	Quizalofop-ethyl
Bromacil	Etoxazole	Mefenpyr-diethyl	Rimsulfuron
Bromobutide	Etrimfos	Mepanipyrim	Sethoxydim
Bupirimate	Famoxadone	Mepronil	Simazine
Buprofezin	Famphur	Metalaxyl	Simeconazole
Butachlor	Fenamidone	Metamitron	Simetryn
Butafenacil	Fenamifos	Metconazole	Spinetoram

<i>Pesticides by LC-MS/MS (Extended)</i>	<i>Fruit , Vegetables and Oils*</i>		
Units	mg/kg		
Compound	Compound	Compound	Compound
Butamifos	Fenarimol	Methabenzthiazuron	Spinosad
Cadusafos	Fenbuconazole	Methacrifos	Spiromesifen
Cafenstrole	Fenclorphan	Methamidophos	Spiromesifen-enol
Carbaryl	Fenhexamid	Methidathion	Spirotetramat
Carbendazim	Fenobucarb	Methiocarb	Spiroxamine
Carbetamide	Fenothiocarb	Methomyl	Sulfentrazone
Carbofuran	Fenoxanil	Methoxyfenozone	Sulprofos
Carfentrazone-ethyl	Fenoxaprop	Metobromuron	Tebuconazole
Carpropamid	Fenoxaprop-ethyl	Metolachlor	Tebufenozide
Chlorantraniliprole	Fenoxycarb	Metominostrobin (E)	Tebufenpyrad
Chlorbufam	Fenpiclonil	Metominostrobin (Z)	Tebuthiuron
Chlorfenvinphos	Fenpropathrin	Metosulam	Teflubenzuron
Chloridazon	Fenpropimorph	Metribuzin	Temephos
Chlorimuron-ethyl	Fenpyroximate	Mevinphos	Tepraloxymid
Chlorotoluron	Fensulfothion	Milbemectin	Terbufos
Chloroxuron	Fenthion	Molinate	Terbumeton
Chlorpropham	Fenthion sulfone	Monocrotophos	Terbutryn
Chlorpyrifos	Fenthion sulfoxide	Monolinuron	Terbutylazine
Chlorpyrifos-methyl	Fentrazamide	Myclobutanil	Tetrachlorvinphos
Chlorsulfuron	Ferimzone	Napropamide	Tetraconazole
Chromafenozide	Fipronil	Nicotine	Thenylchlor
Cinidon- ethyl	Flamprop	Norflurazon	Thiabendazole
Clethodim	Flamprop-methyl	Novaluron	Thiacloprid
Clodinafop-propargyl	Flazasulfuron	Omethoate	Thiamethoxam
Clofentezine	Fluacrypyrim	Oryzalin	Thiazopyr
Clomazone	Fluazifop-p-butyl	Oxabetrinil	Thidiazuron
Cloquintocet-mexyl	Fludioxonil	Oxadiazon	Thiobencarb
Clothianidin	Flufenacet	Oxadixyl	Thiocyclam hydrogenoxalate
Coumafos	Flumiclorac pentyl	Oxamyl	Thiometon
Coumaphos oxon	Flumioxazin	Oxycarboxin	Tiadinil
Cyanazine	Fluometuron	Paclobutrazol	Tolclofos-methyl
Cyazofamid	Fluquinconazole	Penconazole	Tolyfluanid
Cyclanilide	Fluridone	Pencycuron	Tralkoxydim
Cycloate	Flusilazole	Pendimethalin	Triadimefon
Cyclosulfamuron	Flusulfamide	Phenmedipham	Triadimenol
Cyflufenamid	Fluthiacet-methyl	Phenthoate	Triallate

<i>Pesticides by LC-MS/MS (Extended)</i>	<i>Fruit , Vegetables and Oils*</i>		
Units	mg/kg		
Compound	Compound	Compound	Compound
Cymoxanil	Flutolanil	Phorate	Triasulfuron
Cyproconazole	Flutriafol	Phorate sulphone	Triazophos
Cyprodinil	Folpet	Phorate sulphoxide	Tribenuron-methyl
Cyromazine	Fomesafen	Phosalone	Tribuphos
Daimuron	Fonofos	Phosphamidon	Trichlorfon
Demeton-s-methyl	Forchlorfenuron	Phoxim	Tricyclazole
Demeton-s-methyl-sulfoxide	Formetanate hydrochloride	Picolinafen	Trifloxystrobin
Desmedipham	Fosthiazate	Piperonyl butoxide	Trifloxysulfuron sodium
Di-allate	Fuberidazole	Piperophos	Triflumizole
Diazinon	Furalaxyl	Pirimicarb	Triflumuron
Dichlofenthion	Furametpyr	Pirimiphos-methyl	Triflusulfuron-methyl
Dichlofluanid	Furathiocarb	Pretilachlor	Triforine
Diclobutrazol	Halosulfuron-methyl	Prochloraz	Uniconazole P
Diclocymet	Haloxypop-etotyl	Profenofos	Vamidothion
Diclofop-methyl	Haloxypop-methyl	Promecarb	XMC
Diclosulam	Heptenophos	Prometryn	Zoxamide

\*Note: Results are reported on an as received basis. The limits of reporting given are those attainable in a relatively clean matrix. Limits of reporting may be higher for different product types should that product require dilutions be performed during the analysis. Additionally some pesticides may not be recoverable from all product types should that product prove intractable during analysis.

<i>Dithiocarbamates by GC-MS</i>
Mancozeb (as carbon disulphide)
Maneb (as carbon disulphide)
Metam (as carbon disulphide)
Metham (as carbon disulphide)
Metiram (as carbon disulphide)
Propineb (as carbon disulphide)
Thiram (as carbon disulphide)
Zineb (as carbon disulphide)
Ziram (as carbon disulphide)

\*Note: Results are reported on an as received basis. The limits of reporting given are those attainable in a relatively clean matrix. Limits of reporting may be higher for different product types should that product require dilutions be performed during the analysis. Additionally some pesticides may not be recoverable from all product types should that product prove intractable during analysis.