New Zealand Food Safety
Haumaru Kai Aotearoa

2017-2019 Plant based foods survey interim report covering 2017-18

A survey under the Food Residues Survey Programmes

New Zealand Food Safety Technical Report No: 2018/11

By New Zealand Food Safety Assurance Branch

ISBN No: 978-1-98-857175-1 (online)
ISSN No: 2624-022X (online)

February 2019

New Zealand Government

Ministry for Primary Industries
Manatū Ahu Matua

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Ministry for Primary Industries
PO Box 2526
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Telephone: 0800 00 83 33
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1 Summary

The Food Residues Survey Programme is currently running a two year survey over 2017-2019, analysing samples to verify that agricultural chemical use on plant based foods in New Zealand follows good agricultural practice (GAP) and that food safety risks are managed. The agricultural chemicals analysed included insecticides, herbicides, fungicides and plant growth regulators. This interim report covers the detections of agricultural chemicals in various commodities collected between August 2017 and June 2018.

A total of 325 samples have been collected and analysed for more than 500 agricultural chemicals and their metabolites using an internationally recognized test method. Any detected residues of agricultural chemicals are compared to the relevant Maximum Residue Levels (MRLs) to establish compliance with GAP. If any detected residues of agricultural chemicals in food samples exceeded the MRLs, New Zealand Food Safety conducted exposure assessments to characterise any food safety risks for consumers. Based on the food safety risk profile, a range of measures from written notification to product recall may be used.

Over the sampling period of August 2017 to June 2018, there were nine samples containing 16 agricultural chemical residues that exceeded the relevant MRLs. The nine samples were from commodities of blackberry, strawberry, raspberry, sweet peppers, chilli peppers, endive, choisum (Chinese flowering cabbage), kailan (Chinese broccoli) and quince.

None of the residues that exceeded the MRLs presented an acute food safety risk to consumers. The cumulative exposure to acephate (an organophosphate insecticide) in one sample of endive exceeded the health based guidance value for adults and children. It has to be noted that no dietary intake values for endive are available, so the value used in the risk assessment is likely to be conservative. New Zealand Food Safety has received confirmation that acephate will no longer be used by the grower.

Tighter controls on use of and a phase out period for certain chemicals in the organophosphate insecticide group was implemented in 2015. However, there are some agricultural chemical suppliers and growers unaware of the changes and required reminders and education on this topic. More information about the controls on use of organophosphate insecticides and chemicals being phased-out is available in the following document: Organophosphate-Carbamate-Reassessment.

A final report covering two year survey will be published, when the samples collected up to June 2019 have been analysed and any follow-ups actions are undertaken.

2 Interim report for the 2017-2019 Plant based foods survey

The 2017-2019 plant based foods survey aims to verify that good agricultural practices are in place for the production of plant commodities that are available to the New Zealand public during the stated period. This survey does not target the individual grower or importer for compliance monitoring.

The survey commenced in August 2017 and collected 325 samples up to June 2018. Between 250 to 275 samples are to be collected from July 2018 to June 2019. This interim report includes the detected agricultural chemical residues of samples collected up to end of June 2018.

3 Summary of sample collected in 2017-18 and non-compliant results

- A total of 325 samples were collected and analysed, including 22 imported samples from the United States and seven samples from Australia.
- There were 16 non-compliant residues in nine samples. The nine food samples included commodities of blackberry, strawberry, raspberry, kalian (Chinese broccoli), sweet peppers, chilli peppers, endive, choisum (Chinese flowering cabbage) and quince.
- All non-compliant samples were from domestic growers. Most of the samples had non-compliant residues of only one active ingredient.
- Only three samples had non-compliant residues from more than one active ingredient:
    a. one sample of raspberry had non-compliant residues from three active ingredients;
    b. one sample of kailan had non-compliant residues from three active ingredients and
    c. one sample of endive had non-compliant residues from two active ingredients.
- The non-compliant residues were identified as 12 different active ingredients from six fungicides and six insecticides.
- None of the non-compliant residues presented an acute food safety risks to consumers.

4 Survey methodology

The survey aims to collect 500 to 600 samples of plant based foods from August 2017 to June 2019. Foods are randomly sampled from New Zealand retailers, importers or distributors. All collected samples are analysed for 509 agricultural chemicals (listed in appendix 1) using an analytical method accredited by International Accreditation New Zealand (IANZ). Where any result do not comply with the relevant MRLs, the sample is re-tested to confirm the result.

For domestic samples, the relevant limits/levels are in the Food Notice: Maximum Residues Levels (MRLs) for Agricultural Compounds. For imported samples, depending on the country of origin, the relevant MRLs could be from one of the three standards:

- Food Notice: Maximum Residues Levels for Agricultural Compounds (the New Zealand MRL Notice);
- the Australia New Zealand Food Standards Code or
- Codex Alimentarius.

More information on the relevant MRLs applicable to samples can be found here.

New Zealand Food Safety assesses the potential dietary exposure of any non-compliant residue to determine if there is a food safety risk. If any sample contained residues that presented a food safety risk, New Zealand Food Safety would undertake food recalls of affected batches of produce, a systematic review of the growing or import practices and other stringent follow up actions. For samples exceeding the MRL, but not presenting a food safety risk, the follow up with grower or importer can range from written notification of their results to telephone interviews.

All assessed non-compliant samples are traced back to the growers or importer for notification and follow up actions. This provides an opportunity to identify unacceptable agricultural practices to individual growers and reiterate their legal obligation to meet relevant set MRL for agricultural chemical residues in their commodities.

5 Report exclusion

As the survey will continue to June 2019, the survey summary and rate of compliance of the samples collected will be covered in the final report.

A small percentage of the results (0.33%) were not reportable due to technical failures. They were also excluded from the data analysis and this report.

6 Report criteria

- All reported residue amounts are rounded to the nearest two decimal places.
- All detections in collected samples are listed in the tables below. Non-compliant samples (where detections exceed the MRLs) are in red.
- The samples are grouped according to the classes of commodities, as defined in the CODEX classifications for food and animal feeds.
- The samples within each commodity class are further divided into domestic or imported sample tables.

7 Detections and compliance criteria

- All detections of agricultural chemicals in domestic samples will be compared to the New Zealand MRL Notice.
- All detections of agricultural chemicals from imported food will be compared to either the Codex MRL or the New Zealand MRL Notice. In addition, for Australian samples, they can also be compared to the Australian MRLs.
- If there is more than one applicable MRL for the chemical compound-food combination, the higher MRL will apply.
- Where there is no MRL set under any of the above MRL standards, then the New Zealand default MRL of 0.1mg/kg applies.
- Some reported detections are not determined for compliance. These are reported in a separate table (Table 16). There are two reasons for the exceptions:
    - There are individual metabolites that are not part of a residue definition in the Food Notice.
    - Where residue of an active ingredient does not result from use as an agricultural chemical, an MRL is not applicable. Examples of such chemicals are 2-phenylphenol and Quaternary Ammonium Compounds (QACs)
- While 2-phenylphenol residues were detected in three citrus samples, New Zealand Food Safety investigation showed that these occurred from the use of a product not subject to the NZ MRL Notice as this product was not considered to be an agricultural chemical, but rather a postharvest sanitizer for equipment. In spite of this, the samples were assessed for potential dietary exposure and presented no food safety risks.

8 Results Tables

TABLE 1. BERRIES AND OTHER SMALL FRUITS

Detections found in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
47	Strawberry	Clofentezine	0.06	0.1
47	Strawberry	Cyproconazole	0.01	0.1
47	Strawberry	Cyprodinil	0.07	1
47	Strawberry	Fenhexamid	0.55	3
47	Strawberry	Fludioxonil	0.01	1
47	Strawberry	Metalaxyl	0.04	2
47	Strawberry	Methomyl	0.48	0.5
80	Blueberries	Cyprodinil	0.04	0.5
81	Blackberries	Carbaryl	0.21	3
81	Blackberries	Iprodione	1.10	10
86	Strawberry	Cyprodinil	0.09	1
86	Strawberry	Fludioxonil	0.04	1
87	Strawberry	Methomyl	0.03	0.5
118	Strawberry	Captan	0.92	10
118	Strawberry	Carbendazim	0.29	5
118	Strawberry	Cyprodinil	0.01	1
118	**Strawberry**	**Procymidone**	**0.54**	**0.5**
120	Strawberry	Captan	0.16	10
120	Strawberry	Carbendazim	0.04	5
120	Strawberry	Pirimicarb (sum of residues expressed as pirimicarb)	0.03	1
127	Boysenberry	Cyprodinil	0.04	0.1
127	Boysenberry	Fludioxonil	0.10	0.1
127	Boysenberry	Methomyl	0.07	0.5
164	Strawberry	Carbendazim	0.01	5
164	Strawberry	Cyprodinil	0.26	1
164	Strawberry	Fludioxonil	0.21	1
164	Strawberry	Procymidone	0.02	0.5
170	Raspberries, Red, Black	Triforine	0.12	10
180	**Blackberries**	**Boscalid**	**0.27**	**0.1**
180	Blackberries	Captan	0.04	10
180	Blackberries	Carbendazim	0.12	5
180	Blackberries	Cyprodinil	0.10	0.1
180	Blackberries	Fludioxonil	0.10	0.1
180	Blackberries	Methomyl	0.01	0.5
180	Blackberries	Pyraclostrobin	0.03	0.1
180	Blackberries	Tebuconazole	0.01	0.1
184	Raspberries, Red, Black	Captan	0.02	10
184	Raspberries, Red, Black	Iprodione	0.19	10
193	Blackberries	Carbaryl	0.33	3

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
193	Blackberries	Chlorothalonil	0.08	10
193	Blackberries	Iprodione	1.30	10
193	Blackberries	Methomyl	0.04	0.5
194	**Raspberries, Red, Black**	**Cyprodinil**	**0.64**	**0.1**
194	**Raspberries, Red, Black**	**Dichlorvos**	**0.04**	**0.01**
194	**Raspberries, Red, Black**	**Fludioxonil**	**0.34**	**0.1**
208	Raspberries, Red, Black	Iprodione	0.01	10

TABLE 2. BRASSICA VEGETABLES, (EXCEPT BRASSICA LEAFY VEGETABLES)

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
218	Brussels sprouts	Difenoconazole	0.02	0.2
277	Cabbage, Savoy	Carbendazim	0.01	0.1
277	Cabbage, Savoy	Cyhalothrin	0.02	0.2
277	Cabbage, Savoy	Procymidone	0.02	0.1
278	**Kailan**	**Carbendazim**	**6.30**	**0.1**
278	**Kailan**	**Methamidophos**	**0.05**	**0.01**
278	**Kailan**	**Oxathiapiprolin**	**0.40**	**0.1**
278	Kailan	Metalaxyl	0.09	0.1
278	Kailan	Spinetoram	0.01	0.1

TABLE 3. CITRUS FRUITS

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
8	Lemon	Boscalid	0.02	1.5
8	Lemon	Malathion	0.03	5
8	Lemon	Pyraclostrobin	0.02	0.7
9	Lemon	Piperonyl butoxide	0.01	8
12	Grapefruit	Malathion	0.02	5
14	Lime	Malathion	0.01	5
21	Oranges, Sweet, Sour (including Orange-like hybrids)	Diazinon	0.11	0.5
21	Oranges, Sweet, Sour (including Orange-like hybrids)	Malathion	0.05	5
21	Oranges, Sweet, Sour (including Orange-like hybrids)	Spirotetramat (sum of residues expressed as spirotetramat)	0.06	1
29	Oranges, Sweet, Sour (including Orange-like hybrids)	Diazinon	0.02	0.5

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
41	Mandarin	Diazinon	0.01	0.5
41	Mandarin	Malathion	0.04	5
114	Tangelo, small and medium sized cultivars	Malathion	0.05	5
199	Mandarin	Boscalid	0.05	1.5
199	Mandarin	Diazinon	0.02	0.5
199	Mandarin	Pyraclostrobin	0.02	0.7
228	Oranges, Sweet, Sour (including Orange-like hybrids)	Diazinon	0.02	0.5
229	Lemon	Acephate	0.02	5
247	Oranges, Sweet, Sour (including Orange-like hybrids)	Azoxystrobin	0.01	0.1
247	Oranges, Sweet, Sour (including Orange-like hybrids)	Fludioxonil	0.02	0.1
247	Oranges, Sweet, Sour (including Orange-like hybrids)	Imazalil	2.50	5
247	Oranges, Sweet, Sour (including Orange-like hybrids)	Piperonyl butoxide	0.04	8
247	Oranges, Sweet, Sour (including Orange-like hybrids)	Thiabendazole	1.50	3
290	Mandarin	Malathion	0.06	5
298	Mandarin	Malathion	0.05	5
308	Lime	Malathion	0.02	5
315	Mandarin	Diazinon	0.06	0.5
327	Lemon	Buprofezin	0.01	0.5

TABLE 4. CITRUS FRUITS (IMPORTED)

Detections in imported samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	Applicable MRL (mg/kg)
20	Mandarin	Imazalil	2.10	10
20	Mandarin	Thiabendazole	2.00	10
28	Mandarin	Chlorpyrifos	0.01	1
28	Mandarin	Imazalil	5.80	10
28	Mandarin	Thiabendazole	2.40	10
58	Mandarin	Fludioxonil	1.90	10
58	Mandarin	Imazalil	2.80	10
58	Mandarin	Thiabendazole	0.55	10
88	Lime	Thiabendazole	1.50	7

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	Applicable MRL (mg/kg)
171	Oranges, Sweet, Sour (including Orange-like hybrids)	Imazalil	1.90	5
171	Oranges, Sweet, Sour (including Orange-like hybrids)	Piperonyl butoxide	1.60	8
171	Oranges, Sweet, Sour (including Orange-like hybrids)	Thiabendazole	2.10	7
174	Grapefruit	Azoxystrobin	0.03	15
174	Grapefruit	Fludioxonil	1.60	10
174	Grapefruit	Imazalil	1.60	5
174	Grapefruit	Imidacloprid (sum of imidacloprid and imidacloprid olefin)	0.05	1
174	Grapefruit	Thiabendazole	3.00	7
175	Mandarin	Imazalil	3.20	10
175	Mandarin	Thiabendazole	1.50	10
176	Lemon	Imazalil	1.50	5
176	Lemon	Thiabendazole	1.40	7
213	Oranges, Sweet, Sour (including Orange-like hybrids)	Imazalil	2.40	5
213	Oranges, Sweet, Sour (including Orange-like hybrids)	Thiabendazole	2.10	7
222	Lemon	Azoxystrobin	0.02	15
222	Lemon	Fludioxonil	0.02	10
222	Lemon	Imazalil	2.70	5
222	Lemon	Thiabendazole	1.00	7
223	Mandarin	Imazalil	1.10	5
223	Mandarin	Piperonyl butoxide	0.01	8
223	Mandarin	Spirotetramat (sum of residues expressed as spirotetramat)	0.02	1
223	Mandarin	Thiabendazole	0.22	7
246	Lemon	Azoxystrobin	0.67	15
246	Lemon	Fludioxonil	1.90	10
246	Lemon	Imazalil	2.60	5
246	Lemon	Thiabendazole	2.00	7
267	Oranges, Sweet, Sour (including Orange-like hybrids)	Imazalil	2.30	5
267	Oranges, Sweet, Sour (including Orange-like hybrids)	Piperonyl butoxide	0.01	8
267	Oranges, Sweet, Sour (including Orange-like hybrids)	Thiabendazole	1.60	7
268	Lemon	Imazalil	1.00	5
268	Lemon	Thiabendazole	0.63	7
339	Grapefruit	Buprofezin	0.04	1

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	Applicable MRL (mg/kg)
339	Grapefruit	Diflubenzuron	0.04	0.5
339	Grapefruit	Fenpyroximate	0.02	0.5
339	Grapefruit	Hexythiazox	0.02	0.5
339	Grapefruit	Imazalil	1.00	5
339	Grapefruit	Thiabendazole	1.30	7
347	Grapefruit	Imazalil	1.60	10
347	Grapefruit	Thiabendazole	1.30	10

TABLE 5. EDIBLE FUNGI

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
6	Mushrooms	Carbendazim	0.06	0.5
6	Mushrooms	Piperonyl butoxide	0.02	8
15	Mushrooms	Prochloraz	0.02	3
16	Mushrooms	Carbendazim	0.06	0.5
17	Mushrooms	Carbendazim	0.04	0.5
205	Mushrooms	Thiabendazole	0.01	0.1
212	Mushrooms	Carbendazim	0.04	0.5

TABLE 6. FRUITING VEGETABLES, OTHER THAN CUCURBITS

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
39	Peppers, Chilli	Pymetrozine	0.02	0.1
104	Peppers, Chilli	Azoxystrobin	0.05	0.1
104	Peppers, Chilli	Sulfoxaflor	0.04	1.0
121	Peppers, Sweet	Imidacloprid	0.01	0.1
130	Peppers, Sweet	Cyantraniliprole	0.01	0.1
130	Peppers, Sweet	Imidacloprid	0.03	0.1
130	Peppers, Sweet	Lufenuron	0.01	0.1
130	Peppers, Sweet	Spiromesifen	0.04	1
221	Peppers, Sweet	Iprodione	0.05	0.1
221	Peppers, Sweet	Sulfoxaflor	0.12	1.0
236	Peppers, Sweet	Sulfoxaflor	0.03	1.0
239	Peppers, Sweet	Spinosad	0.03	0.1
239	Peppers, Sweet	Sulfoxaflor	0.11	1.0
284	Peppers, Sweet	Fenpyroximate	0.07	0.1
284	Peppers, Sweet	Lufenuron	0.03	0.1
284	Peppers, Sweet	Spirotetramat (sum of residues expressed as spirotetramat)	0.02	0.1
285	Peppers, Sweet	Fenpyroximate	0.03	0.1
285	Peppers, Sweet	Lufenuron	0.08	0.1
285	Peppers, Sweet	Spinosad	0.01	0.1
285	Peppers, Sweet	Spiromesifen	0.06	1

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
285	**Peppers, Sweet**	**Spirotetramat (sum of residues expressed as spirotetramat)**	**0.12**	**0.1**
289	Peppers, Sweet	Sulfoxaflor	0.19	1.0
294	Peppers, Sweet	Azoxystrobin	0.04	0.1
294	Peppers, Sweet	Methomyl	0.31	0.5
294	**Peppers, Sweet**	**Pymetrozine**	**0.32**	**0.1**
297	Peppers, Sweet	Imidacloprid	0.02	0.1
297	Peppers, Sweet	Lufenuron	0.02	0.1
297	Peppers, Sweet	Methomyl	0.06	0.5
297	**Peppers, Sweet**	**Spirotetramat (sum of residues expressed as spirotetramat)**	**0.16**	**0.1**
310	Peppers, Sweet	Abamectin	0.03	0.1
310	Peppers, Sweet	Fluopyram	0.18	1.0
310	Peppers, Sweet	Metalaxyl	0.02	0.2
310	Peppers, Sweet	Spinetoram	0.10	0.1
310	Peppers, Sweet	Spinosad	0.01	0.1
316	**Peppers, Chilli**	**Diazinon**	**1.10**	**0.01**
331	Peppers, Sweet	Abamectin	0.02	0.1
331	Peppers, Sweet	Fenpyroximate	0.03	0.1
331	Peppers, Sweet	Imidacloprid	0.05	0.1
331	Peppers, Sweet	Spiromesifen	0.29	1
343	Peppers, Sweet	Imidacloprid	0.05	0.1

TABLE 7. LEAFY VEGETABLES (INCLUDING BRASSICA LEAFY VEGETABLES)

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
99	Sowthistle	Boscalid	0.03	0.1
99	Sowthistle	Propyzamide	0.01	1
288	Pak-choi or Paksoi	Carbendazim	0.02	0.1
301	Watercress	Abamectin	0.02	0.1
301	Watercress	Chlorantraniliprole	0.78	7
301	Watercress	Sulfoxaflor	0.28	5
305	**Endive**	**Acephate**	**9.50**	**0.01**
305	Endive	Imidacloprid	0.05	0.1
305	**Endive**	**Procymidone**	**1.60**	**1**
336	Watercress	Fipronil-sulfone	0.01	0.1
338	**Choisum**	**Chlorothalonil**	**2.00**	**0.1**
338	Choisum	Chlorpyrifos	0.02	0.1
338	Choisum	Deltamethrin	0.02	0.1

TABLE 8. LEGUME VEGETABLES

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
131	Green bean (green pods and immature seeds)	Procymidone	0.13	2
163	Green bean (green pods and immature seeds)	Procymidone	0.30	2

TABLE 9. POME FRUITS

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
2	Apple	Methoxyfenozide	0.01	0.5
3	Apple	Captan	0.02	10
3	Apple	Methoxyfenozide	0.01	0.5
30	Apple	Captan	0.12	10
30	Apple	Tebufenozide	0.04	0.5
31	Apple	Captan	0.09	10
31	Apple	Methoxyfenozide	0.04	0.5
32	Apple	Captan	0.04	10
32	Apple	Chlorantraniliprole	0.02	0.3
43	Apple	Captan	0.04	10
89	Pear	Chlorantraniliprole	0.02	0.3
92	Pear	Captan	0.08	10
92	Pear	Carbendazim	0.02	2
92	Pear	Tebufenozide	0.06	0.5
112	Apple	Chlorantraniliprole	0.02	0.3
216	Apple	Captan	0.12	10
216	Apple	Fluxapyroxad	0.01	0.02
216	Apple	Tebufenozide	0.01	0.5
219	Pear	Chlorpyrifos	0.06	0.2
226	Apple	Captan	0.01	10
226	Apple	Methoxyfenozide	0.01	0.5
226	Apple	Tebufenozide	0.02	0.5
233	Apple	Captan	0.03	10
248	Pear	Captan	0.07	10
251	Nashi pear	Indoxacarb	0.01	0.5
253	Pear	Captan	0.42	10
253	Pear	Chlorantraniliprole	0.03	0.3
253	Pear	Difenoconazole	0.01	0.1
253	Pear	Methoxyfenozide	0.12	0.5
254	Pear	Captan	0.01	10
257	Apple	Captan	0.08	10
260	Pear	Captan	0.86	10

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
260	Pear	Chlorantraniliprole	0.02	0.3
260	Pear	Difenoconazole	0.01	0.1
260	Pear	Fenpyroximate	0.02	0.1
260	Pear	Lufenuron	0.02	0.05
264	**Quince**	**Diazinon**	**0.02**	**0.01**
264	Quince	Dodine	0.08	2
265	Quince	Methoxyfenozide	0.03	0.5
271	Apple	Tebufenozide	0.02	0.5
272	Pear	Captan	0.36	10
272	Pear	Chlorantraniliprole	0.01	0.3
274	Quince	Captan	0.11	10
274	Quince	Tebufenozide	0.01	0.5
276	Pear	Captan	0.06	10
276	Pear	Chlorantraniliprole	0.01	0.3
276	Pear	Dodine	0.04	2
279	Pear	Captan	0.44	10
279	Pear	Carbendazim	0.02	2
279	Pear	Chlorantraniliprole	0.01	0.3
279	Pear	Dodine	0.01	2
280	Apple	Captan	0.43	10
281	Pear	Captan	0.06	10
281	Pear	Tebufenozide	0.02	0.5
282	Pear	Methoxyfenozide	0.02	0.5
283	Apple	Captan	0.04	10
283	Apple	Chlorantraniliprole	0.02	0.3
283	Apple	Methoxyfenozide	0.01	0.5
287	Apple	Captan	0.14	10
287	Apple	Tebufenozide	0.02	0.5
292	Apple	Captan	0.21	10
292	Apple	Chlorantraniliprole	0.01	0.3
292	Apple	Tebufenozide	0.02	0.5
300	Pear	Captan	0.12	10
300	Pear	Methoxyfenozide	0.02	0.5
300	Pear	Tebufenozide	0.12	0.5
306	Pear	Methoxyfenozide	0.01	0.5
311	Pear	Captan	0.16	10
311	Pear	Chlorpyrifos	0.02	0.2
313	Apple	Captan	0.03	10
313	Apple	Dodine	0.03	2
314	Apple	Captan	1.20	10
314	Apple	Chlorantraniliprole	0.03	0.3
317	Apple	Captan	0.21	10
318	Apple	Captan	0.08	10

FRSP	Commodity	Compound Name	Compound Amount (mg/kg)	New Zealand MRL (mg/kg)
318	Apple	Tebufenozide	0.01	0.5
319	Apple	Captan	0.07	10
320	Pear	Captan	0.09	10
321	Apple	Captan	0.01	10
322	Apple	Captan	0.11	10
323	Apple	Captan	0.13	10
323	Apple	Tebufenozide	0.01	0.5
344	Pear	Captan	0.04	10
344	Pear	Methoxyfenozide	0.02	0.5

TABLE 10. POME FRUITS (IMPORTED)

Detections in imported samples

FRSP	Commodity	Compound Name	Compound Amount	Applicable MRL (mg/kg)
60	Pear	Chlorantraniliprole	0.01	1.2
59	Pear	Diphenylamine	1.20	7
60	Pear	Diphenylamine	0.44	7
59	Pear	Fludioxonil	0.30	5
60	Pear	Fludioxonil	0.44	5
59	Pear	Imazalil	0.42	5
60	Pear	Imazalil	1.10	5
59	Pear	Iprodione	0.29	5
60	Pear	Iprodione	0.39	5
141	Pear	Pyrimethanil	0.02	15

TABLE 11. ROOT AND TUBER VEGETABLES

Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount	New Zealand MRL (mg/kg)
5	Carrot	Linuron	0.02	0.1
10	Potato	Propham	0.02	50
10	Potato	Spirotetramat (sum of residues expressed as spirotetramat)	0.08	0.5
18	Sweet potato	Dicloran	0.75	5
18	Sweet potato	Propamocarb	0.02	0.1
19	Sweet potato	Dicloran	2.00	5
19	Sweet potato	Permethrin	0.02	1
19	Sweet potato	Piperonyl butoxide	0.01	8
23	Potato	Azoxystrobin	0.01	0.02
23	Potato	Fluazinam	0.01	0.02
24	Potato	Fluazinam	0.02	0.02
24	Potato	Propham	0.07	50
24	Potato	Spirotetramat (sum of residues expressed as spirotetramat)	0.03	0.5
26	Potato	Propham	1.70	50

FRSP	Commodity	Compound Name	Compound Amount	New Zealand MRL (mg/kg)
26	Potato	Spirotetramat (sum of residues expressed as spirotetramat)	0.02	0.5
33	Sweet potato	Dicloran	1.60	5
48	Carrot	Linuron	0.07	0.1
48	Carrot	Metalaxyl	0.01	0.1
49	Sweet potato	Dicloran	0.55	5
50	Sweet potato	Dicloran	0.57	5
56	Potato	Propham	5.10	50
66	Potato	Propham	0.10	50
68	Potato	Propham	0.64	50
79	Potato	Propham	6.70	50
91	Sweet potato	Dicloran	1.40	5
91	Sweet potato	Permethrin	0.02	1
94	Potato	Propham	4.00	50
97	Potato	Fluazinam	0.01	0.02
100	Potato	Propham	1.90	50
100	Potato	Spirotetramat (sum of residues expressed as spirotetramat)	0.05	0.5
106	Potato	Propham	0.49	50
107	Sweet potato	Dicloran	0.99	5
110	Potato	Propham	1.80	50
111	Sweet potato	Dicloran	0.34	5
119	Potato	Metalaxyl	0.01	0.05
122	Sweet potato	Dicloran	0.76	5
124	Potato	Propham	0.12	50
143	Sweet potato	Dicloran	1.10	5
154	Potato	Pencycuron	0.02	0.1
161	Carrot	Bromacil	0.01	0.1
178	Sweet potato	Dicloran	2.10	5
179	Sweet potato	Dicloran	0.90	5
179	Sweet potato	Permethrin	0.02	1
179	Sweet potato	Piperonyl butoxide	0.02	8
181	Sweet potato	Dicloran	1.40	5
196	Sweet potato	Dicloran	1.30	5
204	Sweet potato	Dicloran	0.17	5
211	Sweet potato	Dicloran	0.48	5
261	Carrot	Iprodione	0.02	0.1

TABLE 12. STALK AND STEM VEGETABLES
Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount	New Zealand MRL (mg/kg)
53	Asparagus	Isopyrazam	0.05	0.1
72	Asparagus	Bromacil	0.08	0.1
72	Asparagus	Diuron	0.03	0.1

TABLE 13. STONEFRUIT
Detections in domestic samples

FRSP	Commodity	Compound Name	Compound Amount	New Zealand MRL (mg/kg)
117	Cherries	Iprodione	0.23	10
128	Cherries	Captan	0.06	10
128	Cherries	Iprodione	0.17	10
144	Cherries	Boscalid	0.02	3.0
144	Cherries	Tebuconazole	0.02	1
155	Apricot	Iprodione	0.03	10
159	Cherries	Boscalid	0.14	3.0
159	Cherries	Captan	0.07	10
159	Cherries	Iprodione	0.16	10
159	Cherries	Methoxyfenozide	0.03	0.4
159	Cherries	Pyraclostrobin	0.04	1
159	Cherries	Tebuconazole	0.03	1
162	Nectarine	Carbendazim	0.02	0.1
162	Nectarine	Tebuconazole	0.04	1
165	Apricot	Iprodione	0.11	10
165	Apricot	Spinetoram	0.01	0.2
165	Apricot	Tebuconazole	0.06	1
166	Peach	Captan	0.40	10
166	Peach	Tebuconazole	0.08	1
167	Cherries	Boscalid	0.15	3.0
167	Cherries	Iprodione	0.31	10
167	Cherries	Pyraclostrobin	0.03	1
167	Cherries	Spinosad	0.02	1
167	Cherries	Tebuconazole	0.05	1
168	Cherries	Boscalid	0.02	3.0
168	Cherries	Methoxyfenozide	0.01	0.4
168	Cherries	Tebuconazole	0.03	1
169	Cherries	Boscalid	0.08	3.0
169	Cherries	Captan	0.02	10
169	Cherries	Iprodione	0.07	10
169	Cherries	Methoxyfenozide	0.02	0.4
169	Cherries	Pyraclostrobin	0.04	1
172	Apricot	Iprodione	0.46	10
172	Apricot	Methoxyfenozide	0.03	0.4
172	Apricot	Propargite	0.41	3
172	Apricot	Spinetoram	0.03	0.2
172	Apricot	Tebuconazole	0.07	1
186	Apricot	Methoxyfenozide	0.15	0.4
186	Apricot	Spinetoram	0.06	0.2
186	Apricot	Tebuconazole	0.04	1
201	Peach	Boscalid	0.02	0.05

FRSP	Commodity	Compound Name	Compound Amount	New Zealand MRL (mg/kg)
201	Peach	Carbendazim	0.02	0.1
201	Peach	Iprodione	1.50	10
201	Peach	Methoxyfenozide	0.04	0.4
201	Peach	Piperonyl butoxide	0.93	8
201	Peach	Pyrethrins	0.04	1
201	Peach	Spinosad	0.07	1
201	Peach	Tebuconazole	0.55	1
202	Apricot	Captan	0.32	10
202	Apricot	Methoxyfenozide	0.39	0.4
202	Apricot	Spinetoram	0.03	0.2
202	Apricot	Tebuconazole	0.08	1
203	Nectarine	Captan	0.21	10
203	Nectarine	Carbaryl	0.21	3
203	Nectarine	Iprodione	0.36	10
203	Nectarine	Tebuconazole	0.07	1
243	Peach	Carbaryl	0.43	3
243	Peach	Iprodione	0.08	10
244	Nectarine	Carbaryl	0.02	3
244	Nectarine	Iprodione	0.05	10
244	Nectarine	Methoxyfenozide	0.01	0.4
244	Nectarine	Tebuconazole	0.03	1
250	Nectarine	Iprodione	2.90	10
250	Nectarine	Tebuconazole	0.14	1

TABLE 14. STONEFRUIT (IMPORTED)

Detections in imported samples

FRSP	Commodity	Compound Name	Compound Amount	Applicable MRL (mg/kg)
1	Peach	Fludioxonil	0.04	5

Table 15. All other detections with no applicable MRLs

FRSP	Commodity	Compound Name	Compound Amount	Notes
52	Mandarin	2-phenylphenol	0.31	The product with the active ingredient 2-phenylphenol was not registered as an agricultural chemical.
113	Oranges, Sweet, Sour (including Orange-like hybrids)	2-phenylphenol	0.20	
330	Mandarin	2-phenylphenol	0.55	
212	Mushrooms	2-Aminobenzimidazole	0.01	2-aminobenzimidazole is a metabolite of carbendazim but not part of the residues definitions of the New Zealand MRL Notice.

FRSP	Commodity	Compound Name	Compound Amount	Notes
1	Peach	Benzalkonium chloride (sum of BDM-C10:C16)	0.01	The product with the active ingredient benzalkonium chloride was not registered as an agricultural chemical.
2	Apple	Benzalkonium chloride (sum of BDM-C10:C16)	0.09	
3	Apple	Benzalkonium chloride (sum of BDM-C10:C16)	0.05	
25	Carrot	Benzalkonium chloride (sum of BDM-C10:C16)	0.01	
39	Peppers, Chilli	Benzalkonium chloride (sum of BDM-C10:C16)	0.03	
92	Pear	Benzalkonium chloride (sum of BDM-C10:C16)	0.08	
108	Asparagus	Benzalkonium chloride (sum of BDM-C10:C16)	0.02	
147	Asparagus	Benzalkonium chloride (sum of BDM-C10:C16)	0.05	
138	Apple	Benzalkonium chloride (sum of BDM-C10:C16)	0.24	
177	Lime	Benzalkonium chloride (sum of BDM-C10:C16)	0.29	
251	Nashi pear	Benzalkonium chloride (sum of BDM-C10:C16)	0.02	
258	Sweet corn (corn-on-the-cob)	Benzalkonium chloride (sum of BDM-C10:C16)	0.18	
301	Watercress	Didecyldimethylammonium chloride congener (DDAC)	0.01	DDAC was applied as an equipment sanitizer and not as an agricultural chemical.
305	Endive	Methamidophos	0.73	Methamidophos on this sample was a metabolite from the active ingredient acephate. The set MRL for methamidophos was not applicable on this sample.
100	Potatoe	Spirotetramat-enol-glucoside	0.01	Not applicable. Spirotetramat-enol-glucoside is a metabolite of spirotetramat, but it is not part of the residues definition in the New Zealand MRL notice for MRL compliance.
171	Oranges, Sweet, Sour (including Orange-like hybrids)	Spirotetramat-enol-glucoside	0.02	
223	Mandarin	Spirotetramat-enol-glucoside	0.03	
267	Oranges, Sweet, Sour (including Orange-like hybrids)	Spirotetramat-enol-glucoside	0.02	
268	Lemon	Spirotetramat-enol-glucoside	0.02	
284	Peppers, Sweet	Spirotetramat-enol-glucoside	0.02	
285	Peppers, Sweet	Spirotetramat-enol-glucoside	0.13	
297	Peppers, Sweet	Spirotetramat-enol-glucoside	0.04	
307	Lemon	Spirotetramat-enol-glucoside	0.02	
317	Apple	Spirotetramat-enol-glucoside	0.01	
345	Grapefruit	Spirotetramat-enol-glucoside	0.01	
314	Apple	Spirotetramat-mono-hydroxy	0.02	Not applicable. Spirotetramat-mono-hydroxy is a metabolite of spirotetramat, but it is not part of the residues definition in the New Zealand MRL notice for MRL compliance.
317	Apple	Spirotetramat-mono-hydroxy	0.01	
322	Apple	Spirotetramat-mono-hydroxy	0.02	

FRSP	Commodity	Compound Name	Compound Amount	Notes
2	Apple	THPI (Tetrahydrophthalimide)	0.02	
3	Apple	THPI	0.02	
30	Apple	THPI	0.11	
31	Apple	THPI	0.26	
32	Apple	THPI	0.08	
42	Apple	THPI	0.01	
43	Apple	THPI	0.06	
89	Pear	THPI	0.11	
92	Pear	THPI	0.29	
112	Apple	THPI	0.02	
117	Cherries	THPI	0.02	
118	Strawberry	THPI	0.86	
120	Strawberry	THPI	0.37	
128	Cherries	THPI	0.03	
133	Raspberries, Red, Black	THPI	0.02	
144	Cherries	THPI	0.02	
159	Cherries	THPI	0.05	
166	Peach	THPI	0.89	
169	Cherries	THPI	0.04	
180	Blackberries	THPI	0.22	Not applicable. This is a metabolite of captan, but it is not included in the residue definition in the New Zealand MRL Notice for MRL compliance.
184	Raspberries, Red, Black	THPI	0.10	
202	Apricot	THPI	0.03	
203	Nectarine	THPI	0.02	
208	Raspberries, Red, Black	THPI	0.05	
216	Apple	THPI	0.09	
233	Apple	THPI	0.05	
226	Apple	THPI	0.07	
243	Peach	THPI	0.01	
244	Nectarine	THPI	0.03	
248	Pear	THPI	0.05	
253	Pear	THPI	0.46	
254	Pear	THPI	0.03	
257	Apple	THPI	0.11	
260	Pear	THPI	0.72	
271	Apple	THPI	0.03	
272	Pear	THPI	0.12	
274	Quince	THPI	0.08	
276	Pear	THPI	0.04	
279	Pear	THPI	0.17	
280	Apple	THPI	0.37	
281	Pear	THPI	0.04	
283	Apple	THPI	0.05	
287	Apple	THPI	0.09	

FRSP	Commodity	Compound Name	Compound Amount	Notes
292	Apple	THPI	0.15	Not applicable. This is a metabolite of captan, but it is not included in the residue definition in the New Zealand MRL Notice for MRL compliance.
300	Pear	THPI	0.12	
306	Pear	THPI	0.02	
311	Pear	THPI	0.07	
313	Apple	THPI	0.07	
314	Apple	THPI	0.22	
317	Apple	THPI	0.10	
318	Apple	THPI	0.08	
319	Apple	THPI	0.15	
320	Pear	THPI	0.09	
321	Apple	THPI	0.03	
322	Apple	THPI	0.19	
323	Apple	THPI	0.06	
337	Pear	THPI	0.01	
344	Pear	THPI	0.04	

9 Appendix 1

The table below is the list of all possible chemicals that are screened using an IANZ accredited method. The limit of reporting for each chemical is also included.

Compound Name	Limit of reporting (mg/kg)
2-Aminobenzimidazole	<0.010
2-phenylphenol	<0.010
Abamectin	<0.010
Acephate	<0.010
Acetamiprid	<0.010
Acetamiprid-N-desmethyl	<0.010
Acetochlor	<0.010
Acibenzolar acid	<0.010
Acibenzolar-S-methyl	<0.010
Acrinathrin	<0.010
Alachlor	<0.010
Aldicarb	<0.010
Aldicarb-sulfone	<0.010
Aldicarb-sulfoxide	<0.010
Aldrin	<0.010
Allidochlor	<0.010
Ametoctradin	<0.010
Ametryn	<0.010
Anilofos	<0.010
Anthraquinone	<0.010
Atrazine	<0.010
Azaconazole	<0.010
Azamethiphos	<0.010
Azinphos-ethyl	<0.010
Azinphos-methyl	<0.010
Azoxystrobin	<0.010
BDM-C10	<0.010
BDM-C12	<0.010
BDM-C14	<0.010
BDM-C16	<0.010
Benalaxyl	<0.010
Bendiocarb	<0.010
Benfluralin	<0.010
Benodanil	<0.010
Benoxacor	<0.010
Bensulfuron-methyl	<0.010
Bensulide	<0.010
Bentazone	<0.010
Bifenazate	<0.010
Bifenox	<0.010
Bifenthrin	<0.010
Bioresmethrin	<0.010

Compound Name	Limit of reporting (mg/kg)
Bitertanol	<0.010
Bixafen	<0.010
Boscalid	<0.010
Bromacil	<0.010
Bromobutide	<0.010
Bromophos	<0.010
Bromophos-ethyl	<0.010
Bromopropylate	<0.010
Bupirimate	<0.010
Buprofezin	<0.010
Butachlor	<0.010
Butafenacil	<0.010
Butamifos	<0.010
Cadusafos	<0.010
Cafenstrole	<0.010
Captan	<0.010
Carbaryl	<0.010
Carbendazim	<0.010
Carbetamide	<0.010
Carbofuran	<0.010
Carboxin	<0.010
Carfentrazone-ethyl	<0.010
Carpropamid	<0.010
Chlorantraniliprole	<0.010
Chlorbufam	<0.010
Chlordane-cis	<0.010
Chlordane-trans	<0.010
Chlorfenapyr	<0.010
Chlorfenvinphos	<0.010
Chloridazon	<0.010
Chlorimuron-ethyl	<0.010
Chlorobenzilate	<0.010
Chlorothalonil	<0.010
Chlorotoluron	<0.010
Chloroxuron	<0.010
Chlorpropham	<0.010
Chlorpyrifos	<0.010
Chlorpyrifos-methyl	<0.010
Chlorsulfuron	<0.010
Chlorthal-dimethyl	<0.010
Chlorthiophos	<0.010
Chlozolinate	<0.010
Chromafenozide	<0.010
Cinidon-ethyl	<0.010
Clethodim	<0.010

Compound Name	Limit of reporting (mg/kg)
Clodinafop-propargyl	<0.010
Clofentezine	<0.010
Clomazone	<0.010
Cloquintocet-mexyl	<0.010
Clothianidin	<0.010
Coumaphos	<0.010
Coumaphos-oxon	<0.010
Cyanazine	<0.010
Cyanophos	<0.010
Cyantraniliprole	<0.010
Cyazofamid	<0.010
Cyclanilide	<0.010
Cycloate	<0.010
Cyclosulfamuron	<0.010
Cyflufenamid	<0.010
Cyfluthrin	<0.010
Cyhalofop-butyl	<0.010
Cyhalothrin	<0.010
Cymoxanil	<0.010
Cypermethrin	<0.010
Cyproconazole	<0.010
Cyprodinil	<0.010
Cyromazine	<0.010
Daimuron	<0.010
DDAC	<0.010
DDD-2,4	<0.010
DDD-4,4	<0.010
DDE-2,4	<0.010
DDE-4,4	<0.010
DDT-2,4	<0.010
DDT-4,4	<0.010
Deltamethrin	<0.010
Demeton-S	<0.010
Demeton-S-methyl	<0.010
Demeton-s-methyl-sulfoxide	<0.010
Demeton-S-sulfone	<0.010
Demeton-S-sulfoxide	<0.010
Desmedipham	<0.010
Diallate	<0.050
Diazinon	<0.010
Dichlobenil	<0.010
Dichlofenthion	<0.010
Dichlofluanid	<0.010
Dichlorvos	<0.010
Diclobutrazol	<0.010

Compound Name	Limit of reporting (mg/kg)
Diclocymet	<0.010
Diclofop-methyl	<0.010
Dicloran	<0.010
Diclosulam	<0.010
Dicofol-2,4	<0.010
Dicofol-4,4	<0.010
Dicrotophos	<0.010
Dicyclanil	<0.010
Dieldrin	<0.010
Diethofencarb	<0.010
Difenoconazole	<0.010
Diflubenzuron	<0.010
Diflufenican	<0.010
Dimepiperate	<0.010
Dimethenamid	<0.010
Dimethoate	<0.010
Dimethomorph	<0.010
Dimethylvinphos	<0.010
Dioxabenzofos	<0.010
Dioxathion	<0.050
Diphenamid	<0.010
Diphenylamine	<0.010
Disulfoton	<0.010
Disulfoton-sulfone	<0.010
Disulfoton-sulfoxide	<0.010
Dithiopyr	<0.010
Diuron	<0.010
Dodine	<0.010
Edifenphos	<0.010
Emamectin Benzoate	<0.010
Endosulfan sulfate	<0.010
Endosulfan-alpha	<0.010
Endosulfan-beta	<0.010
Endrin	<0.010
Endrin ketone	<0.010
EPN	<0.010
Epoxiconazole	<0.010
EPTC	<0.010
Esprocarb	<0.010
Ethalfluralin	<0.010
Ethametsulfuron-methyl	<0.010
Ethiofencarb	<0.010
Ethion	<0.010
Ethiprole	<0.010
Ethofumesate	<0.010

Compound Name	Limit of reporting (mg/kg)
Ethoprophos	<0.010
Ethoxyquin	<0.010
Ethoxysulfuron	<0.010
Ethychlozate	<0.010
Etobenzanid	<0.010
Etoxazole	<0.010
Etridiazole	<0.010
Etrimfos	<0.010
Famoxadone	<0.010
Famphur	<0.010
Fenamidone	<0.010
Fenamiphos	<0.010
Fenamiphos-sulfone	<0.010
Fenamiphos-sulfoxide	<0.010
Fenarimol	<0.010
Fenbuconazole	<0.010
Fenchlorphos	<0.010
Fenhexamid	<0.010
Fenitrothion	<0.010
Fenobucarb	<0.010
Fenothiocarb	<0.010
Fenoxanil	<0.010
Fenoxaprop	<0.010
Fenoxaprop-ethyl	<0.010
Fenoxycarb	<0.010
Fenpiclonil	<0.010
Fenpropathrin	<0.010
Fenpropidin	<0.010
Fenpropimorph	<0.010
Fenpyrazamine	<0.010
Fenpyroximate	<0.010
Fensulfothion	<0.010
Fenthion	<0.010
Fenthion-ethyl	<0.010
Fenthion-oxon	<0.010
Fenthion-oxon-sulfone	<0.010
Fenthion-oxon-sulfoxide	<0.010
Fenthion-sulfone	<0.010
Fenthion-sulfoxide	<0.010
Fentrazamide	<0.010
Fenvalerate	<0.010
Ferimzone	<0.010
Fipronil	<0.010
Fipronil-sulfide	<0.010
Fipronil-sulfone	<0.010

Compound Name	Limit of reporting (mg/kg)
Flamprop	<0.010
Flamprop-methyl	<0.010
Flazasulfuron	<0.010
Florasulam	<0.010
Fluacrypyrim	<0.010
Fluazifop	<0.010
Fluazifop-P-butyl	<0.010
Fluazinam	<0.010
Flubendazole	<0.010
Flubendiamide	<0.010
Flucythrinate	<0.010
Fludioxonil	<0.010
Flufenacet	<0.010
Flumiclorac-pentyl	<0.010
Flumioxazin	<0.010
Fluometuron	<0.010
Fluopicolide	<0.010
Fluopyram	<0.010
Fluquinconazole	<0.010
Fluridone	<0.010
Fluroxypyr	<0.010
Flusilazole	<0.010
Fluthiacet-methyl	<0.010
Flutolanil	<0.010
Flutriafol	<0.010
Fluvalinate	<0.010
Fluxapyroxad	<0.010
Folpet	<0.010
Fonofos	<0.010
Forchlorfenuron	<0.010
Formetanate hydrochloride	<0.010
Fosthiazate	<0.010
Fuberidazole	<0.010
Furalaxyl	<0.010
Furametpyr	<0.010
Furathiocarb	<0.010
Halauxifen-methyl	<0.010
Halosulfuron-methyl	<0.010
Haloxyfop-etotyl	<0.010
Haloxyfop-methyl	<0.010
HCH-alpha	<0.010
HCH-beta	<0.010
HCH-delta	<0.010
Heptachlor	<0.010
Heptachlor-endo-epoxide	<0.010

Compound Name	Limit of reporting (mg/kg)
Heptachlor-exo-epoxide	<0.010
Heptenophos	<0.010
Hexachlorobenzene	<0.010
Hexaconazole	<0.010
Hexaflumuron	<0.010
Hexazinone	<0.010
Hexythiazox	<0.010
Imazalil	<0.010
Imazamethabenz-methyl	<0.010
Imazosulfuron	<0.010
Imidacloprid	<0.010
Imidacloprid-olefin	<0.010
Inabenfide	<0.010
Indanofan	<0.010
Indoxacarb	<0.010
Iodocarb	<0.010
Iodofenphos	<0.010
Iodosulfuron-methyl	<0.010
Ioxynil	<0.010
Ipconazole	<0.010
Iprobenfos	<0.010
Iprodione	<0.010
Iprovalicarb	<0.010
Isazofos	<0.010
Isofenphos	<0.010
Isofenphos-methyl	<0.010
Isoprocarb	<0.010
Isoprothiolane	<0.010
Isoproturon	<0.010
Isopyrazam	<0.010
Isoxathion oxon	<0.010
Karbutilate	<0.010
Kresoxim-methyl	<0.010
Lactofen	<0.010
Lenacil	<0.010
Leptophos	<0.010
Lindane	<0.010
Linuron	<0.010
Lufenuron	<0.010
Maldison (Malathion)	<0.010
Mandipropamid	<0.010
Mefenacet	<0.010
Mefenpyr-diethyl	<0.010
Mepanipyrim	<0.010
Mepronil	<0.010

Compound Name	Limit of reporting (mg/kg)
Mesotrione	<0.010
Metalaxyl	<0.010
Metamitron	<0.010
Metconazole	<0.010
Methabenzthiazuron	<0.010
Methacrifos	<0.010
Methamidophos	<0.010
Methidathion	<0.010
Methiocarb	<0.010
Methiocarb-sulfone	<0.010
Methiocarb-sulfoxide	<0.010
Methomyl	<0.010
Methomyl-oxime	<0.010
Methoxychlor	<0.010
Methoxyfenozide	<0.010
Metobromuron	<0.010
Metolachlor	<0.010
Metominostrobin-(E)	<0.010
Metominostrobin-(Z)	<0.010
Metosulam	<0.010
Metrafenone	<0.010
Metribuzin	<0.010
Metsulfuron-methyl	<0.010
Mevinphos	<0.010
Milbemycin A3	<0.010
Milbemycin A4	<0.010
Mirex	<0.010
Molinate	<0.010
Monocrotophos	<0.010
Monolinuron	<0.010
Myclobutanil	<0.010
Napropamide	<0.010
Nicotine	<0.10
Nitrofen	<0.010
Nitrothal-isopropyl	<0.010
Norflurazon	<0.010
Novaluron	<0.010
Octhilinone	<0.010
Omethoate	<0.010
Oryzalin	<0.010
Oxabetrinil	<0.010
Oxadiazon	<0.010
Oxadixyl	<0.010
Oxamyl	<0.010
Oxathiapiprolin	<0.010

Compound Name	Limit of reporting (mg/kg)
Oxycarboxin	<0.010
Oxyfluorfen	<0.010
Paclobutrazol	<0.010
Parathion	<0.010
Parathion-methyl	<0.010
Penconazole	<0.010
Pencycuron	<0.010
Pendimethalin	<0.010
Pentachlorobenzene	<0.010
Penthiopyrad	<0.010
Permethrin	<0.010
Phenmedipham	<0.010
Phenothrin	<0.010
Phenthoate	<0.010
Phorate	<0.050
Phorate-sulfone	<0.010
Phorate-sulfoxide	<0.010
Phosalone	<0.010
Phosmet	<0.010
Phosphamidon	<0.010
Phoxim	<0.010
Picolinafen	<0.010
Piperonyl butoxide	<0.010
Piperophos	<0.010
Pirimicarb	<0.010
Pirimicarb-desmethyl	<0.010
Pirimicarb-desmethylformamido	<0.010
Pirimiphos-methyl	<0.010
Pretilachlor	<0.010
Prochloraz	<0.010
Prochloraz-desimidazole-formylamino	<0.010
Procymidone	<0.010
Profenofos	<0.010
Promecarb	<0.010
Prometryn	<0.010
Propachlor	<0.010
Propamocarb	<0.010
Propanil	<0.010
Propaphos	<0.010
Propaquizafop	<0.010
Propargite	<0.010
Propazine	<0.010
Propetamphos	<0.010
Propham	<0.010
Propiconazole	<0.010

Compound Name	Limit of reporting (mg/kg)
Propoxur	<0.010
Propyzamide	<0.010
Proquinazid	<0.010
Prosulfocarb	<0.010
Prothiofos	<0.010
Pymetrozine	<0.010
Pyraclofos	<0.010
Pyraclostrobin	<0.010
Pyraflufen-ethyl	<0.010
Pyrasulfotole	<0.010
Pyrazophos	<0.010
Pyrethrins	<0.010
Pyributicarb	<0.010
Pyridaben	<0.010
Pyridaphenthion	<0.010
Pyrifenox	<0.010
Pyriftalid	<0.010
Pyrimethanil	<0.010
Pyrimidifen	<0.010
Pyriminobac-methyl-(E)	<0.010
Pyriminobac-methyl-(Z)	<0.010
Pyriproxyfen	<0.010
Pyroquilon	<0.010
Pyroxsulam	<0.010
Quinalphos	<0.010
Quinoclamine	<0.010
Quinoxyfen	<0.010
Quintozene	<0.010
Quizalofop-ethyl	<0.010
Rimsulfuron	<0.010
Saflufenacil	<0.010
Sebuthylazine	<0.010
Sethoxydim	<0.010
Simazine	<0.010
Simeconazole	<0.010
Simetryn	<0.010
Spinetoram	<0.010
Spinosad	<0.010
Spiromesifen	<0.010
Spiromesifen-enol	<0.010
Spirotetramat	<0.010
Spirotetramat-enol	<0.010
Spirotetramat-enol-glucoside	<0.010
Spirotetramat-keto-hydroxy	<0.010
Spirotetramat-mono-hydroxy	<0.010

Compound Name	Limit of reporting (mg/kg)
Spiroxamine	<0.010
Sulfentrazone	<0.010
Sulfoxaflor	<0.010
Sulprofos	<0.010
Tebuconazole	<0.010
Tebufenozide	<0.010
Tebufenpyrad	<0.010
Tebuthiuron	<0.010
Tecnazene	<0.010
Teflubenzuron	<0.010
Tefluthrin	<0.010
Temephos	<0.010
Tepraloxydim	<0.010
Terbacil	<0.010
Terbufos	<0.010
Terbufos-sulfone	<0.010
Terbufos-sulfoxide	<0.010
Terbumeton	<0.010
Terbuthylazine	<0.010
Terbutryn	<0.010
Tetrachlorvinphos	<0.010
Tetraconazole	<0.010
Tetradifon	<0.010
Thenylchlor	<0.010
Thiabendazole	<0.010
Thiacloprid	<0.010
Thiamethoxam	<0.010
Thiazopyr	<0.010
Thidiazuron	<0.010
Thiobencarb	<0.010
Thiocyclam hydrogenoxalate	<0.050
Thiometon	<0.010
THPI (Tetrahydrophthalimide)	<0.010
Tiadinil	<0.010
Tolclofos-methyl	<0.010
Tolylfluanid	<0.010
Topramezone	<0.010
Tralkoxydim	<0.010
Transfluthrin	<0.010
Triadimefon	<0.010
Triadimenol	<0.010
Tri-allate	<0.010
Triasulfuron	<0.010
Triazophos	<0.010
Tribenuron-methyl	<0.010

Compound Name	Limit of reporting (mg/kg)
Tribufos	<0.010
Trichlorfon	<0.010
Tricyclazole	<0.010
Trifloxystrobin acid	<0.010
Trifloxystrobin	<0.010
Trifloxysulfuron sodium	<0.010
Triflumizole	<0.010
Triflumuron	<0.010
Trifluralin	<0.010
Triflusulfuron-methyl	<0.010
Triforine	<0.010
Triticonazole	<0.010
Uniconazole	<0.010
Vamidothion	<0.010
Vinclozolin	<0.010
XMC	<0.010
Zoxamide	<0.010