



Canadian Food
Inspection Agency

Agence canadienne
d'inspection des aliments

Children's Food Project - Final report

2014 to 2015



Summary

The Canadian Food Inspection Agency (CFIA) uses a number of different monitoring programs for chemical residues and contaminants in food to ensure that the food supply is safe and compliant with Canadian standards. The Children's Food Project (CFP) complements these activities by specifically collecting information on chemical residues and contaminants in manufactured foods frequently consumed by, and targeted to, infants and children. Because of their smaller body weight, their development and growth, and their consumption patterns this group may be at higher risk from exposure to these chemicals.

The main objectives of the 2014 to 2015 CFP were to:

- collect data and assess the compliance of infant foods to Canadian standards for residues of veterinary drugs and pesticides
- collect baseline data on the levels of aflatoxin M1 in infant foods and formula containing milk.

In the 2014 to 2015 CFP, a total of 221 samples of infant foods were purchased in the Ottawa, Ontario and Gatineau, Quebec areas. These samples included infant cereals, infant formula, toddler snacks, yogurt, pureed fruits, pureed vegetables, juices, pureed fruit and vegetable combinations, and pureed infant food containing meat. Samples were analyzed for pesticide residues, veterinary drug residues, and aflatoxin M1 (in dairy based samples).

The overall regulatory compliance rate of the infant food samples tested for pesticide and veterinary drug residues was 100%. Over 80% of the 221 samples tested did not contain any detectable pesticide residues. Veterinary drug residues were not detected in approximately 40% of the 51 samples of infant formula or infant food containing meat or dairy. All veterinary drug residues detected were compliant with Canadian Maximum Residue Limits (MRLs) established by Health Canada (HC) or, in cases where no regulations exist, below the limit of quantitation.

A total of 32 milk-based samples were tested for aflatoxin M1. Aflatoxin M1 was not detected in 88% of the samples. All of the samples with detectable levels of aflatoxin were below the Codex Alimentarius maximum level (ML) of 0.5 parts per billion (ppb). The levels of aflatoxin M1 found in infant formula were assessed by HC and were not considered to be of concern to infant health.

Data obtained from surveillance programs like the CFP are useful in the assessment of the dietary exposure of Canadian children to pesticide residues, veterinary drug residues, and aflatoxin M1 in infant foods. All data was reviewed by HC and no health risk was identified to Canadian infants.

What is the children's food project

The CFP was started by the CFIA in 2003 to investigate levels of pesticide residues and metals, in foods for infants and children. Because of their smaller body weight, their development and growth, and their consumption patterns, this group may be at higher risk from exposure to these chemicals.

We use a number of different monitoring programs to ensure that the food supply is safe and compliant with Canadian standards. The CFP complements these activities by specifically collecting information on domestically produced and imported manufactured foods frequently consumed by and targeting children (for example, infant formula, cereal-based products, fruit juices and beverages). Together, the data from these programs help health authorities assess potential exposure to chemical residues and contaminants in a number of foods consumed by Canadian children.

The main objectives of the 2014 to 2015 CFP were to:

- collect data and assess the compliance of infant foods to Canadian standards for residues of veterinary drugs and pesticides; and
- collect baseline data on the levels of aflatoxin M1 in infant foods and formula containing milk.

What did we sample

In total, 221 domestic and imported infant foods were sampled for this survey. Of the 221 samples, 87 were labelled as organic. Both imported and domestically-produced foods were sampled with 88 products manufactured in Canada and the remaining products (133) imported from other countries.

Table 1. Breakdown of products sampled in 2014 – 2015

Infant food	Number of Samples
Infant cereal (for example, rice, wheat, mixed grains, cereals mixed with fruit)	30
Infant formula (for example, milk-based, nutritional supplements)	22
Juice (for example, apple, pear, peach)	9
Pureed fruits (for example, apple, banana, blueberry, mixed fruits)	26
Pureed vegetables (for example, carrots, broccoli, peas, mixed vegetables)	35
Pureed fruit and vegetable combinations (for example, apple and sweet potato; banana, apple and kale; garden vegetable and raisin)	9
Purees containing meat (for example, beef, lamb, veal, meat with mixed vegetables)	31
Toddler snacks (for example, biscuits, cereal bars, puffed rice, dried fruit, pudding)	52
Yogurt (for example, drinkable, Greek, soy)	7
Total	221

Sampling limitations

Due to the limited number of samples and products analyzed, care must be taken when interpreting these results. Regional differences, impact of product shelf-life, storage conditions, or cost of the commodity on

the open market were not examined in this survey. Samples were tested as sold, which means the product was tested as is and not prepared according to package instructions.

How were samples analyzed and assessed

Analytical testing for the various types of analytes was performed by ISO/IEC 17025 accredited food testing laboratories under contract with the Government of Canada.

Pesticide analysis

The samples were tested for a range of pesticide residues which are commonly used in farming to control insects, fungus, and weeds. A summary of the pesticide residues analyzed can be found in Tables [A-1](#) and [A-2](#) of Appendix A.

Veterinary drug analysis

Samples containing meat and milk were analyzed for veterinary drug residues, which can be administered to food-producing animals to prevent or treat disease or to promote growth. The veterinary drugs analyzed are listed in Tables [A-3](#) and [A-4](#) of Appendix A.

Aflatoxin M1 analysis

Aflatoxins are natural chemicals released by moulds which can thrive in hot, humid climates but are not typically detected in Canadian crops. Aflatoxin B1, which has been classified by the International Agency for Research on Cancer (IARC) as causing cancer in humans¹, is metabolized to aflatoxin M1, which is excreted in milk when contaminated feeds are consumed by milk-producing food animals. Animal studies have shown that aflatoxin M1 causes cancer in the same way as aflatoxin B1^{1,2}. For this reason, all samples of milk-based infant formula and yogurt were analyzed for aflatoxin M1.

Assessment of results

The pesticide and veterinary drug residue results from samples tested in the project were evaluated against Canadian MRLs established by HC. For pesticides, the MRL is the maximum amount of residues that is expected to remain in or on food products when a pesticide is used according to product label directions. For veterinary drug residues, the MRL is a level of residue that could safely remain in the tissue or food product derived from a food-producing animal that has been treated with a veterinary drug.

Canadian pesticide MRLs are listed in the [MRL Database](#)³ published on the HC website. In the absence of an MRL, pesticide residues must comply with the General MRL (GMRL) of 0.1 ppm as stated in section B.15.002 (1) of the *Food and Drug Regulations*.

Canadian MRLs for veterinary drug residues in foods are published in the [List of MRLs for Veterinary Drugs in Food](#)⁴ on HC's website. In the absence of an MRL or proposed MRL for a veterinary drug, the CFIA deems any food product containing a residue at or above the limit of quantitation (LOQ) to be non-compliant.

A list of banned drugs are published on HC's [website](#). Any detected levels of banned substances are not permitted under the *Food and Drug Regulations* as seen on the Government of Canada [website](#).

What were the results

Pesticides

A total of 442 tests for pesticide residues were carried out on all 221 samples. No detectable levels of pesticide residues were found in 80.5% of the infant foods tested (178 samples). The results from the remaining 43 samples that had a detectable level of one or more pesticide residues are summarized in [Appendix B](#). The regulatory compliance rate for food products tested for pesticide residues was 100%.

In this study, 87 of the 221 samples were labelled as “organic”. There were no pesticide residues detected in 84% of organic products tested. Most of the organic products that were positive for pesticide residues contained spinosad, which is a naturally derived insecticide that is permitted for use in Canada in organic agriculture. All positives for the pesticides residues, excluding those for permitted substances, were shared with the Organic program for follow-up actions. These follow-up actions may include communication with organic certification bodies.

Veterinary drugs

A total of 237 tests for veterinary drug residues were carried out on 51 samples of infant foods (31 infant foods containing meat and 20 milk-based infant formula). No residues were detected in 61% of the samples. Most of the positives were related to the use of antibiotics; details on the residues that were detected can be found in [Appendix C](#).

There were 13 veterinary drug residues detected. One of the compounds, semicarbazide, had a particularly high positive rate relative to the other drugs (45% in comparison to 2-6%). In this case, all of the products in which semicarbazide was found were packaged in glass jars with “blown-in” seals. Semicarbazide is a known break down product of some of the materials used to produce these gaskets. It was not possible for the laboratory to determine whether semicarbazide was present due to the use of a veterinary drug (nitrofurazone) or a chemical contaminant related to the use of seals on metal lids for glass jars⁵.

The other 12 veterinary drugs found were compounds which are used to treat parasites (thiabendazole, 2-aminosulfone albendazole, albendazole, albendazole sulfoxide, and albendazole sulphone, nicarbazin, lasalocid and monensin), to promote growth (testosterone), to promote leanness (ractopamine) and as antibiotics (florfenicol, oxytetracycline). The levels were compliant as they were below MRLs of the methods.

Two of the ten samples which contained either meat or dairy products and labelled as “organic “or “72% organic ingredients” were positive for semicarbazide. In both samples, semicarbazide was observed at low levels, the product was packaged in glass bottles with metal lids with no trace of the parent banned drug. The samples were deemed compliant.

Aflatoxin M1

A total of 32 milk-based infant food samples were tested for aflatoxin M1. The foods tested included formula, yogurt and puddings. As Canada does not have an established maximum level for aflatoxin M1 in milk or milk-based products, compliance was not assessed. The aflatoxin levels detected were

compared to the Codex Alimentarius (an international standard setting body) ML of 0.5 ppb for aflatoxin M1 in milk. Aflatoxin M1 was detected in 4 of the 20 samples of infant formula at levels well below the Codex ML. Levels ranged from 0.011 ppb to 0.061 ppb in powdered formulas. Aflatoxin M1 was not detected in 12 samples of milk-based yogurts and puddings.

Conclusion

The results of the CFP were shared with HC and they determined that none of the samples tested posed a health risk to Canadian infants. There were no product actions or recalls resulting from this sampling and testing on the basis of health risk. The infant foods tested in this survey, whether domestically produced or imported, are safe for consumption.

CFIA is committed to ensuring a safe food supply for all Canadians, including the vulnerable populations such as infants and young children. In the coming year, pesticide residues, bisphenol-A (BPA) and its alternatives, and toxic metals (arsenic, cadmium, mercury and lead) will be examined in pureed infant food, infant snacks and fruit juice samples.

References

1. International Agency for Research on Cancer (2012). Chemical Agents and Related Occupations - A Review of Human Carcinogens, in IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. IARC Monographs, 100. pp. 1-599.
2. JECFA Joint FAO/WHO Expert Committee on Food Additives, Aflatoxin M1, in JECFA Food Additives Series 47. 2001.
3. [Maximum Residue Limits for Pesticides](#). (2012). Canada. Health Canada.
4. [List of Maximum Residue Limits \(MRLs\) for Veterinary Drugs in Foods](#). (2018). Canada. Health Canada.
5. European Food Safety Authority (2005). Opinion of the Scientific Panel on Food Additives, Flavourings, Processing Aids and Materials in Contact with Food on a request from the Commission related to Semicarbazide in food. The EFSA Journal, 219. pp 1-36.

Appendix A

Table A-1 Pesticides examined in non-dairy processed products

3-Hydroxycarbofuran	Dde-Op	Flutiafol	Pirimiphos-Methyl
Acephate	DDE-Pp	Folpet	Pretilachlor
Acetamiprid	Ddt-Op	Fonofos	Primisulfuron-Methyl
Acetochlor	Ddt-Pp	Forchlorfenuron	Prochloraz
Acibenzolar-S-Methyl	Delta Hch	Formetanate	Procymidone
Aclonifen	Deltamethrin	Fosthiazate	Prodiamine
Alachlor	Delta-Trans-Allethrin	Fuberidazole	Profenophos
Aldicarb	Demeton-O	Furathiocarb	Profluralin
Aldicarb Sulfone	Demeton-S	Haloxypop	Promecarb
Aldicarb Sulfoxide	Demeton-S-Methyl	Heptachlor	Prometon
Aldrin	Demeton-S-Methyl Sulfone	Heptachlor Epoxide - Exo	Prometryne
Allidochlor	Demeton-S-Methyl Sulfoxide	Heptachlor Epoxide - Endo	Pronamide
Alpha-BHC	Des-Ethyl Atrazine	Heptenophos	Propachlor
Alpha-Endosulfan	Desmedipham	Hexachlorobenzene	Propamocarb
Ametryn	Desmetryn	Hexaconazole	Propanil
Aminocarb	Di-Allate	Hexazinone	Propargite
Amitraz	Dialofos	Imazamethabenz-Methyl	Propazine
Aramite	Diazinon	Imazalil	Propetamphos
Aspon	Diazinon O Analogue	Imidacloprid	Propham
Atrazine	Dichlobenil	Indoxacarb	Propiconazole
Azaconazole	Dichlofuanid	Iodofenphos	Propoxur
Azinphos-Ethyl	Dichloran	Iprobenfos	Propyzamide
Azinphos-Methyl	Dichlormid	Iprodione	Prothiophos
Azoxystrobin	Dichlorvos	Iprovalicarb	Pymetrozine
Benalaxyl	Diclobutrazole	Isazophos	Pyracarbolid
Bendiocarb	Diclofenthion	Isocarbamide	Pyraclostrobin
Benfluralin	Diclofop-Methyl	Isufenphos	Pyraflufen-Ethyl
Benodanil	Dicofol	Isoprocarb	Pyrazophos
Benomyl	Diclocymet	Isopropalin	Pyrethrin
Benoxacor	Diethofencarb	Isoprothiolane	Pyridaben
Bensulide	Difenoconazole	Isoxathion	Pyridalyl
Benzoylprop-Ethyl	Dimethametryn	Kresoxim-Methyl	Pyridaphenthion
Beta-BHC	Dimethomorph	Lambda-Cyhalothrin	Pyridate
Beta-Endosulfan	Dimethoate	Leptophos	Pyrifenox
Bifenoxy	Dimethomorph	Lindane	Pyrimethanil
Bifenthrin	Diniconazole	Linuron	Pyriproxyfen
Biphenyl	Dinitramine	Malaoxon	Quinoxifen
Bitertanol	Dioxacarb	Malathion	Quizalofop
Boscalid	Dioxathion	Mepanipyrim	Quizalofop-Ethyl
Bromacil	Diphenamid	Mephosfolan	Schradan
Bupirimate	Diphenylamine	Methabenzthiazuron	Secbumeton
Buprofezin	Dipropetryn	Methodathion	Simazine
Butachlor	Disulfoton	Methiocarb	Simetryn
Butafenacil	Disulfoton Sulfone	Methiocarb Sulfone	Spinosyn A
Butocarboxim Sulfoxide	Diuron	Methiocarb Sulfoxide	Spinosyn D
Butralin	Dnoc	Methomyl	Spirodiclofen
Butylate	Dodemorph	Methoprotrene	Spiromesifen
Cadusafos	Edifenphos	Methoxychlor	Spiroxamine
Capmet	Emamectin	Methoxyfenozide	Sulfallate

Captafol	Endosulfan Sulphate	Methyl - Trithion	Sulfentrazone
Captan	Endrin	Methyl Pentachlorophenyl Sulphide	Sulfotep
Carbaryl	EPN	Metobromuron	Sulprophos
Carbetamide	Epoxiconazole	Metolachlor	Tau-Fluvalinate
Carbofenthion	Eptc	Metolcarb	Tcmtb
Carbofuran	Erbon	Metoxuron	Tebuconazole
Carbosulfan	Esfenvalerate	Metribuzin	Tebufenozide
Carboxin	Etaconazole	Mexacarbate	Tebufenpyrad
Carfentrazone-Ethyl	Ethalfuralin	Mirex	Tebupirimfos
Chlorbenside	Ethiofencarb	Molinate	Tecnazene
Chlorbromuron	Ethiofencarb Sulfone	Monocrotophos	Tepraloxymid
Chlorbufam	Ethiofencarb Sulfoxide	Monolinuron	Terbacil
Chlordane	Ethion	Myclobutanil	Terbufos
Chlordimeform	Ethirimol	Naled	Terbumeton
Chlorfenapyr	Ethofumesate	Napropamide	Terbutryne
Chlorfenson	Ethoprop	Naptalam	Terbutylazine
Chlorfenvinphos	Ethoprophos	Neburon	Tetrachlorvinphos
Chlorfurenol-Methyl	Ethylan	Nitralin	Tetraconazole
Chloridazon	Etofenprox	Nitrapyrin	Tetradifon
Chlorimuron-Ethyl	Etoxazole	Nitrofen	Tetraiodoethylene
Chlormephos	Etridiazole	Nitrothal-Isopropyl	Tetramethrin
Chlorobenzilate	Etrimfos	Norflurazon	Tetrasul
Chloroneb	Fenamidone	Nuarimol	Thiabendazole
Chloropropylate	Fenamiphos	Ochilinone	Thiacloprid
Chlorothalonil	Fenamiphos Sulfone	Ofurace	Thiamethoxam
Chloroxuron	Fenamiphos Sulfoxide	Omethoate	Thiazopyr
Chlorpropham	Fenarimol	O-Phenylphenol	Thiobencarb
Chlorpyrifos	Fenazaquin	Oxadiazon	Thiodicarb
Chlorpyrifos-Methyl	Fenbuconazole	Oxadixyl	Thiofanox
Chlorthiamid	Fenchlorphos	Oxamyl	Thiofanox Sulfone
Chlorthion	Fenfuram	Oxamyl Oxime	Thiofanox Sulfoxide
Chlorthiophos	Fenhexamid	Oxycarboxin	Thiophanate Methyl
Chlortoluron	Fenitrothion	Oxychlordane	T-Mevinphos
Chlozolate	Fenoxanil	Oxydemeton-Methyl	Tolclofos-Methyl
Cis-Chlordane	Fenoxycarb	Oxyfluorfen	Tolyfluamid
Cis-Permethrin 1	Fenpropathrin	Paclobutrazol	Total Endosulfan
Clodinafop-Propargyl	Fenpropidin	Paraoxon	Toxaphene B
Clomazone	Fenpropimorph	Parathion	Tralkoxydim
Cloquintocet-Mexyl	Fenpyroximate	Parathion-Methyl	Tralomethrin
Clothianidin	Fenson	Pebulate	Trans-Chlordane
C-Mevinphos	Fensulfthion	Penconazole	Trans-Permethrin 2
Coumaphos	Fenthion	Pencycuron	Triadimefon
Crotoxyphos	Fenthion Oxon	Pendimethalin	Triadimenol
Cruformate	Fentrazamide	Penoxsulam	Tri-Allate
Cyanazine	Fenvalerate	Pentachloroaniline	Triazophos
Cyanofenphos	Fipronil	Pentachlorobenzene	Tribufos
Cyanophos	Fipronil Desulfinyl	Permethrin	Trichlorfon
Cycloate	Flamprop-Isopropyl	Phenthoate	Tricyclazole
Cycloxydim	Flamprop-Methyl	Phorate	Trietazine
Cycluron	Fluazifop-Butyl	Phorate Sulfone	Trifloxystrobin
Cyfluthrin	Flucarbazone-Sodium	Phosalone	Trifloxysulfuron

Cypermethrin	Fluchloralin	Phosmet	Triflumizole
Cyprazine	Flucythrinate	Phosphamidon	Trifluralin
Cyproconazole	Fludioxonil	Picolinafen	Triforine
Cyprodinil	Flumetralin	Picoxystrobin	Trimethacarb
Cyromazine	Fluorochloridone	Piperonyl Butoxide	Vernolate
Dacthal (Chlorthal-Dimethyl)	Fluorodifen	Piperophos	Vinclozolin
DDD-Op	Flusilazole	Pirimicarb	Zinophos
DDD-Pp	Flutolanil	Pirimiphos-Ethyl	Zoxamide

Table A-2 Pesticides examined in dairy products

Alachlor	Ddd-Op	Heptachlor Epoxide - Exo
Alachlor Metabolite	Ddd-Pp	Hexachlorobenzene
Aldrin	Dde-Op	Lindane
Alpha-BHC	DDE-Pp	Methoxychlor
Alpha-Endosulfan	Ddt-Op	Mirex
Beta-BHC	DDT-Pp	Myclobutanil
Beta-Endosulfan	Dicofol	Oxychlorthane
Chlordane	Dieldrin	Permethrin
Chlorpyrifos	Endosulfan Sulphate	Quizalofop-Ethyl
Cis Chlordane	Endrin	Tefluthrin
Cis-Permethrin 1	Fenchlorphos	Total Endosulfan
Cl-Diethylacetanilide	Heptachlor	Trans Chlordane
Cyfluthrin	Heptachlor Epoxide - Endo	Trans-Permethrin 2

Table A-3 Antibiotics multi-residue method

Amoxicillin	Enrofloxacin	Sulfadiazine
Ampicillin	Erythromycin	Sulfadimethoxine
Cefazolin	Florfenicol	Sulfadoxine
Cephalexin	Nafcillin	Sulfaethoxypyridazine
Chloramphenicol	Neospiramycin	Sulfamethazine
Chlortetracycline	Oleandomycin	Sulfamethoxypyridazine
Ciprofloxacin	Oxacillin	Sulfaquinoxaline
Cloxacillin	Oxytetracycline	Sulfathiazole
Danofloxacin	Penicillin G	Tetracycline
Desacetyl Cephapirin	Sarafloxacin	Thiamphenicol
Dicloxacillin	Spiramycin	Tilmicosin
Doxycycline	Sulfachloropyridazine	Tylosin

Table A-4 Other veterinary drug analytes (134)

19-Nortestosterone	Diclofenac	Maduramicin	Ronidazole
2,3,4,5-tetrachlorophenol	Difloxacin	Marbofloxacin	Salinomycin
2,3,4,6-tetrachlorophenol	Dihydrostreptomycin	Mebendazole	Sisomicin
2,3,5,6-tetrachlorophenol	Dimetridazole	Mefenamic Acid	Sparfloxacin
20-Dihydroprednisolone	Dinitolmide	Megestrol Acetate	Spectinomycin
20-Dihydroprednisone	Doramectin	Melengestrol Acetate	Streptomycin
2-Aminosulfone Albendazole	Enamectin	Meloxicam	Sulfabenzamide
5-Hydroxythiabendazole	Enoxacin	Methylprednisolone	Sulfacetamide
Abamectin	Epi-19-Nortestosterone	Metronidazole	Sulfaguanidine
Albendazole	Epi-Testosterone	Monensin	Sulfamerazine
Albendazole Sulfone	Eprinomectin	Moxidectin	Sulfamerter
Albendazole Sulfoxide	Etodolac	Nalidixic Acid	Sulfamethizole
Alpha-Trenbolone	Fenbendazole	Naproxen	Sulfamethoxazole
Amikacin	Fenbendazole Sulfone	Narasin	Sulfamonomethoxine
Amprolium	Flubendazole	Neomycin	Sulfamoxole
Apramycin	Flumequine	Nicarbazin	Sulfanilamide
Beclomethasone	Flumethasone	Niflumic Acid	Sulfaphenazole
Betamethasone	Flunixin	Nitrofurantoin	Sulfapyridine
Beta-Trenbolone	Furalfadone	Nitrofurazone	Sulfisomidine
Boldenone	Furazolidone	Norfloxacin	Sulfisoxazole
Buquinolate	Gamithromycin	Ofloxacin	Testosterone
Cambendazole	Gentamicin	Orbifloxacin	Thiabendazole
Carbendazim	Halofuginone	Ormetoprim	Tildipirosin
Carprofen	Hygromycin	Oxfendazole	Tinidazole
Ceftiofur	Ipronidazole	Oxibendazole	Tobramycin
Chlormadinone Acetate	Ivermectin	Oxolinic Acid	Tolfenamic Acid
Clindamycin	Josamycin	Paromomycin	Toltrazuril Sulfone
Clopidol	Kanamycin A	Penicillin V	Triamcinolone Acetonide
Dapsone	Kanamycin B	Pentachlorophenol	Trimethoprim
Decoquinat	Ketoprofen	Pipemedic Acid	Tulathromycin
Desmycosin	Lasalocid	Pirlimycin	Tylvalosin
Dexamethasone	Levamisole Hydrochloride	Prednisolone	Vedaprofen
Dianabol	Lincomycin	Prednisone	
Diclazuril	Lomefloxacin	Robenidine	

Appendix B

Table B-1 Pesticide residues detected and percent compliance (by residue) in infant foods and infant formula

Residue	No. Tests	No. Positives	% Positive	No. Violations	Levels (ppm)	MRL (ppm)
Carbendazim	221	16	7.24	0	0.0056-0.105	0.1 - 10
Pyrimethanil	221	11	4.98	0	0.0052-0.0351	3 or 14
Thiabendazole	221	10	4.52	0	0.0059-0.0157	10 or 55
Spinosyn A	221	6	2.71	0	0.0058-0.0232	0.1 or 0.2
Fludioxonil	221	3	1.36	0	0.0129-0.0222	5 or 7
Carbaryl	442	2	0.90	0	0.0341-0.0405	5
Malathion	221	2	0.90	0	0.0195-0.0322	2
Methoxyfenozide	221	2	0.90	0	0.0064-0.0095	1.5
Thiacloprid	221	2	0.90	0	0.0053-0.0092	0.3
Chlorpropham	221	1	0.45	0	0.073	15
Clothianidin	221	1	0.45	0	0.0051	0.3
Cyprodinil	221	1	0.45	0	0.0241	10
Diniconazole	221	1	0.45	0	0.0131	0.1
Fenhexamid	221	1	0.45	0	0.0395	20
Imidacloprid	221	1	0.45	0	0.0183	2.5
p,p'-DDE	221	1	0.45	0	0.0048	1
Tricyclazole	221	1	0.45	0	0.0053	0.1

Appendix C

Table C-1 Veterinary drug residues detected and percent compliance (by residue) in infant foods and infant formula

Residue	No. Tests	No. Positives	% Positive	No. Violations	% Compliance
Semicarbazide	31	14	45.16%	0	100%
Thiabendazole	51	3	5.88%	0	100%
Florfenicol	51	2	3.92%	0	100%
Ractopamine	31	1	3.23%	0	100%
Testosterone	31	1	3.23%	n/a	n/a
2-aminosulfone albendazole	51	1	1.96%	0	100%
Albendazole	51	1	1.96%	0	100%
Albendazole Sulfoxide	51	1	1.96%	0	100%
Albendazole Sulfone	51	1	1.96%	0	100%
Lasalocid	51	1	1.96%	0	100%
Monensin	51	1	1.96%	0	100%
Nicarbazin	51	1	1.96%	0	100%
Oxytetracycline	51	1	1.96%	0	100%

Note: Thiabendazole is used both as a pesticide and as a veterinary drug. It was not detected by the pesticide screen but was detected in the veterinary drug screen because the extraction methods and LODs are different.