Pesticide Data Program

Annual Summary Calendar Year 2004

United States Department of Agriculture

Agricultural Marketing Service

Science and Technology Programs

Visit our Web site at: www.ams.usda.gov/science/pdp/

February 2006

United States Department of Agriculture

Marketing and Regulatory Programs

Agricultural Marketing Service

1400 Independence Ave.
Washington, DC
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February 2006

To the Reader:

I am pleased to present the Pesticide Data Program's (PDP) 14th Annual Summary, which includes data for calendar year 2004. PDP data continue to demonstrate that the Nation's food supply is among the safest in the world.

The U.S. Department of Agriculture implemented PDP in May 1991. Since then, PDP has tested a wide range of commodities in the U.S. food supply. Using a rigorous statistical approach to sampling and the most current laboratory methods, PDP has tested both fresh and processed fruit and vegetables, grains and grain products, milk and dairy products, beef, pork, poultry, drinking water, and bottled water (initiated in 2005) for pesticide residues.

PDP data are essential for the implementation of the 1996 Food Quality Protection Act, which directs the Secretary of Agriculture to collect pesticide residue data on foods most likely consumed by infants and children. The U.S. Environmental Protection Agency (EPA) uses PDP data as a critical component of dietary assessments of pesticide exposure. The extensive and reliable PDP results provide realistic exposure information to the EPA assessment process.

PDP is a partnership with cooperating State agencies responsible for sample collection and analysis. Twelve States participated in the program during 2004: California, Colorado, Florida, Maryland, Michigan, Minnesota, Montana, New York, Ohio, Texas, Washington, and Wisconsin. Sound conclusions about our food supply can be drawn from PDP results because together the sampling States represent all regions of the country and over half the Nation's population.

The format of this Annual Summary is intended to provide the reader with thorough and accurate information. A detachable form is included following this letter for your comments and suggestions on how we can improve this report further.

Sincerely,

Lloyd C. Day
Administrator

Contents

Page No.

Figures and Tables

Figures

Tables

Appendices A-L

Acknowledgements

The States participating in the Pesticide Data Program (PDP) deserve special recognition for their contributions to the program. The dedication and flexibility of sample collectors allow the Agricultural Marketing Service (AMS) to adjust sampling protocols to respond to changing trends in commodity distribution and availability. PDP acknowledges the contributions of the State laboratories, U.S. Department of Agriculture's (USDA) AMS National Science Laboratory and Grain Inspection, Packers, and Stockyards Administration Laboratory in providing testing services to the program and the National Agricultural Statistics Service for providing statistical support. PDP also acknowledges the exceptional support of the Health Effects Division staff of the U.S. Environmental Protection Agency, Office of Pesticide Programs, in helping set the direction for PDP.

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Executive Summary

This summary of results for 2004 is the 14th Annual Summary of the U.S. Department of Agriculture (USDA) Pesticide Data Program (PDP). In 1991, USDA was charged with designing and implementing a program to collect data on pesticide residues in food. The responsibility for this program was given to USDA's Agricultural Marketing Service (AMS).

Program Operations: AMS, through its Monitoring Programs Office (MPO), oversees the planning and policy development for PDP. MPO meets regularly with the U.S. Environmental Protection Agency (EPA) and other stakeholders (e.g., industry and grower groups) to establish program priorities and direction. Participating States have a prominent role in program planning activities and policy establishment, particularly policies relating to quality assurance (QA). The USDA National Agricultural Statistics Service (NASS) provides sampling support to PDP and statistically reliable data on chemical usage at the State level and collects economic data that link chemical usage with economic characteristics.

Data Uses: PDP data are used primarily by EPA to prepare realistic pesticide dietary exposure assessments as part of its ongoing effort to implement the 1996 Food Quality Protection Act (FQPA). PDP provides high-quality data on residues in food, particularly foods most likely consumed by infants and children, including minor crops. Minor crops are those grown on 300,000 acres or less in the U.S. – for example, many fruit and vegetable crops are defined as minor crops. PDP data are used in pesticide re-registration activities, in accordance with FQPA requirements.

PDP data are also used by the U.S. Food and Drug Administration (FDA), USDA's Economic Research Service (ERS) and Foreign Agricultural Service (FAS), participating States, academic institutions, chemical manufacturers, environmental interest groups, food safety organizations, and groups within the private sector representing food producers. PDP data are used by the U.S. Government and agricultural community to examine pesticide residue issues that may affect good agricultural practices relating to integrated pest management objectives and U.S. trade, particularly in the competitive global market. PDP additionally provides support for USDA's participation in the Codex Alimentarius Commission.

Risk Assessment: In estimating the potential risks of consumption of pesticide residues from food, EPA uses a step-wise tiered approach. As a first step, EPA may use a conservative, worst-case scenario and assume that a pesticide is applied to the fullest extent permitted by the pesticide label; that is, on every acre of each approved crop at the maximum rate and frequency allowed. EPA also may assume that residues on treated crops are present at the maximum allowable level. Exposure estimates based on such assumptions are likely to significantly exceed actual exposure. When an initial assessment indicates a potential risk, EPA refines its assessment using more realistic exposure data. Refinements may include the use of additional data such as: (1) the percent of a crop treated with a pesticide; (2) studies of the effects of washing, cooking, processing, and storage; and (3) residue monitoring data. During the refinements of this exposure assessment, PDP data can be pivotal. PDP sampling procedures were designed to capture residues in the food supply as close as possible to the time of consumption. PDP concentrates its efforts to provide realistic pesticide residue data on foods that are most often consumed by infants and children and incorporates recommendations made in 1993 by the National Academy of Sciences (NAS) in its report "*Pesticides in the Diets of Infants and Children.*"

Participants: In 2004, sampling and/or testing program operations were carried out with the support of 12 States: California, Colorado, Florida, Maryland, Michigan, Minnesota, Montana, New York, Ohio, Texas, Washington, and Wisconsin. Additionally, two Federal laboratories provided testing services: USDA's AMS National Science Laboratory and the Grain Inspection, Packers, and Stockyards Administration Laboratory. Participating water utilities provided drinking water samples which were tested by the Colorado, Montana, and New York State laboratories. MPO is responsible for administering the program, coordinating

sampling activities, directing technical performance issues and quality assurance measures, and managing database activities.

Sampling: PDP commodity sampling is based on a rigorous statistical design which ensures that the data are reliable for use in exposure assessments and that they can be used to draw various conclusions about the Nation's food supply. Pesticides and commodities included each year in PDP are selected based on EPA data needs and on information about the types and amounts of food consumed by infants and children. Fruit and vegetable samples collected by each of the 10 sampling States (California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin) are apportioned according to that State's population. Samples are randomly chosen close to the time and point of consumption (i.e., distribution centers rather that at farmgate) and reflect what is typically available to the consumer throughout the year. Samples are selected without regard to country of origin, variety, or organic labeling. The monthly sampling rate is 62 samples per commodity, except for highly seasonal commodities. For seasonal commodities, sampling rates are adjusted to reflect market availability.

Results: During 2004, PDP tested fresh and processed fruit and vegetables, soybeans, wheat flour, milk, and drinking water for various insecticides, herbicides, fungicides, and growth regulators. Of the 13,208 total samples collected and analyzed, 10,366 were fruit and vegetable commodities including apples, cantaloupe, cauliflower, cucumbers, grapes, fresh and canned green beans, lettuce, oranges and orange juice, canned peaches, pears, canned spinach, strawberries, sweet bell peppers, sweet potatoes, tomatoes, and winter squash. PDP also tested 616 soybean, 725 wheat flour, 739 milk, and 762 drinking water samples.

Excluding soybeans and drinking water, 84 percent of all samples were domestic, 14 percent were imported, and about 1 percent was of unknown origin. Approximately eight percent of the orange juice samples were of mixed national origin.

Overall, 76 percent of fresh fruit and vegetables and 40 percent of processed fruit and vegetables showed detectable residues. Residues were detected in 42 percent of soybean samples, 57 percent of wheat flour samples, and 100 percent of milk samples. Residue findings in milk were primarily low level residues of diphenylamine and the environmental contaminants DDE p,p' and dieldrin. These findings are largely attributable to the recent improvements in analytical technologies and associated lower detection limits.

Of the 12,446 fruit and vegetable, soybean, wheat flour, and milk samples tested, 30 percent contained no detectable pesticides [parent compound and metabolite(s) combined], 30 percent contained 1 pesticide, and 40 percent contained more than 1 pesticide. Fewer pesticides were found in processed products and grain than in fresh commodities. Low levels of environmental contaminants were detected in milk, lettuce, and spinach, usually at concentrations well below levels that trigger regulatory actions.

PDP testing found residues exceeding an established tolerance in 0.2 percent of the 12,446 samples (excluding drinking water). A tolerance is the maximum amount of a pesticide residue allowable on a raw agricultural commodity. Established tolerances are listed in the Code of Federal Regulations, Title 40, Part 180. Residues with no established tolerance were found in 5.2 percent of all samples (excluding drinking water). These residues were detected at very low concentrations and may be the result of spray drift, crop rotations, or the use of sanitizers in food handling establishments. PDP communicates these findings to FDA when they are reported by testing laboratories.

In finished drinking water, PDP detected low levels (measured in parts per trillion) of some pesticides, primarily widely used herbicides. Fifty-one different residues were detected in the untreated intake water and 38 different residues were detected in the finished water. The majority of pesticides included in the PDP testing profiles were not detected. None of the detections in the finished water samples exceeded established EPA Maximum Contaminant Levels (MCLs) or Health Advisory (HA) values, and there were no

detections for any of the pesticides with established Freshwater Aquatic Organism (FAO) criteria.

Data Availability: PDP continuously strives to improve methods for the collection, testing, and reporting of data. These data are freely available to EPA and other Federal and State agencies charged with regulating and setting policies on the use of pesticides. They are also available to all stakeholders by hard copy, Internet, or custom reports generated by MPO. Additional copies of the PDP Annual Summary may be obtained by calling MPO at (703) 330-2300 or by mailing the form provided at the beginning of this report. This publication, the PDP database file for 2004, and annual summaries and database files for previous years are available on the PDP Web site at http://www.ams.usda.gov/science/pdp.

Acronyms

% C.V.	Percent Coefficient of Variation
AMS	Agricultural Marketing Service
BQL	Below Quantifiable Level
EMRL	Extraneous Maximum Residue Limit
EPA	Environmental Protection Agency
ERS	Economic Research Service
ESA	Ethane Sufonic Acid
e-SIF	Electronic-Sample Information Form
FAO	Fresh Aquatic Organism
FAPAS	Food Analysis Performance Assessment Scheme
FAS	Foreign Agricultural Service
FDA	Food and Drug Administration
FFDCA	Federal Food, Drug, and Cosmetic Act
FGIS	Federal Grain Inspection Service
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FQPA	Food Quality Protection Act
GC	Gas Chromatography
GIPSA	Grain Inspection, Packers, and Stockyards Administration
GLP	Good Laboratory Practices
HA	Health Advisory
HPLC	High Performance Liquid Chromotography
LIB	Laboratory Information Bulletin
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminent Level
MPO	Monitoring Programs Office
MRL	Maximum Residue Limit
MRM	Multiresidue Methods
MS	Mass Spectrometry
NASS	National Agricultural Statistics Service
NSL	National Science Laboratory
OA	Oxanilic Acid
PAM	Pesticide Analytical Manual
PDP	Pesticide Data Program
ppb	parts per billion
ppm	parts per million
ppt	parts per trillion
PT	Proficiency Testing
QA	Quality Assurance
QAO	Quality Assurance Officer
QAU	Quality Assurance Unit
QC	Quality Control
RDE	Remote Data Entry

SAM	Single Analyte Method
SIF	Sample Information Form
SOP	Standard Operating Procedure
SPE	Solid Phase Extraction
SSL	Secure Sockets Layer
TPM	Technical Program Manager
USDA	United States Department of Agriculture
USGS	United States Geological Survey

Pesticide Data Program (PDP) Annual Summary, Calendar Year 2004

This summary consists of the following sections: (I.) Introduction, (II.) Sampling Operations, (III.) Laboratory Operations, (IV.) Database Management, and (V.) Sample Results and Discussion

I. Introduction

The Pesticide Data Program (PDP), which was initiated in 1991 to collect data on pesticide residues in food, now has an important role in the implementation of the 1996 Food Quality Protection Act (FQPA). This law directs the Secretary of Agriculture to collect pesticide residue data on commodities most frequently consumed by infants and children. PDP data are used primarily by the U.S. Environmental Protection Agency (EPA) to assess dietary exposure during the review of the safety of existing pesticide tolerances (maximum residue limits).

Because PDP collects data on food commodities primarily for exposure assessment, program operations differ markedly from those followed by regulatory monitoring programs for tolerance enforcement. PDP samples are collected closer to the point of consumption and are prepared emulating consumer practices. Sampling is based on EPA data needs and does not impede commodity distribution. Laboratory operations are designed to achieve the lowest detectable levels rather than quick sample turn around. As a dietary risk assessment support program, PDP focuses its pesticide testing on registered uses for the commodities in the program rather than screening for all potential illegal uses.

Figure 1 (a) illustrates PDP program policy development and planning operations. Primary contributors to these activities include the participating States, EPA, USDA's National Agricultural Statistics Service (NASS), and additional stakeholders including industry and grower groups. Figure 1 (b) depicts PDP primary data users including EPA, the U.S. Food and Drug Administration (FDA), USDA's Economic Research Service (ERS) and Foreign Agricultural Service (FAS), participating States, academic institutions, chemical manufacturers, environmental interest groups, food safety organizations, and groups within the private sector representing food producers. Additionally, other Government agencies and industry have used PDP data to promote the export of U.S. commodities to international markets, and the Codex Alimentarius Commission has used PDP data in its own dietary risk assessments.

In 2004, all samples except soybeans and drinking water were collected by 10 States (California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin) through cooperative agreements with their respective State agencies. Soybean sampling was performed by USDA Federal Grain Inspection Service (FGIS) inspectors. Water sampling was conducted by participating drinking water treatment facility personnel in six States (Michigan, North Carolina, Ohio, Oregon, Pennsylvania, and Washington). Laboratory services were provided by 10 States (California, Colorado, Florida, Michigan, Minnesota, Montana, New York, Ohio, Texas, and Washington) and 2 Federal laboratories: USDA's Agricultural Marketing Service (AMS) National Science Laboratory (NSL) and the Grain Inspection, Packers, and Stockyards Administration (GIPSA) Laboratory. The AMS Monitoring Programs Office (MPO) is responsible for administrative, sampling, technical, and database activities.

Figure 2 shows the 12 States that participate in the sampling and/or testing of PDP fruit and vegetable, wheat flour, whole milk samples, and drinking water, as well as the 13 neighboring States that are in the direct distribution networks of the PDP participating States. Together, these States represent about 50 percent of the Nation's population and all 4 census regions of the U.S. These States also represent the major producers of fruit and vegetables in the U.S. Milk samples are collected by PDP participating States. Soybean samples are selected in consultation with FGIS and water sites are chosen in collaboration with EPA based on data needs.

AMS works closely with EPA to select commodities and pesticides for PDP testing. Commodities

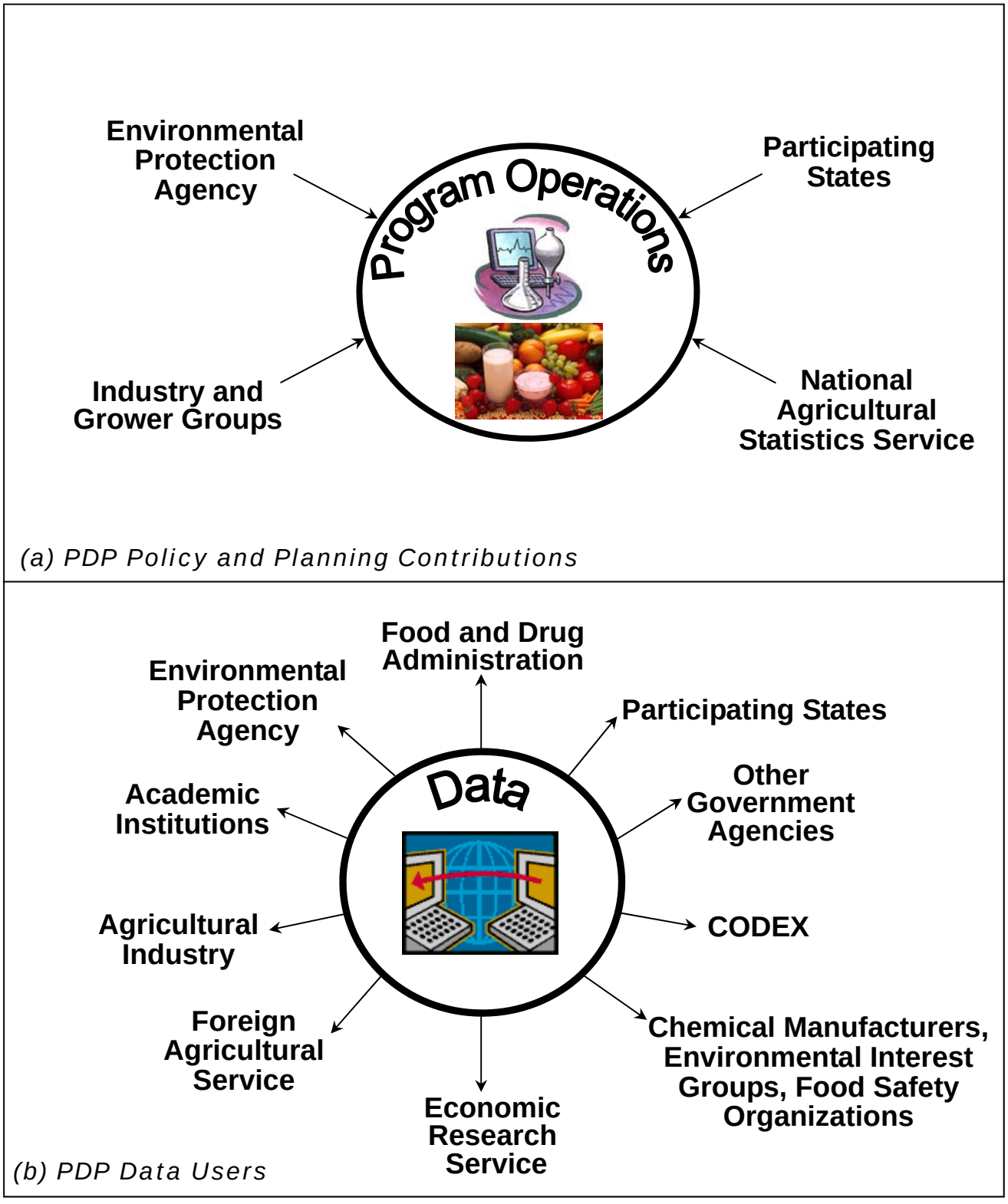


Figure 1. PDP Program Operations Support and Data Users. *This figure illustrates (a) agencies/groups that support PDP program policy and planning activities, and (b) agencies/groups that used PDP data. Refer to the list of acronyms for further explanation of groups.*

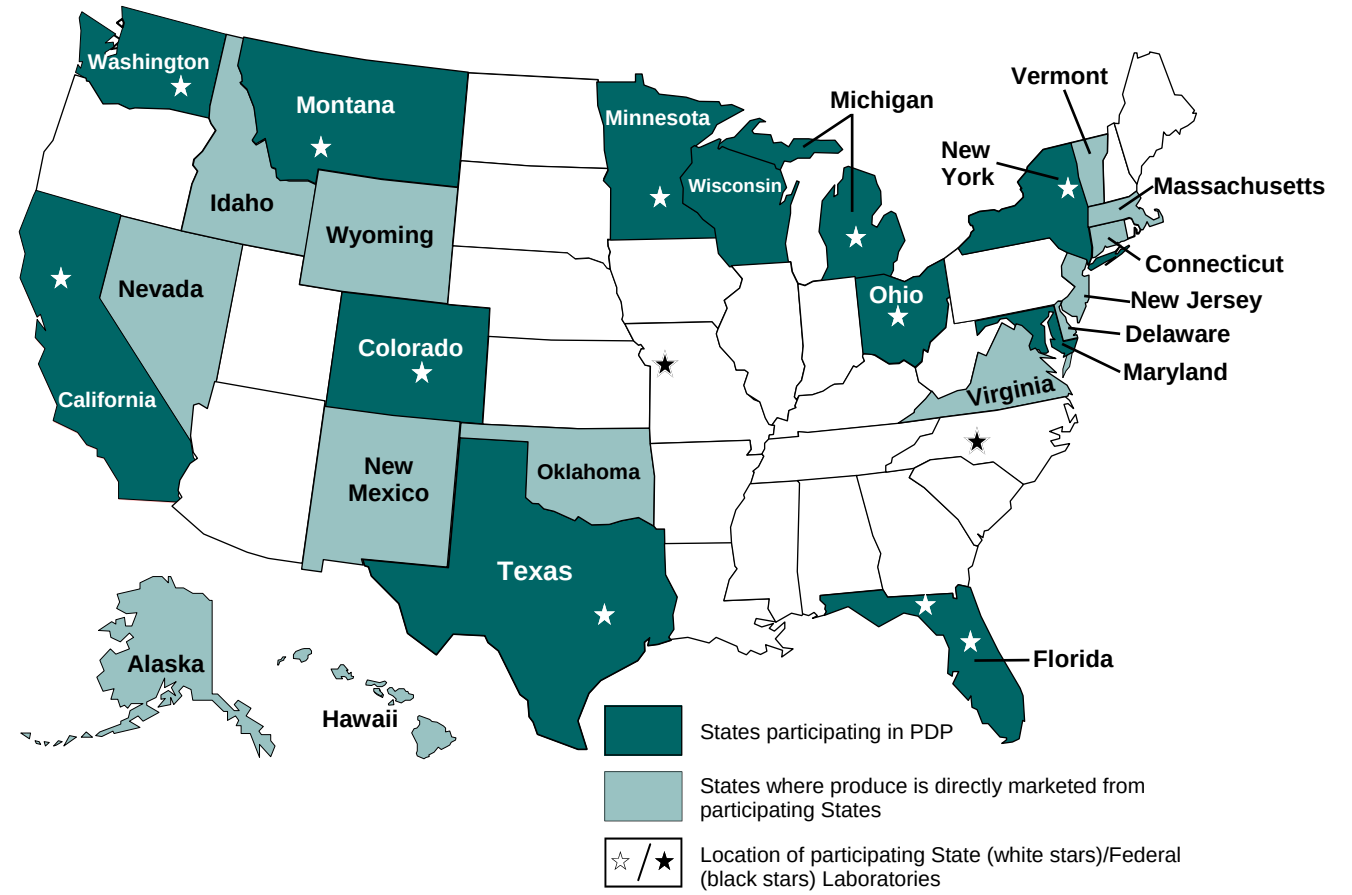


Figure 2. Program Participants. *During 2004, AMS established cooperative agreements with 12 States to sample and/or test PDP commodities. State laboratories are responsible for analyzing fresh and processed fruit and vegetable samples and drinking water samples. The Federal laboratory in Gastonia, North Carolina, analyzes meat, poultry, and dairy products, and the Federal laboratory in Kansas City, Missouri, analyzes whole and processed grain products. States that do not participate in PDP's sampling program but are in the direct distribution networks of the participating States are also shown.*

selected are those representing the highest U.S. consumption, with an emphasis on foods consumed by infants and children. Appendix A details the commodity history in PDP from the beginning of the program in 1991 through 2005.

Fruit and vegetable samples are collected at terminal markets and large chain store distribution centers from which food commodities are supplied to supermarkets and grocery stores. Sampling at these locations allows for residue measurements that include pesticides applied during crop production and those applied after harvest (such as fungicides and growth regulators) and takes into account residue degradation while food commodities are in storage. Participation as a PDP sampling site is voluntary, which sets it apart from State and Federal enforcement programs. In 2004, more than 700 sites granted access and provided information, including site volume data, to sample collectors. This voluntary cooperation is important to PDP and makes it possible to adjust sampling protocols in response to fluctuations in food distribution and production.

Pesticides screened by PDP include those with current registered uses and compounds for which toxicity data and preliminary estimates of dietary exposure indicate the need for more extensive residue data. PDP also monitors pesticides for which EPA has instituted modified use directions (i.e., reduced application rates or frequency) as part of risk mitigation requirements. The following appendices list the specific pesticides tested in the program: fruit and vegetables (Appendix B), soybeans (Appendix C), wheat flour (Appendix D), milk (Appendix E), and drinking water (Appendix F).

II. Sampling Operations

♦ Background

The goal of the PDP sampling program is to obtain a statistically defensible representation of the U.S. food supply. PDP data will subsequently reflect actual pesticide residue exposure from food. Using a rigorous statistical design, PDP has developed extensive procedures to ensure that samples are randomly selected from the national food distribution system and reflect what is typically available to the consumer.

Fruit and vegetables, processed grain, and dairy products are collected by trained State inspectors at terminal markets and large chain store distribution centers throughout the country. Whole grain samples are collected from trains, trucks, and barges by trained USDA FGIS inspectors. Drinking water samples are collected by trained personnel at individual water treatment facilities at selected sites across the country. At these locations, information is usually available about the identity and origin of the sample. Sample information is captured at the time of sample collection for inclusion in PDP files.

PDP sample origin data identify the State or Country where the commodity was produced and a comparison of PDP sample origin data to State production and import data by USDA's NASS shows that PDP sampling is representative of the U.S. food supply. PDP sampling operations are adjusted according to product availability. The number of fruit, vegetable, wheat flour, and milk samples collected in each participating State is determined by State population. The number and location of collected grain samples is determined by annual domestic production figures. For drinking water, each local watershed has its own unique characteristics; therefore, sample collection for this commodity is not intended to reflect national trends. In this case, PDP collects samples in areas where it is known that targeted pesticides are heavily used. The quarterly collection schedule for all 2004 commodities is shown in Table 1.

Sample collectors are trained to adhere to detailed program Standard Operating Procedures (SOPs) that outline proper packaging techniques and shipping procedures for each commodity type. SOPs for PDP sampling are available on the Internet at www.ams.usda.gov/science/pdp. The SOPs provide criteria for site selection and specific instructions for sample selection, shipping and handling, and chain-of-custody. SOPs are updated as needed and serve as a technical reference in conducting program sampling reviews to ensure that program goals and objectives are met.

Fruit, vegetable, and milk samples are packed in heavy-duty, temperature-controlled containers. Samples are shipped the same day as collection by overnight delivery to ensure that the selected commodities maintain their original integrity until they are received at their respective laboratory for analysis. Frozen cold packs are included in shipping containers, when necessary, so that holding temperatures are preserved throughout transit time. Grain samples are collected in pesticide-free bags or pouches and are shipped the same day as collection to the laboratory where the samples are frozen pending analysis. Drinking water samples are collected in specially prepared bottles containing dechlorinating agents to halt any potential compound degradation, packed with proper cushioning and cold packs, and shipped the same day as collection to their respective laboratory by overnight delivery.

PDP Sample Information Forms (SIFs) are used for chain-of-custody and to capture information needed to characterize the sample. Sample collectors use the forms to record information such as: (1) State of sample collection; (2) collection date; (3) sampling site code; (4) commodity code; and (5) testing laboratory code. Information from these five data elements is combined to form a unique PDP sample identification number for each sample. Other available information about each sample is recorded also, such as collector name, the State or country of origin, product variety, production claims such as organic, and any postharvest chemical applications. An electronic SIF (e-SIF) capturing system was implemented in 2003 and continues to be used to record relevant sample information. Refer to Section IV on Database Management for more information on the e-SIF system.

Commodity	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Apples *	■	■	■	■
Cantaloupe *	■	■	■	■
Cauliflower *				■
Cucumbers	■	■	■	
Grapes *	■	■	■	■
Green Beans, Canned	■			
Green Beans, Fresh *		■	■	■
Lettuce *	■	■	■	■
Milk *	■	■	■	■
Orange Juice *				■
Oranges *	■	■	■	■
Peaches, Canned	■	■	■	■
Pears *	■	■	■	■
Soybean Grain **	■	■	■	
Spinach, Canned	■	■		
Strawberries *	■	■	■	■
Sweet Bell Peppers	■	■	■	
Sweet Potatoes	■	■	■	■
Tomatoes	■	■	■	■
Water, Finished *	■	■	■	■
Water, Untreated *	■	■	■	■
Wheat Flour	■	■	■	■
Winter Squash *			■	■

* Sampling continued in 2005.
* Soybeans were collected in the 2003 Crop Year (Sep 2003-Aug 2004)

Table 1. PDP Commodity Collection Schedule for 2004. *Samples are most often collected for a 2-year time period. Commodities are initiated or terminated in different quarters of the year, so that new commodities are not brought into the program all at the same time. This graph illustrates time ranges for the listed commodities. See Appendix A for the complete PDP commodity history from May 1991 through December 2005.*

♦ Fresh and Processed Fruit and Vegetables

Of all samples collected and analyzed in 2004, approximately 78 percent (10,366 of 13,208) were fruit and vegetables, including fresh and processed products. The fresh commodities collected for PDP were apples, cantaloupe, cauliflower, cucumbers, grapes, green beans, lettuce, oranges, pears, strawberries, sweet bell peppers, sweet potatoes, tomatoes, and winter squash. The processed commodities included canned green beans, ready-to-serve orange juice, canned peaches, and canned spinach. All fresh and frozen fruit and vegetable samples weighed either 3 or 5 pounds. The sample weight of canned commodities may vary, but usually ranged from 1 to 3 pounds. For large-sized commodities, such as cauliflower and cantaloupe, a minimum of two units were collected to maintain sample representativeness.

Samples are routinely collected at either terminal markets or large chain store distribution centers. Surrogate or "proxy" sites (retail markets) are occasionally used to collect samples when the commodity of interest is unavailable at a terminal market or distribution center. In these cases, the commodity is selected in the rear storage area of the retail facility so the possible contamination by

the consumer is eliminated and to allow capture of sample information from the product boxes. In 2004, approximately 4 percent of PDP commodities were collected at proxy sites. The commodities most often collected at proxy sites included: milk, wheat flour, canned fruit or vegetables (canned peaches, canned spinach, and canned green beans), and orange juice.

Participating State agencies compile and maintain lists of sampling sites. The States provide the AMS and NASS with annual volume information for commodities distributed at each site. This information is used to weight the site to determine the probability for sample selection. For example, a weight of 10 may be given to a site that distributes 100,000 pounds of produce annually and a weight of 1 is given to a site that distributes 10,000 pounds. The probability-proportionate-to-size method of site selection then results in the larger site's being 10 times more likely to be selected for sampling than the smaller site.

Participating States work with NASS to develop statistical procedures for site weighting and selection. States are also given the option of having NASS perform their quarterly site selection. The number of sampling sites and the volume of produce distributed by the sites vary greatly between States. Sampling plans that include sampling dates, sites (primary and alternate), targeted commodities, and testing laboratories are prepared by each State on a quarterly basis. Collection of commodities is randomly assigned to weeks of the month, prior to selection of specific sampling dates within a week. Because sampling sites are selected for an entire quarter, States may assign the sites to particular months based on geographic location.

State population figures are used to assign the number of fruit and vegetable samples scheduled for collection each month. These population- and distribution-network-based numbers result in the following monthly collection assignments for each State: California, 14; Colorado, 2; Florida, 7; Maryland, 4; Michigan, 6; New York, 9; Ohio, 6; Texas, 8; Washington, 4; and Wisconsin, 2. This schedule results in a monthly target of 62 samples per commodity, or 744 samples per commodity per year.

A total of 10,366 fresh and processed fruit and vegetable samples were collected and analyzed during 2004. The number of samples collected in each State is listed in Table 2. Figure 2 illustrates the participating States and the laboratories to which samples were shipped. The total number of samples per commodity and the percentage of each that were either domestic, imported, or of unknown origin are shown in Figure 3. The origin of some fresh commodities can vary greatly throughout the year. Graphic examples of this variation may be found in Figure 4 where differences in origin (domestic vs. import) are depicted for fresh cantaloupe, cucumbers, and grapes by month. Fruit and vegetable samples originated from 39 States plus Washington, D.C., and 22 foreign countries (Appendix G). Results of all vegetable and fruit analyses are tabulated in Appendix B.

♦ Grains: Soybeans and Wheat Flour

USDA FGIS inspectors collected 616 soybean samples for the 2003 crop year (September 2003 through August 2004). The sample collection period was divided into two collection phases: October 2003 through February 2004 (466 samples) and April 2004 through August 2004 (150 samples). Sample collection rates, on a statewide basis, were calculated on the basis of crop production totals averaged over a 3-year period. Samples were drawn from trucks (26% of samples), hopper cars (49% of samples), and barges (25% of samples). Soybeans slated for export were excluded from the sampling scheme. PDP chain-of-custody procedures are similar to those used for fruit and vegetable samples. Sample information for soybeans included: inspection location, inspection point code, field office location, official agency collecting the sample, carrier identification (truck, barge, or railcar), State of origin, collection date, quantity of lot sampled, and inspector's name. Pesticide residue analysis was performed by the GIPSA Technical Services Division Laboratory located in Kansas City, Missouri. Soybean samples originated from 21 States and were collected through 8 regional GIPSA offices. There were no imported soybean samples; all were of domestic origin. The origin and number of samples collected from each State is displayed in Figure 5; sample results may be found in Appendix C.

State	Fresh Fruit and Vegetables														Total Fresh
	AP	CF	CN	CU	GB	GR	LT	OG	PE	PP	ST	SW	TO	WS	
California	168	42	168	126	126	168	168	168	168	126	168	168	168	84	2,016
Colorado	24	6	24	18	18	24	24	24	25	18	24	24	24	12	289
Florida	84	21	84	63	63	84	84	84	84	63	84	84	84	42	1,008
Maryland	48	12	47	36	35	44	48	47	48	36	43	48	48	18	558
Michigan	72	18	72	54	54	72	72	72	72	54	72	72	72	36	864
New York	108	27	108	81	81	108	108	108	108	81	108	108	108	54	1,296
Ohio	72	18	71	54	46	72	72	72	69	54	67	72	72	35	846
Texas	96	24	96	72	72	96	96	96	96	72	96	96	96	48	1,152
Washington	48	12	48	36	35	48	48	48	48	36	46	48	48	24	573
Wisconsin	24	5	24	17	18	23	23	23	23	18	23	23	24	11	279
	744	185	742	557	548	739	743	742	741	558	731	743	744	364	8,881

State	Processed Fruit and Vegetables				Total Processed	Total Fresh & Processed F&V	Dairy Product	Grain Product
	CC	GC	OJ	SC			MK	WF
California	168	42	42	84	336	2,352	166	168
Colorado	24	6	6	12	48	337	23	23
Florida	84	21	21	42	168	1,176	83	84
Maryland	48	12	12	24	96	654	48	48
Michigan	72	18	18	36	144	1,008	72	71
New York	108	27	27	54	216	1,512	105	105
Ohio	72	18	18	36	144	990	72	72
Texas	96	23	24	48	191	1,343	92	96
Washington	48	12	12	24	96	669	48	48
Wisconsin	23	6	6	11	46	325	16	24
	743	185	186	371	1,485	10,366	725	739

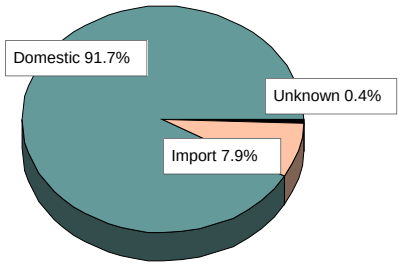
Commodity Legend

AP = Apples	GR = Grapes	SC = Spinach (Canned)
CC = Peaches (Canned)	LT = Lettuce	ST = Strawberries
CF = Cauliflower	MK = Milk	SW = Sweet Potatoes
CN = Cantaloupe	OG = Oranges	TO = Tomatoes
CU = Cucumbers	OJ = Orange Juice	WF = Wheat Flour
GB = Green Beans	PE = Pears	WS = Winter Squash
GC = Green Beans (Canned)	PP = Sweet Bell Peppers	

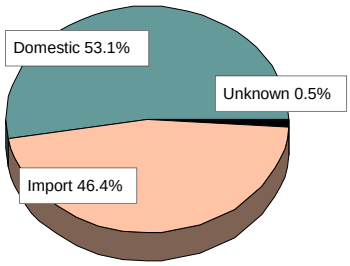
Table 2. Distribution of Samples Collected and Analyzed by Each Participating State. *This table includes those commodities collected at terminal markets and distribution centers. The distribution of soybean and drinking water samples may be found in Figures 5 and 6, respectively.*

Fresh Fruit and Vegetable Commodities

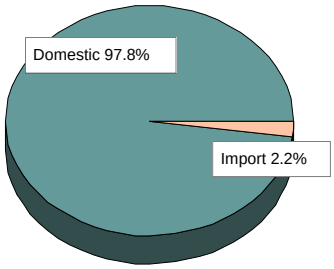
Apples (744 Samples)



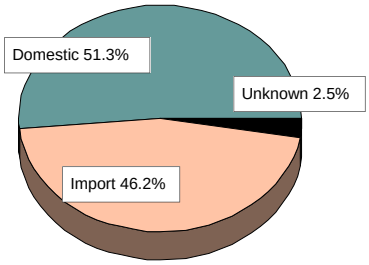
Cantaloupe (742 Samples)



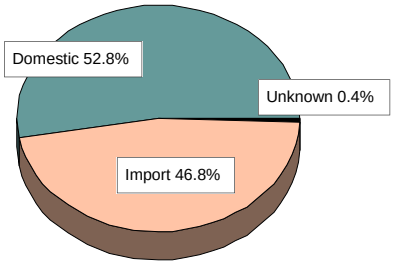
Cauliflower (185 Samples)



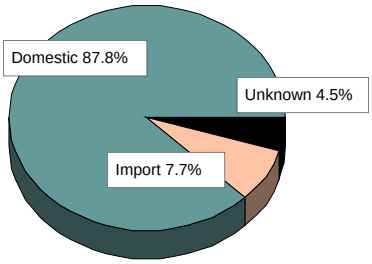
Cucumbers (557 Samples)



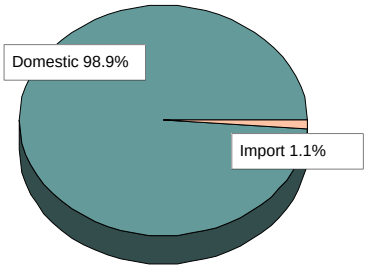
Grapes (739 Samples)



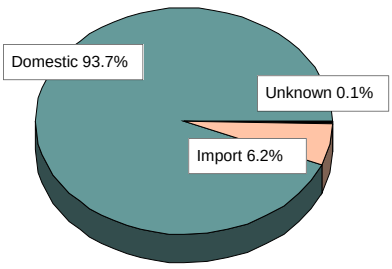
Green Beans (548 Samples)



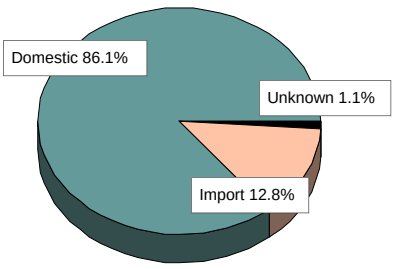
Lettuce (743 Samples)



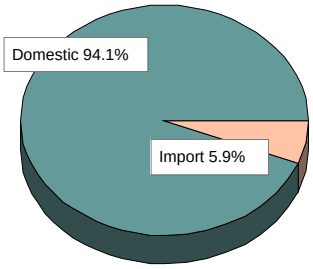
Oranges (742 Samples)



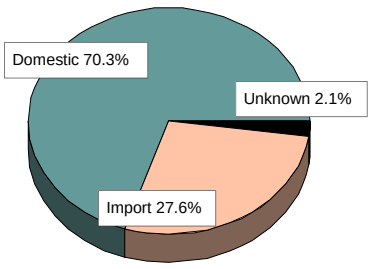
Pears (741 Samples)



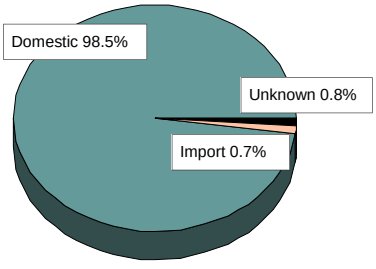
Strawberries (731 Samples)



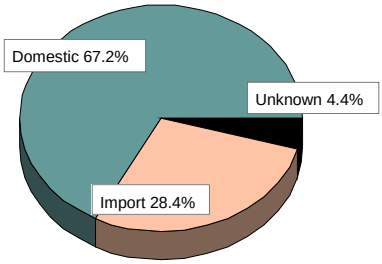
Sweet Bell Peppers (558 Samples)



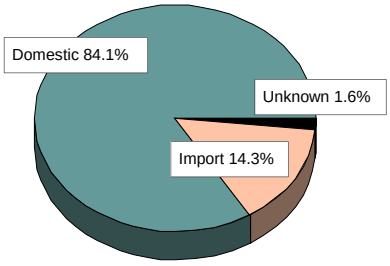
Sweet Potatoes (743 Samples)



Tomatoes (744 Samples)



Winter Squash (364 Samples)



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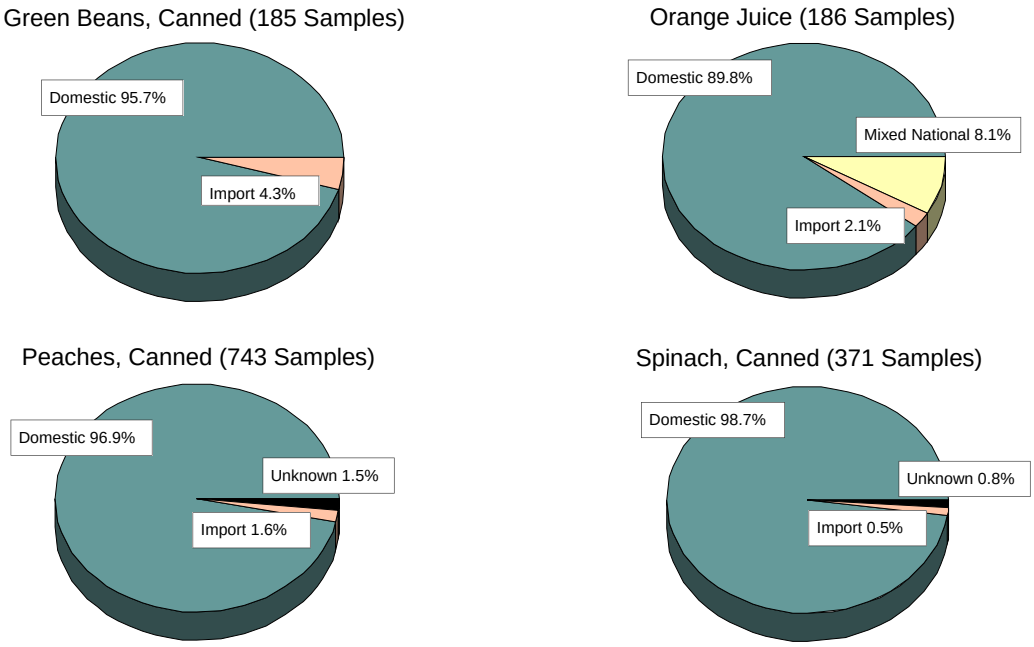


Figure 3. Commodity Origin. *This figure depicts the proportion of commodity origin for each fresh and processed fruit and vegetable product tested in 2004 and is representative of the national market.*

PDP collected and analyzed 725 samples of bleached, white, enriched wheat flour. Wheat flour originated from 24 States (98% of total) and 2 foreign countries (<1% of total). Less than one percent of the samples were of unknown origin. Refer to Appendix G for detailed sample origin information. Five-pound samples of pre-packaged wheat flour were collected from routine PDP sampling sites (distribution centers and terminal markets); sample collection and chain-of-custody procedures were the same as described above for fruit and vegetables. Wheat flour analyses were performed by the GIPSA Laboratory in Kansas City, Missouri. Results for wheat flour are shown in Appendix D.

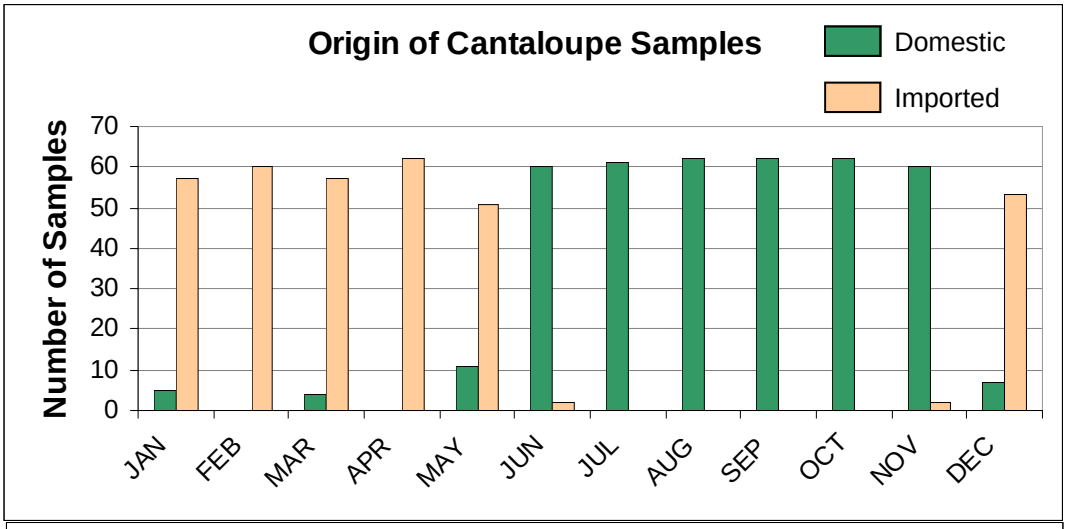
♦ Dairy: Milk

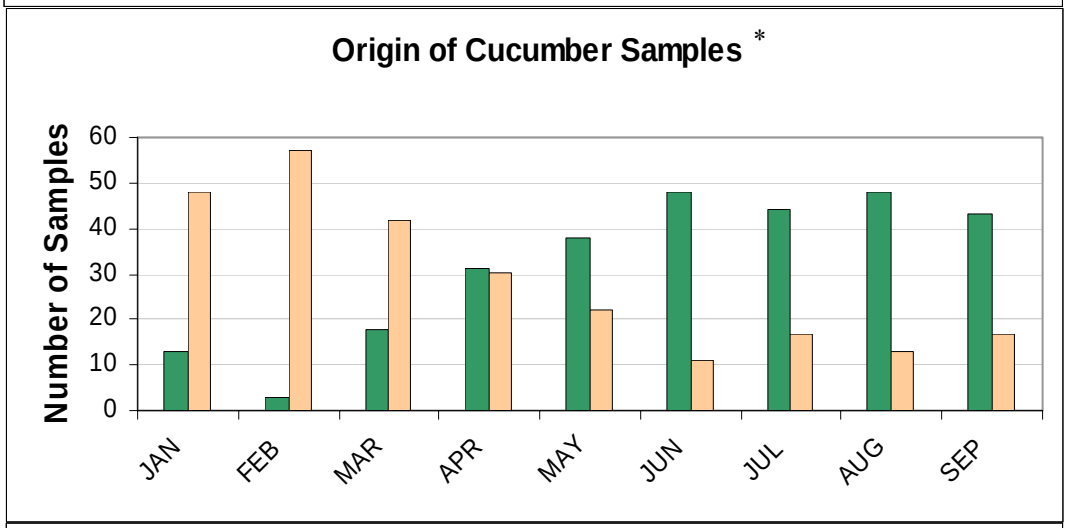
In 2004, 739 whole milk samples were collected in 10 participating States, primarily from distribution centers or supermarkets that received milk from 24 different States.

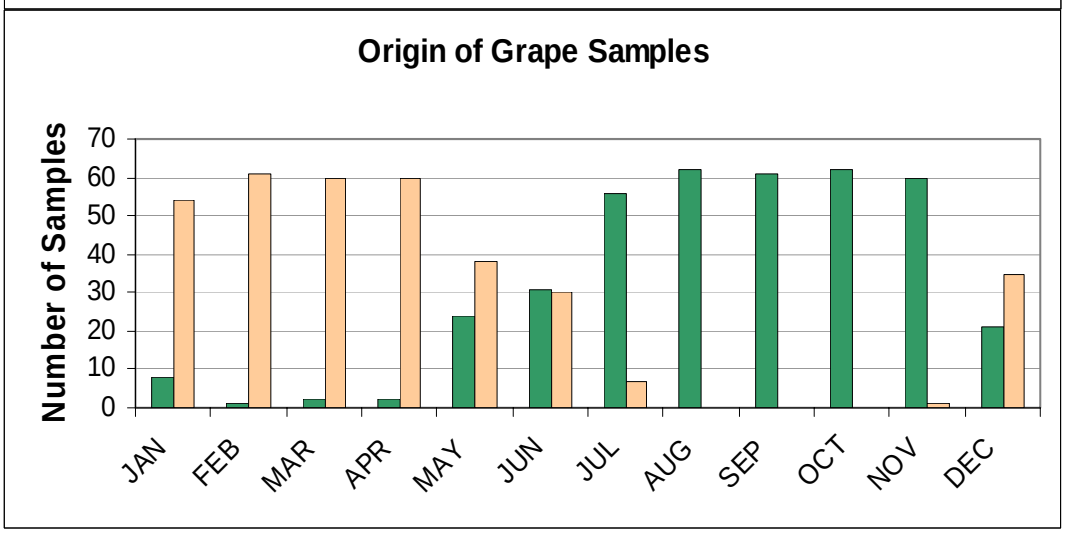
Seventy-four percent of milk samples were collected at retail distribution centers and 26 percent of the samples were collected at proxy sites (supermarkets or retail stores that receive product directly from their distribution centers). Selection of proxy sites for milk sample collection is based on a store's close geographic proximity to its milk distribution center. Sample collection States are found in Table 2 and distribution by origin is found in Appendix G. Shipment and chain-of-custody procedures were the same as for fruit and vegetable samples. Pesticide residue analysis for all samples was performed by the AMS NSL in Gastonia, North Carolina. Results are shown in Appendix E.

♦ Drinking Water

PDP collected 762 drinking water samples from community water systems in Michigan, North Carolina, Ohio, Oregon, Pennsylvania, and Washington. Samples were collected bimonthly by water treatment facility personnel and sent to State laboratories in Colorado, Montana, and New York for analysis. Samples included water collected from both the raw water intake and the finished drinking water after treatment. The untreated intake water and treated water were collected as paired samples, taking into account each individual plant's processing time. Dechlorinating and preservative chemicals were







* Cucumber sampling ended in September 2004.

Figure 4. Origin of Selected Fresh Commodities: Cantaloupe, Cucumbers, and Grapes. *Differences in origin (domestic vs. import) are illustrated by month. The targeted number of samples is 62 per month for each commodity.*

added to the samples. Samples were packed with frozen cold packs and shipped overnight to the testing laboratories.

Since the inception of the water program, PDP has completed two years of sampling at sites in California, Colorado, Kansas, New York, and Texas. New sampling sites were chosen for 2004-2005. Site selection was made in collaboration with EPA's Environmental Fate and Effects Division. All selected sites met the following criteria: (1) service to populations under 50,000; (2) use of surface water as the primary source of water; and (3) location in regions of heavy agriculture where known amounts of pesticides were applied. Water treatment method was not part of the selection criteria. General locations of water collection sites and testing laboratories are illustrated in Figure 6 and results are shown in Appendix F.

III. Laboratory Operations

♦ Overview

Thirteen laboratories (11 State and 2 Federal) performed analyses for PDP. These laboratories are equipped with instrumentation capable of detecting residues at very low levels. Laboratory staff members receive intensive training and must demonstrate analytical proficiency on a periodic basis. Program scientists continuously test new technologies and develop new techniques to improve the levels of detection. Major changes in methodology are evaluated and their soundness demonstrated and documented in accordance with PDP SOPs.

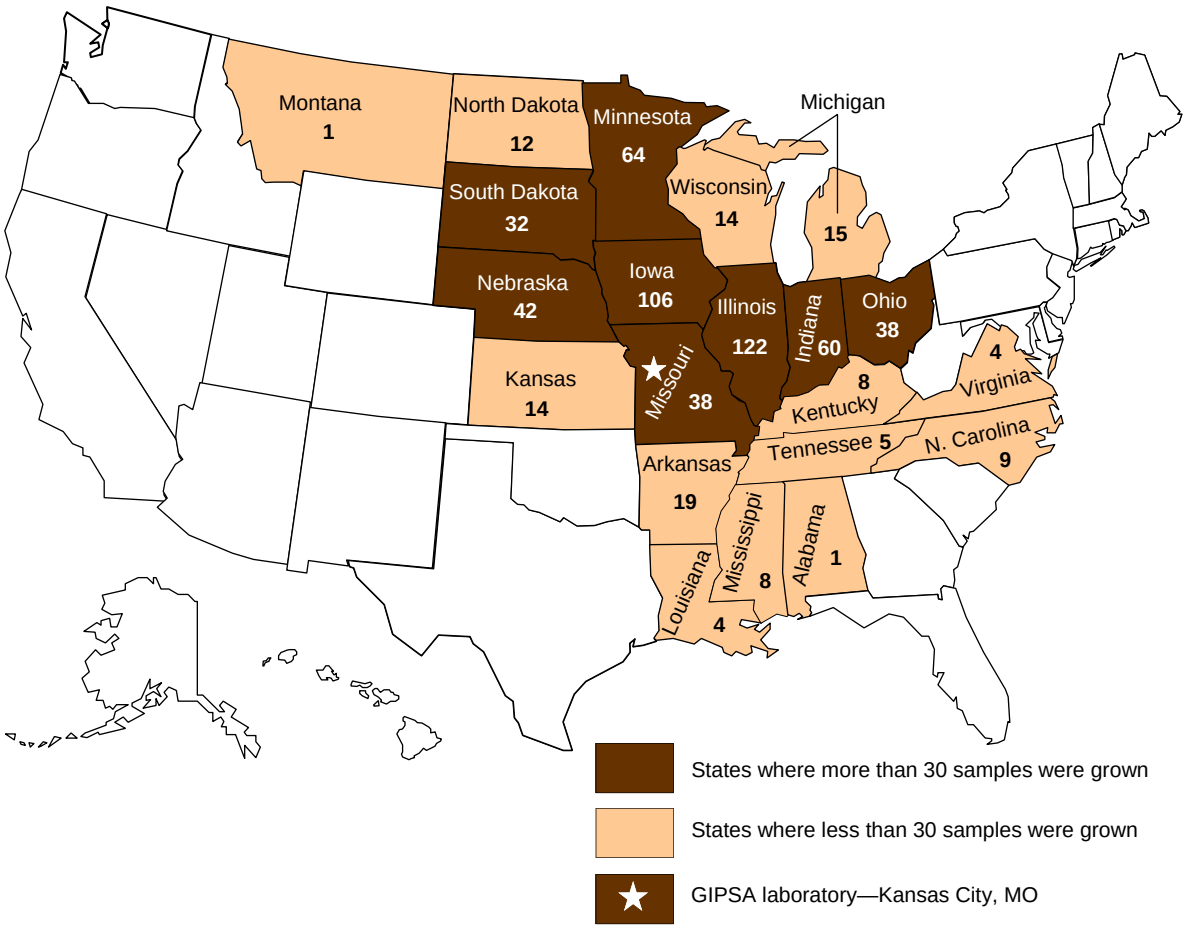


Figure 5. Number of Samples Collected and Grower States for Soybeans — Crop Year 2003. *A total of 616 soybean samples were collected between September 2003 and August 2004. The samples originated from 21 States and were collected in proportion to their production volumes. Residue testing for all samples was performed by the Grain Inspection, Packers, and Stockyards Administration Laboratory, located in Kansas City, Missouri.*

♦ Fresh and Processed Fruit and Vegetables

PDP participating laboratories analyzing fruit and vegetables monitored 175 pesticides plus 56 metabolites, degradates, and isomers using multi-residue methods (MRMs). Upon arrival at the testing facility, samples are visually examined for acceptability and discarded if determined to be inedible (decayed, extensively bruised, or spoiled). Accepted samples are prepared emulating the practices of the average consumer to more closely represent actual exposure to residues. Fresh samples are prepared as follows: (1) apples and pears are washed with stems and cores removed; (2) cantaloupes are cut in half and seeds and rinds are removed; (3) cauliflower is washed and the wrapper leaves are removed; (4) cucumbers and winter squash are washed and inedible portions are removed; (5) grapes and green beans are washed and stems and extraneous materials are removed; (6) lettuce is washed, wrapper leaves are removed (head lettuce only), and damaged portions are removed; (7) oranges are peeled and excess white membrane is removed; (8) strawberries are rinsed and stems and leaves are removed; (9) sweet bell peppers are washed with stems, cores, and seeds removed; (10) sweet potatoes are washed, gently scrubbed with a vegetable brush, rinsed, and woody stems are removed; and (11) tomatoes are washed and stems removed. Processed samples are prepared as follows: (1) fresh and reconstituted orange juices are mixed until homogeneous; and (2) canned and frozen fruit and vegetables are homogenized with their entire contents, including any liquid present.

Laboratories are permitted to refrigerate incoming fresh fruit and vegetable samples of the same commodity for up to 72 hours to allow for different sample arrival times from collection sites. Frozen and canned commodities may be held in storage (freezer or shelf) until the entire sample set is ready for analysis. Samples are homogenized using choppers and/or blenders and are separated into analytical portions (aliquots) for analysis. If testing cannot be performed immedi-

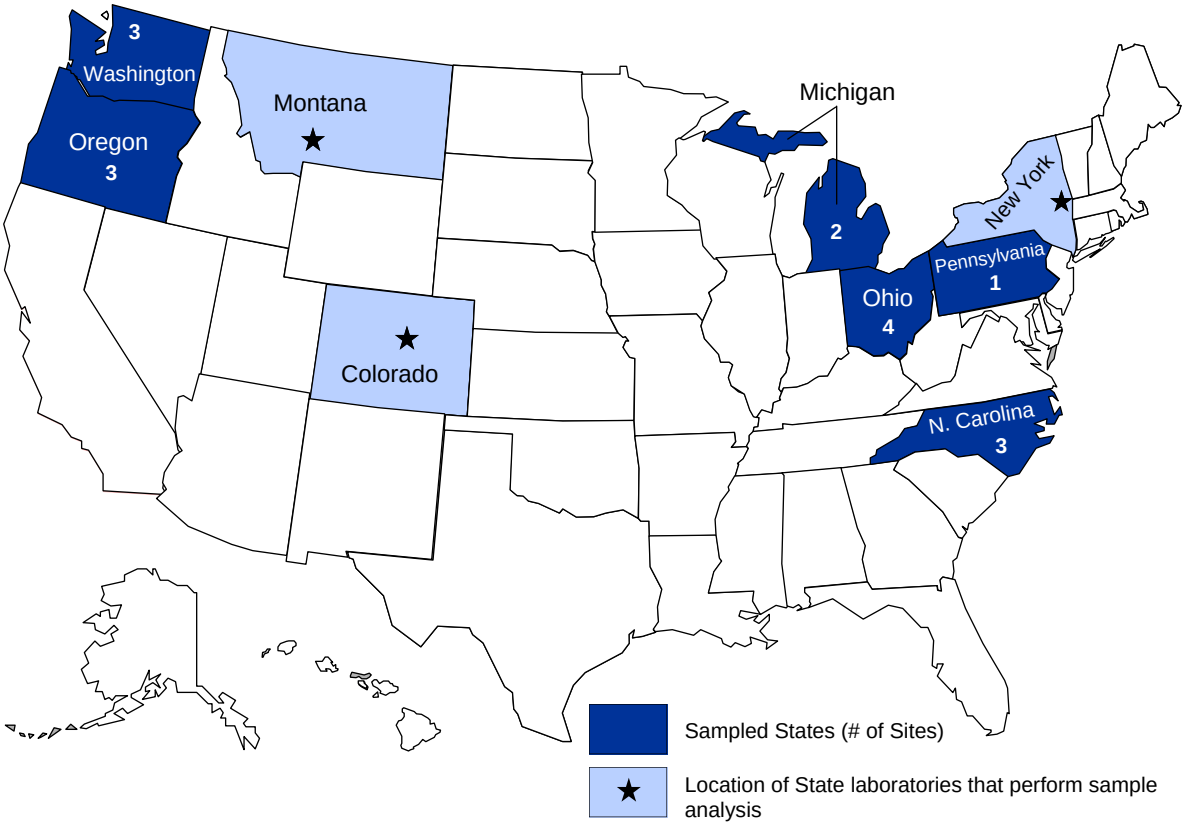


Figure 6. Location of Drinking Water Collection Sites at Community Water Systems. *A total of 16 water treatment facilities in the U.S. were sampled in paired units (coordinated treated and untreated samples). Sites represent areas of varied geographical settings but are located in watersheds where pesticides were known to have been heavily applied.*

ately, the entire analytical set is frozen at -40°C or lower, according to PDP's Quality Assurance/ Quality Control (QA/QC) requirements. Surplus aliquots not used for the initial testing are retained frozen in the event that replication of analysis or verification testing is required.

For analysis of fruit and vegetables, variations and combinations of the FDA Luke I [Section 302 of Pesticide Analytical Manual (PAM) I] and Luke II [FDA Laboratory Information Bulletin (LIB) 3896] extraction procedures were used by PDP laboratories in Ohio and Texas. The California, Florida (Winter Haven), and Washington laboratories used modifications of the MRM developed by the California Department of Food and Agriculture. The New York laboratory used a method based on the Agriculture and Agri-Food Canada solid phase extraction (SPE) method with some modifications based on the Luke procedure. The Florida (Tallahassee) and Michigan laboratories used a modified version of the QuEChERS method, developed and published in July 2003 by USDA ARS. All MRMs are determined, through method validation procedures, to produce equivalent data for PDP analytical purposes. Residues are extracted from samples with the use of organic solvents followed by various cleanup procedures such as SPE.

Gas chromatography (GC) and liquid chromatography (LC), coupled with selective detectors and mass spectrometry (MS) systems, are used for the initial identification and quantitation of pesticides. Laboratories are increasing their use of GC and LC/MS-MS tandem systems and are specifically focusing on LC/MS techniques to broaden the scope of testing and to keep pace with emerging analyte chemistries. All residues initially identified must be verified. Confirmation is accomplished by MS, alternate detection systems, or alternate chromatographic behavior. Verification is considered crucial due to the complexity of commodity matrices and the low concentration levels of detected residues. The verification process provides an extra measure of confidence in the identification of both the pesticide residue and its concentration.

Triazoles – Strawberries: In addition to analyzing strawberries and sweet potatoes using MRMs, the Michigan laboratory monitored triazole fungicides including three metabolites, 1,2,4-triazole, triazole acetic acid, and triazole alanine in strawberries. The analyses were performed using LC coupled with tandem MS in order to achieve the low parts per billion (ppb) detection limits required for dietary risk assessment. Testing for the three common metabolites required development of special analytical techniques in addition to the more conventional PDP multiresidue methods. The remaining target triazole fungicide parent compounds, isomers, and other metabolites were determined by GC coupled with MS detection or LC/MS-MS.

Ethephon – Fresh Fruit: In 2004, apple and grape sample homogenates were tested for ethephon by the Minnesota laboratory. The samples were prepared as described in the fresh fruit and vegetables section above. Aliquots of the homogenates were frozen and shipped to the Minnesota laboratory on a monthly basis. The Minnesota laboratory used a single analyte method (SAM) to extract ethephon from apple and grape samples and analyses were performed by headspace GC with flame ionization detection.

♦ Soybeans and Wheat Flour

The USDA GIPSA laboratory in Kansas City, Missouri, monitored soybean samples for 67 pesticides plus 16 metabolites and isomers and wheat flour samples for 55 pesticides plus 16 metabolites and isomers. On arrival at the testing facility, samples are visually examined for acceptability and discarded if spoiled (e.g., moldy, rotten). Soybean samples were ground before being analyzed. Surplus sample aliquots, not used for the initial testing, were retained refrigerated in the event that replication of analysis or verification testing was required. Extraction of soybean and wheat flour samples was accomplished using solvent extraction and SPE cleanup coupled with MS detection.

♦ Milk

The AMS NSL in Gastonia, North Carolina, tested milk samples for 70 pesticides plus 18 metabolites, degradates, and isomers. Upon arrival at the testing facility, samples were visually

examined for acceptability and discarded if spoiled. Samples were refrigerated until preparation for analysis. Generally, 1 quart to 1 gallon samples were received. Because the milk samples received were homogenized, further mixing at the laboratory was not required. A 100-gram aliquot was weighed and extracted using solvent extraction followed by SPE cleanup. Three 100-gram aliquots were weighed, frozen, and kept in reserve in the event that replication of analysis or verification testing was required. Surplus milk remaining after the four aliquots were taken was then discarded. Samples were analyzed using MS detection, selective detectors, or post-column derivatization high performance liquid chromatography (HPLC).

♦ Drinking Water

The Colorado, Montana, and New York laboratories analyzed drinking water for approximately 182 pesticides plus 51 metabolites and isomers. These compounds were determined to be of interest to EPA. Paired samples of the raw intake water (untreated) and disinfected finished drinking water (treated) were collected for analysis. Treated water samples were collected after the untreated samples at a time interval consistent with the hydraulic residence. Hydraulic residence is the average time from entry into the treatment facility until discharge as treated water.

Each sample consisted of three 1-liter amber glass bottles collected at the water treatment facility. Upon arrival at the testing laboratory, samples were visually examined for acceptability and discarded if warm to the touch or leaking. Samples were refrigerated until time of analysis and extracted within 96 hours of collection. A 1-liter bottle was extracted for compounds amenable to GC analysis and one for compounds amenable to LC analysis. The remaining bottle was held in reserve or extracted for specialty compounds requiring separate extraction/analytical procedures [e.g., ethane sulfonic acid (ESA) and oxanilic acid (OA) analogs of alachlor, acetochlor, and metolachlor]. Extraction methods used were based on SPE methods developed by the United States Geological Survey (USGS) and were independently validated by each testing laboratory. Samples were analyzed using MS detection (single and tandem GC and LC technologies), selective detectors, or post-column derivatization HPLC detection systems.

♦ Quality Assurance Program

The primary objectives of the QA/QC program are to ensure the reliability of PDP data and the performance equivalency of the participating laboratories. Direction for the PDP QA program is provided through SOPs based on EPA Good Laboratory Practices (GLPs). Written SOPs provide uniform administrative, sampling, and laboratory procedures. SOPs are revised annually to accommodate changes in the program. Prior to submission to PDP, data are reviewed by each Quality Assurance Unit (QAU) for completeness and adherence to PDP requirements.

Laboratory Technical Advisory Group and Quality Assurance Officers: A Technical Advisory Group comprised of laboratory Technical Program Managers (TPMs) and Quality Assurance Officers (QAOs) is responsible for annually reviewing program SOPs and addressing QA issues. For day-to-day QA oversight, PDP relies on the QAU at each participating facility. As required under EPA GLPs, the QAU operates independently from the laboratory staff and is responsible for performing quarterly internal program audits. Preliminary data review procedures are performed on-site by each laboratory's QAU. Final review procedures are performed by PDP staff who are responsible for collating and reviewing data for conformance with SOPs.

Method Performance Requirements: Laboratories are required to determine and verify the limits of detection (LODs) and limits of quantitation (LOQs) for each pesticide/commodity pair. LODs depend on matrix, analyte, and detector used. LODs for each pesticide/commodity pair are shown in the applicable crop results appendix. Additional method performance/validation requirements include modules for consistent instrument response (linearity), method range, and precision and accuracy.

Confirmation: Verification by MS or a suitable alternate detection system is required for all preliminary results. Verified residue amounts greater than or equal to LOD and below LOQ are reported

as below quantifiable level (BQL). BQLs are assigned values at one-half the LOQ, and are used along with values greater than or equal to LOQ and non-detects in dietary risk assessments, when appropriate.

Routine Quality Control Procedures: PDP procedures for quality control (QC) are intended to assess method and analyst performance during sample preparation, clean-up, extraction, and, where applicable, derivatization. To maximize sample output and decrease the QC/sample ratio, samples are analyzed in analytical sets that include the test samples and the following components:

Reagent Blank – For analysis of fruit and vegetables, milk, soybeans, and wheat flour, an amount of distilled water, equivalent to the natural moisture content of the commodity, is run through the entire analytical process to confirm glassware cleanliness and system integrity.

Matrix Blank – A previously analyzed sample of the same commodity, which contains either very low concentrations of known residues or no detectable residues, is divided into two portions. The first portion is used to determine background information on naturally occurring chemicals and the second is used to prepare a matrix spike.

Matrix Spike(s) – Prior to extraction, a portion(s) of matrix blank is spiked with marker pesticides to determine the precision and accuracy of the analyst and instrument performance. Marker pesticides are compounds selected from different pesticide classes (e.g., organochlorines, organophosphates, carbamates, conazoles, imidazolinones, neonicotinyls, phenoxy acid herbicides, pyrethroids, strobilurins, triazines), which have physical and chemical characteristics similar to those in the class they represent. The use of marker pesticides to monitor recoveries is a modification of PDP's previous requirements that called for spiking with all pesticides. Marker pesticides are representative chemicals of the various classes analyzed and are intended to provide assurance of data reliability while not expending undue laboratory resources determining recoveries for each compound included in the extensive analytical screens. During 2004, PDP laboratories quantitated a total of 40,986 matrix spikes, with an overall mean recovery of 90 percent and an overall percent coefficient of variation (% C.V.) of 32 percent. The % C.V. is calculated as the standard deviation divided by the mean.

Process Control Spike – A compound with physical and chemical characteristics similar to those of the pesticides being tested is used to evaluate the analytical process on a sample-by-sample basis. Each of the analytical set components, except the reagent and matrix blanks, is spiked with process controls. During 2004, PDP laboratories quantitated a total of 50,880 process controls on 13,207 samples, with an overall mean recovery of 96 percent and an overall % C.V. of 19 percent. Of these process controls, 363 (0.71%) were rerun due to initial failure to meet PDP recovery criteria. These rerun values are not included in these statistics.

Proficiency Testing: All facilities are required to participate in PDP's Proficiency Testing (PT) program. For laboratories testing fresh and processed fruit and vegetables, grains and grain products, and dairy products, multiresidue test samples containing pesticides of known quantities are periodically issued and analyzed under the same conditions as routine samples. The resulting data are used to determine performance equivalency among the testing laboratories, and to evaluate individual laboratory performance. During 2004, PDP laboratories received 4 multiresidue fruit and vegetable PT sets consisting of 12 samples, 1 milk set consisting of 3 samples, and 1 soybean set consisting of 3 samples. For fruit and vegetable multiresidue screening, the 12 samples comprised 4 commodities and were fortified with 35 compounds at levels generally 1 to 10 times the LOQ. Four compounds were repeated once. Reported results for fruit and vegetable samples yielded an overall mean recovery of 97 percent and an overall % C.V. of 28 percent.

Additionally, PDP laboratories participated in the international AOAC® and Food Analysis Performance Assessment Scheme (FAPAS) proficiency testing programs. For the AOAC® program, PDP laboratories participated in one test round of orange matrices fortified with nine pesticides. For FAPAS, PDP laboratories participated in 2 rounds consisting of apple, grapefruit, lettuce, and tomato test matrices fortified with 19 pesticides.

Laboratories were evaluated based on z-scores for reported compounds, as well as any reported false negatives or false positives. Laboratories were not held responsible for reporting compounds not included in their routine screening method. Overall, PDP laboratories performed as well or better than other participating laboratories.

For water, a commercial vendor supplied PT solutions to the testing laboratories. Solution profiles were based on common laboratory analytical profiles and detection limits. Test solutions were used for spiking, rather than distribution of spiked samples, due to stability concerns. For each PT set, the vendor supplied the laboratory's QAU with a custom solution that was diluted according to program protocols by the onsite QAU and fortified into 1 liter of unfiltered tap water. The spiked samples were then presented to the staff members of each respective laboratory for analysis.

On-site Reviews: PDP staff perform on-site visits to determine compliance with PDP SOPs. Improvements in sampling, chain-of-custody, laboratory, recordkeeping, and electronic data transmission procedures are made as a result of on-site reviews.

IV. Database Management

PDP maintains an electronic database at the MPO in Manassas, Virginia, that serves as a central data repository. The data captured and stored in the PDP database include sample collection and product information, residue findings, and process control recoveries for each sample analyzed, in addition to QA/QC fortified recoveries for each set of samples. Each calendar-year survey is stored in a separate database structure, allowing easier administration and data reporting. The PDP data pathway is illustrated in Figure 7.

♦ Electronic Data Pathway

PDP utilizes the Remote Data Entry (RDE) system, which is a customized software application that allows participating State and Federal laboratories to enter and transmit data electronically. The RDE system is centralized with all user interface software and database files residing in Washington, D.C. The laboratory users need only a Web browser to interface with the RDE system. Access is controlled through separate user login/password accounts and user access rights for the various system functions based on position requirements. The RDE system utilizes Secure Sockets Layer (SSL) technology to encrypt all data passed between users' computers and the central Web server.

A separate Windows-based system allows sample collectors to capture the standardized SIF electronically on handheld or laptop computers. The e-SIF system generates formatted text files containing sample information that are e-mailed to PDP headquarters and then imported into the Web-based RDE system.

The RDE data entry screens have extensive editing functions and cross-checks built into the software to ensure that valid values are entered for all critical data elements. This task is made easier by the practice of capturing and storing standardized codes for all critical alphanumeric data elements rather than their complete names, meanings, or descriptions. This coding scheme allows for faster and more accurate data entry, saves disk storage space, and allows the user to perform adhoc queries (data searches) on the database easily. The data entry screens also perform automatic edits on numeric fields, dates, and other character fields to ensure that entries are within prescribed boundaries.

At PDP headquarters, the RDE system allows staff chemists to review the data on-line and then to mark the data as ready-for-upload to the central PDP database. A separate upload application converts and passes the data to the PDP database which is presently maintained using Microsoft® Access in a Windows® operating environment. Access to the central PDP database is limited to PDP staff personnel only and is controlled through password protection and user access rights. System back-ups are performed each night and back-up tapes are sent to off-site storage once a week.

♦ Data Reporting

The PDP staff frequently receives requests for data from Government agencies and interested outside parties. Adhoc queries and custom

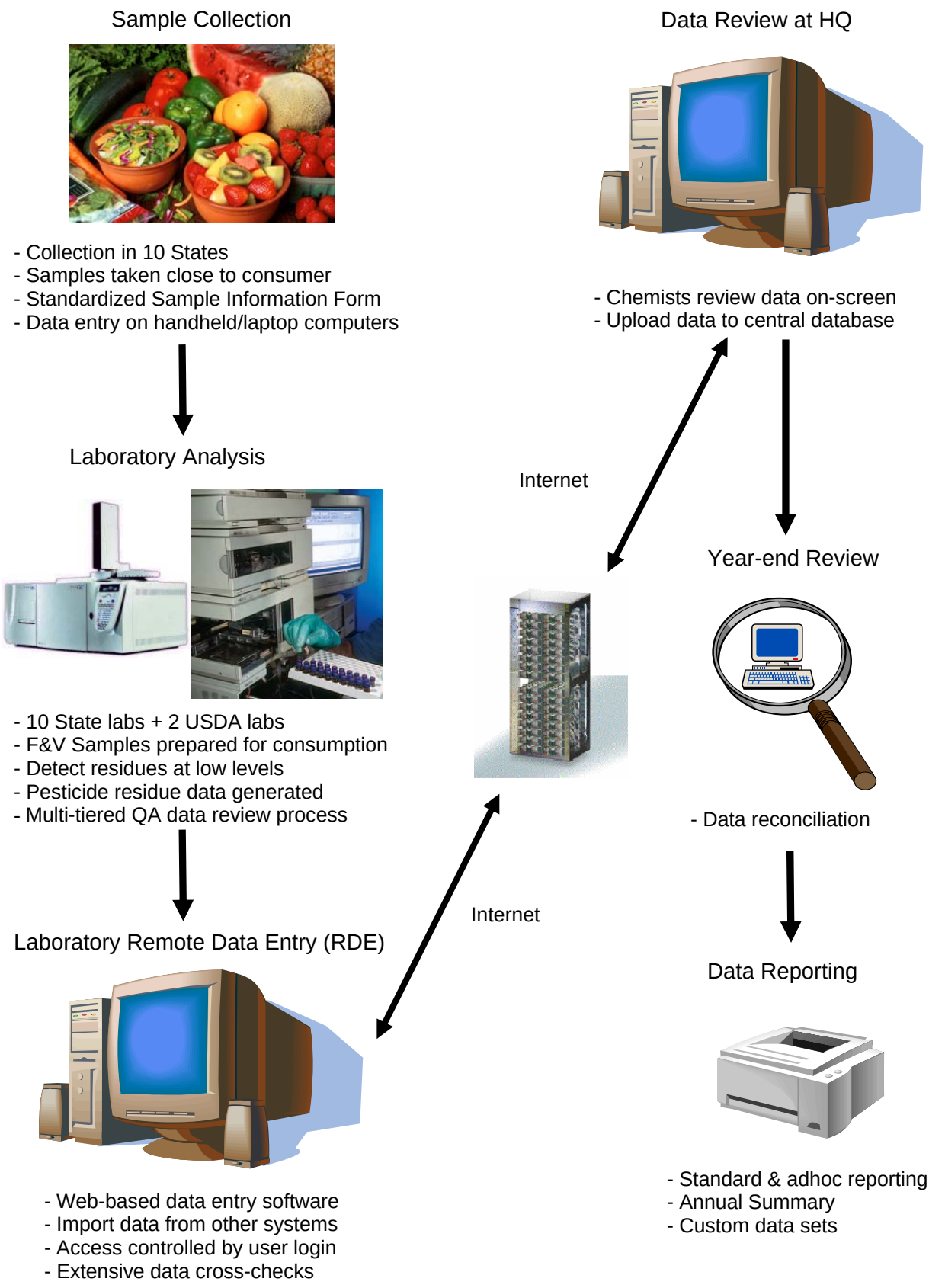


Figure 7. PDP Data Pathway. *An illustration of PDP data path from sample collection, through laboratory analysis and reporting.*

reports are generated to fill such requests. An electronic library of data queries is maintained to generate standardized data summaries, including the data tables, charts, and appendices in this annual summary. Subsets of the PDP calendar-year databases are made available for download from the PDP Website. The data files on the Website are fixed-length text files that contain a portion of the sampling data, all of the reported residue findings, and reference lists that can be used to interpret the standardized codes used in the PDP data. The data files can be imported into defined database structures and manipulated with the use of common database management software packages.

V. Sample Results and Discussion

♦ Sample Results

In 2004, PDP conducted surveys on a variety of foods including fresh and processed fruit and vegetables, soybeans, wheat flour, milk, and drinking water. Of the 13,208 samples that were collected and analyzed, 10,366 were fruit and vegetable commodities, 616 were soybean samples, 725 were wheat flour samples, 739 were milk samples, and 762 were drinking water samples.

With the exception of soybean and drinking water samples which were all from U.S. sources, 84 percent of the samples were produced in the U.S., 14 percent were imports, and about 1 percent were of unknown origin. Appendix G shows the distribution of sample origin by State or Country. Of the domestic samples, more than 43 percent (4,317 of 9,982) were grown, packed, and/or distributed in or from California. Approximately eight percent of the orange juice samples were of mixed national origin (i.e., the juice was comprised of oranges grown in more than one country). Appendix H includes a comparison of residues for selected commodities with a significant import component.

Table 3 gives an overview of the number of residue detections for fresh and processed fruit and vegetables, grains, and dairy products determined during 2004. Overall, 76 percent of fresh fruit and vegetables and 40 percent of processed fruit and vegetables showed detectable residues. The percent of samples with detections ranged from 22 percent (canned peaches) to 98 percent (apples). Residues were detected in 42 percent of the soybean samples, 57 percent of the wheat flour samples, and 100 percent of the milk samples. Residue findings in milk were primarily low level detections of diphenylamine and the environmental contaminants DDE p,p' and dieldrin. These findings are largely attributable to the recent improvements in analytical technologies and associated lower detection limits.

Appendix B tabulates the distribution of residues in fruit and vegetables for the complete 2004 data set. Information included in this appendix are: number of samples analyzed for a particular compound; number and percent of samples with detections; range of concentrations detected; tolerance violations; range of analytical LODs for 2004; EPA tolerance levels or FDA action levels; and corresponding Codex Alimentarius maximum residue limits (MRLs) and/or extraneous maximum residue limits (EMRLs), when applicable. Appendices C, D, E, and F provide the distribution of residues for soybeans, wheat flour, milk, and water respectively. The individual sample data can be downloaded from the PDP Website or obtained by contacting MPO.

In 2004, PDP also completed a special study of triazole fungicides and metabolites, which began in 2003 at the request of EPA. Michigan analyzed more than 500 strawberry samples for parent triazoles and common triazole metabolites. Additionally, California analyzed more than 200 strawberry samples for parent triazoles. For strawberries, triazole alanine was detected in 12.4 percent of the samples. Parent triazoles myclobutanil and triflumizole were detected in 38.4 and 1.4 percent of strawberry samples respectively. Triadimefon, 1,2,4-triazole, and triazole acetic acid were not detected in any strawberry samples.

Food monitoring data, together with dietary consumption surveys, are used by EPA to estimate dietary exposure to pesticides to ensure the safety of existing pesticide uses. EPA uses all results reported by PDP, including sample results reported as below the LOD and those above the tolerance. PDP laboratories are required to

	Number of Samples Analyzed	Samples with Residues Detected	Percent of Samples with Detections	Different Pesticides Detected	Different Residues Detected	Total Residue Detections
Fresh Fruit and Vegetables:						
Apples	744	727	98	33	41	2,619
Cantaloupe	742	402	54	18	24	626
Cauliflower	185	134	72	4	4	151
Cucumbers	557	404	73	30	36	1,025
Grapes	739	574	78	32	39	1,336
Green Beans	548	387	71	24	28	976
Lettuce	743	657	88	47	57	1,985
Oranges	742	654	88	10	12	981
Pears	741	643	87	31	35	1,309
Strawberries	731	681	93	28	35	1,996
Sweet Bell Peppers	558	539	97	43	50	2,282
Sweet Potatoes	743	461	62	13	14	587
Tomatoes	744	359	48	17	21	737
Winter Squash	364	146	40	17	20	217
TOTAL FRESH	8,881	6,768	76			16,827
Processed Fruit and Vegetables:						
Green Beans, Canned	185	44	24	5	5	73
Orange Juice	186	93	50	3	3	94
Peaches, Canned	743	162	22	3	3	175
Spinach, Canned	371	300	81	8	8	406
TOTAL PROCESSED	1,485	599	40			748

Fruit and Vegetables Totals:

Number of Samples Analyzed = 10,366
Number of Samples with Residues Detected = 7,367
Percent with Residue Detections = 71.1%
Total Number of Different Pesticides Detected = 99
Total Number of Different Residues Detected = 115
Total Number of Residue Detections = 17,575

Processed Grain Product:						
Soybeans	616	256	42	8	8	282
Wheat Flour	725	410	57	16	16	590
TOTAL GRAIN	1,341	666	50			872
Dairy Product:						
Milk	739	739	100	12	12	2,129

All Commodities (excludes 762 drinking water samples):

Number of Samples Analyzed = 12,446
Number of Samples with Residues Detected = 8,772
Percent with Residue Detections = 70.5%
Total Number of Different Pesticides Detected = 156
Total Number of Different Residues Detected = 171
Total Number of Residue Detections = 20,576

Table 3. Number of Samples Analyzed and Summary of Residues Detected by Commodity. *The distinction between the number of pesticides and different residues is made to differentiate a parent compound and its metabolite(s). A parent compound and its metabolites are reported as a single pesticide detection rather than as separate residue detections.*

establish LODs and report any instrumental response below the LOD as a non-detect. LODs are established experimentally for each pesticide/commodity pair and are reported with each data set. The number of non-detects can be used in conjunction with percent crop treated data to determine what proportion of these values may be counted as zero towards the dietary exposure. As shown in Table 3, 30 percent of the samples (excluding water) were reported as having no residue detections (i.e., results were below the established LOD). For samples containing residues, the vast majority of the detections were well below established tolerances.

♦ National Estimates

National estimates for selected pesticide/commodity pairs are shown in Appendix I. In most cases for each pair, the levels of detected residues are a small fraction of the tolerance level. A range of values for the average sample residue concentration (mean) for each pair is provided. The lower value for the range is determined by treating a sample without detectable residues as if it had a residue concentration equal to zero. The upper value is determined by treating such a sample as if it had a residue concentration equal to the LOD. Calculations for the 50th, 75th, and 90th percentiles for each of the selected pairs are shown. The ratio of the 90th percentile to the tolerance, as a normalization factor is also provided. Percent detections and percentiles for apples, cantaloupe, cauliflower, cucumbers, grapes, fresh green beans, lettuce, oranges, pears, strawberries, sweet bell peppers, sweet potatoes, tomatoes, and winter squash were weighted to reflect monthly variations in marketing. No weighting adjustments were made for canned green beans, milk, orange juice, canned peaches, soybeans, canned spinach, or wheat flour.

Appendix J displays the estimated distributions of 12 representative pesticide/commodity pairs. These graphs depict that the overwhelming majority of pesticide testing results and the respective means (average values) are at low concentrations. The range of values, the median at the 50th percentile, and the range in percentile representing the lower and upper bound for the sample mean are shown on each chart. These pesticide/commodity pairs included in Appendix J are diphenylamine/apples, cyprodinil/grapes, acephate/green beans, methamidophos/green beans, imidacloprid/lettuce, imazalil/oranges, chlorpyrifos/soybeans, permethrin total/canned spinach, myclobutanil/strawberries, imidacloprid/sweet bell peppers, dicloran/sweet potatoes, and malathion/wheat flour. In some cases, there is convergence of the mean upper and lower bound into a single line due to the insignificant differences between them (e.g., dicloran/sweet potatoes).

♦ Fresh vs. Processed

The 2004 residue data, as in past years, show that residue profiles for fresh products are significantly different than for processed products. Raw agricultural commodities, if specifically grown for processing into juice for example, could receive different treatments than products destined for fresh market. An increase in residue levels (concentration) or reduction in residue levels is likely a direct result of processing effects such as cooking, pasteurization, and other processing steps. A comparison of residues for selected fresh and processed products is shown in Table 4.

For fresh green beans, detection of pesticides in greater than 10 percent of the samples included acephate, chlorothalonil, endosulfan I, endosulfan sulfate, methamidophos, and o-phenylphenol. In canned green beans, detection of acephate and methamidophos was significantly less than in the fresh product. Chlorothalonil, endosulfan I, and endosulfan sulfate were not detected in canned green beans and o-phenylphenol was not analyzed.

A direct comparison of fresh oranges to orange juice can be problematic. Not only may oranges specifically grown for processing into juice receive different treatments than products destined for the fresh market, but entirely different varieties are grown specifically for juice production and may be treated completely differently than fresh market oranges. In some cases, orange juice samples were comprised of juice from oranges grown in different countries. In 2004, carbaryl and o-phenylphenol were found more frequently in orange juice than in fresh oranges. In contrast, imazalil was found in 0.5 percent of the juice and on 74.7 percent of fresh oranges and thiabendazole was not detected in any of the juice samples while 34.0 percent of fresh oranges contained thiabendazole.

Pesticide	GREEN BEANS -- Fresh (2004) % of Saples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm	GREEN BEANS -- Canned (2004) % of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Acephate	29.4	0.003	2.0	14.1	0.003	0.16
Chlorothalonil	28.8	0.003	0.46	0	0	0
Endosulfan I	10.2	0.003	0.21	0	0	0
Endosulfan sulfate	15.9	0.003	0.95	0	0	0
Methamidophos	27.9	0.008	0.56	15.1	0.003	0.094
o-Phenylphenol	64.4	0.017	0.017	NA	NA	NA
	ORANGES -- Fresh (2004)			ORANGE JUICE (2004)		
Carbaryl	1.9	0.003	0.059	11.3	0.003	0.010
Imazalil	74.7	0.050	0.95	0.5	0.050	0.050
o-Phenylphenol	19.1	0.017	0.062	38.7	0.017	0.017
Thiabendazole	34.0	0.050	0.75	0	0	0
	SPINACH -- Fresh (2003)			SPINACH -- Canned (2004)		
Cypermethrin	14.9	0.050	2.9	23.2	0.050	0.90
DDE p,p'	24.0	0.012	0.077	10.8	0.012	0.012
Permethrin Total	49.5	0.048	16	65.8	0.048	11

NA No analysis performed for commodity/pesticide pair.

Table 4. Selected Residue Comparisons for Fresh and Processed Commodities. *The percentage of samples with detections and the range of reported values for selected pesticides recovered from fresh vs. processed green beans, oranges and spinach are shown. Commodity/residue pairs were selected based on the following criteria: data availability for fresh and processed product within the same sampling timeframe; greater than 10% detection rate for a residue in either the fresh or processed commodity; and number of samples analyzed sufficient to ensure adequate representation.*

Results for fresh spinach collected and analyzed in 2003 are compared to the 2004 findings for canned spinach in Table 4. Cypermethrin was detected in 14.9 percent of the fresh spinach samples and 23.2 percent of the canned spinach samples. DDE p,p' was detected in 24.0 percent of the fresh spinach samples and 10.8 percent of the canned spinach samples. Permethrin (total) was found in 49.5 percent of the fresh spinach samples and 65.8 percent of the canned spinach samples.

♦ Import vs. Domestic Residue Comparisons

Information about the origin of each PDP sample is recorded when the sample is collected. Figure 3 illustrates the proportion of the domestic and import component for each PDP fruit and vegetable commodity this year. The data generated by PDP reflect pesticide residues in foods available to the U.S. consumer, including both domestic and imported products. Many commodities are almost entirely of domestic origin with only a minor import component. However, some fresh commodities, such as cantaloupe, cucumbers, grapes, sweet bell peppers, and tomatoes are from domestic growers part of the year and are imported during the remaining months. Comparisons of selected residues detected in imported versus domestic commodities can be found in Appendix H.

Overall, samples of cucumbers from Mexico, grapes from Chile, and cantaloupes from Central America showed higher percent detections than the respective domestic samples. These sample sets were selected to compare data where residues are present in greater than 10 percent of the commodity and allow comparison of individual residues. These data showed that while the overall residues are higher in some of these imported crops compared to domestic producers, the residue profile was different.

The cucumber data in Appendix H indicate that during 2002-2004, residues were detected in 59.3 percent of the domestic samples and 85.0 percent of the Mexican samples. Endosulfan I, endosulfan II, or endosulfan sulfate was detected in 31.2 percent of the domestic cucumber samples and 63.8 percent of the Mexican cucumber samples. Similarly, metalaxyl and methamidophos were detected more frequently in Mexican cucumbers than in domestic cucumbers.

For grapes, 89.2 percent of the Chilean samples and 69.5 percent of the domestic samples had residues detected in 2004. Captan residues were detected in 44.3 percent of the Chilean grape samples compared to 2.9 percent of the domestic samples. Conversely, ethephon residues were detected in 17.3 percent of the Chilean samples compared to 57.0 percent of the domestic grape samples.

For cantaloupe, 37.4 percent of the domestic product had residues compared to 80.8 percent of the Central American (Costa Rica, Guatemala, Honduras, and Nicaragua) samples in 2003-2004. Cantaloupe samples from Central America had more residues of endosulfan sulfate and methomyl than samples from the U.S.

♦ Ethephon Results

In 2004, PDP responded to a critical EPA need for ethephon data. The Minnesota laboratory used a selective analyte method to measure ethephon residues on apples and grapes. Apple and grape frozen homogenates were shipped to the Minnesota laboratory on a monthly basis for ethephon determinations. As shown in Appendix B, ethephon was detected in 28.9 percent of the apple samples and 35.7 percent of the grape samples.

♦ Postharvest Applications

Pesticides can be applied before and after harvest depending on the crop and approved label use. PDP data capture both preharvest and postharvest uses because samples are collected at points when all pesticide applications have already occurred. Pesticides applied postharvest are used primarily as fungicides, but some insecticides and sprouting inhibitors are also important postharvest crop treatments. Some detections reported in Appendices B, C, and D were most likely generated by postharvest applications to the raw agricultural commodity.

♦ Environmental Contaminants

DDT, DDD, and DDE: A total of 9,845 fruit and vegetable (Appendix B), 596 soybean (Appendix C), 725 wheat flour (Appendix D), and 739 milk samples (Appendix E), were screened for DDE p,p', a metabolite of DDT. Other DDT metabolites measured only in fruit and vegetables include DDD o,p' and DDD p,p'. Use of DDT has been prohibited in the U.S. since 1972; however, due to its persistence in the environment, residues of the DDE p,p' metabolite were detected in 1.5 percent (147 detections in 9,845 samples) of the fruit and vegetable samples tested. Residues of DDE p,p' were found in green beans (2.2%), lettuce (11.3%), canned spinach (10.8%), sweet bell peppers (0.4%), sweet potatoes (0.3%), winter squash (1.9%), wheat flour (0.1%), and milk (96.1%). Residues of DDT o,p' and DDT p,p' were detected in lettuce (1.7% and 0.9% respectively). More than 96 percent of the milk samples had low level detections of DDE p,p'. These finding are largely attributable to the recent improvements in analytical technologies and associated lower detection limits. All detections of DDT and its metabolites were well below the established action levels.

OTHER EXTRANEOUS PESTICIDES: In 1974, all aldrin and dieldrin uses were canceled in the U.S., and in 1978, all heptachlor uses were canceled. In 1986, chlordane uses, except termiticide uses, were canceled. Despite these cancellations and due to their persistence in the environment, residues of dieldrin were detected in cantaloupe, cucumbers, sweet potatoes, winter squash, milk,

and soybeans in 2004. Dieldrin was found in 41.5 percent of milk samples, 7.5 percent of cucumber samples, 7.1 percent of winter squash samples, and less than 1 percent of the cantaloupe, sweet potato, and soybean samples. Less than 1 percent of both cucumbers and winter squash contained heptachlor epoxide, a metabolite of heptachlor. Cis and trans chlordane were detected in less than 1 percent of the lettuce samples and 3.6 and 2.5 percent of the winter squash samples respectively. All detections were below the established action levels. No residues of aldrin were detected in fruit and vegetables or soybeans. Oxychlordane, a chlordane metabolite, was not detected in any of the 1,798 fruit or vegetable samples analyzed.

♦ Multiple Pesticide Residue Detections

By virtue of the MRMs employed, PDP provides novel data that can be used by EPA in evaluating exposure to multiple residues from the same commodity. The data are crucial for assessments which consider cumulative exposure to pesticides determined to have common mechanisms of toxicity. The distribution of multiple pesticides occurring in samples tested during 2004 is presented in Appendix K. These data enumerate the number of distinct pesticides rather than residues, as was reported in summaries prior to 2003. For example, endosulfan, its isomer endosulfan II, and its metabolite endosulfan sulfate are reported as a single pesticide detection rather than separate residue detections.

These data indicate that 29.5 percent of all samples tested contained no detectable pesticides [parent compound and metabolite(s) combined], 30 percent contained 1 pesticide, and slightly over 40 percent contained more than 1 pesticide. Parent compounds and their metabolites are combined to report the number of "pesticides" rather than the number "residues," as was reported in summaries prior to 2003. For example, a sample with positive detections for Endosulfan, I, II, and sulfate would have been counted as three residues in the 2002 Appendix L. That sample would be counted as just one pesticide detected in this Summary's Appendix K.

Most multiple residue detections result from the application of more than one pesticide on a crop during a growing season; however, a number of other factors could contribute to multiple detections. Pesticide spray drift, residue transfer through crop rotation, cross-contamination at packing facilities, and/or presence of persistent environmental contaminants could all contribute to residue detections.

It should be noted that, in most cases, samples analyzed by PDP are composites of 3 to 5 pounds from the same lot. Therefore, the estimated concentrations in these composite sample results for multiple residue detections may or may not reflect the number of pesticides per concentration in a single serving item of a commodity.

♦ Tolerance Violations

A tolerance is defined under Section 408 of the Federal Food, Drug, and Cosmetic Act as the maximum quantity of a pesticide residue allowable on a raw agricultural commodity. Tolerances are also applicable to processed foods. EPA is in the process of reassessing tolerances under FQPA. A tolerance violation occurs when a residue is found that exceeds the tolerance level or when a residue is found for which there is no established tolerance. With the exception of meat, poultry, and egg products, for which USDA is responsible, FDA enforces tolerances for all imported and domestic foods that move through interstate commerce. Unlike enforcement programs, PDP emphasizes determination of residues at the lowest detectable levels rather than quick turnaround times. When PDP identifies samples with residues exceeding the tolerance or with residues for which there is no established tolerance, these detections are reported to FDA regional and headquarters' offices. This notification is made in accordance with a Memorandum of Understanding between USDA and FDA for the purpose of pinpointing areas where closer surveillance may be needed. FDA enforcement action has not been a practical response to PDP analysis because of the time required between sample collection and data reporting.

Residues exceeding the established tolerance are noted with an "X" in Appendices B, C, D, and E. Similarly, residues for which a tolerance is not established are noted with a "V." The "X" and "V" annotations are followed by a number indicating the number of samples reported to FDA.

An established tolerance may apply to more than one residue because pesticides may break down into more than one metabolite or contain more than one isomer. For example, the tolerance for endosulfan combines residues of endosulfan I, endosulfan II, and endosulfan sulfate and organophosphate tolerances may combine the parent compound and the sulfone and sulfoxide metabolites. Therefore, where applicable, the violations in Appendix L are combined residues of parent and any isomers and/or metabolites to count the total number of samples with tolerance violations.

Excluding water samples, residues exceeding the tolerance were detected in 0.2 percent of the 12,446 samples tested in 2004 – 21 samples with 1 residue each. Residues with no established tolerance were found in 5.2 percent of the samples (625 samples with 1 residue each, 26 samples with 2 residues each, and 1 sample with 3 residues). In most cases, these residues were detected at very low levels and some residues may have resulted from spray drift or crop rotations. The residue levels and commodities are listed in Appendix L.

♦ Drinking Water Results

Figure 6 shows the location of drinking water sites for the 2004 PDP testing program. Untreated and treated drinking water samples were collected from community water systems in Michigan, North Carolina, Ohio, Oregon, Pennsylvania, and Washington. Each watershed reflects the local topography, watershed size, geomorphology, soil types, geology, land use, land management practices, crop varieties, pesticides applied, and application methods. Due to the complexities associated with water quality assessments, these data reflect only the unique characteristics of the watersheds from which the samples were obtained.

PDP analyzed 762 water samples from community water systems using MRMs to test for more than 200 pesticides and metabolites. Treatment plants participating in the 2004 survey draw from surface water as their primary source waters. The data presented here are for the untreated water collected at treatment plant intakes and treated water (post-disinfection) collected just prior to distribution to customers. Fifty-one different residues were detected in the untreated intake water and 38 in the finished water. Most of the detections were of commonly used herbicides and their metabolites. The majority of pesticides included in the PDP testing profiles were not detected and none of the detections in the finished water samples exceeded EPA Maximum Contaminant Levels (MCLs) or Health Advisory (HA) values.

Appendix F lists the MCL and/or HA values; however, many of the compounds in the PDP testing profiles do not have established regulatory standards. For comparative purposes, EPA Fresh Aquatic Organism (FAO) criteria, which are much lower than human-based MCLs or HAs, are also given. These criteria are lower than MCL or HA levels due primarily to higher exposure to these compounds because aquatic organisms live all or most of their lives in water. During 2004, there were no detections for any of the pesticides with established FAO levels. Additional information regarding EPA drinking water standards is available at: http://www.epa.gov/safewater/standard/setting.html.

Water treatment technologies vary widely and may be based on the local water chemistry, targeted contaminants needing removal, and cost. Appendix F shows the concentration of detected residues in treated and untreated water. In most cases, there were more detections in the untreated water than the treated water. In a few cases, residues detected in the treated water were not detected in the untreated water. The data acquired to date indicate that the water treatment process removed matrix interferences, allowing for a more sensitive measurement in the treated water. Depending on the treatment process employed, individual pesticides are entirely, partially, or not removed during the treatment process.

Figure 8 illustrates the effect of treatment on atrazine levels for both a Michigan site and an Ohio site. At the Ohio site, atrazine concentrations are greatly reduced (several orders of magnitude), whereas at the Michigan site, only small changes in concentration were observed between the untreated and treated samples.

♦ Synopsis

A total of 10,366 fresh and processed fruit and vegetable samples, 616 soybean samples, 725

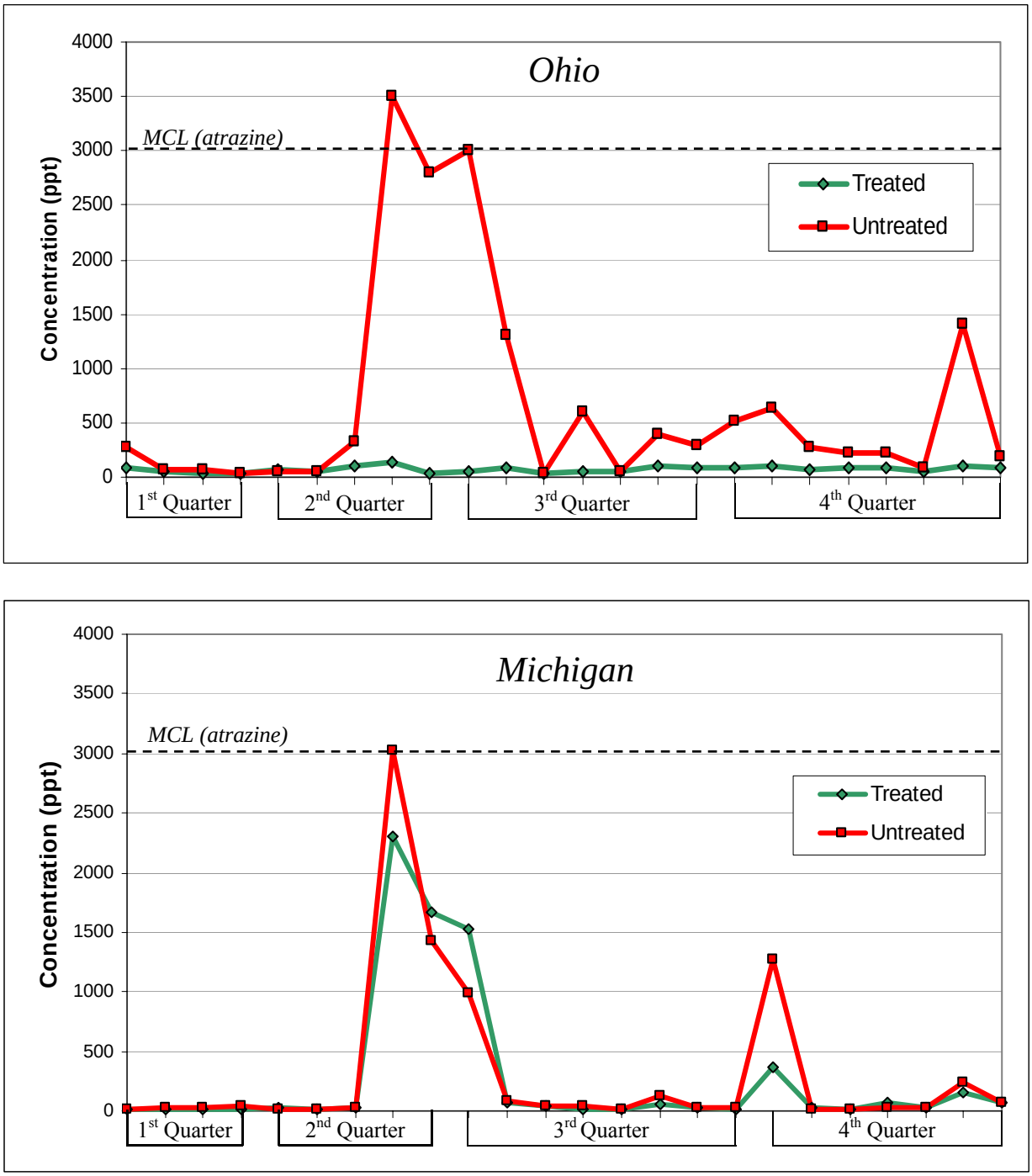


Figure 8. Effects of Water Treatment on Atrazine Concentration in Drinking Water Samples. *This figure illustrates the different removal rates of atrazine by community water system water treatment processes at one site in Ohio and one site in Michigan. The hydraulic residence time (the average time from entry into the treatment facility to discharge as treated water) was determined to be five to six hours. In both cases, the amount of atrazine residue removed by treatment brought the concentration below the MCL.*

wheat flour samples, 739 milk samples, and 762 drinking water samples were analyzed for various pesticides including insecticides, herbicides, and fungicides. MRMs were used to detect a wide variety of compounds including carbamates, conazoles, imidazoles, organochlorines, organophosphates, phenoxy acid herbicides, pyrethroids, strobilurins, and triazines.

Excluding soybeans and drinking water which are all domestic, approximately 84.4 percent of all samples tested were domestic, 14.4 percent were imported, 1.1 percent were of unknown origin, and 0.1 percent were of mixed national origin.

Overall, 30 percent of all samples tested contained no detectable pesticides [parent compound and metabolite(s) combined], 30 percent contained 1 pesticide, and 40 percent contained more than 1 pesticide. Generally, fewer pesticides were found in processed products and grain than in fresh commodities. Low levels of environmental contaminants were detected in milk, lettuce, and spinach at concentrations generally well below levels that trigger regulatory actions. Of all the samples tested, 0.2 percent were reported as containing residues exceeding the tolerance and 5.2 percent as containing residues where no tolerance was listed in 40 CFR, Part 180.

In finished drinking water, PDP detected low levels (measured in parts per trillion) of some pesticides, primarily widely used herbicides. Fifty-one different residues were detected in the untreated intake water and 38 in the treated water. The majority of pesticides included in the PDP testing profiles were not detected. None of the detections in the finished water samples exceeded established EPA MCL or HA levels and there were no detections for any of the pesticides with established FAO criteria.

Appendix A

Commodity History

Appendix A identifies commodities sampled by the Pesticide Data Program through December 2005. Updates to this list are posted on the PDP Web site at http://www.ams.usda.gov/science/pdp.

COMMODITY HISTORY AS OF DECEMBER 2005

Fresh Commodities

Commodity	Start Date	End Date
Apples [1]	Sep-91	Dec-96
Apples (S-1)	Jan-99	Dec-99
Apples (S-2)	Jan-99	May-99
Apples	Oct-00	Sep-02
Apples	Jan-04	Dec-05
Apples (T-1)	Jan-03	Dec-03
Asparagus	Jan-02	Jun-03
Bananas	Sep-91	Sep-95
Bananas	Jan-01	Dec-02
Broccoli	Oct-92	Dec-94
Broccoli	Jan-01	Dec-02
Cantaloupe	Jul-98	Jun-00
Cantaloupe	Oct-03	Sep-05
Carrots [1]	Oct-92	Sep-96
Carrots	Oct-00	Sep-02
Cauliflower	Oct-04	Ongoing
Celery	Feb-92	Mar-94
Celery	Jan-01	Dec-02
Cherries [2]	May-00	Aug-01
Cucumbers	Jan-99	Dec-00
Cucumbers	Oct-02	Sep-04
Eggplant	Jan-05	Ongoing
Grapefruit	Aug-91	Dec-93
Grapefruit	Jan-05	Ongoing
Grapes [1]	May-91	Dec-96
Grapes	Jan-00	Dec-01
Grapes	Jan-04	Dec-05
Green Beans	Feb-92	Dec-95
Green Beans	Jan-00	Dec-01
Green Beans	Apr-04	Mar-05
Lettuce	May-91	Dec-94
Lettuce	Oct-99	Sep-01
Lettuce	Jan-04	Dec-05
Mushrooms	Oct-01	Sep-03
Nectarines [3]	Jul-00	Sep-01
Onions	Jan-02	Dec-03
Oranges [1]	Aug-91	Dec-96
Oranges	Jan-00	Dec-01

Commodity	Start Date	End Date
Oranges	Jan-04	Dec-05
Peaches	Feb-92	Sep-96
Peaches (S-3)	Jan-00	Sep-00
Peaches[4]	Jan-01	Sep-02
Peaches (T-1)	May-03	Sep-03
Pears	Jan-97	Jun-99
Pears (S-1)	Jul-98	Jun-99
Pears	Oct-03	Sep-05
Pineapples	Jul-00	Jun-02
Plums	Jan-05	Ongoing
Potatoes	May-91	Dec-95
Potatoes (S-4)	Dec-96	Dec-97
Potatoes	Jul-00	Jun-02
Spinach [1]	Jan-95	Sep-97
Spinach	Jul-02	Dec-03
Strawberries[5]	Jan-98	Sep-00
Strawberries	Jan-04	Dec-05
Sweet Bell Peppers	Jan-99	Dec-00
Sweet Bell Peppers	Oct-02	Sep-04
Sweet Potatoes [1]	Jan-96	Jun-98
Sweet Potatoes	Jan-03	Dec-04
Tomatoes [1]	Jul-96	Jun-99
Tomatoes	Jan-03	Dec-04
Watermelon [6]	Oct-05	Ongoing
Winter Squash [5]	Jan-97	Jun-99
Winter Squash	Jul-04	Ongoing

NOTES

[1] Excludes sampling hiatus September - November 1996.

[2] Sampling adjusted for market availability. Cherries were sampled for two years (May-00 - Aug-01) for a total of six months.

[3] Sampling adjusted for market availability. Nectarines were sampled for two years (Jul-00 - Sep-01) for a total of six months.

[4] Sampling adjusted for market availability. Peaches were sampled for two years (Jan-01 - Sep-02) for a total of sixteen months.

[5] Frozen collected when fresh unavailable.

[6] Samples collected in California, Florida, New York, Maryland and Texas only.

(S-1) Special single serving project testing for organophosphates.

(S-2) Special single serving project testing for carbamates.

(S-3) Special single serving project testing for carbamate, organochlorine, organophosphate, organonitrogen, and sulfur compounds.

(S-4) Special single serving project testing for aldicarb.

(T-1) Triazole parent and metabolite compounds only.

Processed Commodities

Commodity	Start Date	End Date
Apple Juice [1]	Jul-96	Dec-98
Apple Juice	Jan-02	Dec-02
Apple Sauce	Jul-02	Dec-02
Asparagus, Canned	Jul-03	Dec-03
Corn Syrup [2]	Jan-98	Jun-99
Grape Juice	Jan-98	Dec-99
Green Beans, Canned/Frozen [1]	Jan-96	Jun-98
Green Beans, Canned	Jan-03	Mar-04
Green Beans, Frozen	Apr-05	Dec-05
Orange Juice	Jan-97	Dec-98
Orange Juice	Oct-04	Ongoing
Peaches, Canned	Dec-96	Dec-97
Peaches, Canned	Jan-03	Dec-04
Peaches, Canned (T-1)	Jan-03	Mar-03
Peaches, Canned (T-1)	Oct-03	Dec-03
Peanut Butter	Jan-00	Dec-00
Pear Juice, Concentrate/Puree	Jul-02	Jun-03
Pears, Canned	Jul-99	Jun-00
Peas, Canned/Frozen	Apr-94	Jun-96
Peas, Canned/Frozen[3]	Oct-01	Sep-03
Spinach, Canned	Oct-97	Dec-98
Spinach, Frozen	Jan-99	Dec-99
Spinach, Canned	Jan-04	Jun-04
Strawberries, Frozen [4]	Jan-98	Sep-00
Sweet Corn, Canned/Frozen	Apr-94	Mar-96
Sweet Corn, Canned/Frozen [3]	Oct-01	Sep-03
Tomato Paste, Canned	Jan-01	Jun-01
Tomatoes, Canned	Jul-99	Jun-00
Winter Squash, Frozen [4]	Jan-97	Jun-99

NOTES

[1] Excludes sampling hiatus September - November 1996.

[2] Excludes sampling hiatus January 1999.

[3] Canned samples collected in first year and frozen samples in second year of testing.

[4] Frozen collected when fresh unavailable.

(T-1) Triazole parent and metabolite compounds only.

Grains

Commodity	Start Date	End Date
Barley	Oct-01	Sep-03
Oats	Jul-99	Apr-00
Rice	Oct-00	Sep-02
Soybeans	Sep-96	Feb-98
Soybeans[1]	Oct-03	Dec-05
Wheat	Feb-95	Jan-98
Wheat	Sep-04	Ongoing
Wheat Flour	Jan-03	Dec-04
Wheat Flour (T-1)	Jan-03	Dec-03

Dairy

Commodity	Start Date	End Date
Butter	Jan-03	Dec-03
Heavy Cream	Jul-05	Dec-05
Milk [2]	Jan-96	Oct-98
Milk (TSP)	Jul-03	Dec-03
Milk	Jan-04	Dec-05

Drinking Water

States	Start Date	End Date
California, New York	Mar-01	Dec-03
Colorado, Kansas, Texas	May-02	Dec-03
Oregon, Pennsylvania	Jan-04	Dec-04
Michigan, North Carolina, Ohio, Washington	Jan-04	Ongoing
Bottled Water - Ten Participating States	Jan-05	Ongoing

Meat / Poultry Products

Commodity	Type	Start Date	End Date
Poultry	Young Chickens	Apr-00	Mar-01
Beef	Cows, Heifers, Steers	Jun-01	Jul-02
Pork	Gilt, Barrow	Jan-05	Jun-05

NOTES

[1] Soybeans collection from October - December 2005 includes only grain slated for export (special soybean project).

[2] Excludes sampling hiatus September - November 1996.

(T-1) Triazole parent and metabolite compounds only.

(TSP) Triazole Sampling Project. Samples sent to contract laboratory.

Appendix B

Distribution of Residues by Pesticide in Fruit and Vegetables

Appendix B shows residue detections for all fruit and vegetable pesticide/commodity pairs tested, including range of values detected, range of Limits of Detection (LODs), Environmental Protection Agency (EPA) tolerances, and Codex Maximum Residue Limit/Extraneous Maximum Residue Limit (MRL/EMRL) references for each pair.

In 2004, 10,366 fruit and vegetable samples were analyzed, of which 8,881 were fresh product and 1,485 were processed product.

PDP reports tolerance violations to the Food and Drug Administration (FDA) as part of an interagency Memorandum of Understanding between the U.S. Department of Agriculture and FDA. Residues reported to FDA are shown in the "Pesticide/Commodity" column to the right of the commodity and are annotated as "X" (if the residue exceeded the established tolerance) or "V" [if the residue did not have a tolerance listed in the Code of Federal Regulations (CFR), Title 40, Part 180]. In both cases, these annotations are followed by a number indicating the number of samples reported to FDA.

Data to establish Codex MRLs are evaluated by the Food and Agriculture/World Health Organization-sponsored Joint Meeting on Pesticide Residues (JMPR) based on toxicology, residue occurrence in crops determined by supervised field trials, and dietary exposure. The Codex Committee on Pesticide Residues (CCPR) meets annually to discuss proposed MRLs and recommends approval to the Codex Alimentarius Commission. This means that Codex MRLs represent levels that are considered safe to humans. MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: *Proc. of Codex Committee on Pesticide Residues*, 37th Session, April 18-23, 2005, The Hague, The Netherlands. Only Codex MRLs (CXLs) are listed.

The information herein is only intended to be an initial reference. Readers are reminded that international regulations and MRLs may change and that it is important that information obtained from this table be verified with knowledgeable parties in the market of interest prior to sale or shipment of exports.

APPENDIX B. DISTRIBUTION OF RESIDUES BY PESTICIDE IN FRUIT AND VEGETABLES

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Acephate (insecticide)							
Apples	744	0			0.002 - 0.003	0.02	-
Cantaloupe	742	1	0.1	0.008 ^	0.002 - 0.005	0.02	-
Cucumbers (X-2)	557	9	1.6	0.003 - 0.052	0.002 ^	0.02	-
Grapes	738	0			0.002 - 0.005	0.02	-
Grean Beans, Canned	185	26	14.1	0.003 - 0.16	0.002 - 0.005	3	-
Green Beans	548	161	29.4	0.003 - 2.0	0.002 - 0.005	3	-
Lettuce	743	60	8.1	0.003 - 0.11	0.002 - 0.003	10	5
Orange Juice	186	0			0.002 ^	0.02	-
Oranges	742	0			0.002 ^	0.02	-
Pears	741	0			0.002 - 0.075	0.02	-
Spinach, Canned	371	0			0.005 ^	0.02	-
Strawberries	731	5	0.7	0.002 - 0.005	0.001 - 0.002	0.02	-
Sweet Bell Peppers	558	131	23.5	0.005 - 1.8	0.003 ^	4.0	-
Winter Squash (X-1)	364	2	0.5	0.027 - 0.22	0.002 - 0.005	0.02	-
TOTAL	**7,950**	**395**					
Acetamiprid (insecticide)							
Apples	52	52	100	0.001 - 0.10	0.0006 ^	1.0	-
Cauliflower	185	0			0.0006 ^	1.20	-
Lettuce	175	27	15.4	0.001 - 0.20	0.0006 ^	0.20	-
TOTAL	**412**	**79**					
Acibenzolar S methyl (plant activator)							
Apples	176	0			0.007 ^	NT	-
Cauliflower	185	0			0.007 ^	1.0	-
Lettuce	175	0			0.007 ^	0.25	-
Tomatoes	744	0			0.018 ^	1.0	-
TOTAL	**1,280**	**0**					
Alachlor (herbicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,160**	**0**					
Aldicarb (insecticide)							
Apples	528	0			0.0003 ^	NT	-
Cantaloupe	527	0			0.020 ^	NT	-
Cauliflower	185	0			0.0003 ^	NT	-
Cucumbers	395	0			0.010 - 0.018	NT	-
Grapes	526	0			0.010 ^	NT	0.2
Grean Beans, Canned	131	0			0.020 ^	NT	-
Green Beans	387	0			0.020 ^	NT	-
Lettuce	527	0			0.0003 ^	NT	-
Orange Juice	186	0			0.010 - 0.012	0.3	0.2
Oranges	742	0			0.010 - 0.012	0.3	0.2
Pears	525	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.020 ^	NT	-
Sweet Bell Peppers	558	0			0.0003 ^	NT	-
Sweet Potatoes	739	0			0.007 - 0.010	0.1	0.1
Winter Squash	262	0			0.020 ^	NT	-
TOTAL	**6,589**	**0**					
Aldicarb sulfone (metabolite of Aldicarb)							
Apples	484	0			0.0009 ^	NT	-
Cantaloupe	527	0			0.038 ^	NT	-
Cauliflower	169	0			0.003 ^	NT	-
Cucumbers	395	0			0.010 - 0.021	NT	-
Grean Beans, Canned	131	0			0.020 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Green Beans	387	0			0.020 ^	NT	-
Lettuce	512	0			0.0009 ^	NT	-
Orange Juice	186	0			0.010 - 0.021	0.3	0.2
Oranges	742	0			0.010 - 0.050	0.3	0.2
Spinach, Canned	371	0			0.038 ^	NT	-
Sweet Bell Peppers	558	0			0.0009 ^	NT	-
Sweet Potatoes	739	7	0.9	0.003 - 0.060	0.002 - 0.009	0.1	0.1
Winter Squash	262	0			0.038 ^	NT	-
TOTAL	**5,463**	**7**					
Aldicarb sulfoxide (metabolite of Aldicarb)							
Apples	528	0			0.0003 ^	NT	-
Cantaloupe	527	0			0.038 ^	NT	-
Cauliflower	185	0			0.001 ^	NT	-
Cucumbers	395	0			0.010 - 0.026	NT	-
Grapes	526	0			0.010 ^	NT	0.2
Grean Beans, Canned	131	0			0.020 ^	NT	-
Green Beans	387	0			0.020 ^	NT	-
Lettuce	438	0			0.0003 ^	NT	-
Orange Juice	186	0			0.010 - 0.027	0.3	0.2
Oranges	742	0			0.010 - 0.027	0.3	0.2
Pears	525	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.038 ^	NT	-
Sweet Bell Peppers	510	0			0.0003 ^	NT	-
Sweet Potatoes	739	8	1.1	0.003 - 0.077	0.002 - 0.005	0.1	0.1
Winter Squash	262	0			0.038 ^	NT	-
TOTAL	**6,452**	**8**					
Aldrin (insecticide) (parent of Dieldrin)							
Apples	744	0			0.007 - 0.024	0.03 AL	0.05
Cantaloupe	215	0			0.008 ^	0.1 AL	0.1
Cauliflower	185	0			0.024 ^	0.03 AL	-
Grapes	526	0			0.002 ^	0.05 AL	-
Grean Beans, Canned	185	0			0.002 - 0.008	0.05 AL	0.05
Green Beans	547	0			0.002 - 0.008	0.05 AL	0.05
Lettuce	743	0			0.007 - 0.024	0.03 AL	0.05
Orange Juice	186	0			0.008 ^	0.02 AL	0.05
Oranges	742	0			0.008 ^	0.02 AL	0.05
Peaches, Canned	743	0			0.006 ^	0.02 AL	-
Pears	741	0			0.002 - 0.008	0.03 AL	0.05
Sweet Bell Peppers	558	0			0.007 ^	0.05 AL	-
Sweet Potatoes	743	0			0.003 - 0.008	0.1 AL	0.1
Tomatoes	744	0			0.006 ^	0.05 AL	-
Winter Squash	102	0			0.008 ^	0.1 AL	0.1
TOTAL	**7,704**	**0**					
Allethrin (insecticide)							
Apples	216	0			0.010 ^	Ex	-
Cantaloupe	742	0			0.010 - 0.016	4	-
Grapes	738	0			0.010 - 0.015	4	-
Orange Juice	186	0			0.010 ^	Ex	-
Oranges	742	0			0.010 ^	Ex	-
Peaches, Canned	743	0			0.031 ^	Ex	-
Pears	719	8	1.1	0.015 - 0.035	0.010 - 0.030	Ex	-
Spinach, Canned	371	0			0.016 ^	Ex	-
Tomatoes	744	1	0.1	0.052 ^	0.031 ^	Ex	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**5,463**	**9**					
Ametryn (herbicide)							
Cucumbers	395	0			0.010 - 0.011	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
TOTAL	**1,054**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Anilazine (fungicide)							
Grean Beans, Canned	131	0			0.023 ^	NT	-
Green Beans	387	0			0.023 ^	NT	-
TOTAL	**518**	**0**					
Atrazine (herbicide)							
Apples	528	0			0.002 - 0.006	NT	-
Cantaloupe	527	0			0.024 ^	NT	-
Cauliflower	185	0			0.006 ^	NT	-
Cucumbers	395	0			0.010 - 0.011	NT	-
Grapes	526	0			0.008 ^	NT	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans	387	0			0.015 ^	NT	-
Lettuce (V-4)	527	4	0.8	0.003 - 0.011	0.002 ^	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Spinach, Canned	371	0			0.024 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.024 ^	NT	-
TOTAL	**5,581**	**4**					
Azinphos methyl (insecticide)							
Apples	744	303	40.7	0.013 - 0.32	0.008 - 0.012	1.5	2
Cantaloupe	742	0			0.008 - 0.012	2.0	0.2
Cucumbers	557	0			0.008 ^	2.0	0.2
Grapes	526	3	0.6	0.018 - 0.052	0.011 ^	4.0	1
Grean Beans, Canned	185	0			0.005 - 0.008	2.0	0.5
Green Beans	548	0			0.005 - 0.008	2.0	0.5
Lettuce	527	0			0.012 ^	NT	0.5
Orange Juice	186	0			0.008 ^	2.0	1
Oranges	742	0			0.008 ^	2.0	1
Peaches, Canned	743	0			0.023 ^	2.0	2
Pears	719	252	35.0	0.013 - 0.42	0.008 - 0.011	1.5	2
Spinach, Canned	371	0			0.012 ^	2.0	0.5
Strawberries	211	0			0.008 ^	2.0	1
Sweet Bell Peppers	558	0			0.012 ^	0.3	1
Tomatoes	744	0			0.023 ^	2.0	1
Winter Squash	262	0			0.012 ^	NT	0.5
TOTAL	**8,365**	**558**					
Azoxystrobin (fungicide)							
Apples	147	0			0.002 ^	NT	-
Cauliflower	169	0			0.002 ^	3.0	-
Grapes	526	16	3	0.002 - 0.19	0.002 ^	1.0	-
Lettuce	116	1	0.9	0.032 ^	0.002 ^	30.0	-
Orange Juice	132	0			0.010 ^	1.0	-
Oranges	527	0			0.010 ^	1.0	-
Pears	525	0			0.002 ^	NT	-
TOTAL	**2,142**	**17**					
Bendiocarb (insecticide)							
Apples	744	0			0.002 - 0.040	SU	-
Cantaloupe	215	0			0.002 ^	SU	-
Cauliflower	185	0			0.040 ^	SU	-
Grapes	738	0			0.002 - 0.005	SU	-
Lettuce	743	0			0.002 - 0.040	SU	-
Orange Juice	186	0			0.002 - 0.010	SU	-
Oranges	742	0			0.002 - 0.010	SU	-
Pears	741	0			0.002 - 0.005	SU	-
Strawberries	729	0			0.001 - 0.002	SU	-
Winter Squash	102	0			0.002 ^	SU	-
TOTAL	**5,125**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Benfluralin (herbicide)							
Lettuce	162	0			0.020 ^	0.05	-
TOTAL	**162**	**0**					
BHC alpha (insecticide)							
Apples	744	0			0.002 - 0.007	0.05 AL	-
Cantaloupe	742	0			0.002 - 0.004	0.05 AL	-
Cauliflower	185	0			0.007 ^	0.05 AL	-
Grapes	526	0			0.002 ^	0.05 AL	-
Grean Beans, Canned	131	0			0.001 ^	0.05 AL	-
Green Beans	387	0			0.0008 - 0.001	0.05 AL	-
Lettuce	743	0			0.002 - 0.007	0.05 AL	-
Orange Juice	186	0			0.002 ^	0.05 AL	-
Oranges	742	0			0.002 ^	0.05 AL	-
Peaches, Canned	743	0			0.003 ^	0.05 AL	-
Pears	741	0			0.002 ^	0.05 AL	-
Spinach, Canned	371	0			0.004 ^	0.05 AL	-
Strawberries	211	0			0.002 ^	0.05 AL	-
Sweet Bell Peppers	558	0			0.007 ^	0.05 AL	-
Sweet Potatoes	505	0			0.002 ^	0.05 AL	-
Tomatoes	744	0			0.003 ^	0.05 AL	-
Winter Squash	364	0			0.002 - 0.004	0.5 AL	-
TOTAL	**8,623**	**0**					
BHC beta (isomer of BHC alpha)							
Grean Beans, Canned	131	0			0.001 ^	0.05 AL	-
Green Beans	387	0			0.0008 - 0.001	0.05 AL	-
Peaches, Canned	743	0			0.003 ^	0.05 AL	-
Sweet Potatoes	527	0			0.002 ^	0.05 AL	-
Tomatoes	744	0			0.003 ^	0.05 AL	-
TOTAL	**2,532**	**0**					
Bifenazate (acaricide)							
Apples	216	1	0.5	0.033 ^	0.020 ^	0.75	-
Cantaloupe	87	0			0.013 ^	0.75	-
Grapes	212	3	1.4	0.033 ^	0.020 ^	0.75	-
Pears	216	3	1.4	0.033 ^	0.020 ^	0.75	-
Strawberries	211	14	6.6	0.033 - 0.40	0.020 ^	1.5	-
Winter Squash	232	0			0.013 - 0.020	0.75	-
TOTAL	**1,174**	**21**					
Bifenthrin (insecticide)							
Apples	546	0			0.003 - 0.010	0.05	-
Cantaloupe	742	0			0.010 - 0.016	0.4	-
Cauliflower	185	0			0.003 ^	0.6	-
Cucumbers	557	2	0.4	0.017 ^	0.010 - 0.011	0.4	-
Grapes	738	0			0.010 - 0.011	0.2	-
Grean Beans, Canned	185	9	4.9	0.013 - 0.017	0.008 - 0.010	0.6	-
Green Beans	548	20	3.6	0.012 - 0.12	0.008 - 0.010	0.6	-
Lettuce	743	0			0.003 - 0.010	3.0	-
Orange Juice	186	0			0.010 ^	0.05	0.05
Oranges	742	0			0.010 ^	0.05	0.05
Pears	741	0			0.010 - 0.011	0.5	0.5
Spinach, Canned	371	0			0.016 ^	0.2	-
Strawberries	731	50	6.8	0.017 - 0.30	0.010 - 0.040	3.00	1
Sweet Bell Peppers	558	74	13.3	0.005 - 0.096	0.003 ^	0.5	-
Sweet Potatoes	743	1	0.1	0.017 ^	0.010 - 0.016	0.05	-
Winter Squash	364	8	2.2	0.017 ^	0.010 - 0.016	0.4	-
TOTAL	**8,680**	**164**					
Boscalid (fungicide)							
Cantaloupe	87	0			0.039 ^	1.6	-
Cauliflower	169	0			0.006 ^	3.0	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lettuce	131	1	0.8	0.038 ^	0.006 ^	11.0	-
Winter Squash	130	0			0.039 ^	1.6	-
TOTAL	**517**	**1**					
Bromacil (herbicide)							
Cucumbers	395	0			0.015 ^	NT	-
Orange Juice	186	0			0.010 - 0.015	0.1	-
Oranges	742	0			0.010 - 0.015	0.1	-
TOTAL	**1,323**	**0**					
Buprofezin (insecticide)							
Cantaloupe	215	0			0.015 ^	0.50	-
Cucumbers	557	0			0.009 - 0.015	0.50	1
Grapes	738	3	0.4	0.015 - 0.031	0.015 ^	0.40	-
Lettuce	216	0			0.015 ^	13.0	-
Orange Juice	186	0			0.015 ^	2.0	0.5
Oranges	742	0			0.015 ^	2.0	0.5
Pears	525	0			0.015 ^	NT	-
Winter Squash	102	0			0.015 ^	0.50	-
TOTAL	**3,281**	**3**					
Butylate (herbicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,160**	**0**					
Captafol (fungicide) (parent of THPI)							
Cantaloupe	527	0			0.017 ^	NT	-
Grapes	526	0			0.015 ^	NT	-
Grean Beans, Canned	131	0			0.030 ^	NT	-
Green Beans	387	0			0.030 ^	NT	-
Pears	525	0			0.015 - 0.25	NT	-
Spinach, Canned	371	0			0.017 ^	NT	-
Tomatoes	744	0			0.040 ^	15	-
Winter Squash	262	0			0.017 ^	NT	-
TOTAL	**3,473**	**0**					
Captan (fungicide) (parent of THPI)							
Apples	392	42	10.7	0.020 - 1.3	0.012 - 0.019	25	25
Cantaloupe	563	0			0.012 ^	25	-
Cucumbers	485	0			0.012 ^	25	-
Grapes	720	142	19.7	0.012 - 1.2	0.008 - 0.025	50	-
Grean Beans, Canned	185	0			0.005 - 0.012	25	-
Green Beans	406	7	1.7	0.008 - 0.21	0.005 - 0.012	25	-
Lettuce	374	1	0.3	0.032 ^	0.012 - 0.019	100	-
Orange Juice	132	0			0.012 ^	NT	-
Oranges	527	0			0.012 ^	NT	-
Peaches, Canned	743	0			0.012 ^	50	15
Pears	741	65	8.8	0.012 - 1.2	0.008 - 0.025	25	25
Spinach, Canned	371	0			0.012 ^	100	-
Strawberries	731	504	68.9	0.020 - 16	0.012 - 0.019	25	20
Sweet Bell Peppers	248	30	12.1	0.032 - 0.86	0.019 ^	25	-
Tomatoes	744	0			0.012 ^	25	15
Winter Squash	298	0			0.012 ^	25	-
TOTAL	**7,660**	**791**					
Carbaryl (insecticide)							
Apples	744	66	8.9	0.0005 - 0.49	0.0003 - 0.002	10.0	5
Cantaloupe	742	26	3.5	0.003 - 0.61	0.002 - 0.008	10	-
Cauliflower	185	0			0.0003 ^	10	-
Cucumbers	557	14	2.5	0.003 - 0.043	0.002 - 0.010	10	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grapes	738	35	4.7	0.003 - 0.58	0.002 - 0.010	10	5
Grean Beans, Canned	185	0			0.002 - 0.010	10	-
Green Beans	548	4	0.7	0.010 - 0.24	0.002 - 0.010	10	-
Lettuce	743	3	0.4	0.003 - 0.005	0.001 - 0.002	10	-
Orange Juice	186	21	11.3	0.003 - 0.010	0.002 - 0.010	10	7
Oranges	742	14	1.9	0.003 - 0.059	0.002 - 0.010	10	7
Peaches, Canned	743	96	12.9	0.017 - 0.24	0.010 ^	10	10
Pears	741	41	5.5	0.003 - 0.46	0.002 - 0.010	10.0	5
Spinach, Canned	371	0			0.008 ^	12	-
Strawberries	729	36	4.9	0.003 - 1.1	0.002 ^	10	-
Sweet Bell Peppers	558	40	7.2	0.001 - 0.81	0.001 ^	10	5
Sweet Potatoes	653	0			0.002 ^	0.2	0.02
Tomatoes	744	0			0.010 ^	10	5
Winter Squash	364	0			0.002 - 0.008	10	-
TOTAL	**10,273**	**396**					
Carbendazim - MBC (fungicide)							
Apples	528	107	20.3	0.0002 - 0.21	0.0001 ^	7.0	3
Cauliflower	185	0			0.0001 ^	0.2	-
Lettuce (V-7)	527	7	1.3	0.0002 - 0.0003	0.0001 ^	NT	-
Pears	66	0			0.010 ^	7.0	3
Sweet Bell Peppers	558	156	28.0	0.0002 - 0.24	0.0001 ^	0.2	-
Sweet Potatoes	523	0			0.004 ^	0.2	-
TOTAL	**2,387**	**270**					
Carbofuran (insecticide) (parent of 3-Hydroxycarbofuran)							
Apples	528	0			0.0003 ^	NT	-
Cantaloupe	742	2	0.3	0.003 - 0.014	0.002 - 0.008	0.2	-
Cauliflower	185	0			0.0003 ^	NT	-
Cucumbers	557	4	0.7	0.003 - 0.061	0.002 - 0.018	0.2	-
Grapes	562	0			0.002 - 0.013	0.2	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans (V-1)	388	1	0.3	0.003 ^	0.002 - 0.015	NT	-
Lettuce	527	0			0.0003 ^	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Pears	525	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.008 ^	NT	-
Strawberries	729	0			0.001 - 0.002	0.2	-
Sweet Bell Peppers	558	7	1.3	0.0005 - 0.024	0.0003 ^	0.2	-
Winter Squash	364	0			0.002 - 0.008	0.6	-
TOTAL	**6,826**	**14**					
Carbophenothion (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
TOTAL	**1,798**	**0**					
Carboxin (fungicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Grean Beans, Canned	54	0			0.008 ^	0.2	-
Green Beans	161	0			0.008 ^	0.2	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,375**	**0**					
Carfentrazone ethyl (herbicide)							
Grapes	526	0			0.008 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Tomatoes	744	0			0.036 ^	0.10	-
TOTAL	**1,795**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Chlordane cis (insecticide) (isomer of Chlordane)							
Apples	744	0			0.0007 - 0.002	0.1 AL	0.02
Cantaloupe	742	0			0.002 - 0.004	0.1 AL	0.02
Cauliflower	185	0			0.0007 ^	0.1 AL	0.02
Grapes	526	0			0.002 ^	0.1 AL	0.02
Grean Beans, Canned	185	0			0.001 - 0.002	0.1 AL	0.02
Green Beans	548	0			0.0008 - 0.002	0.1 AL	0.02
Lettuce	743	1	0.1	0.001 ^	0.0007 - 0.002	0.1 AL	0.02
Orange Juice	186	0			0.002 - 0.012	0.1 AL	0.02
Oranges	742	0			0.002 - 0.012	0.1 AL	0.02
Peaches, Canned	743	0			0.003 ^	0.1 AL	0.02
Pears	741	0			0.002 ^	0.1 AL	0.02
Spinach, Canned	371	0			0.004 ^	0.1 AL	0.02
Strawberries	211	0			0.002 ^	0.1 AL	0.02
Sweet Bell Peppers	558	0			0.0007 ^	0.1 AL	0.02
Sweet Potatoes	743	0			0.002 - 0.019	0.1 AL	0.02
Tomatoes	744	0			0.003 ^	0.1 AL	0.02
Winter Squash	364	13	3.6	0.003 - 0.024	0.002 - 0.004	0.1 AL	0.02
TOTAL	**9,076**	**14**					
Chlordane trans (insecticide) (isomer of Chlordane)							
Apples	744	0			0.0007 - 0.002	0.1 AL	0.02
Cantaloupe	742	0			0.002 - 0.004	0.1 AL	0.02
Cauliflower	185	0			0.0007 ^	0.1 AL	0.02
Grapes	526	0			0.002 ^	0.1 AL	0.02
Grean Beans, Canned	185	0			0.001 - 0.002	0.1 AL	0.02
Green Beans	548	0			0.0008 - 0.002	0.1 AL	0.02
Lettuce	743	1	0.1	0.001 ^	0.0007 - 0.002	0.1 AL	0.02
Orange Juice	186	0			0.002 - 0.012	0.1 AL	0.02
Oranges	742	0			0.002 - 0.012	0.1 AL	0.02
Peaches, Canned	743	0			0.003 ^	0.1 AL	0.02
Pears	741	0			0.002 ^	0.1 AL	0.02
Spinach, Canned	371	0			0.004 ^	0.1 AL	0.02
Strawberries	211	0			0.002 ^	0.1 AL	0.02
Sweet Bell Peppers	558	0			0.0007 ^	0.1 AL	0.02
Sweet Potatoes	743	0			0.002 - 0.020	0.1 AL	0.02
Tomatoes	744	0			0.003 ^	0.1 AL	0.02
Winter Squash	364	9	2.5	0.003 - 0.020	0.002 - 0.004	0.1 AL	0.02
TOTAL	**9,076**	**10**					
Chlorethoxyfos (insecticide)							
Cantaloupe	527	0			0.016 ^	NT	-
Oranges	286	0			0.003 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,446**	**0**					
Chlorfenvinphos total (insecticide)							
Apples	528	0			0.004 ^	NT	-
Cauliflower	185	0			0.004 ^	NT	-
Lettuce	527	0			0.004 ^	NT	-
Sweet Bell Peppers	558	0			0.004 ^	NT	-
TOTAL	**1,798**	**0**					
Chlorothalonil (fungicide)							
Cantaloupe	302	0			0.005 - 0.007	5	2
Cucumbers	557	26	4.7	0.008 - 0.090	0.005 - 0.008	5	5
Grapes	526	0			0.002 - 0.008	NT	0.5
Grean Beans, Canned	185	0			0.002 - 0.005	5	5
Green Beans	548	158	28.8	0.003 - 0.46	0.002 - 0.005	5	5

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lettuce (V-1)	1	1	100	0.008 ^	0.005 ^	NT	-
Orange Juice	132	0			0.008 ^	NT	-
Oranges	527	0			0.008 ^	NT	-
Peaches, Canned	743	0			0.008 ^	0.5	0.2
Pears	525	0			0.002 ^	NT	-
Strawberries	69	0			0.005 ^	NT	-
Tomatoes	744	47	6.3	0.013 - 0.25	0.008 ^	5	5
Winter Squash	244	32	13.1	0.008 - 0.42	0.005 - 0.007	5	5
TOTAL	**5,103**	**264**					
Chlorpropham (herbicide, growth regulator)							
Apples (V-1)	528	1	0.2	0.010 ^	0.006 ^	NT	-
Cantaloupe	527	0			0.017 ^	NT	-
Cauliflower	185	0			0.006 ^	NT	-
Cucumbers (V-2)	396	2	0.5	0.017 ^	0.010 - 0.011	NT	-
Grapes	526	0			0.011 ^	NT	-
Grean Beans, Canned	131	0			0.023 ^	NT	-
Green Beans	387	0			0.023 ^	NT	-
Lettuce	527	0			0.006 ^	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Pears (V-1)	525	1	0.2	0.018 ^	0.011 ^	NT	-
Spinach, Canned	371	0			0.017 ^	0.3	-
Sweet Bell Peppers (V-9)	558	9	1.6	0.010 ^	0.006 ^	NT	-
Sweet Potatoes (V-2)	2	2	100	0.017 ^	0.010 ^	NT	-
Winter Squash	262	0			0.017 ^	NT	-
TOTAL	**5,584**	**15**					
Chlorpyrifos (insecticide)							
Apples	744	9	1.2	0.002 - 0.016	0.001 - 0.004	1.5	1
Cantaloupe	742	6	0.8	0.007 ^	0.004 ^	0.1	-
Cauliflower	185	0			0.001 ^	1.0	0.05
Cucumbers (X-1)	557	14	2.5	0.007 - 0.12	0.004 ^	0.05	-
Grapes	738	88	11.9	0.006 - 0.32	0.004 ^	0.5	0.5
Grean Beans, Canned	185	0			0.004 - 0.005	0.05	0.01
Green Beans	548	1	0.2	0.007 ^	0.004 - 0.005	0.05	0.01
Lettuce	743	23	3.1	0.002 - 0.026	0.001 - 0.004	0.1	-
Orange Juice	186	0			0.004 ^	1.0	1
Oranges	742	6	0.8	0.007 ^	0.004 ^	1.0	1
Peaches, Canned	743	0			0.010 ^	0.05	0.5
Pears	741	16	2.2	0.006 - 0.041	0.004 ^	0.05	1
Spinach, Canned	371	3	0.8	0.007 ^	0.004 ^	0.1	-
Strawberries	731	30	4.1	0.001 - 0.040	0.0008 - 0.004	0.2	0.3
Sweet Bell Peppers	558	98	17.6	0.002 - 0.47	0.001 ^	1.0	2
Sweet Potatoes	743	51	6.9	0.002 - 0.035	0.001 - 0.004	0.05	-
Tomatoes	744	20	2.7	0.017 - 0.17	0.010 ^	0.5	0.5
Winter Squash	364	2	0.5	0.007 - 0.018	0.004 ^	0.1	-
TOTAL	**10,365**	**367**					
Chlorpyrifos methyl (insecticide)							
Grapes	109	0			0.005 ^	NT	0.2
Green Beans	301	0			0.004 ^	NT	0.1
Pears	86	0			0.005 ^	NT	-
TOTAL	**496**	**0**					
Clofentezine (insecticide)							
Apples	216	0			0.007 ^	0.5	0.5
Pears	216	2	0.9	0.011 ^	0.007 ^	0.5	0.5
TOTAL	**432**	**2**					
Clomazone (herbicide)							
Apples	483	0			0.002 - 0.005	NT	-
Cantaloupe	742	0			0.004 - 0.040	0.05	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	557	0			0.008 - 0.009	0.1	-
Grapes	526	0			0.015 ^	NT	-
Grean Beans, Canned	185	0			0.005 - 0.008	0.05	-
Green Beans	548	0			0.005 - 0.008	0.05	-
Lettuce	512	0			0.002 - 0.005	NT	-
Orange Juice	132	0			0.008 ^	NT	-
Oranges	527	0			0.008 ^	NT	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.004 - 0.040	NT	-
Sweet Bell Peppers	542	0			0.005 ^	0.05	-
Sweet Potatoes	743	0			0.008 - 0.023	0.05	-
Winter Squash	364	0			0.008 - 0.040	0.1	-
TOTAL	**6,942**	**0**					
Coumaphos (insecticide)							
Apples	528	0			0.006 ^	NT	-
Lettuce	527	0			0.006 ^	NT	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
TOTAL	**1,613**	**0**					
Coumaphos oxygen analog (metabolite of Coumaphos)							
Apples	528	0			0.008 ^	NT	-
Lettuce	527	0			0.008 ^	NT	-
Sweet Bell Peppers	558	0			0.008 ^	NT	-
TOTAL	**1,613**	**0**					
Cycloate (herbicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Spinach, Canned	371	0			0.016 ^	0.05	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,160**	**0**					
Cyfluthrin (insecticide)							
Apples	744	0			0.030 - 0.14	0.05	0.5
Cantaloupe	742	0			0.030 ^	0.05	-
Cauliflower	185	0			0.14 ^	2.5	-
Cucumbers	395	0			0.060 ^	0.05	-
Grapes	738	0			0.023 - 0.030	0.05	-
Grean Beans, Canned	131	0			0.045 ^	0.05	-
Green Beans	387	0			0.045 ^	0.05	-
Lettuce	743	9	1.2	0.050 - 2.8	0.030 - 0.14	3.0	-
Orange Juice	186	0			0.030 - 0.060	0.2	-
Oranges	742	0			0.030 - 0.060	0.2	-
Pears	741	0			0.023 - 0.030	0.05	-
Spinach, Canned	371	0			0.030 ^	0.05	-
Strawberries	731	0			0.024 - 0.030	0.05	-
Sweet Bell Peppers	558	1	0.2	0.068 ^	0.041 - 0.57	0.50	0.2
Tomatoes	744	0			0.079 ^	0.20	0.5
Winter Squash	364	0			0.030 ^	0.05	-
TOTAL	**8,502**	**10**					
Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer) (insecticide) **							
Apples	528	10	1.9	0.010 - 0.033	0.006 - 0.020	0.30	0.2
Cantaloupe	527	0			0.016 ^	0.01	-
Cauliflower	185	0			0.020 ^	0.4	-
Grapes	482	0			0.015 ^	0.01	-
Lettuce	527	37	7.0	0.010 - 0.40	0.006 ^	2.0	-
Orange Juice	132	0			0.060 ^	0.01	-
Oranges	175	0			0.060 ^	0.01	-
Pears	327	0			0.015 ^	0.30	0.2
Spinach, Canned	371	0			0.016 ^	0.01	-
Strawberries (X-2)	520	2	0.4	0.031 - 0.037	0.008 ^	0.01	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Bell Peppers	558	13	2.3	0.010 - 0.038	0.006 ^	0.20	-
Winter Squash	262	0			0.016 ^	0.01	-
TOTAL	**4,594**	**62**					
Cyhalothrin, Lambda (includes gamma isomer) (insecticide)							
Apples	216	0			0.010 ^	0.30	0.2
Cantaloupe	215	0			0.010 ^	0.01	-
Cucumbers	263	0			0.060 ^	0.01	-
Grapes	256	0			0.010 - 0.015	0.01	-
Grean Beans, Canned	185	0			0.010 - 0.030	0.20	-
Green Beans	548	1	0.2	0.017 ^	0.010 - 0.030	0.20	-
Lettuce	216	13	6.0	0.017 - 1.0	0.010 ^	2.0	-
Orange Juice	54	0			0.010 ^	0.01	-
Oranges	567	0			0.010 - 0.060	0.01	-
Pears	414	0			0.010 - 0.015	0.30	0.2
Strawberries (X-2)	211	3	1.4	0.017 - 0.060	0.010 ^	0.01	-
Sweet Potatoes	216	0			0.010 ^	0.01	-
Tomatoes	744	0			0.047 ^	0.10	-
Winter Squash	102	0			0.010 ^	0.01	-
TOTAL	**4,207**	**17**					
Cypermethrin (insecticide)							
Apples	744	0			0.030 - 0.17	NT	2
Cantaloupe	742	0			0.030 ^	NT	-
Cauliflower	185	0			0.17 ^	2.0	1
Cucumbers (V-1)	396	1	0.3	0.050 ^	0.030 - 0.036	NT	0.2
Grapes	526	0			0.023 ^	NT	0.5
Grean Beans, Canned	132	6	4.5	0.025 - 0.050	0.015 - 0.030	0.5	0.5
Green Beans	387	8	2.1	0.025 ^	0.015 ^	0.5	0.5
Lettuce	743	63	8.5	0.050 - 0.90	0.030 - 0.17	10.0	2
Orange Juice	132	0			0.035 ^	NT	2
Oranges	527	0			0.035 ^	NT	2
Pears	741	0			0.023 - 0.030	NT	2
Spinach, Canned	371	86	23.2	0.050 - 0.90	0.030 ^	10.0	2
Sweet Bell Peppers	558	0			0.051 ^	0.2	0.5
Sweet Potatoes	743	0			0.027 - 0.030	NT	0.05
Tomatoes	744	0			0.057 ^	0.2	0.5
Winter Squash	364	0			0.030 ^	NT	-
TOTAL	**8,035**	**164**					
Cyprodinil (fungicide)							
Apples	216	2	0.9	0.013 - 0.030	0.008 ^	0.1	-
Grapes	738	181	24.5	0.008 - 0.83	0.008 ^	2.0	-
Peaches, Canned	743	19	2.6	0.017 - 0.040	0.010 ^	2.0	-
Pears	741	0			0.008 ^	0.1	-
Strawberries	731	105	14.4	0.013 - 0.99	0.008 - 0.092	5	-
TOTAL	**3,169**	**307**					
Cyromazine (insect growth regulator)							
Apples	499	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	10.0	-
Lettuce	512	20	3.9	0.004 - 0.040	0.002 ^	7.0	5
Sweet Bell Peppers	513	29	5.7	0.004 - 0.036	0.002 ^	1.0	1
TOTAL	**1,709**	**49**					
DCPA (herbicide)							
Apples	528	0			0.0007 ^	NT	-
Cantaloupe	742	0			0.006 - 0.007	1	-
Cauliflower	185	15	8.1	0.001 - 0.007	0.0007 ^	5	-
Cucumbers	557	0			0.006 ^	1	-
Grapes	526	0			0.002 ^	NT	-
Grean Beans, Canned	185	0			0.002 - 0.006	2	-
Green Beans	548	3	0.5	0.003 - 0.010	0.002 - 0.006	2	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lettuce	743	202	27.2	0.001 - 0.29	0.0007 - 0.006	2	-
Orange Juice	132	0			0.006 ^	NT	-
Oranges	527	0			0.006 ^	NT	-
Pears	525	0			0.002 ^	NT	-
Spinach, Canned (V-25)	371	25	6.7	0.012 - 0.044	0.007 ^	NT	-
Strawberries	731	0			0.006 ^	2	-
Sweet Bell Peppers	558	11	2.0	0.001 - 0.017	0.0007 ^	2	-
Sweet Potatoes	743	0			0.003 - 0.006	2	-
Tomatoes	744	0			0.006 ^	1	-
Winter Squash	364	0			0.006 - 0.007	1	-
TOTAL	**8,709**	**256**					
DDD o,p' (metabolite of DDT)							
Apples	528	0			0.001 ^	0.1 AL	-
Cauliflower	185	0			0.001 ^	0.5 AL	-
Lettuce	527	0			0.001 ^	0.5 AL	-
Sweet Bell Peppers	558	0			0.001 ^	0.1 AL	-
TOTAL	**1,798**	**0**					
DDD p,p' (metabolite of DDT)							
Apples	744	0			0.001 - 0.008	0.1 AL	-
Cantaloupe	742	0			0.008 - 0.020	0.1 AL	-
Cauliflower	185	0			0.001 ^	0.5 AL	-
Cucumbers	557	0			0.008 ^	0.1 AL	-
Grapes	738	0			0.005 - 0.008	0.05 AL	-
Grean Beans, Canned	185	0			0.008 - 0.010	0.2 AL	-
Green Beans	548	0			0.008 - 0.010	0.2 AL	-
Lettuce	743	0			0.001 - 0.008	0.5 AL	-
Orange Juice	186	0			0.008 ^	0.1 AL	-
Oranges	742	0			0.008 ^	0.1 AL	-
Pears	741	0			0.005 - 0.008	0.1 AL	-
Spinach, Canned	371	0			0.020 ^	0.5 AL	-
Strawberries	211	0			0.008 ^	0.1 AL	-
Sweet Bell Peppers	558	0			0.001 ^	0.1 AL	-
Sweet Potatoes	216	0			0.008 ^	1 AL	-
Winter Squash	364	0			0.008 - 0.020	0.1 AL	-
TOTAL	**7,831**	**0**					
DDE p,p' (metabolite of DDT)							
Apples	744	0			0.002 - 0.007	0.1 AL	-
Cantaloupe	742	0			0.007 ^	0.1 AL	-
Cauliflower	185	0			0.002 ^	0.5 AL	-
Cucumbers	557	0			0.007 ^	0.1 AL	-
Grapes	738	0			0.005 - 0.007	0.05 AL	-
Grean Beans, Canned	185	0			0.002 - 0.007	0.2 AL	-
Green Beans	548	12	2.2	0.003 - 0.012	0.002 - 0.007	0.2 AL	-
Lettuce	743	84	11.3	0.003 - 0.023	0.002 - 0.007	0.5 AL	-
Orange Juice	186	0			0.007 ^	0.1 AL	-
Oranges	742	0			0.007 ^	0.1 AL	-
Peaches, Canned	743	0			0.005 ^	0.2 AL	-
Pears	741	0			0.005 - 0.007	0.1 AL	-
Spinach, Canned	371	40	10.8	0.012 ^	0.007 ^	0.5 AL	-
Strawberries	211	0			0.007 ^	0.1 AL	-
Sweet Bell Peppers	558	2	0.4	0.003 ^	0.002 ^	0.1 AL	-
Sweet Potatoes	743	2	0.3	0.003 ^	0.002 - 0.007	1 AL	-
Tomatoes	744	0			0.005 ^	0.05 AL	-
Winter Squash	364	7	1.9	0.012 - 0.034	0.007 ^	0.1 AL	-
TOTAL	**9,845**	**147**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
DDT o,p' (insecticide)							
Apples	528	0			0.001 ^	0.1 AL	-
Cauliflower	185	0			0.001 ^	0.5 AL	-
Lettuce	527	9	1.7	0.002 ^	0.001 ^	0.5 AL	-
Sweet Bell Peppers	558	0			0.001 ^	0.1 AL	-
TOTAL	**1,798**	**9**					
DDT p,p' (insecticide)							
Apples	744	0			0.002 - 0.008	0.1 AL	-
Cantaloupe	215	0			0.008 ^	0.1 AL	-
Cauliflower	185	0			0.002 ^	0.5 AL	-
Cucumbers	557	0			0.008 ^	0.1 AL	-
Grapes	738	0			0.005 - 0.008	0.05 AL	-
Grean Beans, Canned	185	0			0.008 - 0.010	0.2 AL	-
Green Beans	548	0			0.008 - 0.010	0.2 AL	-
Lettuce	743	7	0.9	0.003 ^	0.002 - 0.008	0.5 AL	-
Orange Juice	186	0			0.008 ^	0.1 AL	-
Oranges	742	0			0.008 ^	0.1 AL	-
Pears	741	0			0.005 - 0.008	0.1 AL	-
Strawberries	211	0			0.008 ^	0.1 AL	-
Sweet Bell Peppers	558	0			0.002 ^	0.1 AL	-
Sweet Potatoes	216	0			0.008 ^	1 AL	-
Winter Squash	102	0			0.008 ^	0.1 AL	-
TOTAL	**6,671**	**7**					
Deltamethrin (insecticide) (includes parent Tralomethrin)							
Apples	744	0			0.015 - 0.33	0.05	0.2
Cantaloupe	742	0			0.015 - 0.24	0.05	0.2
Cucumbers	557	0			0.015 - 0.020	0.05	0.2
Grapes	738	0			0.015 - 0.023	0.05	0.2
Lettuce	567	0			0.015 - 0.33	0.05	0.5
Orange Juice	186	0			0.015 - 0.018	0.05	0.02
Oranges	742	0			0.015 - 0.018	0.05	0.02
Pears	741	0			0.015 - 0.023	0.05	-
Spinach, Canned	371	0			0.24 ^	0.05	0.5
Strawberries	731	0			0.015 - 0.11	0.05	0.2
Sweet Bell Peppers	526	0			0.024 - 0.33	0.05	-
Sweet Potatoes	721	0			0.015 - 0.048	0.05	-
Winter Squash	364	0			0.015 - 0.24	0.05	0.2
TOTAL	**7,730**	**0**					
Diazinon (insecticide)							
Apples	744	8	1.1	0.003 - 0.050	0.002 - 0.004	0.5	0.3
Cantaloupe	742	1	0.1	0.003 ^	0.002 - 0.007	0.75	0.2
Cucumbers	557	7	1.3	0.003 - 0.018	0.002 ^	0.75	0.1
Grapes	738	4	0.5	0.003 - 0.008	0.002 - 0.005	0.75	-
Grean Beans, Canned	185	0			0.002 - 0.005	0.5	0.2
Green Beans	548	0			0.002 - 0.005	0.5	0.2
Lettuce	743	75	10.1	0.003 - 0.048	0.002 - 0.004	0.7	0.5
Orange Juice	186	0			0.002 ^	0.7	-
Oranges	742	0			0.002 ^	0.7	-
Peaches, Canned	743	0			0.015 ^	0.7	0.2
Pears	741	6	0.8	0.003 - 0.012	0.002 - 0.005	0.5	0.3
Spinach, Canned	371	0			0.007 ^	0.7	0.5
Strawberries	731	3	0.4	0.002 - 0.009	0.001 - 0.002	0.5	0.1
Sweet Bell Peppers	558	0			0.004 ^	0.5	0.05
Sweet Potatoes	743	0			0.0007 - 0.002	0.1	-
Tomatoes	744	1	0.1	0.025 ^	0.015 ^	0.75	0.5
Winter Squash	364	0			0.002 - 0.007	0.75	-
TOTAL	**10,180**	**105**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Diazinon oxygen analog (metabolite of Diazinon)							
Apples	744	0			0.003 ^	NT	-
Cantaloupe	742	0			0.003 - 0.016	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	557	0			0.003 ^	NT	-
Grapes	738	0			0.001 - 0.003	NT	-
Grean Beans, Canned	185	0			0.003 - 0.005	NT	-
Green Beans	548	0			0.003 - 0.005	NT	-
Lettuce	743	0			0.003 ^	NT	-
Orange Juice	186	0			0.003 ^	NT	-
Oranges	742	0			0.003 ^	NT	-
Peaches, Canned	743	0			0.026 ^	NT	-
Pears	741	0			0.001 - 0.003	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Strawberries	211	0			0.003 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	NT	-
Sweet Potatoes	743	0			0.001 - 0.003	NT	-
Tomatoes	744	0			0.026 ^	NT	-
Winter Squash	364	0			0.003 - 0.016	NT	-
TOTAL	**9,845**	**0**					
Dichlobenil (herbicide)							
Apples	715	0			0.005 - 0.019	0.5	-
Cauliflower	123	0			0.064 ^	NT	-
Grapes	738	0			0.005 - 0.013	0.15	-
Lettuce	527	0			0.019 ^	NT	-
Orange Juice	132	0			0.005 ^	NT	-
Oranges	527	0			0.005 ^	NT	-
Peaches, Canned	743	0			0.014 ^	0.15	-
Pears	741	0			0.005 - 0.013	0.5	-
Sweet Bell Peppers	558	0			0.019 ^	NT	-
TOTAL	**4,804**	**0**					
Dichlorvos - DDVP (insecticide) (also a metabolite of Naled)							
Apples	744	0			0.002 - 0.003	0.5	-
Cantaloupe	742	0			0.002 - 0.003	0.5	-
Cucumbers	557	2	0.4	0.008 - 0.009	0.002 ^	0.5	-
Grapes	738	0			0.002 ^	0.5	-
Grean Beans, Canned	185	0			0.002 - 0.006	0.5	-
Green Beans	548	0			0.002 - 0.006	0.5	-
Lettuce	743	1	0.1	0.005 ^	0.002 - 0.003	1	-
Orange Juice	164	0			0.002 ^	3	-
Oranges	742	0			0.002 ^	3	-
Peaches, Canned	743	0			0.005 ^	0.5	-
Pears	525	0			0.002 - 0.005	0.5	-
Spinach, Canned	371	0			0.003 ^	3	-
Strawberries	731	51	7.0	0.001 - 0.93	0.0007 - 0.002	1	-
Sweet Bell Peppers	558	0			0.003 ^	0.5	-
Tomatoes	744	0			0.005 ^	0.05	-
Winter Squash	364	0			0.002 - 0.003	0.5	-
TOTAL	**9,199**	**54**					
Dicloran (fungicide)							
Apples (V-1)	528	1	0.2	0.003 ^	0.002 ^	NT	-
Cantaloupe	527	0			0.010 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	557	1	0.2	0.029 ^	0.008 ^	5	-
Grapes	738	21	2.8	0.006 - 0.23	0.004 - 0.008	10	7
Grean Beans, Canned	185	0			0.002 - 0.008	20	-
Green Beans	548	30	5.5	0.003 - 1.8	0.002 - 0.008	20	-
Lettuce	743	7	0.9	0.003 - 0.013	0.002 - 0.008	10	-
Orange Juice	132	0			0.008 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Oranges	527	0			0.008 ^	NT	-
Peaches, Canned	743	0			0.009 ^	20	7
Pears (V-2)	526	2	0.4	0.006 - 0.013	0.004 - 0.008	NT	-
Spinach, Canned (V-1)	371	1	0.3	0.029 ^	0.010 ^	NT	-
Sweet Bell Peppers (V-1)	558	1	0.2	0.52 ^	0.002 ^	NT	-
Sweet Potatoes	743	328	44.1	0.004 - 4.1	0.003 - 0.008	10	-
Tomatoes	744	27	3.6	0.015 - 0.14	0.009 ^	5	-
Winter Squash	262	0			0.010 ^	NT	-
TOTAL	**8,617**	**419**					
Dicofol o,p' (insecticide)							
Apples	499	1	0.2	0.21 ^	0.003 - 0.010	5	-
Cauliflower	185	0			0.010 ^	NT	-
Lettuce	527	0			0.003 ^	NT	-
Strawberries	520	0			0.006 ^	5	-
Sweet Bell Peppers	558	39	7.0	0.005 - 0.084	0.003 ^	5	1
TOTAL	**2,289**	**40**					
Dicofol p,p' (isomer of Dicofol o,p')							
Apples	744	5	0.7	0.005 - 0.87	0.003 - 0.010	5	-
Cantaloupe	742	6	0.8	0.017 - 0.079	0.010 - 0.018	5	0.2
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	557	1	0.2	0.017 ^	0.010 - 0.020	5	0.5
Grapes	738	2	0.3	0.055 - 0.061	0.010 - 0.015	5	5
Grean Beans, Canned	185	0			0.008 - 0.010	5	2
Green Beans	548	0			0.008 - 0.010	5	2
Lettuce	527	0			0.003 ^	NT	-
Orange Juice	186	0			0.010 ^	10	5
Oranges	742	2	0.3	0.017 ^	0.010 ^	10	5
Peaches, Canned	743	0			0.021 ^	10	5
Pears	741	3	0.4	0.025 - 0.11	0.010 - 0.015	5	-
Spinach, Canned	371	0			0.018 ^	NT	-
Strawberries	731	1	0.1	0.017 ^	0.010 ^	5	-
Sweet Bell Peppers	558	84	15.1	0.005 - 0.58	0.003 ^	5	1
Tomatoes	744	19	2.6	0.022 - 0.21	0.013 ^	5	1
Winter Squash	364	0			0.010 - 0.018	5	-
TOTAL	**9,406**	**123**					
Dieldrin (insecticide) (also a metabolite of Aldrin)							
Apples	744	0			0.005 - 0.006	0.03 AL	0.05
Cantaloupe	742	6	0.8	0.010 - 0.030	0.006 - 0.018	0.1 AL	0.1
Cauliflower	185	0			0.005 ^	0.03 AL	-
Cucumbers	557	42	7.5	0.010 - 0.040	0.006 ^	0.1 AL	0.1
Grapes	526	0			0.002 - 0.005	0.05 AL	-
Grean Beans, Canned	185	0			0.001 - 0.006	0.05 AL	0.05
Green Beans	548	0			0.0008 - 0.006	0.05 AL	0.05
Lettuce	743	0			0.005 - 0.006	0.03 AL	0.05
Orange Juice	186	0			0.006 ^	0.02 AL	0.05
Oranges	742	0			0.006 ^	0.02 AL	0.05
Peaches, Canned	743	0			0.005 ^	0.02 AL	-
Pears	741	0			0.002 - 0.006	0.03 AL	0.05
Spinach, Canned	371	0			0.018 ^	0.05 AL	0.05
Strawberries	211	0			0.006 ^	0.05 AL	-
Sweet Bell Peppers	558	0			0.005 ^	0.05 AL	-
Sweet Potatoes	743	6	0.8	0.003 - 0.022	0.002 - 0.006	0.1 AL	0.1
Tomatoes	744	0			0.005 ^	0.05 AL	-
Winter Squash (X-1)	364	26	7.1	0.010 - 0.20	0.006 - 0.018	0.1 AL	0.1
TOTAL	**9,633**	**80**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Difenoconazole (fungicide)							
Cantaloupe	527	0			0.072 ^	NT	-
Spinach, Canned	371	0			0.072 ^	NT	-
Winter Squash	262	0			0.072 ^	NT	-
TOTAL	**1,160**	**0**					
Diflubenzuron (insecticide)							
Apples	498	0			0.007 ^	NT	5
Cauliflower	155	0			0.022 ^	NT	-
Grapes (V-1)	1	1	100	0.012 ^	0.007 ^	NT	-
Lettuce (V-1)	527	1	0.2	0.011 ^	0.007 ^	NT	-
Orange Juice	186	0			0.007 - 0.010	0.5	0.5
Oranges	456	0			0.0007 - 0.010	0.5	0.5
Pears	216	2	0.9	0.012 ^	0.007 ^	0.50	5
Sweet Bell Peppers	558	8	1.4	0.011 ^	0.007 ^	1.0	-
TOTAL	**2,597**	**12**					
Dimethenamid (herbicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,160**	**0**					
Dimethoate (insecticide) (parent of Omethoate)							
Apples	744	7	0.9	0.004 - 0.12	0.002 ^	2	1
Cantaloupe	742	23	3.1	0.003 - 0.14	0.002 - 0.007	1	-
Cauliflower	185	2	1.1	0.004 - 0.016	0.002 ^	2	-
Cucumbers (V-6)	397	6	1.5	0.003 - 0.22	0.002 ^	NT	-
Grapes	738	18	2.4	0.003 - 0.23	0.002 - 0.005	1	1
Grean Beans, Canned	185	0			0.002 - 0.005	2	-
Green Beans	548	22	4.0	0.003 - 0.12	0.002 - 0.005	2	-
Lettuce	743	70	9.4	0.003 - 0.29	0.002 ^	2	2
Orange Juice	186	0			0.002 ^	2	2
Oranges	742	2	0.3	0.003 - 0.015	0.002 ^	2	2
Pears	741	0			0.002 - 0.005	2	1
Spinach, Canned	371	0			0.007 ^	2	-
Strawberries	211	0			0.002 ^	NT	-
Sweet Bell Peppers	558	23	4.1	0.004 - 0.35	0.002 ^	2	1
Tomatoes	744	3	0.4	0.015 ^	0.009 ^	2	1
Winter Squash	262	0			0.007 ^	NT	-
TOTAL	**8,097**	**176**					
Dimethomorph (fungicide)							
Apples	513	0			0.002 - 0.003	NT	-
Cantaloupe	215	0			0.030 - 0.050	0.5	-
Cauliflower (V-1)	185	1	0.5	0.003 ^	0.002 ^	NT	-
Cucumbers	557	0			0.030 - 0.050	0.5	-
Grapes	212	0			0.030 - 0.050	3.5	-
Lettuce	743	80	10.8	0.003 - 3.2	0.002 - 0.050	10	-
Orange Juice	132	0			0.030 ^	NT	-
Oranges	527	0			0.030 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	1.5	-
TOTAL	**3,642**	**81**					
Diphenamid (herbicide)							
Apples	528	0			0.010 ^	NT	-
Cantaloupe	527	0			0.018 ^	NT	-
Cauliflower	185	0			0.010 ^	NT	-
Cucumbers	395	0			0.006 ^	NT	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans	379	0			0.015 ^	NT	-
Lettuce	527	0			0.010 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Orange Juice	132	0			0.006 ^	NT	-
Oranges	527	0			0.006 ^	NT	-
Peaches, Canned	743	0			0.020 ^	NT	-
Spinach, Canned	371	0			0.018 ^	NT	-
Sweet Bell Peppers	558	0			0.010 ^	NT	-
Sweet Potatoes	743	0			0.006 ^	NT	-
Tomatoes	744	0			0.020 ^	NT	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**6,752**	**0**					
Diphenylamine - DPA (fungicide)							
Apples	744	589	79.2	0.005 - 3.6	0.003 - 0.010	10.0	10
Cantaloupe (V-2)	742	2	0.3	0.014 ^	0.008 - 0.010	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	395	0			0.010 - 0.020	NT	-
Grapes	526	0			0.015 ^	NT	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans	379	0			0.015 ^	NT	-
Lettuce	527	0			0.003 ^	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Pears (V-37)	741	37	5.0	0.017 - 0.97	0.010 - 0.015	NT	5
Spinach, Canned	371	0			0.008 ^	NT	-
Strawberries	193	0			0.010 ^	NT	-
Sweet Bell Peppers (V-4)	558	4	0.7	0.005 ^	0.003 ^	NT	-
Winter Squash (V-1)	262	1	0.4	0.014 ^	0.008 ^	NT	-
TOTAL	**6,413**	**633**					
Disulfoton (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cantaloupe	527	0			0.007 ^	NT	0.5
Cauliflower	185	0			0.002 ^	0.75	0.5
Cucumbers	395	0			0.003 ^	NT	0.5
Grapes	526	0			0.004 ^	NT	-
Grean Beans, Canned	185	0			0.003 - 0.008	0.75	0.2
Green Beans	548	0			0.003 - 0.008	0.75	0.2
Lettuce	743	0			0.002 - 0.003	0.75	0.5
Oranges	286	0			0.003 ^	NT	-
Pears	525	0			0.004 ^	NT	-
Spinach, Canned	371	0			0.007 ^	0.75	0.5
Sweet Bell Peppers	558	0			0.002 ^	0.1	0.5
Tomatoes	744	0			0.021 ^	0.75	0.5
Winter Squash	262	0			0.007 ^	NT	0.5
TOTAL	**6,383**	**0**					
Disulfoton sulfone (metabolite of Disulfoton)							
Apples	528	0			0.006 ^	NT	-
Cantaloupe	527	0			0.009 ^	NT	0.5
Cauliflower	185	0			0.006 ^	0.75	0.5
Cucumbers	395	0			0.004 ^	NT	0.5
Grapes	526	0			0.004 ^	NT	-
Grean Beans, Canned	185	0			0.004 - 0.005	0.75	0.2
Green Beans	548	0			0.004 - 0.005	0.75	0.2
Lettuce	743	0			0.004 - 0.006	0.75	0.5
Oranges	286	0			0.004 ^	NT	-
Pears	525	0			0.004 ^	NT	-
Spinach, Canned	371	0			0.009 ^	0.75	0.5
Sweet Bell Peppers	558	0			0.006 ^	0.1	0.5
Tomatoes	744	0			0.008 ^	0.75	0.5
Winter Squash	262	0			0.009 ^	NT	0.5
TOTAL	**6,383**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Diuron (herbicide)							
Apples	744	0			0.008 - 0.011	1	-
Cauliflower	185	0			0.008 ^	NT	-
Grapes	212	0			0.011 ^	1	-
Lettuce	527	0			0.008 ^	NT	-
Orange Juice	186	0			0.010 - 0.012	1	-
Oranges	456	0			0.010 - 0.012	1	-
Pears	216	0			0.011 ^	1	-
Sweet Bell Peppers	558	0			0.008 ^	NT	-
TOTAL	**3,084**	**0**					
Endosulfan I (insecticide)							
Apples	744	4	0.5	0.008 - 0.010	0.005 - 0.006	2.0	1
Cantaloupe	742	1	0.1	0.012 ^	0.005 - 0.007	2.0	0.5
Cauliflower	185	0			0.006 ^	2.0	0.5
Cucumbers	557	206	37	0.008 - 0.24	0.005 ^	2.0	0.5
Grapes	738	1	0.1	0.004 ^	0.002 - 0.005	2.0	1
Grean Beans, Canned	185	0			0.002 - 0.005	2.0	0.5
Green Beans	548	56	10.2	0.003 - 0.21	0.002 - 0.005	2.0	0.5
Lettuce	743	52	7.0	0.008 - 0.57	0.005 - 0.006	2.0	1
Orange Juice	186	0			0.005 ^	NT	0.5
Oranges	742	0			0.005 ^	NT	0.5
Peaches, Canned	743	0			0.004 ^	2.0	1
Pears	741	4	0.5	0.004 - 0.008	0.002 - 0.005	2.0	1
Spinach, Canned	371	0			0.007 ^	2.0	2
Strawberries	731	10	1.4	0.008 - 0.13	0.005 - 0.006	2.0	-
Sweet Bell Peppers	558	62	11.1	0.010 - 0.24	0.006 ^	2.0	-
Sweet Potatoes	743	0			0.002 - 0.005	0.2	0.2
Tomatoes	744	106	14.2	0.005 - 0.049	0.003 - 0.004	2.0	0.5
Winter Squash	364	3	0.8	0.008 - 0.012	0.005 - 0.007	2.0	-
TOTAL	**10,365**	**505**					
Endosulfan II (isomer of Endosulfan)							
Apples	744	9	1.2	0.010 - 0.035	0.006 ^	2.0	1
Cantaloupe	742	2	0.3	0.012 ^	0.006 - 0.007	2.0	0.5
Cauliflower	185	0			0.020 ^	2.0	0.5
Cucumbers	557	149	26.8	0.010 - 0.20	0.006 ^	2.0	0.5
Grapes	738	1	0.1	0.021 ^	0.004 - 0.006	2.0	1
Grean Beans, Canned	185	0			0.002 - 0.006	2.0	0.5
Green Beans	548	39	7.1	0.003 - 0.21	0.002 - 0.006	2.0	0.5
Lettuce	743	35	4.7	0.010 - 0.79	0.006 ^	2.0	1
Orange Juice	186	0			0.006 ^	NT	0.5
Oranges	742	0			0.006 ^	NT	0.5
Peaches, Canned	743	0			0.004 ^	2.0	1
Pears	741	12	1.6	0.006 - 0.036	0.004 - 0.006	2.0	1
Spinach, Canned	371	0			0.007 ^	2.0	2
Strawberries	731	18	2.5	0.007 - 0.23	0.004 - 0.006	2.0	-
Sweet Bell Peppers	558	87	15.6	0.010 - 0.23	0.006 ^	2.0	-
Sweet Potatoes	743	0			0.002 - 0.006	0.2	0.2
Tomatoes	744	166	22.3	0.005 - 0.054	0.003 - 0.004	2.0	0.5
Winter Squash	364	2	0.5	0.012 ^	0.006 - 0.007	2.0	-
TOTAL	**10,365**	**520**					
Endosulfan sulfate (metabolite of Endosulfan)							
Apples	730	1	0.1	0.012 ^	0.007 - 0.020	2.0	1
Cantaloupe	742	329	44.3	0.012 - 0.12	0.007 ^	2.0	0.5
Cauliflower	185	0			0.020 ^	2.0	0.5
Cucumbers	557	249	44.7	0.010 - 0.26	0.006 - 0.007	2.0	0.5
Grapes	738	1	0.1	0.006 ^	0.004 - 0.007	2.0	1
Grean Beans, Canned	185	0			0.002 - 0.007	2.0	0.5
Green Beans	548	87	15.9	0.003 - 0.95	0.002 - 0.007	2.0	0.5
Lettuce	743	34	4.6	0.012 - 0.98	0.007 - 0.020	2.0	1
Orange Juice	186	0			0.006 - 0.007	NT	0.5

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Oranges	742	0			0.006 - 0.007	NT	0.5
Peaches, Canned	743	0			0.006 ^	2.0	1
Pears	741	13	1.8	0.006 - 0.10	0.004 - 0.007	2.0	1
Spinach, Canned	371	3	0.8	0.012 ^	0.007 ^	2.0	2
Strawberries	731	22	3.0	0.007 - 0.066	0.004 - 0.007	2.0	-
Sweet Bell Peppers	558	30	5.4	0.033 - 0.14	0.020 ^	2.0	-
Sweet Potatoes	743	11	1.5	0.003 ^	0.002 - 0.007	0.2	0.2
Tomatoes	744	154	20.7	0.005 - 0.023	0.003 - 0.006	2.0	0.5
Winter Squash	364	44	12.1	0.012 - 0.090	0.007 ^	2.0	-
TOTAL	**10,351**	**978**					
Endrin (insecticide)							
Apples	176	0			0.007 ^	NT	-
Cantaloupe	742	0			0.008 - 0.040	0.05 AL	0.05
Cauliflower	185	0			0.022 ^	0.05 AL	-
Cucumbers	162	1	0.6	0.013 ^	0.008 ^	0.05 AL	0.05
Grapes	526	0			0.002 ^	NT	-
Grean Beans, Canned	185	0			0.001 - 0.008	0.05 AL	-
Green Beans	548	0			0.001 - 0.008	0.05 AL	-
Lettuce	391	0			0.007 - 0.008	0.05 AL	-
Oranges	286	0			0.008 ^	NT	-
Pears	525	0			0.002 ^	NT	-
Spinach, Canned	371	0			0.040 ^	0.05 AL	-
Sweet Potatoes	743	0			0.002 - 0.008	0.05 AL	-
Tomatoes	744	0			0.005 ^	0.05 AL	-
Winter Squash	364	0			0.008 - 0.040	0.05 AL	0.05
TOTAL	**5,948**	**1**					
EPTC (herbicide)							
Apples	176	0			0.064 ^	NT	-
Cauliflower	185	0			0.064 ^	0.1	-
Lettuce	175	0			0.064 ^	0.1	-
Orange Juice	132	0			0.020 ^	0.1	-
Oranges	527	0			0.020 ^	0.1	-
Tomatoes	744	0			0.018 ^	0.1	-
TOTAL	**1,939**	**0**					
Esfenvalerate (insecticide) (isomer of Fenvalerate)							
Cucumbers	264	0			0.051 ^	0.05	-
Oranges	264	0			0.051 ^	0.05	-
Peaches, Canned	743	0			0.055 ^	0.05	-
Sweet Potatoes	505	0			0.005 ^	0.05	-
Tomatoes	744	0			0.055 ^	0.05	-
TOTAL	**2,520**	**0**					
Esfenvalerate+Fenvalerate Total (insecticide)							
Apples	568	2	0.4	0.025 ^	0.009 - 0.12	2.0	2
Cantaloupe	742	0			0.015 - 0.042	1.0	0.2
Cauliflower	185	0			0.029 - 0.19	0.5	2
Cucumbers	293	0			0.015 - 0.051	0.5	0.2
Grapes	738	0			0.015 - 0.038	0.05	1
Grean Beans, Canned	185	0			0.015 - 0.050	2.0	1
Green Beans	548	3	0.5	0.025 - 0.11	0.015 - 0.050	2.0	1
Lettuce	567	1	0.2	0.025 ^	0.009 - 0.12	5.0	2
Orange Juice	186	0			0.015 - 0.051	0.05	2
Oranges	478	0			0.015 - 0.051	0.05	2
Pears	741	1	0.1	0.025 ^	0.015 - 0.038	2.0	2
Spinach, Canned	371	0			0.042 ^	0.05	-
Strawberries	731	0			0.015 - 0.020	0.05	1
Sweet Bell Peppers	310	9	2.9	0.014 - 0.072	0.009 - 0.12	1.0	0.5
Sweet Potatoes	216	0			0.015 ^	0.05	0.05
Winter Squash	364	0			0.015 - 0.042	1.0	0.5
TOTAL	**7,223**	**16**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Ethalfluralin (herbicide)							
Apples	528	0			0.017 ^	NT	-
Cantaloupe	742	0			0.015 - 0.040	0.05	-
Cauliflower	185	0			0.056 ^	NT	-
Cucumbers	539	0			0.015 ^	0.05	-
Lettuce	527	0			0.017 - 0.11	NT	-
Orange Juice	132	0			0.015 ^	NT	-
Oranges	527	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.040 ^	NT	-
Sweet Bell Peppers	558	0			0.017 ^	NT	-
Winter Squash	364	0			0.015 - 0.040	0.05	-
TOTAL	**4,473**	**0**					
Ethephon (plant growth regulator)							
Apples	494	143	28.9	0.008 - 0.60	0.005 ^	5	5
Grapes (X-5)	496	177	35.7	0.008 - 4.6	0.005 ^	2.0	1
TOTAL	**990**	**320**					
Ethiofencarb (insecticide)							
Apples	514	0			0.015 ^	NT	-
Cauliflower	185	0			0.015 ^	NT	-
Grapes	526	0			0.010 ^	NT	-
Lettuce	527	0			0.015 ^	NT	-
Pears	525	0			0.010 ^	NT	-
Sweet Bell Peppers	542	0			0.015 ^	NT	-
TOTAL	**2,819**	**0**					
Ethion (insecticide)							
Apples	528	0			0.001 ^	NT	-
Cantaloupe	527	0			0.004 ^	NT	-
Cauliflower	185	0			0.001 ^	NT	-
Grapes	526	0			0.005 ^	NT	-
Grean Beans, Canned	131	0			0.010 ^	NT	-
Green Beans	387	0			0.010 ^	NT	-
Lettuce	527	0			0.001 ^	NT	-
Orange Juice	186	0			0.002 - 0.005	2.0	-
Oranges	742	0			0.002 - 0.005	2.0	-
Pears	525	0			0.005 ^	NT	-
Spinach, Canned	371	0			0.004 ^	NT	-
Sweet Bell Peppers	558	0			0.001 ^	NT	-
Winter Squash	262	0			0.004 ^	NT	-
TOTAL	**5,455**	**0**					
Ethion di oxon (metabolite of Ethion)							
Orange Juice	132	0			0.005 ^	NT	-
Oranges	527	0			0.005 ^	NT	-
TOTAL	**659**	**0**					
Ethion mono oxon (metabolite of Ethion)							
Apples	528	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Orange Juice	186	0			0.002 - 0.015	NT	-
Oranges	742	0			0.002 - 0.015	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
TOTAL	**2,726**	**0**					
Ethoprop (insecticide)							
Apples	528	0			0.0009 ^	NT	-
Cantaloupe	527	0			0.016 ^	NT	0.02
Cucumbers	557	0			0.002 ^	0.02	0.02
Grean Beans, Canned	54	0			0.002 ^	0.02	-
Green Beans	161	0			0.002 ^	0.02	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lettuce	527	0			0.0009 ^	NT	0.02
Orange Juice	132	0			0.002 ^	NT	-
Oranges	527	0			0.002 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Sweet Bell Peppers	558	0			0.0009 ^	NT	0.02
Sweet Potatoes	743	2	0.3	0.002 - 0.003	0.001 - 0.002	0.02	0.02
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**4,947**	**2**					
Ethoxyquin (plant growth regulator)							
Pears	2	2	100	0.017 ^	0.010 ^	3	3
TOTAL	**2**	**2**					
Etridiazole (fungicide)							
Grapes	526	0			0.002 ^	NT	-
Grean Beans, Canned	131	0			0.003 ^	NT	-
Green Beans	387	0			0.003 ^	NT	-
Pears	525	0			0.002 ^	NT	-
Strawberries	520	0			0.006 ^	0.20	-
Tomatoes	744	0			0.028 ^	0.15	-
TOTAL	**2,833**	**0**					
Famoxadone (fungicide)							
Cantaloupe	87	0			0.13 ^	0.30	-
Winter Squash	118	0			0.13 ^	0.30	-
TOTAL	**205**	**0**					
Fenamiphos (insecticide)							
Apples	744	0			0.002 - 0.004	0.25	0.05
Cantaloupe	527	0			0.006 ^	NT	0.05
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	395	0			0.004 ^	NT	-
Grapes	738	0			0.001 - 0.004	0.10	0.1
Grean Beans, Canned	131	0			0.008 ^	NT	-
Green Beans	387	0			0.008 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Orange Juice	186	0			0.004 ^	0.60	-
Oranges	742	0			0.004 ^	0.60	-
Peaches, Canned	743	0			0.011 ^	0.25	-
Pears	525	0			0.001 ^	NT	-
Spinach, Canned	371	0			0.006 ^	NT	-
Strawberries	211	0			0.004 ^	0.6	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.006 ^	NT	-
TOTAL	**7,232**	**0**					
Fenamiphos sulfone (metabolite of Fenamiphos)							
Apples	744	0			0.002 - 0.008	0.25	0.05
Cantaloupe	527	0			0.012 - 0.024	NT	0.05
Cucumbers	395	0			0.008 ^	NT	-
Grapes	738	1	0.1	0.003 ^	0.001 - 0.008	0.10	0.1
Grean Beans, Canned	131	0			0.020 ^	NT	-
Green Beans	387	0			0.020 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Orange Juice	186	0			0.008 ^	0.60	-
Oranges	742	0			0.008 ^	0.60	-
Peaches, Canned	743	0			0.018 ^	0.25	-
Pears	525	0			0.001 ^	NT	-
Spinach, Canned	371	0			0.012 - 0.024	NT	-
Strawberries	211	0			0.008 ^	0.6	-
Sweet Bell Peppers	544	0			0.002 ^	NT	-
Winter Squash	262	0			0.024 ^	NT	-
TOTAL	**7,033**	**1**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Fenamiphos sulfoxide (metabolite of Fenamiphos)							
Apples	528	0			0.002 ^	0.25	0.05
Grapes	526	7	1.3	0.001 - 0.035	0.001 ^	0.10	0.1
Lettuce	527	0			0.002 ^	NT	-
Orange Juice	132	0			0.012 ^	0.60	-
Oranges	527	0			0.012 ^	0.60	-
Peaches, Canned	743	0			0.023 ^	0.25	-
Pears	525	0			0.001 ^	NT	-
Sweet Bell Peppers (V-1)	544	1	0.2	0.003 ^	0.002 ^	NT	-
TOTAL	**4,052**	**8**					
Fenarimol (fungicide)							
Apples	744	0			0.010 - 0.015	0.1	0.3
Cauliflower	185	0			0.010 ^	NT	-
Grapes	738	0			0.015 - 0.025	0.2	0.3
Lettuce	527	0			0.010 ^	NT	-
Pears	741	0			0.015 - 0.025	0.1	0.3
Sweet Bell Peppers	558	0			0.010 - 0.064	NT	0.5
TOTAL	**3,493**	**0**					
Fenbuconazole (fungicide)							
Apples	470	0			0.0009 ^	NT	0.1
Cauliflower	107	0			0.0009 ^	NT	-
Cucumbers	395	0			0.030 ^	NT	0.2
Grapes	526	0			0.005 ^	NT	1
Lettuce	411	0			0.0009 ^	NT	-
Orange Juice	132	0			0.030 ^	NT	-
Oranges	527	0			0.030 ^	NT	-
Peaches, Canned	743	0			0.061 ^	2.0	0.5
Pears	525	0			0.005 ^	NT	0.1
Sweet Bell Peppers	452	0			0.0009 ^	NT	-
TOTAL	**4,288**	**0**					
Fenhexamid (fungicide)							
Peaches, Canned	743	0			0.039 ^	10.0	-
Strawberries	518	154	29.7	0.017 - 0.98	0.010 - 0.035	3.0	-
TOTAL	**1,261**	**154**					
Fenitrothion (insecticide)							
Apples	528	0			0.003 ^	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Lettuce	527	0			0.003 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	NT	-
TOTAL	**1,798**	**0**					
Fenpropathrin (insecticide)							
Apples	744	40	5.4	0.026 - 0.32	0.016 - 0.020	5.0	5
Cantaloupe	742	0			0.016 - 0.020	0.5	-
Cauliflower	185	0			0.016 ^	3.0	-
Cucumbers	557	0			0.020 ^	0.5	-
Grapes	738	13	1.8	0.017 - 0.13	0.015 - 0.020	5.0	5
Lettuce	527	0			0.016 ^	NT	-
Orange Juice	186	0			0.020 ^	2.0	-
Oranges	742	0			0.020 ^	2.0	-
Pears	741	30	4.0	0.017 - 0.17	0.015 - 0.020	5.0	5
Spinach, Canned	371	0			0.016 ^	NT	-
Strawberries	731	75	10.3	0.030 - 0.95	0.018 - 0.020	2.0	-
Sweet Bell Peppers	558	0			0.016 ^	NT	1
Tomatoes	744	25	3.4	0.052 - 0.22	0.031 ^	0.6	1
Winter Squash	364	0			0.016 - 0.020	0.5	-
TOTAL	**7,930**	**183**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Fenthion (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Grapes	526	0			0.008 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
TOTAL	**2,849**	**0**					
Fenvalerate (insecticide) (isomer of Esfenvalerate)							
Apples	176	0			0.009 ^	2.0	2
Cucumbers	264	0			0.099 ^	0.5	0.2
Lettuce	176	0			0.009 ^	0.05	2
Oranges	264	0			0.099 ^	0.05	2
Sweet Bell Peppers	248	1	0.4	0.029 ^	0.009 - 0.058	1.0	0.5
Tomatoes	55	0			0.055 ^	1.0	1
TOTAL	**1,183**	**1**					
Fludioxonil (fungicide)							
Apples	528	0			0.012 ^	NT	-
Cantaloupe	527	0			0.036 ^	0.01	-
Cauliflower	155	0			0.012 - 0.17	2.0	-
Cucumbers	395	0			0.015 ^	0.01	-
Grapes	738	88	11.9	0.017 - 0.37	0.010 - 0.015	1.0	-
Grean Beans, Canned	131	0			0.050 ^	0.01	-
Green Beans	379	0			0.050 ^	0.01	-
Lettuce	527	0			0.012 - 0.080	0.01	-
Orange Juice	132	0			0.015 ^	NT	-
Oranges	527	0			0.015 ^	NT	-
Peaches, Canned	743	0			0.11 ^	5.0	-
Pears	525	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.036 ^	0.01	-
Strawberries	211	34	16.1	0.025 - 0.41	0.015 ^	2.0	-
Sweet Bell Peppers	558	0			0.012 ^	0.01	-
Winter Squash	262	0			0.036 ^	0.01	-
TOTAL	**6,709**	**122**					
Fluridone (herbicide)							
Apples	568	0			0.024 - 0.33	0.1	-
Cantaloupe	724	0			0.016 - 0.035	0.1	-
Cucumbers	557	0			0.035 - 0.036	0.1	-
Grapes	212	0			0.035 - 0.060	0.1	-
Grean Beans, Canned	185	0			0.035 - 0.15	0.1	-
Green Beans	540	0			0.035 - 0.15	0.1	-
Lettuce	524	0			0.024 - 0.53	0.1	-
Orange Juice	186	0			0.035 - 0.036	0.1	-
Oranges	742	0			0.035 - 0.036	0.1	-
Pears	216	0			0.035 ^	0.1	-
Spinach, Canned	371	0			0.016 ^	0.1	-
Strawberries	729	0			0.0003 - 0.035	0.1	-
Sweet Bell Peppers	510	0			0.024 - 0.33	0.1	-
Sweet Potatoes	739	0			0.002 - 0.035	0.1	-
Winter Squash	364	0			0.016 - 0.035	0.1	-
TOTAL	**7,167**	**0**					
Folpet (fungicide)							
Apples	216	0			0.017 ^	25	-
Cantaloupe	742	0			0.017 - 0.066	15	3
Cucumbers	557	0			0.012 - 0.017	15	1
Grapes	720	0			0.015 - 0.050	25	2
Lettuce	216	0			0.017 ^	50	-
Orange Juice	132	0			0.012 ^	NT	-
Oranges	527	0			0.012 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Pears	503	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.066 ^	NT	-
Strawberries	691	2	0.3	0.29 - 0.57	0.015 - 0.017	25	20
Tomatoes	744	0			0.010 ^	25	-
Winter Squash	262	0			0.066 ^	NT	-
TOTAL	**5,681**	**2**					
Fonofos (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	395	0			0.002 ^	NT	-
Grapes	526	0			0.005 ^	NT	-
Grean Beans, Canned	185	0			0.002 - 0.005	NT	-
Green Beans	548	0			0.002 - 0.005	NT	-
Lettuce	527	0			0.002 ^	NT	-
Oranges	286	0			0.002 ^	NT	-
Pears	525	0			0.005 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Sweet Potatoes	743	0			0.001 - 0.002	NT	-
Tomatoes	744	0			0.016 ^	NT	-
TOTAL	**5,750**	**0**					
Forchlorfenuron (plant growth regulator)							
Apples	219	0			0.0002 - 0.0005	0.01	-
Cauliflower	32	0			0.0005 ^	NT	-
Lettuce	235	0			0.0005 ^	NT	-
Sweet Bell Peppers (V-1)	496	1	0.2	0.0002 ^	0.0001 - 0.0002	NT	-
TOTAL	**982**	**1**					
Heptachlor (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cantaloupe	742	0			0.004 - 0.006	0.05 AL	-
Cauliflower	185	0			0.002 ^	0.05 AL	-
Grapes	526	0			0.0008 - 0.003	0.05 AL	-
Grean Beans, Canned	131	0			0.002 ^	0.05 AL	-
Green Beans	387	0			0.002 ^	0.05 AL	-
Lettuce	743	0			0.002 - 0.006	0.05 AL	-
Orange Juice	186	0			0.006 ^	0.05 AL	0.01
Oranges	742	0			0.006 ^	0.05 AL	0.01
Pears	741	0			0.0008 - 0.006	0.05 AL	-
Spinach, Canned	371	0			0.004 ^	0.05 AL	-
Sweet Bell Peppers	542	0			0.002 ^	NT	-
Winter Squash	364	0			0.004 - 0.006	0.05 AL	-
TOTAL	**6,188**	**0**					
Heptachlor epoxide (metabolite of Heptachlor)							
Apples	528	0			0.004 ^	NT	-
Cantaloupe	742	0			0.004 - 0.006	0.05 AL	-
Cauliflower	185	0			0.004 ^	0.05 AL	-
Cucumbers	557	2	0.4	0.024 - 0.026	0.006 ^	0.05 AL	-
Grapes	526	0			0.002 ^	0.05 AL	-
Grean Beans, Canned	185	0			0.001 - 0.006	0.05 AL	-
Green Beans	548	0			0.001 - 0.006	0.05 AL	-
Lettuce	743	0			0.004 - 0.006	0.05 AL	-
Orange Juice	186	0			0.006 ^	0.05 AL	0.01
Oranges	742	0			0.006 ^	0.05 AL	0.01
Peaches, Canned	743	0			0.004 ^	0.05 AL	-
Pears	741	0			0.002 - 0.006	0.05 AL	-
Spinach, Canned	371	0			0.004 ^	0.05 AL	-
Sweet Bell Peppers	558	0			0.004 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Tomatoes	744	0			0.004 ^	NT	-
Winter Squash	364	3	0.8	0.006 - 0.011	0.004 - 0.006	0.05 AL	-
TOTAL	**8,463**	**5**					
Hexachlorobenzene - HCB (impurity of Quintozene)							
Apples	176	0			0.001 ^	NT	-
Cantaloupe	527	0			0.003 ^	NT	-
Cauliflower	185	0			0.001 ^	0.1	-
Grapes	526	0			0.0008 ^	NT	-
Grean Beans, Canned	185	0			0.002 ^	0.1	-
Green Beans	548	0			0.002 ^	0.1	-
Lettuce (V-1)	175	1	0.6	0.002 ^	0.001 ^	NT	-
Oranges	286	0			0.002 ^	NT	-
Pears	525	0			0.0008 ^	NT	-
Spinach, Canned	371	0			0.003 ^	NT	-
Tomatoes	744	0			0.003 ^	0.1	-
Winter Squash (V-1)	263	1	0.4	0.003 ^	0.002 - 0.003	NT	-
TOTAL	**4,511**	**2**					
Hexaconazole (fungicide)							
Cucumbers	395	0			0.020 ^	NT	-
Orange Juice	132	0			0.020 ^	NT	-
Oranges	527	0			0.020 ^	NT	-
TOTAL	**1,054**	**0**					
Hexythiazox (insecticide, acaricide)							
Apples	308	0			0.033 - 0.45	0.50	0.5
Sweet Bell Peppers (V-1)	1	1	100	0.054 ^	0.033 ^	NT	-
TOTAL	**309**	**1**					
Hydroprene (insect growth regulator)							
Apples	528	0			0.013 ^	0.2	-
Cantaloupe	87	0			0.013 ^	0.2	-
Cauliflower	185	0			0.013 ^	0.2	-
Lettuce	527	0			0.013 ^	0.2	-
Winter Squash	130	0			0.013 ^	0.2	-
TOTAL	**1,457**	**0**					
3-Hydroxycarbofuran (metabolite of Carbofuran)							
Apples	528	0			0.0006 ^	NT	-
Cantaloupe	742	1	0.1	0.007 ^	0.004 - 0.012	0.2	-
Cauliflower	185	0			0.0006 ^	NT	-
Cucumbers	557	0			0.004 - 0.021	0.2	-
Grapes	738	0			0.004 - 0.013	0.2	-
Grean Beans, Canned	131	0			0.020 ^	NT	-
Green Beans	387	0			0.020 ^	NT	-
Lettuce	527	0			0.0006 - 0.002	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Pears	525	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.012 ^	NT	-
Strawberries	729	0			0.002 - 0.004	0.2	-
Sweet Bell Peppers	558	5	0.9	0.001 - 0.022	0.0006 ^	0.2	-
Winter Squash	364	0			0.004 - 0.012	0.6	-
TOTAL	**7,001**	**6**					
5-Hydroxythiabendazole (metabolite of Thiabendazole)							
Orange Juice	132	0			0.010 ^	10	-
Oranges	241	0			0.010 ^	10	-
Pears	66	0			0.010 ^	10	-
Strawberries	520	0			0.0002 - 0.002	5.0	-
TOTAL	**959**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Imazalil (fungicide)							
Apples	528	0			0.010 ^	NT	5
Cantaloupe	527	0			0.030 ^	NT	2
Cauliflower	171	0			0.010 ^	NT	-
Cucumbers	351	0			0.010 - 0.030	NT	0.5
Grapes	526	0			0.005 ^	NT	-
Lettuce	527	0			0.010 ^	NT	-
Orange Juice	186	1	0.5	0.050 ^	0.030 ^	10.0	5
Oranges	742	554	74.7	0.050 - 0.95	0.030 ^	10.0	5
Pears	525	0			0.005 ^	NT	5
Spinach, Canned	371	0			0.030 ^	NT	-
Sweet Bell Peppers (V-1)	558	1	0.2	0.016 ^	0.010 ^	NT	-
Winter Squash	262	0			0.030 ^	NT	-
TOTAL	**5,274**	**556**					
Imidacloprid (insecticide)							
Apples	744	225	30.2	0.0002 - 0.017	0.0001 - 0.009	0.6	0.5
Cantaloupe	215	10	4.7	0.015 - 0.040	0.009 - 0.010	0.5	0.2
Cauliflower	185	133	71.9	0.0005 - 0.16	0.0002 ^	3.5	0.5
Grapes	738	120	16.3	0.010 - 0.78	0.009 - 0.010	1.0	1
Lettuce	743	497	66.9	0.0002 - 0.33	0.0001 - 0.009	3.5	2
Orange Juice	186	0			0.010 ^	0.7	1
Oranges	456	3	0.7	0.017 - 0.12	0.010 ^	0.7	1
Pears	741	30	4.0	0.010 - 0.079	0.009 - 0.010	0.6	1
Strawberries	729	37	5.1	0.015 - 0.13	0.009 - 0.010	0.50	-
Sweet Bell Peppers	558	452	81.0	0.0002 - 0.13	0.0001 ^	1.0	1
Sweet Potatoes	523	0			0.030 ^	0.40	-
Winter Squash	102	3	2.9	0.015 ^	0.009 ^	0.5	-
TOTAL	**5,920**	**1,510**					
Indoxacarb (insecticide)							
Grapes	526	0			0.010 ^	NT	-
Pears	525	1	0.2	0.019 ^	0.010 ^	0.20	-
Tomatoes	744	0			0.12 ^	0.50	-
TOTAL	**1,795**	**1**					
Iprodione (fungicide)							
Apples (V-2)	528	2	0.4	0.014 - 0.032	0.008 ^	NT	5
Cantaloupe	527	0			0.008 ^	NT	-
Cauliflower	185	0			0.028 ^	NT	-
Cucumbers (V-1)	395	1	0.3	0.035 ^	0.021 ^	NT	2
Grapes	738	89	12.1	0.035 - 0.77	0.021 - 0.023	60.0	10
Grean Beans, Canned	185	0			0.015 - 0.021	2.0	2
Green Beans	548	17	3.1	0.025 - 0.35	0.015 - 0.021	2.0	2
Lettuce	743	5	0.7	0.014 - 0.28	0.008 - 0.021	25.0	25
Peaches, Canned	743	0			0.034 ^	20.0	10
Pears (V-2)	526	2	0.4	0.035 - 0.038	0.021 - 0.023	NT	5
Spinach, Canned	371	0			0.008 ^	NT	-
Strawberries	731	20	2.7	0.035 - 1.2	0.021 - 0.029	15	10
Sweet Bell Peppers (V-2)	558	2	0.4	0.053 - 0.085	0.028 ^	NT	-
Tomatoes (V-1)	1	1	100	0.057 ^	0.034 ^	NT	5
Winter Squash	262	0			0.008 ^	NT	-
TOTAL	**7,041**	**139**					
Iprodione metabolite isomer (metabolite of Iprodione)							
Apples	528	0			0.098 ^	NT	-
Cauliflower	123	0			0.098 ^	NT	-
Lettuce	498	1	0.2	0.16 ^	0.098 - 1.4	25.0	-
Strawberries	520	0			0.062 ^	15	-
Sweet Bell Peppers	558	0			0.098 ^	NT	-
TOTAL	**2,227**	**1**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Kresoxim-methyl (fungicide)							
Apples	439	0			0.003 - 0.010	0.5	0.2
Cauliflower	32	0			0.003 ^	NT	-
Lettuce	311	0			0.003 - 0.010	NT	-
Sweet Bell Peppers	330	0			0.010 ^	NT	-
TOTAL	**1,112**	**0**					
Lindane - BHC gamma (insecticide)							
Apples	744	0			0.002 - 0.003	1	-
Cantaloupe	742	0			0.002 - 0.006	3	-
Cauliflower	185	0			0.003 ^	1	-
Cucumbers	557	0			0.002 ^	3	-
Grapes	738	0			0.002 ^	1	-
Grean Beans, Canned	185	0			0.001 - 0.002	0.5 AL	-
Green Beans	548	0			0.001 - 0.002	0.5 AL	-
Lettuce	743	0			0.002 - 0.003	3	-
Orange Juice	186	0			0.002 ^	0.5 AL	-
Oranges	742	0			0.002 ^	0.5 AL	-
Peaches, Canned	743	0			0.004 ^	1	-
Pears	741	0			0.002 ^	1	-
Spinach, Canned	371	0			0.006 ^	1	-
Strawberries	211	0			0.002 ^	1	-
Sweet Bell Peppers	558	0			0.003 ^	1	-
Sweet Potatoes	743	0			0.002 ^	0.5 AL	-
Tomatoes	744	0			0.004 ^	3	-
Winter Squash	364	0			0.002 - 0.006	3	-
TOTAL	**9,845**	**0**					
Linuron (herbicide)							
Apples	498	0			0.003 ^	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Grapes	526	0			0.008 ^	NT	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans	387	0			0.015 ^	NT	-
Lettuce (V-1)	512	1	0.2	0.005 ^	0.003 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Sweet Bell Peppers	542	0			0.003 ^	NT	-
TOTAL	**3,306**	**1**					
Malathion (insecticide)							
Apples	744	0			0.003 - 0.004	8	2
Cantaloupe	742	0			0.004 - 0.007	8	-
Cauliflower	185	0			0.003 ^	8	-
Cucumbers	557	0			0.004 ^	8	0.2
Grapes	738	1	0.1	0.047 ^	0.004 ^	8	8
Grean Beans, Canned	185	0			0.004 - 0.008	8	1
Green Beans	548	0			0.004 - 0.008	8	1
Lettuce	743	6	0.8	0.005 - 5.0	0.003 - 0.004	8	-
Orange Juice	186	0			0.004 ^	8	4
Oranges	742	1	0.1	0.007 ^	0.004 ^	8	4
Peaches, Canned	743	0			0.010 ^	8	6
Pears	741	0			0.004 ^	8	-
Spinach, Canned	371	0			0.007 ^	8	3
Strawberries	731	153	20.9	0.001 - 0.61	0.0007 - 0.004	8	1
Sweet Bell Peppers	558	6	1.1	0.005 - 0.075	0.003 ^	8	0.1
Sweet Potatoes	743	3	0.4	0.002 - 0.005	0.001 - 0.004	1	0.5
Tomatoes	744	1	0.1	0.017 ^	0.010 ^	8	0.5
Winter Squash	364	0			0.004 - 0.007	8	-
TOTAL	**10,365**	**171**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Malathion oxygen analog (metabolite of Malathion)							
Apples	744	0			0.003 ^	NT	-
Cantaloupe	742	0			0.003 - 0.007	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	557	0			0.003 ^	NT	-
Grapes (V-1)	738	1	0.1	0.020 ^	0.003 - 0.006	NT	-
Grean Beans, Canned	185	0			0.003 - 0.005	NT	-
Green Beans	548	0			0.003 - 0.005	NT	-
Lettuce (V-1)	743	1	0.1	0.021 ^	0.003 ^	NT	-
Orange Juice	186	0			0.003 ^	NT	-
Oranges	742	0			0.003 ^	NT	-
Peaches, Canned	743	0			0.012 ^	NT	-
Pears	741	0			0.003 - 0.006	NT	-
Spinach, Canned	371	0			0.007 ^	NT	-
Strawberries (V-29)	731	29	4.0	0.002 - 0.013	0.0009 - 0.003	NT	-
Sweet Bell Peppers	558	0			0.003 ^	NT	-
Sweet Potatoes	743	0			0.003 ^	NT	-
Tomatoes	744	0			0.012 ^	NT	-
Winter Squash	364	0			0.003 - 0.007	NT	-
TOTAL	**10,365**	**31**					
Metalaxyl (fungicide)							
Apples	729	0			0.006 - 0.025	0.2	1
Cantaloupe	742	7	0.9	0.014 - 0.075	0.008 - 0.010	1.0	0.2
Cauliflower	124	0			0.020 - 0.083	1.0	0.5
Cucumbers	557	89	16.0	0.017 - 0.15	0.010 - 0.011	1.0	0.5
Grapes	738	1	0.1	0.076 ^	0.010 - 0.015	2.0	1
Grean Beans, Canned	185	0			0.010 - 0.015	0.2	-
Green Beans	540	0			0.010 - 0.015	0.2	-
Lettuce	686	5	0.7	0.010 - 0.35	0.006 - 0.040	5.0	2
Orange Juice	186	0			0.010 ^	1.0	5
Oranges	742	0			0.010 ^	1.0	5
Peaches, Canned	743	0			0.033 ^	1.0	-
Pears	525	0			0.015 ^	NT	1
Spinach, Canned	371	0			0.008 ^	10.0	2
Strawberries	731	46	6.3	0.017 - 0.21	0.010 - 0.019	10.0	-
Sweet Bell Peppers	558	97	17.4	0.010 - 0.22	0.006 - 0.040	1.0	1
Sweet Potatoes	743	0			0.007 - 0.010	0.5	-
Tomatoes	744	0			0.033 ^	1.0	0.5
Winter Squash	364	2	0.5	0.014 ^	0.008 - 0.010	1.0	0.2
TOTAL	**10,008**	**247**					
Methamidophos (insecticide) (also a metabolite of Acephate)							
Apples	744	0			0.001 - 0.002	0.02	-
Cantaloupe	742	2	0.3	0.006 - 0.16	0.002 - 0.004	0.5	-
Cucumbers	557	50	9.0	0.003 - 0.52	0.002 ^	1.0	1
Grapes (X-1)	563	9	1.6	0.003 - 0.035	0.002 - 0.008	0.02	-
Grean Beans, Canned	185	28	15.1	0.003 - 0.094	0.002 - 0.005	1	-
Green Beans	548	153	27.9	0.008 - 0.56	0.002 - 0.005	1	-
Lettuce	743	38	5.1	0.002 - 0.012	0.001 - 0.002	1.0	1
Orange Juice	186	0			0.002 ^	0.02	-
Oranges	742	0			0.002 ^	0.02	-
Pears	741	0			0.002 - 0.025	0.02	-
Spinach, Canned	371	0			0.004 ^	0.02	-
Strawberries	211	0			0.002 ^	0.02	-
Sweet Bell Peppers	558	188	33.7	0.002 - 0.39	0.001 ^	1.0	1
Tomatoes	744	73	9.8	0.008 - 0.14	0.005 ^	1.0	-
Winter Squash	364	2	0.5	0.006 - 0.046	0.002 - 0.004	0.02	-
TOTAL	**7,999**	**543**					
Methidathion (insecticide)							
Apples	744	0			0.002 - 0.004	0.05	0.5
Cantaloupe	527	0			0.010 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cauliflower	185	0			0.002 ^	NT	-
Grapes	526	0			0.004 ^	NT	1
Lettuce	527	0			0.002 ^	NT	-
Orange Juice	186	0			0.004 - 0.005	2.0	2
Oranges	742	3	0.4	0.007 - 0.008	0.004 - 0.005	2.0	2
Peaches, Canned	743	0			0.010 ^	0.05	0.2
Pears	741	2	0.3	0.006 - 0.016	0.004 ^	0.05	1
Spinach, Canned	371	0			0.010 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.010 ^	NT	-
TOTAL	**6,112**	**5**					
Methiocarb (insecticide) (analyzed as sulfoxide)							
Apples	513	0			0.0006 ^	NT	-
Cauliflower	185	0			0.0006 ^	NT	-
Cucumbers	263	0			0.010 ^	NT	-
Grapes	526	0			0.010 ^	NT	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans	387	0			0.015 ^	NT	-
Lettuce	497	0			0.0006 ^	NT	-
Oranges	286	0			0.010 ^	NT	-
Pears	525	0			0.010 ^	NT	-
Sweet Bell Peppers	528	0			0.0006 ^	NT	-
TOTAL	**3,841**	**0**					
Methomyl (insecticide)							
Apples	729	6	0.8	0.002 - 0.023	0.001 - 0.014	1	2
Cantaloupe (X-3)	742	142	19.1	0.020 - 0.50	0.012 - 0.017	0.2	0.2
Cauliflower	185	0			0.001 ^	2	2
Cucumbers	557	13	2.3	0.017 - 0.084	0.010 - 0.014	0.2	0.2
Grapes	738	40	5.4	0.010 - 3.3	0.010 - 0.017	5	5
Grean Beans, Canned	185	0			0.014 - 0.015	2	1
Green Beans	548	4	0.7	0.023 - 0.085	0.014 - 0.015	2	1
Lettuce	743	83	11.2	0.002 - 2.9	0.001 - 0.014	5	5
Orange Juice	186	0			0.010 - 0.017	2	1
Oranges	742	0			0.010 - 0.10	2	1
Peaches, Canned	743	0			0.012 ^	5	0.2
Pears	741	0			0.010 - 0.014	4	2
Spinach, Canned	371	0			0.012 ^	6	-
Strawberries (X-2)	211	53	25.1	0.023 - 4.1	0.014 ^	2	-
Sweet Bell Peppers	558	74	13.3	0.001 - 0.77	0.0006 ^	2	1
Sweet Potatoes	739	0			0.002 - 0.014	0.2	-
Tomatoes	744	0			0.012 ^	1	1
Winter Squash	364	0			0.012 - 0.014	0.2	-
TOTAL	**9,826**	**415**					
Methoprene (insect growth regulator)							
Apples	528	0			0.014 - 0.048	NT	-
Cauliflower	185	0			0.048 ^	NT	-
Lettuce	527	0			0.014 - 0.048	NT	-
Sweet Bell Peppers	558	0			0.014 ^	NT	-
TOTAL	**1,798**	**0**					
Methoxychlor Total (insecticide)							
Apples (V-2)	528	2	0.4	0.053 - 0.53	0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Grean Beans, Canned	131	0			0.005 ^	NT	-
Green Beans	387	0			0.005 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Sweet Potatoes	505	0			0.004 ^	NT	-
TOTAL	**2,821**	**2**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Methoxychlor olefin (metabolite of Methoxychlor)							
Apples (V-2)	528	2	0.4	0.003 - 0.014	0.001 ^	NT	-
Cauliflower	185	0			0.001 ^	NT	-
Lettuce	527	0			0.001 - 0.003	NT	-
Sweet Bell Peppers	558	0			0.001 ^	NT	-
TOTAL	**1,798**	**2**					
Methoxychlor p,p' (isomer of Methoxychlor)							
Cantaloupe	527	0			0.009 ^	NT	-
Cucumbers	557	0			0.020 ^	NT	-
Grapes	526	0			0.008 ^	NT	-
Grean Beans, Canned	54	0			0.020 ^	NT	-
Green Beans	161	0			0.020 ^	NT	-
Orange Juice	132	0			0.020 ^	NT	-
Oranges	527	0			0.020 ^	NT	-
Peaches, Canned	743	0			0.014 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Spinach, Canned	371	0			0.009 ^	NT	-
Sweet Potatoes	216	0			0.020 ^	NT	-
Tomatoes	744	0			0.014 ^	NT	-
Winter Squash	262	0			0.009 ^	NT	-
TOTAL	**5,345**	**0**					
Metolachlor (herbicide)							
Apples	528	0			0.001 ^	NT	-
Cantaloupe	527	0			0.016 ^	NT	-
Cauliflower	185	0			0.001 ^	NT	-
Cucumbers	395	0			0.010 - 0.020	NT	-
Grapes	526	0			0.015 ^	NT	-
Grean Beans, Canned	185	0			0.008 - 0.010	0.3	-
Green Beans	548	0			0.008 - 0.010	0.3	-
Lettuce	527	0			0.001 ^	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Peaches, Canned	743	0			0.022 ^	0.1	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.016 ^	0.5	-
Sweet Bell Peppers	558	0			0.001 ^	0.1	-
Tomatoes	744	0			0.022 ^	0.1	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**7,283**	**0**					
Metribuzin (herbicide)							
Apples	528	0			0.013 - 0.044	NT	-
Cantaloupe	527	0			0.016 ^	NT	-
Cauliflower	185	0			0.013 ^	NT	-
Cucumbers	395	0			0.030 ^	NT	-
Grapes	526	0			0.015 ^	NT	-
Lettuce	527	0			0.013 ^	NT	-
Orange Juice	132	0			0.030 ^	NT	-
Oranges	527	0			0.030 ^	NT	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Sweet Bell Peppers	558	0			0.013 ^	NT	-
Tomatoes	744	0			0.029 ^	0.1	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**5,807**	**0**					
Mevinphos Total (insecticide)							
Apples (V-1)	528	1	0.2	0.003 ^	0.002 ^	NT	-
Cantaloupe	742	0			0.002 - 0.012	0.5	-
Cucumbers	557	0			0.002 - 0.004	0.2	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grapes	738	0			0.002 - 0.008	0.5	-
Grean Beans, Canned	131	0			0.017 ^	NT	-
Green Beans	387	0			0.017 ^	NT	-
Lettuce	743	0			0.002 ^	0.5	-
Orange Juice	132	0			0.004 ^	NT	-
Oranges	527	0			0.004 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Spinach, Canned	371	0			0.012 ^	1.0	-
Strawberries	731	1	0.1	0.005 ^	0.0006 - 0.002	1.0	-
Sweet Bell Peppers	558	0			0.002 ^	0.25	-
Tomatoes	744	0			0.011 ^	0.2	-
Winter Squash	262	0			0.012 ^	NT	-
TOTAL	**7,676**	**2**					
Monocrotophos (insecticide)							
Cantaloupe	527	0			0.007 ^	NT	-
Grapes	526	0			0.008 - 0.025	NT	-
Pears	525	0			0.008 - 0.025	NT	-
Spinach, Canned	371	0			0.007 ^	NT	-
Winter Squash	262	0			0.007 ^	NT	-
TOTAL	**2,211**	**0**					
Myclobutanil (fungicide)							
Apples	729	37	5.1	0.002 - 0.026	0.0009 - 0.020	0.5	0.5
Cantaloupe	742	0			0.008 - 0.020	0.20	-
Cauliflower	185	0			0.0009 ^	0.03	-
Cucumbers	557	2	0.4	0.033 ^	0.020 ^	0.20	-
Grapes	738	106	14.4	0.025 - 0.52	0.020 - 0.023	1.0	1
Grean Beans, Canned	185	0			0.015 - 0.020	1.0	-
Green Beans	548	20	3.6	0.025 - 0.21	0.015 - 0.020	1.0	-
Lettuce	713	5	0.7	0.002 ^	0.0009 - 0.020	0.03	-
Orange Juice	132	0			0.020 ^	NT	-
Oranges	527	0			0.020 ^	NT	-
Peaches, Canned	743	0			0.046 ^	2.0	2
Pears	525	0			0.023 ^	NT	0.5
Spinach, Canned	371	0			0.008 ^	0.03	-
Strawberries (X-1)	731	281	38.4	0.002 - 0.64	0.001 - 0.020	0.50	1
Sweet Bell Peppers	558	49	8.8	0.002 - 0.18	0.0009 ^	1.0	-
Sweet Potatoes	743	0			0.012 - 0.020	0.03	-
Tomatoes	744	0			0.046 ^	0.30	0.3
Winter Squash	364	1	0.3	0.014 ^	0.008 - 0.020	0.20	-
TOTAL	**9,835**	**501**					
Napropamide (herbicide)							
Apples	744	0			0.007 - 0.020	0.1	-
Cantaloupe	742	0			0.020 - 0.040	0.1	-
Cauliflower	185	0			0.007 ^	0.1	-
Cucumbers	557	0			0.020 ^	0.1	-
Lettuce (V-1)	528	1	0.2	0.17 ^	0.007 - 0.020	NT	-
Orange Juice	186	0			0.020 ^	0.1	-
Oranges	742	0			0.020 ^	0.1	-
Peaches, Canned	743	0			0.040 ^	0.1	-
Pears	216	0			0.020 ^	0.1	-
Spinach, Canned	371	0			0.040 ^	NT	-
Sweet Bell Peppers	558	0			0.007 ^	0.1	-
Sweet Potatoes	743	0			0.008 - 0.020	0.1	-
Tomatoes	744	0			0.040 ^	0.1	-
Winter Squash	364	0			0.020 - 0.040	0.1	-
TOTAL	**7,423**	**1**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Naptalam (herbicide)							
Cantaloupe	527	0			0.24 ^	0.1	-
Spinach, Canned	371	0			0.24 ^	NT	-
Winter Squash	262	0			0.24 ^	NT	-
TOTAL	**1,160**	**0**					
1-Napthal (metabolite of Carbaryl)							
Apples (V-5)	5	5	100	0.017 - 0.25	0.010 ^	NT	-
Cantaloupe	617	0			0.010 - 0.16	10	-
Cucumbers	2	2	100	0.017 ^	0.010 ^	10	-
Grapes	158	9	5.7	0.017 - 0.38	0.010 ^	10	-
Lettuce	90	0			0.010 ^	10	-
Orange Juice	54	0			0.010 ^	10	-
Oranges	162	1	0.6	0.017 ^	0.010 ^	10	-
Pears (V-7)	7	7	100	0.017 - 0.13	0.010 ^	NT	-
Spinach, Canned	371	0			0.16 ^	12	-
Strawberries	56	2	3.6	0.017 - 0.079	0.010 ^	10	-
Winter Squash	298	0			0.010 - 0.16	10	-
TOTAL	**1,820**	**26**					
Nitrapyrin (bactericide)							
Cantaloupe	527	0			0.016 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,160**	**0**					
Norflurazon (herbicide)							
Apples	744	0			0.016 - 0.067	0.1	-
Cantaloupe	527	0			0.018 ^	NT	-
Cauliflower	124	0			0.016 ^	NT	-
Cucumbers	395	0			0.020 ^	NT	-
Grapes	738	0			0.010 - 0.020	0.1	-
Lettuce	512	0			0.005 - 0.032	NT	-
Orange Juice	186	0			0.020 ^	0.2	-
Oranges	742	0			0.020 ^	0.2	-
Pears	741	0			0.010 - 0.020	0.1	-
Spinach, Canned	371	0			0.018 ^	NT	-
Sweet Bell Peppers	526	0			0.005 - 0.032	NT	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**5,868**	**0**					
Norflurazon desmethyl (metabolite of Norflurazon)							
Apples	744	0			0.018 - 0.060	0.1	-
Cantaloupe	527	0			0.021 ^	NT	-
Cauliflower	185	0			0.060 ^	NT	-
Cucumbers	395	0			0.030 ^	NT	-
Grapes	738	0			0.010 - 0.030	0.1	-
Lettuce	527	0			0.018 - 0.060	NT	-
Orange Juice	186	0			0.030 ^	0.2	-
Oranges	742	0			0.030 ^	0.2	-
Peaches, Canned	743	0			0.041 ^	0.1	-
Pears	741	0			0.010 - 0.030	0.1	-
Spinach, Canned	371	0			0.021 ^	NT	-
Sweet Bell Peppers	558	0			0.018 ^	NT	-
Winter Squash	262	0			0.021 ^	NT	-
TOTAL	**6,719**	**0**					
Omethoate (metabolite of Dimethoate)							
Apples	744	8	1.1	0.004 - 0.024	0.002 - 0.004	2	-
Cantaloupe	742	14	1.9	0.007 - 0.077	0.004 - 0.018	1	-
Cauliflower	185	0			0.002 ^	2	-
Cucumbers (V-2)	397	2	0.5	0.007 - 0.078	0.004 ^	NT	-
Grapes	716	15	2.1	0.007 - 0.055	0.004 - 0.008	1	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grean Beans, Canned	185	0			0.004 - 0.005	2	-
Green Beans	548	20	3.6	0.007 - 0.042	0.004 - 0.005	2	-
Lettuce	743	58	7.8	0.004 - 0.097	0.002 - 0.004	2	-
Orange Juice	186	0			0.004 ^	2	-
Oranges	742	1	0.1	0.016 ^	0.004 ^	2	-
Pears	741	1	0.1	0.040 ^	0.004 - 0.008	2	-
Spinach, Canned	371	0			0.018 ^	2	-
Sweet Bell Peppers	558	21	3.8	0.004 - 0.025	0.002 ^	2	-
Tomatoes	744	6	0.8	0.023 ^	0.014 ^	2	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**7,864**	**146**					
Oryzalin (herbicide)							
Grapes	526	0			0.010 ^	0.05	-
Pears	525	0			0.010 ^	0.05	-
TOTAL	**1,051**	**0**					
Oxadixyl (fungicide)							
Apples	528	0			0.013 ^	NT	-
Cantaloupe	742	0			0.008 - 0.015	NT	-
Cauliflower	185	0			0.013 ^	NT	-
Cucumbers (V-2)	557	2	0.4	0.025 - 0.054	0.015 ^	NT	-
Lettuce	743	0			0.013 - 0.015	NT	-
Orange Juice	132	0			0.015 ^	NT	-
Oranges	527	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.008 ^	NT	-
Sweet Bell Peppers	558	0			0.013 ^	NT	-
Sweet Potatoes	739	0			0.013 - 0.015	NT	-
Winter Squash	262	0			0.008 ^	NT	-
TOTAL	**5,344**	**2**					
Oxamyl (insecticide)							
Apples	715	2	0.3	0.022 - 0.037	0.0003 - 0.008	2	2
Cantaloupe	742	12	1.6	0.013 - 0.20	0.008 - 0.010	2.0	2
Cauliflower	171	0			0.0003 ^	NT	-
Cucumbers	557	38	6.8	0.013 - 0.24	0.008 - 0.021	2.0	2
Grapes	526	0			0.010 ^	NT	-
Grean Beans, Canned	131	0			0.020 ^	NT	-
Green Beans	387	0			0.020 ^	NT	-
Lettuce (V-5)	486	5	1.0	0.001 - 0.040	0.0003 - 0.008	NT	-
Orange Juice	186	0			0.010 ^	3	5
Oranges	742	0			0.010 - 0.10	3	5
Pears	741	0			0.008 - 0.010	2.0	-
Spinach, Canned	371	0			0.008 ^	NT	-
Sweet Bell Peppers	558	95	17.0	0.0005 - 0.28	0.0003 ^	3	2
Sweet Potatoes	739	0			0.001 - 0.008	0.1	0.1
Tomatoes	744	7	0.9	0.025 ^	0.015 ^	2	2
Winter Squash	364	0			0.008 ^	2.0	-
TOTAL	**8,160**	**159**					
Oxamyl oxime (metabolite of Oxamyl)							
Apples	72	0			0.010 ^	2	2
Cantaloupe	53	4	7.5	0.049 - 0.10	0.010 ^	2.0	2
Cucumbers	18	1	5.6	0.14 ^	0.010 ^	2.0	2
Grapes	526	0			0.010 ^	NT	-
Orange Juice	186	0			0.010 ^	3	5
Oranges	241	0			0.010 ^	3	5
Pears	597	0			0.010 ^	2.0	-
Sweet Potatoes	36	0			0.010 ^	0.1	0.1
Winter Squash	36	0			0.010 ^	2.0	-
TOTAL	**1,765**	**5**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Oxychlordane (metabolite of Chlordane)							
Apples	528	0			0.002 - 0.008	NT	-
Cauliflower	185	0			0.008 ^	NT	-
Lettuce	527	0			0.008 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
TOTAL	**1,798**	**0**					
Oxydemeton methyl (insecticide)							
Strawberries	520	0			0.015 ^	2	-
TOTAL	**520**	**0**					
Oxydemeton methyl sulfone (metabolite of Oxydemeton methyl)							
Apples	729	0			0.009 - 0.015	1	-
Cantaloupe	215	0			0.015 ^	0.3	-
Cucumbers	557	2	0.4	0.025 - 0.077	0.015 ^	1	-
Grapes	738	0			0.015 - 0.023	0.1	-
Grean Beans, Canned	185	0			0.010 - 0.015	0.5	-
Green Beans	548	0			0.010 - 0.015	0.5	-
Lettuce	743	3	0.4	0.015 - 0.17	0.009 - 0.015	2	-
Orange Juice	186	0			0.015 ^	1	-
Oranges	742	0			0.015 ^	1	-
Pears	741	0			0.015 - 0.077	0.3	-
Strawberries	731	0			0.002 - 0.015	2	-
Sweet Bell Peppers	558	1	0.2	0.015 ^	0.009 ^	0.75	-
Winter Squash	102	0			0.015 ^	0.3	-
TOTAL	**6,775**	**6**					
Oxyfluorfen (herbicide)							
Apples	392	0			0.010 - 0.030	0.05	-
Cauliflower	185	0			0.010 ^	0.05	-
Cucumbers	395	0			0.030 ^	NT	-
Grapes	738	0			0.025 - 0.030	0.05	-
Lettuce	175	0			0.010 ^	NT	-
Orange Juice	132	0			0.030 ^	NT	-
Oranges	527	0			0.030 ^	NT	-
Pears	741	0			0.025 - 0.030	0.05	-
TOTAL	**3,285**	**0**					
Parathion (insecticide)							
Apples	528	0			0.005 - 0.006	NT	-
Cantaloupe	527	0			0.006 ^	NT	-
Cauliflower	185	0			0.005 ^	NT	-
Cucumbers	557	0			0.003 ^	NT	-
Grapes	526	0			0.008 ^	NT	-
Grean Beans, Canned	131	0			0.017 ^	NT	-
Green Beans	387	0			0.017 ^	NT	-
Lettuce	527	0			0.005 - 0.006	NT	-
Orange Juice	132	0			0.003 ^	NT	-
Oranges	527	0			0.003 ^	NT	-
Peaches, Canned	743	0			0.009 ^	NT	-
Pears	525	0			0.008 ^	NT	-
Spinach, Canned	371	0			0.006 ^	NT	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
Sweet Potatoes	743	0			0.001 - 0.003	NT	-
Tomatoes	744	0			0.009 ^	NT	-
Winter Squash	262	0			0.006 ^	NT	-
TOTAL	**7,973**	**0**					
Parathion methyl (insecticide)							
Apples	528	0			0.002 - 0.005	NT	0.2
Cantaloupe	527	0			0.006 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grapes	526	0			0.004 ^	NT	0.5
Grean Beans, Canned	131	0			0.008 ^	NT	-
Green Beans	387	0			0.008 ^	NT	-
Lettuce	527	0			0.002 - 0.005	NT	-
Pears	525	0			0.004 ^	NT	-
Spinach, Canned	371	0			0.006 ^	NT	-
Sweet Bell Peppers	558	0			0.005 ^	NT	-
Winter Squash	262	0			0.006 ^	NT	-
TOTAL	**4,527**	**0**					
Parathion methyl oxygen analog (metabolite of Parathion methyl)							
Apples	528	0			0.005 - 0.009	NT	-
Cauliflower	185	0			0.005 ^	NT	-
Lettuce	527	0			0.005 - 0.009	NT	-
Sweet Bell Peppers	558	0			0.009 ^	NT	-
TOTAL	**1,798**	**0**					
Parathion oxygen analog (metabolite of Parathion)							
Apples	528	0			0.003 - 0.006	NT	-
Cantaloupe	527	0			0.016 ^	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	557	0			0.003 ^	NT	-
Lettuce	527	0			0.003 - 0.006	NT	-
Orange Juice	132	0			0.003 ^	NT	-
Oranges	527	0			0.003 ^	NT	-
Peaches, Canned	743	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
Sweet Potatoes	743	0			0.001 - 0.002	NT	-
Tomatoes	744	0			0.010 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**6,404**	**0**					
Pendimethalin (herbicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Cucumbers	395	0			0.020 ^	NT	-
Grapes	526	0			0.015 ^	NT	-
Grean Beans, Canned	185	0			0.015 - 0.020	NT	-
Green Beans	540	0			0.015 - 0.020	NT	-
Orange Juice	132	0			0.020 ^	NT	-
Oranges	527	0			0.020 ^	NT	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**3,990**	**0**					
Pentachloroaniline - PCA (metabolite of Quintozene)							
Apples	176	0			0.001 ^	NT	-
Cauliflower	185	0			0.001 ^	0.1	-
Grapes	526	0			0.005 ^	NT	-
Grean Beans, Canned	131	0			0.010 ^	0.1	-
Green Beans	387	0			0.010 ^	0.1	-
Lettuce	175	0			0.001 ^	NT	-
Pears	525	0			0.005 ^	NT	-
Tomatoes	744	0			0.005 ^	0.1	-
TOTAL	**2,849**	**0**					
Pentachlorobenzene - PCB (metabolite of Quintozene)							
Apples	528	0			0.002 - 0.006	NT	-
Cantaloupe	527	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	0.1	-
Grapes	526	0			0.002 ^	NT	-
Grean Beans, Canned	185	0			0.002 - 0.003	0.1	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Green Beans	548	0			0.002 - 0.003	0.1	-
Lettuce	527	0			0.002 ^	NT	-
Oranges	286	0			0.002 ^	NT	-
Pears	525	0			0.002 ^	NT	-
Spinach, Canned	371	0			0.002 ^	NT	-
Sweet Bell Peppers	542	0			0.002 ^	0.1	-
Tomatoes	744	0			0.005 ^	0.1	-
Winter Squash	262	0			0.002 ^	NT	-
TOTAL	**5,756**	**0**					
Pentachlorophenyl methyl sulfide (metabolite of Quintozene)							
Apples	176	0			0.001 ^	NT	-
Cauliflower	185	0			0.001 ^	0.1	-
Grapes	526	0			0.005 ^	NT	-
Grean Beans, Canned	131	0			0.010 ^	0.1	-
Green Beans	387	0			0.010 ^	0.1	-
Lettuce	175	0			0.001 ^	NT	-
Pears	525	0			0.005 ^	NT	-
TOTAL	**2,105**	**0**					
Permethrin Total (insecticide)							
Cantaloupe	527	0			0.029 ^	3.0	0.1
Grapes	526	0			0.038 ^	NT	2
Grean Beans, Canned	131	0			0.075 ^	NT	1
Green Beans (V-1)	387	1	0.3	0.24 ^	0.075 ^	NT	1
Pears	525	1	0.2	0.063 ^	0.038 ^	3.0	2
Spinach, Canned	371	244	65.8	0.048 - 11	0.029 ^	20.0	2
Winter Squash	262	3	1.1	0.048 - 0.21	0.029 ^	3.0	0.5
TOTAL	**2,729**	**249**					
Permethrin cis (isomer of Permethrin)							
Apples	744	0			0.002 - 0.012	0.05	2
Cantaloupe	215	3	1.4	0.020 ^	0.012 ^	3.0	0.1
Cauliflower	185	0			0.008 ^	1.0	0.5
Cucumbers	557	1	0.2	0.044 ^	0.012 - 0.015	3.0	0.5
Grapes	18	0			0.012 ^	NT	2
Lettuce	743	129	17.4	0.004 - 1.0	0.002 - 0.012	20.0	2
Orange Juice	132	0			0.015 ^	NT	0.5
Oranges	527	0			0.015 ^	NT	0.5
Peaches, Canned	743	0			0.023 ^	5.0	2
Pears	216	0			0.012 ^	3.0	2
Strawberries	193	0			0.012 ^	NT	1
Sweet Bell Peppers	558	52	9.3	0.004 - 0.060	0.002 ^	1.0	1
Tomatoes	744	6	0.8	0.025 - 0.051	0.015 - 0.023	2	1
Winter Squash	102	0			0.012 ^	3.0	0.5
TOTAL	**5,677**	**191**					
Permethrin trans (isomer of Permethrin)							
Apples	744	0			0.006 - 0.012	0.05	2
Cantaloupe	215	2	0.9	0.020 ^	0.012 ^	3.0	0.1
Cauliflower	185	0			0.008 ^	1.0	0.5
Cucumbers	557	2	0.4	0.045 - 0.077	0.012 - 0.015	3.0	0.5
Grapes	18	0			0.012 ^	NT	2
Lettuce	743	92	12.4	0.008 - 0.87	0.006 - 0.012	20.0	2
Orange Juice	132	0			0.015 ^	NT	0.5
Oranges	527	0			0.015 ^	NT	0.5
Peaches, Canned	743	0			0.023 ^	5.0	2
Pears	216	0			0.012 ^	3.0	2
Strawberries	193	0			0.012 ^	NT	1
Sweet Bell Peppers	558	40	7.2	0.011 - 0.071	0.006 ^	1.0	1
Tomatoes	744	10	1.3	0.025 - 0.066	0.015 - 0.023	2	1
Winter Squash	102	0			0.012 ^	3.0	0.5
TOTAL	**5,677**	**146**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Phenmedipham (herbicide)							
Cantaloupe	527	0			0.097 ^	NT	-
Spinach, Canned	371	0			0.097 ^	0.5	-
Winter Squash	262	0			0.097 ^	NT	-
TOTAL	**1,160**	**0**					
Phenothrin (insecticide)							
Grapes	460	0			0.015 - 0.075	NT	-
Pears	440	0			0.015 - 0.075	NT	-
TOTAL	**900**	**0**					
Phenthoate (insecticide)							
Apples	528	0			0.006 ^	NT	-
Cauliflower	185	0			0.006 ^	NT	-
Lettuce	527	0			0.006 ^	NT	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
TOTAL	**1,798**	**0**					
o-Phenylphenol (fungicide)							
Apples	744	64	8.6	0.005 - 0.090	0.003 - 0.010	25	-
Cantaloupe	742	16	2.2	0.014 - 0.017	0.008 - 0.010	10	-
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	557	79	14.2	0.017 - 0.49	0.010 - 0.011	10	-
Grapes (V-2)	528	2	0.4	0.017 ^	0.010 - 0.015	NT	-
Green Beans (V-67)	104	67	64.4	0.017 ^	0.010 ^	NT	-
Lettuce (V-42)	582	42	7.2	0.017 ^	0.003 - 0.010	NT	-
Orange Juice	186	72	38.7	0.017 ^	0.010 ^	10	0.5
Oranges	742	142	19.1	0.017 - 0.062	0.010 ^	10	10
Peaches, Canned	743	60	8.1	0.023 ^	0.014 ^	20	-
Pears	741	83	11.2	0.015 - 13	0.010 - 0.015	25.0	20
Spinach, Canned	371	0			0.008 ^	NT	-
Sweet Bell Peppers	558	19	3.4	0.005 - 0.069	0.003 ^	10	-
Sweet Potatoes	743	80	10.8	0.015 - 1.4	0.009 - 0.010	15	-
Tomatoes	744	25	3.4	0.023 - 0.33	0.014 ^	10	-
Winter Squash (V-53)	331	53	16.0	0.014 - 0.017	0.008 - 0.010	NT	-
TOTAL	**8,601**	**804**					
Phorate (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cantaloupe	527	0			0.012 ^	NT	-
Cucumbers	395	0			0.003 - 0.005	NT	-
Grapes	526	0			0.004 ^	NT	-
Grean Beans, Canned	185	0			0.008 - 0.011	0.1	0.1
Green Beans	548	0			0.003 - 0.011	0.1	0.1
Lettuce	527	0			0.002 ^	NT	-
Oranges	286	0			0.003 ^	NT	-
Pears	525	0			0.004 ^	NT	-
Spinach, Canned	371	0			0.012 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.012 ^	NT	-
TOTAL	**5,238**	**0**					
Phorate oxygen analog (metabolite of Phorate)							
Apples	528	0			0.001 ^	NT	-
Lettuce	527	0			0.001 ^	NT	-
Sweet Bell Peppers	558	0			0.001 ^	NT	-
TOTAL	**1,613**	**0**					
Phorate sulfone (metabolite of Phorate)							
Apples	528	0			0.003 ^	NT	-
Cantaloupe	527	0			0.012 ^	NT	-
Cauliflower	185	0			0.003 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cucumbers	395	0			0.004 ^	NT	-
Grapes	526	0			0.012 ^	NT	-
Grean Beans, Canned	185	0			0.004 - 0.005	0.1	0.1
Green Beans	548	0			0.004 - 0.005	0.1	0.1
Lettuce	527	0			0.003 ^	NT	-
Oranges	286	0			0.004 ^	NT	-
Pears	525	0			0.012 ^	NT	-
Spinach, Canned	371	0			0.012 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	NT	-
Winter Squash	262	0			0.012 ^	NT	-
TOTAL	**5,423**	**0**					
Phorate sulfoxide (metabolite of Phorate)							
Apples	528	0			0.009 ^	NT	-
Cauliflower	185	0			0.009 ^	NT	-
Lettuce	527	0			0.009 ^	NT	-
Sweet Bell Peppers	558	0			0.009 ^	NT	-
TOTAL	**1,798**	**0**					
Phosalone (insecticide)							
Apples	744	4	0.5	0.010 - 0.057	0.002 - 0.006	10.0	2
Grapes	738	0			0.006 - 0.015	10.0	-
Grean Beans, Canned	131	0			0.030 ^	NT	-
Green Beans	387	0			0.030 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Peaches, Canned	743	0			0.039 ^	15.0	2
Pears	741	0			0.006 - 0.015	10.0	2
Sweet Bell Peppers	558	0			0.002 ^	NT	-
TOTAL	**4,569**	**4**					
Phosmet (insecticide)							
Apples	744	113	15.2	0.008 - 0.52	0.005 ^	10	10
Cantaloupe	527	0			0.012 ^	NT	-
Cucumbers	395	0			0.005 ^	NT	-
Grapes	738	5	0.7	0.012 - 1.1	0.005 - 0.008	10	10
Grean Beans, Canned	131	0			0.017 ^	NT	-
Green Beans	387	0			0.017 ^	NT	-
Lettuce	527	0			0.005 ^	NT	-
Orange Juice	186	0			0.005 ^	5	5
Oranges	742	0			0.005 ^	5	5
Peaches, Canned	743	0			0.018 ^	10	10
Pears	741	128	17.3	0.008 - 1.6	0.005 - 0.008	10	10
Spinach, Canned	371	0			0.012 ^	NT	-
Sweet Bell Peppers	558	0			0.005 ^	NT	-
Sweet Potatoes	743	37	5.0	0.003 - 0.18	0.002 - 0.005	10	-
Winter Squash	262	0			0.012 ^	NT	-
TOTAL	**7,795**	**283**					
Phosphamidon (insecticide)							
Apples	528	0			0.003 ^	NT	-
Cantaloupe	527	0			0.029 ^	NT	-
Cauliflower	185	0			0.003 ^	NT	-
Grapes	526	0			0.015 ^	NT	-
Grean Beans, Canned	131	0			0.033 ^	NT	-
Green Beans	387	0			0.033 ^	NT	-
Lettuce	527	0			0.003 ^	NT	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.029 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	NT	-
Winter Squash	262	0			0.029 ^	NT	-
TOTAL	**4,527**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Piperonyl butoxide (insecticide)							
Apples	730	0			0.005 - 0.016	8	-
Cantaloupe	742	0			0.008 - 0.010	8	1
Cauliflower	139	0			0.005 ^	EX	-
Cucumbers	395	0			0.010 - 0.011	EX	1
Grapes	738	0			0.010 - 0.015	8	-
Grean Beans, Canned	185	0			0.010 - 0.015	8	-
Green Beans	540	0			0.010 - 0.015	8	-
Lettuce	685	5	0.7	0.074 - 0.58	0.005 - 0.010	EX	50
Orange Juice	186	0			0.010 ^	8	0.05
Oranges	742	0			0.010 ^	8	5
Peaches, Canned	743	0			0.014 ^	8	-
Pears	741	0			0.010 - 0.015	8	-
Spinach, Canned	371	4	1.1	0.014 - 2.4	0.008 ^	EX	50
Sweet Bell Peppers	558	0			0.005 ^	EX	2
Sweet Potatoes	743	49	6.6	0.017 - 0.21	0.010 - 0.013	0.25	0.5
Tomatoes	744	31	4.2	0.023 - 0.46	0.014 ^	8	2
Winter Squash	364	0			0.008 - 0.010	EX	1
TOTAL	**9,346**	**89**					
Pirimicarb (insecticide)							
Apples	528	0			0.010 ^	NT	1
Cauliflower	185	0			0.010 ^	NT	1
Lettuce	527	0			0.010 ^	NT	1
Sweet Bell Peppers	558	0			0.010 ^	NT	1
TOTAL	**1,798**	**0**					
Pirimiphos methyl (insecticide)							
Apples	528	0			0.002 ^	NT	2
Cantaloupe	527	0			0.016 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	2
Cucumbers	395	0			0.003 ^	NT	1
Grapes	526	0			0.004 ^	NT	-
Grean Beans, Canned	131	0			0.008 ^	NT	0.5
Green Beans	387	0			0.008 ^	NT	0.5
Lettuce	527	0			0.002 ^	NT	5
Oranges	286	0			0.003 ^	NT	2
Pears	525	0			0.004 ^	NT	2
Spinach, Canned	371	0			0.016 ^	NT	5
Sweet Bell Peppers	558	0			0.002 ^	NT	1
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**5,208**	**0**					
Prallethrin (insecticide)							
Apples	216	0			0.010 ^	1.0	-
Cantaloupe	742	0			0.010 - 0.024	1.0	-
Grapes	212	0			0.010 ^	1.0	-
Lettuce	216	0			0.010 ^	1.0	-
Orange Juice	186	0			0.010 ^	1.0	-
Oranges	742	0			0.010 ^	1.0	-
Pears	216	0			0.010 ^	1.0	-
Spinach, Canned	371	0			0.024 ^	1.0	-
Strawberries	731	0			0.010 - 0.082	1.0	-
Winter Squash	364	0			0.010 - 0.024	1.0	-
TOTAL	**3,996**	**0**					
Prochloraz (fungicide)							
Grapes	526	0			0.002 ^	NT	-
Grean Beans, Canned	131	0			0.003 ^	NT	-
Green Beans	387	0			0.003 ^	NT	-
Pears (V-1)	525	1	0.2	0.013 ^	0.002 - 0.005	NT	-
TOTAL	**1,569**	**1**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Procymidone (fungicide)							
Grapes	526	0			0.005 ^	NT	5
Pears	525	0			0.005 ^	NT	1
TOTAL	**1,051**	**0**					
Profenofos (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Grapes	526	0			0.011 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Pears	525	0			0.011 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	0.5
TOTAL	**2,849**	**0**					
Prometryn (herbicide)							
Apples	513	0			0.007 ^	NT	-
Cantaloupe	527	0			0.049 ^	NT	-
Cauliflower	108	0			0.007 ^	NT	-
Cucumbers	395	0			0.010 - 0.011	NT	-
Lettuce	513	0			0.007 - 0.022	NT	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
Spinach, Canned	371	0			0.049 ^	NT	-
Sweet Bell Peppers	558	0			0.007 ^	NT	-
Winter Squash	262	0			0.049 ^	NT	-
TOTAL	**3,906**	**0**					
Pronamide (herbicide)							
Apples	744	0			0.006 - 0.007	0.1	-
Cantaloupe	527	0			0.018 ^	NT	-
Cauliflower	185	0			0.006 ^	NT	-
Grapes	738	0			0.007 - 0.008	0.1	-
Grean Beans, Canned	131	0			0.015 ^	NT	-
Green Beans	387	0			0.015 ^	NT	-
Lettuce	743	8	1.1	0.010 - 0.038	0.006 - 0.007	1.0	-
Oranges	286	0			0.006 ^	NT	-
Peaches, Canned	743	0			0.014 ^	0.1	-
Pears	741	0			0.007 - 0.008	0.1	-
Spinach, Canned	371	0			0.018 ^	NT	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**6,416**	**8**					
Propargite (insecticide)							
Apples (V-1)	528	1	0.2	0.15 ^	0.026 - 0.088	NT	3
Cantaloupe	527	0			0.008 ^	NT	-
Cauliflower	185	0			0.026 ^	NT	-
Cucumbers	395	0			0.020 ^	NT	-
Grapes	738	1	0.1	0.51 ^	0.015 - 0.020	10	7
Lettuce	527	0			0.026 ^	NT	-
Orange Juice	186	0			0.020 ^	5	0.3
Oranges	742	0			0.020 ^	5	3
Pears (V-3)	525	3	0.6	0.016 - 0.12	0.015 - 0.30	NT	5
Spinach, Canned	371	0			0.008 ^	NT	-
Sweet Bell Peppers	558	0			0.026 ^	NT	-
Winter Squash	262	0			0.008 ^	NT	-
TOTAL	**5,544**	**5**					
Propetamphos (insecticide)							
Apples	744	0			0.002 - 0.003	0.1	-
Cantaloupe	742	0			0.003 - 0.008	0.1	-
Cauliflower	185	0			0.002 ^	0.1	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cucumbers	395	0			0.003 ^	0.1	-
Grapes	738	0			0.003 - 0.004	0.1	-
Lettuce	743	0			0.002 - 0.003	0.1	-
Orange Juice	186	0			0.003 ^	0.1	-
Oranges	742	0			0.003 ^	0.1	-
Pears	741	0			0.003 - 0.004	0.1	-
Spinach, Canned	371	0			0.008 ^	0.1	-
Strawberries	731	0			0.0006 - 0.003	0.1	-
Sweet Bell Peppers	558	0			0.002 ^	0.1	-
Winter Squash	364	0			0.003 - 0.008	0.1	-
TOTAL	**7,240**	**0**					
Propiconazole (fungicide)							
Apples	484	0			0.002 - 0.005	NT	-
Cantaloupe	527	0			0.016 ^	NT	-
Cauliflower	108	0			0.005 ^	NT	-
Cucumbers	395	0			0.036 ^	NT	-
Lettuce	397	0			0.005 - 0.008	NT	-
Orange Juice	132	0			0.036 ^	NT	-
Oranges	527	0			0.036 ^	NT	-
Peaches, Canned	743	0			0.035 ^	1.0	1
Spinach, Canned	371	0			0.016 ^	NT	-
Sweet Bell Peppers (V-1)	466	1	0.2	0.004 ^	0.002 ^	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**4,412**	**1**					
Propoxur (insecticide)							
Grapes	109	0			0.010 ^	NT	-
Green Beans	301	0			0.015 ^	NT	-
Pears	86	0			0.010 ^	NT	-
TOTAL	**496**	**0**					
Pymetrozine (insecticide)							
Cauliflower	124	0			0.005 ^	0.5	-
Lettuce	483	2	0.4	0.008 - 0.015	0.005 - 0.009	0.6	-
Sweet Bell Peppers	370	2	0.5	0.015 - 0.031	0.009 ^	0.2	-
Sweet Potatoes	392	0			0.087 ^	0.02	-
TOTAL	**1,369**	**4**					
Pyridaben (insecticide)							
Apples	216	0			0.015 ^	0.5	-
Grapes	212	2	0.9	0.025 ^	0.015 ^	1.5	-
Orange Juice	186	0			0.010 - 0.015	0.5	-
Oranges	742	0			0.010 - 0.015	0.5	-
Peaches, Canned	743	0			0.041 ^	2.5	-
Pears	216	0			0.015 ^	0.75	-
TOTAL	**2,315**	**2**					
Pyriproxyfen (insecticide, growth regulator)							
Apples	744	0			0.005 - 0.013	0.2	-
Cantaloupe	215	0			0.005 ^	0.10	-
Cauliflower	185	0			0.013 ^	0.70	-
Grapes	738	0			0.005 - 0.015	0.10	-
Grean Beans, Canned	131	0			0.030 ^	0.10	-
Green Beans	379	0			0.030 ^	0.10	-
Lettuce	743	0			0.005 - 0.013	0.10	-
Orange Juice	186	0			0.005 - 0.008	0.3	0.5
Oranges	742	0			0.005 - 0.008	0.3	0.5
Peaches, Canned	743	0			0.014 ^	1.0	-
Pears	741	1	0.1	0.008 ^	0.005 - 0.015	0.2	-
Strawberries	211	5	2.4	0.008 - 0.14	0.005 ^	0.30	-
Sweet Bell Peppers	558	0			0.013 ^	0.2	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Tomatoes	744	8	1.1	0.023 - 0.058	0.014 ^	0.2	-
Winter Squash	102	0			0.005 ^	0.10	-
TOTAL	**7,162**	**14**					
Quintozene - PCNB (fungicide) (parent of HCB, PCA and PCB)							
Apples	498	0			0.003 - 0.019	NT	-
Cantaloupe	527	0			0.004 ^	NT	-
Cauliflower	108	0			0.019 ^	0.1	-
Cucumbers	395	0			0.003 ^	NT	-
Grapes	526	0			0.002 ^	NT	-
Grean Beans, Canned	185	0			0.001 - 0.003	0.1	0.1
Green Beans	548	32	5.8	0.001 - 0.014	0.0008 - 0.003	0.1	0.1
Lettuce	469	0			0.003 - 0.040	NT	-
Oranges	286	0			0.003 ^	NT	-
Pears	525	0			0.002 ^	NT	-
Spinach, Canned	371	0			0.004 ^	NT	-
Strawberries	193	0			0.003 ^	NT	-
Sweet Bell Peppers	526	0			0.003 - 0.019	0.1	0.05
Tomatoes	744	0			0.006 ^	0.1	0.02
Winter Squash	262	0			0.004 ^	NT	-
TOTAL	**6,163**	**32**					
Resmethrin (insecticide)							
Apples	216	0			0.010 ^	3.0	-
Cantaloupe	742	0			0.010 - 0.032	3.0	-
Grapes	673	0			0.010 - 0.075	3.0	-
Lettuce	216	0			0.010 ^	3.0	-
Orange Juice	186	0			0.010 ^	3.0	-
Oranges	742	0			0.010 ^	3.0	-
Pears	720	0			0.010 - 0.30	3.0	-
Spinach, Canned	371	0			0.032 ^	3.0	-
Strawberries	211	0			0.010 ^	3.0	-
Sweet Potatoes	216	0			0.010 ^	3.0	-
Winter Squash	364	0			0.010 - 0.032	3.0	-
TOTAL	**4,657**	**0**					
Resmethrin cis (isomer of Resmethrin)							
Apples	528	0			0.002 - 0.008	3.0	-
Cauliflower	185	0			0.008 ^	3.0	-
Lettuce	527	0			0.008 - 0.016	3.0	-
Sweet Bell Peppers	558	0			0.002 ^	3.0	-
TOTAL	**1,798**	**0**					
Resmethrin trans (isomer of Resmethrin)							
Apples	528	0			0.002 - 0.008	3.0	-
Cauliflower	185	0			0.008 ^	3.0	-
Lettuce	527	0			0.008 - 0.016	3.0	-
Sweet Bell Peppers	558	0			0.002 ^	3.0	-
TOTAL	**1,798**	**0**					
Sethoxydim (herbicide)							
Cantaloupe	87	0			0.13 ^	4.0	-
Winter Squash	118	0			0.13 ^	4.0	-
TOTAL	**205**	**0**					
Simazine (herbicide)							
Apples	744	0			0.002 - 0.010	0.25	-
Cantaloupe	527	0			0.018 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	395	0			0.010 - 0.011	NT	-
Grapes	738	0			0.010 - 0.011	0.25	-
Grean Beans, Canned	131	0			0.023 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Green Beans	387	0			0.023 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Orange Juice	186	0			0.010 ^	0.25	-
Oranges	742	0			0.010 ^	0.25	-
Peaches, Canned	743	0			0.036 ^	0.25	-
Pears	741	0			0.010 - 0.011	0.25	-
Spinach, Canned	371	0			0.018 ^	NT	-
Strawberries	211	0			0.010 ^	0.25	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**7,448**	**0**					
Spinosad A (insecticide)							
Strawberries	457	33	7.2	0.035 - 0.12	0.021 ^	1.0	-
Sweet Potatoes	399	0			0.013 ^	0.10	-
TOTAL	**856**	**33**					
Spinosad D (insecticide)							
Strawberries	454	4	0.9	0.033 ^	0.020 ^	1.0	-
Sweet Potatoes	399	0			0.013 ^	0.10	-
TOTAL	**853**	**4**					
Sulfentrazone (herbicide)							
Strawberries	518	0			0.020 ^	0.60	-
TOTAL	**518**	**0**					
Sulprofos (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
TOTAL	**1,798**	**0**					
Tebuconazole (fungicide)							
Apples (V-1)	498	1	0.2	0.013 ^	0.002 ^	NT	0.5
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers (V-1)	395	1	0.3	0.033 ^	0.020 ^	NT	0.2
Grapes	738	39	5.3	0.033 - 0.27	0.020 - 0.023	5.0	2
Grean Beans, Canned	131	0			0.045 ^	NT	-
Green Beans	387	0			0.045 ^	NT	-
Lettuce (V-1)	483	1	0.2	0.003 ^	0.002 ^	NT	-
Orange Juice	132	0			0.020 ^	NT	-
Oranges	527	0			0.020 ^	NT	-
Peaches, Canned	743	0			0.066 ^	1.0	1
Pears	525	0			0.023 ^	NT	0.5
Sweet Bell Peppers	558	0			0.002 ^	NT	0.5
TOTAL	**5,302**	**42**					
Tebufenozide (insecticide)							
Apples	700	27	3.9	0.005 - 0.10	0.003 ^	1.0	1
Cauliflower	139	0			0.003 ^	5.0	-
Grapes	738	7	0.9	0.003 - 0.19	0.001 - 0.003	3.0	2
Green Beans (V-2)	2	2	100	0.028 - 0.043	0.003 ^	NT	-
Lettuce	670	4	0.6	0.005 - 0.27	0.003 - 0.010	10.0	10
Pears	741	18	2.4	0.005 - 0.24	0.001 - 0.003	1.5	1
Sweet Bell Peppers	464	36	7.8	0.005 - 0.11	0.003 ^	1.0	1
Sweet Potatoes	523	0			0.011 ^	0.25	-
TOTAL	**3,977**	**94**					
Tecnazene (fungicide)							
Apples	426	0			0.005 ^	NT	-
Cauliflower	185	0			0.005 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grapes	526	0			0.001 ^	NT	-
Grean Beans, Canned	131	0			0.002 ^	NT	-
Green Beans	387	0			0.002 ^	NT	-
Lettuce	468	0			0.005 ^	NT	-
Pears	525	0			0.001 ^	NT	-
Sweet Bell Peppers	448	0			0.005 ^	NT	-
TOTAL	**3,096**	**0**					
TEPP (insecticide)							
Apples	528	0			0.006 ^	NT	-
Lettuce	527	0			0.006 ^	NT	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
TOTAL	**1,613**	**0**					
Terbacil (herbicide)							
Apples	744	0			0.006 - 0.020	0.3	-
Cantaloupe	527	0			0.018 ^	NT	-
Cauliflower	185	0			0.006 ^	NT	-
Cucumbers	395	0			0.020 ^	NT	-
Grapes	526	0			0.015 ^	NT	-
Lettuce	527	0			0.006 ^	NT	-
Oranges	132	0			0.020 ^	NT	-
Peaches, Canned	743	0			0.039 ^	0.2	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.018 ^	NT	-
Strawberries	211	0			0.020 ^	0.1	-
Sweet Bell Peppers	558	0			0.006 ^	NT	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**5,706**	**0**					
Terbufos (insecticide)							
Apples	528	0			0.002 ^	NT	-
Cantaloupe	527	0			0.015 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	395	0			0.006 ^	NT	-
Grapes	526	0			0.005 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Oranges	286	0			0.006 ^	NT	-
Pears	525	0			0.005 ^	NT	-
Spinach, Canned	371	0			0.015 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.015 ^	NT	-
TOTAL	**4,690**	**0**					
Terbufos sulfone (metabolite of Terbufos)							
Apples	528	0			0.002 ^	NT	-
Cantaloupe	527	0			0.018 ^	NT	-
Cauliflower	185	0			0.002 ^	NT	-
Cucumbers	395	0			0.004 ^	NT	-
Grapes	526	0			0.005 ^	NT	-
Grean Beans, Canned	131	0			0.010 ^	NT	-
Green Beans	322	0			0.010 ^	NT	-
Lettuce	527	0			0.002 ^	NT	-
Oranges	286	0			0.004 ^	NT	-
Pears	525	0			0.005 ^	NT	-
Spinach, Canned	371	0			0.018 ^	NT	-
Sweet Bell Peppers	558	0			0.002 ^	NT	-
Winter Squash	262	0			0.018 ^	NT	-
TOTAL	**5,143**	**0**					
Tetrachlorvinphos (insecticide)							
Apples	528	0			0.003 ^	NT	-
Cantaloupe	527	0			0.008 ^	NT	-

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cauliflower	185	0			0.003 ^	NT	-
Cucumbers	395	0			0.006 ^	NT	-
Lettuce	527	0			0.003 ^	NT	-
Oranges	286	0			0.006 ^	NT	-
Spinach, Canned	371	0			0.008 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	NT	-
Winter Squash	262	0			0.008 ^	NT	-
TOTAL	**3,639**	**0**					
Tetradifon (insecticide)							
Apples	744	0			0.010 - 0.032	5	-
Cantaloupe	742	0			0.012 - 0.028	1	-
Cauliflower	169	0			0.032 - 0.13	NT	-
Cucumbers	557	0			0.006 - 0.012	1	-
Grapes	738	0			0.004 - 0.012	5	-
Grean Beans, Canned	131	0			0.008 ^	NT	-
Green Beans	387	0			0.008 ^	NT	-
Lettuce	527	0			0.010 - 0.064	NT	-
Orange Juice	186	0			0.012 ^	2	-
Oranges	742	0			0.012 ^	2	-
Peaches, Canned	743	0			0.012 ^	5	-
Pears	741	0			0.004 - 0.012	5	-
Spinach, Canned	371	0			0.028 ^	NT	-
Strawberries	731	0			0.004 - 0.012	5	-
Sweet Bell Peppers	558	0			0.010 ^	NT	-
Tomatoes	744	0			0.012 ^	1	-
Winter Squash	364	0			0.012 - 0.028	1	-
TOTAL	**9,175**	**0**					
Tetrahydrophthalimide - THPI (metabolite of Captafol and Captan)							
Apples	568	72	12.7	0.033 - 0.83	0.020 - 0.040	25	-
Cantaloupe	302	0			0.009 - 0.040	25	-
Cauliflower	123	0			0.066 ^	2	-
Grapes	738	68	9.2	0.067 - 1.3	0.040 - 0.075	50	-
Green Beans	4	4	100	0.13 - 0.54	0.040 ^	25	-
Lettuce	567	0			0.020 - 0.060	100	-
Pears	741	49	6.6	0.067 - 0.86	0.040 - 0.075	25	-
Strawberries	211	145	68.7	0.067 - 1.5	0.040 ^	25	-
Sweet Bell Peppers	310	4	1.3	0.033 ^	0.020 ^	25	-
Winter Squash	232	0			0.009 - 0.060	25	-
TOTAL	**3,796**	**342**					
Tetramethrin (insecticide)							
Grapes	526	0			0.015 ^	NT	-
Pears	525	0			0.015 ^	NT	-
TOTAL	**1,051**	**0**					
Thiabendazole (fungicide)							
Apples	744	644	86.6	0.0002 - 5.8	0.0001 - 0.030	10	3
Cantaloupe	742	8	1.1	0.075 - 0.38	0.030 - 0.045	15.0	-
Cauliflower	185	0			0.0005 ^	NT	-
Cucumbers	395	0			0.010 - 0.030	NT	-
Grapes	526	0			0.050 ^	NT	-
Lettuce (V-43)	527	43	8.2	0.0002 - 0.032	0.0001 ^	NT	-
Orange Juice	186	0			0.030 ^	10	10
Oranges	742	252	34.0	0.050 - 0.75	0.030 ^	10	10
Pears	741	481	64.9	0.050 - 4.3	0.030 - 0.050	10	3
Spinach, Canned	371	0			0.045 ^	NT	-
Strawberries	731	0			0.0002 - 0.030	5.0	-
Sweet Bell Peppers (V-152)	558	152	27.2	0.0002 - 0.003	0.0001 ^	NT	-
Sweet Potatoes	216	0			0.030 ^	0.02	-
Winter Squash	364	0			0.030 - 0.045	1	-
TOTAL	**7,028**	**1,580**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Thiamethoxam (insecticide)							
Apples	513	0			0.015 ^	0.2	-
Cauliflower	185	0			0.015 ^	NT	-
Lettuce	497	0			0.015 ^	NT	-
Sweet Bell Peppers	558	30	5.4	0.025 ^	0.015 ^	0.25	-
Sweet Potatoes	523	0			0.006 ^	0.02	-
TOTAL	**2,276**	**30**					
Thiazopyr (herbicide)							
Orange Juice	132	0			0.010 ^	0.05	-
Oranges	527	0			0.010 ^	0.05	-
TOTAL	**659**	**0**					
Thiobencarb (herbicide)							
Cucumbers	395	0			0.010 - 0.011	NT	-
Lettuce	216	0			0.010 ^	0.2	-
Orange Juice	132	0			0.010 ^	NT	-
Oranges	527	0			0.010 ^	NT	-
TOTAL	**1,270**	**0**					
Thiodicarb (insecticide)							
Lettuce	162	0			0.002 ^	35	5
Pears (V-1)	1	1	100	0.021 ^	0.002 ^	NT	2
TOTAL	**163**	**1**					
Tri-Allate (herbicide)							
Grapes	526	0			0.015 ^	NT	-
Pears	525	0			0.015 ^	NT	-
TOTAL	**1,051**	**0**					
Triadimefon (fungicide)							
Apples	700	0			0.0009 - 0.025	1.0	0.5
Cantaloupe	742	0			0.023 - 0.025	0.3	0.1
Cauliflower	185	0			0.0009 ^	NT	-
Cucumbers	557	1	0.2	0.042 ^	0.025 - 0.026	0.3	0.1
Grapes	738	0			0.011 - 0.025	1.0	0.5
Grean Beans, Canned	131	0			0.023 ^	NT	-
Green Beans	387	0			0.023 ^	NT	-
Lettuce	469	0			0.003 ^	NT	-
Orange Juice	132	0			0.025 ^	NT	-
Oranges	527	0			0.025 ^	NT	-
Pears	741	0			0.011 - 0.025	1.0	0.5
Spinach, Canned	371	0			0.023 ^	NT	-
Strawberries	193	0			0.025 ^	NT	0.1
Sweet Bell Peppers	480	0			0.003 ^	NT	0.1
Winter Squash	364	0			0.023 - 0.025	0.3	0.1
TOTAL	**6,717**	**1**					
Triadimenol (metabolite of Triadimefon)							
Cantaloupe	215	0			0.015 ^	NT	2
Cucumbers (V-1)	109	1	0.9	0.025 ^	0.015 ^	NT	2
Grapes (V-15)	212	15	7.1	0.025 - 0.22	0.015 ^	NT	2
Pears	216	0			0.015 ^	NT	0.5
Winter Squash	102	0			0.015 ^	NT	2
TOTAL	**854**	**16**					
1,2,4-Triazole (common metabolite of triazole compounds)							
Strawberries	518	0			0.036 ^	NT	-
TOTAL	**518**	**0**					
Triazole acetic acid - TAA (common metabolite of triazole compounds)							
Strawberries	518	0			0.011 ^	NT	-
TOTAL	**518**	**0**					

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Triazole alanine - TA (common metabolite of triazole compounds)							
Strawberries (V-64)	518	64	12.4	0.060 - 0.13	0.036 ^	NT	-
TOTAL	**518**	**64**					
Trifloxystrobin (fungicide)							
Orange Juice	132	0			0.010 ^	0.3	-
Oranges	527	0			0.010 ^	0.3	-
TOTAL	**659**	**0**					
Triflumizole (fungicide)							
Apples	216	0			0.050 ^	0.5	-
Cantaloupe	742	0			0.040 - 0.050	0.5	-
Grapes	738	0			0.020 - 0.050	2.5	-
Pears	741	0			0.020 - 0.050	0.5	-
Spinach, Canned	371	0			0.040 ^	NT	-
Strawberries	211	3	1.4	0.083 - 0.18	0.050 ^	2.0	-
Winter Squash	364	0			0.040 - 0.050	0.5	-
TOTAL	**3,383**	**3**					
Trifluralin (herbicide)							
Apples	528	0			0.0005 ^	NT	-
Cantaloupe	742	0			0.008 - 0.017	0.05	-
Cauliflower	185	0			0.0005 ^	0.05	-
Cucumbers	557	0			0.017 ^	0.05	-
Grapes	738	0			0.015 - 0.017	0.05	-
Grean Beans, Canned	185	0			0.015 - 0.017	0.05	-
Green Beans	540	0			0.015 - 0.017	0.05	-
Lettuce	743	13	1.7	0.0008 - 0.003	0.0005 - 0.017	0.05	-
Orange Juice	186	0			0.017 ^	0.05	-
Oranges	742	0			0.017 ^	0.05	-
Peaches, Canned	743	0			0.024 ^	0.05	-
Pears	525	0			0.015 ^	NT	-
Spinach, Canned	371	0			0.008 ^	0.05	-
Sweet Bell Peppers	558	1	0.2	0.0008 ^	0.0005 ^	0.05	-
Sweet Potatoes	743	0			0.001 - 0.017	0.05	-
Tomatoes	744	0			0.024 ^	0.05	-
Winter Squash	364	0			0.008 - 0.017	0.05	-
TOTAL	**9,194**	**14**					
Triforine (fungicide)							
Apples	528	0			0.003 ^	0.01	2
Cauliflower	185	0			0.003 ^	NT	-
Lettuce	513	0			0.003 ^	NT	-
Sweet Bell Peppers	558	0			0.003 ^	5.0	-
TOTAL	**1,784**	**0**					
Vernolate (herbicide)							
Cantaloupe	527	0			0.016 ^	NT	-
Spinach, Canned	371	0			0.016 ^	NT	-
Sweet Potatoes	743	0			0.008 - 0.050	NT	-
Winter Squash	262	0			0.016 ^	NT	-
TOTAL	**1,903**	**0**					
Vinclozolin (fungicide)							
Apples	528	0			0.004 ^	NT	1
Cantaloupe	527	0			0.014 ^	NT	1
Cauliflower	185	0			0.004 ^	NT	1
Cucumbers	557	0			0.002 - 0.010	NT	1
Grapes	526	0			0.003 ^	NT	5
Grean Beans, Canned	185	4	2.2	0.005 ^	0.003 - 0.010	2.0	2
Green Beans	548	43	7.8	0.004 - 0.41	0.003 - 0.010	2.0	2
Lettuce	743	6	0.8	0.006 - 0.11	0.004 - 0.010	10.0	5

Pesticide / Commodity	Number of Samples	Samples with Detections	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Orange Juice	132	0			0.003 ^	NT	-
Oranges	527	0			0.003 ^	NT	-
Pears	525	0			0.003 ^	NT	1
Spinach, Canned	371	0			0.014 ^	NT	-
Strawberries (V-1)	1	1	100	0.034 ^	0.010 ^	NT	10
Sweet Bell Peppers (V-2)	558	2	0.4	0.006 - 0.036	0.004 ^	NT	3
Winter Squash	262	0			0.014 ^	NT	-
TOTAL	**6,175**	**56**					
Zoxamide (fungicide)							
Cantaloupe	527	0			0.020 ^	1.0	-
Spinach, Canned	371	0			0.020 ^	NT	-
Winter Squash	262	0			0.020 ^	1.0	-
TOTAL	**1,160**	**0**					

Many of the listed tolerances and MRLs are the sum of a parent compound and metabolite(s)/isomer(s). The reader is advised to refer to EPA for the complete listing of compounds in tolerance expressions and to Codex for the complete listing of compounds in MRL expressions.

NOTES

^ Only one distinct detected concentration or LOD value was reported for the pair.

NT = No tolerance level was set for that pesticide/commodity pair.

AL = Numbers shown are Action Levels established by FDA and Codex Extraneous Maximum Residue Levels (EMRLs) for some pesticides. Under FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

EX = Exempt from tolerance application.

SU Safe use in spot and/or crack and crevice treatments.

(V) = Residue was found where no tolerance was established by EPA. Following "V" are the number of occurrences.

(X) = Residue was found which exceeds EPA tolerance or FDA action level. Following "X" are the number of occurrences.

** = Previously reported as lambda cyhalothrin total, which included lambda cyhalothrin (a 1:1 mixture of the cis-(1R,3R),S-enantiomer and the cis-(1S,3S),R-enantiomer) as well as R157836 (a 1:1 mixture of the cis-(1S,3S),S-enantiomer and the cis-(1R,3R), R-enantiomer).

Appendix C

Distribution of Residues by Pesticide in Soybeans

Appendix C shows residue detections for all soybean compounds tested, including range of values detected, range of Limits of Detection (LODs), and Environmental Protection Agency (EPA) and Codex Maximum Residue Limit/Extraneous Maximum Residue Limit (MRL/EMRL) tolerance references for each pair.

In 2004, PDP analyzed 616 soybean samples. A total of 256 samples (42 percent) were reported with residue detections. All residue detections were much lower than the established tolerances.

See Appendix B for definition of MRLs.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: *Proc. of Codex Committee on Pesticide Residues*, 37th Session, April 18-23, 2005, The Hague, The Netherlands. Only Codex MRLs (CXLs) are listed.

Because residues are expressed in ppb, EPA Tolerances and Codex MRLs have been multiplied by a factor of 1,000 as a basis for comparison using a single scale. There is no intention to imply any more exactness in the value than that originally expressed by EPA and Codex.

The information herein is only intended to be an initial reference. Readers are reminded that international regulations and MRLs may change and that it is important that information obtained from this table be verified with knowledgeable parties in the market of interest prior to sale or shipment of exports.

APPENDIX C. DISTRIBUTION OF RESIDUES BY PESTICIDE IN SOYBEANS

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppb	Range of LODs, ppb	EPA Tolerance Level, ppb*	Codex MRL/EMRL, ppb*
3-Hydroxycarbofuran	IM	548				3.0 ^	200	-
5-Hydroxythiabendazole	FM	542				3.0 ^	100	-
Acephate	I	596				40 ^	1000	500
Acetochlor	H	616				3.1 ^	100	-
Alachlor	H	616	5	0.8	8.0 - 17	1.2 ^	200	-
Aldicarb	I	428				10 ^	20	20
Aldicarb sulfone	IM	531				3.0 ^	20	20
Aldicarb sulfoxide	IM	532				10 ^	20	20
Aldrin	I	596				12.5 ^	50	50
Bendiocarb	I	523				1.5 ^	SU	-
Benoxacor	S	616				3.0 ^	10	-
Boscalid	F	616				1.5 ^	2000	-
Carbaryl	I	586				3.0 ^	5000	200
Carbendazim - MBC	F	616				1.5 ^	200	200
Carbofuran	I	611				3.0 ^	200	-
Carboxin	FM	592				1.2 ^	200	-
Chlorimuron ethyl	H	557				10 ^	50	-
Chlorpyrifos	I	616	178	28.9	5.0 - 25.2	3.0 ^	300	-
Clofencet	P	594				30 ^	30000	-
Clomazone	H	616				3.0 ^	50	-
Clothianidin	I	606				3.0 ^	NT	-
Cyfluthrin	I	537				10 ^	50	-
Cyhalothrin, epimer R157836	I	96				4.0 ^	10	-
Cyhalothrin, Lambda	I	500				4.0 ^	10	-
Cypermethrin	I	596				25 ^	50	50
DDD p,p'	IM	616				1.5 ^	200	-
DDE p,p'	IM	596				1.9 ^	200	-
Deltamethrin - includes parent Tralomethrin	I	496				15 - 27	50	200
Dieldrin	I	616	4	0.6	4.0 ^	2.4 ^	50	50
Dimethenamid	H	616				1.0 ^	10	-
Dimethoate	I	616				8.0 ^	50	-
Disulfoton	I	616				6.0 ^	100	-
Disulfoton sulfone	IM	616				30 ^	100	-

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppb	Range of LODs, ppb	EPA Tolerance Level, ppb*	Codex MRL/EMRL, ppb*
Disulfoton sulfoxide	IM	551				3.6 ^	100	-
Endrin	I	616				5.4 ^	50	-
EPTC	H	522				3.0 ^	100	-
Esfenvalerate	I	616				10 ^	50	-
Ethalfluralin	H	595				0.80 ^	50	-
Fenoxaprop ethyl	H	616				1.5 ^	50	-
Fenpropathrin	I	616				4.2 ^	NT	-
Fluazifop butyl	H	616				3.0 ^	1000	-
Fludioxonil	F	597				8.0 ^	10	-
Flumetsulam	H	596				10 ^	50	-
Fluridone	H	511				1.0 ^	100	-
Hydroprene	R	596	1	0.2	35 ^	21 ^	200	-
Imazaquin	H	587				3.0 ^	50	-
Imidacloprid	I	571				3.0 ^	300	-
Indoxacarb	I	591				27 ^	NT	-
Lactofen	H	606				9.0 ^	50	-
Linuron	H	601				3.0 ^	1000	-
Malathion	I	616	72	11.7	9.7 - 179	5.8 ^	8000	-
Malathion oxygen analog	IM	596				2.7 ^	NT	-
Metalaxyl	F	616				2.0 ^	1000	50
Methamidophos	IM	557				30 ^	1000	50
Methomyl	I	611				3.0 ^	200	200
Methoxyfenozide	I	557				3.0 ^	100.0	-
Metolachlor	H	616				1.9 ^	200	-
Metribuzin	H	616				6.5 ^	300	-
Myclobutanil	F	613				1.9 ^	30	-
Norflurazon	H	616				15 ^	100	-
Norflurazon desmethyl	HM	96				5.0 ^	100	-
Omethoate	IM	616				4.2 ^	50	-
Oxadixyl	F	616				3.0 ^	NT	-
Oxamyl	I	579				3.0 ^	200	-
Oxyfluorfen	H	606				2.0 ^	50	-
Parathion ethyl	I	616				4.2 ^	100	-
Parathion methyl	I	577				6.1 ^	100	-

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppb	Range of LODs, ppb	EPA Tolerance Level, ppb*	Codex MRL/EMRL, ppb*
Parathion methyl oxygen analog	IM	563				1.7 ^	NT	-
Parathion oxygen analog	IM	596				25 ^	NT	-
Pendimethalin	H	616				6.0 ^	NT	-
Permethrin Total	I	596	13	2.2	15.5 ^	9.3 ^	50	50
Phorate	I	616				4.4 ^	100	50
Prallethrin	I	616				45 ^	1000	-
Propetamphos	I	616	5	0.8	2.0 ^	1.0 ^	100	-
Pyriproxyfen	I	616				32.3 ^	100.0	-
Quizalofop ethyl	H	616				1.9 ^	50	-
Resmethrin	I	597				2.3 ^	30000	-
Spinosad A	I	583				3.0 ^	20	10
Sulfentrazone	H	553				15 ^	NT	-
Tetrahydrophthalimide - THPI	FM	616				15 ^	2000	-
Thiabendazole	F	616				3.0 ^	100	-
Thifensulfuron methyl	H	576				6.0 ^	100	-
Trifluralin	H	616	4	0.6	3.0 ^	2.0 ^	50	-

Many of the listed tolerances and MRLs are the sum of a parent compound and metabolite(s)/isomer(s). The reader is advised to refer to EPA for the complete listing of compounds in tolerance expressions and to Codex for the complete listing of compounds in MRL expressions.

NOTES

* = EPA Tolerances and Codex MRLs have been multiplied by a factor of 1,000 as a basis for comparison using a single scale. There is no intention to imply any more exactness in the value than that originally expressed by EPA and Codex.

^ = Only one distinct detected concentration or LOD value was reported for the pair.

NT = No tolerance level was set for that pesticide/commodity pair.

Pesticide Types:

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide

I = Insecticide, IM = Insecticide Metabolite

P = Plant Growth Regulator

R = Insect Growth Regulator

S = Herbicide Safener

Appendix D

Distribution of Residues by Pesticide in Wheat Flour

Appendix D shows residue detections for all wheat flour compounds tested, including range of values detected, range of Limits of Detection (LODs), and Environmental Protection Agency (EPA) and Codex Maximum Residue Limit/Extraneous Maximum Residue Limit (MRL/EMRL) tolerance references for each pair.

In 2004, PDP analyzed 725 wheat flour samples. A total of 410 samples (57 percent) were reported with residue detections. All residue detections were much lower than the established tolerances.

See Appendix B for definition of MRLs.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: *Proc. of Codex Committee on Pesticide Residues*, 37th Session, April 18-23, 2005, The Hague, The Netherlands. Only Codex MRLs (CXLs) are listed.

The information herein is only intended to be an initial reference. Readers are reminded that international regulations and MRLs may change and that it is important that information obtained from this table be verified with knowledgeable parties in the market of interest prior to sale or shipment of exports.

APPENDIX D. DISTRIBUTION OF RESIDUES BY PESTICIDE IN WHEAT FLOUR

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
3-Hydroxycarbofuran	IM	519				0.006 ^	0.1	-
Acetochlor	H	725				0.003 ^	0.02	-
Allethrin	I	725				0.003 ^	2	-
Atrazine	H	705				0.003 ^	0.25	-
Bromuconazole 46	FM	725				0.006 ^	NT	-
Bromuconazole 47	FM	705				0.004 ^	NT	-
Carbaryl	I	725				0.006 ^	3	0.2
Carbofuran	I	725	1	0.1	0.15 ^	0.023 ^	0.1	-
Carboxin	FM	725				0.003 ^	0.2	-
Carfentrazone ethyl	H	725	1	0.1	0.005 ^	0.003 ^	0.10	-
Chlorpyrifos	I	705				0.006 ^	0.5	0.1
Chlorpyrifos methyl	I	725	151	20.8	0.032 - 0.093	0.019 ^	6.0	2
Clodinafop propargyl	H	685	1	0.1	0.005 ^	0.003 ^	0.1	-
Cyanazine	H	725				0.005 ^	0.1	-
Cyfluthrin	I	705	2	0.3	0.038 ^	0.023 ^	4.0	-
Cyhalothrin, Lambda	I	725				0.003 ^	0.05	-
Cyproconazole	F	725				0.011 ^	NT	-
DDE p,p'	IM	725	1	0.1	0.005 ^	0.003 ^	0.5	-
Diazinon	I	725	3	0.4	0.005 ^	0.003 ^	0.05	-
Diazinon oxygen analog	IM	725				0.006 ^	NT	-
Diclofop methyl	H	725				0.003 ^	0.1	-
Dieldrin	I	705				0.006 ^	0.02	-
Difenoconazole	F	700				0.004 ^	0.1	-
Dimethoate	I	725				0.028 ^	0.04	-
Dimethomorph	F	647				0.019 ^	NT	-
Disulfoton	I	725				0.003 ^	0.3	-
Disulfoton sulfone	IM	705				0.013 ^	0.3	-
Endosulfan I	I	725				0.006 ^	0.1	-
Endosulfan II	IM	725				0.006 ^	0.1	-
Endosulfan sulfate	IM	725				0.003 ^	0.1	-
Epoxiconazole	F	725				0.004 ^	NT	-
Etridiazole	F	719	1	0.1	0.017 ^	0.010 ^	0.05	-
Fenbuconazole	F	705				0.009 ^	NT	-

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Fenitrothion	I	705				0.006 ^	NT	2
Fludioxonil	F	560				0.009 ^	0.02	-
Flufenacet	H	725				0.006 ^	1	-
Fluridone	H	666	4	0.6	0.005 ^	0.003 ^	0.1	-
Heptachlor epoxide	IM	725				0.003 ^	NT	-
Hexaconazole	F	725				0.004 ^	NT	-
Imazalil	F	686				0.028 ^	0.05	-
Lindane - BHC gamma	I	725				0.006 ^	0.1	-
Linuron	H	705				0.025 ^	0.25	-
Malathion	I	725	358	49.4	0.005 - 0.68	0.003 ^	8	2
Malathion oxygen analog	IM	725				0.005 ^	NT	-
Metalaxyl	F	725				0.006 ^	1.0	-
Methoprene	R	660				0.013 ^	5.0	2
Methoxychlor p,p' (V-21)	I	725	21	2.9	0.008 ^	0.005 ^	NT	-
Metolachlor	H	725				0.003 ^	0.1	-
Metribuzin	H	725				0.006 ^	0.75	-
Myclobutanil	F	706	1	0.1	0.022 ^	0.013 ^	0.03	-
Omethoate	IM	705				0.003 ^	0.04	-
Parathion ethyl	I	711				0.005 ^	1.0	-
Parathion oxygen analog	IM	711				0.019 ^	NT	-
Phorate	I	725				0.008 ^	0.05	-
Phorate sulfone	IM	725				0.005 ^	0.5	-
Piperonyl butoxide	I	725	19	2.6	0.010 - 0.40	0.006 ^	20	10
Pirimiphos methyl (V-15)	I	725	15	2.1	0.005 ^	0.003 ^	NT	2
Propanil	H	705				0.005 ^	0.2	-
Propiconazole	F	725				0.011 ^	0.1	-
RH 9129 (fenbuconazole metabolite)	FM	725				0.005 ^	NT	-
RH 9130 (fenbuconazole metabolite)	FM	705				0.004 ^	NT	-
TCMTB	F	725				0.025 ^	0.1	-
Tebuconazole	F	725				0.010 ^	0.05	-
Tetraconazole	F	725				0.004 ^	NT	-
Thiabendazole	F	685	1	0.1	0.022 ^	0.013 ^	1.0	-
Thiamethoxam	I	705				0.003 ^	0.02	-

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Tri Allate	H	725				0.006 ^	0.05	-
Triadimefon	F	725				0.003 ^	1.0	-
Triadimenol	F	524				0.006 ^	0.05	-
Trifluralin	H	725	10	1.4	0.010 ^	0.006 ^	0.05	-
Triticonazole	F	725				0.004 ^	0.05	-

Many of the listed tolerances and MRLs are the sum of a parent compound and metabolite(s)/isomer(s). The reader is advised to refer to EPA for the complete listing of compounds in tolerance expressions and to Codex for the complete listing of compounds in MRL expressions.

NOTES

^ = Only one distinct detected concentration or LOD value was reported for the pair.

NT = No tolerance level was set for that pesticide/commodity pair.

(V) = Residue was found where no tolerance was established by EPA. Following "V" are the number of occurrences.

Pesticide Types:

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide

I = Insecticide, IM = Insecticide Metabolite

R = Insect Growth Regulator

Appendix E

Distribution of Residues by Pesticide in Milk

Appendix E shows residue detections for all milk compounds tested, including range of values detected, range of Limits of Detection (LODs), and Environmental Protection Agency (EPA) and Codex Maximum Residue Limit/Extraneous Maximum Residue Limit (MRL/EMRL) tolerance references for each pair.

In 2004, PDP analyzed 739 milk samples. All 739 samples (100 percent) were reported with residue detections, all of which were much lower than the established tolerances.

See Appendix B for definition of MRLs.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: *Proc. of Codex Committee on Pesticide Residues*, 37th Session, April 18-23, 2005, The Hague, The Netherlands. Only Codex MRLs (CXLs) are listed.

Because residues are expressed in ppb, EPA Tolerances and Codex MRLs have been multiplied by a factor of 1,000 as a basis for comparison using a single scale. There is no intention to imply any more exactness in the value than that originally expressed by EPA and Codex.

The information herein is only intended to be an initial reference. Readers are reminded that international regulations and MRLs may change and that it is important that information obtained from this table be verified with knowledgeable parties in the market of interest prior to sale or shipment of exports.

APPENDIX E. DISTRIBUTION OF RESIDUES BY PESTICIDE IN MILK

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppb	Range of LODs, ppb	EPA Tolerance Level, ppb*	Codex MRL/EMRL, ppb*
3-Hydroxycarbofuran	IM	739	65	8.8	0.20 - 1.4	0.12 ^	20	-
Acephate	I	739				0.090 ^	100	100
Alachlor	H	739				0.15 ^	20	-
Aldicarb	I	739				0.12 ^	NT	10
Aldicarb sulfone	IM	739				0.060 ^	NT	10
Aldicarb sulfoxide	IM	739				0.18 ^	NT	10
Amitraz	I	739				0.51 ^	30	10
Atrazine	H	739				0.18 ^	20	-
Bifenthrin	I	739	3	0.4	0.10 ^	0.060 ^	100	50
Buprofezin	I	739				0.24 ^	10	-
Carbaryl	I	739				0.12 ^	300	50
Carbofuran	I	739				0.18 ^	20	50
Chlorfenapyr	I	739				0.090 ^	NT	-
Chlorpropham	H	739				0.30 ^	50	-
Chlorpyrifos	I	739				0.17 ^	10	20
Chlorpyrifos methyl	I	739				0.11 ^	50	10
Chlorpyrifos methyl O-analog	IM	739				1.5 ^	50	-
Coumaphos	I	739				0.11 ^	500	-
Coumaphos oxygen analog	IM	739				0.40 ^	500	-
Cyfluthrin	I	739	11	1.5	1.0 ^	0.60 ^	1000	10
Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	I	739	128	17.3	0.25 - 2.3	0.15 ^	200	-
Cypermethrin	I	739	1	0.1	1.0 ^	0.60 ^	50	50
Cyproconazole	F	739				0.21 ^	NT	-
DDE p,p'	IM	739	710	96.1	0.10 - 5.6	0.060 ^	1250	20
DEF (Tribufos)	H	739				0.12 ^	2	-
Deltamethrin - includes parent Tralomethrin	I	739				0.15 ^	50	50
Dichlorvos - DDVP	I	739				0.070 ^	20	20
Dieldrin	I	739	307	41.5	0.20 - 0.59	0.12 ^	300	6
Difenoconazole	F	739				0.15 ^	10	-
Dimethoate	I	739	6	0.8	0.12 ^	0.070 ^	2	50
Diphenylamine - DPA	F	739	728	98.5	0.10 - 2.4	0.060 ^	10	0.4
Endosulfan I	I	739				0.060 ^	500	4

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppb	Range of LODs, ppb	EPA Tolerance Level, ppb*	Codex MRL/EMRL, ppb*
Endosulfan II	IM	739				0.060 ^	500	4
Endosulfan sulfate	IM	739	134	18.1	0.20 - 0.89	0.12 ^	500	4
Epoxiconazole	F	739				0.21 ^	NT	-
Esfenvalerate+Fenvalerate Total	I	739				0.15 ^	300	100
Etridiazole	F	739				0.21 ^	50	-
Fenamiphos	I	739				0.17 ^	100	5
Fenamiphos sulfone	IM	739				0.70 ^	100	5
Fenamiphos sulfoxide	IM	739				0.84 ^	100	5
Fenarimol	F	739				0.24 ^	NT	-
Fenoxaprop ethyl	H	739				0.090 ^	20	-
Fenpropathrin	I	739				0.36 ^	80	100
Fipronil	I	739				0.30 ^	50	20
Fluridone	H	739				0.30 ^	50	-
Fluroxypyr 1-methylheptyl ester	H	739				0.24 ^	300	-
Flutolanil	F	739				0.12 ^	50	50
Fluvalinate (V-3)	I	739	3	0.4	0.75 - 2.4	0.45 ^	NT	-
Hexachlorobenzene - HCB	FM	739				0.21 ^	NT	-
Hexaconazole	F	739				0.15 ^	NT	-
Iprodione	F	739				0.75 ^	500	-
Malathion	I	739				0.12 ^	500	-
Malathion oxygen analog	IM	739				0.13 ^	NT	-
Metalaxyl	F	739				0.15 ^	20	-
Methamidophos	IM	739				0.060 ^	100	10
Metolachlor	H	739				0.27 ^	20	-
Metribuzin	H	739				0.60 ^	50	-
MGK-264	I	739				0.51 ^	300	-
Myclobutanil	F	739				0.24 ^	200	10
Norflurazon	H	739				0.45 ^	100	-
Omethoate	IM	739				0.12 ^	2	-
Oxydemeton methyl	I	739				0.32 ^	10	-
Oxyfluorfen	H	739				0.21 ^	50	-
Pentachloroaniline - PCA	FM	739				0.27 ^	NT	-
Pentachlorobenzene - PCB	FM	739				0.30 ^	NT	-
Pentachlorophenyl methyl ether	FM	739				0.090 ^	NT	-
Pentachlorophenyl methyl sulfide	FM	739				0.12 ^	NT	-

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppb	Range of LODs, ppb	EPA Tolerance Level, ppb*	Codex MRL/EMRL, ppb*
Permethrin Total	I	739	33	4.5	1.0 - 2.3	0.60 ^	250	100
Profenofos	I	739				0.17 ^	10	10
Pronamide	H	739				0.15 ^	20	-
Propachlor	H	739				0.18 ^	20	-
Propanil	H	739				0.18 ^	50	-
Propargite	I	739				0.75 ^	80	100
Propham	H	739				0.75 ^	NT	-
Propiconazole	F	739				0.36 ^	50	10
Pyrazon	H	739				0.15 ^	10	-
Quintozene - PCNB	F	739				0.24 ^	NT	-
Simazine	H	739				0.18 ^	20	-
Tefluthrin	I	739				0.27 ^	NT	-
Tetrachlorvinphos	I	739				0.16 ^	500	-
Tetraconazole	F	739				0.33 ^	50.0	-
Tetradifon	I	739				0.33 ^	400	-
Tetramethrin	I	739				0.75 ^	NT	-
Thiabendazole	F	739				0.75 ^	400	200
Triadimefon	F	739				0.27 ^	40	50
Triadimenol	F	739				0.21 ^	10	10
Triflumizole	F	739				0.18 ^	50	-
Vinclozolin	F	739				0.15 ^	50	50

Many of the listed tolerances and MRLs are the sum of a parent compound and metabolite(s)/isomer(s). The reader is advised to refer to EPA for the complete listing of compounds in tolerance expressions and to Codex for the complete listing of compounds in MRL expressions.

NOTES

* = EPA Tolerances and Codex MRLs have been multiplied by a factor of 1000 as a basis for comparison using a single scale. There is no intention to imply any more exactness in the value than that originally expressed by EPA and Codex.

^ = Only one distinct detected concentration or LOD value was reported for the pair.

NT = No tolerance level was set for that pesticide/commodity pair.

(V) = Residue was found where no tolerance was established by EPA. Following "V" are the number of occurrences.

Pesticide Types:

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide

I = Insecticide, IM = Insecticide Metabolite

Appendix F

Distribution of Residues by Pesticide in Drinking Water

Appendix F shows residue detections for all drinking water compounds tested, including range of values detected and range of Limits of Detection (LODs). The Environmental Protection Agency (EPA) National Primary Drinking Water Regulation (NPDWR) Maximum Contaminant Levels (MCLs) for drinking water, Health Advisory (HA) values for drinking water, and Freshwater Aquatic Organism (FAOs) Criteria for ambient water are also shown. Units for LODs, MCLs, HAs, and FAOs are shown in parts per trillion (ppt).

In 2004, PDP analyzed 762 drinking water samples. PDP detected 38 different pesticide residues in finished drinking water and 51 residues in the untreated intake water; most of the detections were herbicides. None of the finished drinking water samples exceeded EPA MCLs for any pesticide detected. In fact, the majority of pesticides included in the PDP screens were not detected.

The MCLs are legally enforceable standards that apply to public water systems. EPA's regulations for MCLs may be referenced at http://www.epa.gov/safewater/mcl.html. The HAs are an estimate of acceptable drinking water levels for a chemical substance based on health effects information. The values published are for lifetime HA, which is the concentration of a chemical in drinking water that is not expected to cause any adverse noncarcinogenic effects for a lifetime of exposure. The HA values can be referenced at http://www.epa.gov/waterscience/criteria/drinking. FAO criteria are set by EPA and are the concentration of a chemical in water at or below which aquatic life are protected from acute and chronic adverse effects of the chemical. The FAO values can be referenced at http://www.epa.gov/waterscience/criteria/wqcriteria.html. Health Advisories and FAO criteria are not legally enforceable Federal standards, but serve as technical guidance to assist Federal, State, and local officials.

Because residue values are expressed in ppt, EPA MCL, HA, and FAO values have been multiplied by a factor of 1,000,000 as a basis for comparison using a single scale. There is no intention to imply any more exactness in the value than that originally expressed by EPA.

APPENDIX F. DISTRIBUTION OF RESIDUES BY PESTICIDE IN DRINKING WATER

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
1,2,4-Triazole	FM								
Water, Finished		141				220 - 730			
Water, Untreated		136				220 - 730			
2 4 5 T	H								
Water, Finished		228	2	0.9	3.0 ^	1.8 - 211	50,000	70,000	
Water, Untreated		228	1	0.4	3.0 ^	1.8 - 211			
2,4 DB	H								
Water, Finished		379				15 - 756			
Water, Untreated		380				15 - 756			
2,4-D	H								
Water, Finished		379	134	35.4	6.0 - 401	3.6 - 264	70,000	70,000	
Water, Untreated		380	126	33.2	6.0 - 493	3.6 - 264			
3-Hydroxycarbofuran	IM								
Water, Finished		238				24 - 68			
Water, Untreated		238				24 - 68			
Acetochlor	H								
Water, Finished		376	11	2.9	52 - 357	9.2 - 49.5			
Water, Untreated		376	25	6.6	15.3 - 543	9.2 - 49.5			
Acetochlor ethanesulfonic acid	HM								
Water, Finished		115	93	80.9	20 - 1032	12 ^			
Water, Untreated		116	84	72.4	20 - 1243	12 ^			
Acetochlor oxanilic acid	HM								
Water, Finished		235	93	39.6	20 - 1211	12 - 100			
Water, Untreated		236	86	36.4	20 - 1585	12 - 100			
Acifluorfen	H								
Water, Finished		120				79 - 119			
Water, Untreated		119				79 - 119			
Alachlor	H								
Water, Finished		381	3	0.8	16.3 - 34	7.8 - 26	2000		
Water, Untreated		381	3	0.8	16.3 - 43	7.8 - 26			
Alachlor ethanesulfonic acid	HM								
Water, Finished		235	92	39.1	20 - 182	12 - 823			
Water, Untreated		236	85	36	20 - 232	12 - 823			
Alachlor oxanilic acid	HM								
Water, Finished		235	65	27.7	20 - 81	12 - 100			
Water, Untreated		236	68	28.8	20 - 102	12 - 100			
Aldrin	I								
Water, Finished		262				5.0 - 32			
Water, Untreated		262				5.0 - 32			3000

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Atrazine	H								
Water, Finished		380	191	50.3	1.1 - 2773	0.66 - 5.0	3000		
Water, Untreated		381	204	53.5	1.1 - 4225	0.66 - 5.0			
Azinphos methyl	I								
Water, Finished		239				12 - 253			
Water, Untreated		239				12 - 253			
Barban	H								
Water, Finished		120				5.0 ^			
Water, Untreated		120				5.0 ^			
Bendiocarb	I								
Water, Finished		99				18.8 ^			
Water, Untreated		99				18.8 ^			
Benfluralin	H								
Water, Finished		224				2.0 - 9.8			
Water, Untreated		224				2.0 - 9.8			
Bensulfuron methyl	H								
Water, Finished		379	1	0.3	2.0 ^	1.2 - 53			
Water, Untreated		380				1.2 - 53			
Bentazon	H								
Water, Finished		375	151	40.3	0.30 - 16	0.18 - 209		200,000	
Water, Untreated		376	153	40.7	0.30 - 130	0.18 - 209			
BHC alpha	I								
Water, Finished		120				2.0 ^			
Water, Untreated		120				2.0 ^			
Bifenthrin	I								
Water, Finished		262				3.2 - 11			
Water, Untreated		262				3.2 - 11			
Bromacil	H								
Water, Finished		259				5.3 - 18		90,000	
Water, Untreated		261	12	4.6	8.8 - 34	5.3 - 18			
Bromoxynil	H								
Water, Finished		155				20 - 56			
Water, Untreated		154				20 - 56			
Bromuconazole 46	FM								
Water, Finished		141				1.4 - 4.6			
Water, Untreated		142				1.4 - 4.6			
Bromuconazole 47	FM								
Water, Finished		141				1.9 - 6.2			
Water, Untreated		142				1.9 - 6.2			
Butachlor	H								
Water, Finished		261				1.9 - 6.2			
Water, Untreated		261				1.9 - 6.2			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Butylate	H								
Water, Finished		262				1.8 - 10		400,000	
Water, Untreated		262				1.8 - 10			
Carbaryl	I								
Water, Finished		259				4.7 - 15		700,000	
Water, Untreated		261	1	0.4	19 ^	4.7 - 15			
Carbendazim - MBC	F								
Water, Finished		108				1.8 ^			
Water, Untreated		109				1.8 ^			
Carbofuran	I								
Water, Finished		379				0.60 - 17	40,000	40,000	
Water, Untreated		380				0.60 - 17			
Carbophenothion	I								
Water, Finished		239				5.3 - 32			
Water, Untreated		239				5.3 - 32			
Chloramben	H								
Water, Finished		113				60 ^		100,000	
Water, Untreated		114				60 ^			
Chlordane cis	I								
Water, Finished		229				2.3 - 5.0	2000 [4]		
Water, Untreated		229				2.3 - 5.0			2400
Chlordane trans	I								
Water, Finished		229				2.3 - 5.0	2000 [4]		
Water, Untreated		229				2.3 - 5.0			2400
Chlorfenvinphos beta	I								
Water, Finished		15				4.1 ^			
Water, Untreated		15				4.1 ^			
Chlorfenvinphos total	I								
Water, Finished		342				7.5 - 32			
Water, Untreated		342				7.5 - 32			
Chlorimuron ethyl	H								
Water, Finished		261	7	2.7	9.3 - 32	3.3 - 65			
Water, Untreated		261	22	8.4	9.3 - 59	3.3 - 65			
Chlorothalonil	F								
Water, Finished		120				50 ^			
Water, Untreated		120				50 ^			
Chlorpyrifos	I								
Water, Finished		239				6.0 - 27		20,000	
Water, Untreated		239				6.0 - 27			83
Chlorpyrifos methyl	I								
Water, Finished		239				11.3 - 22			
Water, Untreated		239				11.3 - 22			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Chlorpyrifos oxygen analog	IM								
Water, Finished		120				59 ^			
Water, Untreated		120				59 ^			
Clopyralid	H								
Water, Finished		339	2	0.6	280 - 393	10.8 - 236			
Water, Untreated		340	1	0.3	360 ^	10.8 - 236			
Coumaphos	I								
Water, Finished		239				3.8 - 121			
Water, Untreated		239				3.8 - 121			
Coumaphos oxygen analog	IM								
Water, Finished		120				1400 ^			
Water, Untreated		120				1400 ^			
Cyanazine	H								
Water, Finished		380				1.7 - 25		1000	
Water, Untreated		381	6	1.6	2.8 - 9.3	1.7 - 25			
Cycloate	H								
Water, Finished		241				3.3 - 11			
Water, Untreated		242				3.3 - 11			
Cyfluthrin	I								
Water, Finished		142				40 - 133			
Water, Untreated		142				40 - 133			
Cyhalothrin, Lambda	I								
Water, Finished		142				21 - 70			
Water, Untreated		142				21 - 70			
Cypermethrin	I								
Water, Finished		262				74 - 246			
Water, Untreated		262				74 - 246			
Cyproconazole	F								
Water, Finished		141				0.65 - 2.2			
Water, Untreated		142				0.65 - 2.2			
DCPA	H								
Water, Finished		234				0.80 - 2.5		70,000	
Water, Untreated		234				0.75 - 2.5			
DCPA monoacid	H								
Water, Finished		103				740 ^			
Water, Untreated		104				740 ^			
DDD o,p'	IM								
Water, Finished		119				3.8 ^			
Water, Untreated		119				3.8 ^			
DDD p,p'	IM								
Water, Finished		119				3.8 ^			
Water, Untreated		119				3.8 ^			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
DDE o,p'	IM								
Water, Finished		120				4.0 ^			
Water, Untreated		120				4.0 ^			
DDE p,p'	IM								
Water, Finished		229				2.5 - 7.5			
Water, Untreated		229				2.5 - 7.5			
DDT o,p'	IM								
Water, Finished		119				3.8 ^			
Water, Untreated		119				3.8 ^			
DDT p,p'	IM								
Water, Finished		119				3.8 ^			
Water, Untreated		119				3.8 ^			
DEF - Tribufos	H								
Water, Finished		239				3.8 - 18			
Water, Untreated		239				3.8 - 18			
Deltamethrin (includes parent Tralomethrin)	I								
Water, Finished		142				84 - 281			
Water, Untreated		142				84 - 281			
Desethyl Atrazine	HM								
Water, Finished		380	178	46.8	0.72 - 473	0.43 - 25			
Water, Untreated		381	201	52.8	0.72 - 850	0.43 - 25			
Desisopropyl atrazine	HM								
Water, Finished		380	127	33.4	2.7 - 274	1.6 - 50			
Water, Untreated		381	155	40.7	2.7 - 420	1.6 - 50			
Diazinon	I								
Water, Finished		239				7.5 - 14		600	
Water, Untreated		239				7.5 - 14			
Diazinon oxygen analog	IM								
Water, Finished		239				9.0 - 70			
Water, Untreated		239				9.0 - 70			
Dicamba	H								
Water, Finished		120				266 - 1350		200,000	
Water, Untreated		119				266 - 1350			
Dichlobenil	H								
Water, Finished		239				6.7 - 150			
Water, Untreated		239				6.7 - 150			
Dichlorprop	H								
Water, Finished		118	1	0.8	3.0 ^	1.8 - 6.0			
Water, Untreated		119				1.8 - 6.0			
Dichlorvos - DDVP	I								
Water, Finished		234				12 - 22.5			
Water, Untreated		234				12 - 22.5			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Dicloran	F								
Water, Finished		114				7.5 ^			
Water, Untreated		114				7.5 ^			
Dicofol p,p'	I								
Water, Finished		239				5.0 - 11.3			
Water, Untreated		239				5.0 - 11.3			
Dicrotophos	I								
Water, Finished		120				180 ^			
Water, Untreated		120				180 ^			
Dieldrin	I								
Water, Finished		239				5.0 - 15			
Water, Untreated		239				5.0 - 15			240
Difenoconazole	F								
Water, Finished		141				2.5 - 8.2			
Water, Untreated		142				2.5 - 8.2			
Dimethenamid	H								
Water, Finished		238	28	11.8	1.0 - 18	0.60 - 5.0			
Water, Untreated		239	36	15.1	1.0 - 213	0.60 - 5.0			
Dimethenamid/Dimethenamid P	H								
Water, Finished		261				2.5 - 8.3			
Water, Untreated		262	16	6.1	4.2 - 55	2.5 - 8.3			
Dimethoate	I								
Water, Finished		239				5.3 - 63			
Water, Untreated		239	1	0.4	8.8 ^	5.3 - 63			
Dinoseb	H								
Water, Finished		115	9	7.8	1.0 ^	0.60 - 320	7000	7000	
Water, Untreated		115	1	0.9	1.0 ^	0.60 - 320			
Diphenamid	H								
Water, Finished		119				24 ^		200,000	
Water, Untreated		119				24 ^			
Disulfoton	I								
Water, Finished		381				6.0 - 150		300	
Water, Untreated		381				6.0 - 150			
Disulfoton sulfone	IM								
Water, Finished		260				3.8 - 29			
Water, Untreated		261	1	0.4	6.3 ^	3.8 - 29			
Diuron	H								
Water, Finished		258				16 - 54		10,000	
Water, Untreated		260	7	2.7	27 - 90	16 - 54			
Endosulfan I	I								
Water, Finished		200				5.0 - 22.5			
Water, Untreated		200				5.0 - 22.5			220

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Endosulfan II	IM								
Water, Finished		239				12 - 18.8			
Water, Untreated		239				12 - 18.8			220
Endosulfan sulfate	IM								
Water, Finished		114				30 ^			
Water, Untreated		114				30 ^			
Endrin	I								
Water, Finished		239				22 - 52.5	2000	2000	
Water, Untreated		239				22 - 52.5			86
Epoxiconazole	F								
Water, Finished		141				1.3 - 4.3			
Water, Untreated		142				1.3 - 4.3			
EPTC	H								
Water, Finished		356	3	0.8	17 - 68	2.5 - 117.8			
Water, Untreated		356	5	1.4	28 - 130	2.5 - 117.8			
Esfenvalerate	I								
Water, Finished		120				50 ^			
Water, Untreated		120				50 ^			
Esfenvalerate+Fenvalerate Total	I								
Water, Finished		142				19 - 62			
Water, Untreated		142				19 - 62			
Ethalfluralin	H								
Water, Finished		229				50 - 60			
Water, Untreated		229				50 - 60			
Ethion	I								
Water, Finished		381				2.3 - 85			
Water, Untreated		381				2.3 - 85			
Ethion di oxon	IM								
Water, Finished		120				5.3 ^			
Water, Untreated		120				5.3 ^			
Ethion mono oxon	IM								
Water, Finished		239				3.8 - 30			
Water, Untreated		239				3.8 - 30			
Ethoprop	I								
Water, Finished		381				5.3 - 17			
Water, Untreated		381				5.3 - 17			
Fenamiphos	I								
Water, Finished		234				7.5 - 172		2000	
Water, Untreated		234				7.5 - 172			
Fenamiphos sulfone	IM								
Water, Finished		120				384 ^			
Water, Untreated		120				384 ^			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Fenarimol	F								
Water, Finished		119				37.5 ^			
Water, Untreated		119				37.5 ^			
Fenbuconazole	F								
Water, Finished		141				0.78 - 2.6			
Water, Untreated		142				0.78 - 2.6			
Fenitrothion	I								
Water, Finished		381				6.0 - 42			
Water, Untreated		381				6.0 - 42			
Fenitrothion oxygen analog	IM								
Water, Finished		120				83 ^			
Water, Untreated		120				83 ^			
Fenpropathrin	I								
Water, Finished		251				14 - 60			
Water, Untreated		251				14 - 60			
Fenthion	I								
Water, Finished		381				6.0 - 79			
Water, Untreated		381				6.0 - 79			
Fenthion-O analog	IM								
Water, Finished		239				7.5 - 175			
Water, Untreated		239				7.5 - 175			
Fenuron	H								
Water, Finished		238				2.6 - 27			
Water, Untreated		238				2.6 - 27			
Fludioxonil	F								
Water, Finished		114				37.5 ^			
Water, Untreated		114				37.5 ^			
Flumetsulam	H								
Water, Finished		233				6.0 - 196			
Water, Untreated		233	1	0.4	24 ^	6.0 - 196			
Fluometuron	H								
Water, Finished		238	1	0.4	2.0 ^	1.2 - 10.5		90,000	
Water, Untreated		239	1	0.4	2.0 ^	1.2 - 10.5			
Fluvalinate	I								
Water, Finished		142				79 - 264			
Water, Untreated		142				79 - 264			
Fonofos	I								
Water, Finished	I	239				7.5 - 30		10,000	
Water, Untreated	I	239				7.5 - 30			
Halosulfuron methyl	H								
Water, Finished		141				3.3 - 11			
Water, Untreated		142				3.3 - 11			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Heptachlor	I								
Water, Finished		120				5.0 ^	400		
Water, Untreated		120				5.0 ^			520
Heptachlor epoxide	IM								
Water, Finished		200				5.0 - 15	200		
Water, Untreated		200				5.0 - 15			520
Hexachlorobenzene - HCB	FM								
Water, Finished		120				10 ^	1000		
Water, Untreated		120				10 ^			
Hexaconazole	F								
Water, Finished		141				4.0 - 13			
Water, Untreated		142				4.0 - 13			
Hydroxy Atrazine	HM								
Water, Finished		141	93	66	4.1 - 120	1.2 - 4.0			
Water, Untreated		142	96	67.6	2.0 - 480	1.2 - 4.0			
Imazamethabenz acid	H								
Water, Finished		141				0.60 - 2.0			
Water, Untreated		142				0.60 - 2.0			
Imazamethabenz methyl	H								
Water, Finished		379				0.15 - 4.2			
Water, Untreated		380	1	0.3	0.80 ^	0.15 - 4.2			
Imazamox	H								
Water, Finished		259				2.4 - 10			
Water, Untreated		261	2	0.8	4.0 - 17	2.4 - 10			
Imazapic	H								
Water, Finished		259	10	3.9	4.6 - 5.0	0.90 - 3.0			
Water, Untreated		261	12	4.6	1.5 - 5.0	0.90 - 3.0			
Imazapyr	H								
Water, Finished		259	117	45.2	1.5 - 120	0.90 - 3.5			
Water, Untreated		261	107	41	1.5 - 140	0.90 - 3.5			
Imazaquin	H								
Water, Finished		379	15	4	4.0 - 29	2.4 - 10			
Water, Untreated		380	17	4.5	4.0 - 22	2.4 - 10			
Imazethapyr	H								
Water, Finished		379	76	20.1	4.0 - 52	2.4 - 11			
Water, Untreated		380	73	19.2	4.0 - 137	2.4 - 11			
Imidacloprid	I								
Water, Finished		238	6	2.5	2.5 ^	1.5 - 42			
Water, Untreated		238	4	1.7	2.5 ^	1.5 - 42			
Iprodione	F								
Water, Finished		64				30 ^			
Water, Untreated		64				30 ^			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Isofenphos	I								
Water, Finished		239				4.5 - 18			
Water, Untreated		239				4.5 - 18			
Isofenphos oxygen analog	IM								
Water, Finished		120				36 ^			
Water, Untreated		120				36 ^			
Lindane - BHC gamma	I								
Water, Finished		376				10 - 66	200	200	
Water, Untreated		376				10 - 66			950
Linuron	H								
Water, Finished		336				2.5 - 189			
Water, Untreated		336				2.5 - 189			
Malathion	I								
Water, Finished		381				6.0 - 35		100,000	
Water, Untreated		381				6.0 - 35			
Malathion oxygen analog	IM								
Water, Finished		119				6.0 - 40			
Water, Untreated		119				6.0 - 40			
MCPA	H								
Water, Finished		379				7.2 - 346		4000	
Water, Untreated		380				7.2 - 346			
MCPB	H								
Water, Finished		379				5.0 - 228			
Water, Untreated		380				5.0 - 228			
Mecoprop - MCPP	H								
Water, Finished		120				52 - 78			
Water, Untreated		119				52 - 78			
Metalaxyl	F								
Water, Finished		375				22.5 - 120			
Water, Untreated		376				22.5 - 120			
Methidathion	I								
Water, Finished		239				5.3 - 28			
Water, Untreated		239				5.3 - 28			
Methidathion oxygen analog	IM								
Water, Finished		239				22.5 - 428			
Water, Untreated		239				22.5 - 428			
Methiocarb	I								
Water, Finished		238				15 - 144			
Water, Untreated		238				15 - 144			
Methomyl	I								
Water, Finished		113				6.0 ^		200,000	
Water, Untreated		114				6.0 ^			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Methoxychlor olefin	IM								
Water, Finished		119				3.8 ^			
Water, Untreated		119				3.8 ^			
Methoxychlor Total	I								
Water, Finished		239				7.5 - 40	40,000	40,000	
Water, Untreated		239				7.5 - 40			
Metolachlor	H								
Water, Finished		381	153	40.2	2.5 - 661	1.5 - 5.0		100,000	
Water, Untreated		381	179	47	2.5 - 729	1.5 - 5.0			
Metolachlor ethanesulfonic acid	HM								
Water, Finished		235	114	48.5	20 - 971	12 - 150			
Water, Untreated		236	93	39.4	20 - 1058	12 - 150			
Metolachlor oxanilic acid	HM								
Water, Finished		235	103	43.8	20 - 459	12 - 100			
Water, Untreated		236	99	41.9	20 - 528	12 - 100			
Metribuzin	H								
Water, Finished		363	2	0.6	10.7 - 75	6.4 - 45		200,000	
Water, Untreated		364	12	3.3	10.7 - 120	6.4 - 45			
Metsulfuron methyl	H								
Water, Finished		240				3.0 - 10			
Water, Untreated		242				3.0 - 10			
Mevinphos E	I								
Water, Finished		39				3.4 ^			
Water, Untreated		39				3.4 ^			
Mevinphos Total	I								
Water, Finished		200				6.0 - 42			
Water, Untreated		200				6.0 - 42			
Molinate	H								
Water, Finished		239				9.8 - 12			
Water, Untreated		239				9.8 - 12			
Monuron	H								
Water, Finished		238				6.0 - 54			
Water, Untreated		238				6.0 - 54			
Myclobutanil	F								
Water, Finished		380				1.3 - 11.3			
Water, Untreated		381				1.3 - 11.3			
Napropamide	H								
Water, Finished		239				24 - 25			
Water, Untreated		239				24 - 25			
Neburon	H								
Water, Finished		379				4.0 - 75			
Water, Untreated		380				4.0 - 75			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Nicosulfuron	H								
Water, Finished		259	16	6.2	2.8 - 40	1.7 - 16			
Water, Untreated		261	44	16.9	2.8 - 64	1.7 - 16			
Norflurazon	H								
Water, Finished		234				18.8 - 31			
Water, Untreated		233				18.8 - 31			
Norflurazon desmethyl	HM								
Water, Finished		234				37.5 - 72			
Water, Untreated		233				37.5 - 72			
Oryzalin	H								
Water, Finished		35				57 ^			
Water, Untreated		35				57 ^			
Oxadiazon	H								
Water, Finished		239				15 ^			
Water, Untreated		239				15 ^			
Oxadixyl	F								
Water, Finished		114				48.8 ^			
Water, Untreated		114				48.8 ^			
Oxamyl	I								
Water, Finished		113				6.0 ^	200,000	30,000	
Water, Untreated		114				6.0 ^			
Oxychlordane	IM								
Water, Finished		234				4.0 - 7.5			
Water, Untreated		234				4.0 - 7.5			
Oxydemeton methyl	I								
Water, Finished		120				580 ^			
Water, Untreated		120				580 ^			
Oxyfluorfen	H								
Water, Finished		239				11.3 - 25			
Water, Untreated		239				11.3 - 25			
Parathion ethyl	I								
Water, Finished		261				7.5 - 49			
Water, Untreated		261				7.5 - 49			65
Parathion methyl	I								
Water, Finished		261				4.5 - 178			
Water, Untreated		261				4.5 - 178			65
Parathion methyl oxygen analog	IM								
Water, Finished		234				9.8 - 130			
Water, Untreated		234				9.8 - 130			
Parathion oxygen analog	IM								
Water, Finished		239				7.5 - 63			
Water, Untreated		239				7.5 - 63			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Pebulate	H								
Water, Finished		234				2.3 - 25			
Water, Untreated		234				2.3 - 25			
Pendimethalin	H								
Water, Finished		239				4.5 - 5.0			
Water, Untreated		239				4.5 - 5.0			
Permethrin cis	I								
Water, Finished		262				4.5 - 15			
Water, Untreated		262				4.5 - 15			
Permethrin trans	I								
Water, Finished		142				7.5 - 25			
Water, Untreated		142				7.5 - 25			
Phenthoate	I								
Water, Finished		104				15 ^			
Water, Untreated		104				15 ^			
Phorate	I								
Water, Finished		239				11.3 - 121			
Water, Untreated		239				11.2 - 121			
Phorate oxygen analog	IM								
Water, Finished		239				5.3 - 275			
Water, Untreated		239				5.3 - 275			
Phorate sulfone	IM								
Water, Finished		239				6.0 - 36			
Water, Untreated		239				6.0 - 36			
Phorate sulfoxide	IM								
Water, Finished		239				37.5 - 260			
Water, Untreated		239				37.5 - 260			
Phosalone	I								
Water, Finished		239				4.5 - 33			
Water, Untreated		239				4.5 - 33			
Phosalone oxygen analog	IM								
Water, Finished		120				303 ^			
Water, Untreated		120				303 ^			
Phosmet	I								
Water, Finished		120				255 ^			
Water, Untreated		120				255 ^			
Phosphamidon	I								
Water, Finished		239				12 - 197			
Water, Untreated		239				12 - 197			
Picloram	H								
Water, Finished		379				73 - 4407	500,000	500,000	
Water, Untreated		380				73 - 4407			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Piperonyl butoxide	I								
Water, Finished		119				18.8 ^			
Water, Untreated		119				18.8 ^			
Pirimicarb	I								
Water, Finished		119				37.5 ^			
Water, Untreated		119				37.5 ^			
Pirimiphos methyl	I								
Water, Finished		239				5.3 - 30			
Water, Untreated		239				5.3 - 30			
Prallethrin	I								
Water, Finished		142				18 - 61			
Water, Untreated		142				18 - 61			
Profenofos	I								
Water, Finished		239				3.8 - 6.1			
Water, Untreated		239				3.8 - 6.1			
Prometon	H								
Water, Finished		380	196	51.6	0.28 - 92	0.17 - 50		100,000	
Water, Untreated		381	204	53.5	0.28 - 110	0.17 - 50			
Prometryn	H								
Water, Finished		376				0.17 - 24			
Water, Untreated		377	42	11.1	0.28 - 60	0.17 - 24			
Pronamide	H								
Water, Finished		119				22.5 ^		50,000	
Water, Untreated		119				22.5 ^			
Propachlor	H								
Water, Finished		380				0.64 - 16		90,000	
Water, Untreated		381	1	0.3	4.9 ^	0.64 - 16			
Propanil	H								
Water, Finished		375				2.9 - 25			
Water, Untreated		376				2.9 - 25			
Propargite	I								
Water, Finished		239				90 - 180			
Water, Untreated		239				90 - 180			
Propetamphos	I								
Water, Finished		239				6.0 - 16			
Water, Untreated		239				6.0 - 16			
Propham	H								
Water, Finished		118				18 ^		100,000	
Water, Untreated		119				18 ^			
Propiconazole	F								
Water, Finished		380				1.4 - 55			
Water, Untreated		380	1	0.3	7.8 ^	1.4 - 55			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Propoxur	I								
Water, Finished		119				24.8 ^			
Water, Untreated		119				24.8 ^			
Quintozene - PCNB	F								
Water, Finished		99				11.3 ^			
Water, Untreated		99				11.3 ^			
Resmethrin	I								
Water, Finished		142				7.8 - 26			
Water, Untreated		142				7.8 - 26			
S-(2-hydroxy)propyl EPTC	HM								
Water, Finished		120				125 ^			
Water, Untreated		120				125 ^			
Siduron	H								
Water, Finished		259	1	0.4	11.5 ^	2.1 - 6.9			
Water, Untreated		261	3	1.1	7.7 - 11.5	2.1 - 6.9			
Simazine	H								
Water, Finished		380	156	41.1	1.2 - 120	0.71 - 15	4000	4,000	
Water, Untreated		381	180	47.2	1.2 - 520	0.71 - 15			
Sulfometuron methyl	H								
Water, Finished		261				1.1 - 15			
Water, Untreated		261	4	1.5	10.5 ^	1.1 - 15			
Sulfotep	I								
Water, Finished		239				4.5 - 8.1			
Water, Untreated		239				4.5 - 8.1			
Sulprofos	I								
Water, Finished		239				6.0 - 46			
Water, Untreated		239				6.0 - 46			
Sulprofos oxygen analog	IM								
Water, Finished		120				98 ^			
Water, Untreated		120				98 ^			
Tebuconazole	F								
Water, Finished		380	2	0.5	9.7 ^	1.7 - 299			
Water, Untreated		380	1	0.3	9.7 ^	1.7 - 299			
Tebupirimfos	I								
Water, Finished		239				7.5 - 20			
Water, Untreated		239				7.5 - 20			
Tebupirimfos oxygen analog	IM								
Water, Finished		239				9.0 - 32			
Water, Untreated		239				9.0 - 32			
Tebuthiuron	H								
Water, Finished		379	125	33	0.75 - 3.8	0.45 - 10		500,000	
Water, Untreated		380	152	40	0.75 - 11	0.45 - 10			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Tecnazene	P								
Water, Finished		104				18.8 ^			
Water, Untreated		104				18.8 ^			
Tefluthrin	I								
Water, Finished		262				2.1 - 6.8			
Water, Untreated		262				2.1 - 6.8			
Terbacil	H								
Water, Finished		119				22.5 ^		90,000	
Water, Untreated		119				22.5 ^			
Terbufos	I								
Water, Finished		262				6.3 - 100		900	
Water, Untreated		262				6.3 - 100			
Terbufos sulfone	IM								
Water, Finished		239				4.5 - 18			
Water, Untreated		239				4.5 - 18			
Terbufos-O analog	IM								
Water, Finished		239				6.0 - 93			
Water, Untreated		239				6.0 - 93			
Tetrachlorvinphos	I								
Water, Finished		239				6.0 - 26			
Water, Untreated		239				6.0 - 26			
Tetraconazole	F								
Water, Finished		141				0.63 - 2.1			
Water, Untreated		142				0.63 - 2.1			
Tetradifon	I								
Water, Finished		34				37.5 - 250			
Water, Untreated		34				37.5 - 250			
Tetramethrin	I								
Water, Finished		142				28 - 94			
Water, Untreated		142				28 - 94			
Thifensulfuron	H								
Water, Finished		141				1.7 - 5.5			
Water, Untreated		142				1.7 - 5.5			
Thiobencarb	H								
Water, Finished		260				1.6 - 24.8			
Water, Untreated		261				1.6 - 24.8			
Tolclofos methyl	F								
Water, Finished		120				5.0 ^			
Water, Untreated		120				5.0 ^			
Tralomethrin	I								
Water, Finished		120				300 ^			
Water, Untreated		120				300 ^			

Pesticide / Commodity	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt [1]	EPA HA[2], ppt [1]	EPA FAO[3], ppt [1]
Tri Allate	H								
Water, Finished		261				12 - 40			
Water, Untreated		261				12 - 40			
Triadimefon	F								
Water, Finished		380				1.0 - 22.5			
Water, Untreated		381	4	1	4.0 - 6.9	1.0 - 22.5			
Triadimenol	F								
Water, Finished		141				39 - 130			
Water, Untreated		142				39 - 130			
Triasulfuron	H								
Water, Finished		141				1.6 - 5.3			
Water, Untreated		142				1.6 - 5.3			
Triazole acetic acid - TAA	FM								
Water, Finished		141	3	2.1	50 ^	30 - 100			
Water, Untreated		142	3	2.1	50 - 166	30 - 100			
Triazole alanine - TA	FM								
Water, Finished		141				13 - 44			
Water, Untreated		104				13 - 44			
Triclopyr	H								
Water, Finished		238	35	14.7	10 - 84	6.0 - 124			
Water, Untreated		238	36	15.1	10 - 68	6.0 - 124			
Trifluralin	H								
Water, Finished		229				1.5 - 3.3		5000	
Water, Untreated		229				1.5 - 3.3			
Triticonazole	F								
Water, Finished		141				7.7 - 26			
Water, Untreated		142				7.7 - 26			
Vinclozolin	F								
Water, Finished		239				5.0 - 6.0			
Water, Untreated		239				5.0 - 6.0			

NOTES

[1] = EPA MCL, HA, and FAO values have been multiplied by a factor of 1,000,000 as a basis for comparison using a single scale. There is no intention to imply any more exactness in the value than that originally expressed by EPA.

[2] = EPA Health Advisory values shown are for lifetime exposure.

[3] = The FAO value applies to ambient water rather than drinking water.

[4] = The MCL for chlordane is inclusive of the isomers.

^ = Only one distinct detected concentration or LOD value was reported for the pair.

Pesticide Types:

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide, HM = Herbicide Metabolite

I = Insecticide, IM = Insecticide Metabolite

P = Plant Growth Regulator

Appendix G

Sample Origin by State or Country
(Determined by Grower, Packer, or Distributor)

Appendix G gives the number of fruit and vegetables, grain, and milk samples per State or country of origin and the number of samples of unknown origin. Where available, origin of fresh commodities is taken from the grower or packer information. For processed commodities, origin is determined primarily by packer or distributor.

As shown in Appendix G, samples originated from 39 States plus Washington, DC, and 23 foreign countries. There were 382 domestic and 77 imported samples from unknown origins.

Drinking water and soybean samples are excluded from Appendix G. Origins for drinking water and soybean samples are described in Section II – Sampling Operations.

APPENDIX G. SAMPLE ORIGIN BY STATE OR COUNTRY [1]
(Determined by Grower, Packer, or Distributor)

Part 1. Domestic Samples

	Fresh F&V														Processed F&V				Gra.	Dai.	No. of	% of
States = 39	AP	CF	CN	CU	GB	GR	LT	OG	PE	PP	ST	SW	TO	WS	CC	GC	OJ	SC	WF	MK	Domestic	Total
Alabama												2									2	<0.1
Arizona			21	2		1	3			5			5	9	1					1	48	0.4
Arkansas													3		15	9		60	4	10	101	0.9
California	37	168	218	52	128	342	651	562	132	138	599	240	126	113	353	59	21	154	69	155	4317	36.5
Colorado	1		1	2	9	1	5	1	2				25	10			1			15	73	0.6
Connecticut																	1			2	3	<0.1
Florida			72	48	72	12	6	61	2	126	57	10	187	6	29	5	81	15	18	59	866	7.3
Georgia				30	36			1		19			2	8	10	4			2		112	0.9
Idaho	3								1						41	11	9	27	36	42	170	1.4
Illinois					1										21	3	1	11	10	18	65	0.5
Indiana														2							2	<0.1
Kansas																			10		10	0.1
Kentucky				3	1			2	2	2		1	2							12	25	0.2
Louisiana											1	147									148	1.3
Maine	1														4	1		2	2		10	0.1
Maryland	6			4	16		10		1	1	1	2	11	3	28	3	3	8	15	16	128	1.1
Massachusetts							1		1				1				2	1	2	14	22	0.2
Michigan	20		1	21	22	1		1	1	6		5	13	41	38	9	5	12	40	61	297	2.5
Minnesota	5			1		1		9	3				1	2	16	13	2	3	351	20	427	3.6
Mississippi												56									56	0.5
Missouri	1																		1	2	4	<0.1
Montana										1											1	<0.1
Nebraska																			17		17	0.1
New Jersey			1	9	5	1	7			15		5	9	15	5				5	11	88	0.7
New Mexico			1																		1	<0.1
New York	42	2	1	17	26	2	4	2	3	11	2	5	2	22	9	10	1	11	5	62	239	2.0
North Carolina	1		3	8	6		1			7		121	9	5						1	162	1.4
Ohio	2	1	39	13	27	2		3	1	9		8	6	15	35	8	16	12	48	87	332	2.8
Oklahoma															3	1		1	5	1	11	0.1
Oregon	4			2					121				2	2	10	8		9	18	11	187	1.6
Pennsylvania	8				2				2				5	1	4	2	2	1	3	22	52	0.4
South Carolina													7		3						10	0.1
Tennessee					3							7	8					16	4		38	0.3
Texas	30	3	25	20	18	10	23	41	24	22	15	61	34	2	69	20	15	9	34	71	546	4.6
Vermont	1																				1	<0.1
Virginia	2				19					1			8		8	3		4			45	0.4
Washington	500			9	11		10	1	318	3			3	11	5	2	2	3	2	27	907	7.7
Washington D.C.													5								5	<0.1
West Virginia	1																				1	<0.1
Wisconsin	3		3	1	4	1	1	3	4	2	1	3	3	2	5	4	3	5	4	19	71	0.6
Unknown State	14	7	8	44	75	16	13	8	20	24	12	59	23	37	8	2	2	2	8		382	3.2
No. of Domestics	682	181	394	286	481	390	735	695	638	392	688	732	500	306	720	177	167	366	713	739	9,982	
% of Total	92	98	53	51	88	53	99	94	86	70	94	99	67	84	97	96	90	99	98	100		84.4

Part 2. Imported Samples

	Fresh F&V														Processed F&V				Gra.	Dai.	No. of	% of
Countries = 22	AP	CF	CN	CU	GB	GR	LT	OG	PE	PP	ST	SW	TO	WS	CC	GC	OJ	SC	WF	MK	Imports	Total
Argentina									44						2						46	0.4
Australia								16													16	0.1
Belgium													1								1	<0.1
Brazil						1						2					2				5	<0.1
Canada	10	3		19	1		4			20			35	7		8			4		111	0.9
Chile	18					287			38												343	2.9
China															2						2	<0.1
Colombia												2									2	<0.1
Costa Rica			83																		83	0.7
Dominican Republic			11																		11	0.1
Guatemala			157	2	1																160	1.4
Honduras			82	33										8							123	1.0
Israel										3											3	<0.1
Italy						1															1	<0.1
Jamaica												1									1	<0.1
Japan									1												1	<0.1
Mexico		1	7	201	38	51	1	2		73	39		174	37	1		1	1	2		629	5.3
Netherlands										2											2	<0.1
New Zealand	24								8		4										36	0.3
Nicaragua			3																		3	<0.1
Peru						2															2	<0.1
South Africa						2		28	3						7						40	0.3
Unknown Country	7		1	2	2	2	3		1	56			1				1	1			77	0.6
No. of Imports	59	4	344	257	42	346	8	46	95	154	43	5	211	52	12	8	4	2	6	0	1698	
% of Total	8	2	46	46	8	47	1	6	13	28	6	1	28	14	2	4	2	1	1	0		14.4

Part 3. Mixed National Origin Samples

	Processed F&V				Gra.	Dai.	No. of	% of
	CC	GC	OJ	SC	WF	MK	Mixed Orig	Total
Belize / Brazil			1				1	<0.1
Brazil / Costa Rica / USA			3				3	<0.1
Brazil / Mexico			2				2	<0.1
Brazil / Mexico / USA			3				3	<0.1
Brazil / USA			6				6	0.1
No. of Mixed National Origin Samples			15				15	
% of Total			8					0.1

Part 4. Unknown Origin Samples

	Fresh F&V														Processed F&V				Gra.	Dai.	No. of	% of
	AP	CF	CN	CU	GB	GR	LT	OG	PE	PP	ST	SW	TO	WS	CC	GC	OJ	SC	WF	MK	Unknown	Total
Unknown Origin	3		4	14	25	3		1	8	12		6	33	6	11			3	6		135	
% of Total	<1		1	3	5	<1		<1	1	2		1	4	2	1			1	1			1.1

GRAND TOTALS	744	185	742	557	548	739	743	742	741	558	731	743	744	364	743	185	186	371	725	739	11,830

NOTE

[1] Excludes drinking water and soybean samples.

Appendix H

Import vs. Domestic Pesticide Residue Comparisons

PDP is designed to provide a comprehensive statistical picture of pesticide residues in the U.S. food supply, representing all sources, including imports. Most commodities consumed are generally produced in the United States with import components that vary by commodity. However, several commodities tested over the past several years were cyclical; that is, part of the year the commodity was produced domestically and part of the year it was imported.

Appendix H compares residue data reported for samples originating in the United States with those of the same commodity from major exporting countries. Residue data for domestic cucumbers are compared with data for samples originating in Mexico for 2002 through 2004. Residue data for grapes from the United States are compared with data for samples originating in Chile for 2004 only. For cantaloupe, 2003-2004 data from Costa Rica, Guatemala, Honduras, and Nicaragua were combined and compared with data from the United States. Only residues detected in more than 10 percent of all samples are included in each comparison. All pesticides detected were registered in the United States. However, the profiles of residue findings were markedly different in the United States samples versus samples from these exporting countries. The differences in residue detections between countries were likely due to the pesticides used in response to pest pressures based on differing environmental, climatic, and growing conditions.

Appendix H. Import vs. Domestic Pesticide Residue Comparisons

2002-2004 Distribution of Residues for Cucumbers
United States Samples vs. Samples Originating in Mexico

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2002	76	42	55.3	89
	2003	375	216	57.6	423
	2004	286	179	62.6	377
	2002-2004	**737**	**437**	**59.3**	**889**
Mexico	2002	102	82	80.4	212
	2003	324	275	84.9	721
	2004	201	176	87.6	530
	2002-2004	**627**	**533**	**85.0**	**1,463**

2002-2004 Distribution of Residues for Cucumber Samples Originating in Mexico vs. United States
(Only Pesticides with Residue Detections in at least 10 Percent of all Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Endosulfan I, II, or sulfate	United States	737	230	31.2
	Mexico	627	400	63.8
Metalaxyl	United States	737	93	12.6
	Mexico	627	190	30.3
Methamidophos	United States	737	27	3.7
	Mexico	627	123	19.6

NOTE: The Limits of Detection (LODs) for pesticide detections in cucumbers are listed in Appendix B.

2004 Distribution of Residues for Grapes
United States Samples vs. Samples Originating in Chile

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2004	390	271	69.5	473
Chile	2004	287	256	89.2	768

2004 Distribution of Residues for Grape Samples
Originating in Chile vs. United States
(Only Pesticides with Residue Detections in at least 10 Percent of all Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Captan	United States	373	11	2.9
	Chile	287	127	44.3
Chlorpyrifos	United States	390	7	1.8
	Chile	287	81	28.2
Cyprodinil	United States	390	79	20.3
	Chile	287	100	34.8
Ethephon	United States	186	106	57.0
	Chile	255	44	17.3
Fludioxonil	United States	390	5	1.3
	Chile	287	82	28.6
Imidacloprid	United States	390	62	15.9
	Chile	287	47	16.4
Iprodione	United States	390	8	2.1
	Chile	287	77	26.8
Myclobutanil	United States	390	67	17.2
	Chile	287	27	9.4

NOTE: The Limits of Detection (LODs) for pesticide detections in grapes are listed in Appendix B.

2003-2004 Distribution of Residues for Cantaloupe United States Samples vs. Samples Originating in Central America[1]

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2003	144	69	47.9	84
	2004	394	132	33.5	165
	2003-2004	**538**	**201**	**37.4**	**249**
Central America[1]	2003	35	33	94.3	52
	2004	325	258	79.4	436
	2003-2004	**360**	**291**	**80.8**	**488**

2003-2004 Distribution of Residues for Cantaloupe Samples Originating in Central America[1] vs. United States

(Only Pesticides with Residue Detections in at least 10 Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Endosulfan sulfate	United States	538	155	28.8
	Central America[1]	360	254	70.6
Methomyl	United States	538	21	3.9
	Central America[1]	360	135	37.5

[1] Combined findings from Costa Rica, Guatemala, Honduras, and Nicaragua.

NOTE: The Limits of Detection (LODs) for pesticide detections in cantaloupe are listed in Appendix B.

Appendix I

National Estimates for Concentration Percentiles vs. Tolerance

(Pairs With Residue Detections in at Least 10 Percent of Samples)

Appendix I shows 96 pesticide/commodity pairs (including metabolites, isomers, and degradates) with detections in at least 10 percent of the samples tested. Concentrations detected are arranged in percentiles. The 90th percentile is compared to the Environmental Protection Agency tolerance established for each pesticide/commodity pair.

The meaning of a percentile can be most easily explained through an example. For the pears/thiabendazole pair, the 50th percentile, or median, is estimated to be 0.20 ppm. This means that PDP estimates that at least 50 percent of pears available to U.S. consumers had thiabendazole residues of 0.20 ppm or less, while at least 50 percent had residues of 0.20 ppm or more. Similarly, the 75th percentile (or the upper quartile) for this pair is estimated to be 0.51 ppm, which means that at least 75 percent of pears had thiabendazole residues of 0.51 ppm or less, while at least 25 percent had residues of 0.51 ppm or more. Finally, the 90th percentile is estimated to be 0.96 ppm, meaning that at least 90 percent of all pears had thiabendazole residues of 0.96 ppm or less, while at least 10 percent had residues of 0.96 ppm or more.

Percent detections and percentiles for apples, cantaloupe, cauliflower, cucumbers, grapes, fresh green beans, lettuce, oranges, pears, strawberries, sweet bell peppers, sweet potatoes, tomatoes, and winter squash were weighted based on marketing data.

APPENDIX I. NATIONAL ESTIMATES FOR CONCENTRATION PERCENTILES vs. TOLERANCE
(Pairs With Residue Detections in at Least 10 Percent of Samples [1])

	Commodity / Pesticide	% of Samples with Detections	Mean (ppm) [2] Lower	Mean (ppm) [2] Upper	Percentiles (ppm) 50th	Percentiles (ppm) 75th	Percentiles (ppm) 90th	Ratio of 90th Percentile to Tolerance
1	**Apples (W)**							
	Azinphos methyl	41.3	0.019	0.025	*	0.030	0.056	0.037
	Captan	8.7	0.012	0.025	*	*	*	< 0.001
	Captan metabolite [3]	15.8	0.032	0.048	*	*	0.062	0.002
	Carbendazim (MBC)	20.1	0.005	0.005	*	*	0.004	0.001
	Diphenylamine	77.3	0.28	0.28	0.037	0.41	0.90	0.090
	Ethephon [4]	29.5	0.011	0.015	*	0.009	0.034	0.007
	Imidacloprid	32.0	0.001	0.003	*	0.001	0.003	0.005
	Phosmet	17.4	0.010	0.014	*	*	0.027	0.003
	Thiabendazole	85.9	0.35	0.36	0.10	0.43	1.0	0.10
2	**Cantaloupe (W)**							
	Endosulfan sulfate	32.4	0.007	0.012	*	0.013	0.023	0.011
	Methomyl	12.7	0.007	0.018	*	*	0.022	0.11
3	**Cauliflower (W) (October - December only)**							
	Imidacloprid	73.4	0.004	0.004	0.002	0.003	0.009	0.003
4	**Cucumbers (W)**							
	Endosulfan I	34.0	0.008	0.011	*	0.009	0.022	0.011
	Endosulfan II	24.8	0.006	0.010	*	*	0.019	0.010
	Endosulfan sulfate	42.2	0.012	0.015	*	0.019	0.035	0.018
	Metalaxyl	14.7	0.005	0.014	*	*	0.020	0.020
	o-Phenylphenol	14.5	0.005	0.014	*	*	0.019	0.002
5	**Grapes (W)**							
	Captan	16.4	0.018	0.026	*	*	0.046	0.001
	Chlorpyrifos	9.9	0.004	0.007	*	*	*	< 0.001
	Cyprodinil	24.4	0.038	0.043	*	*	0.15	0.075
	Ethephon	37.5	0.17	0.17	*	0.10	0.53	0.26
	Fludioxonil	10.3	0.010	0.020	*	*	0.018	0.018
	Imidacloprid	16.8	0.009	0.017	*	*	0.019	0.019
	Iprodione	10.2	0.019	0.039	*	*	0.025	< 0.001
	Myclobutanil	14.8	0.010	0.029	*	*	0.042	0.042
6	**Green Beans (W) (April - December only)**							
	Acephate	29.2	0.097	0.10	*	0.028	0.30	0.10
	Chlorothalonil	28.8	0.009	0.011	*	0.003	0.021	0.004
	Endosulfan I	10.0	0.003	0.006	*	*	0.002	0.001
	Endosulfan sulfate	15.6	0.014	0.017	*	*	0.017	0.009
	Methamidophos	27.7	0.033	0.036	*	0.012	0.12	0.12
	o-Phenylphenol [5]	71.7	0.016	0.019	0.019	0.026	0.032	NT
7	**Green Beans, Canned**							
	Acephate	14.1	0.004	0.007	*	*	0.010	0.003
	Methamidophos	15.1	0.003	0.007	*	*	0.010	0.010

	Commodity / Pesticide	% of Samples with Detections	Mean (ppm) [2] Lower	Mean (ppm) [2] Upper	Percentiles (ppm) 50th	Percentiles (ppm) 75th	Percentiles (ppm) 90th	Ratio of 90th Percentile to Tolerance
8	**Lettuce (W)**							
	Acetamiprid [6]	15.4	0.003	0.003	*	*	0.002	0.011
	DCPA	27.3	0.002	0.004	*	0.001	0.004	0.002
	DDE p,p'	11.4	0.001	0.004	*	*	0.002	0.004
	Diazinon	10.2	0.001	0.003	*	*	0.002	0.003
	Dimethomorph	10.8	0.032	0.047	*	*	0.004	< 0.001
	Imidacloprid	66.9	0.008	0.010	0.003	0.009	0.023	0.006
	Methomyl	11.0	0.014	0.019	*	*	0.003	0.001
	Permethrin cis	17.5	0.019	0.024	*	*	0.030	0.002
	Permethrin trans	12.4	0.015	0.022	*	*	0.016	0.001
9	**Milk** (in parts per billion)							
	Cyaholothrin, Total	17.3	0.092	0.22	*	*	0.38	0.002
	DDE p,p'	96.0	0.50	0.51	0.26	0.56	1.2	0.001
	Dieldrin	41.4	0.11	0.18	*	0.22	0.38	0.001
	Diphenylamine	98.5	0.21	0.21	0.19	0.25	0.36	0.036
	Endosulfan sulfate	18.2	0.051	0.15	*	*	0.22	< 0.001
10	**Orange Juice**							
	Carbaryl	11.3	0.001	0.008	*	*	0.002	< 0.001
	o-Phenylphenol	38.7	0.009	0.015	*	0.019	0.026	0.003
11	**Oranges (W)**							
	Imazalil	74.9	0.074	0.081	0.055	0.095	0.16	0.016
	o-Phenylphenol	17.7	0.004	0.012	*	*	0.019	0.002
	Thiabendazole	34.8	0.038	0.058	*	0.055	0.12	0.012
12	**Peaches, Canned**							
	Carbaryl	12.9	0.008	0.017	*	*	0.019	0.002
13	**Pears (W)**							
	Azinphos methyl	34.1	0.017	0.024	*	0.020	0.051	0.034
	o-Phenylphenol	13.2	0.14	0.16	*	*	0.032	0.001
	Phosmet	17.8	0.022	0.028	*	*	0.031	0.003
	Thiabendazole	66.5	0.35	0.37	0.20	0.51	0.96	0.096
14	**Soybeans** (in parts per billion)							
	Chlorpyrifos	28.9	2.7	4.8	*	3.5	10.6	0.035
	Malathion	11.7	3.1	8.2	*	*	6.8	0.001
15	**Spinach, Canned**							
	Cypermethrin	23.2	0.063	0.086	*	*	0.24	0.024
	DDE p,p'	10.8	0.002	0.008	*	*	0.008	0.017
	Permethrin Total	65.8	1.2	1.2	0.70	2.0	3.1	0.16

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) [2] Lower	Mean (ppm) [2] Upper	Percentiles (ppm) 50th	Percentiles (ppm) 75th	Percentiles (ppm) 90th	Ratio of 90th Percentile to Tolerance
16 Strawberries (W)							
Captan	62.4	0.34	0.34	0.062	0.29	0.74	0.030
Cyprodinil	10.2	0.028	0.090	*	*	0.014	0.003
Fenhexamid	28.2	0.052	0.060	*	0.047	0.20	0.067
Fenpropathrin	12.2	0.021	0.038	*	*	0.036	0.018
Fludioxonil	10.9	0.012	0.025	*	*	0.018	0.009
Malathion	25.1	0.006	0.007	*	0.001	0.016	0.002
Methomyl	27.0	0.13	0.14	*	0.025	0.33	0.17
Myclobutanil	42.6	0.018	0.023	*	0.013	0.064	0.13
Tetrahydrophthalimide (THPI)	60.5	0.20	0.21	0.10	0.27	0.50	0.020
Triazole alanine (TA)	12.9	0.010	0.042	*	*	0.042	NT
17 Sweet Bell Peppers (W)							
Acephate	24.0	0.048	0.050	*	*	0.16	0.040
Bifenthrin	12.8	0.003	0.005	*	*	0.007	0.014
Captan	11.7	0.020	0.037	*	*	0.035	0.001
Carbendazim (MBC)	27.2	0.004	0.004	*	*	0.004	0.022
Chlorpyrifos	16.6	0.008	0.009	*	*	0.017	0.017
Dicofol p,p'	14.2	0.008	0.011	*	*	0.009	0.002
Endosulfan I	10.8	0.003	0.009	*	*	0.007	0.004
Endosulfan II	15.2	0.004	0.009	*	*	0.015	0.008
Imidacloprid	80.8	0.008	0.008	0.003	0.009	0.023	0.023
Metalaxyl	17.0	0.006	0.014	*	*	0.019	0.019
Methamidophos	33.7	0.019	0.020	*	0.011	0.068	0.068
Methomyl	13.1	0.010	0.010	*	*	0.005	0.002
Oxamyl	16.7	0.004	0.004	*	*	0.006	0.002
Thiabendazole	27.3	< 0.001	< 0.001	*	< 0.001	< 0.001	NT
18 Sweet Potatoes (W)							
Dicloran	44.2	0.15	0.15	*	0.18	0.44	0.044
o-Phenylphenol	11.4	0.005	0.013	*	*	0.012	0.001
19 Tomatoes (W)							
Endosulfan I	14.5	0.002	0.004	*	*	0.008	0.004
Endosulfan II	22.6	0.003	0.006	*	*	0.013	0.007
Endosulfan sulfate	21.3	0.002	0.005	*	*	0.010	0.005
20 Wheat Flour							
Chlorpyrifos methyl	20.8	0.009	0.024	*	*	0.048	0.008
Malathion	49.4	0.009	0.011	*	0.011	0.023	0.003
21 Winter Squash (W) (July - December only)							
Chlorothalonil	18.3	0.020	0.024	*	*	0.048	0.010
Endosulfan sulfate	12.1	0.003	0.009	*	*	0.013	0.007
o-Phenylphenol	15.3	0.003	0.010	*	*	0.019	NT

NOTES

[1] Includes some pairs with detections in more than 10 percent of the samples, but with estimated detections in less than 10 percent of the population. Excludes pairs with less than 100 sample observations.

[2] The mean is estimated with a range of values. The lower bound is calculated with non-detections valued at zero. The upper bound is calculated using the LOD.

[3] Samples collected from May through December only.

[4] Samples collected from January through August only.

[5] No samples in April.

[6] Samples collected from September through December only.

* The percentile value is estimated to be below the Limit of Detection (LOD)

(W) Weighted for utilization. The Percent of Samples with Detections was recalculated to reflect national estimates.

NT No Tolerance established.

Appendix J

Cumulative Distributions of Residues for Selected Pesticide/Commodity Pairs

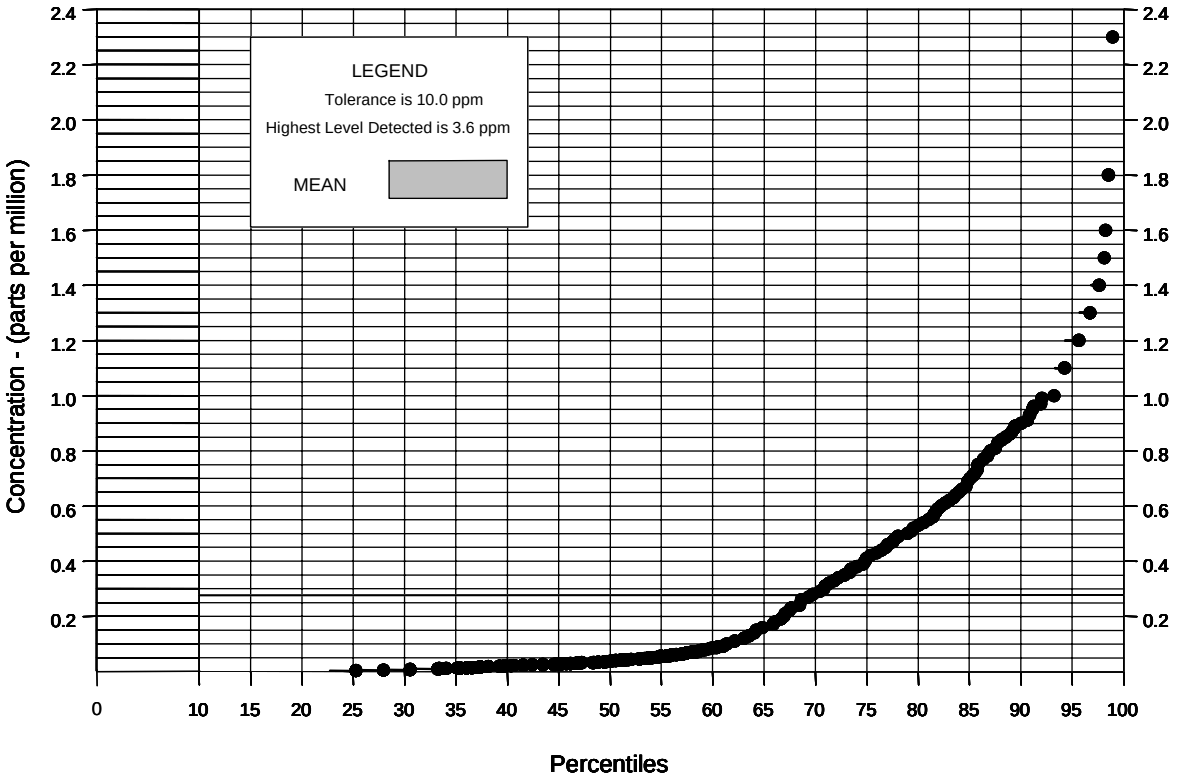
In Appendix J, the concentrations detected (in parts per million, except where otherwise noted) are plotted versus the calculated percentiles for the following 12 pesticide/commodity pairs:

Diphenylamine / Apples
Cyprodinil / Grapes
Acephate / Green Beans
Methamidophos / Grean Beans
Imidacloprid / Lettuce
Imazalil / Oranges
Chlorpyrifos / Soybeans
Permethrin Total / Spinach (Canned)
Myclobutanil / Strawberries
Imidacloprid / Sweet Bell Peppers
Dicloran / Sweet Potatoes
Malathion / Wheat Flour

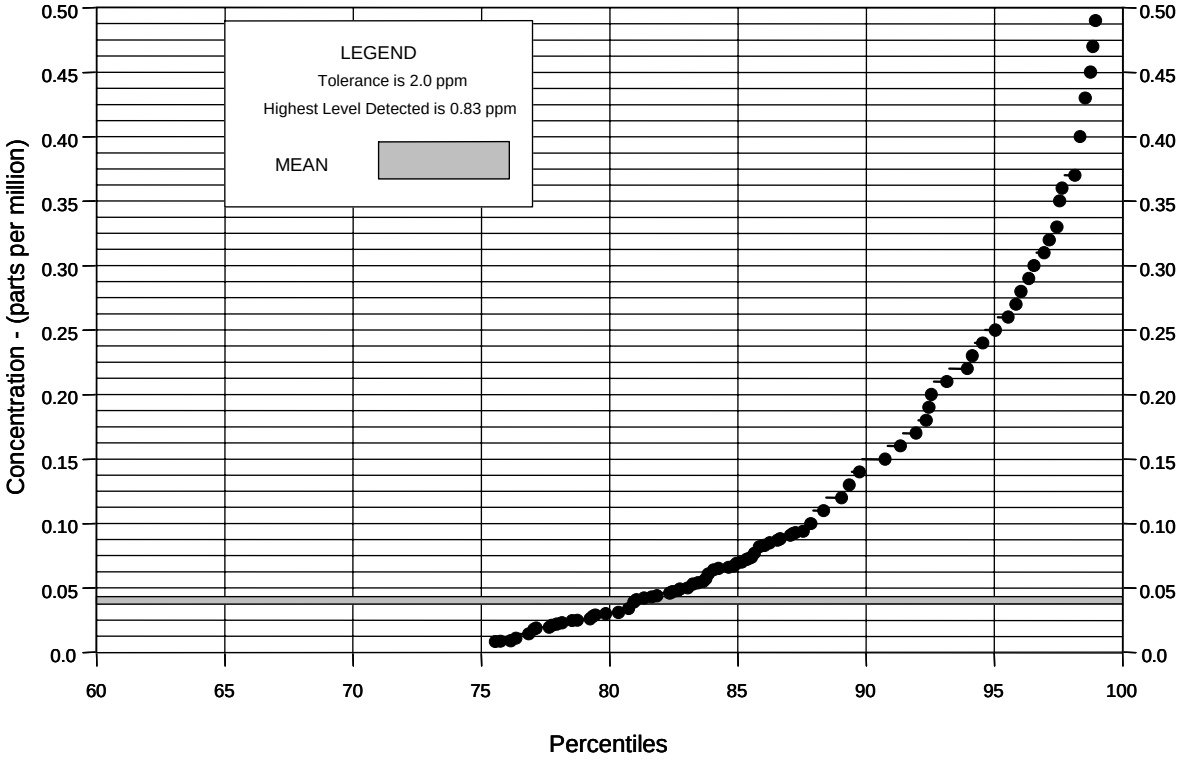
The distribution of residues for all of the PDP pesticide/commodity pairs has the same curved shape. For each pesticide/commodity pair, the highest percentile graphed in the appendix (99^{th}) is lower than the highest concentration detected in the sample (refer to the value shown in each graph's legend). Inclusion of the highest concentration would cause graph distortion, which would obscure concentrations in the low ranges. The tolerance for the pesticide/commodity pair also is indicated in the legend of each graph. The large dots show the percentage of the commodity at or below a given level of residue concentration. For example, an estimated 50 percent of apples available to U.S. consumers in 2004 had diphenylamine residue concentrations of 0.037 ppm or less. The solid lines, tailing the large dots, depict percentage values. The lowest value of these solid lines indicates the estimated percentage of the commodity available to U.S. consumers with no detectable residues. For diphenylamine in apples, this is 23 percent. The shaded bar denotes the range of values estimated for the mean. For diphenylamine in apples, the mean range is approximately 0.28 ppm, corresponding to the 69th percentile.

Appendix J. Cumulative Distributions of Residues for Selected Pesticide/Commodity Pairs

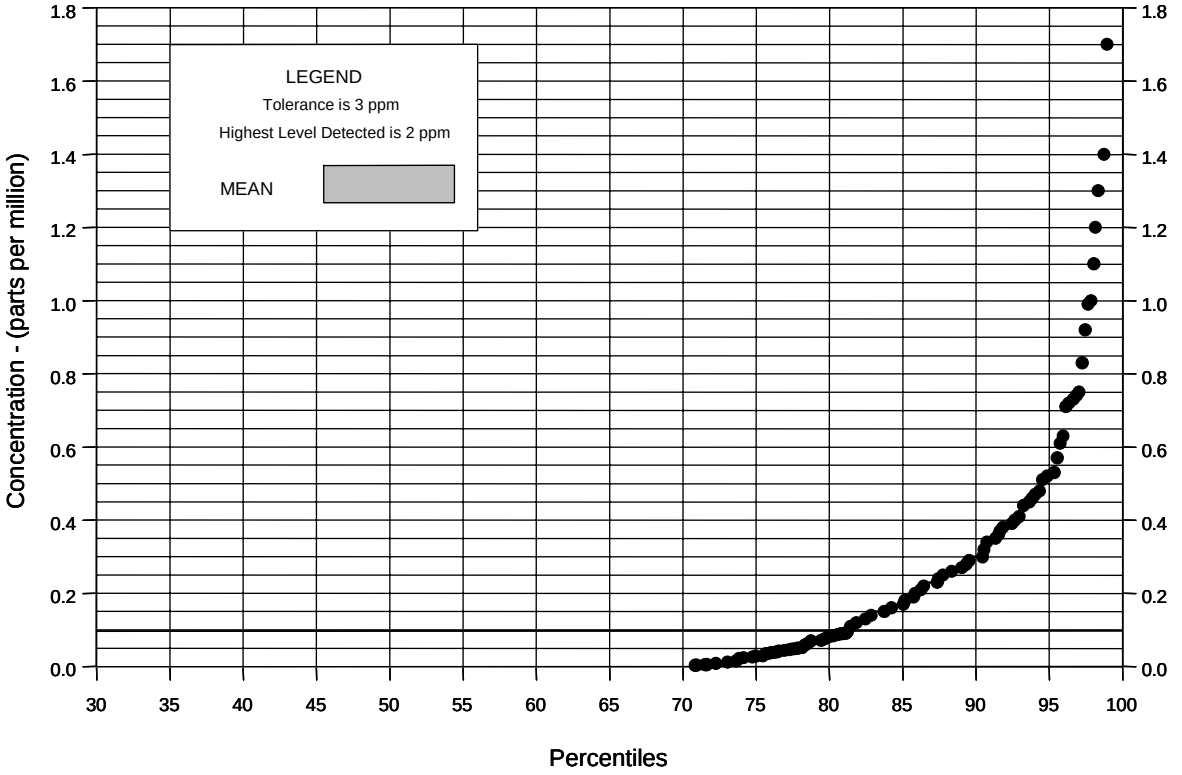
Diphenylamine / Apples



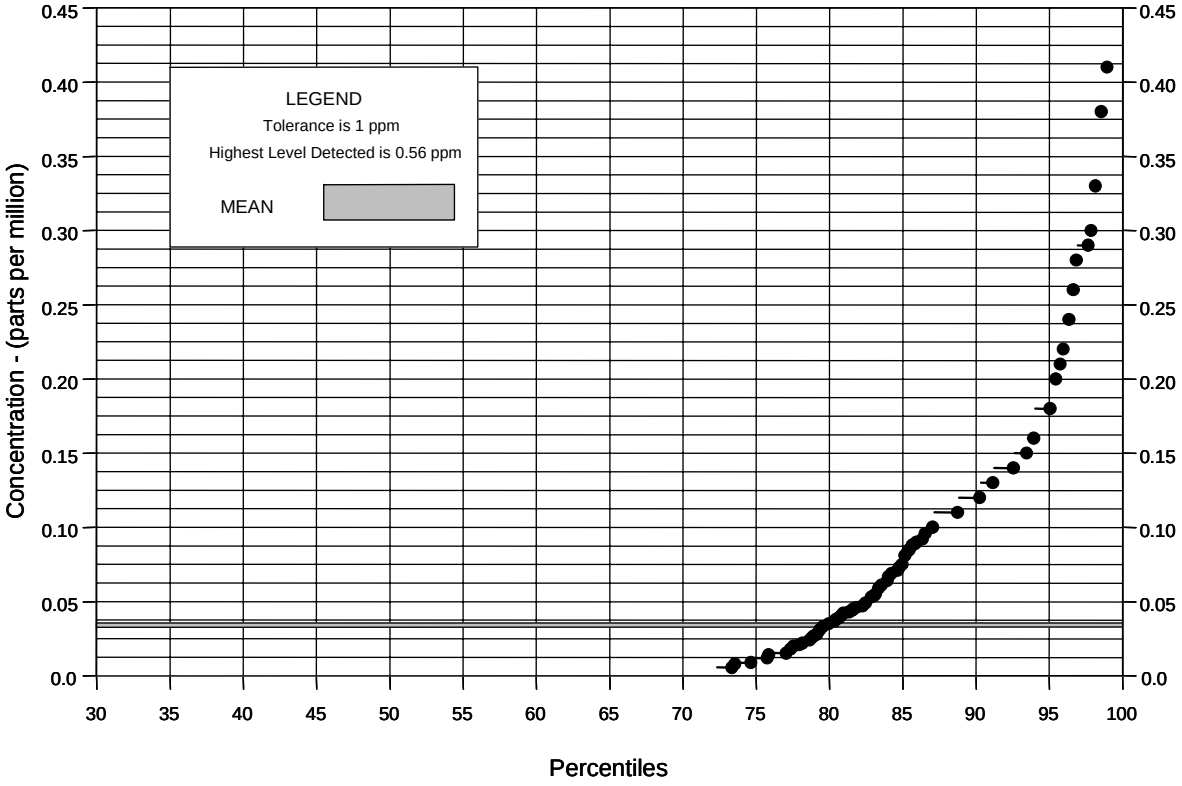
Cyprodinil / Grapes



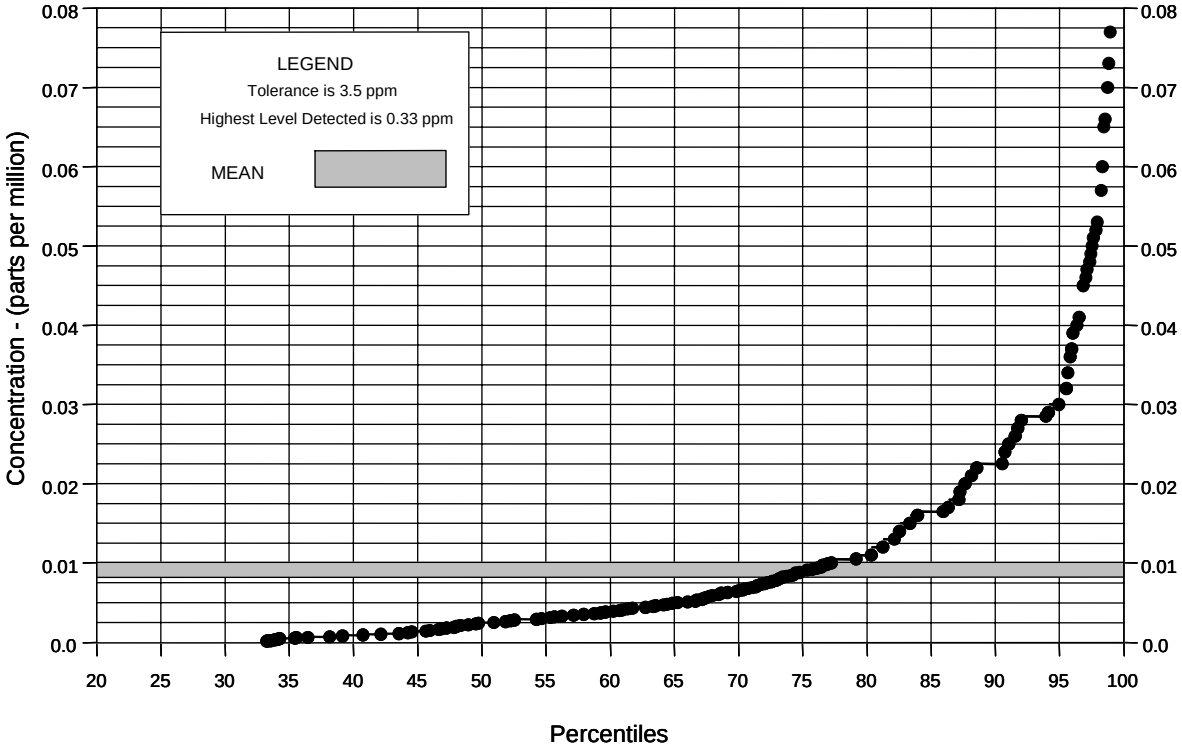
Acephate / Green Beans



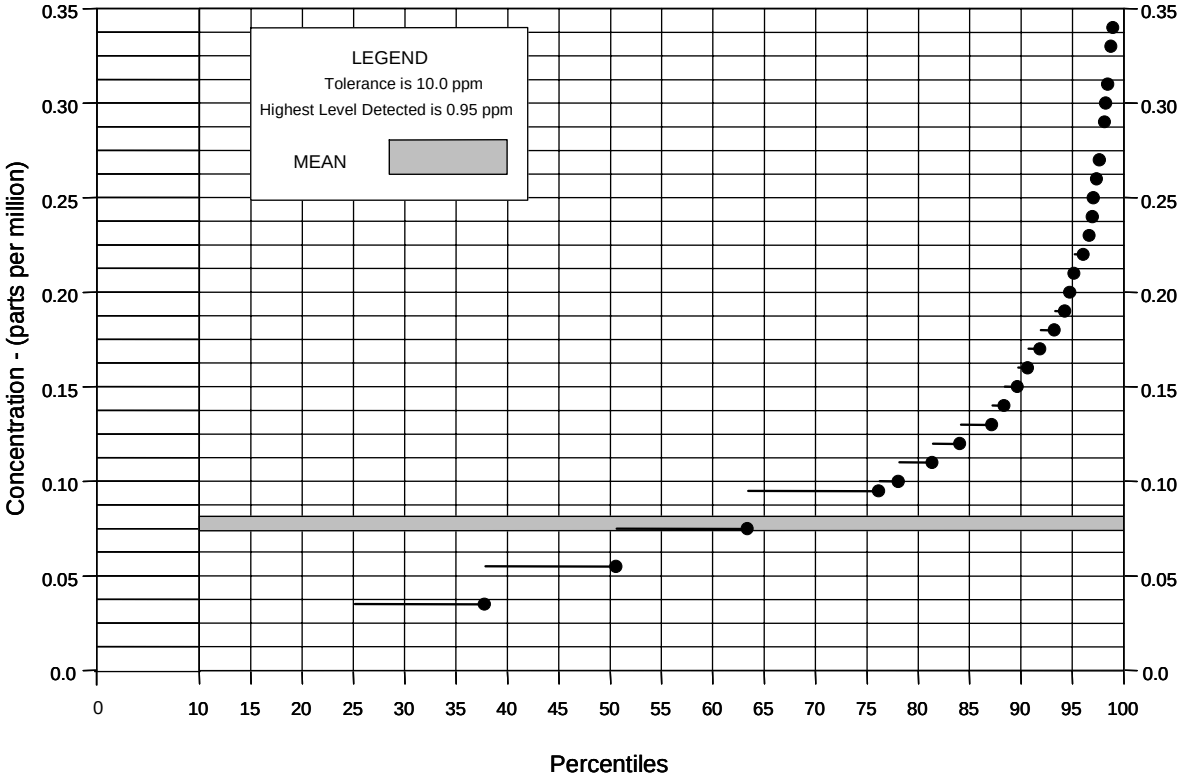
Methamidophos / Green Beans



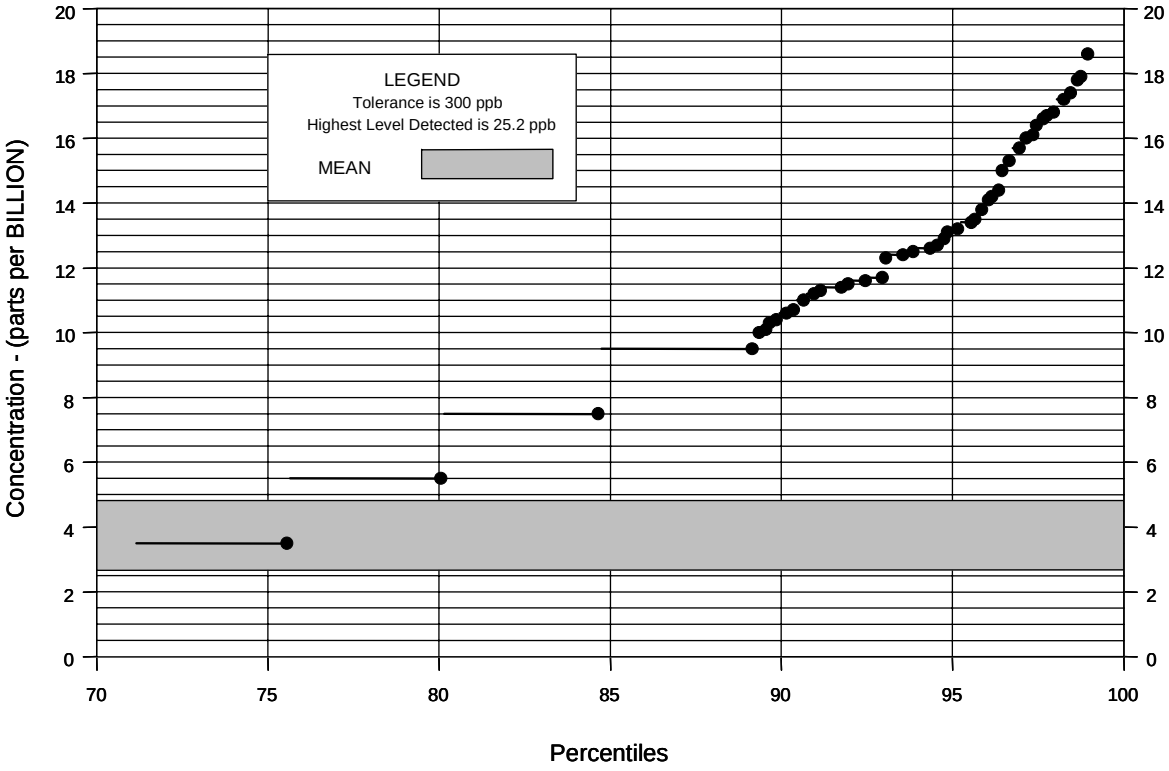
Imidacloprid / Lettuce



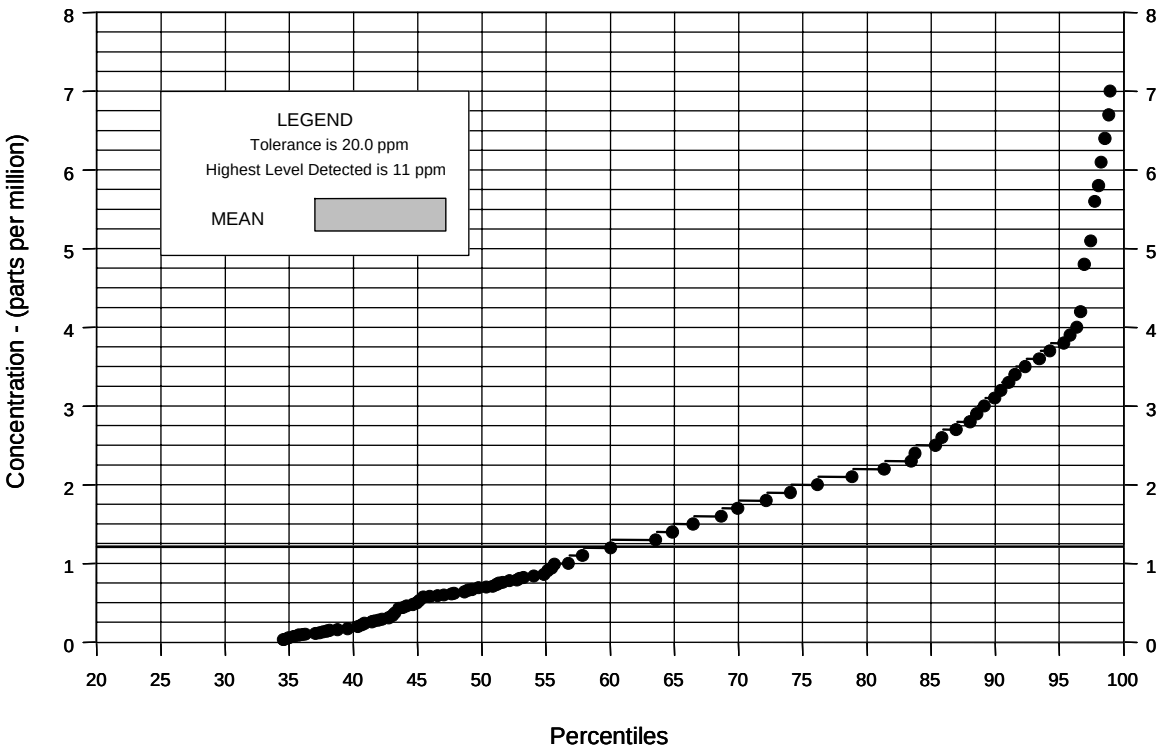
Imazalil / Oranges



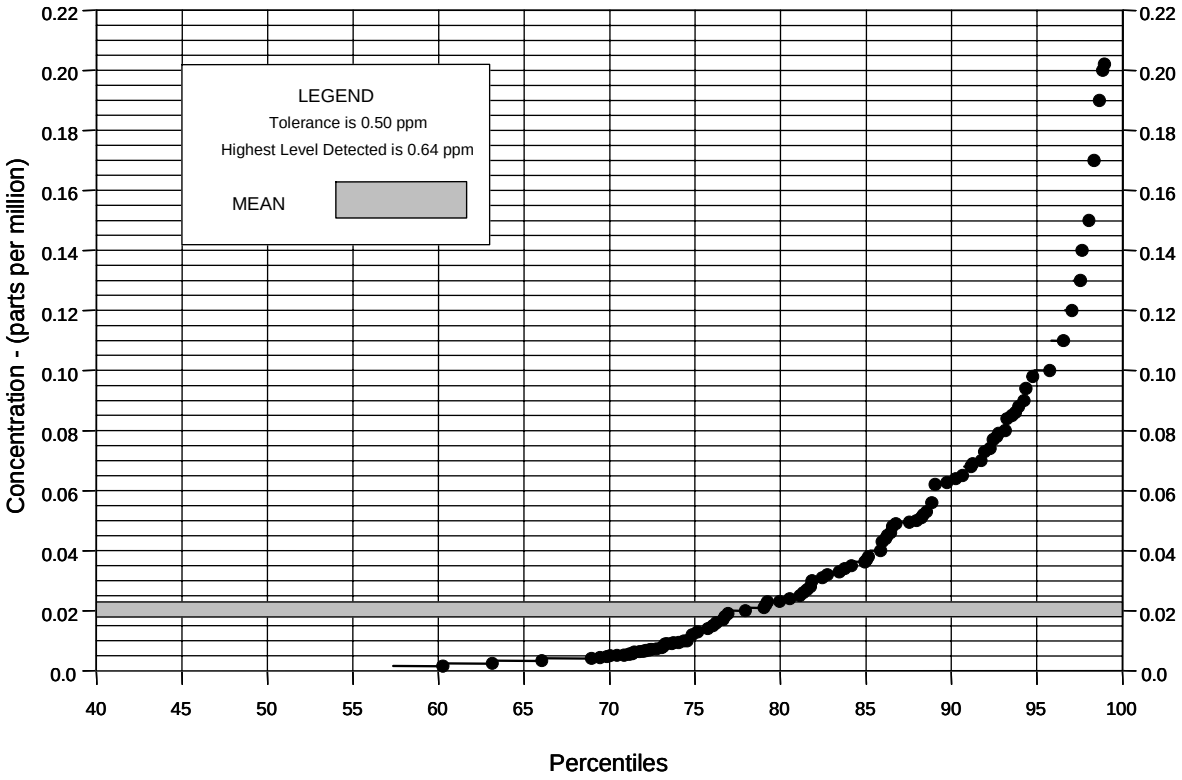
Chlorpryifos / Soybeans



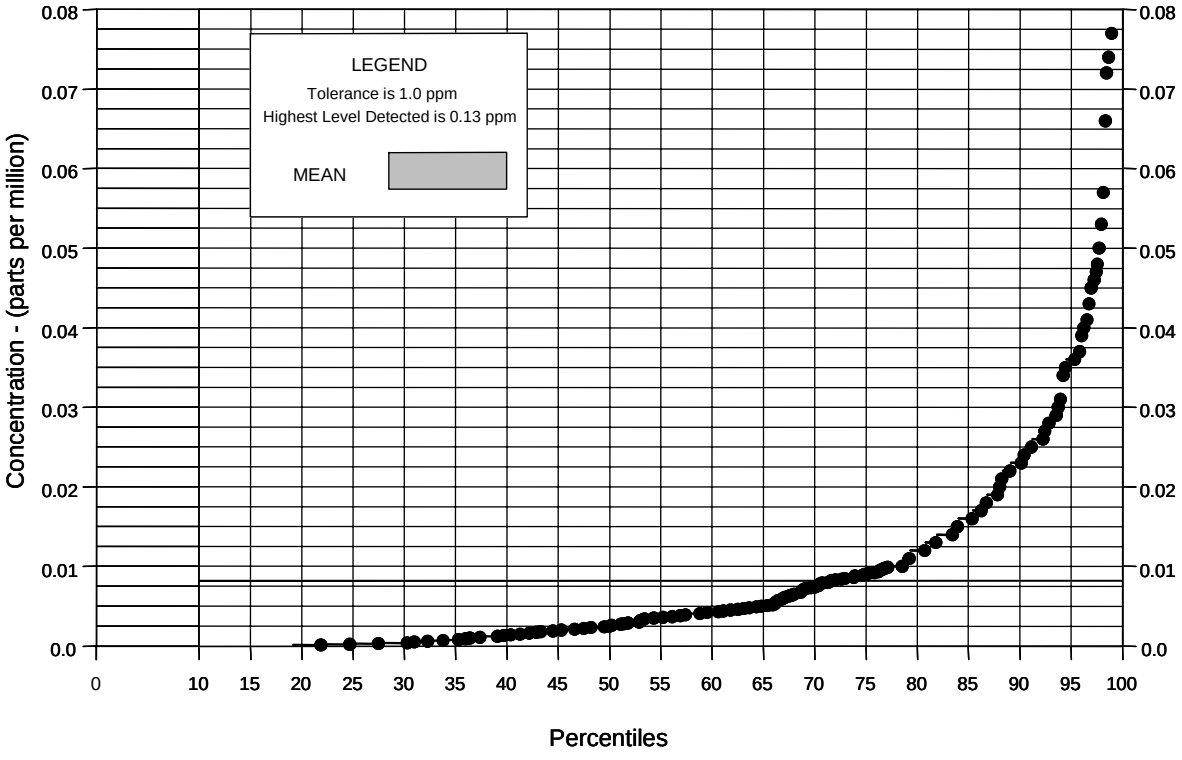
Permethrin Total / Spinach (Canned)



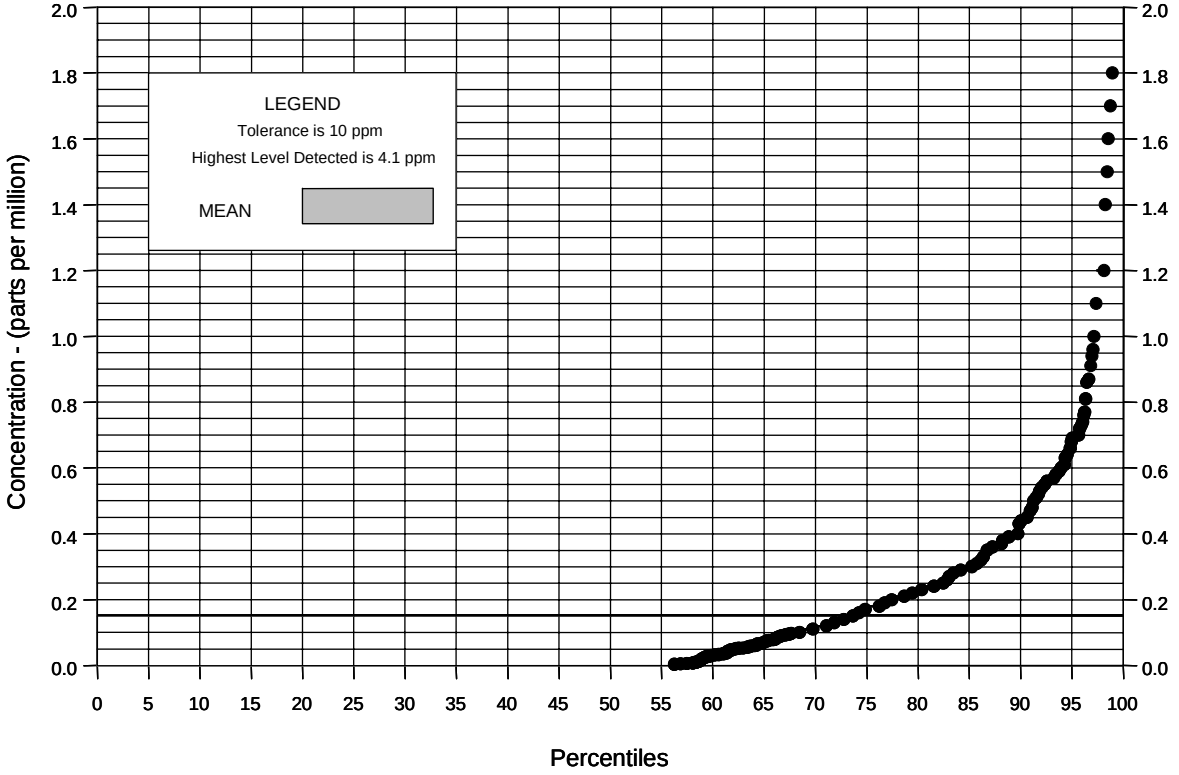
Myclobutanil / Strawberries



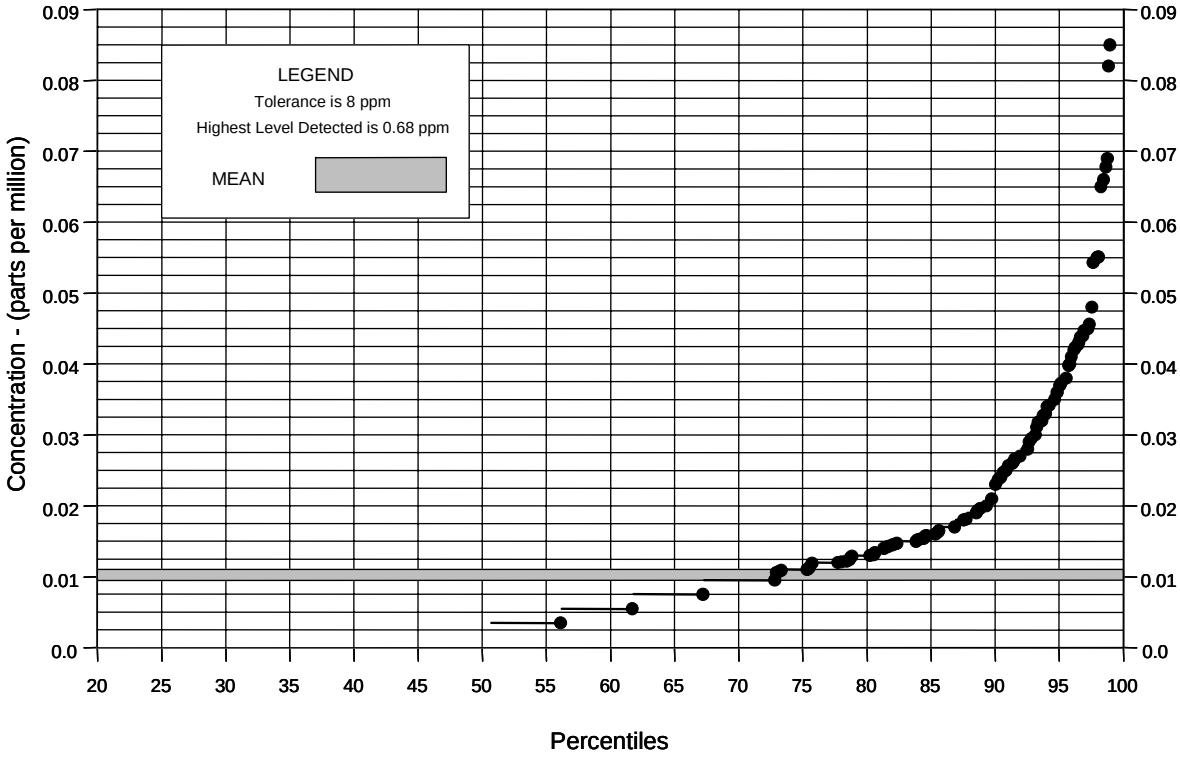
Imidacloprid / Sweet Bell Peppers



Dicloran / Sweet Potatoes



Malathion / Wheat Flour



Appendix K

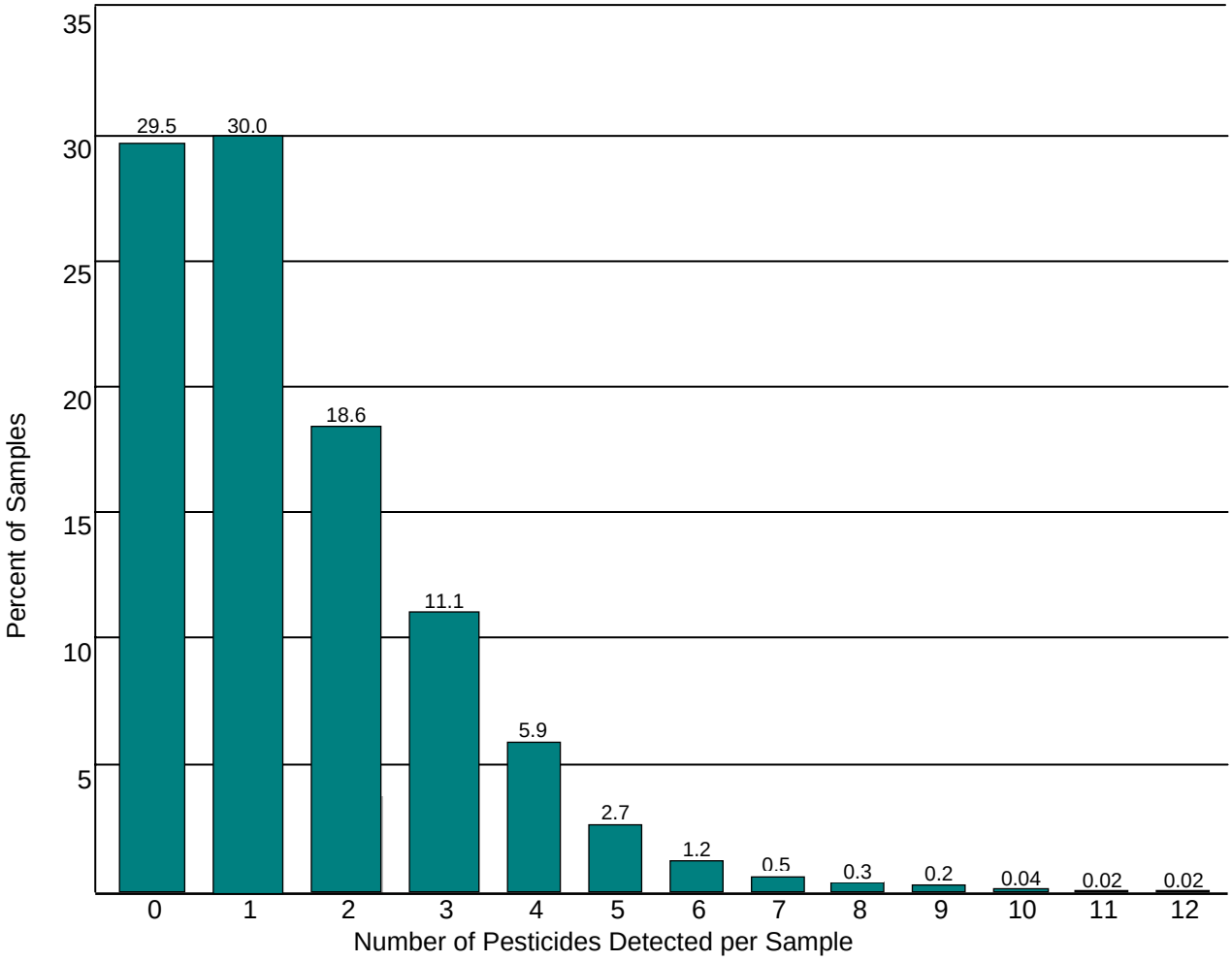
Number of Pesticides Detected per Sample

Appendix K shows the percentage of samples versus the number of pesticides detected per sample, excluding drinking water. The graph and data on page 1 show the overall number of samples and percentages (of total number of samples analyzed) for each detection group across all commodities. The table on page 2 shows the number of pesticides detected by individual commodity. For the 12,446 samples analyzed, 29.5 percent of the samples had no detectable pesticides, 30.0 percent had 1 pesticide, and 40.5 percent of the samples had more than 1 pesticide.

This appendix reports the number of distinct pesticides rather than residues, as was reported in summaries prior to 2003. A parent compound and its metabolites are reported as a single pesticide. For example, a single application of the pesticide endosulfan may result in residues of the parent compound endosulfan I, its endosulfan II isomer, and its endosulfan sulfate metabolite. Thus, three residue detections could result from the use of a single pesticide. In the 2002 and previous summaries, the corresponding appendix would have counted these results as three distinct residues, while this appendix counts the findings as just one distinct pesticide.

In most cases, results in this appendix reflect pesticide residue concentrations from samples analyzed from composites of 3 to 5 pounds, depending on the commodity. Therefore, the number of pesticides reported does not necessarily reflect the number of pesticides per individual sample or per single serving of a commodity.

APPENDIX K. SAMPLES vs. NUMBER OF PESTICIDES[1] DETECTED PER SAMPLE[2]



Number of Pesticides Detected per Sample

	0	1	2	3	4	5	6	7	8	9	10	11	12
Number of Samples	3,674	3,730	2,310	1,380	739	338	148	64	34	19	5	3	2
Percent of Total Samples	29.5	30.0	18.6	11.1	5.9	2.7	1.2	0.5	0.3	0.2	0.04	0.02	0.02

TOTAL NUMBER OF SAMPLES = 12,446

NOTES

[1] Parent compounds and their metabolites are combined to report the number of "pesticides" rather than the number of "residues," as was reported in summaries prior to 2003. For example, a sample with positive detections for Endosulfan I, II, and sulfate would have been counted as three residues detected in the 2002 Appendix L. That same sample would be counted as just one pesticide detected in this appendix.

[2] Excludes drinking water samples.

APPENDIX K. SAMPLES vs. NUMBER OF PESTICIDES DETECTED PER SAMPLE

Commodity (# of samples)	Number of Pesticides[1] Detected per Sample[2] 0	1	2	3	4	5	6	7	8	9	10	11	12
Fresh Fruit and Vegetables:	Percent												
Apples (744)	2.3	5.8	15.3	27.8	27.2	14.4	4.7	1.7	0.7	0.1	--	--	--
Cantaloupe (742)	45.8	32.7	15.9	5.0	0.5	--	--	--	--	--	--	--	--
Cauliflower (185)	27.6	64.3	7.0	1.1	--	--	--	--	--	--	--	--	--
Cucumbers (557)	27.5	39.0	21.7	9.2	2.2	0.4	0.2	--	--	--	--	--	--
Grapes (739)	22.3	32.2	21.2	11.8	7.2	3.1	1.6	0.4	0.1	--	--	--	--
Green Beans (548)	29.4	21.4	23.2	17.9	5.7	2.2	0.4	--	--	--	--	--	--
Lettuce (743)	11.6	27.9	21.3	14.7	11.4	6.5	3.0	1.7	1.1	0.8	0.1	--	--
Oranges (742)	11.9	49.6	33.7	4.4	0.4	--	--	--	--	--	--	--	--
Pears (741)	13.2	38.3	27.0	13.2	5.9	1.9	0.4	--	--	--	--	--	--
Sweet Bell Peppers (558)	3.4	12.4	18.1	17.9	16.7	10.0	9.3	5.0	3.6	2.0	0.7	0.5	0.4
Strawberries (731)	6.8	19.7	28.2	24.6	12.6	5.1	1.9	1.0	--	0.1	--	--	--
Sweet Potatoes (743)	38.0	48.2	11.7	2.2	--	--	--	--	--	--	--	--	--
Tomatoes (744)	51.7	34.5	11.0	2.0	0.7	--	--	--	--	--	--	--	--
Winter Squash (364)	59.9	27.2	10.2	1.9	0.5	0.3	--	--	--	--	--	--	--
Processed Fruit and Vegetables:													
Green Beans, Canned (185)	76.2	9.7	12.4	1.6	--	--	--	--	--	--	--	--	--
Orange Juice (186)	50.0	49.5	0.5	--	--	--	--	--	--	--	--	--	--
Peaches, Canned (743)	78.2	20.1	1.7	--	--	--	--	--	--	--	--	--	--
Spinach, Canned (371)	19.1	56.1	21.6	2.7	0.5	--	--	--	--	--	--	--	--
Percent of Total Samples	28.9	31.2	18.2	10.2	6.1	2.9	1.4	0.6	0.3	0.2	0.05	0.03	0.02
Actual Number of Samples	2,999	3,230	1,888	1,053	628	300	141	64	34	19	5	3	2

TOTAL NUMBER OF FRUIT & VEGETABLE SAMPLES = 10,366

Grain Products:													
Soybeans (616)	58.4	37.3	4.2	--	--	--	--	--	--	--	--	--	--
Wheat Flour (725)	43.4	34.5	19.6	2.3	--	0.1	--	--	--	--	--	--	--
Percent of Total Samples	50.3	35.8	12.5	1.3	--	0.07	--	--	--	--	--	--	--
Actual Number of Samples	675	480	168	17	--	1	--	--	--	--	--	--	--

Dairy Product:													
Milk (739)	--	2.7	34.4	41.9	15.0	5.0	0.9	--	--	--	--	--	--
Number of Samples	--	20	254	310	111	37	7	--	--	--	--	--	--

NOTES

[1] Parent compounds and their metabolites are combined to report the number of "pesticides" rather than the number of "residues," as was reported in summaries prior to 2003.

[2] Excludes the 762 drinking water samples.

Appendix L

Fruit and Vegetable Samples Reported to FDA as Exceeding the Tolerance or Without Established Tolerance

(per Code of Federal Regulations, Title 40, Part 180)

Appendix L shows residues reported to FDA as exceeding the tolerance or residues for which no established tolerance was listed under the Code of Federal Regulations (CFR), Title 40, Part 180. In 2004, a total of 672 samples with 700 residues were reported to the FDA as Presumptive Tolerance Violations.

A total of 21 fruit and vegetable samples were found to have residues at levels exceeding the established tolerance. Samples containing a residue exceeding an established tolerance included 3 cantaloupe samples, 3 cucumber samples, 6 grape samples, 7 strawberry samples, and 2 winter squash samples. Of those 21 samples, 9 were reported as imported produce.

In addition, 652 fruit and vegetable samples were found to have residues for which no tolerance was established.

- 625 samples contained 1 residue for which no tolerance was established.
- 26 samples contained 2 residues for which no tolerance was established.
- 1 sample contained 3 residues for which no tolerance was established.

One of the 652 samples also contained one residue that exceeded an established tolerance.

The columns under the Sample Origin heading provide the number of samples that were of domestic, import, or unknown origin for each pesticide/commodity pair listed.

Appendix L also notes if metabolites (or isomers) were detected as part of the same sample. In instances where both parent and metabolite (or isomer) were detected, PDP accounted for both as part of the same tolerance expression.

APPENDIX L. SAMPLES REPORTED TO FDA AS EXCEEDING THE TOLERANCE OR WITHOUT ESTABLISHED TOLERANCE (per Code of Federal Regulations, Title 40, Part 180)

Residues Exceeding Established Tolerance

	Commodity / Pesticide	Limit of Detection, ppm	Concentration Detected, ppm	EPA Tolerance Level, ppm	Sample Origin
1	Cantaloupe / Methomyl	0.017	0.50	0.2	Import
2	Cantaloupe / Methomyl	0.012	0.39	0.2	Import
3	Cantaloupe / Methomyl	0.014	0.32	0.2	U.S.
4	Cucumbers / Acephate	0.002	0.052	0.02	U.S.
5	Cucumbers / Acephate	0.002	0.036	0.02	U.S.
6	Cucumbers / Chlorpyrifos	0.004	0.12	0.05	Import
7	Grapes / Ethephon	0.005	4.6	2.0	U.S.
8	Grapes / Ethephon	0.005	4.5	2.0	Import
9	Grapes / Ethephon	0.005	4.4	2.0	Import
10	Grapes / Ethephon	0.005	3.6	2.0	Import
11	Grapes / Ethephon	0.005	2.6	2.0	Import
12	Grapes / Methamidophos	0.008	0.035	0.02	Import
13	Strawberries / Cyhalothrin, Lambda	0.010	0.060	0.01	U.S.
14	Strawberries / Cyhalothrin, Lambda	0.010	0.043	0.01	U.S.
15	Strawberries / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.008	0.037	0.01	U.S.
16	Strawberries / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.008	0.031	0.01	U.S.
17	Strawberries / Methomyl	0.014	4.1	2	U.S.
18	Strawberries / Methomyl	0.014	3.7	2	U.S.
19	Strawberries / Myclobutanil	0.001	0.64	0.50	U.S.
20	Winter Squash / Acephate + Methamidophos	0.005	0.27	0.02	Import
21	Winter Squash / Dieldrin	0.006	0.20	0.1	U.S.

Distribution of Residues with No Tolerance Listed in 40 CFR, Part 180, by Commodity/Pesticide

Commodity / Pesticide	Number of Samples	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	Sample Origin U.S.	Import	Unk.
1 Apples								
1 Naphthol	5	5	100	0.017 - 0.25	0.010 ^	4	1	0
Chlorpropham	528	1	0.2	0.010 ^	0.006 ^	1	0	0
Dicloran	528	1	0.2	0.003 ^	0.002 ^	1	0	0
Iprodione	528	2	0.4	0.014 - 0.032	0.008 ^	0	2	0
Methoxychlor olefin	528	2	0.4	0.003 - 0.014	0.001 ^	2	0	0
Methoxychlor Total	528	2	0.4	0.053 - 0.53	0.002 ^	2	0	0
Mevinphos Total	528	1	0.2	0.003 ^	0.002 ^	1	0	0
Propargite	528	1	0.2	0.15 ^	0.026 - 0.088	1	0	0
Tebuconazole	498	1	0.2	0.013 ^	0.002 ^	1	0	0
2 Cantaloupe								
Diphenylamine (DPA)	742	2	0.3	0.014 ^	0.008 - 0.010	2	0	0
3 Cauliflower								
Dimethomorph	185	1	0.5	0.003 ^	0.002 ^	1	0	0
4 Cucumbers								
Chlorpropham	396	2	0.5	0.017 ^	0.010 - 0.011	1	1	0
Cypermethrin	396	1	0.3	0.050 ^	0.030 - 0.036	1	0	0
Dimethoate	397	6	1.5	0.003 - 0.22	0.002 ^	1	5	0
Omethoate [1]	397	2	0.5	0.007 - 0.078	0.004 ^	0	2	0
Iprodione	395	1	0.3	0.035 ^	0.021 ^	0	1	0
Oxadixyl	557	2	0.4	0.025 - 0.054	0.015 ^	0	2	0
Tebuconazole	395	1	0.3	0.033 ^	0.020 ^	1	0	0
Triadimenol	109	1	0.9	0.025 ^	0.015 ^	0	1	0
5 Grapes								
Diflubenzuron	1	1	100	0.012 ^	0.007 ^	0	1	0
Malathion oxygen analog	738	1	0.1	0.020 ^	0.003 - 0.006	1	0	0
o-Phenylphenol [2]	528	2	0.4	0.017 ^	0.010 - 0.015	0	2	0
Triadimenol	212	15	7.1	0.025 - 0.22	0.015 ^	2	13	0
6 Green Beans								
Carbofuran	388	1	0.3	0.003 ^	0.002 - 0.015	1	0	0
o-Phenylphenol [2]	104	67	64.4	0.017 ^	0.010 ^	56	11	0
Permethrin Total	387	1	0.3	0.24 ^	0.075 ^	1	0	0
Tebufenozide	2	2	100	0.028 - 0.043	0.003 ^	2	0	0

Commodity / Pesticide	Number of Samples	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	Sample Origin U.S.	Import	Unk.
7 Lettuce								
Atrazine	527	4	0.8	0.003 - 0.011	0.002 ^	4	0	0
Carbendazim (MBC)	527	7	1.3	0.0002 - 0.0003	0.0001 ^	7	0	0
Chlorothalonil	1	1	100	0.008 ^	0.005 ^	1	0	0
Diflubenzuron	527	1	0.2	0.011 ^	0.007 ^	1	0	0
Hexachlorobenzene (HCB)	175	1	0.6	0.002 ^	0.001 ^	1	0	0
Linuron	512	1	0.2	0.005 ^	0.003 ^	1	0	0
Malathion oxygen analog	743	1	0.1	0.021 ^	0.003 ^	0	1	0
Napropamide	528	1	0.2	0.17 ^	0.007 - 0.020	1	0	0
o-Phenylphenol [2]	582	42	7.2	0.017 ^	0.003 - 0.010	42	0	0
Oxamyl	486	5	1	0.001 - 0.040	0.0003 - 0.008	5	0	0
Tebuconazole	483	1	0.2	0.003 ^	0.002 ^	1	0	0
Thiabendazole	527	43	8.2	0.0002 - 0.032	0.0001 ^	41	2	0
8 Milk (in parts per billion)								
Fluvalinate	739	3	0.4	0.75 - 2.4	0.45 ^	3	0	0
9 Pears								
1 Naphthol	7	7	100	0.017 - 0.13	0.010 ^	1	6	0
Chlorpropham	525	1	0.2	0.018 ^	0.011 ^	1	0	0
Dicloran	526	2	0.4	0.006 - 0.013	0.004 - 0.008	2	0	0
Diphenylamine (DPA)	741	37	5	0.017 - 0.97	0.010 - 0.015	23	13	1
Iprodione	526	2	0.4	0.035 - 0.038	0.021 - 0.023	0	2	0
Prochloraz	525	1	0.2	0.013 ^	0.002 - 0.005	1	0	0
Propargite	525	3	0.6	0.016 - 0.12	0.015 - 0.30	3	0	0
Thiodicarb	1	1	100	0.021 ^	0.002 ^	0	1	0
10 Spinach, Canned								
DCPA	371	25	6.7	0.012 - 0.044	0.007 ^	24	1	0
Dicloran	371	1	0.3	0.029 ^	0.010 ^	1	0	0
11 Strawberries								
Malathion oxygen analog	731	29	4	0.002 - 0.013	0.0009 - 0.003	28	1	0
Triazole alanine (TA)	518	64	12.4	0.060 - 0.13	0.036 ^	62	2	0
Vinclozolin	1	1	100	0.034 ^	0.010 ^	1	0	0
12 Sweet Bell Peppers								
Chlorpropham	558	9	1.6	0.010 ^	0.006 ^	7	2	0
Dicloran	558	1	0.2	0.52 ^	0.002 ^	0	1	0
Diphenylamine (DPA)	558	4	0.7	0.005 ^	0.003 ^	3	0	1
Fenamiphos sulfoxide	544	1	0.2	0.003 ^	0.002 ^	1	0	0
Forchlorfenuron	496	1	0.2	0.0002 ^	0.0001 - 0.0002	0	1	0
Hexythiazox	1	1	100	0.054 ^	0.033 ^	0	1	0
Imazalil	558	1	0.2	0.016 ^	0.010 ^	1	0	0
Iprodione	558	2	0.4	0.053 - 0.085	0.028 ^	2	0	0
Propiconazole	466	1	0.2	0.004 ^	0.002 ^	1	0	0
Thiabendazole	558	152	27.2	0.0002 - 0.003	0.0001 ^	102	46	4
Vinclozolin	558	2	0.4	0.006 - 0.036	0.004 ^	2	0	0

Commodity / Pesticide	Number of Samples	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	Sample Origin U.S.	Import	Unk.
13 Sweet Potatoes								
Chlorpropham	2	2	100	0.017 ^	0.010 ^	2	0	0
14 Tomatoes								
Iprodione	1	1	100	0.057 ^	0.034 ^	0	1	0
15 Wheat Flour								
Methoxychlor p,p'	725	21	2.9	0.008 ^	0.005 ^	20	1	0
Pirimiphos methyl	725	15	2.1	0.005 ^	0.003 ^	15	0	0
16 Winter Squash								
Diphenylamine (DPA)	262	1	0.4	0.014 ^	0.008 ^	1	0	0
Hexachlorobenzene (HCB)	263	1	0.4	0.003 ^	0.002 - 0.003	1	0	0
o-Phenylphenol [2]	331	53	16	0.014 - 0.017	0.008 - 0.010	51	2	0

NOTES

[1] One detection within the same sample as Dimethoate.

[2] o-Phenylphenol is a disinfectant approved for use in food handling establishments, including production facilities for commodities identified above.

Note:

For those pesticide/commodity pairs where the minimum detected value is less than the limit of quantitation (3 times the limit of detection), the reported values are estimates. In a few cases, this may apply to the maximum detected value.