



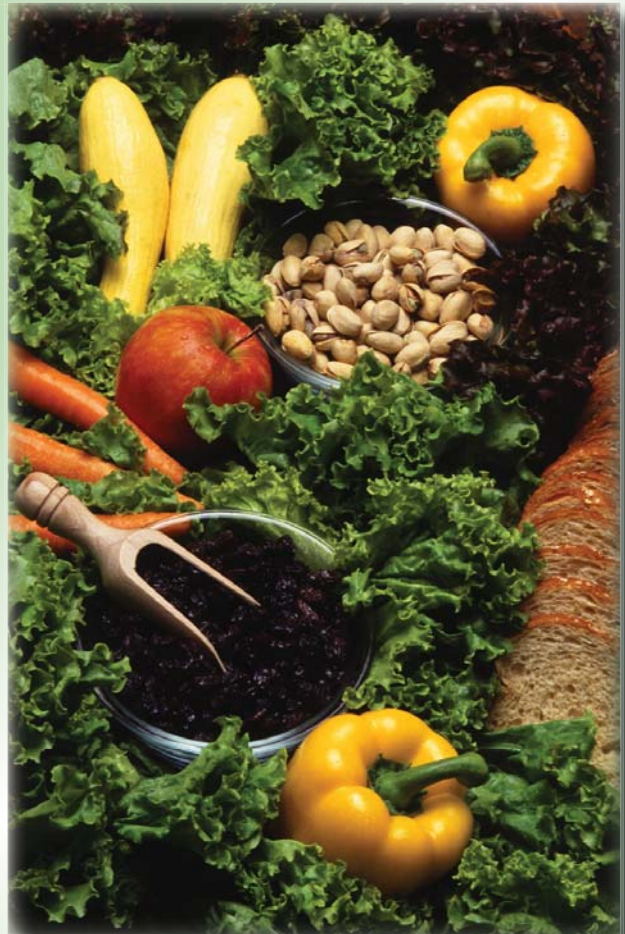
Pesticide Data Program

Annual Summary, Calendar Year 2007

United States
Department of
Agriculture

Agricultural
Marketing
Service

Science and Technology
Programs



Visit the program Web site at: www.ams.usda.gov/pdp

December 2008



United States
Department of
Agriculture

December 2008

Marketing and
Regulatory Programs

Agricultural
Marketing
Service

1400 Independence Ave.
Washington, DC
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To the Reader:

I am pleased to present the Pesticide Data Program's (PDP) 17th Annual Summary, which includes data from calendar year 2007. PDP data continue to demonstrate that the Nation's food supply is among the safest in the world.

PDP analyzed 11,683 samples of fresh and processed food commodities in 2007, excluding groundwater and drinking water. Overall, the percent of residues detected (the number of residues detected divided by the total number of analyses performed for each commodity) was 1.9 percent. Over 99 percent of the samples analyzed did not contain residues above the safety limits (tolerances) established by the U.S. Environmental Protection Agency (EPA) and 96.7 percent of the samples analyzed did not contain residues for pesticides that had no tolerance established.

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 fresh and processed fruit and vegetables, grains and grain products, milk and dairy products, beef, pork, poultry, corn syrup products, honey, pear juice concentrate, almonds, barley, oats, rice, peanut butter, bottled water, groundwater, and treated and untreated drinking water for pesticide residues.

PDP data are essential for the implementation of the 1996 Food Quality Protection Act that directs the Secretary of Agriculture to collect pesticide residue data on foods that are highly consumed by infants and children. EPA uses PDP data as a critical component for 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 that are responsible for sample collection and analysis. Twelve States participated in the program during 2007: California, Colorado, Florida, Maryland, Michigan, Minnesota, Montana, New York, Ohio, Texas, Washington, and Wisconsin. Sound conclusions about the U.S. food supply can be drawn from PDP results because together the sampling States represent all regions of the country and over half of 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 further improve this summary.

Sincerely,

James E. Link

James E. Link
Administrator
Agricultural Marketing Service



AMS-Agricultural Marketing Service

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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 when responding to changing trends in commodity distribution and availability. PDP acknowledges the contributions of the State laboratories, the U.S. Department of Agriculture's (USDA) AMS National Science Laboratory, the Grain Inspection, Packers, and Stockyards Administration Laboratory and the U.S. Environmental Protection Agency's Analytical Chemistry 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.

Data presented in this report were collected and processed through the efforts of the following organizations:

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Executive Summary

In 1991, the U.S. Department of Agriculture (USDA) Agricultural Marketing Service (AMS) was charged with designing and implementing the Pesticide Data Program (PDP) to collect data on pesticide residues in food. This 17th summary presents results for samples collected in 2007.

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 exposures to continue pesticide re-registration activities in accordance with the 1996 Food Quality Protection Act (FQPA) and ongoing registration review responsibilities. 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 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 the agricultural community to examine pesticide residue issues affecting agricultural practices, integrated pest management and U.S. trade,

particularly in the competitive global market. PDP also provides data to support technical activities for the Codex Committee on Pesticide Residues.

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 may also 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 2007, 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. Grain sampling was performed by USDA's Federal Grain Inspection Service (FGIS). Three Federal laboratories also provided testing services: USDA's AMS National Science Laboratory, USDA's Grain Inspection, Packers and Stockyards Administration (GIPSA) Laboratory, and U.S. EPA's Analytical Chemistry Laboratory. Participating water utilities provided drinking water samples which were test-

ed by the Colorado, Montana, and New York State laboratories. Groundwater samples from domestic wells were collected by homeowners and tested by the Minnesota laboratory. 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, almond, honey, and heavy cream 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 than 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. Sampling rates for grain are based on production.

Results: During 2007, PDP tested fresh and processed fruit and vegetables, almonds, honey, heavy cream, corn grain, groundwater, and treated (finished) and untreated drinking water for various insecticides, herbicides, fungicides, and growth regulators. Of the 12,689 total samples collected and analyzed, 9,734 were fruit and vegetable commodities including apple juice, bananas, blueberries (fresh/frozen), broccoli, carrots, celery, cherries, green beans, greens (collard/kale), nectarines, peaches, frozen potatoes, raisins, summer squash, and tomatoes. PDP also tested 361 almond, 186 honey, 742 heavy cream, 660 corn grain, 272 groundwater, and 734 treated (finished) and untreated drinking water samples.

Excluding corn grain, groundwater, and drinking water samples, which were all from U.S. sources, approximately 73.4 percent of all samples tested were from U.S. sources, 24.2 percent were imports, 1.1 percent were of mixed origin, and 1.3 percent were of unknown origin. Approximately 16 percent of the apple juice samples and 28 percent of the honey samples were of mixed national origin.

Of the 11,683 samples of fresh and processed commodities (excludes groundwater and drinking water) analyzed, the overall percentage of total residue detections was 1.9 percent. The percent of total residue detections is obtained by comparing the total number of residues detected and the total number of analyses performed for each commodity. The percentage of total residue detections for fresh fruit and vegetables ranged from 0.8-3.8 percent, with a mean of 2.2 percent. The percentage of total residue detections for processed fruit and vegetables ranged from 0.6-2.2 percent, with a mean of 1.3 percent. The percentage of total residue detections for almonds was 2.0 percent, for honey was 0.4 percent, for heavy cream was 1.1 percent, and for corn grain was 0.8 percent.

For samples containing residues, the vast majority of the detections were well below established tolerances and/or action levels. Before allowing the use of a pesticide on food crops, EPA sets a tolerance, or maximum residue limit, which is the amount of pesticide residue allowed to remain in or on each treated food commodity¹. Established tolerances are listed in the Code of Federal Regulations, Title 40, Part 180. In setting the tolerance, EPA must make a safety finding that the pesticide can be used with "reasonable certainty of no harm" and that residues at (or below) the tolerance are safe¹. The reporting of residues present at levels below the established tolerance serves to ensure and verify the safety of existing pesticide uses and the nation's food supply.

In addition, excluding groundwater and treated and untreated drinking water, 23 percent of all samples tested contained no detectable pesticides [parent compound and metabolite(s) combined], 30 percent contained 1 pesticide, and 47 percent

¹ See reference <http://www.epa.gov/pesticides/factsheets/stprf.htm>.

contained more than 1 pesticide. Low levels of environmental contaminants were detected in broccoli, carrots, celery, green beans, collard and kale greens, summer squash, and heavy cream at concentrations well below levels that trigger regulatory actions.

Excluding samples for which no tolerances are set (groundwater and treated/untreated drinking water), residues exceeding the tolerance were detected in 0.4 percent (49 samples) of the 11,683 samples tested in 2007 – 45 with one residue exceeding, 3 with 2 residues exceeding, and 1 with 4 residues exceeding. Residues with no established tolerance were found in 3.3 percent (386 samples) of the 11,683 samples (356 samples with 1 residue each, 28 samples with 2 residues each, and 2 samples with 3 residues each). In most cases, these residues were detected at very low levels and some residues might have resulted from spray drift or crop rotations. PDP communicates these findings to FDA when they are reported by testing laboratories.

For groundwater, 50 percent of the 74 collection sites contained low levels of detectable residues, measured in parts per trillion. Twenty-seven different pesticide residues (including metabolites) were detected in groundwater.

In finished drinking water, PDP detected low levels (measured in parts per trillion) of some pesticides, primarily widely used herbicides and their metabolites. Forty-six different residues were detected in the finished drinking water and 52 residues were detected in the untreated intake water. The majority of pesticides, metabolites, and isomers 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) levels or established Freshwater Aquatic Organism (FAO) criteria.

What Consumers Should Know: The purpose of PDP is to provide EPA with information about the level of pesticides being indirectly consumed by the general public through foods. This information

is used to assist EPA in establishing and reviewing the effectiveness of existing pesticide residue limits to protect public health. The PDP program is required by law to focus on products frequently consumed by infants and children.

PDP laboratory operations are designed to detect the smallest levels of pesticide residues possible, even when those levels are well below the safety margins established by EPA. It is important to note that the mere presence of a pesticide on food does not indicate the food is unsafe. In 2007, PDP analyzed 11,683 samples of fresh and processed food commodities (excluding ground water and treated and untreated drinking water). Overall, the percent of residues detected (the number of residues detected divided by the total number of analyses performed for each commodity) was 1.9 percent. Over 99 percent of the samples analyzed did not contain residues above the safety limits (tolerances) established by EPA and 96.7 percent of the samples analyzed did not contain residues for pesticides that had no tolerance established.

Of the samples collected and analyzed in 2007, 64 percent were fresh fruits and vegetables. Many of these are often eaten in a fresh, raw state. Health experts and the U.S. Food and Drug Administration agree that washing fresh fruit and vegetables before eating is a healthful habit. Consumers can reduce and often eliminate pesticide residues if they are present by washing them with cool or lukewarm tap water.

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 also are 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 end of this report. This publication, the PDP database file for 2007, and annual summaries and database files for previous years are available on the PDP Web site at www.ams.usda.gov/pdp.

Acronyms and Abbreviations

% C.V.	Percent Coefficient of Variation
ACB	Analytical Chemistry Branch
ACL	Analytical Chemistry Laboratory
AMS	Agricultural Marketing Service
BQL	Below Quantifiable Level
EMRL	Extraneous Maximum Residue Limit
EPA	Environmental Protection Agency
ERS	Economic Research Service
ESA	Ethane Sulfonic Acid
e-SIF	Electronic-Sample Information Form
FAO	Freshwater Aquatic Organism
FAS	Foreign Agricultural Service
FDA	Food and Drug Administration
FGIS	Federal Grain Inspection Service
FSIS	Food Safety and Inspection Service
FQPA	Food Quality Protection Act
GC	Gas Chromatography
GIPSA	Grain Inspection, Packers, and Stockyards Administration
GLP	Good Laboratory Practices
HA	Health Advisory
HC1	Formetanate Hydrochloride
LC	Liquid Chromatography
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
MPO	Monitoring Programs Office
MRM	Multiresidue Method
MS	Mass Spectrometry

NASS	National Agricultural Statistics Service
NSL	National Science Laboratory
OA	Oxanilic Acid
PDP	Pesticide Data Program
PT	Proficiency Testing
QA	Quality Assurance
QAO	Quality Assurance Officer
QAU	Quality Assurance Unit
QC	Quality Control
RDE	Remote Data Entry
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 2007

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 turnaround. 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. Other Federal, State and foreign government agencies and industry have used PDP data to promote the export of U.S. commodities to international markets. Additionally, the Codex Alimentarius Committee on Pesticides Residues recognizes PDP methodologies as official and validated methods for the determination of pesticide residues in foods.

In 2007, sampling services were provided by 10 States (California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin) and the USDA Grain Inspection, Packers, and Stockyards Administration (GIPSA). Sampling services also were provided by participating drinking water facility personnel at 16 individual sites in 13 States [Alabama (2 sites), Arizona, Florida, Georgia, Indiana, Iowa, Maryland (2 sites), Minnesota, Missouri, Montana, New Jersey, South Carolina, and Texas] and the District of Columbia. In addition, a voluntary groundwater survey was initiated in 2007 with homeowners at 74 sites in agricultural areas throughout the nation collecting domestic well samples for analysis. Laboratory services were provided by the States of California, Colorado, Florida, Michigan, Minnesota, Montana, New York, Ohio, Texas, and Washington; the Agricultural Marketing Service (AMS) National Science Laboratory (NSL); the GIPSA Laboratory; and, the U.S. EPA Analytical Chemistry Laboratory. The AMS Monitoring Programs Office (MPO) is responsible for overall management of PDP.

Figure 2 shows the States that participate in program sampling and/or testing as well as the States in their direct distribution network. Together, these States represent about 50 percent

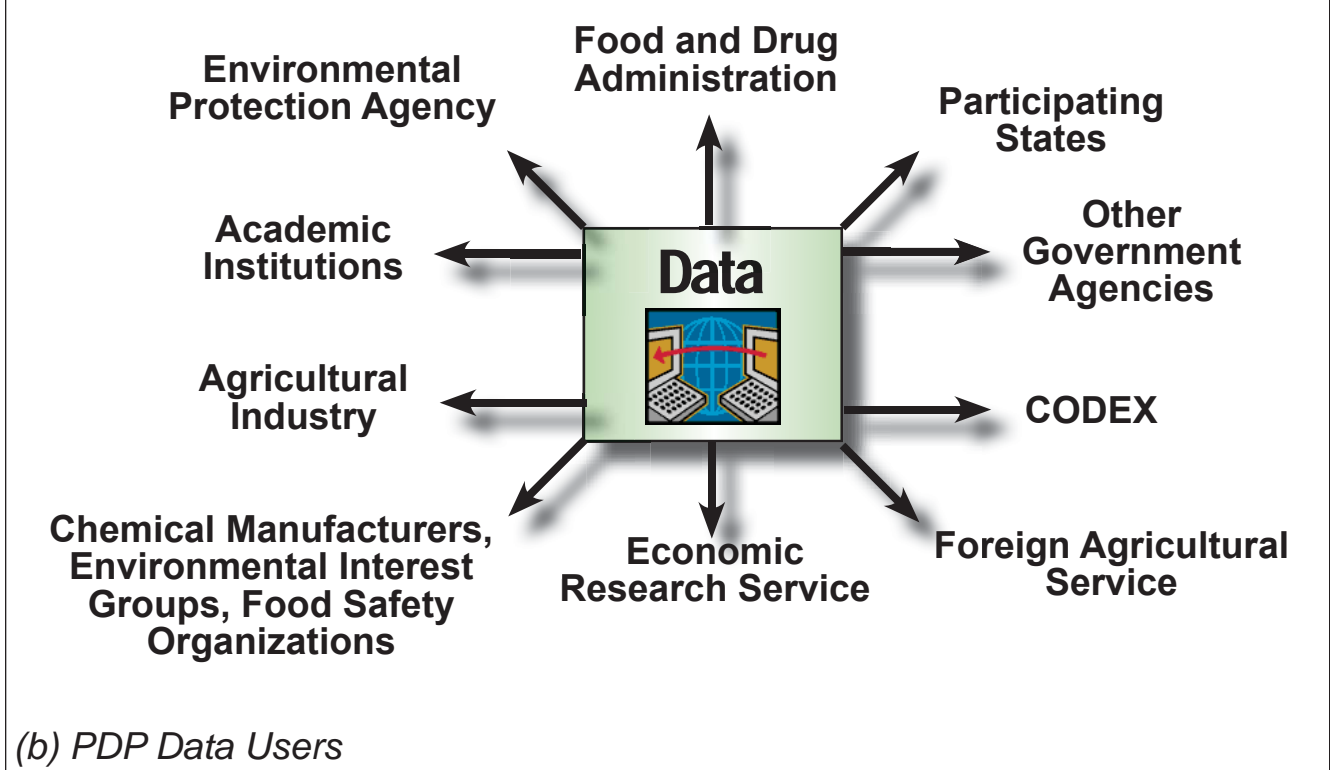
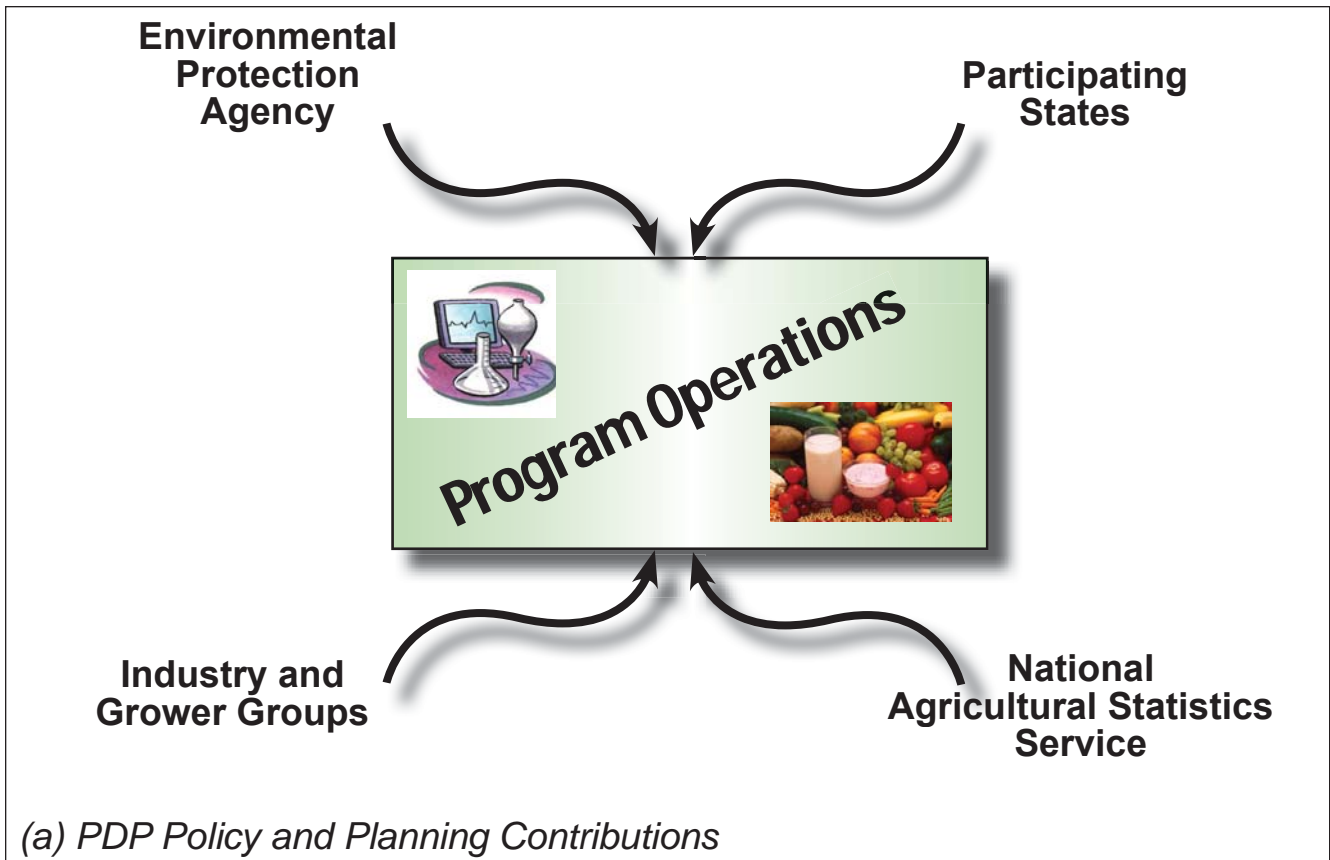


Figure 1. PDP Program Operations Support and Data Users. This figure illustrates (a) agencies/groups that support PDP program policy and planning activities, and (b) agencies/groups that use PDP data.

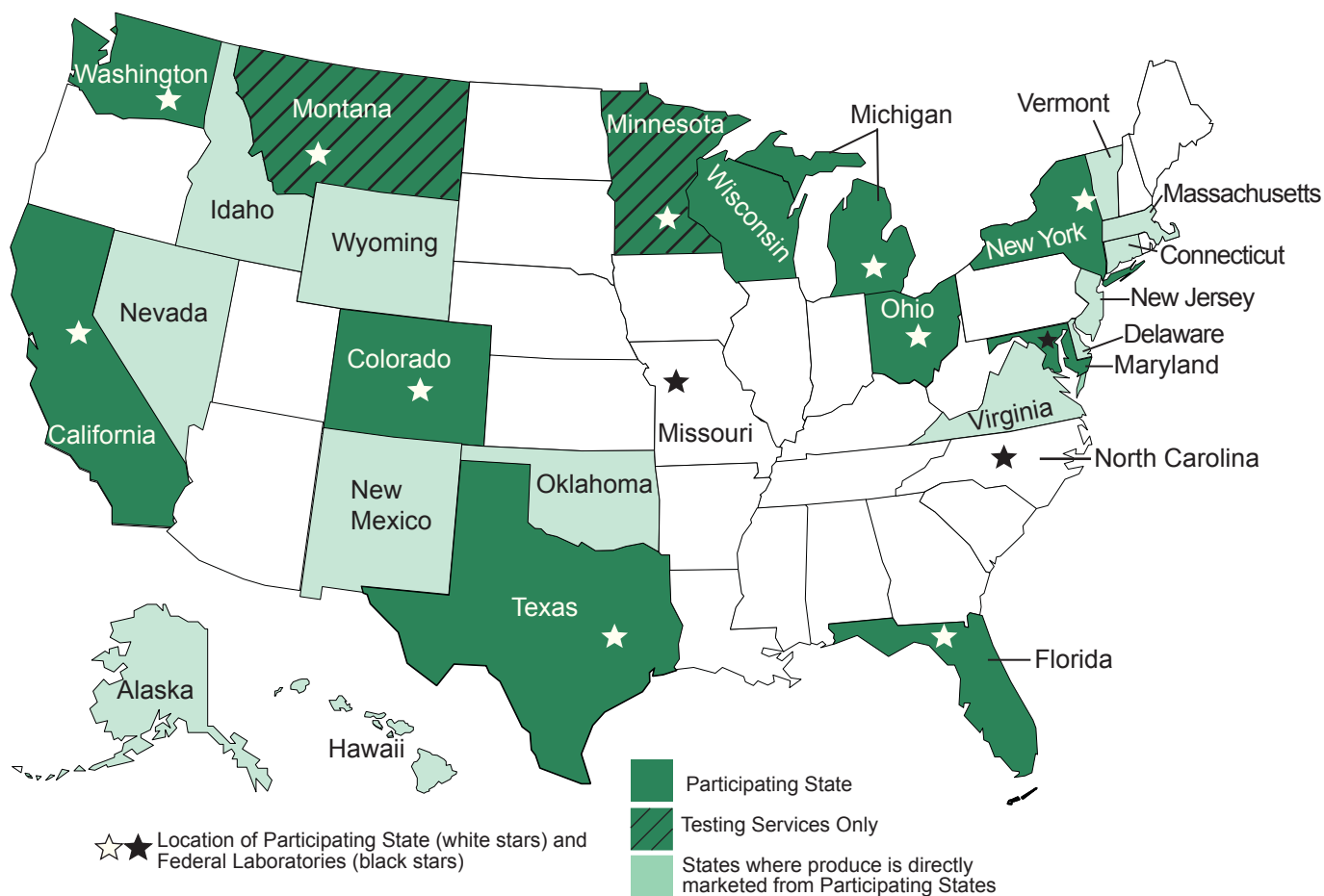


Figure 2. Program Participants. During 2007, AMS established cooperative agreements with 12 States to sample and/or test PDP commodities. State laboratories are responsible for analyzing fresh and processed fruit and vegetable samples and drinking water samples. The Federal laboratory in Gastonia, North Carolina, analyzes meat, poultry, honey, and dairy products; the Federal laboratory in Kansas City, Missouri, analyzes whole and processed grain products; and, the Federal laboratory in Fort Meade, Maryland, performs specialty analyses for selected crops. States that do not participate in PDP’s sampling program but are in the direct distribution networks of the participating States also are shown.

of the Nation’s population and all 4 census regions of the U.S. These States also represent major producers of fruit and vegetables in the U.S. AMS works closely with EPA to select commodities and pesticides for testing and in the selection of drinking water sites. The commodities selected are those representing the highest U.S. consumption, with an emphasis on foods consumed by infants and children. Appendix A provides a list of commodities tested by PDP from the beginning of the program in 1991 through 2008.

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 2007, more than 650 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.

Whole grain samples are collected by trained USDA Federal Grain Inspection Service (FGIS) inspectors. Treated and untreated drinking water samples are collected on-site by trained personnel at selected water treatment facilities across the country. Groundwater samples are collected from private domestic wells by homeowners that have been selected based on their geographic locale and their location in an agricultural area.

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 modified use directions (i.e., reduced application rates or frequency) as part of risk management activities. The following appendices list the specific pesticides tested in the program: fruit and vegetables (Appendix B), almonds (Appendix C), honey (Appendix D), heavy cream (Appendix E), corn grain (Appendix F), groundwater (Appendix G), and drinking water (Appendix H).

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 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, vegetables, almonds, heavy cream, and honey are randomly collected by trained State inspectors at terminal markets and large chain store distribution centers throughout the country. Surrogate or “proxy” sites (retail markets) are occasionally used to collect these samples when the commodity of interest is unavailable at a terminal market or distribution center. In these instances, the commodity is selected in the rear storage area of

the retail facility so that possible contamination by the consumer is eliminated and to allow capture of sample information from the product boxes. In 2007, 8.8 percent of fruit, vegetable, almond, heavy cream, and honey samples were collected at proxy sites. The commodities most often collected at these facilities were almonds, heavy cream, and processed commodities.

Corn grain samples are collected from trains, trucks, and barges by trained USDA’s Federal Grain Inspection Service (FGIS) inspectors. Treated and untreated drinking water samples are collected on-site by trained personnel at selected water treatment facilities across the country. Potable groundwater samples are collected from private domestic wells by the well owners. Participation in this program is voluntary with site selections based on agricultural chemical usage in the watershed and geographic location.

At all sampling 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 the PDP database. PDP sample origin data identify the State or country where the commodity was produced. 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, almond, heavy cream, and honey samples collected in each participating State is determined by State population. The number and location of collected corn samples are determined by annual domestic production figures. The number and location of drinking water samples from water treatment facilities are determined by EPA pesticide registration information needs. 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

Commodity	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	End Date
Almonds			██████████	██████████	Mar-08
Apple Juice			██████████	██████████	Jun-08
Bananas	██████████	██████████	██████████	██████████	Dec-07
Blueberries *			██████████	██████████	Dec-08
Broccoli	██████████	██████████	██████████	██████████	Sep-08
Carrots	██████████	██████████	██████████	██████████	Dec-07
Celery	██████████	██████████	██████████	██████████	Dec-08
Cherries		██████████	██████████		Sep-07
Corn Grain **	██████████	██████████	██████████		Sep-08
Green Beans	██████████	██████████	██████████	██████████	Dec-08
Greens, Collard	██████████	██████████	██████████	██████████	Sep-08
Greens, Kale	██████████	██████████	██████████	██████████	Sep-08
Heavy Cream	██████████	██████████	██████████	██████████	Dec-07
Honey				██████████	Sep-08
Nectarines	██████████	██████████	██████████	██████████	Dec-08
Peaches	██████████	██████████	██████████	██████████	Sep-08
Potatoes, Frozen	██████████	██████████	██████████	██████████	Dec-07
Raisins		██████████	██████████		Jun-07
Squash, Summer	██████████	██████████	██████████	██████████	Sep-08
Tomatoes	██████████	██████████	██████████	██████████	Dec-08
Water, Finished	██████████	██████████	██████████	██████████	Ongoing
Water, Ground	██████████	██████████	██████████	██████████	Ongoing
Water, Untreated	██████████	██████████	██████████	██████████	Ongoing

* Blueberries were fresh, however, approximately 3 percent were collected as frozen when fresh were not available.

** Corn grain was collected in the 2006 Crop Year (September 2006-June 2007). Collection continues for the remainder of the year for the 2007 crop year (not shown here).

Table 1. PDP Commodity Collection Schedule for 2007. Samples most often are 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 table illustrates time ranges for the listed commodities. See Appendix A for the complete PDP commodity history from May 1991 through December 2008.

number and location of groundwater samples are determined based on geographic region, location in an agricultural area, and the willingness of the well owners to participate in the program. The quarterly collection schedule for all 2007 commodities is shown in Table 1.

PDP State sample collectors are trained to adhere to detailed program Standard Operating Procedures (SOPs) that 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. SOPs for PDP sampling are available on the Internet at www.ams.usda.gov/pdp.

Temperature-sensitive samples are packed in heavy-duty, temperature-controlled containers. Holding temperatures are preserved throughout transit time with the inclusion of ample frozen cold packs and insulating materials. Non-temperature-sensitive samples do not require temperature-controlled containers; however, they are shipped in heavy-duty, well-cushioned containers. Samples are shipped the same day

as collection by overnight delivery to preserve sample integrity. Corn samples are collected in pesticide-free polyethylene bags and are shipped in canvas pouches or boxes to the laboratory where the samples are refrigerated pending analysis. Raw intake and treated drinking water samples from water treatment plants and groundwater samples collected by well owners 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.

Electronic Sample Information Forms (e-SIFs) are used for chain-of-custody and to capture information needed to characterize the sample. Sample collectors use handheld or laptop computers in the field to record sample identification 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 also recorded, such as collector name, the State or country of origin, product variety, production claims such as organic, post-harvest chemical applications, and grower, packer, and/or distributor locations. The e-SIFs are e-mailed the same day as sample collection or, at the latest, by 8:00 a.m. the morning after collection to ensure that sample information is received at each laboratory by the time samples arrive for analysis. Refer to Section IV on Database Management for more information on the e-SIF system.

◆ Fresh and Processed Commodities

Of all samples collected and analyzed in 2007, 77 percent (9,734 of 12,689) were fruit and vegetables, including fresh and processed products. The fresh commodities collected for PDP were bananas, blueberries, broccoli, carrots, celery, cherries, green beans, greens

(collard greens and kale), nectarines, peaches, summer squash, and tomatoes. The processed commodities included apple juice, frozen blueberries, frozen potatoes, and raisins. All fresh fruit and vegetable samples weighed either 3 or 5 pounds (3 pounds were collected for low-weight commodities such as cherries and greens), and 5 pounds were collected for larger, high-weight commodities (such as bananas and tomatoes). For commodities that can be quite large (such as summer squash), a minimum of two units were collected to maintain sample representativeness. The weights or volumes of processed commodities varied by commodity: apple juice – 1 quart, frozen blueberries – 1 pound, frozen potatoes – 3 pounds, and raisins - 15 ounces.

Participating State agencies compile and maintain lists of sampling sites. The States provide 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 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 to have 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	BB	BN	BR	CE	CH	CR	GB	GK	GL	NE	PC	SS	TO	Total Fresh
California	162	168	162	167	102	169	166	79	87	123	120	168	166	1,839
Colorado	24	24	24	24	16	24	25	9	16	16	18	24	24	268
Florida	83	84	84	84	48	84	84	36	48	70	74	84	84	947
Maryland	70	72	72	72	40	72	72	50	22	55	54	72	72	503
Michigan	70	72	72	72	40	72	72	50	22	55	54	72	72	795
New York	104	108	108	108	61	108	108	67	41	91	87	108	108	1,207
Ohio	70	72	72	70	38	73	71	34	35	49	47	72	72	775
Texas	94	96	96	96	56	96	95	43	53	74	72	96	96	1,063
Washington	43	48	47	47	27	47	48	37	11	38	34	48	47	522
Wisconsin	16	24	24	24	11	24	25	14	10	15	18	24	24	253
TOTAL	711	744	736	739	419	744	739	386	353	563	555	742	741	8,172

State	AC	BZ	PZ	RA	Total Processed	Total Fresh & Processed F&V	Nut Product AL	Dairy Product CM	HY
California	83	2	179	84	348	2,187	83	166	42
Colorado	12	0	24	12	48	316	12	24	6
Florida	42	1	96	42	181	1,128	42	84	21
Maryland	23	0	64	24	111	614	15	48	12
Michigan	35	2	72	36	145	940	36	72	18
New York	54	4	108	54	220	1,427	54	108	27
Ohio	36	0	72	36	144	919	36	72	18
Texas	47	1	107	48	203	1,266	48	96	24
Washington	24	4	48	24	100	622	23	48	12
Wisconsin	12	8	30	12	62	315	12	24	6
TOTAL	368	22	800	372	1,562	9,734	361	742	186

Commodity Legend		
AJ = Apple Juice	CH = Cherries	NE = Nectarines
AL = Almonds	CM = Heavy Cream	PC = Peaches
BB = Blueberries	CR = Carrots	PZ = Potatoes, Frozen
BN = Bananas	GB = Green Beans	RA = Raisins
BR = Broccoli	GK = Greens, Kale	SS = Squash, Summer
BZ = Blueberries, Frozen	GL = Greens, Collard	TO = Tomatoes
CE = Celery	HY = Honey	

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 corn grain, groundwater and drinking water can be found in Figures 5, 6, and 7 respectively.

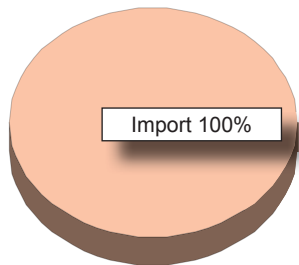
State population figures are used to assign the number of fruit and vegetable samples scheduled for collection each month. These population- and distribution-network-based numbers result in the following monthly collection assignments for each State: California, 14; Colorado, 2; Florida, 7; Maryland, 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.

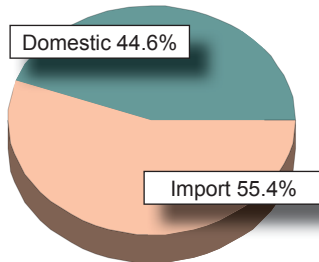
The total number of samples collected in each State for each commodity is listed in Table 2. Figure 2 illustrates the participating collection States and the laboratories to which samples were shipped. The total number of samples per commodity and the percentage of each that

A. Fresh Fruit and Vegetable Samples

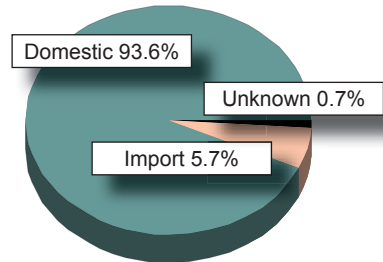
Bananas (744 Samples)



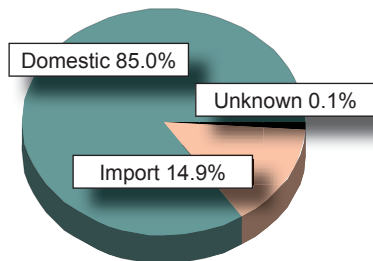
Blueberries (711 Samples)



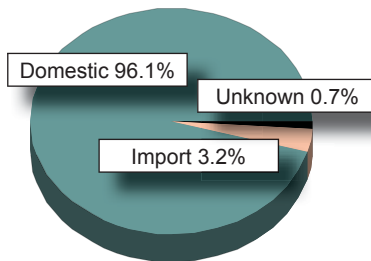
Broccoli (736 Samples)



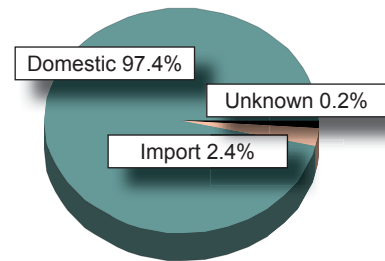
Carrots (744 Samples)



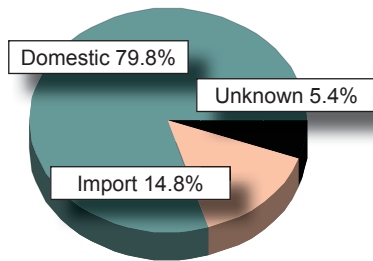
Celery (739 Samples)



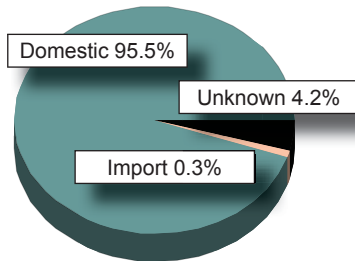
Cherries (419 Samples)



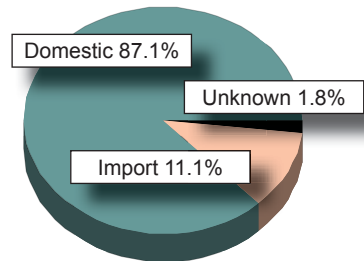
Green Beans (739 Samples)



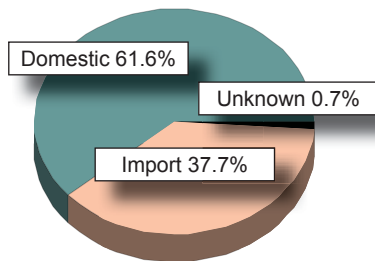
Greens, Collard (353 Samples)



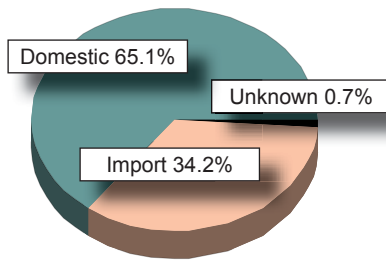
Greens, Kale (386 Samples)



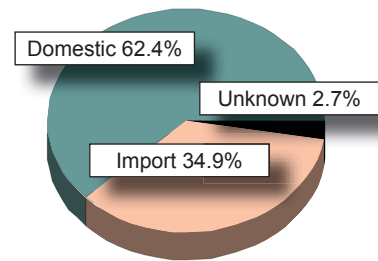
Nectarines (563 Samples)



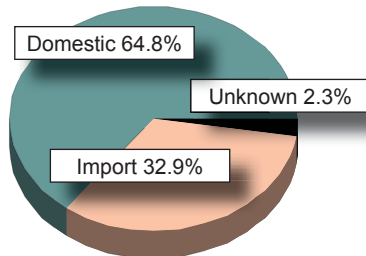
Peaches (555 Samples)



Squash, Summer (742 Samples)



Tomatoes (741 Samples)



B. Processed Fruit and Vegetable Commodities

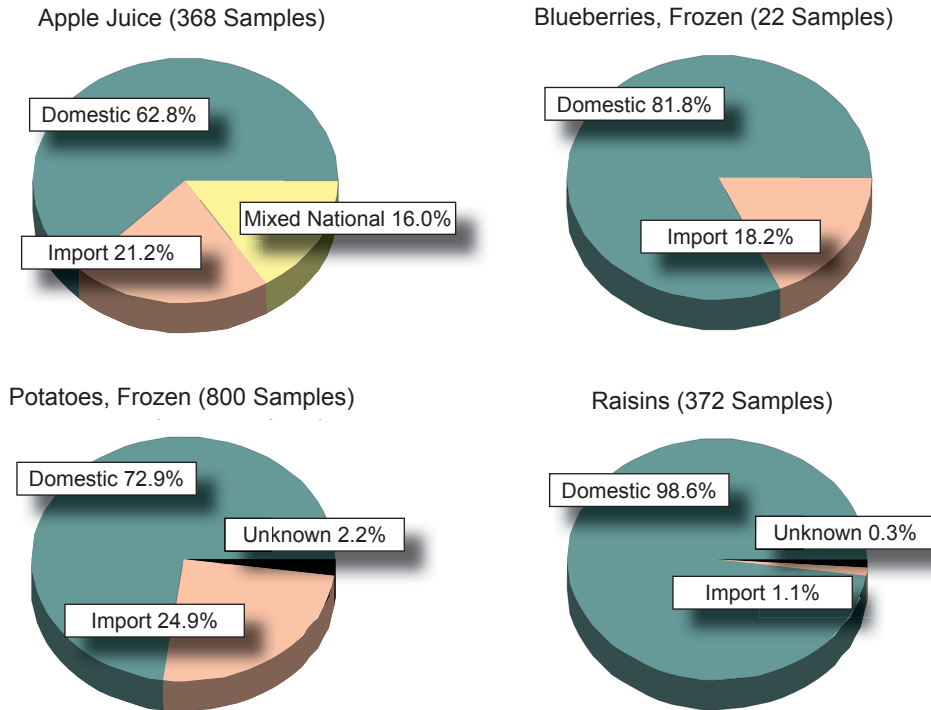


Figure 3. Commodity Origin. This figure depicts the proportion of commodity origin (domestic vs. import vs. unknown origin) for each fresh and processed fruit and vegetable product tested in 2007.

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 can be found in Figure 4 where differences in origin (domestic vs. import) are depicted for blueberries, peaches, and summer squash by month. Fruit and vegetable samples originated from 39 States plus the District of Columbia and a total of 26 foreign countries (refer to Appendix I).

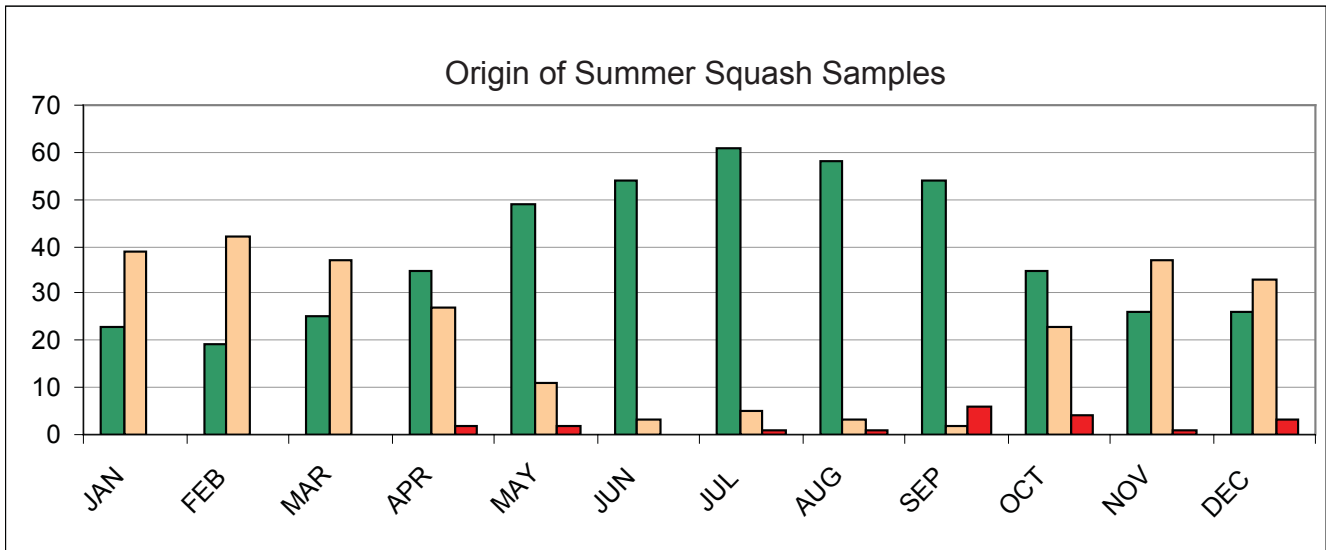
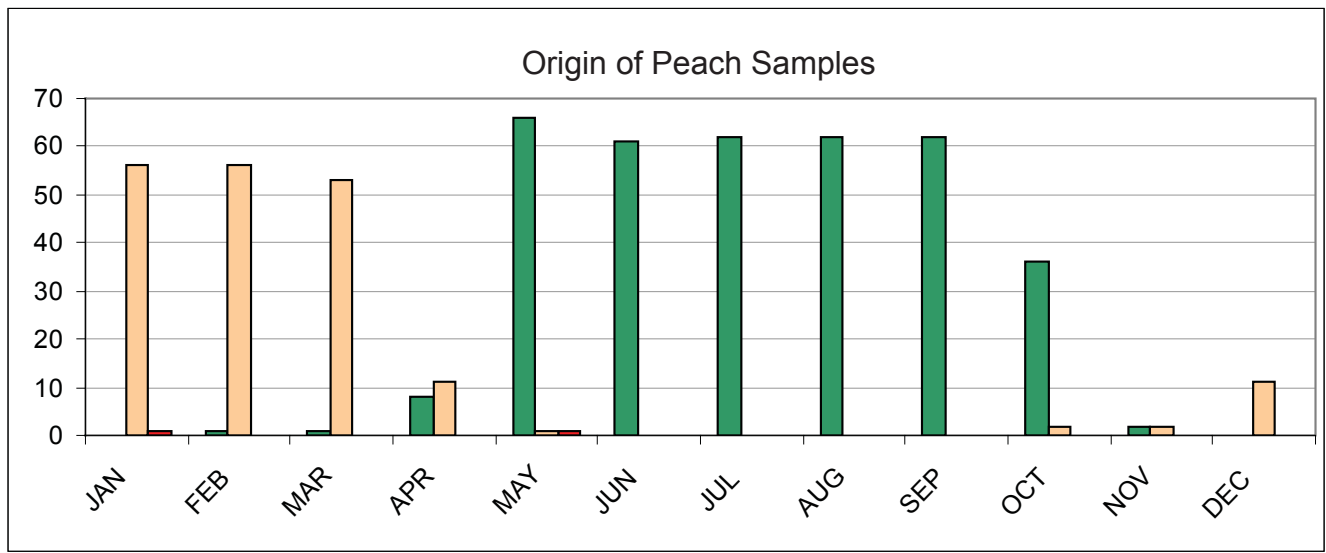
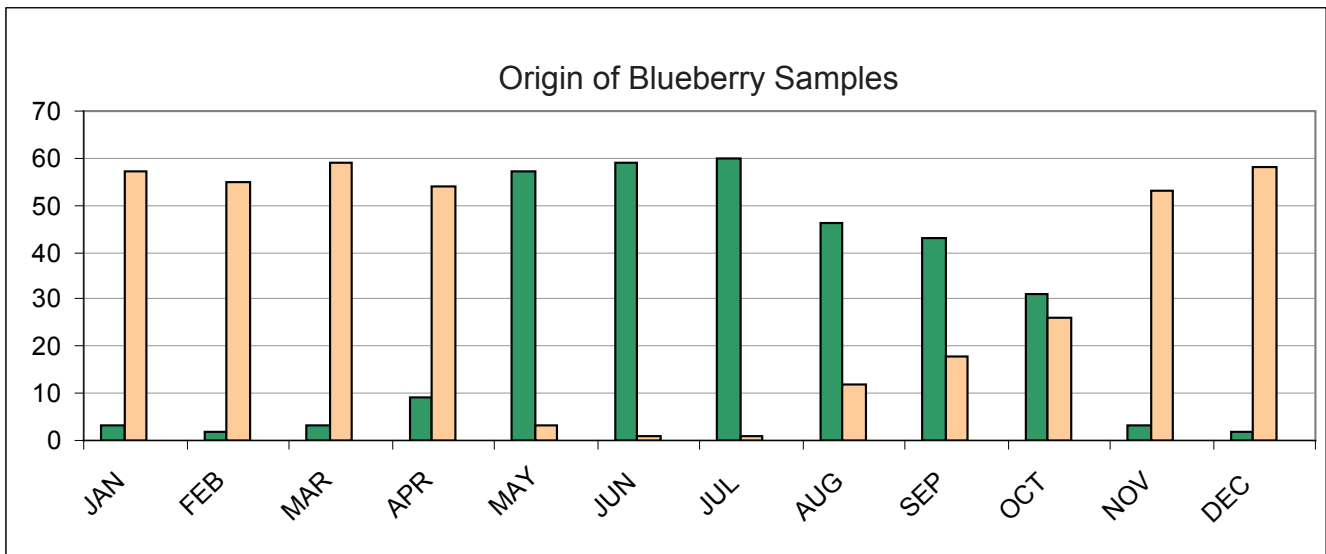
◆ Almonds

Between July and December 2007, 361 almond samples were collected for PDP by trained state sample collectors and analyzed for pesticide residues. One-pound samples were collected from routine PDP sampling sites that included major chain-store distribution centers and terminal markets. When they were not available at these sites, almonds were collected from proxy sites (retail stores). Approximately 34 percent of the almond samples were obtained from proxy sites. Only whole, raw, shelled, natural almonds

were collected; blanched, roasted, salted, smoked, flavored, ground, or slivered almonds were not sampled. Analysis was performed by the National Science Laboratory located in Gastonia, North Carolina. Distribution of residues in almonds may be found in Appendix C.

◆ Honey

PDP State samplers collected 186 honey samples between Oct. 1 and Dec. 31, 2007. Twelve to 32-ounce containers of 100-percent pure Grade-A honey were collected from routine PDP sampling sites that included chain-store distribution centers and terminal markets. Approximately 36 percent of the samples were collected at proxy sites. In addition to the commonly available clover honey, other blossom-flavored honey (such as orange blossom and wildflower), creamed honey, and honey with honeycombs in the jar were randomly collected when available. Imitation honey (made from rice or corn syrup), solid comb honey, honey with added flavors, and B or C grade honey were not included in the collection



Domestic
 Imported
 Unknown

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

scheme. Distribution of residues in honey may be found in Appendix D.

◆ Heavy Cream

PDP collected and analyzed 742 heavy cream samples in 2007. Each sample size was approximately 8 ounces (½ pint). Cream samples were collected from 20 States throughout the country (refer to Appendix I); all were of domestic origin. Thirty-four percent of the samples were obtained from proxy (or retail) sites; the remainder was collected from distribution centers, terminal markets, and other wholesale outlet centers. Only heavy cream was collected; lighter cream that had a fat content less than 36 percent was excluded. Fat contents of all samples were analyzed to ensure the percent

of fat was at an acceptable level. Heavy cream analysis was performed by the National Science Laboratory, located in Gastonia, North Carolina. Distribution of residues in heavy cream may be found in Appendix E.

◆ Corn Grain

Trained USDA FGIS inspectors collected 660 corn samples for PDP for the 2006 crop year (harvested and shipped between October 2006 and April 2007). 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 (18% of samples), hopper cars (66% of samples), and barges (16% of samples). Corn grain slated for export was excluded from the sampling scheme.

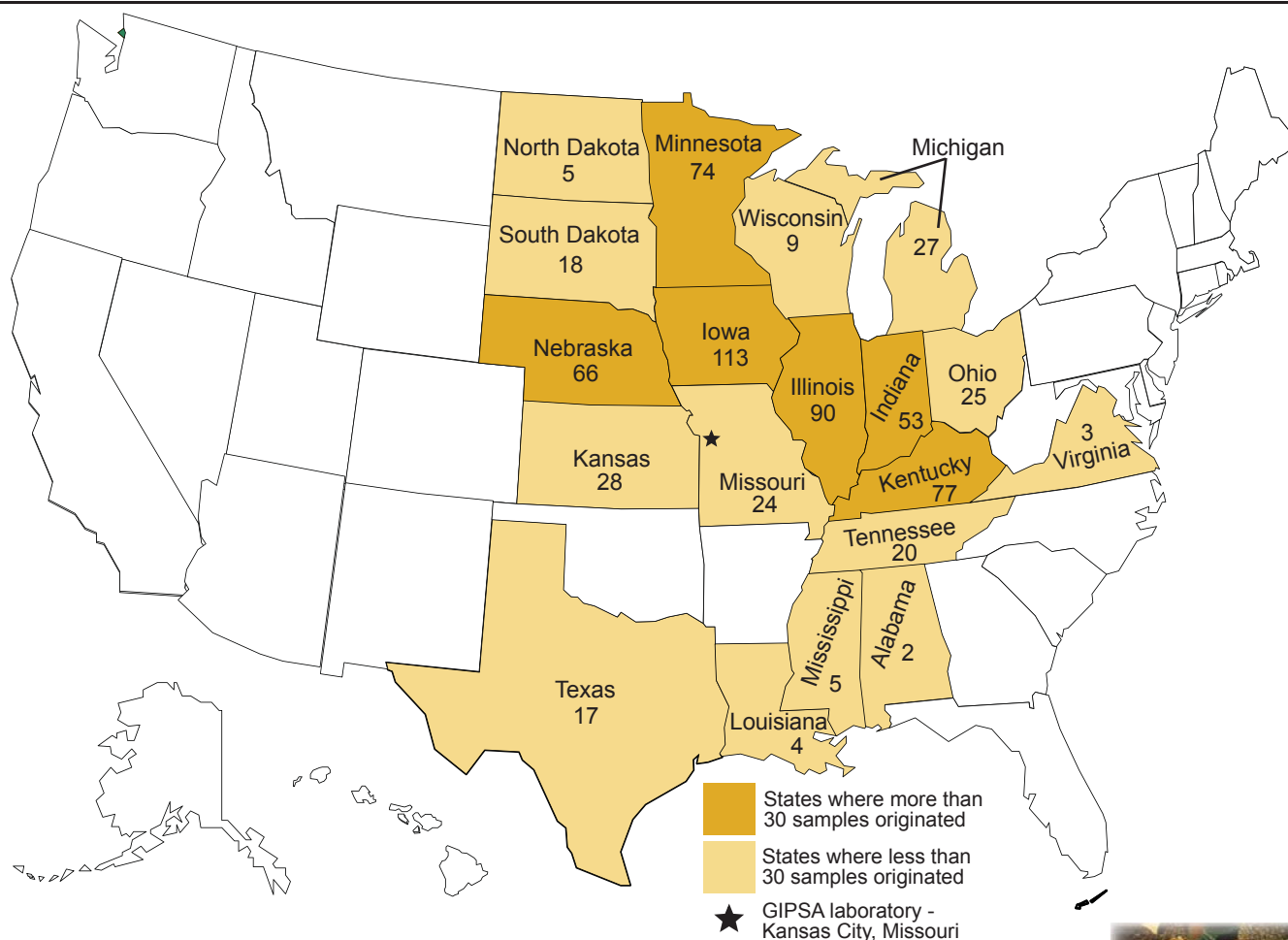


Figure 5. Number of Samples collected and Grower States for Corn Grain. A total of 660 corn grain samples were collected between October 2005 and June 2006. The samples originated from 19 States and were collected in proportion to their production volumes. Residue testing for all samples was performed by GIPSA, located in Kansas City, MO.



PDP chain-of-custody procedures are similar to those used for fruit and vegetable samples. Sample information for corn included: inspection location, inspection point code, field office location, official agency collecting the sample, carrier type (truck, hopper car, or barge), carrier identification code, state of origin, collection date, and inspector's name. Pesticide residue analysis was performed by the USDA GIPSA Technical Services Division Laboratory located in Kansas City, Missouri. Corn samples were collected from 150 cities in 19 States. There were no imported corn samples; all were of domestic origin. The origin and number of samples collected from each State is displayed in Figure 5. Distribution of residues in corn grain may be found in Appendix F.

◆ Drinking Water

Potable Groundwater from Domestic Wells:
In 2007, 74 groundwater wells used for potable

water supplies located in agricultural regions in 33 States were sampled. Each of the wells was sampled quarterly for a period of one year. The wells were sampled by the well owner. Sampling was performed at the kitchen faucet after morning showers to ensure that all the water from the pressure tank and any storage tanks were used and that the water was fresh from the well and not stagnant. It is assumed that most households do not spray household pesticides around the kitchen faucet; therefore, the chance of contamination is minimal. All groundwater samples were sent to the Minnesota Department of Agriculture laboratory for analysis. The U.S. Geological Survey (USGS) divides the contiguous United States into roughly 15 groundwater regions. An attempt was made to obtain 5 samples per region. Because groundwater regions do not follow State boundaries, the 33 States from which samples were collected roughly represent the 15 regions. Well depths ranged from 30 to 850 feet below

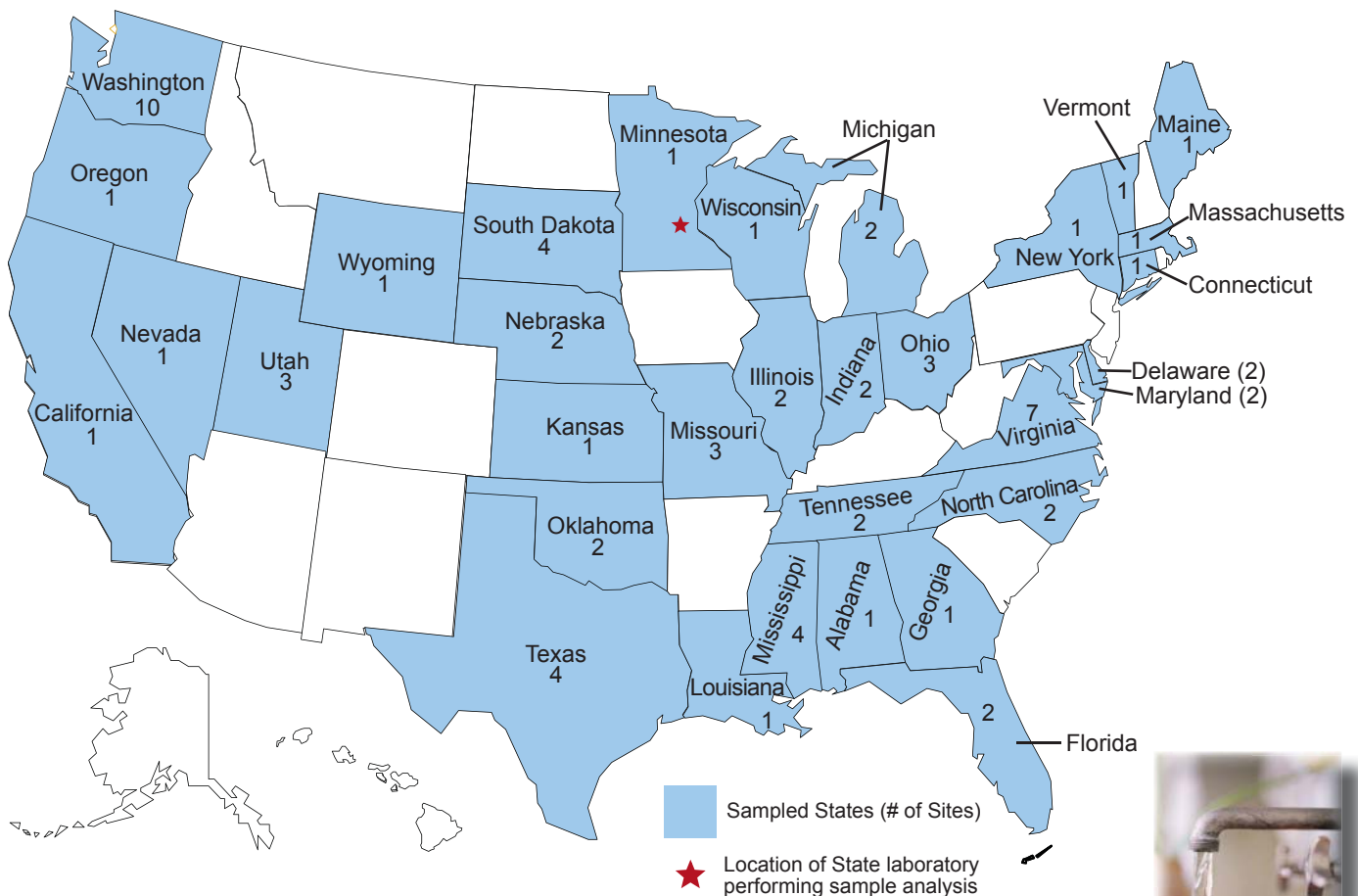


Figure 6. Location of Groundwater Collection Sites in 2007. A total of 272 groundwater samples were collected from 74 private wells in 33 States.



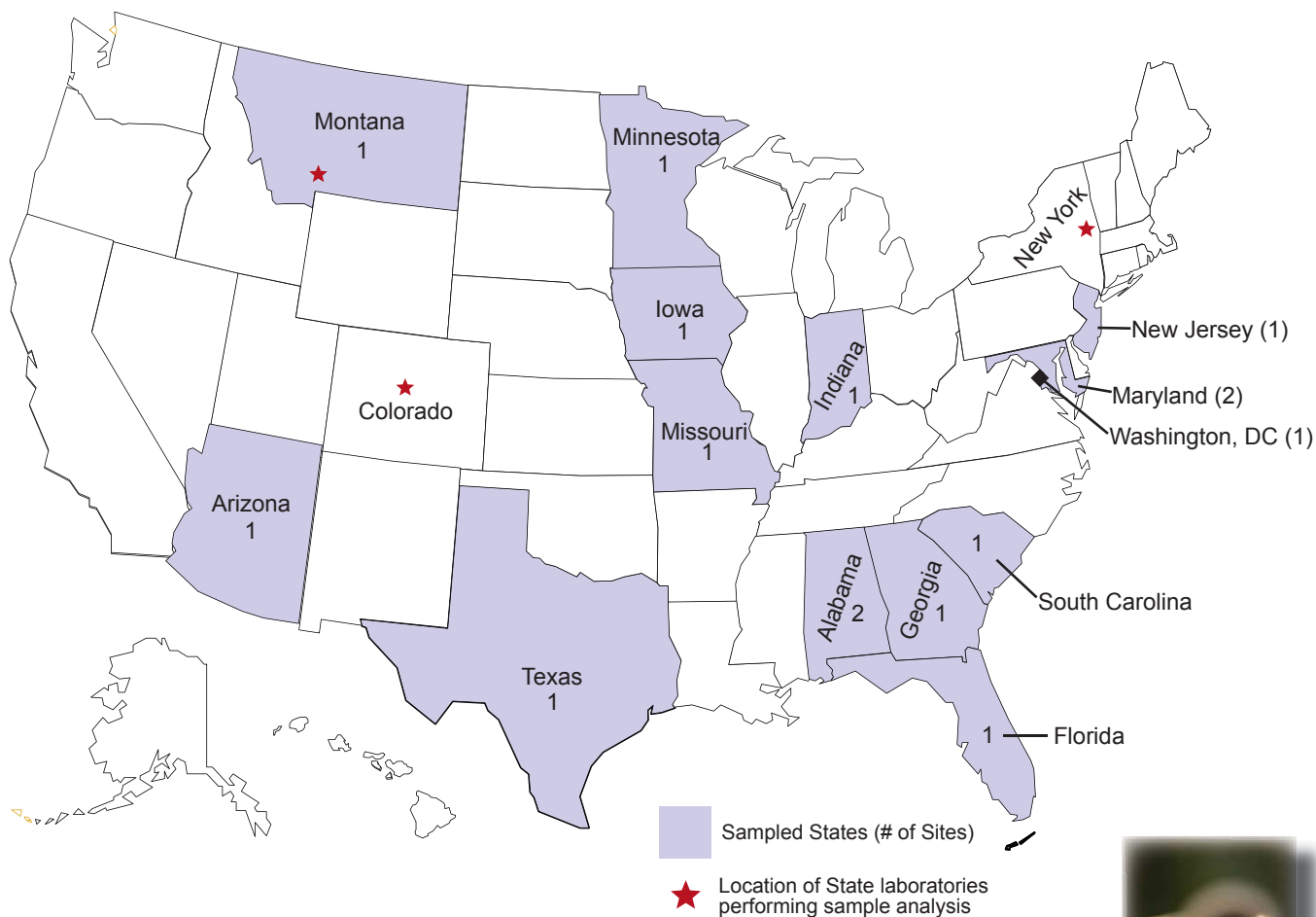


Figure 7. Location of Drinking Water Collection Sites at Community Water Systems in 2007. A total of 16 water treatment facilities in the U.S. were sampled in paired units (coordinated treated and untreated samples). Sites represent areas of varied geographical settings but are located in watersheds where pesticides were known to have been heavily applied.



land surface. Figure 6 shows the distribution of groundwater collection sites for the 2007 PDP testing program.

Municipal Drinking Water: In the municipal water sampling project, 737 drinking water samples were collected for pesticide residue analysis from 13 States and the District of Columbia community water systems that draw water from surface water sources. Samples were collected bimonthly by trained 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. Dechlorination and preservative chemicals were added to the samples at the time of collection. Samples were packed with frozen cold packs and shipped overnight to the testing laboratories.

The States and the number of sites in each State (in parentheses) from which municipal water samples were drawn included Alabama (2), Arizona (1), Florida (1), Georgia (1), Iowa (1), Indiana (1), Maryland (2), Minnesota (1), Missouri (1), Montana (1), New Jersey (1), South Carolina (1), Texas (1), and the District of Columbia (1). Site selection was made in collaboration with EPA's Office of Pesticide Programs and Office of Water. All selected sites

met the following criteria: (1) use of surface water as the primary source of water and (2) location in regions of heavy agriculture where known amounts of targeted pesticides of interest were applied. Water treatment method was not a part of the selection criteria. General locations of water collection sites and testing laboratories are illustrated in Figure 7.

III. Laboratory Operations

◆ Overview

Thirteen laboratories (10 State and 3 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 an ongoing 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.

◆ Fresh and Processed Commodities

PDP participating laboratories analyzing fruit and vegetables monitored 374 parent pesticides, metabolites, degradates, and/or isomers using Multiresidue 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) bananas are peeled; (2) blueberries are washed; (3) broccoli is visually examined, any damaged portion or wilted florets removed, any inedible portion of stem removed, and washed; (4) carrots are washed, gently scrubbed, and stem cap portions removed; (5) celery stalks are separated from inedible portions and washed; (6) cherries are washed and pitted; (7) green beans and summer squash, are washed and end

pieces are removed; (8) greens are visually examined, any damaged/wilted and wrapper leaves discarded, and washed; (9) nectarines and peaches are washed, the stems and leaves removed, and pitted; and (10) tomatoes are washed and stems removed.

Processed samples are prepared as follows: (1) fresh and reconstituted apple juice samples are mixed until homogeneous; (2) frozen blueberries and frozen potatoes are homogenized with their entire contents, including any liquid present; and (3) raisins are rehydrated to facilitate sample extraction.

Samples of almonds and, corn grain were homogenized as received by the laboratory. Samples of heavy cream and honey were considered homogeneous and required no further processing prior to analysis.

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 immediately, 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, residues are extracted using organic solvents followed by various cleanup procedures such as Solid Phase Extraction (SPE). The California, Texas, and Washington laboratories used modifications of the MRM developed by the California Department of Food and Agriculture. The Florida laboratory used an acetonitrile extraction followed by an aminopropyl SPE

cleanup procedure. The Michigan laboratory used a modified version of the QuEChERS method, developed and published in July 2003 by USDA's Agricultural Research Service. The New York laboratory used a method based on the Agriculture and Agri-Food Canada SPE method with some modifications based on the Luke procedure. The Ohio laboratory used variations and combinations of the FDA Luke I [Section 302 of Pesticide Analytical Manual I] and Luke II [FDA Laboratory Information Bulletin 3896] extraction procedures. All MRMs are determined, prior to use and through appropriate method validation procedures, to produce equivalent data for PDP analytical purposes.

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 systems and are specifically focusing on LC-MS/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 concentrations of detected residues. The verification process provides an extra measure of confidence in the identification of the analyte and its concentration.

◆ Almonds

The AMS NSL in Gastonia, NC, tested almond samples for 72 parent pesticides, metabolites, degradates, and/or isomers. Upon arrival at the testing facility, samples were visually examined for acceptability and discarded if spoiled or damaged. The samples were stored at room temperature until they were homogenized. The almond samples were homogenized by grinding with dry ice in a large, high-speed food processor. The sample homogenates

were placed into sample cups (approximately 60 grams per cup) and allowed to sublime at -20°C overnight before storing at -70°C prior to analysis. A 20-gram aliquot was weighed for each almond sample followed by organic solvent extraction and sample cleanup using ultra-low refrigeration (-70°C), centrifugation, and dispersive SPE. For each almond sample, two extra sample homogenate cups, not used for the initial testing, were retained frozen in the event that replication of analysis or verification testing was required. Samples were analyzed using GC-MS and LC-MS/MS.

◆ Honey

The AMS NSL in Gastonia, NC, tested honey samples for 164 parent pesticides, metabolites, degradates, and/or isomers. Upon arrival at the testing facility, samples were visually examined for acceptability and discarded if spoiled, or leaking. If not extracted immediately after arrival, samples were stored at room temperature until extracted. The honey samples were homogeneous and required no further processing. Two 10-gram aliquots were weighed for each honey sample followed by the addition of 10 ml of water and extracted using a slight modification of the QuEChERS method. One aliquot was extracted with acetonitrile for the LC analysis and the second with ethyl acetate for the GC analysis. For each honey sample not used for the initial testing, a portion was retained frozen in the event that replication of analysis or verification testing was required. Samples were analyzed using GC-MS and LC-MS/MS.

◆ Heavy Cream

The AMS NSL in Gastonia tested heavy cream samples for 142 parent pesticides, metabolites, degradates, and/or isomers. Upon arrival at the testing facility, samples were visually examined for acceptability and discarded if spoiled, or leaking. If not extracted immediately after arrival, samples were frozen at 0°C or lower until extracted. The heavy cream samples were

homogeneous and required no further processing. A 5-gram aliquot was weighed for each heavy cream sample followed by organic solvent extraction and sample cleanup using ultra-low refrigeration (-70°C), centrifugation, and dispersive SPE. For each heavy cream sample not used for the initial testing, a portion was retained frozen in the event that replication of analysis or verification testing was required. Samples were analyzed using GC-MS and LC-MS/MS.

◆ **Corn Grain**

The USDA GIPSA laboratory in Kansas City, MO, analyzed corn grain samples for 104 parent pesticides, metabolites, degradates, and/or isomers. Upon arrival at the testing facility, samples were visually examined for acceptability and discarded if spoiled, or otherwise inedible. Corn grain samples were refrigerated at 4° C, or lower, until time of grinding after which the samples are stored at -80° C until extraction. 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 corn grain samples was accomplished using solvent extraction and SPE cleanup coupled with GC-MS and LC-MS/MS detection.

◆ **Potable Groundwater from Domestic Wells**

The Minnesota laboratory analyzed groundwater for 94 parent pesticides, metabolites, and isomers. These compounds were determined to be of interest to EPA based on data needs for risk assessment as required under FQPA. Upon arrival at the testing laboratory, samples were visually examined for acceptability (within labeled expiration date, no leakage). Samples were refrigerated until time of analysis. One liter of the sample was extracted for compounds amenable to GC-MS analysis and one for chloroacetanilide compounds to be analyzed via LC-MS/MS. A third bottle was held in reserve in case of breakage or laboratory accident.

◆ **Municipal Drinking Water**

The Colorado, Montana, and New York laboratories analyzed drinking water for 239 parent pesticides, metabolites, degradates, 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 distribution 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 another 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]. The extraction methods used were based on SPE methods developed by the USGS and were independently validated by each testing laboratory. Samples were analyzed using MS detection (single and tandem GC and LC technologies) or selective detectors.

◆ **Formetanate Hydrochloride**

In 2007, PDP conducted a special survey of formetanate hydrochloride (HCl) on nectarines and peaches. Homogenates of 345 nectarine and 236 peach samples were shipped by the California, Ohio, and Washington laboratories to the U.S. EPA Analytical Chemistry Branch (ACB) Laboratory in Fort Meade, Maryland for analysis. The ACL used a modification of the QuEChERS method coupled with LC/MS-MS analysis to determine formetanate hydrochloride.

◆ 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. As laboratories continue to move toward accreditation to ISO 17025, program SOPs are being modified to align with these ISO requirements. 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 MPO 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 QC are intended to assess method and analyst performance during sample preparation, extraction, clean-up, 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, almonds, honey, heavy cream, and corn grain, 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 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. Marker pesticides are used to monitor recovery instead of spiking all pesticides. This use of marker pesticides optimizes the resources required to analyze the thousands of analyte/matrix combinations in the program while still allowing evaluation of daily recovery patterns. In addition, each laboratory must perform matrix spikes throughout the year for each analyte/crop combination reported by their laboratory. During 2007, PDP laboratories quantitated a total of 57,484 matrix spikes, with an overall mean recovery of 93 percent and an overall percent coefficient of variation (% C.V.) of 26 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 2007, PDP laboratories quantitated a total of 49,663 process controls on 12,689 samples, with an overall mean recovery of 98 percent and an overall C.V. of 19 percent. Of these process controls, 553 (1.1%) 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, dairy products, and meats, 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 2007, PDP laboratories received 5 multiresidue fruit and vegetable PT sets consisting of 15 samples, 1 almond set consisting of 3 samples, 1 heavy cream set consisting of 3 samples, and 1 corn grain set consisting of 2 samples. For fruit and vegetable multiresidue screening, the 15 samples

were comprised of 5 commodities and were fortified with 52 compounds at levels generally one to 10 times the LOQ. Two compounds were repeated three times. Reported results for fruit and vegetable samples yielded an overall mean recovery of 89 percent and an overall C.V. of 26 percent. For almonds and heavy cream, 3 samples were fortified with a total of 11 compounds for each commodity. For corn grain, 2 samples were fortified with a total of 11 compounds.

Additionally, PDP laboratories participated in the international AOAC® PT program. During 2007, PDP laboratories participated in three test rounds, one for bananas, one for carrots, and one for peaches. Banana and carrot samples were fortified with nine pesticides each and peaches were fortified with four 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, three proficiency sample sets were analyzed during 2007. Test solutions, custom designed based on testing profiles and detection limits, 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 the specified solution which was diluted according to program protocols. This solution was then used to fortify either blank matrix (tap water) or replicate samples collected from PDP sampling sites whose samples historically contained multiple pesticides. The spiked samples were then presented to the staff members of each respective laboratory for analysis. During 2007, two of the proficiency sample sets were spiked site samples and one was spiked matrix blank.

On-site Reviews: MPO staff performs 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, VA, 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, which allows easier administration and data reporting. The PDP data path is illustrated in Figure 8.

◆ Electronic Data Path

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, DC. 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 Sample Information Form (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 ad-hoc 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. Ad-hoc queries and custom 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 Web site. The data files on the Web site 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.

SAMPLE COLLECTION



- Collection in 10 States
- Samples taken close to consumer
- Standardized Sample Information Forms
- Data entry on handheld/laptop computers



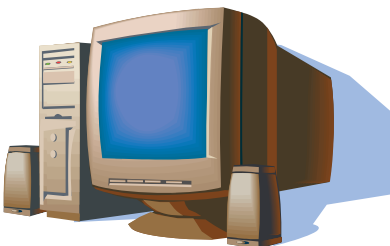
LABORATORY ANALYSIS



- 10 State labs + 2 USDA labs + 1 EPA lab
- Fruit and vegetable samples prepared for consumption
- Detect residues at low levels
- Pesticide residue data generated
- Multi-tiered QA data review process

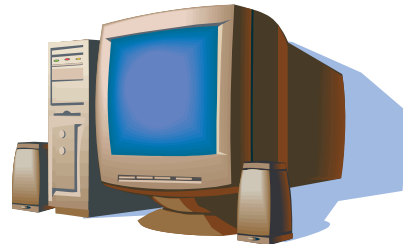


LABORATORY REMOTE DATA ENTRY (RDE)



- Web-based data entry software
- Import data from other systems
- Access controlled by user login
- Extensive data cross-checks

DATA REVIEW AT HQ



- Chemists review data on-screen
- Upload data to central database



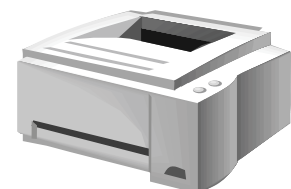
YEAR-END REVIEW



- Data reconciliation

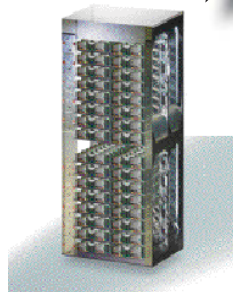


DATA REPORTING



- Standard & adhoc reporting
- Annual Summary
- Custom data sets

INTERNET



INTERNET

Figure 8. PDP Data Pathway. An illustration of PDP data path from sample collection through laboratory analysis and reporting.

V. Sample Results and Discussion

◆ Sample Results

In 2007, PDP conducted surveys on a variety of foods including fresh and processed fruit and vegetables, almonds, heavy cream, honey, corn grain, groundwater, and treated and untreated drinking water. Of the 12,689 samples that were collected and analyzed, 9,734 were fruit and vegetable commodities, 361 were almond samples, 186 were honey samples, 742 were heavy cream samples, 660 were corn grain samples, 272 were groundwater samples, and 734 were drinking water samples.

Excluding corn grain, groundwater, and drinking water samples, which were all from U.S. sources, approximately 73.4 percent of all samples were produced in the U.S., 24.2 percent were imports, 1.1 percent were of mixed origin, and 1.3 percent were of unknown origin. Appendix I shows the distribution of sample origin by state or country. Of the domestic samples, approximately 45 percent (3,643 of 8,095) were grown, packed, and/or distributed in or from California. Approximately 16 percent (59 of 368) of the apple juice samples and 28 percent of the honey samples (52 of 186) were of mixed national origin (i.e., the juice was comprised of apple concentrates from more than one country). Appendix J includes a comparison of residues for selected commodities with a significant import component.

Table 3 gives an overview of the number of samples analyzed and a summary of results per commodity, for all commodities tested in 2007 except water (groundwater and drinking water). The percent of total residue detections and percent of non-detectable residues are obtained by comparing the total number of residues detected and the total number of non-detects to the total number of analyses performed per commodity, respectively. The average number of analyses performed per sample is also shown. The percentage of total residue detections for fresh fruit and vegetables ranged from 0.8-3.8 percent,

with a mean of 2.2 percent. The percentage of total residue detections for processed fruit and vegetables ranged from 0.6-2.2 percent, with a mean of 1.3 percent. The percentage of total residue detections for almonds was 2.0 percent, for honey was 0.4 percent, for heavy cream was 1.1 percent, and for corn grain was 0.8 percent. Of the 11,683 samples that were analyzed, the overall percentage of total residue detections was 1.9 percent.

Appendix B tabulates the distribution of residues in fruit and vegetables for the complete 2007 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; range of analytical LODs; and EPA tolerance levels or FDA action levels. Appendices C, D, E, F, G and H provide the distribution of residues for almonds, honey, heavy cream, corn grain, groundwater, and treated and untreated drinking water, respectively. The individual sample data can be downloaded from the PDP Website at <http://www.ams.usda.gov/pdp> or obtained by contacting MPO.

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 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, 98 percent of the analyses performed across all commodities (excluding groundwater and treated and untreated drinking water) were reported as non-detects (i.e., results were below the established LOD). For samples containing

	Number of Samples Analyzed	Average Number of Analyses Performed on Each Sample	Number of Analyses Performed	Number of Residue Detections	Percent of Residue Detections	Number of Non-Detects	Percent of Non-Detects	Number of Different Pesticides Detected
Fresh Fruit and Vegetables								
Bananas	744	125	92,933	756	0.8	92,177	99.2	11
Blueberries	711	141	99,903	1,796	1.8	98,107	98.2	43
Broccoli	736	154	113,567	1,242	1.1	112,325	98.9	35
Carrots	744	57	42,479	1,451	3.4	41,028	96.6	28
Celery	739	139	102,938	3,902	3.8	99,036	96.2	49
Cherries	419	88	36,685	1,175	3.2	35,510	96.8	37
Green Beans	739	103	76,103	1,612	2.1	74,491	97.9	45
Greens, Collard	353	83	29,449	828	2.8	28,621	97.2	44
Greens, Kale	386	84	32,518	739	2.3	31,779	97.7	42
Nectarines	563	81	45,384	1,232	2.7	44,152	97.3	29
Peaches	555	93	51,825	1,924	3.7	49,901	96.3	48
Squash, Summer	742	75	55,521	1,368	2.5	54,153	97.5	38
Tomatoes	741	99	73,359	899	1.2	72,460	98.8	31
TOTAL FRESH	8,172		852,664	18,924		833,740		
Processed Fruit and Vegetables								
Apple Juice	368	92	33,800	193	0.6	33,607	99.4	13
Blueberries, Frozen	22	160	3,516	77	2.2	3,439	97.8	20
Potatoes, Frozen	800	100	80,145	1,070	1.3	79,075	98.7	19
Raisins	372	84	31,364	582	1.9	30,782	98.1	26
TOTAL PROCESSED	1,562		148,825	1,922		146,903		

Fruit and Vegetable Totals

Number of Samples Analyzed = 9,734

Average Number of Analyses Performed on Each Sample = 103

Total Number of Analyses Performed = 1,001,489

Total Number of Residue Detections = 20,846

Percent of Total Residue Detections = 2.1%

Total Number of Non-Detects = 980,643

Percent of Total Number of Non-Detects = 97.9%

Total Number of Different Pesticides Detected = 124

Nut Product

Almonds	361	72	25,992	521	2.0	25,471	98.0	11
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Grain Product

Corn Grain	660	95	62,490	485	0.8	62,005	99.2	13
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Honey

Honey	186	164	30,504	116	0.4	30,388	99.6	6
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Dairy

Heavy Cream	742	142	105,364	1,144	1.1	104,220	98.9	9
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All Commodities (excludes 272 groundwater and 734 drinking water samples)

Number of Samples Analyzed = 11,683

Average Number of Analyses Performed on Each Sample = 105

Total Number of Analyses Performed = 1,225,839

Total Number of Residue Detections = 23,112

Percent of Total Residue Detections = 1.9%

Total Number of Non-Detects = 1,202,727

Percent of Total Number of Non-Detects = 98.1%

Total Number of Different Pesticides Detected = 173

Table 3. Number of Samples Analyzed and Summary of Results Per Commodity. Percent of residue detections and percent of non-detects are obtained by comparing the total number of residues detected and the total number of non-detects to the total number of analyses performed per commodity, respectively. The average number of analyses performed per sample is also shown.

residues, the vast majority of the detections were well below established tolerances.

◆ **Import vs. Domestic Residue Comparisons**

Information about the origin of each PDP sample is recorded when the sample is collected. Figure 3 illustrates the portion of the domestic and import component for each of the PDP fruit and vegetable commodities in 2007. 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 such as celery (96%) with only minor import and unknown components (3% and less than 1%, respectively). However, some fresh commodities, such as blueberries, nectarines, peaches, summer squash, and tomatoes are from domestic growers part of the year and are imported during the remaining months, as illustrated in Figure 4. The only commodity, which was entirely of imported origin, was bananas.

Comparisons of selected residues detected in imported versus domestic blueberries, peaches, and tomatoes can be found in Appendix J. These sample sets were selected to compare data where residues are present in greater than 10 percent of the commodity and allow for the comparison of individual residues. These data also showed that the residue profiles for domestic and imported crops were significantly different.

The blueberry data in Appendix J illustrate that in 2007, boscalid and pyraclostrobin were detected more frequently in the domestic samples than in the imported samples. For example, boscalid was detected in 51.7 percent of the U.S. samples, 22.0 percent in the samples from Argentina, and 2.6 percent in the samples from Chile. Carbendazim and iprodione were detected more frequently in the samples from Argentina (54.3% and 54.0%, respectively) and Chile (34.6% and 28.5%, respectively) than in the domestic samples (19.0% and 4.1%, respectively).

For peaches, the organophosphate azinphos methyl was detected more often in the imported peach samples than the domestic peach samples. Azinphos methyl was detected in 86.7% of Chilean samples compared to 2.5% of domestic samples. Conversely, methoxyfenozide, a reduced risk pesticide registered as an organophosphate alternative, was detected in 29.4% of the domestic peach samples and in 6% of the Chilean peach samples.

For tomatoes, chlorothalonil was detected more often on domestic tomatoes (19.2%) than on tomatoes originating from Mexico (9.5%). Azoxystrobin, endosulfan I, and endosulfan II were detected more frequently in tomatoes from Mexico (19.1%, 16.1% and 22.1%, respectively) than in tomatoes of U.S. origin (7.1%, 9.6% and 17.5%, respectively). Endosulfan sulfate was detected with relatively equal frequency in both the domestic (17.9%) and imported tomatoes from Mexico (17.6%).

These differences in residue profiles may be attributed to recent U.S. registration decisions. The 1996 FQPA required EPA to reassess the safety of existing tolerances and tolerance exemptions by August 3, 2006, while simultaneously making determinations about the reregistration of existing pesticides and reviewing the registrations of pesticide end-use products. This tolerance reassessment effort has led, among other things, to EPA decisions to revoke or modify thousands of existing tolerances, and to require the establishment of many new tolerances, improving food safety and human health protection in the U.S. Many of these new tolerances are for safer replacement pesticides. Overall, residues detected in domestic samples reflected the transition towards use of replacement pesticides whereas imports had residues of pesticides phased out of the U.S. market.

◆ **National Estimates**

National estimates for selected pesticide/commodity pairs with detections in at least 10 percent of sample tested are shown in Appendix K.

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 almonds, bananas, blueberries, broccoli, carrots, celery, cherries, green beans, collard and kale greens, honey, nectarines, peaches, frozen potatoes, raisins, summer squash, and tomatoes were weighted to reflect monthly variations in marketing. No weighting adjustments were made for corn grain or heavy cream.

Appendix L 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. The pesticide/commodity pairs included in Appendix L are piperonyl butoxide/almonds, boscalid/blueberries, imidacloprid/broccoli, bifenthrin/cherries, azoxystrobin/collard greens, acephate/green beans, fludioxonil/nectarines, phosmet/nectarines, fludioxonil/peaches, phosmet/peaches, propargite/raisins, and trifloxystrobin/raisins. 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., azoxystrobin/collard greens).

◆ 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 (e.g., azoxystrobin, imazalil, o-phenylphenol, and thiabendazole) and sprouting inhibitors (e.g., chlorpropham). Some detections reported in Appendix B most likely reflect postharvest applications to the raw agricultural commodity.

◆ Special Projects

Honey: In 2007, the USDA, AMS, NSL conducted testing for pesticide residues on 186 samples of honey. The randomly collected samples included fluid (viscous) honey, creamed honey, and jars containing liquid honey with honeycomb. Overall, there was a total of 116 residue detections in honey, representing six different pesticides. The data for honey in Appendix D indicate that coumaphos was detected most frequently in 83 samples (44.6%). Fluvalinate was detected in 19 samples (10.2%). Less than 5 percent of the honey samples contained low levels of each of the following residues: 2,4-dimethylphenyl formamide (2,4-DMPF), a metabolite of amitraz; dicloran; dicofol p,p'; and vinclozolin.

Formetanate Hydrochloride: In 2007, PDP conducted a special survey to determine the relative frequency and concentration of HCl on nectarines and peaches. Homogenates of 345 nectarine and 236 peach samples were shipped by the California, Ohio, and Washington laboratories to the U.S. EPA ACL in Fort Meade, MD, for analysis. Appendix B shows that 33 samples (9.6%) of nectarines and only 1 sample (0.4%) of peaches exhibited detectable residues of formetanate HCl.

◆ Potable Groundwater from Domestic Wells

In 2001, PDP began testing municipal waters drawing from surface water sources because surface water is more vulnerable to pesticides than municipal waters that draw from groundwater

sources. Most municipal systems drawing from groundwater draw from fairly deep (>200 foot) aquifers which are not affected by pesticides. Approximately 15 percent of the U.S. population obtains their domestic water from private wells. Many of these wells are located in agricultural areas and may be susceptible to pesticides, so it is necessary to monitor these shallow groundwater wells to account for exposure through water consumption in dietary risk assessments.

Pesticide mobility varies widely. Many pesticides bind tightly to soils and are therefore unlikely to be found in groundwater. Pesticides which are water-soluble can dissolve in water and move through the soil to reach the water table. Unlike surface water, movement of pesticides in soils and rock is much slower than the movement of surface water (several centimeters per year for movement in soils/rock compared to many meters per year for movement in surface water; hence changes in pesticide concentrations are much less variable and samples need not be taken as frequently. For this groundwater study, samples were taken quarterly as opposed to bi-monthly for the surface water samples.

When pesticides are detected in groundwater, the source is not always the immediate surface above but rather where the water is entering, or recharging, the aquifer. Thus, if pesticides are being used in the recharge zone, they may be transported through the aquifer to the well. The depths of the wells sampled for this project ranged from 30 to 850 feet below land surface. Some correlation can be made between depth and the number of residues detected; however, depth is not the sole factor in pesticide movement in an aquifer.

In 2007, PDP scheduled sampling of 74 groundwater wells on a quarterly basis. A total of 272 of the targeted 296 samples were collected. Figure 6 shows the distribution of groundwater collection sites for the 2007 PDP testing program. Of the 74 collection sites, 37 wells (50%) contained detectable residues. Twenty-

seven different pesticide residues (including metabolites) were detected. Concentrations varied from at or near the detection limit up to 18,000 parts per trillion.

◆ Municipal Drinking Water

Figure 7 shows the distribution of drinking water sites for the 2007 PDP testing program. Untreated and finished drinking water samples were collected from community water systems in Alabama (2), Arizona, Florida, Georgia, Iowa, Indiana, Maryland (2), Minnesota, Missouri, Montana, New Jersey, South Carolina, Texas, and the District of Columbia. 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 734 water samples from community water systems using MRMs to test for 239 pesticides and metabolites. Treatment plants participating in the 2007 survey draw from surface water for 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. Forty-six different residues were detected in the finished drinking water and 52 residues were detected in the untreated intake 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 MCL or HA levels.

Appendix H 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 FAO criteria, which are much lower than

human-based MCLs or HA levels, also are 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 2007, no detections exceeded 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 H 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.

◆ Environmental Contaminants

Environmental contaminants are pesticides whose uses have been canceled in the U.S., but their residues persist in the environment, particularly in soil, where their residues may be taken up by plants. PDP tracks environmental contaminants to monitor their presence in the environment and provides these data to Codex Alimentarius. These data are also used to facilitate international trade.

DDT, DDD, and DDE: PDP screened samples for various metabolites of DDT including: DDT o,p'; DDT p,p'; DDD o,p'; DDD p,p'; DDE o,p'; and DDE 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 DDT p,p', DDD p,p', and DDE p,p' metabolites were detected in some of the commodities tested. Of these, the DDE p,p' metabolite was the most frequently detected. DDE p,p' was detected mainly in heavy cream (59.7%), kale greens

(41.7%), carrots (28.1%), and collard greens (12.8%). In all cases, residues detected were much lower than the FDA action levels. The DDT o,p', DDD o,p', and DDE o,p' metabolites were not detected in any of the samples. None of the water samples (treated or untreated) had residues of DDT or its metabolites. Details of residue results for DDT, DDD, and DDE may be found in Appendices B, C, D, E, F, and H.

Other Extraneous Pesticides: PDP screened samples for other extraneous residues (environmental contaminants) including: aldrin; dieldrin; heptachlor and its epoxide metabolite; chlordane (cis/trans) and its metabolite, oxychlordane and hexachlorobenzene (HCB). HCB was used as a seed protectant until 1965 but due to its persistence it has remained in soil and grasses. 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 HCB, dieldrin, heptachlor epoxide, and chlordane were detected in some of the commodities tested. For example, HCB was detected in 41.8 % of heavy cream samples and dieldrin was detected in twelve percent of summer squash samples. HCB residues were substantially below the detection limit of FDA official methods and were therefore considered to be of no regulatory significance. For all other cases, residues detected were much lower than the FDA action levels. None of the water samples (treated or untreated) had residues of aldrin, dieldrin, HCB, heptachlor or heptachlor epoxide, or chlordane or its metabolite, oxychlordane. Details of residue results for environmental contaminants may be found in Appendices B, C, D, E, F, and H.

◆ 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 2007 is presented in Appendix M.

These data indicate that approximately 23 percent of all samples tested excluding groundwater and treated and untreated drinking water contained no detectable pesticides, 30 percent contained 1 pesticide, and 47 percent contained more than 1 pesticide. 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 in the 2002 Appendix L. That sample would be counted as just one pesticide detected in Appendix M of this Summary.

One sample of blueberries and 1 celery sample had detections of 13 pesticides each. 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, or 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 of commodity from the same lot. Therefore, the estimated concentrations for multiple residue detections in these composite sample results 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 allow-

able on a raw agricultural commodity. Tolerances are also applicable to processed foods. The FQPA of 1996 contains an amendment to the Federal Insecticide, Fungicide and Rodenticide Act, which requires the EPA to periodically review each pesticide registration every 15 years. Timely pesticide data provided by PDP enables the EPA to refine risk estimates used in the pesticide reregistration process.

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 turn-around 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, E, and F. 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 N are combined residues of parent and any isomers and/or metabolites to count the total number of samples with tolerance violations.

In 2007, a total of 432 samples with 473 residues were reported to the FDA as Presumptive Tolerance Violations. Excluding samples for which no tolerances are set (groundwater and finished and untreated drinking water), residues exceeding the tolerance were detected in 49 (0.4 %) of the 11,683 samples tested. The samples containing residues which exceed established tolerances include: 6 blueberry samples, 3 celery samples, 2 green bean samples, 11 samples of collard greens, 9 kale samples, 5 samples of nectarines, 3 samples of peaches, 9 samples of summer squash, and 1 tomato

sample. Of those 49 samples, 8 were reported as imported produce. Forty-five samples contained one residue exceeding the established tolerances, three samples contained two residues exceeding, and one sample contained four residues exceeding the established tolerance.

Residues with no established tolerance were found in 386 (3.3 %) of the samples, which included 377 fruit and vegetable samples, 3 samples of corn grain, and 6 honey samples. There were 356 samples with 1 residue each, 28 samples with 2 residues each, and 2 samples with 3 residues each. Three of the 386 samples with residues having no established tolerance each contained 1 residue that exceeded an established tolerance. 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 N.



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Appendix A

Commodity History

Appendix A identifies commodities sampled by the Pesticide Data Program through December 2007. Updates to this list are posted on the PDP Web site at www.ams.usda.gov/pdp.

COMMODITY HISTORY AS OF DECEMBER 2008

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
Asparagus	Jul-08	Ongoing
Bananas	Sep-91	Sep-95
Bananas	Jan-01	Dec-02
Bananas	Jan-06	Dec-07
Bananas (TSP)	Jul-03	Dec-03
Blueberries ²	Jan-07	Dec-08
Broccoli	Oct-92	Dec-94
Broccoli	Jan-01	Dec-02
Broccoli	Oct-06	Sep-08
Cantaloupe	Jul-98	Jun-00
Cantaloupe	Oct-03	Sep-05
Carrots ¹	Oct-92	Sep-96
Carrots	Oct-00	Sep-02
Carrots	Jan-06	Dec-07
Cauliflower	Oct-04	Sep-06
Celery	Feb-92	Mar-94
Celery	Jan-01	Dec-02
Celery	Jan-07	Dec-08
Cherries ³	May-00	Aug-01
Cherries	May-07	Sep-07
Cranberries	Oct-06	Dec-06
Cucumbers	Jan-99	Dec-00
Cucumbers	Oct-02	Sep-04
Eggplant	Jan-05	Dec-06
Eggs (TSP)	Jul-03	Dec-03
Grapefruit	Aug-91	Dec-93
Grapefruit	Jan-05	Dec-06
Grapes ¹	May-91	Dec-96

Commodity	Start Date	End Date
Grapes	Jan-00	Dec-01
Grapes (TSP)	Jul-03	Dec-03
Grapes	Jan-04	Dec-05
Green Beans	Feb-92	Dec-95
Green Beans	Jan-00	Dec-01
Green Beans	Apr-04	Mar-05
Green Beans	Jan-07	Dec-08
Green Onions	Oct-08	Ongoing
Greens (collard & kale)	Oct-06	Sep-08
Lettuce	May-91	Dec-94
Lettuce	Oct-99	Sep-01
Lettuce	Jan-04	Dec-05
Mushrooms	Oct-01	Sep-03
Nectarines ⁴	Jul-00	Sep-01
Nectarines	Jan-07	Dec-08
Onions	Jan-02	Dec-03
Oranges ¹	Aug-91	Dec-96
Oranges	Jan-00	Dec-01
Oranges	Jan-04	Dec-05
Peaches	Feb-92	Sep-96
Peaches (S-3)	Jan-00	Sep-00
Peaches ⁵	Jan-01	Sep-02
Peaches (T-1)	May-03	Sep-03
Peaches	Oct-06	Sep-08
Pears	Jan-97	Jun-99
Pears (S-1)	Jul-98	Jun-99
Pears	Oct-03	Sep-05
Pineapples	Jul-00	Jun-02
Plums ⁶	Jan-05	Dec-06
Potatoes	May-91	Dec-95
Potatoes (S-4)	Dec-96	Dec-97
Potatoes	Jul-00	Jun-02
Potatoes	Jan-08	Ongoing
Spinach ¹	Jan-95	Sep-97
Spinach	Jul-02	Dec-03
Spinach ⁷	Jan-06	Sep-06
Spinach	Jan-08	Ongoing
Strawberries ²	Jan-98	Sep-00

Commodity	Start Date	End Date
Strawberries	Jan-04	Dec-05
Strawberries	Jan-08	Ongoing
Summer Squash	Oct-06	Sep-08
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
Sweet Potatoes	Oct-08	Ongoing
Tomatoes ¹	Jul-96	Jun-99
Tomatoes	Jan-03	Dec-04
Tomatoes	Jan-07	Dec-08
Watermelon ⁸	Oct-05	Sep-06
Winter Squash ²	Jan-97	Jun-99
Winter Squash	Jul-04	Jun-06

¹ Excludes sampling hiatus September - November 1996.

² Frozen collected when fresh unavailable.

³ Sampling adjusted for market availability. Cherries were sampled for two years (May-00 - Aug-01) for a total of six months.

⁴ Sampling adjusted for market availability. Nectarines were sampled for two years (Jul-00 - Sep-01) for a total of six months.

⁵ Sampling adjusted for market availability. Peaches were sampled for two years (Jan-01 - Sep-02) for a total of sixteen months.

⁶ Dried plums (prunes) were collected when fresh plums were not available.

⁷ Spinach ended 1earlier than planned due to the unavailability of product.

⁸ Samples collected in California, Florida, 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.

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

Processed Commodities

Commodity	Start Date	End Date
Almonds	Jul-07	Mar-08
Apple Juice ¹	Jul-96	Dec-98
Apple Juice	Jan-02	Dec-02
Apple Juice	Jul-07	Jun-08
Applesauce	Jul-02	Dec-02
Applesauce	Jan-06	Dec-06
Asparagus, Canned	Jul-03	Dec-03
Beans, Canned (4 varieties)	Oct-08	Ongoing
Blueberries, Frozen ²	Jan-07	Dec-08
Corn Syrup ³	Jan-98	Jun-99
Grape Juice	Jan-98	Dec-99
Grape Juice	Jan-08	Dec-08
Green Beans, Canned/Frozen ¹	Jan-96	Jun-98
Green Beans, Canned	Jan-03	Mar-04
Green Beans, Frozen	Apr-05	Dec-05
Honey	Oct-07	Sep-08
Orange Juice	Jan-97	Dec-98
Orange Juice	Oct-04	Sep-06
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
Peanut Butter	Jan-06	Dec-06
Peanut Butter (TSP)	Jul-03	Dec-03
Pear Juice, Concentrate/Puree	Jul-02	Jun-03
Pears, Canned	Jul-99	Jun-00
Peas, Canned/Frozen	Apr-94	Jun-96
Peas, Canned/Frozen ⁴	Oct-01	Sep-03
Peas, Frozen	Jan-06	Dec-06
Plums, Dried (Prunes) ⁵	Jan-05	Dec-06
Potatoes, Frozen	Jan-06	Dec-07
Raisins	Jul-06	Jun-07
Spinach, Canned	Oct-97	Dec-98
Spinach, Frozen	Jan-99	Dec-99
Spinach, Canned	Jan-04	Jun-04

Commodity	Start Date	End Date
Strawberries, Frozen ²	Jan-98	Sep-00
Sweet Corn, Canned/Frozen	Apr-94	Mar-96
Sweet Corn, Cob/Canned/Frozen	Oct-08	Ongoing
Sweet Corn, Canned/Frozen ⁴	Oct-01	Sep-03
Tomato Paste, Canned	Jan-01	Jun-01
Tomatoes, Canned	Jul-99	Jun-00
Winter Squash, Frozen ²	Jan-97	Jun-99

¹ Excludes sampling hiatus September - November 1996

² Frozen collected when fresh unavailable

³ Excludes sampling hiatus January 1999

⁴ Canned samples collected in first year and frozen samples in second year of testing.

⁵ Dried plums (prunes) were collected when fresh plums were not available.

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

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

Grains

Commodity	Start Date	End Date
Barley	Oct-01	Sep-03
Corn	Oct-06	Sep-08
Oats	Jul-99	Apr-00
Rice	Oct-00	Sep-02
Rice	Oct-08	Ongoing
Soybeans	Sep-96	Feb-98
Soybeans	Oct-03	Sep-05
Soybean Rust/Aphid	Oct-05	Dec-05
Wheat	Feb-95	Jan-98
Wheat	Sep-04	Jun-06
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
Heavy Cream	Jan-07	Dec-07
Milk ¹	Jan-96	Oct-98
Milk (TSP)	Jul-03	Dec-03
Milk	Jan-04	Dec-05

Meat / Poultry / Fish Products

Commodity	Type	Start Date	End Date
Poultry	Young Chickens	Apr-00	Mar-01
Poultry	Young & Mature Chickens	Jan-06	Dec-06
Beef	Cows, Heifers, Steers	Jun-01	Jul-02
Pork	Gilt, Barrow	Jan-05	Jun-05
Fish	Catfish	Apr-08	Ongoing

Drinking Water

States	Start Date	End Date
Finished Water Only		
California, Colorado, Kansas, New York, Texas	Mar-01	Dec-03
Raw Intake and Finished Water		
Alabama, Arizona, California, Colorado, Florida, Georgia, Indiana, Iowa, Kansas, Louisiana, Maryland, Michigan, Minnesota, Missouri, Montana, North Carolina, North Dakota, New Jersey, New York, Ohio, Oregon, Pennsylvania, South Carolina, Texas, Virginia, Washington, Washington D.C.	Jan-04	Ongoing
Bottled Water		
10 Participating States	Jan-05	Dec-06
Groundwater		
207 Private Wells in 33 States	Jan-07	Ongoing

¹ 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), and U.S. Environmental Protection Agency (EPA) tolerances for each pair.

In 2007, 9,734 fruit and vegetable samples were analyzed, of which 8,172 were fresh product and 1,562 were processed product.

PDP reports tolerance violations to the U.S. 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.

Action levels (ALs) are shown in this appendix, where applicable, and denote Action Level values established by FDA. Under the FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

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
Accephate (insecticide)						
Apple Juice	368	0			0.002 - 0.010	0.02
Bananas	744	0			0.002 - 0.005	0.02
Blueberries	711	1	0.1	0.012 ^	0.002 ^	0.02
Blueberries, Frozen	22	0			0.002 ^	0.02
Carrots	216	1	0.5	0.003 ^	0.002 ^	0.02
Celery	739	282	38.2	0.003 - 0.92	0.002 ^	10
Cherries	419	0			0.002 - 0.034	0.02
Green Beans	739	221	29.9	0.003 - 2.1	0.002 - 0.005	3
Greens, Collard (X-1)	346	1	0.3	0.16 ^	0.002 - 0.030	0.02
Greens, Kale (X-3)	386	3	0.8	0.050 - 0.24	0.002 - 0.030	0.02
Nectarines	563	0			0.009 ^	0.02
Peaches	555	0			0.002 ^	0.02
Potatoes, Frozen	800	0			0.002 ^	0.02
Raisins	372	0			0.004 - 0.005	0.02
Summer Squash (X-2)	742	6	0.8	0.008 - 0.46	0.002 - 0.005	0.02
Tomatoes	<u>741</u>	<u>1</u>	0.1	0.015 ^	0.009 ^	0.02
TOTAL	8,463	516				
Acetamiprid (insecticide)						
Apple Juice	106	36	34	0.002 - 0.011	0.001 ^	1.0
Blueberries	504	0			0.0006 ^	NT
Blueberries, Frozen	20	0			0.0006 ^	NT
Broccoli	736	24	3.3	0.001 - 0.033	0.0006 ^	1.20
Celery	739	212	28.7	0.001 - 0.067	0.0006 - 0.001	3.00
Green Beans	528	1	0.2	0.013 ^	0.010 ^	0.60
Greens, Collard	353	13	3.7	0.002 - 0.64	0.001 - 0.010	1.20
Greens, Kale (X-1)	383	36	9.4	0.002 - 1.6	0.001 - 0.010	1.20
Potatoes, Frozen	800	0			0.001 ^	0.01
Raisins	372	13	3.5	0.002 - 0.030	0.001 - 0.050	0.20
Summer Squash	2	2	100	0.006 - 0.008	0.001 ^	0.5
Tomatoes	<u>741</u>	<u>13</u>	1.8	0.012 - 0.096	0.007 - 0.014	0.20
TOTAL	5,284	350				
Acibenzolar S methyl (plant activator)						
Blueberries	504	0			0.007 ^	NT
Blueberries, Frozen	20	0			0.007 ^	NT
Broccoli	736	0			0.007 ^	1.0
Celery	525	0			0.007 - 0.045	0.25
Tomatoes	<u>741</u>	<u>0</u>			0.021 ^	1.0
TOTAL	2,526	0				
Aldicarb (insecticide)						
Bananas	506	0			0.010 ^	NT
Blueberries	504	0			0.001 - 0.002	NT
Blueberries, Frozen	20	0			0.001 - 0.002	NT
Broccoli	736	0			0.001 - 0.002	NT
Celery	525	0			0.001 - 0.002	NT
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Potatoes, Frozen	<u>800</u>	<u>0</u>			0.001 - 0.007	1
TOTAL	4,142	0				
Aldicarb sulfone (metabolite of Aldicarb)						
Bananas	528	0			0.010 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 - 0.010	NT

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Celery	510	0			0.003 - 0.010	NT
Potatoes, Frozen	<u>800</u>	<u>14</u>	1.8	0.002 - 0.004	0.001 - 0.009	1
TOTAL	3,098	14				
Aldicarb sulfoxide (metabolite of Aldicarb)						
Bananas	506	0			0.010 ^	NT
Blueberries	504	0			0.002 - 0.006	NT
Blueberries, Frozen	20	0			0.002 - 0.006	NT
Celery	525	0			0.002 - 0.006	NT
Potatoes, Frozen	<u>800</u>	<u>31</u>	3.9	0.002 - 0.021	0.001 - 0.005	1
TOTAL	2,355	31				
Aldrin (insecticide) (parent of Dieldrin)						
Apple Juice	368	0			0.002 - 0.003	0.03 AL
Bananas	744	0			0.002 - 0.003	0.02 AL
Blueberries	711	0			0.003 - 0.007	NT
Blueberries, Frozen	22	0			0.003 - 0.007	NT
Broccoli	736	0			0.007 ^	0.03 AL
Carrots	744	0			0.003 - 0.023	0.1 AL
Celery	739	0			0.003 - 0.007	0.03 AL
Cherries	419	0			0.003 - 0.020	0.03 AL
Green Beans	211	0			0.003 ^	0.05 AL
Greens, Collard	117	0			0.003 ^	0.05 AL
Greens, Kale	96	0			0.003 ^	0.05 AL
Nectarines	563	0			0.006 ^	0.03 AL
Peaches	555	0			0.003 ^	0.02 AL
Potatoes, Frozen	800	0			0.003 ^	0.1 AL
Summer Squash	742	0			0.002 - 0.003	0.1 AL
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.05 AL
TOTAL	8,308	0				
Allethrin (insecticide)						
Apple Juice	368	0			0.010 - 0.030	NT
Bananas	528	0			0.015 ^	NT
Blueberries	207	0			0.010 ^	NT
Blueberries, Frozen	2	0			0.010 ^	NT
Cherries	419	0			0.005 - 0.010	NT
Peaches (V-1)	555	1	0.2	0.12 ^	0.010 ^	NT
Raisins	371	0			0.020 - 0.030	NT
Tomatoes	<u>741</u>	<u>0</u>			0.023 ^	NT
TOTAL	3,191	1				
Ametryn (herbicide)						
Bananas	744	0			0.010 ^	0.25
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	<u>287</u>	<u>0</u>			0.010 ^	NT
TOTAL	1,795	0				
Atrazine (herbicide)						
Bananas	528	0			0.008 ^	NT
Blueberries (V-1)	504	1	0.2	0.003 ^	0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	<u>720</u>	<u>0</u>			0.002 ^	NT
TOTAL	1,772	1				
Azinphos methyl (insecticide)						
Apple Juice	368	1	0.3	0.005 ^	0.003 - 0.024	1.5
Bananas	528	0			0.011 ^	NT
Blueberries	711	64	9	0.005 - 0.35	0.003 - 0.040	5.0
Blueberries, Frozen	22	1	4.5	0.020 ^	0.003 - 0.012	5.0
Broccoli	246	0			0.012 ^	2.0

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Celery	739	0			0.003 - 0.012	2.0
Cherries	419	64	15.3	0.002 - 0.28	0.001 - 0.008	2.0
Green Beans	739	0			0.003 - 0.011	2.0
Greens, Collard	226	0			0.011 ^	NT
Greens, Kale	278	0			0.011 ^	NT
Nectarines	563	173	30.7	0.005 - 0.20	0.003 ^	2.0
Peaches	555	173	31.2	0.002 - 0.62	0.001 - 0.008	2.0
Potatoes, Frozen	800	0			0.001 - 0.008	0.2
Raisins	372	0			0.012 - 0.015	4.0
Tomatoes	741	0			0.003 ^	2.0
TOTAL	7,307	476				
Azoxystrobin (fungicide)						
Apple Juice	88	0			0.0005 ^	NT
Bananas	744	31	4.2	0.0008 - 0.031	0.0005 - 0.002	0.1
Blueberries	711	47	6.6	0.0008 - 0.20	0.0005 - 0.0009	3.0
Blueberries, Frozen	22	1	4.5	0.002 ^	0.0005 - 0.0009	3.0
Broccoli	736	40	5.4	0.002 - 0.23	0.0009 ^	3.0
Carrots	744	124	16.7	0.0008 - 0.020	0.0005 - 0.0008	0.5
Celery	739	173	23.4	0.0008 - 0.36	0.0005 - 0.0009	30.0
Cherries	419	10	2.4	0.0005 - 0.16	0.0004 - 0.0005	1.5
Green Beans	739	183	24.8	0.0008 - 0.74	0.0005 - 0.002	3.0
Greens, Collard	353	132	37.4	0.0008 - 3.7	0.0005 - 0.002	25
Greens, Kale	383	84	21.9	0.0008 - 3.4	0.0005 - 0.002	25
Nectarines	563	15	2.7	0.010 - 0.043	0.002 - 0.006	1.5
Peaches	555	12	2.2	0.0008 - 0.087	0.0005 - 0.001	1.5
Potatoes, Frozen	800	2	0.2	0.0008 ^	0.0005 - 0.001	0.03
Raisins	372	7	1.9	0.0008 - 0.004	0.0005 - 0.030	1.0
Summer Squash	742	9	1.2	0.0008 - 0.012	0.0005 - 0.030	0.3
Tomatoes	741	74	10	0.003 - 0.031	0.002 - 0.006	0.2
TOTAL	9,451	944				
Bendiocarb (insecticide)						
Apple Juice	368	0			0.002 - 0.020	SU
Bananas	744	0			0.002 - 0.005	SU
Blueberries	711	0			0.002 - 0.040	SU
Blueberries, Frozen	22	0			0.002 - 0.040	SU
Broccoli	446	0			0.040 ^	SU
Carrots	744	0			0.002 - 0.004	SU
Celery	566	0			0.002 - 0.040	SU
Cherries	419	0			0.002 - 0.004	SU
Green Beans	739	0			0.002 - 0.005	SU
Greens, Collard	353	0			0.002 - 0.005	SU
Greens, Kale	383	0			0.002 - 0.005	SU
Nectarines	563	0			0.010 ^	SU
Peaches	555	0			0.001 - 0.002	SU
Potatoes, Frozen	800	0			0.001 - 0.002	SU
Raisins	372	0			0.002 - 0.030	SU
Summer Squash	742	0			0.002 - 0.015	SU
Tomatoes	741	0			0.010 ^	SU
TOTAL	9,268	0				
Benoxacor (herbicide safener)						
Apple Juice	88	0			0.004 ^	0.01
Celery	214	0			0.004 - 0.015	0.01
Cherries	399	0			0.004 ^	0.01
Green Beans	211	0			0.004 ^	0.01
Nectarines	563	0			0.019 ^	0.01
Peaches	555	0			0.003 - 0.004	0.01
Potatoes, Frozen	800	0			0.003 - 0.004	0.01
Tomatoes	741	0			0.011 ^	0.01
TOTAL	3,571	0				

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
BHC alpha (insecticide)						
Apple Juice	368	0			0.002 ^	0.05 AL
Bananas	528	0			0.002 ^	NT
Blueberries	711	0			0.002 - 0.007	0.05 AL
Blueberries, Frozen	22	0			0.002 - 0.007	0.05 AL
Broccoli	551	0			0.007 ^	0.05 AL
Carrots	744	0			0.002 - 0.026	0.3 AL
Celery	739	0			0.002 - 0.007	0.05 AL
Cherries	419	0			0.002 - 0.037	0.05 AL
Green Beans	211	0			0.002 ^	0.05 AL
Greens, Collard	117	0			0.002 ^	0.05 AL
Greens, Kale	96	0			0.002 ^	0.05 AL
Nectarines	563	0			0.004 ^	0.05 AL
Peaches	555	0			0.002 ^	0.05 AL
Potatoes, Frozen	800	0			0.002 ^	0.05 AL
Summer Squash	742	0			0.002 ^	0.05 AL
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.05 AL
TOTAL	7,907	0				
BHC beta (isomer of BHC alpha)						
Nectarines	563	0			0.003 ^	0.05 AL
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.05 AL
TOTAL	1,304	0				
Bifenazate (acaricide)						
Apple Juice	106	0			0.020 ^	0.75
Cherries	122	0			0.020 ^	2.5
Peaches	371	4	1.1	0.033 - 0.084	0.020 - 0.030	2.5
Potatoes, Frozen	419	0			0.001 - 0.020	0.05
Raisins	108	5	4.6	0.067 ^	0.040 ^	1.2
Summer Squash	<u>214</u>	<u>0</u>			0.020 ^	0.75
TOTAL	1,340	9				
Bifenthrin (insecticide)						
Apple Juice	368	0			0.008 - 0.010	0.05
Bananas	744	0			0.010 - 0.011	0.1
Blueberries	711	21	3	0.005 - 0.011	0.003 - 0.010	0.05
Blueberries, Frozen	22	0			0.003 - 0.010	0.05
Broccoli	736	8	1.1	0.005 - 0.027	0.003 ^	0.6
Carrots	744	0			0.010 - 0.015	0.05
Celery	739	0			0.003 - 0.010	0.05
Cherries	419	189	45.1	0.0006 - 0.007	0.0006 - 0.010	0.05
Green Beans	739	33	4.5	0.017 - 0.18	0.010 - 0.038	0.6
Greens, Collard	117	0			0.010 ^	3.5
Greens, Kale	96	0			0.010 ^	3.5
Nectarines	563	0			0.037 ^	0.05
Peaches	555	2	0.4	0.034 - 0.038	0.010 ^	0.05
Potatoes, Frozen	800	0			0.010 ^	0.05
Raisins	371	0			0.020 - 0.030	0.2
Summer Squash	742	33	4.4	0.007 - 0.052	0.004 - 0.010	0.4
Tomatoes	<u>741</u>	<u>17</u>	2.3	0.038 - 0.11	0.023 ^	0.15
TOTAL	9,207	303				
Bitertanol (fungicide)						
Bananas	528	1	0.2	0.011 ^	0.010 ^	0.2
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	<u>288</u>	<u>0</u>			0.010 ^	NT
TOTAL	1,580	1				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Boscalid (fungicide)						
Apple Juice	368	0			0.003 - 0.030	3.0
Bananas	528	0			0.010 ^	0.20
Blueberries	711	247	34.7	0.004 - 1.7	0.003 - 0.006	3.5
Blueberries, Frozen	22	8	36.4	0.010 - 0.55	0.003 - 0.006	3.5
Broccoli	736	4	0.5	0.010 - 0.11	0.006 ^	3.0
Carrots	744	75	10.1	0.004 - 0.093	0.003 - 0.025	0.7
Celery	739	14	1.9	0.004 - 0.031	0.003 - 0.006	45
Cherries	122	79	64.8	0.004 - 0.17	0.003 ^	1.7
Green Beans	739	28	3.8	0.004 - 0.76	0.003 - 0.010	1.6
Greens, Collard	353	37	10.5	0.004 - 0.92	0.003 - 0.010	18.0
Greens, Kale	383	30	7.8	0.004 - 0.052	0.003 - 0.010	18.0
Nectarines	563	9	1.6	0.042 ^	0.025 ^	1.7
Peaches	555	87	15.7	0.002 - 0.51	0.001 - 0.003	1.7
Potatoes, Frozen	800	6	0.8	0.002 ^	0.001 - 0.003	0.05
Raisins	372	106	28.5	0.004 - 0.24	0.003 - 0.030	8.5
Summer Squash	742	3	0.4	0.004 ^	0.003 - 0.030	1.6
Tomatoes	<u>741</u>	<u>3</u>	0.4	0.060 ^	0.036 ^	1.2
TOTAL	9,218	736				
Buprofezin (insecticide)						
Apple Juice	368	0			0.015 - 0.040	4.0
Bananas	744	0			0.015 ^	0.20
Blueberries (V-4)	504	4	0.8	0.0002 - 0.002	0.0001 ^	NT
Blueberries, Frozen	20	0			0.0001 ^	NT
Broccoli (V-2)	736	2	0.3	0.0002 - 0.0009	0.0001 ^	NT
Celery	525	0			0.0001 ^	NT
Green Beans	739	0			0.015 ^	0.02
Peaches	555	0			0.015 ^	9.0
Raisins	372	0			0.030 - 0.050	2.5
Summer Squash	742	0			0.015 - 0.040	0.50
Tomatoes	<u>741</u>	<u>5</u>	0.7	0.060 - 0.20	0.036 ^	0.40
TOTAL	6,046	11				
Cadusafos (insecticide)						
Bananas	<u>216</u>	<u>0</u>			0.005 ^	0.01
TOTAL	216	0				
Captafol (fungicide) (parent of THPI)						
Bananas	<u>528</u>	<u>0</u>			0.015 ^	NT
TOTAL	528	0				
Captan (fungicide) (parent of THPI)						
Apple Juice	368	0			0.010 - 0.012	25.0
Bananas	528	0			0.008 ^	NT
Blueberries	207	48	23.2	0.020 - 1.7	0.012 ^	25
Blueberries, Frozen	2	0			0.012 ^	25
Carrots	179	0			0.012 ^	2
Celery	214	0			0.012 ^	50
Cherries	419	3	0.7	0.17 - 0.53	0.012 - 0.021	100
Green Beans	157	1	0.6	0.020 ^	0.012 ^	25
Greens, Collard	117	1	0.9	0.020 ^	0.012 ^	2
Greens, Kale	96	0			0.012 ^	2
Nectarines	563	3	0.5	0.027 - 0.21	0.016 ^	50
Peaches	555	18	3.2	0.020 - 0.53	0.012 ^	50
Potatoes, Frozen	441	0			0.012 ^	25
Raisins	372	2	0.5	0.017 - 0.092	0.010 - 0.024	50
Summer Squash	706	8	1.1	0.017 - 0.074	0.010 - 0.012	25
Tomatoes	<u>741</u>	<u>0</u>			0.015 ^	25
TOTAL	5,665	84				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Carbaryl (insecticide)						
Apple Juice	368	14	3.8	0.003 - 0.031	0.002 - 0.020	10.0
Bananas	744	1	0.1	0.003 ^	0.002 - 0.010	10
Blueberries	711	49	6.9	0.0005 - 0.85	0.0003 - 0.002	10
Blueberries, Frozen	22	4	18.2	0.0005 - 0.071	0.0003 - 0.002	10
Broccoli	736	2	0.3	0.001 - 0.003	0.001 ^	10
Carrots	744	0			0.002 - 0.006	10
Celery	739	6	0.8	0.0005 - 4.8	0.0003 - 0.002	10
Cherries	419	68	16.2	0.003 - 0.84	0.002 - 0.004	10
Green Beans	739	7	0.9	0.011 - 0.32	0.002 - 0.010	10
Greens, Collard	353	2	0.6	0.61 - 1.7	0.002 - 0.010	12
Greens, Kale	383	1	0.3	0.23 ^	0.002 - 0.010	12
Nectarines	563	35	6.2	0.010 - 1.5	0.006 ^	10
Peaches	555	87	15.7	0.002 - 0.67	0.001 - 0.002	10
Potatoes, Frozen	800	5	0.6	0.002 ^	0.001 - 0.002	0.2
Raisins	372	4	1.1	0.003 - 0.12	0.002 - 0.006	10
Summer Squash	742	1	0.1	0.003 ^	0.002 - 0.006	10
Tomatoes	741	0			0.006 ^	10
TOTAL	9,731	286				
Carbendazim - MBC (fungicide) (metabolite of Benomyl)						
Bananas	528	1	0.2	0.040 ^	0.010 ^	1.0
Blueberries (X-1)	504	139	27.6	0.0005 - 8.0	0.0003 - 0.001	7.0
Blueberries, Frozen	20	7	35	0.0005 - 0.098	0.0003 - 0.001	7.0
Broccoli	736	1	0.1	0.0005 ^	0.0003 ^	0.2
Celery	525	3	0.6	0.015 - 0.047	0.0003 ^	3.0
Cherries	297	3	1	0.027 - 0.071	0.020 ^	15.0
Green Beans	528	114	21.6	0.010 - 1.8	0.010 ^	2.0
Greens, Collard	236	0			0.010 ^	0.2
Greens, Kale	287	0			0.010 ^	0.2
TOTAL	3,661	268				
Carbofuran (insecticide) (parent of 3-Hydroxycarbofuran)						
Bananas	744	0			0.002 - 0.010	0.1
Blueberries	504	0			0.0003 ^	NT
Blueberries, Frozen	20	0			0.0003 ^	NT
Broccoli (V-2)	736	2	0.3	0.0005 ^	0.0003 ^	NT
Celery	525	0			0.0003 ^	NT
Cherries	297	0			0.011 ^	NT
Green Beans (V-2)	528	2	0.4	0.069 - 0.14	0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Potatoes, Frozen	800	3	0.4	0.002 ^	0.001 - 0.002	2
Raisins	372	1	0.3	0.010 ^	0.002 - 0.006	2.0
Summer Squash	742	1	0.1	0.010 ^	0.002 - 0.006	0.8
TOTAL	5,791	9				
Carbophenothion (insecticide)						
Blueberries	504	0			0.002 - 0.008	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	706	0			0.002 - 0.008	NT
Celery	504	0			0.002 - 0.008	NT
TOTAL	1,734	0				
Carfentrazone ethyl (herbicide)						
Apple Juice	368	0			0.002 - 0.020	0.10
Bananas	744	0			0.002 - 0.008	0.20
Blueberries	711	0			0.001 - 0.002	0.10
Blueberries, Frozen	22	0			0.001 - 0.002	0.10
Broccoli	736	0			0.001 - 0.004	0.10
Carrots	744	0			0.002 - 0.004	0.10
Celery	724	0			0.001 - 0.002	0.10

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Cherries	122	0			0.002 ^	0.10
Green Beans	739	0			0.002 - 0.008	0.10
Greens, Collard	353	0			0.002 - 0.008	0.10
Greens, Kale	386	0			0.002 - 0.008	0.10
Nectarines	563	0			0.034 ^	0.10
Peaches	151	0			0.002 ^	0.10
Potatoes, Frozen	243	0			0.002 ^	0.10
Raisins	372	0			0.002 - 0.030	0.10
Summer Squash	742	0			0.002 - 0.020	0.10
Tomatoes	<u>741</u>	<u>0</u>			0.034 ^	0.10
TOTAL	8,461	0				
Chlordane cis (insecticide) (isomer of Chlordane)						
Apple Juice	368	0			0.002 ^	0.1 AL
Bananas	744	0			0.002 ^	0.1 AL
Blueberries	711	0			0.0007 - 0.002	0.1 AL
Blueberries, Frozen	22	0			0.0007 - 0.002	0.1 AL
Broccoli	736	0			0.0007 ^	0.1 AL
Carrots	744	0			0.002 - 0.004	0.1 AL
Celery	739	0			0.0007 - 0.004	0.1 AL
Cherries	419	0			0.002 - 0.003	0.1 AL
Green Beans	211	0			0.002 ^	0.1 AL
Greens, Collard	117	0			0.002 ^	0.1 AL
Greens, Kale	96	0			0.002 ^	0.1 AL
Nectarines	563	0			0.003 ^	0.1 AL
Peaches	555	0			0.002 ^	0.1 AL
Potatoes, Frozen	800	0			0.002 ^	0.1 AL
Summer Squash	742	20	2.7	0.003 - 0.029	0.002 ^	0.1 AL
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.1 AL
TOTAL	8,308	20				
Chlordane trans (insecticide) (isomer of Chlordane)						
Apple Juice	368	0			0.002 ^	0.1 AL
Bananas	744	0			0.002 ^	0.1 AL
Blueberries	711	0			0.0007 - 0.002	0.1 AL
Blueberries, Frozen	22	0			0.0007 - 0.002	0.1 AL
Broccoli	736	0			0.0007 ^	0.1 AL
Carrots	744	0			0.002 - 0.004	0.1 AL
Celery	739	2	0.3	0.007 - 0.008	0.0007 - 0.004	0.1 AL
Cherries	419	0			0.002 - 0.004	0.1 AL
Green Beans	211	0			0.002 ^	0.1 AL
Greens, Collard	117	0			0.002 ^	0.1 AL
Greens, Kale	96	0			0.002 ^	0.1 AL
Nectarines	563	0			0.003 ^	0.1 AL
Peaches	555	0			0.002 ^	0.1 AL
Potatoes, Frozen	800	0			0.002 ^	0.1 AL
Summer Squash	742	12	1.6	0.003 - 0.025	0.002 ^	0.1 AL
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.1 AL
TOTAL	8,308	14				
Chlorfenapyr (insecticide)						
Tomatoes	<u>741</u>	<u>2</u>	0.3	0.045 - 0.16	0.027 ^	1.0
TOTAL	741	2				
Chlorfenvinphos (insecticide)						
Blueberries	504	0			0.004 ^	NT
Blueberries, Frozen	20	0			0.004 ^	NT
Broccoli	736	0			0.004 ^	NT
Celery	<u>525</u>	<u>0</u>			0.004 ^	NT
TOTAL	1,785	0				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Chlorothalonil (fungicide)						
Apple Juice	88	0			0.008 ^	NT
Bananas	744	0			0.002 - 0.008	0.5
Blueberries	207	11	5.3	0.013 - 0.076	0.008 ^	1.0
Blueberries, Frozen	2	1	50	0.013 ^	0.008 ^	1.0
Carrots	216	0			0.008 ^	1
Celery	214	85	39.7	0.010 - 1.1	0.008 ^	15
Cherries	122	0			0.008 ^	0.5
Green Beans (X-1)	717	112	15.6	0.008 - 9.1	0.008 - 0.038	5
Greens, Collard (V-1)	1	1	100	0.013 ^	0.008 ^	NT
Greens, Kale (V-1)	1	1	100	0.070 ^	0.008 ^	NT
Nectarines	563	0			0.011 ^	0.5
Peaches	555	2	0.4	0.075 - 0.085	0.008 ^	0.5
Potatoes, Frozen	800	0			0.008 ^	0.1
Summer Squash	742	28	3.8	0.013 - 0.20	0.008 - 0.010	5
Tomatoes	<u>741</u>	<u>116</u>	15.7	0.007 - 0.34	0.004 ^	5
TOTAL	5,713	357				
Chlorpropham (herbicide, growth regulator)						
Bananas	528	0			0.011 ^	NT
Blueberries	504	0			0.006 ^	NT
Blueberries, Frozen	20	0			0.006 ^	NT
Broccoli (V-1)	736	1	0.1	0.064 ^	0.006 - 0.020	NT
Carrots (V-1)	1	1	100	0.017 ^	0.010 ^	NT
Celery	525	0			0.006 ^	NT
Green Beans (V-1)	528	1	0.2	0.085 ^	0.038 ^	NT
Greens, Collard	236	0			0.038 ^	NT
Greens, Kale	290	0			0.038 ^	NT
Potatoes, Frozen	<u>800</u>	<u>391</u>	48.9	0.017 - 3.7	0.010 ^	50
TOTAL	4,168	394				
Chlorpyrifos (insecticide)						
Apple Juice	368	0			0.002 - 0.008	1.5
Bananas	744	3	0.4	0.006 ^	0.002 - 0.004	0.1
Blueberries	711	9	1.3	0.002 - 0.012	0.001 - 0.004	2
Blueberries, Frozen	22	1	4.5	0.006 ^	0.001 - 0.004	2
Broccoli	736	50	6.8	0.002 - 0.017	0.001 ^	1
Carrots	744	1	0.1	0.044 ^	0.002 - 0.020	0.1
Celery	739	17	2.3	0.002 - 0.014	0.001 - 0.004	0.1
Cherries	419	0			0.002 - 0.004	1
Green Beans	739	8	1.1	0.003 - 0.045	0.002 - 0.004	0.05
Greens, Collard (X-1)	353	10	2.8	0.006 - 6.3	0.004 - 0.013	2.0
Greens, Kale	386	20	5.2	0.006 - 0.12	0.004 ^	2.0
Nectarines	563	89	15.8	0.008 - 0.070	0.005 ^	0.1
Peaches	555	100	18	0.003 - 0.19	0.002 - 0.004	0.1
Potatoes, Frozen	800	0			0.002 - 0.004	0.1
Raisins	372	2	0.5	0.007 ^	0.004 - 0.008	0.5
Summer Squash (X-1)	742	5	0.7	0.007 - 0.33	0.002 - 0.004	0.1
Tomatoes	<u>741</u>	<u>24</u>	3.2	0.008 - 0.055	0.005 ^	0.5
TOTAL	9,734	339				
Clethodim (herbicide)						
Tomatoes	<u>741</u>	<u>0</u>			0.031 ^	1.0
TOTAL	741	0				
Clofentezine (insecticide)						
Apple Juice	106	0			0.007 ^	0.5
Broccoli	474	0			0.022 - 0.045	NT
Carrots (V-1)	1	1	100	0.004 ^	0.003 ^	NT
Cherries	122	0			0.007 ^	1.0
Peaches	151	11	7.3	0.012 - 0.052	0.007 ^	1.0
Raisins	<u>108</u>	<u>0</u>			0.007 ^	1.0
TOTAL	962	12				

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
Clomazone (herbicide)						
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.002 - 0.008	NT
Blueberries, Frozen	20	0			0.002 - 0.008	NT
Broccoli	736	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	739	0			0.008 - 0.015	0.05
Summer Squash	<u>742</u>	<u>0</u>			0.008 - 0.020	0.1
TOTAL	3,794	0				
Clopyralid (herbicide)						
Nectarines	<u>563</u>	<u>6</u>	1.1	0.025 ^	0.015 ^	0.5
TOTAL	563	6				
Clothianidin (insecticide) (also a metabolite of Thiamethoxam)						
Apple Juice	368	0			0.002 - 0.020	1.0
Bananas	528	0			0.010 ^	NT
Blueberries	207	1	0.5	0.003 ^	0.002 ^	0.2
Blueberries, Frozen	2	0			0.002 ^	0.2
Carrots	744	0			0.002 - 0.014	0.02
Cherries	397	2	0.5	0.003 ^	0.002 - 0.030	0.5
Green Beans (X-1)	739	1	0.1	0.054 ^	0.002 - 0.010	0.02
Greens, Collard	236	1	0.4	0.026 ^	0.010 ^	3.0
Greens, Kale	287	0			0.010 ^	3.0
Nectarines	563	0			0.009 - 0.018	0.5
Peaches	555	1	0.2	0.015 ^	0.002 - 0.003	0.5
Potatoes, Frozen	800	11	1.4	0.003 - 0.005	0.002 - 0.003	0.25
Summer Squash	214	6	2.8	0.003 ^	0.002 ^	0.2
Tomatoes	<u>741</u>	<u>5</u>	0.7	0.015 - 0.030	0.009 - 0.018	0.25
TOTAL	6,381	28				
Coumaphos (insecticide)						
Blueberries	504	0			0.006 ^	NT
Blueberries, Frozen	20	0			0.006 ^	NT
Broccoli	246	0			0.006 ^	NT
Celery	<u>525</u>	<u>0</u>			0.006 ^	NT
TOTAL	1,295	0				
Coumaphos oxygen analog (metabolite of Coumaphos)						
Blueberries	504	0			0.008 ^	NT
Blueberries, Frozen	20	0			0.008 ^	NT
Broccoli	246	0			0.008 ^	NT
Celery	<u>525</u>	<u>0</u>			0.008 ^	NT
TOTAL	1,295	0				
Cyazofamid (fungicide)						
Tomatoes	<u>741</u>	<u>2</u>	0.3	0.007 ^	0.004 ^	0.20
TOTAL	741	2				
Cycloate (herbicide)						
Blueberries	504	0			0.0006 ^	NT
Blueberries, Frozen	20	0			0.0006 ^	NT
Broccoli	736	0			0.0006 ^	NT
Celery (V-10)	<u>525</u>	<u>10</u>	1.9	0.001 - 0.003	0.0006 ^	NT
TOTAL	1,785	10				
Cyfluthrin (insecticide)						
Apple Juice	368	0			0.030 - 0.050	0.5
Bananas	744	0			0.023 - 0.030	0.05
Blueberries	711	0			0.030 - 0.27	0.05
Blueberries, Frozen	22	0			0.030 - 0.041	0.05

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Broccoli	736	0			0.041 - 0.57	2.5
Carrots	744	0			0.030 - 0.050	0.20
Celery	739	0			0.030 - 0.27	6.0
Cherries	419	0			0.012 - 0.030	0.3
Green Beans	739	0			0.030 - 0.38	0.05
Greens, Collard	353	16	4.5	0.050 - 1.5	0.030 - 0.075	7.0
Greens, Kale	386	4	1	0.050 - 1.2	0.030 - 0.075	7.0
Nectarines	563	0			0.068 ^	0.3
Peaches	555	7	1.3	0.025 - 0.17	0.015 - 0.030	0.3
Potatoes, Frozen	800	0			0.015 - 0.030	0.05
Raisins	371	0			0.050 - 0.060	3.5
Summer Squash	742	0			0.030 - 0.050	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.052 ^	0.5
TOTAL	9,733	27				
Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer) (insecticide) **						
Apple Juice	262	0			0.025 ^	0.30
Bananas	528	0			0.015 ^	0.01
Blueberries (X-3)	504	7	1.4	0.010 - 0.13	0.006 ^	0.01
Blueberries, Frozen	20	0			0.006 ^	0.01
Broccoli	736	11	1.5	0.010 - 0.12	0.006 ^	0.4
Carrots	528	0			0.008 ^	0.01
Celery	511	0			0.006 ^	0.01
Cherries	297	16	5.4	0.004 - 0.030	0.004 ^	0.50
Green Beans	528	0			0.050 ^	0.20
Greens, Collard (X-3)	236	3	1.3	0.082 - 0.45	0.050 ^	0.01
Greens, Kale (X-3)	290	3	1	0.071 - 0.20	0.050 ^	0.01
Raisins	263	0			0.050 ^	0.01
Summer Squash	<u>528</u>	<u>0</u>			0.025 ^	0.05
TOTAL	5,231	40				
Cyhalothrin, Lambda (insecticide) (includes gamma isomer)						
Apple Juice	106	0			0.006 ^	0.30
Bananas	216	0			0.006 ^	0.01
Blueberries	207	0			0.006 ^	0.01
Blueberries, Frozen	2	0			0.006 ^	0.01
Carrots	216	0			0.006 ^	0.01
Celery	214	0			0.006 ^	0.01
Cherries	122	10	8.2	0.010 - 0.045	0.006 ^	0.50
Green Beans	211	1	0.5	0.010 ^	0.006 ^	0.20
Greens, Collard (X-5)	117	7	6	0.010 - 0.099	0.006 ^	0.01
Greens, Kale	96	1	1	0.010 ^	0.006 ^	0.01
Nectarines	563	1	0.2	0.065 ^	0.039 ^	0.50
Peaches	555	101	18.2	0.005 - 0.043	0.003 - 0.006	0.50
Potatoes, Frozen	800	0			0.003 - 0.006	0.02
Raisins	108	0			0.012 ^	0.01
Summer Squash	214	0			0.006 ^	0.05
Tomatoes	<u>741</u>	<u>0</u>			0.032 ^	0.1
TOTAL	4,488	121				
Cyhalothrin, epimer R157836 (insecticide)						
Apple Juice	106	0			0.006 ^	0.30
Bananas	216	0			0.006 ^	0.01
Blueberries	207	0			0.006 ^	0.01
Blueberries, Frozen	2	0			0.006 ^	0.01
Carrots	216	0			0.006 ^	0.01
Celery	214	0			0.006 ^	0.01
Cherries	122	0			0.006 ^	0.50
Green Beans	211	0			0.006 ^	0.20
Greens, Collard	117	3	2.6	0.010 ^	0.006 ^	0.01
Greens, Kale	96	0			0.006 ^	0.01
Nectarines	563	0			0.037 ^	0.50
Peaches	555	0			0.003 - 0.006	0.50

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Potatoes, Frozen	800	0			0.003 - 0.006	0.02
Raisins	108	0			0.012 ^	0.01
Summer Squash	214	0			0.006 ^	0.05
Tomatoes	741	0			0.051 ^	0.1
TOTAL	4,488	3				
Cymoxanil (fungicide)						
Tomatoes	741	0			0.015 ^	0.2
TOTAL	741	0				
Cypermethrin (insecticide)						
Apple Juice	368	0			0.030 - 0.066	2
Bananas	528	0			0.023 ^	0.05
Blueberries	711	0			0.030 - 0.34	0.8
Blueberries, Frozen	22	0			0.030 - 0.051	0.8
Broccoli	736	5	0.7	0.086 ^	0.051 - 0.71	2.00
Carrots	744	0			0.030 - 0.059	0.1
Celery	739	2	0.3	0.050 - 0.086	0.030 - 0.051	10.00
Cherries	419	0			0.023 - 0.030	1
Green Beans	739	7	0.9	0.050 - 0.21	0.030 - 0.075	0.5
Greens, Collard	341	62	18.2	0.050 - 5.0	0.030 - 0.075	14.00
Greens, Kale	376	36	9.6	0.050 - 2.9	0.030 - 0.075	14.00
Nectarines	563	0			0.066 ^	1
Peaches	555	0			0.015 - 0.030	1
Potatoes, Frozen	800	0			0.015 - 0.030	0.1
Summer Squash	742	0			0.030 - 0.066	0.2
Tomatoes	741	0			0.056 ^	0.2
TOTAL	9,124	112				
Cyprodinil (fungicide)						
Apple Juice	368	0			0.008 - 0.050	0.1
Bananas	528	0			0.008 ^	NT
Blueberries	207	38	18.4	0.013 - 0.16	0.008 ^	3.0
Blueberries, Frozen	2	0			0.008 ^	3.0
Carrots	744	0			0.008 - 0.009	0.75
Celery (V-2)	2	2	100	0.013 - 0.049	0.008 ^	NT
Cherries	122	0			0.008 ^	2.0
Green Beans	739	5	0.7	0.024 - 0.088	0.008 ^	0.6
Greens, Collard	353	0			0.008 ^	10.0
Greens, Kale	386	0			0.008 ^	10.0
Nectarines	563	13	2.3	0.013 - 0.23	0.008 ^	2.0
Peaches	151	2	1.3	0.039 - 0.051	0.008 ^	2.0
Raisins	372	0			0.016 - 0.050	3.0
TOTAL	4,537	60				
Cyromazine (insect growth regulator)						
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	1.0
Celery	525	191	36.4	0.004 - 0.051	0.002 ^	7.0
TOTAL	1,785	191				
DCPA (herbicide)						
Bananas	528	0			0.002 ^	NT
Blueberries (V-2)	504	2	0.4	0.001 - 0.004	0.0007 ^	NT
Blueberries, Frozen	20	0			0.0007 ^	NT
Broccoli	736	369	50.1	0.001 - 0.056	0.0007 ^	5
Celery (V-64)	527	64	12.1	0.001 - 0.012	0.0007 - 0.003	NT
Green Beans	739	6	0.8	0.005 - 0.025	0.003 - 0.008	2
Greens, Collard	117	50	42.7	0.005 - 0.091	0.003 ^	5
Greens, Kale	96	58	60.4	0.005 - 0.57	0.003 ^	5
Potatoes, Frozen	800	0			0.003 ^	2

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Summer Squash	742	2	0.3	0.005 - 0.017	0.003 - 0.030	1
Tomatoes	<u>741</u>	<u>0</u>			0.006 ^	1
TOTAL	5,550	551				
DDD o,p' (metabolite of DDT)						
Blueberries	504	0			0.001 ^	0.1 AL
Blueberries, Frozen	20	0			0.001 ^	0.1 AL
Broccoli	731	0			0.001 ^	0.5 AL
Celery	<u>525</u>	<u>0</u>			0.001 ^	0.5 AL
TOTAL	1,780	0				
DDD p,p' (metabolite of DDT)						
Apple Juice	368	0			0.004 - 0.030	0.1 AL
Bananas	528	0			0.005 ^	NT
Blueberries	711	0			0.001 - 0.004	0.1 AL
Blueberries, Frozen	22	0			0.001 - 0.004	0.1 AL
Broccoli	736	1	0.1	0.002 ^	0.001 ^	0.5 AL
Carrots	744	0			0.004 - 0.006	3 AL
Celery	739	0			0.001 - 0.004	0.5 AL
Cherries	122	0			0.004 ^	0.2 AL
Green Beans	211	0			0.004 ^	0.2 AL
Greens, Collard	117	0			0.004 ^	0.5 AL
Greens, Kale	96	0			0.004 ^	0.5 AL
Nectarines	563	0			0.007 ^	0.2 AL
Peaches	555	0			0.004 ^	0.2 AL
Potatoes, Frozen	800	0			0.004 ^	1 AL
Raisins	372	0			0.008 - 0.030	0.1 AL
Summer Squash	742	0			0.004 - 0.030	0.1 AL
Tomatoes	<u>741</u>	<u>0</u>			0.005 ^	0.05 AL
TOTAL	8,167	1				
DDE p,p' (metabolite of DDT)						
Apple Juice	368	0			0.004 - 0.015	0.1 AL
Bananas	528	0			0.005 ^	NT
Blueberries	711	0			0.002 - 0.004	0.1 AL
Blueberries, Frozen	22	0			0.002 - 0.004	0.1 AL
Broccoli	736	14	1.9	0.003 ^	0.002 ^	0.5 AL
Carrots	744	209	28.1	0.003 - 0.040	0.003 - 0.004	3 AL
Celery	739	65	8.8	0.003 - 0.007	0.002 - 0.004	0.5 AL
Cherries	419	0			0.002 - 0.004	0.2 AL
Green Beans	211	3	1.4	0.007 ^	0.004 ^	0.2 AL
Greens, Collard	117	15	12.8	0.007 - 0.021	0.004 ^	0.5 AL
Greens, Kale	96	40	41.7	0.007 - 0.033	0.004 ^	0.5 AL
Nectarines	563	0			0.006 ^	0.2 AL
Peaches	555	0			0.004 ^	0.2 AL
Potatoes, Frozen	800	0			0.004 ^	1 AL
Raisins	372	0			0.008 - 0.030	0.1 AL
Summer Squash	742	6	0.8	0.007 ^	0.004 - 0.015	0.1 AL
Tomatoes	<u>741</u>	<u>0</u>			0.005 ^	0.05 AL
TOTAL	8,464	352				
DDT o,p' (insecticide)						
Blueberries	504	0			0.001 ^	0.1 AL
Blueberries, Frozen	20	0			0.001 ^	0.1 AL
Broccoli	736	0			0.001 ^	0.5 AL
Celery	<u>525</u>	<u>0</u>			0.001 ^	0.5 AL
TOTAL	1,785	0				
DDT p,p' (insecticide)						
Apple Juice	106	0			0.004 ^	0.1 AL
Bananas	528	0			0.005 ^	NT
Blueberries	711	0			0.002 - 0.004	0.1 AL

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Blueberries, Frozen	22	0			0.002 - 0.004	0.1 AL
Broccoli	736	0			0.002 ^	0.5 AL
Carrots	744	2	0.3	0.007 ^	0.004 - 0.030	3 AL
Celery	739	4	0.5	0.003 - 0.007	0.002 - 0.004	0.5 AL
Cherries	419	0			0.002 - 0.004	0.2 AL
Green Beans	211	0			0.004 ^	0.2 AL
Greens, Collard	117	8	6.8	0.007 ^	0.004 ^	0.5 AL
Greens, Kale	96	11	11.5	0.007 - 0.018	0.004 ^	0.5 AL
Nectarines	563	0			0.010 ^	0.2 AL
Peaches	555	0			0.004 ^	0.2 AL
Potatoes, Frozen	800	0			0.004 ^	1 AL
Raisins	108	0			0.008 ^	0.1 AL
Summer Squash	214	2	0.9	0.007 ^	0.004 ^	0.1 AL
Tomatoes	741	0			0.010 ^	0.05 AL
TOTAL	7,410	27				

Deltamethrin (includes parent Tralomethrin) (insecticide)

Apple Juice	368	0			0.015 - 0.050	0.2
Bananas	744	0			0.015 - 0.023	0.05
Blueberries	372	0			0.015 - 0.16	0.05
Blueberries, Frozen	9	0			0.015 - 0.16	0.05
Carrots	744	0			0.015 - 0.030	0.2
Celery	387	0			0.015 - 0.080	0.05
Cherries	419	0			0.015 - 0.12	0.05
Green Beans	716	0			0.015 - 0.075	0.05
Greens, Collard	332	0			0.015 - 0.075	0.05
Greens, Kale	363	0			0.015 - 0.075	0.05
Nectarines	563	0			0.042 ^	0.05
Peaches	555	0			0.008 - 0.015	0.05
Potatoes, Frozen	800	0			0.008 - 0.015	0.05
Raisins	371	0			0.030 - 0.050	0.05
Summer Squash	742	0			0.015 - 0.050	0.2
Tomatoes	741	0			0.042 ^	0.2
TOTAL	8,226	0				

Diazinon (insecticide)

Apple Juice	368	0			0.001 - 0.008	0.5
Bananas	744	0			0.001 - 0.005	0.2
Blueberries	711	1	0.1	0.003 ^	0.001 - 0.002	0.5
Blueberries, Frozen	22	0			0.001 - 0.002	0.5
Broccoli	246	0			0.002 ^	0.7
Carrots	744	39	5.2	0.004 - 0.045	0.001 - 0.004	0.75
Celery	739	12	1.6	0.003 - 0.088	0.001 - 0.002	0.7
Cherries	397	1	0.3	0.002 ^	0.001 - 0.010	0.75
Green Beans	739	0			0.001 - 0.005	0.5
Greens, Collard	353	14	4	0.003 - 0.48	0.002 - 0.005	0.7
Greens, Kale (X-1)	386	19	4.9	0.003 - 2.1	0.002 - 0.005	0.7
Nectarines	563	13	2.3	0.010 - 0.045	0.006 ^	0.5
Peaches	555	19	3.4	0.003 - 0.008	0.001 - 0.002	0.7
Potatoes, Frozen	800	0			0.001 - 0.002	0.1
Raisins	372	0			0.004 ^	0.75
Summer Squash	742	0			0.001 - 0.004	0.5
Tomatoes	741	2	0.3	0.010 ^	0.006 ^	0.75
TOTAL	9,222	120				

Diazinon oxygen analog (metabolite of Diazinon)

Apple Juice	368	0			0.002 - 0.008	NT
Bananas	723	0			0.001 - 0.003	NT
Blueberries	711	0			0.002 - 0.003	NT
Blueberries, Frozen	22	0			0.002 - 0.003	NT
Broccoli	706	0			0.003 ^	NT
Carrots	744	0			0.001 - 0.003	NT
Celery	739	0			0.002 - 0.003	NT

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Cherries	419	0			0.0004 - 0.003	NT
Green Beans	695	0			0.001 - 0.003	NT
Greens, Collard	332	0			0.001 - 0.003	NT
Greens, Kale	361	0			0.001 - 0.003	NT
Nectarines	563	0			0.013 ^	NT
Peaches	555	0			0.002 - 0.003	NT
Potatoes, Frozen	800	0			0.002 - 0.003	NT
Raisins	372	0			0.004 - 0.006	NT
Summer Squash	742	0			0.002 - 0.004	NT
Tomatoes	741	0			0.013 ^	NT
TOTAL	9,593	0				
Dichlobenil (herbicide)						
Apple Juice	106	0			0.005 ^	0.5
Bananas	462	0			0.013 ^	NT
Blueberries	711	0			0.005 - 0.019	0.15
Blueberries, Frozen	22	0			0.005 - 0.019	0.15
Broccoli	736	0			0.019 ^	NT
Celery	525	0			0.019 ^	NT
Cherries	122	0			0.005 ^	0.15
Green Beans	419	0			0.013 ^	NT
Greens, Collard	201	0			0.013 ^	NT
Greens, Kale	266	0			0.013 ^	NT
Nectarines	563	0			0.015 ^	0.15
Peaches	555	0			0.005 ^	0.15
Raisins	372	0			0.010 - 0.030	0.15
Summer Squash	131	0			0.030 ^	NT
TOTAL	5,191	0				
Dichlorvos - DDVP (insecticide) (also a metabolite of Naled)						
Apple Juice	368	0			0.001 - 0.006	0.5
Bananas	744	0			0.001 - 0.002	0.5
Blueberries	711	0			0.001 - 0.003	0.5
Blueberries, Frozen	22	0			0.001 - 0.003	0.5
Celery	739	0			0.001 - 0.003	3
Cherries	419	0			0.001 - 0.015	0.5
Green Beans	739	0			0.001 - 0.008	0.5
Greens, Collard	353	0			0.002 - 0.050	3
Greens, Kale	386	0			0.002 - 0.050	3
Nectarines	563	0			0.003 ^	0.5
Peaches	555	0			0.001 - 0.002	0.5
Potatoes, Frozen	800	0			0.001 - 0.002	0.5
Raisins	372	1	0.3	0.005 ^	0.003 - 0.004	0.5
Summer Squash	742	0			0.001 - 0.003	0.5
Tomatoes	741	0			0.003 ^	0.05
TOTAL	8,254	1				
Dicloran (fungicide)						
Apple Juice	88	0			0.006 ^	NT
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli (V-5)	736	5	0.7	0.003 ^	0.002 ^	NT
Carrots	744	0			0.006 - 0.025	10
Celery	724	326	45	0.010 - 2.5	0.006 - 0.013	15
Cherries	419	0			0.006 - 0.025	20
Green Beans	673	16	2.4	0.040 - 1.9	0.006 - 0.013	20
Greens, Collard (V-1)	214	1	0.5	0.018 ^	0.013 ^	NT
Greens, Kale	269	0			0.013 ^	NT
Nectarines	563	3	0.5	0.023 - 0.17	0.014 ^	20
Peaches	555	9	1.6	0.010 - 0.31	0.006 ^	20
Potatoes, Frozen	800	0			0.006 ^	0.25

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Raisins	372	0			0.012 - 0.030	10
Tomatoes	<u>741</u>	<u>12</u>	1.6	0.008 - 0.25	0.005 ^	5
TOTAL	7,950	372				
Dicofol o,p' (insecticide)						
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Celery	525	0			0.003 ^	NT
Cherries	<u>297</u>	<u>0</u>			0.006 ^	5
TOTAL	2,082	0				
Dicofol p,p' (insecticide) (isomer of Dicofol o,p')						
Apple Juice	368	0			0.010 - 0.030	10.0
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Celery	525	0			0.003 ^	NT
Cherries	419	0			0.010 - 0.041	5
Green Beans	211	0			0.010 ^	5
Nectarines	563	1	0.2	0.030 ^	0.018 ^	10
Peaches	555	2	0.4	0.057 - 0.13	0.010 ^	10
Raisins	372	5	1.3	0.033 - 0.52	0.020 - 0.050	5
Summer Squash	742	1	0.1	0.15 ^	0.010 - 0.030	5
Tomatoes	<u>741</u>	<u>14</u>	1.9	0.033 - 0.65	0.020 ^	5
TOTAL	6,284	23				
Dieldrin (insecticide) (also a metabolite of Aldrin)						
Apple Juice	368	0			0.003 ^	0.03 AL
Bananas	744	0			0.003 - 0.005	0.02 AL
Blueberries	711	0			0.003 - 0.005	NT
Blueberries, Frozen	22	0			0.003 - 0.005	NT
Broccoli	736	0			0.005 ^	0.03 AL
Carrots	744	1	0.1	0.005 ^	0.003 - 0.015	0.1 AL
Celery	739	0			0.005 - 0.006	0.03 AL
Cherries	419	0			0.003 - 0.008	0.03 AL
Green Beans	211	0			0.003 ^	0.05 AL
Greens, Collard	117	0			0.003 ^	0.05 AL
Greens, Kale	96	5	5.2	0.005 - 0.011	0.003 ^	0.05 AL
Nectarines	563	0			0.005 ^	0.03 AL
Peaches	555	0			0.003 ^	0.02 AL
Potatoes, Frozen	800	0			0.003 ^	0.1 AL
Summer Squash	742	89	12	0.005 - 0.18	0.003 ^	0.1 AL
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.05 AL
TOTAL	8,308	95				
Difenoconazole (fungicide)						
Apple Juice	262	0			0.10 ^	0.10
Bananas	<u>560</u>	<u>0</u>			0.005 - 0.010	0.2
TOTAL	822	0				
Diflubenzuron (insecticide)						
Apple Juice	88	0			0.007 ^	NT
Blueberries (V-1)	504	1	0.2	0.011 ^	0.007 ^	NT
Blueberries, Frozen	20	0			0.007 ^	NT
Broccoli	736	0			0.007 ^	NT
Celery	525	0			0.007 ^	NT
Peaches	<u>555</u>	<u>8</u>	1.4	0.002 - 0.023	0.001 - 0.007	0.07
TOTAL	2,428	9				

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
Dimethenamid (herbicide)						
Potatoes, Frozen	557	0			0.001 ^	0.01
TOTAL	557	0				
Dimethoate (insecticide) (parent of Omethoate)						
Apple Juice	368	0			0.001 - 0.010	2
Bananas	528	0			0.005 ^	NT
Blueberries	711	0			0.001 - 0.002	1
Blueberries, Frozen	22	0			0.001 - 0.002	1
Broccoli	691	20	2.9	0.004 - 0.047	0.002 - 0.008	2
Celery	739	80	10.8	0.002 - 0.15	0.001 - 0.002	2
Cherries	122	1	0.8	0.18 ^	0.001 - 0.002	2
Green Beans	739	48	6.5	0.002 - 1.6	0.001 - 0.005	2
Greens, Collard	353	15	4.2	0.003 - 0.23	0.002 - 0.005	2
Greens, Kale	386	6	1.6	0.003 - 0.076	0.002 - 0.005	2
Peaches	102	0			0.001 - 0.002	NT
Potatoes, Frozen	800	0			0.001 - 0.002	0.2
Raisins	372	0			0.004 - 0.005	1
Summer Squash	214	0			0.001 - 0.002	NT
Tomatoes	741	0			0.006 ^	2
TOTAL	6,888	170				
Dimethomorph (fungicide)						
Apple Juice	262	0			0.10 ^	NT
Blueberries	504	0			0.0009 - 0.002	NT
Blueberries, Frozen	20	0			0.0009 - 0.002	NT
Broccoli	736	6	0.8	0.003 - 0.005	0.0009 - 0.002	2.0
Celery (V-15)	526	15	2.9	0.002 - 0.004	0.0009 - 0.002	NT
Greens, Collard	117	2	1.7	0.003 - 0.021	0.002 ^	20.0
Greens, Kale	96	3	3.1	0.003 - 0.18	0.002 ^	20.0
Potatoes, Frozen	800	0			0.001 - 0.002	NT
Raisins	372	0			0.002 - 0.10	6.0
Summer Squash	742	2	0.3	0.003 - 0.019	0.002 - 0.10	0.5
Tomatoes	741	0			0.095 ^	1.5
TOTAL	4,916	28				
Dinotefuran (insecticide)						
Blueberries	504	0			0.006 ^	NT
Blueberries, Frozen	20	0			0.006 ^	NT
Broccoli	736	8	1.1	0.010 - 0.13	0.006 ^	1.4
Celery	739	30	4.1	0.008 - 0.25	0.005 - 0.006	5.0
Green Beans (V-19)	528	19	3.6	0.011 - 0.18	0.010 ^	NT
Greens, Collard (V-3)	236	3	1.3	0.012 - 0.12	0.010 ^	NT
Greens, Kale (V-3)	289	3	1	0.008 - 0.044	0.005 - 0.010	NT
Potatoes, Frozen	800	0			0.001 - 0.005	0.05
Raisins	108	0			0.005 ^	2.5
Summer Squash	214	3	1.4	0.008 - 0.14	0.005 ^	0.5
TOTAL	4,174	66				
Diphenamid (herbicide)						
Blueberries	504	0			0.010 ^	NT
Blueberries, Frozen	20	0			0.010 ^	NT
Broccoli	736	0			0.010 ^	NT
Celery	525	0			0.010 ^	NT
TOTAL	1,785	0				
Diphenylamine - DPA (fungicide)						
Apple Juice	368	5	1.4	0.017 ^	0.010 - 0.030	10.0
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Broccoli	736	0			0.003 ^	NT
Celery	525	0			0.003 ^	NT
Green Beans	528	0			0.015 ^	NT
Greens, Collard	236	0			0.015 ^	NT
Greens, Kale	290	0			0.015 ^	NT
Peaches (V-1)	<u>151</u>	<u>1</u>	0.7	0.017 ^	0.010 ^	NT
TOTAL	3,886	6				
Disulfoton (insecticide)						
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	706	0			0.002 ^	0.75
Celery	525	0			0.002 ^	NT
Green Beans	739	0			0.002 - 0.004	0.75
Potatoes, Frozen	800	0			0.002 - 0.003	0.75
Tomatoes	<u>741</u>	<u>0</u>			0.005 ^	0.75
TOTAL	4,563	0				
Disulfoton sulfone (metabolite of Disulfoton)						
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.006 ^	NT
Blueberries, Frozen	20	0			0.006 ^	NT
Broccoli	646	0			0.006 - 0.021	0.75
Celery	525	0			0.006 ^	NT
Green Beans	739	1	0.1	0.006 ^	0.002 - 0.004	0.75
Potatoes, Frozen	800	0			0.002 - 0.004	0.75
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.75
TOTAL	4,503	1				
Disulfoton sulfoxide (metabolite of Disulfoton)						
Tomatoes	<u>741</u>	<u>0</u>			0.031 ^	0.75
TOTAL	741	0				
Diuron (herbicide)						
Apple Juice	368	0			0.012 - 0.020	1
Bananas	216	0			0.012 ^	0.1
Blueberries	504	0			0.008 ^	1
Blueberries, Frozen	20	0			0.008 ^	1
Broccoli	736	0			0.008 ^	NT
Celery	525	0			0.008 ^	NT
Peaches	555	0			0.001 - 0.012	0.1
Potatoes, Frozen	800	0			0.001 - 0.012	1
Raisins	<u>108</u>	<u>0</u>			0.012 ^	1
TOTAL	3,832	0				
Endosulfan I (insecticide)						
Apple Juice	368	0			0.003 ^	1.0
Bananas	528	0			0.002 ^	NT
Blueberries	711	0			0.003 - 0.006	0.3
Blueberries, Frozen	22	0			0.003 - 0.006	0.3
Broccoli	736	11	1.5	0.010 - 0.098	0.006 ^	3.0
Carrots	744	0			0.003 - 0.025	0.2
Celery	739	32	4.3	0.005 - 0.18	0.003 - 0.006	8.0
Cherries	419	0			0.003 - 0.006	2.0
Green Beans	739	112	15.2	0.005 - 0.17	0.003 - 0.015	2.0
Greens, Collard	117	1	0.9	0.005 ^	0.003 ^	2.0
Greens, Kale	96	3	3.1	0.051 - 0.18	0.003 ^	2.0
Nectarines	563	0			0.005 ^	2.0
Peaches	555	11	2	0.005 - 0.049	0.003 ^	2.0
Potatoes, Frozen	800	0			0.003 ^	0.2

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Raisins	372	0			0.003 - 0.006	2.0
Summer Squash	742	326	43.9	0.005 - 0.17	0.003 ^	1.0
Tomatoes	<u>741</u>	<u>81</u>	10.9	0.007 - 0.068	0.004 ^	1.0
TOTAL	8,992	577				
Endosulfan II (isomer of Endosulfan)						
Apple Juice	368	0			0.003 - 0.004	1.0
Bananas	528	0			0.004 ^	NT
Blueberries	711	3	0.4	0.007 - 0.082	0.004 - 0.006	0.3
Blueberries, Frozen	22	0			0.004 - 0.006	0.3
Broccoli	736	5	0.7	0.010 - 0.13	0.006 ^	3.0
Carrots	744	3	0.4	0.007 ^	0.004 - 0.030	0.2
Celery	739	20	2.7	0.007 - 0.057	0.004 - 0.006	8.0
Cherries	419	2	0.5	0.007 ^	0.004 - 0.016	2.0
Green Beans	739	58	7.8	0.007 - 0.19	0.004 - 0.015	2.0
Greens, Collard	117	0			0.004 ^	2.0
Greens, Kale	96	3	3.1	0.021 - 0.11	0.004 ^	2.0
Nectarines	563	3	0.5	0.008 ^	0.005 ^	2.0
Peaches	555	15	2.7	0.007 - 0.076	0.004 ^	2.0
Potatoes, Frozen	800	0			0.004 ^	0.2
Raisins	372	0			0.003 - 0.008	2.0
Summer Squash	742	108	14.6	0.005 - 0.041	0.003 - 0.004	1.0
Tomatoes	<u>741</u>	<u>134</u>	18.1	0.007 - 0.35	0.004 ^	1.0
TOTAL	8,992	354				
Endosulfan sulfate (metabolite of Endosulfan)						
Apple Juice	368	0			0.003 - 0.004	1.0
Bananas	528	0			0.004 ^	NT
Blueberries	711	3	0.4	0.007 - 0.13	0.004 - 0.020	0.3
Blueberries, Frozen	22	0			0.004 - 0.020	0.3
Broccoli	720	4	0.6	0.033 - 0.12	0.020 ^	3.0
Carrots	744	12	1.6	0.007 - 0.041	0.004 - 0.009	0.2
Celery	739	18	2.4	0.007 - 0.11	0.004 - 0.020	8.0
Cherries	419	7	1.7	0.007 - 0.046	0.004 - 0.019	2.0
Green Beans	739	164	22.2	0.007 - 0.78	0.004 - 0.015	2.0
Greens, Collard	353	21	5.9	0.007 - 0.99	0.004 - 0.015	2.0
Greens, Kale	386	26	6.7	0.007 - 0.35	0.004 - 0.015	2.0
Nectarines	563	0			0.007 ^	2.0
Peaches	555	16	2.9	0.007 - 0.058	0.004 ^	2.0
Potatoes, Frozen	800	53	6.6	0.007 - 0.017	0.004 ^	0.2
Raisins	372	0			0.003 - 0.008	2.0
Summer Squash	742	499	67.3	0.005 - 0.19	0.003 - 0.004	1.0
Tomatoes	<u>741</u>	<u>126</u>	17	0.008 - 0.072	0.005 ^	1.0
TOTAL	9,502	949				
Endrin (insecticide)						
Bananas	528	0			0.002 ^	NT
Blueberries	504	0			0.007 ^	NT
Blueberries, Frozen	20	0			0.007 ^	NT
Broccoli	736	0			0.007 ^	0.05
Carrots	744	0			0.004 - 0.015	0.05
Celery	525	0			0.007 ^	0.05
Green Beans	211	0			0.004 ^	0.05
Greens, Collard	117	0			0.004 ^	0.05
Greens, Kale	96	0			0.004 ^	0.05
Peaches	403	0			0.004 ^	NT
Potatoes, Frozen	800	0			0.004 ^	0.05
Summer Squash	742	8	1.1	0.007 - 0.018	0.004 ^	0.05
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.05
TOTAL	6,167	8				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
EPTC (herbicide)						
Blueberries	504	0			0.064 ^	0.1
Blueberries, Frozen	20	0			0.064 ^	0.1
Broccoli	736	0			0.064 ^	0.1
Carrots	528	0			0.008 ^	0.1
Celery	510	0			0.064 ^	0.1
Potatoes, Frozen	557	0			0.020 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.023 ^	0.1
TOTAL	3,596	0				
Esfenvalerate (insecticide) (isomer of Fenvalerate)						
Cherries	297	2	0.7	0.014 - 0.026	0.013 ^	0.05
Nectarines (X-4)	563	4	0.7	0.10 ^	0.061 ^	0.05
Tomatoes (X-1)	<u>741</u>	<u>1</u>	0.1	0.12 ^	0.072 ^	0.05
TOTAL	1,601	7				
Esfenvalerate+Fenvalerate Total (insecticide)						
Apple Juice	368	0			0.015 - 0.050	2.0
Bananas	744	0			0.015 - 0.038	0.05
Blueberries	696	65	9.3	0.014 - 0.19	0.009 - 0.12	3.0
Blueberries, Frozen	22	3	13.6	0.014 - 0.096	0.009 - 0.058	3.0
Broccoli	674	0			0.009 - 0.29	2.0
Carrots	744	0			0.015 - 0.025	0.5
Celery	387	0			0.009 - 0.029	0.05
Cherries	122	0			0.015 ^	10.0
Green Beans	739	8	1.1	0.025 - 0.19	0.015 - 0.13	2.0
Greens, Collard	331	7	2.1	0.025 - 1.1	0.015 - 0.13	10.0
Greens, Kale (X-1)	365	1	0.3	0.26 ^	0.015 - 0.13	0.05
Peaches	555	43	7.7	0.013 - 0.092	0.008 - 0.015	10.0
Potatoes, Frozen	800	0			0.008 - 0.015	0.05
Raisins	371	0			0.030 - 0.050	0.05
Summer Squash	<u>742</u>	<u>0</u>			0.015 - 0.050	0.5
TOTAL	7,660	127				
Ethalfuralin (herbicide)						
Apple Juice	262	0			0.050 ^	NT
Blueberries	504	0			0.017 ^	NT
Blueberries, Frozen	20	0			0.017 ^	NT
Broccoli	736	0			0.017 ^	NT
Celery	496	0			0.017 ^	NT
Summer Squash	<u>720</u>	<u>0</u>			0.007 - 0.050	0.05
TOTAL	2,738	0				
Ethiofencarb (insecticide)						
Bananas	528	0			0.010 ^	NT
Blueberries	504	0			0.015 ^	NT
Blueberries, Frozen	20	0			0.015 ^	NT
Broccoli	710	0			0.015 - 0.21	NT
Celery	525	0			0.015 ^	NT
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	<u>287</u>	<u>0</u>			0.010 ^	NT
TOTAL	3,338	0				
Ethion (insecticide)						
Bananas	528	0			0.005 ^	NT
Blueberries	504	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Broccoli	736	0			0.001 ^	NT
Celery	525	0			0.001 ^	NT
Green Beans	528	0			0.005 ^	NT

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale	<u>290</u>	<u>0</u>			0.005 ^	NT
TOTAL	3,367	0				
Ethion mono oxon (metabolite of Ethion)						
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	<u>525</u>	<u>0</u>			0.002 ^	NT
TOTAL	1,785	0				
Ethoprop (insecticide)						
Bananas	216	0			0.001 - 0.002	0.02
Blueberries	504	0			0.0009 ^	NT
Blueberries, Frozen	20	0			0.0009 ^	NT
Broccoli	246	0			0.0009 ^	NT
Celery	525	0			0.0009 ^	NT
Green Beans	739	0			0.001 - 0.010	0.02
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Potatoes, Frozen	<u>800</u>	<u>0</u>			0.001 - 0.002	0.02
TOTAL	3,573	0				
Ettoxazole (acaricide)						
Apple Juice	262	0			0.050 ^	0.20
Blueberries	504	0			0.0001 ^	NT
Blueberries, Frozen	20	0			0.0001 ^	NT
Broccoli (V-2)	736	2	0.3	0.0002 ^	0.0001 ^	NT
Celery	525	0			0.0001 ^	NT
Raisins	<u>264</u>	<u>0</u>			0.050 ^	1.5
TOTAL	2,311	2				
Etridiazole (fungicide)						
Bananas	528	0			0.002 ^	NT
Tomatoes	<u>741</u>	<u>0</u>			0.025 ^	0.15
TOTAL	1,269	0				
Famoxadone (fungicide)						
Greens, Collard (V-1)	1	1	100	2.2 ^	0.002 ^	NT
Potatoes, Frozen	243	0			0.002 ^	0.02
Raisins	372	0			0.002 - 0.050	4.0
Summer Squash	742	4	0.5	0.003 - 0.014	0.002 - 0.050	0.30
Tomatoes	<u>741</u>	<u>0</u>			0.060 ^	1.0
TOTAL	2,099	5				
Fenamidone (fungicide)						
Carrots	56	9	16.1	0.004 - 0.014	0.003 ^	0.20
Potatoes, Frozen	243	0			0.003 ^	0.02
Raisins	372	0			0.003 - 0.030	1.0
Summer Squash	<u>742</u>	<u>0</u>			0.003 - 0.015	0.15
TOTAL	1,413	9				
Fenamiphos (insecticide)						
Apple Juice	368	0			0.002 - 0.008	0.25
Bananas	744	0			0.002 - 0.005	0.10
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Cherries	419	0			0.002 - 0.014	0.25
Green Beans	528	0			0.005 ^	NT
Greens, Collard	236	0			0.005 ^	NT

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Greens, Kale	287	0			0.005 ^	NT
Peaches	555	0			0.002 - 0.004	0.25
Raisins	<u>372</u>	<u>0</u>			0.004 - 0.008	0.3
TOTAL	5,294	0				
Fenamiphos sulfone (metabolite of Fenamiphos)						
Apple Juice	368	0			0.002 - 0.008	0.25
Bananas	744	0			0.002 - 0.005	0.10
Blueberries	504	0			0.004 ^	NT
Blueberries, Frozen	20	0			0.004 ^	NT
Broccoli	246	0			0.004 - 0.012	NT
Celery	525	0			0.004 ^	NT
Cherries	419	0			0.002 - 0.006	0.25
Green Beans	528	0			0.005 ^	NT
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale	287	0			0.005 ^	NT
Peaches	555	0			0.002 - 0.008	0.25
Raisins	<u>372</u>	<u>0</u>			0.002 - 0.004	0.3
TOTAL	4,804	0				
Fenamiphos sulfoxide (metabolite of Fenamiphos)						
Apple Juice	106	0			0.002 ^	0.25
Bananas	744	0			0.002 - 0.005	0.10
Blueberries	504	0			0.004 ^	NT
Blueberries, Frozen	20	0			0.004 ^	NT
Broccoli	246	0			0.004 ^	NT
Celery	525	0			0.004 ^	NT
Cherries	419	0			0.002 - 0.015	0.25
Green Beans	528	0			0.005 ^	NT
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale (V-1)	287	1	0.3	0.007 ^	0.005 ^	NT
Peaches	538	0			0.002 - 0.006	0.25
Raisins	<u>108</u>	<u>0</u>			0.002 ^	0.3
TOTAL	4,261	1				
Fenarimol (fungicide)						
Apple Juice	368	0			0.015 - 0.020	0.1
Bananas	722	0			0.015 - 0.025	0.25
Blueberries	504	0			0.010 ^	NT
Blueberries, Frozen	20	0			0.010 ^	NT
Broccoli	736	0			0.010 ^	NT
Celery	525	0			0.010 ^	NT
Cherries	122	4	3.3	0.025 - 0.080	0.015 ^	1.0
Raisins	<u>108</u>	<u>0</u>			0.030 ^	0.1
TOTAL	3,105	4				
Fenbuconazole (fungicide)						
Apple Juice	350	0			0.030 - 0.040	0.4
Bananas	744	0			0.005 - 0.030	0.3
Blueberries	711	69	9.7	0.001 - 0.071	0.0006 - 0.050	0.3
Blueberries, Frozen	22	9	40.9	0.001 - 0.007	0.0006 - 0.050	0.3
Broccoli	736	0			0.0006 - 0.0009	NT
Celery	525	0			0.0006 - 0.0009	NT
Cherries	419	11	2.6	0.003 - 0.18	0.002 - 0.030	1.0
Green Beans	528	0			0.005 ^	NT
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale	288	0			0.005 ^	NT
Nectarines	563	0			0.061 ^	1.0
Peaches	<u>151</u>	<u>5</u>	3.3	0.050 ^	0.030 ^	1.0
TOTAL	5,273	94				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Fenhexamid (fungicide)						
Blueberries	165	13	7.9	0.016 - 0.051	0.010 ^	5.0
Blueberries, Frozen	7	1	14.3	0.016 ^	0.010 ^	5.0
Broccoli	200	0			0.064 ^	NT
Celery	173	0			0.010 ^	NT
Cherries	297	2	0.7	0.095 - 0.12	0.020 ^	10.0
Nectarines	563	70	12.4	0.043 - 1.4	0.026 ^	10.0
Tomatoes	<u>741</u>	<u>10</u>	1.3	0.040 - 0.31	0.024 ^	2.0
TOTAL	2,146	96				
Fenitrothion (insecticide)						
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 - 0.010	NT
Celery	<u>525</u>	<u>0</u>			0.003 ^	NT
TOTAL	1,785	0				
Fenpropathrin (insecticide)						
Apple Juice	368	0			0.020 - 0.050	5.0
Bananas	528	0			0.015 ^	NT
Blueberries	711	20	2.8	0.026 - 1.3	0.016 - 0.020	3.0
Blueberries, Frozen	22	0			0.016 - 0.020	3.0
Broccoli	736	0			0.016 ^	3.0
Celery	525	0			0.016 ^	NT
Green Beans (V-1)	1	1	100	0.10 ^	0.020 ^	NT
Greens, Collard	117	0			0.020 ^	NT
Greens, Kale	96	0			0.020 ^	NT
Raisins	371	25	6.7	0.051 - 0.72	0.040 - 0.050	10.0
Summer Squash	742	0			0.020 - 0.050	0.5
Tomatoes	<u>741</u>	<u>43</u>	5.8	0.030 - 0.29	0.018 ^	1.0
TOTAL	4,958	89				
Fenpyroximate (acaricide)						
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli (V-1)	722	1	0.1	0.006 ^	0.0006 - 0.002	NT
Celery	525	0			0.0006 - 0.002	NT
Raisins	<u>264</u>	<u>0</u>			0.050 ^	1.0
TOTAL	2,035	1				
Fenthion (insecticide)						
Bananas	528	0			0.008 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	528	0			0.008 ^	NT
Greens, Collard	236	0			0.008 ^	NT
Greens, Kale	<u>290</u>	<u>0</u>			0.008 ^	NT
TOTAL	3,367	0				
Flonicamid (insecticide)						
Apple Juice	262	0			0.040 ^	0.20
Nectarines	563	0			0.006 - 0.011	0.60
Summer Squash	528	6	1.1	0.062 - 0.14	0.040 ^	0.40
Tomatoes	<u>741</u>	<u>0</u>			0.006 - 0.011	0.40
TOTAL	2,094	6				
Fluazifop butyl (herbicide)						
Blueberries	504	0			0.0003 ^	NT
Blueberries, Frozen	20	0			0.0003 ^	NT

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Broccoli	736	0			0.0003 ^	NT
Celery	<u>525</u>	<u>0</u>			0.0003 ^	NT
TOTAL	1,785	0				
Fludioxonil (fungicide)						
Apple Juice	368	0			0.002 - 0.050	5.0
Bananas	528	0			0.010 ^	NT
Blueberries	711	77	10.8	0.003 - 0.19	0.002 - 0.080	2.0
Blueberries, Frozen	22	1	4.5	0.020 ^	0.002 - 0.080	2.0
Broccoli	736	1	0.1	0.020 ^	0.012 - 0.17	2.0
Carrots	216	2	0.9	0.003 ^	0.002 ^	0.75
Celery (X-3)	725	5	0.7	0.003 - 0.020	0.002 - 0.050	0.01
Cherries	419	6	1.4	0.021 - 0.41	0.002 - 0.025	5.0
Green Beans	739	0			0.002 - 0.010	0.4
Greens, Collard	353	0			0.002 - 0.010	10
Greens, Kale	383	0			0.002 - 0.010	10
Nectarines	563	213	37.8	0.18 - 1.4	0.11 ^	5.0
Peaches (X-1)	555	244	44	0.003 - 5.3	0.002 - 0.015	5.0
Potatoes, Frozen	800	0			0.002 - 0.015	0.02
Raisins	372	0			0.002 - 0.050	1.0
Summer Squash	742	1	0.1	0.003 ^	0.002 - 0.050	0.01
Tomatoes	<u>741</u>	<u>0</u>			0.10 ^	0.01
TOTAL	8,973	550				
Flumioxazin (herbicide)						
Apple Juice	262	0			0.080 ^	0.02
Cherries	297	0			0.083 ^	0.02
Nectarines	563	0			0.054 ^	0.02
Summer Squash	<u>131</u>	<u>0</u>			0.080 ^	NT
TOTAL	1,253	0				
Fluoxastrobin (fungicide)						
Blueberries	136	0			0.001 ^	NT
Blueberries, Frozen	6	0			0.001 ^	NT
Broccoli	246	0			0.001 ^	NT
Celery	173	2	1.2	0.004 ^	0.001 ^	4.0
Tomatoes	<u>741</u>	<u>0</u>			0.003 - 0.005	1.0
TOTAL	1,302	2				
Fluridone (herbicide)						
Apple Juice	368	0			0.001 - 0.050	0.1
Blueberries	207	0			0.001 ^	0.1
Blueberries, Frozen	2	0			0.001 ^	0.1
Carrots	744	0			0.0003 - 0.001	0.1
Cherries	419	0			0.0004 - 0.001	0.1
Green Beans	739	1	0.1	0.004 ^	0.001 - 0.010	0.1
Greens, Collard	353	0			0.001 - 0.010	0.1
Greens, Kale	383	0			0.001 - 0.010	0.1
Peaches	555	0			0.001 - 0.036	0.1
Potatoes, Frozen	800	0			0.001 - 0.036	0.1
Raisins	372	0			0.001 - 0.050	0.1
Summer Squash	<u>742</u>	<u>0</u>			0.001 - 0.050	0.1
TOTAL	5,684	1				
Flutolanil (fungicide)						
Potatoes, Frozen	<u>557</u>	<u>17</u>	3.1	0.002 - 0.004	0.001 ^	0.20
TOTAL	557	17				
Folpet (fungicide)						
Apple Juice	368	0			0.008 - 0.015	25
Bananas	528	0			0.015 ^	NT
Cherries	297	0			0.015 ^	NT

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Raisins	372	0			0.008 - 0.030	25
Summer Squash	131	0			0.008 ^	NT
Tomatoes	<u>741</u>	<u>0</u>			0.015 ^	25
TOTAL	2,437	0				
Fonofos (insecticide)						
Bananas	528	0			0.005 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	706	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	528	0			0.005 ^	NT
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale	290	0			0.005 ^	NT
Potatoes, Frozen	<u>754</u>	<u>0</u>			0.002 ^	NT
TOTAL	4,091	0				
Forchlorfenuron (plant growth regulator)						
Apple Juice	<u>262</u>	<u>0</u>			0.020 ^	0.01
TOTAL	262	0				
Formetanate hydrochloride (insecticide)						
Nectarines	345	33	9.6	0.004 - 0.39	0.003 ^	4.0
Peaches	<u>236</u>	<u>1</u>	0.4	0.006 ^	0.003 ^	5.0
TOTAL	581	34				
Halosulfuron methyl (herbicide)						
Green Beans	211	0			0.001 ^	0.05
Summer Squash	<u>196</u>	<u>0</u>			0.001 ^	0.5
TOTAL	407	0				
Heptachlor (insecticide)						
Apple Juice	88	0			0.003 ^	0.01 AL
Bananas	528	0			0.0008 ^	NT
Blueberries	696	0			0.002 - 0.003	0.01 AL
Blueberries, Frozen	22	0			0.002 - 0.003	0.01 AL
Broccoli	736	0			0.002 ^	NT
Celery	739	0			0.002 - 0.003	0.01 AL
Cherries	419	0			0.003 - 0.004	0.01 AL
Green Beans	739	0			0.003 ^	0.01 AL
Greens, Collard	117	0			0.003 ^	0.01 AL
Greens, Kale	96	0			0.003 ^	0.01 AL
Nectarines	563	0			0.004 ^	0.01 AL
Peaches	555	0			0.003 ^	0.01 AL
Summer Squash	742	0			0.002 - 0.003	0.02 AL
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.01 AL
TOTAL	6,781	0				
Heptachlor epoxide (metabolite of Heptachlor)						
Apple Juice	88	0			0.004 ^	0.01 AL
Bananas	528	0			0.002 ^	NT
Blueberries	711	0			0.004 ^	0.01 AL
Blueberries, Frozen	22	0			0.004 ^	0.01 AL
Broccoli	736	0			0.004 ^	NT
Carrots	1	1	100	0.007 ^	0.004 ^	0.01 AL
Celery	739	0			0.004 ^	0.01 AL
Cherries	419	0			0.003 - 0.004	0.01 AL
Green Beans	211	0			0.004 ^	0.01 AL
Greens, Collard	117	0			0.004 ^	0.01 AL
Greens, Kale	96	0			0.004 ^	0.01 AL
Peaches	555	0			0.004 ^	0.01 AL
Summer Squash (X-4)	<u>742</u>	<u>13</u>	1.8	0.003 - 0.046	0.002 - 0.004	0.02 AL
TOTAL	4,965	14				

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
Heptachlor epoxide cis (metabolite of Heptachlor)						
Nectarines	563	0			0.004 ^	0.01 AL
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.01 AL
TOTAL	1,304	0				
Heptachlor epoxide trans (metabolite of Heptachlor)						
Nectarines	563	0			0.004 ^	0.01 AL
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.01 AL
TOTAL	1,304	0				
Hexachlorobenzene - HCB (impurity of Quintozene)						
Bananas	528	0			0.0008 ^	NT
Blueberries	489	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Broccoli	736	0			0.001 ^	0.1
Celery	525	0			0.001 ^	NT
Green Beans	739	0			0.001 - 0.002	0.1
Greens, Collard	353	0			0.001 - 0.002	0.2
Greens, Kale	386	0			0.001 - 0.002	0.2
Potatoes, Frozen	778	0			0.002 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.1
TOTAL	5,295	0				
Hexaconazole (fungicide)						
Bananas	744	0			0.010 - 0.020	NT
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	<u>288</u>	<u>0</u>			0.010 ^	NT
TOTAL	1,796	0				
Hexythiazox (insecticide, acaricide)						
Cherries	<u>297</u>	<u>0</u>			0.082 ^	1.0
TOTAL	297	0				
Hydroprene (insect growth regulator)						
Apple Juice	262	0			0.015 ^	0.2
Blueberries	504	0			0.013 ^	0.2
Blueberries, Frozen	20	0			0.013 ^	0.2
Broccoli	736	0			0.013 ^	0.2
Celery	525	0			0.013 ^	0.2
Summer Squash	<u>528</u>	<u>0</u>			0.015 ^	0.2
TOTAL	2,575	0				
3-Hydroxycarbofuran (metabolite of Carbofuran)						
Bananas	744	0			0.004 - 0.010	0.1
Blueberries	504	0			0.0006 - 0.001	NT
Blueberries, Frozen	20	0			0.0006 - 0.001	NT
Broccoli (V-3)	736	3	0.4	0.002 - 0.028	0.0006 - 0.001	NT
Celery	525	0			0.0006 - 0.001	NT
Cherries	297	0			0.006 ^	NT
Green Beans (V-2)	528	2	0.4	0.018 - 0.030	0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Potatoes, Frozen	800	0			0.001 - 0.004	2
Raisins	372	0			0.004 - 0.006	2.0
Summer Squash	<u>742</u>	<u>0</u>			0.004 - 0.006	0.8
TOTAL	5,791	5				
5-Hydroxythiabendazole (metabolite of Thiabendazole)						
Apple Juice	106	5	4.7	0.002 - 0.004	0.001 ^	10
Bananas	216	16	7.4	0.002 ^	0.001 ^	3

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Carrots	216	0			0.001 ^	10
Potatoes, Frozen	<u>462</u>	<u>39</u>	8.4	0.002 - 0.033	0.001 ^	10.0
TOTAL	1,000	60				
Imazalil (fungicide)						
Bananas	744	193	25.9	0.006 - 0.15	0.004 - 0.010	3.0
Blueberries	504	0			0.010 - 0.064	NT
Blueberries, Frozen	20	0			0.010 - 0.064	NT
Broccoli	736	0			0.010 ^	NT
Celery	511	0			0.010 ^	NT
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Peaches (V-7)	<u>507</u>	<u>7</u>	1.4	0.006 - 0.050	0.004 - 0.10	NT
TOTAL	4,073	200				
Imidacloprid (insecticide)						
Apple Juice	368	0			0.009 - 0.020	0.5
Bananas	744	0			0.009 - 0.010	0.50
Blueberries	711	105	14.8	0.0005 - 0.065	0.0003 - 0.009	3.5
Blueberries, Frozen	22	4	18.2	0.002 - 0.004	0.0003 - 0.009	3.5
Broccoli	736	533	72.4	0.0005 - 0.036	0.0003 ^	3.5
Carrots	216	0			0.009 ^	0.40
Celery	739	334	45.2	0.0005 - 0.035	0.0003 - 0.009	6.0
Cherries	419	58	13.8	0.015 - 0.35	0.009 - 0.040	3.0
Green Beans	739	1	0.1	0.053 ^	0.009 - 0.010	4.0
Greens, Collard	353	98	27.8	0.010 - 0.24	0.009 - 0.010	3.5
Greens, Kale	383	128	33.4	0.010 - 1.0	0.009 - 0.010	3.5
Peaches	555	53	9.5	0.002 - 0.042	0.001 - 0.009	3.0
Potatoes, Frozen	800	310	38.8	0.002 - 0.020	0.001 - 0.009	0.40
Raisins	108	0			0.009 ^	1.5
Summer Squash	<u>214</u>	<u>30</u>	14	0.015 - 0.039	0.009 ^	0.5
TOTAL	7,107	1,654				
Indoxacarb (insecticide)						
Apple Juice	368	0			0.005 - 0.030	1.0
Bananas	528	0			0.010 ^	NT
Cherries	419	0			0.005 - 0.082	1.0
Green Beans	528	0			0.010 ^	NT
Greens, Collard	353	16	4.5	0.008 - 2.9	0.005 - 0.010	12
Greens, Kale	383	20	5.2	0.008 - 0.55	0.005 - 0.010	12
Peaches	555	1	0.2	0.16 ^	0.003 - 0.005	1.0
Potatoes, Frozen	800	0			0.003 - 0.005	0.01
Summer Squash	132	1	0.8	0.008 ^	0.005 - 0.030	0.60
Tomatoes	<u>741</u>	<u>25</u>	3.4	0.007 ^	0.004 ^	0.50
TOTAL	4,807	63				
Iprodione (fungicide)						
Bananas	528	0			0.023 ^	NT
Blueberries	711	132	18.6	0.014 - 11	0.008 - 0.015	15.0
Blueberries, Frozen	22	2	9.1	0.014 - 0.10	0.008 - 0.015	15.0
Broccoli	736	0			0.008 - 0.12	25.0
Carrots	744	111	14.9	0.025 - 0.17	0.015 - 0.035	5.0
Celery (V-1)	495	1	0.2	0.014 ^	0.008 - 0.12	NT
Cherries	419	17	4.1	0.006 - 1.2	0.006 - 0.015	20.0
Green Beans	211	1	0.5	0.089 ^	0.015 ^	2.0
Nectarines	563	211	37.5	0.19 - 13	0.039 ^	20.0
Peaches	555	192	34.6	0.025 - 19	0.015 ^	20.0
Potatoes, Frozen	800	0			0.015 ^	0.5
Raisins	372	2	0.5	0.11 - 0.43	0.015 - 0.030	300
Summer Squash	<u>131</u>	<u>0</u>			0.015 ^	NT
TOTAL	6,287	669				

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
Iprodione metabolite isomer (metabolite of Iprodione)						
Blueberries	339	2	0.6	0.16 ^	0.098 ^	15.0
Blueberries, Frozen	13	0			0.098 ^	15.0
Broccoli	474	0			0.098 - 0.66	25.0
Celery	<u>265</u>	<u>0</u>			0.098 ^	NT
TOTAL	1,091	2				
Iprovalicarb (fungicide)						
Raisins	264	0			0.030 ^	NT
Tomatoes	<u>741</u>	<u>0</u>			0.003 - 0.006	NT
TOTAL	1,005	0				
Kresoxim-methyl (fungicide)						
Apple Juice	262	0			0.015 ^	0.5
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Celery	<u>525</u>	<u>0</u>			0.003 ^	NT
TOTAL	2,047	0				
Lindane - BHC gamma (insecticide)						
Apple Juice	106	0			0.002 ^	NT
Bananas	528	0			0.002 ^	NT
Blueberries	711	0			0.002 - 0.003	0.5 AL
Blueberries, Frozen	22	0			0.002 - 0.003	0.5 AL
Broccoli	736	0			0.003 ^	1.0
Carrots	744	0			0.002 - 0.025	0.5 AL
Celery	525	0			0.003 ^	NT
Cherries	297	0			0.005 ^	0.5 AL
Green Beans	211	0			0.002 ^	0.5 AL
Peaches	555	0			0.002 ^	NT
Potatoes, Frozen	800	4	0.5	0.003 ^	0.002 ^	0.5 AL
Raisins	372	0			0.002 - 0.004	NT
Summer Squash	<u>742</u>	<u>0</u>			0.002 ^	NT
TOTAL	6,349	4				
Linuron (herbicide)						
Bananas	528	0			0.008 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Carrots	216	153	70.8	0.003 - 0.33	0.002 ^	1
Celery	739	215	29.1	0.003 - 0.064	0.002 - 0.003	0.5
Greens, Collard (V-1)	1	1	100	0.017 ^	0.002 ^	NT
Potatoes, Frozen	<u>800</u>	<u>0</u>			0.001 - 0.002	1
TOTAL	3,544	369				
Malathion (insecticide)						
Apple Juice	368	0			0.002 - 0.012	8
Bananas	600	0			0.004 - 0.020	NT
Blueberries	711	35	4.9	0.003 - 0.22	0.002 - 0.004	8
Blueberries, Frozen	22	1	4.5	0.005 ^	0.002 - 0.004	8
Broccoli	736	1	0.1	0.005 ^	0.003 ^	8
Carrots	744	0			0.002 - 0.004	8
Celery	739	157	21.2	0.003 - 0.61	0.002 - 0.004	8
Cherries	419	10	2.4	0.003 - 0.012	0.002 - 0.004	8
Green Beans	739	0			0.002 - 0.004	8
Greens, Collard	353	1	0.3	0.22 ^	0.004 ^	8
Greens, Kale	386	11	2.8	0.006 - 0.15	0.004 ^	8
Nectarines	563	0			0.005 ^	8
Peaches	555	6	1.1	0.007 - 0.19	0.002 - 0.004	8
Potatoes, Frozen	800	0			0.002 - 0.004	8

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Raisins	372	0			0.006 - 0.008	12
Summer Squash	742	0			0.002 - 0.006	8
Tomatoes	741	3	0.4	0.008 - 0.025	0.005 ^	8
TOTAL	9,590	225				
Malathion oxygen analog (metabolite of Malathion)						
Apple Juice	368	0			0.002 - 0.012	NT
Bananas	528	0			0.006 ^	NT
Blueberries (V-7)	711	7	1	0.005 - 0.013	0.002 - 0.004	NT
Blueberries, Frozen	22	0			0.002 - 0.004	NT
Broccoli	735	0			0.003 - 0.010	NT
Carrots	744	0			0.001 - 0.003	NT
Celery (V-1)	739	1	0.1	0.003 ^	0.002 - 0.004	NT
Cherries	419	0			0.0006 - 0.004	NT
Green Beans	739	0			0.002 - 0.006	NT
Greens, Collard (V-1)	353	1	0.3	0.005 ^	0.003 - 0.006	NT
Greens, Kale	386	0			0.003 - 0.006	NT
Nectarines	563	0			0.015 ^	NT
Peaches	555	0			0.002 - 0.003	NT
Potatoes, Frozen	800	0			0.002 - 0.003	NT
Raisins	372	0			0.006 - 0.008	NT
Summer Squash	742	0			0.002 - 0.006	NT
Tomatoes	741	0			0.015 ^	NT
TOTAL	9,517	9				
Mepanipyrim (fungicide)						
Raisins	264	0			0.030 ^	3.0
Tomatoes	741	0			0.008 ^	0.5
TOTAL	1,005	0				
Metalaxyl (fungicide)						
Apple Juice	368	0			0.010 - 0.015	0.2
Bananas	528	0			0.015 ^	NT
Blueberries	711	1	0.1	0.010 ^	0.006 - 0.010	2.0
Blueberries, Frozen	22	0			0.006 - 0.010	2.0
Broccoli	736	2	0.3	0.010 ^	0.006 ^	2.0
Carrots	744	18	2.4	0.017 - 0.034	0.010 - 0.018	0.5
Celery	739	0			0.006 - 0.010	5.0
Cherries	419	0			0.004 - 0.010	1.0
Green Beans	739	1	0.1	0.037 ^	0.010 - 0.015	0.2
Greens, Collard	353	6	1.7	0.017 - 0.056	0.010 - 0.015	0.1
Greens, Kale (X-1)	386	6	1.6	0.026 - 0.66	0.010 - 0.015	0.1
Nectarines	563	0			0.023 ^	1.0
Peaches	555	0			0.010 ^	1.0
Potatoes, Frozen	800	0			0.010 ^	0.5
Raisins	372	0			0.020 - 0.030	6.0
Summer Squash	742	19	2.6	0.016 - 0.11	0.010 - 0.015	1.0
Tomatoes	741	0			0.023 ^	1.0
TOTAL	9,518	53				
Methamidophos (insecticide) (also a metabolite of Acephate)						
Apple Juice	368	0			0.001 - 0.007	0.02
Bananas	744	0			0.001 - 0.008	0.02
Blueberries	711	2	0.3	0.002 - 0.008	0.001 - 0.002	0.02
Blueberries, Frozen	22	0			0.001 - 0.002	0.02
Carrots	216	0			0.001 - 0.002	0.02
Celery	739	166	22.5	0.002 - 0.032	0.001 - 0.002	1
Cherries	419	0			0.001 - 0.022	0.02
Green Beans	739	202	27.3	0.002 - 0.50	0.001 - 0.008	1
Greens, Collard (X-1)	334	3	0.9	0.003 - 0.083	0.002 - 0.050	0.02
Greens, Kale (X-2)	376	4	1.1	0.003 - 0.18	0.002 - 0.050	0.02
Nectarines (X-1)	563	4	0.7	0.012 - 0.030	0.007 ^	0.02

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Peaches (X-2)	555	10	1.8	0.002 - 0.056	0.001 - 0.002	0.02
Potatoes, Frozen	800	2	0.2	0.003 ^	0.001 - 0.002	0.1
Raisins	108	0			0.004 ^	0.02
Summer Squash (X-2)	742	5	0.7	0.005 - 0.061	0.001 - 0.004	0.02
Tomatoes	<u>741</u>	<u>48</u>	6.5	0.012 - 0.16	0.007 ^	1.0
TOTAL	8,177	446				
Methidathion (insecticide)						
Apple Juice	106	0			0.002 ^	0.05
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	504	0			0.002 - 0.053	NT
Celery	525	0			0.002 ^	NT
Cherries	419	0			0.002 - 0.004	0.05
Green Beans	528	0			0.004 ^	NT
Nectarines	563	0			0.003 ^	0.05
Peaches	<u>555</u>	<u>0</u>			0.002 - 0.004	0.05
TOTAL	4,252	0				
Methiocarb (insecticide) (analyzed as sulfoxide)						
Bananas	528	0			0.010 ^	NT
Blueberries (V-1)	504	1	0.2	0.002 ^	0.0006 ^	NT
Blueberries, Frozen	20	0			0.0006 ^	NT
Broccoli	736	0			0.0006 ^	NT
Celery	525	0			0.0006 ^	NT
Green Beans	507	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	<u>287</u>	<u>0</u>			0.010 ^	NT
TOTAL	3,343	1				
Methomyl (insecticide)						
Apple Juice	368	0			0.014 - 0.020	1
Bananas	506	0			0.010 ^	NT
Blueberries	711	29	4.1	0.005 - 0.58	0.004 - 0.014	6
Blueberries, Frozen	22	2	9.1	0.029 - 0.031	0.004 - 0.014	6
Broccoli	736	10	1.4	0.004 - 0.037	0.002 - 0.004	3
Carrots	722	0			0.008 - 0.016	0.2
Celery	739	37	5	0.004 - 0.62	0.002 - 0.014	3
Cherries	297	0			0.014 ^	NT
Green Beans	739	15	2	0.017 - 0.20	0.010 - 0.014	2
Greens, Collard	353	6	1.7	0.030 - 0.94	0.010 - 0.014	6
Greens, Kale	383	3	0.8	0.011 - 0.025	0.010 - 0.014	6
Nectarines	563	6	1.1	0.008 - 0.12	0.005 ^	5
Peaches	555	17	3.1	0.005 - 0.30	0.001 - 0.015	5
Potatoes, Frozen	800	0			0.001 - 0.014	0.2
Raisins	372	0			0.006 - 0.014	5
Summer Squash (X-1)	742	9	1.2	0.010 - 0.56	0.006 - 0.014	0.2
Tomatoes	<u>741</u>	<u>0</u>			0.005 ^	1
TOTAL	9,349	134				
Methoprene (insect growth regulator)						
Blueberries	504	0			0.014 ^	NT
Blueberries, Frozen	20	0			0.014 ^	NT
Broccoli	736	0			0.014 - 0.048	NT
Celery	<u>525</u>	<u>0</u>			0.014 ^	NT
TOTAL	1,785	0				
Methoxychlor Total (insecticide)						
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Carrots	528	0			0.025 ^	NT
Celery	525	0			0.002 ^	NT
Cherries	<u>297</u>	<u>0</u>			0.006 ^	NT
TOTAL	2,610	0				
Methoxychlor olefin (metabolite of Methoxychlor)						
Blueberries	504	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Broccoli	736	0			0.001 ^	NT
Celery	<u>525</u>	<u>0</u>			0.001 ^	NT
TOTAL	1,785	0				
Methoxychlor p,p' (isomer of Methoxychlor)						
Bananas	528	0			0.008 ^	NT
Carrots	216	0			0.010 ^	NT
Greens, Collard (V-1)	1	1	100	0.002 ^	0.001 ^	NT
Greens, Kale (V-2)	2	2	100	0.002 ^	0.001 ^	NT
Peaches	<u>404</u>	<u>0</u>			0.011 ^	NT
TOTAL	1,151	3				
Methoxyfenozide (insecticide)						
Apple Juice	368	14	3.8	0.002 - 0.013	0.001 - 0.020	1.5
Carrots	744	4	0.5	0.002 ^	0.001 - 0.005	0.5
Celery	214	82	38.3	0.002 - 0.53	0.001 ^	25
Cherries	419	32	7.6	0.002 - 0.046	0.001 - 0.015	3.0
Green Beans	739	23	3.1	0.002 - 0.32	0.001 - 0.010	1.5
Greens, Collard	353	55	15.6	0.002 - 2.3	0.001 - 0.010	30
Greens, Kale	384	47	12.2	0.002 - 6.4	0.001 - 0.010	30
Peaches	555	112	20.2	0.002 - 0.36	0.001 ^	3.0
Potatoes, Frozen	800	0			0.001 ^	0.10
Raisins	108	78	72.2	0.002 - 0.24	0.001 ^	1.5
Summer Squash	<u>214</u>	<u>0</u>			0.001 ^	0.3
TOTAL	4,898	447				
Metolachlor (herbicide)						
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Broccoli	731	2	0.3	0.002 ^	0.001 ^	0.6
Celery	739	12	1.6	0.002 ^	0.001 - 0.010	0.1
Cherries	419	0			0.005 - 0.010	0.1
Green Beans	739	0			0.010 - 0.015	0.5
Greens, Collard (V-1)	335	1	0.3	0.060 ^	0.010 - 0.030	NT
Greens, Kale	359	0			0.010 - 0.030	NT
Nectarines	563	0			0.023 ^	0.1
Peaches	555	0			0.010 ^	0.1
Potatoes, Frozen	800	0			0.010 ^	0.2
Tomatoes	<u>741</u>	<u>0</u>			0.024 ^	0.1
TOTAL	7,033	15				
Metribuzin (herbicide)						
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.013 ^	NT
Blueberries, Frozen	20	0			0.013 ^	NT
Broccoli	731	0			0.013 ^	NT
Carrots	744	0			0.006 - 0.030	0.3
Celery (V-1)	525	1	0.2	0.022 ^	0.013 ^	NT
Cherries	297	0			0.007 ^	NT
Potatoes, Frozen	<u>778</u>	<u>0</u>			0.030 ^	0.6
TOTAL	4,127	1				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Mevinphos (insecticide)						
Bananas	528	0			0.008 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	246	0			0.005 ^	1.0
Celery	739	0			0.001 - 0.002	1.0
Green Beans	528	0			0.008 ^	NT
Greens, Collard	236	0			0.008 ^	NT
Greens, Kale	290	0			0.008 ^	NT
Raisins	372	0			0.004 ^	0.5
Summer Squash	742	0			0.001 - 0.004	0.25
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.2
TOTAL	4,946	0				
Monocrotophos (insecticide)						
Bananas	528	0			0.008 ^	NT
Green Beans	528	0			0.008 ^	NT
Greens, Collard	236	0			0.008 ^	NT
Greens, Kale	<u>290</u>	<u>0</u>			0.008 ^	NT
TOTAL	1,582	0				
Myclobutanil (fungicide)						
Apple Juice	368	0			0.020 - 0.025	0.5
Bananas	744	2	0.3	0.038 ^	0.020 - 0.023	4.0
Blueberries (V-1)	711	1	0.1	0.001 ^	0.0006 - 0.020	NT
Blueberries, Frozen	22	0			0.0006 - 0.020	NT
Broccoli	736	0			0.0006 - 0.0009	0.03
Carrots	744	16	2.2	0.0007 - 0.012	0.0006 - 0.020	0.03
Celery	739	22	3	0.001 - 0.009	0.0006 - 0.020	0.03
Cherries	419	98	23.4	0.001 - 0.33	0.001 - 0.020	5.0
Green Beans	739	14	1.9	0.033 - 0.41	0.020 - 0.075	1.0
Greens, Collard (X-1)	353	1	0.3	3.3 ^	0.020 - 0.075	0.03
Greens, Kale (X-1)	386	1	0.3	0.85 ^	0.020 - 0.075	0.03
Nectarines	563	0			0.034 ^	2.0
Peaches	555	37	6.7	0.002 - 0.044	0.001 - 0.020	2.0
Potatoes, Frozen	800	0			0.001 - 0.020	0.03
Raisins	372	7	1.9	0.050 - 0.084	0.040 - 0.050	10.0
Summer Squash	742	9	1.2	0.030 - 0.069	0.020 - 0.025	0.20
Tomatoes	<u>741</u>	<u>0</u>			0.044 ^	0.30
TOTAL	9,734	208				
Napropamide (herbicide)						
Apple Juice	368	0			0.020 - 0.066	0.1
Blueberries	711	0			0.007 - 0.020	0.1
Blueberries, Frozen	22	0			0.007 - 0.020	0.1
Broccoli	736	0			0.007 ^	0.1
Celery	525	0			0.007 ^	NT
Cherries	419	0			0.010 - 0.020	0.1
Green Beans	528	0			0.010 ^	NT
Greens, Collard	353	0			0.010 - 0.020	0.1
Greens, Kale	384	0			0.010 - 0.020	0.1
Nectarines	563	0			0.040 ^	0.1
Peaches	555	0			0.020 ^	0.1
Summer Squash	742	0			0.020 - 0.066	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.040 ^	0.1
TOTAL	6,647	0				
1-Naphthol (metabolite of Carbaryl)						
Apple Juice	368	1	0.3	0.017 ^	0.010 - 0.20	10.0
Bananas	216	0			0.010 ^	10
Blueberries	142	4	2.8	0.017 - 0.31	0.010 - 0.017	10
Blueberries, Frozen	1	0			0.010 ^	10

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Cherries	105	13	12.4	0.017 - 0.26	0.010 ^	10
Green Beans	703	1	0.1	0.095 ^	0.010 - 0.10	10
Greens, Collard	236	2	0.8	0.19 - 0.56	0.10 ^	12
Greens, Kale	289	0			0.10 ^	12
Peaches	532	56	10.5	0.017 - 0.39	0.010 - 0.017	10
Potatoes, Frozen	557	0			0.010 ^	0.2
Raisins	54	0			0.020 ^	10
TOTAL	3,203	77				
Norflurazon (herbicide)						
Apple Juice	106	0			0.020 ^	0.1
Bananas	528	0			0.010 ^	NT
Blueberries	696	0			0.005 - 0.034	0.2
Blueberries, Frozen	22	0			0.005 - 0.034	0.2
Broccoli	704	0			0.005 ^	NT
Celery (V-1)	467	1	0.2	0.008 ^	0.005 ^	NT
Cherries	122	0			0.020 ^	0.1
Green Beans	528	0			0.010 ^	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Nectarines	562	0			0.069 ^	0.1
Peaches	555	0			0.020 ^	0.1
Raisins	372	0			0.030 - 0.040	0.1
TOTAL	5,185	1				
Norflurazon desmethyl (metabolite of Norflurazon)						
Apple Juice	106	0			0.030 ^	0.1
Bananas	528	0			0.010 ^	NT
Blueberries	711	0			0.018 - 0.25	0.2
Blueberries, Frozen	22	0			0.018 - 0.12	0.2
Broccoli	640	0			0.018 - 0.12	NT
Celery	525	0			0.018 - 0.12	NT
Cherries	419	0			0.024 - 0.030	0.1
Green Beans	528	0			0.010 ^	NT
Greens, Collard (V-1)	236	1	0.4	0.012 ^	0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Nectarines	563	0			0.055 ^	0.1
Peaches	555	0			0.030 ^	0.1
Raisins	108	0			0.060 ^	0.1
TOTAL	5,228	1				
Novaluron (insecticide)						
Peaches	404	0			0.015 ^	NT
Potatoes, Frozen	557	0			0.015 ^	0.05
TOTAL	961	0				
Omethoate (metabolite of Dimethoate)						
Apple Juice	368	0			0.003 - 0.016	2
Bananas	528	0			0.008 ^	NT
Blueberries	711	3	0.4	0.011 - 0.020	0.002 - 0.004	1
Blueberries, Frozen	22	2	9.1	0.004 ^	0.002 - 0.004	1
Broccoli	581	21	3.6	0.004 - 0.036	0.002 - 0.008	2
Celery	739	122	16.5	0.004 - 0.055	0.002 - 0.004	2
Cherries	419	1	0.2	0.040 ^	0.003 - 0.048	2
Green Beans	739	39	5.3	0.005 - 0.11	0.003 - 0.008	2
Greens, Collard	333	3	0.9	0.083 ^	0.004 - 0.050	2
Greens, Kale	376	2	0.5	0.007 - 0.22	0.004 - 0.050	2
Potatoes, Frozen	800	0			0.003 - 0.004	0.2
Raisins	372	0			0.008 ^	1
Tomatoes	741	2	0.3	0.043 ^	0.026 ^	2
TOTAL	6,729	195				

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
Oryzalin (herbicide)						
Bananas	462	0			0.020 ^	NT
Cherries	297	0			0.069 ^	0.05
Green Beans	528	0			0.020 ^	NT
Greens, Collard	225	0			0.020 ^	NT
Greens, Kale	<u>249</u>	<u>0</u>			0.020 ^	NT
TOTAL	1,761	0				
Oxadixyl (fungicide)						
Blueberries	504	0			0.013 ^	NT
Blueberries, Frozen	20	0			0.013 ^	NT
Broccoli	720	0			0.013 ^	NT
Celery	<u>525</u>	<u>0</u>			0.013 ^	NT
TOTAL	1,769	0				
Oxamyl (insecticide)						
Apple Juice	368	0			0.008 - 0.020	2
Bananas	744	0			0.008 - 0.010	0.3
Blueberries	504	0			0.002 - 0.006	NT
Blueberries, Frozen	20	0			0.002 - 0.006	NT
Broccoli	736	0			0.006 ^	NT
Carrots	744	0			0.004 - 0.008	0.1
Celery	739	126	17.1	0.006 - 0.27	0.006 - 0.008	3
Green Beans (V-1)	507	1	0.2	0.011 ^	0.010 ^	NT
Greens, Collard	226	0			0.010 ^	NT
Greens, Kale	275	0			0.010 ^	NT
Potatoes, Frozen	800	27	3.4	0.002 - 0.013	0.001 - 0.008	0.1
Summer Squash	742	23	3.1	0.010 - 0.50	0.006 - 0.008	2.0
Tomatoes	<u>741</u>	<u>1</u>	0.1	0.26 ^	0.025 ^	2
TOTAL	7,146	178				
Oxamyl oxime (metabolite of Oxamyl)						
Apple Juice	106	0			0.010 ^	2
Bananas	744	8	1.1	0.011 - 0.034	0.010 ^	0.3
Carrots	744	0			0.010 - 0.014	0.1
Celery	214	26	12.1	0.017 - 0.071	0.010 ^	3
Potatoes, Frozen	800	62	7.8	0.002 - 0.022	0.001 - 0.010	0.1
Summer Squash	<u>214</u>	<u>5</u>	2.3	0.017 - 0.11	0.010 ^	2.0
TOTAL	2,822	101				
Oxychlorane (metabolite of Chlordane)						
Blueberries	504	0			0.002 - 0.008	NT
Blueberries, Frozen	20	0			0.002 - 0.008	NT
Broccoli	736	0			0.002 ^	NT
Celery	<u>510</u>	<u>0</u>			0.002 ^	NT
TOTAL	1,770	0				
Oxydemeton methyl (insecticide)						
Green Beans	<u>374</u>	<u>0</u>			0.010 ^	0.5
TOTAL	374	0				
Oxydemeton methyl sulfone (metabolite of Oxydemeton methyl)						
Apple Juice	106	0			0.004 ^	1
Bananas	528	0			0.023 ^	NT
Blueberries	504	0			0.012 ^	NT
Blueberries, Frozen	20	0			0.012 ^	NT
Celery	525	0			0.012 ^	NT
Green Beans	739	0			0.004 - 0.015	0.5
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Raisins	372	0			0.012 - 0.030	0.1
Summer Squash	<u>742</u>	<u>0</u>			0.004 - 0.050	1
TOTAL	4,059	0				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Oxyfluorfen (herbicide)						
Apple Juice	368	0			0.030 ^	0.05
Bananas	744	0			0.025 - 0.030	0.05
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	0.05
Celery	525	0			0.003 ^	NT
Cherries	419	0			0.030 - 0.051	0.05
Nectarines	563	0			0.037 ^	0.05
Peaches	151	0			0.030 ^	0.05
Raisins	<u>372</u>	<u>0</u>			0.030 - 0.060	0.05
TOTAL	4,402	0				
Parathion (insecticide)						
Bananas	528	0			0.008 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 - 0.010	NT
Celery	525	0			0.003 ^	NT
Green Beans	<u>528</u>	<u>0</u>			0.008 ^	NT
TOTAL	2,841	0				
Parathion methyl (insecticide)						
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 - 0.008	NT
Carrots (V-1)	1	1	100	0.003 ^	0.002 ^	NT
Celery	739	0			0.001 - 0.002	NT
Green Beans	528	0			0.004 ^	NT
Greens, Collard	236	0			0.004 ^	NT
Greens, Kale	290	0			0.004 ^	NT
Peaches (V-2)	2	2	100	0.002 - 0.15	0.001 - 0.002	NT
Potatoes, Frozen	<u>800</u>	<u>0</u>			0.001 - 0.002	0.1
TOTAL	4,384	3				
Parathion methyl oxygen analog (metabolite of Parathion methyl)						
Blueberries	504	0			0.005 ^	NT
Blueberries, Frozen	20	0			0.005 ^	NT
Broccoli	700	0			0.005 ^	NT
Celery	739	0			0.002 - 0.005	NT
Potatoes, Frozen	<u>800</u>	<u>0</u>			0.002 - 0.003	NT
TOTAL	2,763	0				
Parathion oxygen analog (metabolite of Parathion)						
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Celery	<u>525</u>	<u>0</u>			0.003 ^	NT
TOTAL	1,785	0				
Pendimethalin (herbicide)						
Apple Juice	368	0			0.020 - 0.050	0.10
Bananas	528	0			0.015 ^	NT
Carrots	55	2	3.6	0.033 - 0.076	0.020 ^	0.5
Green Beans	739	0			0.015 - 0.020	0.1
Greens, Collard (V-3)	237	3	1.3	0.023 - 0.037	0.015 - 0.020	NT
Greens, Kale (V-4)	291	4	1.4	0.022 - 0.033	0.015 - 0.020	NT
Potatoes, Frozen	243	0			0.020 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.022 ^	0.10
TOTAL	3,202	9				

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
Pentachloroaniline - PCA (metabolite of Quintozene)						
Bananas	528	0			0.005 ^	NT
Blueberries	504	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Broccoli	731	0			0.001 ^	0.1
Celery	525	0			0.001 ^	NT
Green Beans	528	0			0.030 ^	0.1
Greens, Collard	236	0			0.030 ^	0.2
Greens, Kale	290	0			0.030 ^	0.2
Potatoes, Frozen	557	1	0.2	0.017 ^	0.010 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.1
TOTAL	4,660	1				
Pentachlorobenzene - PCB (metabolite of Quintozene)						
Bananas	528	0			0.002 ^	NT
Blueberries	489	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	0.1
Carrots (V-2)	2	2	100	0.003 ^	0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	652	2	0.3	0.003 ^	0.002 - 0.005	0.1
Greens, Collard	332	0			0.002 - 0.005	0.2
Greens, Kale	363	0			0.002 - 0.005	0.2
Potatoes, Frozen	485	4	0.8	0.003 - 0.011	0.002 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.1
TOTAL	4,873	8				
Pentachlorophenyl methyl sulfide (metabolite of Quintozene)						
Bananas	528	0			0.005 ^	NT
Blueberries	504	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Broccoli	736	0			0.001 ^	0.1
Celery	525	0			0.001 ^	NT
Green Beans	528	0			0.005 ^	0.1
Greens, Collard	236	0			0.005 ^	0.2
Greens, Kale	290	0			0.005 ^	0.2
Potatoes, Frozen	557	0			0.010 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.003 ^	0.1
TOTAL	4,665	0				
Permethrin Total (insecticide)						
Apple Juice	262	0			0.050 ^	0.05
Bananas	528	0			0.038 ^	NT
Green Beans	528	0			0.10 ^	NT
Greens, Collard	236	30	12.7	0.17 - 6.0	0.10 ^	20
Greens, Kale (V-18)	290	18	6.2	0.11 - 8.4	0.10 ^	NT
Summer Squash	<u>528</u>	<u>1</u>	0.2	0.062 ^	0.050 ^	3.0
TOTAL	2,372	49				
Permethrin cis (isomer of Permethrin)						
Apple Juice	106	1	0.9	0.020 ^	0.012 ^	0.05
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	22	3	0.004 - 0.071	0.002 ^	2.0
Carrots (V-1)	216	1	0.5	0.020 ^	0.012 ^	NT
Celery	739	336	45.5	0.004 - 0.19	0.002 - 0.012	5.0
Cherries	419	5	1.2	0.007 - 0.049	0.003 - 0.012	3.0
Greens, Collard	117	5	4.3	0.19 - 2.0	0.012 ^	20
Greens, Kale (V-4)	96	4	4.2	0.065 - 4.6	0.012 ^	NT
Nectarines	563	0			0.024 ^	NT
Peaches	555	3	0.5	0.046 - 0.26	0.012 ^	5.0
Potatoes, Frozen	800	0			0.012 ^	0.05

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Summer Squash	214	0			0.012 ^	3.0
Tomatoes	<u>741</u>	<u>17</u>	2.3	0.027 - 0.19	0.016 ^	2
TOTAL	5,826	394				
Permethrin trans (isomer of Permethrin)						
Apple Juice	106	1	0.9	0.020 ^	0.012 ^	0.05
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	19	2.6	0.004 - 0.062	0.002 ^	2.0
Carrots (V-1)	216	1	0.5	0.020 ^	0.012 ^	NT
Celery	739	342	46.3	0.004 - 0.19	0.002 - 0.012	5.0
Cherries	419	5	1.2	0.010 - 0.073	0.003 - 0.012	3.0
Greens, Collard	117	5	4.3	0.15 - 2.2	0.012 ^	20
Greens, Kale (V-4)	96	4	4.2	0.056 - 3.7	0.012 ^	NT
Nectarines	563	0			0.023 ^	NT
Peaches	555	4	0.7	0.061 - 0.34	0.012 ^	5
Potatoes, Frozen	800	0			0.012 ^	0.05
Summer Squash	214	0			0.012 ^	3.0
Tomatoes	<u>741</u>	<u>21</u>	2.8	0.027 - 0.17	0.016 ^	2
TOTAL	5,826	402				
Phenothrin (insecticide)						
Bananas	<u>506</u>	<u>0</u>			0.075 ^	NT
TOTAL	506	0				
Phenthoate (insecticide)						
Blueberries	504	0			0.006 ^	NT
Blueberries, Frozen	20	0			0.006 ^	NT
Broccoli	736	0			0.006 ^	NT
Celery	<u>510</u>	<u>0</u>			0.006 ^	NT
TOTAL	1,770	0				
o-Phenylphenol (fungicide)						
Apple Juice	368	1	0.3	0.017 ^	0.010 - 0.040	25
Bananas (V-16)	744	16	2.2	0.017 ^	0.010 - 0.033	NT
Blueberries (V-13)	694	13	1.9	0.005 - 0.043	0.003 - 0.033	NT
Blueberries, Frozen	21	0			0.003 - 0.033	NT
Broccoli	736	0			0.003 ^	NT
Carrots	198	12	6.1	0.017 - 0.051	0.010 - 0.033	20
Celery (V-5)	686	5	0.7	0.005 - 0.052	0.003 - 0.033	NT
Cherries	419	14	3.3	0.017 ^	0.009 - 0.010	5
Green Beans (V-1)	709	1	0.1	0.032 ^	0.010 - 0.033	NT
Greens, Collard (V-11)	335	11	3.3	0.017 - 0.060	0.010 - 0.033	NT
Greens, Kale (V-5)	373	5	1.3	0.017 - 0.039	0.010 - 0.033	NT
Nectarines	563	1	0.2	0.047 ^	0.012 ^	5
Peaches	552	17	3.1	0.017 ^	0.010 - 0.033	20
Potatoes, Frozen (V-7)	757	7	0.9	0.017 - 0.046	0.010 - 0.033	NT
Raisins (V-2)	108	2	1.9	0.033 ^	0.020 ^	NT
Summer Squash (V-2)	179	2	1.1	0.017 ^	0.010 - 0.033	NT
Tomatoes	<u>741</u>	<u>31</u>	4.2	0.020 - 0.24	0.012 ^	10
TOTAL	8,183	138				
Phorate (insecticide)						
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	246	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	739	0			0.002 - 0.004	0.1
Potatoes, Frozen	<u>800</u>	<u>0</u>			0.002 - 0.003	0.5
TOTAL	3,362	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
Phorate oxygen analog (metabolite of Phorate)						
Blueberries	504	0			0.001 ^	NT
Blueberries, Frozen	20	0			0.001 ^	NT
Celery	525	0			0.001 ^	NT
TOTAL	1,049	0				
Phorate sulfone (metabolite of Phorate)						
Bananas	528	0			0.012 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Celery	525	0			0.003 ^	NT
Green Beans	739	0			0.002 - 0.012	0.1
Potatoes, Frozen	800	3	0.4	0.003 - 0.007	0.002 - 0.004	0.5
TOTAL	3,852	3				
Phorate sulfoxide (metabolite of Phorate)						
Blueberries	504	0			0.009 ^	NT
Blueberries, Frozen	20	0			0.009 ^	NT
Broccoli	736	0			0.009 ^	NT
Celery	525	0			0.009 ^	NT
Green Beans	528	0			0.012 ^	0.1
Potatoes, Frozen	557	1	0.2	0.010 ^	0.006 ^	0.5
TOTAL	2,870	1				
Phosalone (insecticide)						
Apple Juice	368	0			0.003 - 0.010	10.0
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	246	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Cherries	419	0			0.003 - 0.008	15.0
Peaches	555	0			0.003 - 0.006	15.0
Raisins	372	0			0.005 - 0.012	10.0
TOTAL	3,537	0				
Phosmet (insecticide)						
Apple Juice	106	1	0.9	0.005 ^	0.003 ^	10
Bananas	528	0			0.008 ^	NT
Blueberries	711	68	9.6	0.005 - 0.74	0.003 - 0.005	10
Blueberries, Frozen	22	8	36.4	0.024 - 0.27	0.003 - 0.005	10
Broccoli	246	0			0.005 ^	NT
Carrots (V-1)	1	1	100	0.022 ^	0.005 ^	NT
Celery	525	0			0.005 ^	NT
Cherries	419	2	0.5	0.005 - 0.091	0.001 - 0.005	10
Green Beans	528	0			0.008 ^	NT
Greens, Collard	236	0			0.008 ^	NT
Greens, Kale	290	0			0.008 ^	NT
Nectarines	563	211	37.5	0.005 - 0.25	0.003 ^	5
Peaches	555	201	36.2	0.005 - 2.2	0.003 - 0.005	10
Potatoes, Frozen	800	0			0.003 - 0.005	0.1
Raisins	372	34	9.1	0.007 - 0.21	0.004 - 0.010	10
TOTAL	5,902	526				
Phosphamidon (insecticide)						
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	628	0			0.003 - 0.011	NT
Celery	525	0			0.003 ^	NT
Green Beans	528	0			0.015 ^	NT
TOTAL	2,733	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
Piperonyl butoxide (insecticide)						
Apple Juice	368	0			0.010 - 0.025	8
Bananas	528	0			0.015 ^	NT
Blueberries	711	0			0.005 - 0.010	8
Blueberries, Frozen	22	0			0.005 - 0.010	8
Broccoli	736	0			0.005 ^	NT
Celery (V-3)	525	3	0.6	0.019 - 0.033	0.005 ^	NT
Cherries	122	3	2.5	0.017 - 0.064	0.010 ^	8
Green Beans	739	0			0.010 - 0.015	8
Greens, Collard (V-5)	353	5	1.4	0.017 - 0.13	0.010 - 0.015	NT
Greens, Kale	386	0			0.010 - 0.015	NT
Peaches	555	0			0.010 ^	8
Potatoes, Frozen	800	3	0.4	0.017 - 0.036	0.010 ^	0.25
Raisins	372	6	1.6	0.033 - 0.13	0.020 - 0.050	10
Summer Squash	742	0			0.010 - 0.025	NT
Tomatoes	<u>741</u>	<u>19</u>	2.6	0.020 - 0.78	0.012 ^	8
TOTAL	7,700	39				
Pirimicarb (insecticide)						
Bananas	528	0			0.005 ^	NT
Blueberries	504	0			0.010 ^	NT
Blueberries, Frozen	20	0			0.010 ^	NT
Broccoli	736	0			0.010 ^	NT
Celery	525	0			0.010 ^	NT
Green Beans	528	0			0.005 ^	NT
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale	<u>287</u>	<u>0</u>			0.005 ^	NT
TOTAL	3,364	0				
Pirimiphos methyl (insecticide)						
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli (V-1)	736	1	0.1	0.011 ^	0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	<u>528</u>	<u>0</u>			0.004 ^	NT
TOTAL	2,841	1				
Prallethrin (insecticide)						
Apple Juice	368	0			0.010 - 0.033	1.0
Bananas	744	0			0.010 ^	1.0
Blueberries	207	0			0.010 ^	1.0
Blueberries, Frozen	2	0			0.010 ^	1.0
Carrots	744	1	0.1	0.017 ^	0.010 - 0.075	1.0
Celery	214	0			0.010 ^	1.0
Cherries	419	0			0.010 - 0.012	1.0
Green Beans	739	0			0.010 ^	1.0
Greens, Collard	353	0			0.010 ^	1.0
Greens, Kale	383	0			0.010 ^	1.0
Nectarines	563	0			0.031 ^	1.0
Peaches	555	0			0.005 - 0.010	1.0
Potatoes, Frozen	800	0			0.005 - 0.015	1.0
Raisins	371	0			0.020 - 0.050	1.0
Summer Squash	742	0			0.010 - 0.033	1.0
Tomatoes	<u>741</u>	<u>0</u>			0.031 ^	1.0
TOTAL	7,945	1				
Prochloraz (fungicide)						
Bananas	<u>528</u>	<u>0</u>			0.002 ^	NT
TOTAL	528	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
Procymidone (fungicide)						
Bananas	528	0			0.005 ^	NT
Raisins (V-1)	<u>264</u>	<u>1</u>	0.4	1.0 ^	0.050 ^	NT
TOTAL	792	1				
Profenofos (insecticide)						
Bananas	528	0			0.011 ^	NT
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	<u>528</u>	<u>0</u>			0.011 ^	NT
TOTAL	2,841	0				
Prometryn (herbicide)						
Blueberries	504	0			0.007 ^	NT
Blueberries, Frozen	20	0			0.007 ^	NT
Broccoli	736	0			0.007 ^	NT
Carrots	744	0			0.0005 - 0.010	0.1
Celery	<u>739</u>	<u>0</u>			0.007 - 0.010	0.5
TOTAL	2,743	0				
Pronamide (herbicide)						
Apple Juice	368	0			0.008 - 0.060	0.1
Bananas	528	0			0.008 ^	NT
Blueberries	711	0			0.006 - 0.008	0.05
Blueberries, Frozen	22	0			0.006 - 0.008	0.05
Broccoli (V-3)	736	3	0.4	0.010 ^	0.006 ^	NT
Celery	516	0			0.006 ^	NT
Cherries	122	0			0.008 ^	0.1
Nectarines	563	2	0.4	0.023 ^	0.014 ^	0.1
Peaches	555	0			0.008 ^	0.1
Raisins	<u>372</u>	<u>0</u>			0.016 - 0.030	0.1
TOTAL	4,493	5				
Propamocarb hydrochloride (fungicide)						
Bananas	<u>528</u>	<u>0</u>			0.010 ^	NT
TOTAL	528	0				
Propargite (insecticide)						
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.026 ^	NT
Blueberries, Frozen	20	0			0.026 ^	NT
Broccoli	736	0			0.026 ^	NT
Celery	525	0			0.026 ^	NT
Greens, Kale (V-1)	1	1	100	0.007 ^	0.004 ^	NT
Nectarines	563	25	4.4	0.052 - 1.4	0.031 ^	4
Peaches (V-11)	523	11	2.1	0.006 - 0.96	0.004 - 0.020	NT
Potatoes, Frozen	800	0			0.004 - 0.020	0.1
Raisins	372	118	31.7	0.006 - 4.4	0.004 - 0.050	10
Summer Squash	<u>131</u>	<u>0</u>			0.050 ^	NT
TOTAL	4,703	155				
Propetamphos (insecticide)						
Apple Juice	368	0			0.002 - 0.012	0.1
Bananas	744	0			0.002 - 0.004	0.1
Blueberries	711	0			0.002 - 0.003	0.1
Blueberries, Frozen	22	0			0.002 - 0.003	0.1
Broccoli	706	0			0.002 ^	0.1
Carrots	744	0			0.002 - 0.004	0.1
Celery	739	0			0.002 - 0.003	0.1
Cherries	419	0			0.002 - 0.003	0.1

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Green Beans	739	0			0.002 - 0.010	0.1
Greens, Collard	353	0			0.003 - 0.010	0.1
Greens, Kale	383	0			0.003 - 0.010	0.1
Nectarines	563	0			0.004 ^	0.1
Peaches	555	0			0.002 - 0.003	0.1
Potatoes, Frozen	800	0			0.002 - 0.003	0.1
Raisins	372	0			0.006 ^	0.1
Summer Squash	742	0			0.002 - 0.006	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.1
TOTAL	9,701	0				
Propiconazole (fungicide)						
Bananas	744	0			0.010 - 0.020	0.2
Blueberries	711	0			0.005 - 0.020	1.0
Blueberries, Frozen	22	0			0.005 - 0.020	1.0
Broccoli	736	0			0.015 - 0.025	NT
Celery	739	129	17.5	0.008 - 0.15	0.005 - 0.020	5.0
Cherries	419	37	8.8	0.002 - 0.13	0.002 - 0.020	1.0
Nectarines	563	66	11.7	0.060 - 0.50	0.036 ^	2.0
Peaches	<u>555</u>	<u>60</u>	10.8	0.033 - 1.3	0.020 - 0.036	2.0
TOTAL	4,489	292				
Pymetrozine (insecticide)						
Broccoli	736	0			0.005 ^	0.5
Celery	<u>495</u>	<u>1</u>	0.2	0.008 ^	0.005 ^	0.6
TOTAL	1,231	1				
Pyraclostrobin (fungicide)						
Apple Juice	106	1	0.9	0.002 ^	0.001 ^	1.5
Bananas	744	0			0.001 - 0.003	0.04
Blueberries	711	227	31.9	0.002 - 0.59	0.001 ^	4.0
Blueberries, Frozen	22	9	40.9	0.002 - 0.21	0.001 ^	4.0
Broccoli	736	10	1.4	0.002 - 0.035	0.001 ^	5.0
Carrots	744	271	36.4	0.0005 - 0.028	0.0005 - 0.001	0.4
Celery	739	59	8	0.002 - 0.11	0.001 ^	29.0
Cherries	419	173	41.3	0.002 - 0.18	0.001 - 0.008	0.9
Green Beans	717	49	6.8	0.002 - 0.27	0.001 - 0.003	0.5
Greens, Collard	353	64	18.1	0.002 - 2.0	0.001 - 0.003	16.0
Greens, Kale	383	43	11.2	0.002 - 2.5	0.001 - 0.003	16.0
Nectarines	563	8	1.4	0.058 ^	0.035 ^	0.9
Peaches	555	53	9.5	0.002 - 0.23	0.001 ^	0.9
Potatoes, Frozen	800	0			0.001 ^	0.04
Raisins	108	52	48.1	0.002 - 0.078	0.001 ^	7.0
Summer Squash	214	17	7.9	0.002 - 0.029	0.001 ^	0.5
Tomatoes	<u>741</u>	<u>0</u>			0.035 ^	1.4
TOTAL	8,655	1,036				
Pyraflufen ethyl (herbicide)						
Potatoes, Frozen	<u>557</u>	<u>0</u>			0.036 ^	0.02
TOTAL	557	0				
Pyridaben (insecticide, acaricide)						
Apple Juice	368	0			0.015 - 0.030	0.5
Cherries	419	0			0.004 - 0.015	2.5
Nectarines	563	0			0.042 ^	2.5
Peaches	555	6	1.1	0.017 - 0.043	0.010 - 0.015	2.5
Raisins	372	0			0.030 ^	1.5
Tomatoes	<u>741</u>	<u>1</u>	0.1	0.060 ^	0.036 ^	0.15
TOTAL	3,018	7				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Pyrimethanil (fungicide)						
Apple Juice	368	31	8.4	0.004 - 0.16	0.003 - 0.050	3.0
Bananas	744	11	1.5	0.003 - 0.008	0.003 ^	0.10
Blueberries (V-3)	504	3	0.6	0.0005 ^	0.0003 ^	NT
Blueberries, Frozen	20	0			0.0003 ^	NT
Broccoli (V-7)	736	7	1	0.0005 - 0.003	0.0003 ^	NT
Celery (V-14)	525	14	2.7	0.0005 - 0.005	0.0003 ^	NT
Green Beans (V-3)	530	3	0.6	0.003 - 0.011	0.003 ^	NT
Greens, Collard	236	0			0.003 ^	NT
Greens, Kale	287	0			0.003 ^	NT
Nectarines	563	4	0.7	0.010 ^	0.006 ^	3.0
Peaches	151	3	2	0.004 - 0.064	0.003 ^	3.0
Potatoes, Frozen	243	0			0.003 ^	0.05
Raisins	372	0			0.003 - 0.050	8.0
Tomatoes	<u>741</u>	<u>13</u>	1.8	0.010 - 0.19	0.006 ^	0.50
TOTAL	6,020	89				
Pyriproxyfen (insecticide, growth regulator)						
Apple Juice	368	0			0.008 - 0.015	0.2
Bananas	744	0			0.008 - 0.015	0.2
Blueberries	711	0			0.008 - 0.013	1.0
Blueberries, Frozen	22	0			0.008 - 0.013	1.0
Broccoli	736	0			0.013 ^	0.70
Carrots	744	0			0.002 - 0.008	0.15
Celery	739	0			0.008 - 0.013	2.50
Cherries	419	1	0.2	0.002 ^	0.001 - 0.008	1.0
Green Beans	211	1	0.5	0.013 ^	0.008 ^	0.20
Greens, Collard	117	0			0.008 ^	2.0
Greens, Kale	96	0			0.008 ^	2.0
Nectarines	563	0			0.012 ^	1.0
Peaches	555	0			0.008 ^	1.0
Potatoes, Frozen	800	0			0.008 ^	0.15
Raisins	372	0			0.016 - 0.030	2.5
Summer Squash	742	0			0.008 - 0.015	0.10
Tomatoes	<u>741</u>	<u>11</u>	1.5	0.020 - 0.079	0.012 ^	0.2
TOTAL	8,680	13				
Quinoxifen (fungicide)						
Cherries	122	39	32	0.0008 - 0.072	0.0005 ^	0.30
Greens, Kale (V-1)	1	1	100	0.0008 ^	0.0005 ^	NT
Raisins	<u>372</u>	<u>25</u>	6.7	0.0008 - 0.011	0.0005 - 0.030	0.60
TOTAL	495	65				
Quintozene - PCNB (fungicide) (parent of HCB, PCA and PCB)						
Bananas	528	0			0.002 ^	NT
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	722	0			0.010 - 0.019	0.1
Carrots (V-4)	216	4	1.9	0.010 - 0.026	0.003 ^	NT
Celery	525	0			0.003 ^	NT
Green Beans	739	26	3.5	0.005 - 0.099	0.003 - 0.005	0.1
Greens, Collard	353	0			0.003 - 0.005	0.2
Greens, Kale	386	0			0.003 - 0.005	0.2
Potatoes, Frozen	800	0			0.003 ^	0.1
Tomatoes	<u>741</u>	<u>0</u>			0.004 ^	0.1
TOTAL	5,534	30				
Resmethrin (insecticide)						
Apple Juice	368	0			0.010 - 0.030	3.0
Bananas	744	0			0.010 - 0.030	3.0
Blueberries	207	0			0.010 ^	3.0
Blueberries, Frozen	2	0			0.010 ^	3.0

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Carrots	744	0			0.010 - 0.030	3.0
Celery	214	0			0.010 - 0.020	3.0
Cherries	419	0			0.010 - 0.024	3.0
Green Beans	634	3	0.5	0.084 - 0.092	0.010 - 0.10	3.0
Greens, Collard	340	0			0.010 - 0.060	3.0
Greens, Kale	381	0			0.010 - 0.060	3.0
Nectarines	563	0			0.012 ^	3.0
Peaches	555	0			0.010 ^	3.0
Potatoes, Frozen	800	0			0.010 ^	3.0
Raisins	371	0			0.020 - 0.030	3.0
Summer Squash	724	0			0.010 - 0.030	3.0
Tomatoes	<u>741</u>	<u>0</u>			0.012 ^	3.0
TOTAL	7,807	3				
Resmethrin-c (isomer of Resmethrin)						
Blueberries	504	0			0.002 ^	3.0
Blueberries, Frozen	20	0			0.002 ^	3.0
Broccoli	736	0			0.002 ^	3.0
Celery	<u>510</u>	<u>0</u>			0.002 ^	3.0
TOTAL	1,770	0				
Resmethrin-t (isomer of Resmethrin)						
Blueberries	504	0			0.002 ^	3.0
Blueberries, Frozen	20	0			0.002 ^	3.0
Broccoli	736	0			0.002 ^	3.0
Celery	<u>510</u>	<u>0</u>			0.002 ^	3.0
TOTAL	1,770	0				
Sethoxydim (herbicide)						
Cherries	<u>297</u>	<u>0</u>			0.013 ^	0.2
TOTAL	297	0				
Simazine (herbicide)						
Apple Juice	368	0			0.002 - 0.030	0.25
Bananas	744	0			0.002 - 0.011	0.2
Blueberries (X-2)	711	14	2	0.003 - 0.35	0.002 ^	0.25
Blueberries, Frozen	22	0			0.002 ^	0.25
Broccoli	736	0			0.002 - 0.006	NT
Cherries	122	0			0.002 ^	0.25
Peaches	555	0			0.002 - 0.010	0.25
Raisins	372	0			0.002 - 0.030	0.25
Summer Squash	<u>131</u>	<u>0</u>			0.030 ^	NT
TOTAL	3,761	14				
Spinosad Total (insecticide)						
Apple Juice	106	0			0.003 ^	0.20
Blueberries	207	0			0.003 ^	0.25
Blueberries, Frozen	2	0			0.003 ^	0.25
Carrots	198	0			0.003 ^	0.10
Celery	214	5	2.3	0.005 - 0.019	0.003 ^	8.0
Cherries	122	22	18	0.005 - 0.041	0.003 ^	0.20
Green Beans	211	3	1.4	0.005 - 0.010	0.003 ^	0.30
Greens, Collard	117	29	24.8	0.005 - 0.24	0.003 ^	10.0
Greens, Kale	96	11	11.5	0.005 - 0.25	0.003 ^	10.0
Peaches	151	26	17.2	0.005 - 0.047	0.003 ^	0.20
Potatoes, Frozen	243	0			0.003 ^	0.10
Raisins	108	1	0.9	0.011 ^	0.003 ^	0.70
Summer Squash	<u>214</u>	<u>1</u>	0.5	0.005 ^	0.003 ^	0.3
TOTAL	1,989	98				

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
Spinosad A (isomer of Spinosad)						
Bananas	528	0			0.002 ^	0.25
Green Beans	484	24	5	0.002 - 0.13	0.002 ^	0.30
Greens, Collard	236	27	11.4	0.002 - 0.20	0.002 ^	10.0
Greens, Kale	<u>26</u>	<u>0</u>			0.002 ^	10.0
TOTAL	1,274	51				
Spinosad D (isomer of Spinosad)						
Bananas	506	0			0.002 ^	0.25
Green Beans	483	8	1.7	0.002 - 0.030	0.002 ^	0.30
Greens, Collard	222	18	8.1	0.002 - 0.048	0.002 ^	10.0
Greens, Kale	<u>233</u>	<u>18</u>	7.7	0.002 - 0.075	0.002 ^	10.0
TOTAL	1,444	44				
Spirodiclofen (acaricide)						
Apple Juice	262	0			0.050 ^	0.80
Bananas	528	0			0.010 ^	NT
Raisins	264	0			0.050 ^	4.0
Summer Squash	<u>131</u>	<u>0</u>			0.050 ^	NT
TOTAL	1,185	0				
Spiromesifen (insecticide)						
Bananas	418	0			0.002 ^	NT
Broccoli	736	0			0.006 ^	2.0
Celery	525	0			0.006 ^	NT
Green Beans	440	2	0.5	0.007 - 0.043	0.002 ^	0.80
Greens, Collard	200	0			0.002 ^	12
Greens, Kale	<u>258</u>	<u>1</u>	0.4	0.003 ^	0.002 ^	12
TOTAL	2,577	3				
Sulfentrazone (herbicide)						
Green Beans	211	0			0.002 ^	0.15
Potatoes, Frozen	<u>243</u>	<u>0</u>			0.002 ^	0.15
TOTAL	454	0				
Sulprofos (insecticide)						
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	<u>525</u>	<u>0</u>			0.002 ^	NT
TOTAL	1,785	0				
Tebuconazole (fungicide)						
Bananas	744	0			0.020 - 0.023	0.05
Blueberries (V-2)	504	2	0.4	0.003 ^	0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Cherries	419	78	18.6	0.033 - 1.3	0.020 - 0.083	4.0
Nectarines	563	5	0.9	0.11 ^	0.066 ^	1.0
Peaches	151	12	7.9	0.033 - 0.19	0.020 ^	1.0
Raisins	<u>371</u>	<u>2</u>	0.5	0.059 - 0.069	0.040 - 0.050	5.0
TOTAL	4,033	99				
Tebufenozide (insecticide)						
Apple Juice	106	0			0.003 ^	1.0
Bananas	462	0			0.005 ^	NT
Blueberries	711	49	6.9	0.005 - 0.73	0.003 - 0.010	3.0
Blueberries, Frozen	22	5	22.7	0.039 - 0.33	0.003 - 0.010	3.0
Broccoli	736	0			0.003 - 0.010	5.0
Celery	739	3	0.4	0.022 - 0.041	0.003 - 0.010	2.0
Cherries	297	0			0.051 ^	NT

Pesticide / Commodity	Number of Samples	Samples		Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
		with Detections	% of Samples with Detections			
Green Beans	739	0			0.003 - 0.005	NT
Greens, Collard	342	2	0.6	0.005 ^	0.003 - 0.005	10.0
Greens, Kale	344	4	1.2	0.005 - 0.015	0.003 - 0.005	10.0
Raisins	108	3	2.8	0.005 - 0.016	0.003 ^	3.0
TOTAL	4,606	66				
Tecnazene (plant growth regulator)						
Bananas	528	0			0.001 ^	NT
Blueberries	489	0			0.005 ^	NT
Blueberries, Frozen	20	0			0.005 ^	NT
Broccoli	736	0			0.005 - 0.016	NT
Celery	525	0			0.005 ^	NT
TOTAL	2,298	0				
Terbacil (herbicide)						
Apple Juice	368	0			0.020 - 0.060	0.3
Bananas	528	0			0.015 ^	NT
Blueberries	711	0			0.006 - 0.034	0.2
Blueberries, Frozen	22	0			0.006 - 0.034	0.2
Broccoli	736	0			0.006 ^	NT
Celery	525	0			0.006 ^	NT
Peaches	555	0			0.020 ^	0.2
Summer Squash	131	0			0.060 ^	NT
TOTAL	3,576	0				
Terbufos (insecticide)						
Bananas	744	0			0.002 - 0.006	0.025
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	706	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
Green Beans	528	0			0.005 ^	NT
TOTAL	3,027	0				
Terbufos sulfone (metabolite of Terbufos)						
Bananas	216	0			0.002 - 0.004	0.025
Blueberries	504	0			0.002 ^	NT
Blueberries, Frozen	20	0			0.002 ^	NT
Broccoli	736	0			0.002 ^	NT
Celery	525	0			0.002 ^	NT
TOTAL	2,001	0				
Tetrachlorvinphos (insecticide)						
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	580	0			0.003 - 0.053	NT
Celery	525	0			0.003 ^	NT
TOTAL	1,629	0				
Tetradifon (insecticide)						
Apple Juice	106	0			0.006 ^	NT
Bananas	528	0			0.004 ^	NT
Blueberries	504	0			0.010 - 0.032	NT
Blueberries, Frozen	20	0			0.010 - 0.032	NT
Broccoli	736	0			0.010 ^	NT
Celery	525	0			0.010 ^	NT
Peaches	555	0			0.006 ^	NT
Raisins	372	0			0.012 - 0.030	NT
TOTAL	3,346	0				

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Tetrahydrophthalimide - THPI (metabolite of Captafol and Captan)						
Apple Juice	106	19	17.9	0.067 - 0.17	0.040 ^	25.0
Bananas	506	0			0.075 ^	NT
Blueberries	711	152	21.4	0.033 - 1.6	0.020 - 0.065	25
Blueberries, Frozen	22	7	31.8	0.033 - 0.35	0.020 - 0.065	25
Broccoli	736	0			0.020 ^	2
Carrots	216	0			0.040 - 0.13	2
Celery	721	0			0.020 - 0.20	50
Cherries	122	1	0.8	0.39 ^	0.040 - 0.065	100
Green Beans	211	17	8.1	0.067 - 0.95	0.040 - 0.10	25
Greens, Collard	117	0			0.039 ^	2
Greens, Kale	96	0			0.039 ^	2
Peaches	555	14	2.5	0.065 - 0.62	0.039 - 0.040	50
Potatoes, Frozen	579	0			0.039 - 0.040	25
Raisins	108	0			0.080 ^	50
Summer Squash	196	0			0.040 - 0.13	25
TOTAL	5,002	210				
Tetramethrin (insecticide)						
Bananas	528	0			0.015 ^	NT
TOTAL	528	0				
Thiabendazole (fungicide) (parent of 5-hydroxythiabendazole)						
Apple Juice	106	57	53.8	0.002 - 0.32	0.001 ^	10
Bananas	744	473	63.6	0.002 - 0.36	0.001 - 0.010	3
Blueberries (V-2)	668	2	0.3	0.0005 - 0.002	0.0001 - 0.001	NT
Blueberries, Frozen	21	0			0.0001 - 0.001	NT
Broccoli (V-8)	736	8	1.1	0.0002 - 0.0007	0.0001 ^	NT
Carrots	744	3	0.4	0.002 ^	0.001 - 0.003	10
Celery (V-4)	739	4	0.5	0.0002 - 0.002	0.0001 - 0.001	NT
Cherries (V-2)	122	2	1.6	0.002 - 0.007	0.001 ^	NT
Green Beans (V-9)	739	9	1.2	0.002 - 0.026	0.001 - 0.010	NT
Greens, Collard	236	0			0.010 ^	NT
Greens, Kale	287	0			0.010 ^	NT
Peaches (V-34)	524	34	6.5	0.002 - 0.65	0.001 - 0.030	NT
Potatoes, Frozen	778	33	4.2	0.002 - 0.37	0.001 - 0.030	10.0
Raisins (V-1)	108	1	0.9	0.002 ^	0.001 ^	NT
TOTAL	6,552	626				
Thiacloprid (insecticide)						
Apple Juice	106	5	4.7	0.002 - 0.005	0.001 ^	0.30
Blueberries	504	0			0.0004 ^	NT
Blueberries, Frozen	20	0			0.0004 ^	NT
Broccoli	736	0			0.0004 - 0.002	NT
Celery	525	0			0.0004 ^	NT
TOTAL	1,891	5				
Thiamethoxam (insecticide) (also a parent of Clothianidin)						
Apple Juice	368	0			0.001 - 0.040	0.2
Bananas	528	0			0.010 ^	NT
Blueberries	711	2	0.3	0.002 - 0.004	0.001 - 0.050	0.20
Blueberries, Frozen	22	0			0.001 - 0.050	0.20
Broccoli	720	3	0.4	0.008 ^	0.005 - 0.10	4.5
Carrots	744	0			0.001 - 0.003	0.02
Celery	526	1	0.2	0.002 ^	0.001 - 0.050	4.0
Cherries	122	4	3.3	0.002 - 0.032	0.001 ^	0.5
Green Beans	739	0			0.001 - 0.010	0.02
Greens, Collard	236	4	1.7	0.010 - 0.033	0.010 ^	3.0
Greens, Kale	287	0			0.010 ^	3.0
Nectarines	563	0			0.013 - 0.026	0.5
Peaches	555	1	0.2	0.005 ^	0.001 ^	0.5
Potatoes, Frozen	800	41	5.1	0.002 - 0.015	0.001 ^	0.25

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Summer Squash	742	39	5.3	0.002 - 0.23	0.001 - 0.040	0.2
Tomatoes	<u>741</u>	<u>10</u>	1.3	0.022 - 0.052	0.013 - 0.026	0.25
TOTAL	8,404	105				
Thiobencarb (herbicide)						
Blueberries	504	0			0.0006 ^	NT
Blueberries, Frozen	20	0			0.0006 ^	NT
Broccoli	736	0			0.0006 ^	NT
Celery	<u>739</u>	<u>0</u>			0.0006 - 0.010	0.2
TOTAL	1,999	0				
Thiodicarb (insecticide)						
Apple Juice	88	0			0.002 ^	NT
Blueberries	34	0			0.002 ^	NT
Peaches	<u>9</u>	<u>0</u>			0.002 ^	NT
TOTAL	131	0				
Tolyfluamid (fungicide)						
Tomatoes	<u>741</u>	<u>0</u>			0.010 ^	2.0
TOTAL	741	0				
Tri-Allate (herbicide)						
Bananas	<u>528</u>	<u>0</u>			0.015 ^	NT
TOTAL	528	0				
Triadimefon (fungicide) (also a parent of Triadimenol)						
Apple Juice	368	0			0.025 - 0.030	1.0
Bananas	744	0			0.011 - 0.025	NT
Blueberries	504	0			0.0009 ^	NT
Blueberries, Frozen	20	0			0.0009 ^	NT
Broccoli	736	0			0.0009 - 0.003	NT
Celery	525	0			0.0009 ^	NT
Nectarines	563	0			0.036 ^	4.0
Raisins	372	0			0.050 ^	1.0
Summer Squash	<u>742</u>	<u>0</u>			0.025 - 0.030	NT
TOTAL	4,574	0				
Triadimenol (fungicide) (also a metabolite of Triadimefon)						
Apple Juice	368	0			0.015 - 0.050	1.0
Bananas	744	0			0.011 - 0.015	0.2
Nectarines	563	0			0.035 ^	4.0
Raisins	372	0			0.030 - 0.050	1.0
Summer Squash	<u>742</u>	<u>0</u>			0.015 - 0.050	NT
TOTAL	2,789	0				
Trifloxystrobin (fungicide)						
Apple Juice	368	0			0.001 - 0.030	0.5
Bananas	744	0			0.001 - 0.005	0.10
Blueberries (V-1)	504	1	0.2	0.0007 ^	0.0004 ^	NT
Blueberries, Frozen	20	0			0.0004 ^	NT
Broccoli	736	0			0.0004 ^	NT
Carrots	744	0			0.0004 - 0.001	0.10
Celery	739	16	2.2	0.0007 - 0.027	0.0004 - 0.0007	3.5
Cherries	419	44	10.5	0.001 - 0.019	0.0007 - 0.0008	2
Green Beans (V-2)	739	2	0.3	0.001 - 0.008	0.0007 - 0.005	NT
Greens, Collard	236	0			0.005 ^	NT
Greens, Kale (V-1)	287	1	0.3	0.010 ^	0.005 ^	NT
Nectarines	563	5	0.9	0.002 - 0.003	0.001 - 0.002	2
Peaches	555	4	0.7	0.004 - 0.025	0.0007 - 0.001	2
Potatoes, Frozen	800	0			0.001 ^	0.04
Raisins	372	79	21.2	0.002 - 0.054	0.001 - 0.030	5.0

Pesticide / Commodity	Samples			Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
	Number of Samples	with Detections	% of Samples with Detections			
Summer Squash	742	2	0.3	0.002 ^	0.001 - 0.030	0.50
Tomatoes	<u>741</u>	<u>12</u>	1.6	0.002 - 0.021	0.001 - 0.002	0.5
TOTAL	9,309	166				
Triflumizole (fungicide)						
Apple Juice	368	0			0.050 ^	0.5
Bananas	528	0			0.003 ^	NT
Cherries	419	36	8.6	0.012 - 0.12	0.010 - 0.050	1.5
Green Beans	528	0			0.003 ^	NT
Greens, Collard	353	2	0.6	0.009 - 0.018	0.003 - 0.050	20
Greens, Kale	383	1	0.3	0.009 ^	0.003 - 0.050	20
Raisins	372	0			0.050 - 0.10	2.5
Summer Squash	<u>742</u>	<u>1</u>	0.1	0.060 ^	0.050 ^	0.5
TOTAL	3,693	40				
Trifluralin (herbicide)						
Apple Juice	88	0			0.017 ^	NT
Bananas	528	0			0.015 ^	NT
Blueberries	504	0			0.0005 ^	NT
Blueberries, Frozen	20	0			0.0005 ^	NT
Broccoli	137	0			0.002 - 0.007	0.05
Carrots	744	369	49.6	0.002 - 0.22	0.002 - 0.017	1.0
Celery	739	9	1.2	0.0008 - 0.005	0.0005 - 0.017	0.05
Cherries	419	0			0.003 - 0.017	0.05
Green Beans	739	0			0.015 - 0.017	0.05
Greens, Collard	353	0			0.015 - 0.017	0.05
Greens, Kale	386	1	0.3	0.026 ^	0.015 - 0.017	0.05
Nectarines	563	0			0.021 ^	0.05
Peaches	555	0			0.017 ^	0.05
Potatoes, Frozen	800	0			0.017 ^	0.05
Raisins	372	0			0.030 - 0.034	0.05
Summer Squash	720	0			0.017 - 0.030	0.05
Tomatoes	<u>741</u>	<u>0</u>			0.021 ^	0.05
TOTAL	8,408	379				
Triforine (fungicide)						
Blueberries	504	0			0.003 ^	NT
Blueberries, Frozen	20	0			0.003 ^	NT
Broccoli	736	0			0.003 ^	NT
Celery	<u>525</u>	<u>0</u>			0.003 ^	NT
TOTAL	1,785	0				
Vinclozolin (fungicide)						
Bananas	528	0			0.003 ^	NT
Blueberries	504	0			0.004 ^	NT
Blueberries, Frozen	20	0			0.004 ^	NT
Broccoli	736	0			0.004 ^	NT
Celery	525	0			0.004 ^	NT
Cherries	419	0			0.006 - 0.007	NT
Green Beans	211	0			0.007 ^	2.0
Peaches	404	0			0.008 ^	NT
Raisins	<u>372</u>	<u>0</u>			0.014 - 0.050	NT
TOTAL	3,719	0				
Zoxamide (fungicide)						
Raisins	264	0			0.050 ^	15.0
Summer Squash	528	0			0.050 ^	1.0
Tomatoes	<u>741</u>	<u>0</u>			0.011 ^	2.0
TOTAL	1,533	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
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Many of the listed tolerances 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.

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 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.
- 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 Almonds

Appendix C shows residue detections for all compounds tested in almonds, including range of values detected, range of Limits of Detection (LODs), and U.S. Environmental Protection Agency (EPA) tolerance references for each pair.

In 2007, PDP analyzed 361 almond samples. PDP detected 11 different pesticide residues in the almond samples. All residue detections were much lower than the established tolerances.

Action levels (ALs) are shown in this appendix, where applicable, and denote Action Level values established by FDA. Under the FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

EPA tolerances as published in 40 CFR Part 180 are expressed in parts per million (ppm). Because almond residues are expressed in parts per billion (ppb), EPA Tolerances 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.

APPENDIX C. DISTRIBUTION OF RESIDUES BY PESTICIDE IN ALMONDS

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*
Acephate	I	361				15 ^	20
Azinphos methyl	I	361				10 ^	200
Azoxystrobin	F	361				2.0 ^	20
Bendiocarb	I	361				4.0 ^	SU
Benoxacor	S	361				5.0 ^	10
Bifenazate	A	361				10 ^	200
Bifenthrin	I	361				1.0 ^	50
Boscalid	F	361	67	18.6	5.0 - 92.5	5.0 ^	700
Buprofezin	I	361				5.0 ^	50
Captan	F	361				10 ^	2000
Carbaryl	I	361				15 ^	1000
Carbendazim (MBC)	F	361				1.0 ^	200
Carfentrazone ethyl	H	361				1.0 ^	100
Chlorfenapyr	I	361				1.0 ^	10
Chlorothalonil	F	361				1.0 ^	50
Chlorpyrifos	I	361	166	46	1.0 - 24.8	1.0 ^	200
Cyfluthrin	I	361				2.0 ^	10
Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	I	361	1	0.3	1.0 ^	1.0 ^	50
Cypermethrin	I	361				2.0 ^	50
Cyprodinil	F	361				8.0 ^	20
DDE p,p'	IM	361				1.0 ^	NT
Deltamethrin (includes parent Tralomethrin)	I	361				25 ^	100
Diazinon	I	361				1.0 ^	500
Diazinon oxygen analog	IM	361				1.0 ^	NT
Dichlorvos (DDVP)	I	361	2	0.6	6.7 - 49.3	5.0 ^	500
Dieldrin	I	361				2.0 ^	NT
Diflubenzuron	I	361				35 ^	60
Endosulfan I	I	361				1.0 ^	300
Endosulfan II	IM	361				1.0 ^	300
Endosulfan sulfate	IM	361	2	0.6	1.4 - 1.5	1.0 ^	300
Esfenvalerate+Fenvalerate Total	I	361	2	0.6	4.5 - 7.6	1.0 ^	200
Etoxazole	A	361				1.0 ^	10

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*
Fenbuconazole	F	361				5.0 ^	50
Fenhexamid	F	361				10 ^	20
Fenpyroximate	A	361				3.0 ^	100
Fluridone	H	361				10 ^	100
Hexythiazox	I	361				8.0 ^	300
Hydroprene	R	361				5.0 ^	200
Imidacloprid	I	361				10 ^	50
Iprodione	F	361	4	1.1	13 - 36.6	10 ^	300
Malathion	I	361				2.0 ^	8000
Malathion oxygen analog	IM	361				4.0 ^	NT
Metalaxyl	F	361				2.0 ^	500
Methamidophos	I	361				7.0 ^	20
Methidathion	I	361				5.0 ^	50
Methoxyfenozide	I	361	19	5.3	4.6 - 10.5	4.0 ^	100
Metolachlor	H	361				5.0 ^	100
MGK-264	I	361	28	7.8	5.1 - 42.6	5.0 ^	10,000
Myclobutanil	F	361				10 ^	100
Norflurazon	H	361				3.0 ^	100
Oxyfluorfen	H	361				1.0 ^	50
Parathion methyl	I	361				2.0 ^	100
Parathion methyl oxygen analog	IM	361				5.0 ^	NT
Pendimethalin	H	361				3.0 ^	100
Permethrin Total	I	361				15 ^	50
Phosalone	I	361				5.0 ^	100
Phosmet	I	361	16	4.4	5.0 - 20.7	5.0 ^	100
Piperonyl butoxide	I	361	214	59.3	2.0 - 309	2.0 ^	8000
Prallethrin	I	361				2.0 ^	1000
Propargite	I	361				10 ^	100
Propetamphos	I	361				5.0 ^	100
Propiconazole	F	361				5.0 ^	100
Pyraclostrobin	F	361				40 ^	40
Pyridaben	I	361				2.0 ^	50
Pyrimethanil	F	361				5.0 ^	200
Pyriproxyfen	I	361				3.0 ^	20

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*
Sethoxydim	H	361				4.0 ^	200
Simazine	H	361				20 ^	250
Spirodiclofen	A	361				1.0 ^	100
Tebufenozide	I	361				5.0 ^	100
Trifloxystrobin	F	361				1.0 ^	40
Trifluralin	H	361				1.0 ^	50

Many of the listed tolerances 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.

NOTES

* = EPA Tolerances 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.

^ = 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:

A = Acaricide

F = Fungicide

H = Herbicide

I = Insecticide, IM = Insecticide Metabolite

R = Insect Growth Regulator

S = Herbicide Safener

Appendix D

Distribution of Residues by Pesticide in Honey

Appendix D shows residue detections for all compounds tested in honey, including range of values detected, range of Limits of Detection (LODs), and U.S. Environmental Protection Agency (EPA) tolerance references for each pair.

In 2007, PDP analyzed 186 honey samples. PDP detected 6 different pesticide residues in the honey samples. All residue detections were much lower than the established tolerances.

Action levels (ALs) are shown in this appendix, where applicable, and denote Action Level values established by FDA. Under the FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

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.

EPA tolerances as published in 40 CFR Part 180 are expressed in parts per million (ppm). Because honey residues are expressed in parts per billion (ppb), EPA Tolerances 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.

APPENDIX D. DISTRIBUTION OF RESIDUES BY PESTICIDE IN HONEY

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*
Acephate	I	186				50 ^	20
Acetamiprid	I	186				40 ^	NT
Acetochlor	H	186				10 ^	NT
Alachlor	H	186				10 ^	NT
Aldicarb	I	186				4.0 ^	NT
Aldicarb sulfone	IM	186				15 ^	NT
Aldicarb sulfoxide	IM	186				20 ^	NT
Aldrin	I	186				10 ^	NT
Allethrin	I	186				10 ^	NT
Amicarbazone	H	186				30 ^	NT
Amitraz	I	186				4.0 ^	1000
Atrazine	H	186				6.0 ^	NT
Azinphos methyl	I	186				6.0 ^	NT
Azoxystrobin	F	186				2.0 ^	NT
Bendiocarb	I	186				2.0 ^	NT
Benoxacor	S	186				4.0 ^	10
BHC alpha	I	186				4.0 ^	NT
Bifenazate	A	186				20 ^	NT
Bifenthrin	I	186				2.0 ^	50
Boscalid	F	186				4.0 ^	NT
Bromuconazole	F	186				20 ^	NT
Buprofezin	I	186				20 ^	NT
Captan	F	186				10 ^	NT
Carbaryl	I	186				30 ^	NT
Carbendazim (MBC)	F	186				5.0 ^	NT
Carbofuran	I	186				5.0 ^	NT
Carboxin	F	186				4.0 ^	NT
Carfentrazone ethyl	H	186				1.0 ^	NT
Chlorfenapyr	I	186				1.0 ^	10
Chlorfenvinphos total	I	186				6.0 ^	NT
Chlorothalonil	F	186				2.0 ^	NT
Chlorpropham	H	186				40 ^	NT
Chlorpyrifos	I	186				1.0 ^	100
Chlorpyrifos methyl	I	186				1.0 ^	NT
Clofentezine	I	186				100 ^	NT
Clothianidin	I	186				20 ^	NT
Coumaphos	I	186	83	44.6	1.0 - 11.8	1.0 ^	150

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*
Coumaphos oxygen analog	IM	186				5.0 ^	150
Cyfluthrin	I	186				4.0 ^	50
Cyhalothrin, Lambda	I	186				1.0 ^	10
Cypermethrin	I	186				4.0 ^	50
Cyphenothrin	I	186				20 ^	NT
Cyprodinil	F	186				16 ^	NT
DDD p,p'	IM	186				4.0 ^	NT
DDE p,p'	IM	186				2.0 ^	NT
DDT p,p'	I	186				4.0 ^	NT
DEF (Tribufos)	H	186				2.0 ^	NT
Deltamethrin (includes parent Tralomethrin)	I	186				50 ^	50
Diazinon	I	186				1.0 ^	NT
4,4-dibromobenzophenone	A	186				4.0 ^	NT
Dichlorvos (DDVP)	I	186				10 ^	500
Dicloran (V-1)	F	186	1	0.5	1.0 ^	1.0 ^	NT
Dicofol p,p' (V-3)	I	186	3	1.6	1.3 - 3.6	1.0 ^	NT
Dieldrin	I	186				10 ^	NT
Difenoconazole	F	186				10 ^	NT
Diiflubenzuron	I	186				100 ^	NT
Dimethenamid	H	186				10 ^	NT
Dimethoate	I	186				20 ^	NT
Dimethomorph	F	186				20 ^	NT
2,4-dimethyl aniline (2,4 DMA)	I	186				50 ^	NT
2,4-dimethylphenyl formamide (2,4-DMPF)	IM	186	8	4.3	4.2 - 27.5	4.0 ^	1000
Dinotefuran	I	186				30 ^	NT
Diphenamid	H	186				1.0 ^	NT
Endosulfan I	I	186				2.0 ^	NT
Endosulfan II	IM	186				2.0 ^	NT
Endosulfan sulfate	IM	186				2.0 ^	NT
Endrin	I	186				10 ^	NT
Epoxiconazole	F	186				1.0 ^	NT
Esfenvalerate+Fenvalerate Total	I	186				2.0 ^	50
Ethion	I	186				10 ^	NT
Ethofumesate	H	186				5.0 ^	NT
Etoxazole	A	186				1.0 ^	NT
Etridiazole	F	186				10 ^	NT
Famoxadone	F	186				20 ^	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*
Fenamidone	F	186				10 ^	NT
Fenbuconazole	F	186				10 ^	NT
Fenhexamid	F	186				6.0 ^	NT
Fenoxaprop ethyl	H	186				6.0 ^	NT
Fenpropathrin	I	186				10 ^	NT
Fenpyroximate	A	186				5.0 ^	100
Fenthion	I	186				10 ^	NT
Fipronil	I	186				10 ^	NT
Fludioxonil	F	186				100 ^	NT
Fluoxastrobin	F	186				4.0 ^	NT
Fluridone	H	186				50 ^	NT
Flutolanil	F	186				4.0 ^	NT
Fluvalinate	I	186	19	10.2	1.0 - 6.7	1.0 ^	50
Heptachlor	I	186				4.0 ^	NT
Heptachlor epoxide	IM	186				10 ^	NT
Hexachlorobenzene (HCB)	FM	186				1.0 ^	NT
Hexythiazox	I	186				30 ^	NT
Hydroprene	R	186				10 ^	200
3-Hydroxycarbofuran	IM	186				4.0 ^	NT
Imazalil	F	186				5.0 ^	NT
Imidacloprid	I	186				20 ^	NT
Indoxacarb	I	186				30 ^	NT
Iprodione	F	186				20 ^	NT
Lindane (BHC gamma)	I	186				4.0 ^	NT
Linuron	H	186				100 ^	NT
Malathion	I	186				4.0 ^	NT
Metalaxyl	F	186				2.0 ^	NT
Methamidophos	I	186				20 ^	20
Methidathion	I	186				10 ^	NT
Methomyl	I	186				10 ^	NT
Methoxyfenozide	I	186				2.0 ^	NT
Metolachlor	H	186				6.0 ^	NT
Metribuzin	H	186				1.0 ^	NT
MGK-264	I	186				10 ^	10000
MGK-326 (dipropyl isocinchomeronate)	I	186				10 ^	NT
Myclobutanil	F	186				15 ^	NT
1-Naphthol	IM	186				10 ^	NT
Norflurazon	H	186				6.0 ^	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*
Oxamyl	I	186				5.0 ^	NT
Oxyfluorfen	H	186				1.0 ^	NT
Parathion methyl	I	186				2.0 ^	NT
Pendimethalin	H	186				6.0 ^	NT
Permethrin Total	I	186				10 ^	NT
Phenothrin	I	186				10 ^	NT
Phorate	I	186				10 ^	NT
Phosalone	I	186				10 ^	NT
Phosmet	I	186				10 ^	NT
Piperonyl butoxide	I	186				6.0 ^	NT
Pirimiphos methyl	I	186				4.0 ^	NT
Prallethrin	I	186				4.0 ^	1000
Profenofos	I	186				10 ^	NT
Pronamide	H	186				1.0 ^	NT
Propachlor	H	186				10 ^	NT
Propanil	H	186				10 ^	NT
Propargite	I	186				10 ^	NT
Propazine	H	186				4.0 ^	NT
Propetamphos	I	186				4.0 ^	100
Propham	H	186				20 ^	NT
Propiconazole	F	186				10 ^	NT
Pyraclostrobin	F	186				15 ^	NT
Pyrethrins	I	186				50 ^	1000
Pyridaben	I	186				1.0 ^	NT
Pyrimethanil	F	186				3.0 ^	NT
Pyriproxyfen	I	186				1.0 ^	100
Quinoxifen	F	186				10 ^	NT
Quintozene (PCNB)	F	186				1.0 ^	NT
Resmethrin	I	186				10 ^	3000
Sethoxydim	H	186				8.0 ^	NT
Simazine	H	186				10 ^	NT
Spirodiclofen	A	186				1.0 ^	NT
Spiromesifen Total (parent + enol metabolite)	I	186				10 ^	NT
Tebuconazole	F	186				8.0 ^	NT
Tebufenozide	I	186				5.0 ^	NT
Tebuthiuron	H	186				2.0 ^	NT
Tefluthrin	I	186				1.0 ^	NT
Tetrachlorvinphos	I	186				4.0 ^	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*
Tetraconazole	F	186				6.0 ^	NT
Tetradifon	I	186				1.0 ^	NT
Tetrahydrophthalimide (THPI)	FM	186				50 ^	NT
Tetramethrin	I	186				10 ^	NT
Thiabendazole	F	186				4.0 ^	NT
Thiacloprid	I	186				8.0 ^	NT
Thiamethoxam	I	186				20 ^	NT
Triadimefon	F	186				2.0 ^	NT
Triadimenol	F	186				45 ^	NT
Trifloxystrobin	F	186				2.0 ^	NT
Triflumizole	F	186				10 ^	NT
Trifluralin	H	186				1.0 ^	NT
Triticonazole	F	186				10 ^	NT
Vinclozolin (V-2)	F	186	2	1.1	10.6 - 10.7	1.0 ^	NT

Many of the listed tolerances 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.

NOTES

* = EPA Tolerances 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.

^ = 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:

A = Acaricide

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide

I = Insecticide, IM = Insecticide Metabolite

R = Insect Growth Regulator

S = Herbicide Safener

Appendix E

Distribution of Residues by Pesticide in Heavy Cream

Appendix E shows residue detections for all compounds tested in heavy cream, including range of values detected, range of Limits of Detection (LODs), and U.S. Environmental Protection Agency (EPA) tolerance references for each pair.

In 2007, PDP analyzed 742 heavy cream samples. PDP detected 11 different pesticide residues (including metabolites) in the heavy cream samples. All residue detections were much lower than the established tolerances.

Action levels (ALs) are shown in this appendix, where applicable, and denote Action Level values established by FDA. Under the FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

EPA tolerances as published in 40 CFR Part 180 are expressed in parts per million (ppm). Because heavy cream residues are expressed in parts per billion (ppb), EPA Tolerances 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.

APPENDIX E. DISTRIBUTION OF RESIDUES BY PESTICIDE IN HEAVY CREAM

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*
Acephate	I	742				35 ^	100
Acetamiprid	I	742				6.0 ^	100
Alachlor	H	742				10 ^	20
Aldicarb	I	742				6.0 ^	NT
Aldicarb sulfone	IM	742				20 ^	NT
Aldicarb sulfoxide	IM	742				76 ^	NT
Aldrin	I	742				10 ^	300 AL
Allethrin	I	742				5.0 ^	NT
Amicarbazone	H	742				30 ^	10
Atrazine	H	742				6.0 ^	20
Azoxystrobin	F	742				10 ^	6
Bendiocarb	I	742				20 ^	SU
Benoxacor	S	742				4.0 ^	10
BHC alpha	I	742				4.0 ^	300 AL
Bifenazate	A	742				40 ^	20
Bifenthrin	I	742	71	9.6	1.0 - 4.5	1.0 ^	100
Boscalid	F	742				20 ^	100
Bromuconazole	F	742				20 ^	NT
Buprofezin	I	742				20 ^	10
Carbaryl	I	742				25 ^	300
Carbendazim (MBC)	F	742				6.0 ^	100
Carbofuran	I	742				20 ^	100
Carboxin	F	742				8.0 ^	50
Carfentrazone ethyl	H	742				1.0 ^	50
Chloroneb	F	742				4.0 ^	50
Chlorpropham	H	742				6.0 ^	300
Chlorpyrifos	I	742				1.0 ^	10
Chlorpyrifos methyl	I	742				2.0 ^	50
Chlorpyrifos methyl O-analog	IM	742				9.0 ^	NT
Chlorpyrifos oxygen analog	IM	742				240 ^	NT
Clofentezine	I	742				35 ^	10
Clothianidin	I	742				20 ^	20
Coumaphos	I	742				6.0 ^	500

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*
Cyfluthrin	I	742				10 ^	1000
Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	I	742	258	34.8	1.0 - 23.4	1.0 ^	400
Cypermethrin	I	742				10 ^	100
Cyphenothrin	I	742				40 ^	NT
Cyproconazole	F	742				40 ^	NT
DDD p,p'	IM	742				6.0 ^	1250 AL
DDE p,p'	IM	742	443	59.7	1.0 - 38.1	1.0 ^	1250 AL
DEF (Tribufos)	H	742				10 ^	2
Deltamethrin (includes parent Tralomethrin)	I	742				30 ^	50
Dichlorvos (DDVP)	I	742				10 ^	20
Dieldrin	I	742				4.0 ^	300 AL
Difenoconazole	F	742				100 ^	10
Diflubenzuron	I	742				55 ^	50
Dimethoate	I	742				40 ^	2
Diphenamid	H	742				6.0 ^	NT
Diphenylamine (DPA)	F	742	44	5.9	2.0 - 4.5	2.0 ^	10
Endosulfan I	I	742	2	0.3	1.0 - 1.2	1.0 ^	2000
Endosulfan II	IM	742	3	0.4	1.4 - 3.6	1.0 ^	2000
Endosulfan sulfate	IM	742	7	0.9	2.0 - 5.0	2.0 ^	2000
Epoxiconazole	F	742				1.0 ^	NT
Esfenvalerate+Fenvalerate Total	I	742				4.0 ^	300
Ethion	I	742				2.0 ^	500
Ethofumesate	H	742				45 ^	NT
Etoxazole	A	742				20 ^	10
Etridiazole	F	742				6.0 ^	50
Famoxadone	F	742				40 ^	NT
Fenamidone	F	742				40 ^	20
Fenoxaprop ethyl	H	742				10 ^	20
Fenpropathrin	I	742	1	0.1	1.0 ^	1.0 ^	80
Fenthion	I	742				20 ^	10
Fenthion sulfone	IM	742				30 ^	10
Fenthion-O analog	IM	742				20 ^	10
Fipronil	I	742				10 ^	50
Flonicamid	I	742				40 ^	20

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*
Fluoxastrobin	F	742				5.0 ^	20
Fluridone	H	742				20 ^	50
Fluroxypyr 1-methylheptyl ester	H	742				2.0 ^	300
Flutolanil	F	742				4.0 ^	50
Fluvalinate	I	742				20 ^	NT
Heptachlor	I	742				10 ^	100 AL
Heptachlor epoxide	IM	742				6.0 ^	100 AL
Hexachlorobenzene (HCB)	FM	742	310	41.8	0.20 - 0.50	0.20 ^	NR
3-Hydroxycarbofuran	IM	742				3.0 ^	100
5-Hydroxythiabendazole	FM	742				25 ^	400
Imazalil	F	742				20 ^	20
Imidacloprid	I	742				20 ^	100
Indoxacarb	I	742				20 ^	150
Iprodione	F	742				12 ^	500
Lindane (BHC gamma)	I	742				4.0 ^	300
Linuron	H	742				50 ^	50
Malathion	I	742				20 ^	500
Malathion oxygen analog	IM	742				20 ^	NT
Metalaxyl	F	742				10 ^	20
Methamidophos	I	742				9.0 ^	100
Methidathion	I	742				50 ^	NT
Methidathion oxygen analog	IM	742				5.0 ^	NT
Methoxyfenozide	I	742				5.0 ^	100
Metolachlor	H	742				10 ^	20
Metribuzin	H	742				2.0 ^	50
MGK-264	I	742				10 ^	NT
MGK-326 (dipropyl isocinchomeronate)	I	742				10 ^	NT
Myclobutanil	F	742				10 ^	200
Norflurazon	H	742				3.0 ^	100
Omethoate	IM	742				12 ^	2
Oxyfluorfen	H	742				2.0 ^	50
Pentachloroaniline (PCA)	FM	742				0.20 ^	NT
Pentachlorobenzene (PCB)	FM	742				0.10 ^	NT
Pentachlorophenyl methyl sulfide	FM	742				0.20 ^	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*
Permethrin Total	I	742	2	0.3	32.5 - 34.5	30 ^	250
Perthane	I	742				20 ^	NT
Phorate	I	742				4.0 ^	NT
Phorate oxygen analog	IM	742				20 ^	NT
Piperonyl butoxide	I	742	3	0.4	32.4 - 37.1	30 ^	250
Pirimiphos methyl	I	742				4.0 ^	NT
Prallethrin	I	742				10 ^	1000
Profenofos	I	742				10 ^	10
Pronamide	H	742				2.0 ^	20
Propachlor	H	742				10 ^	20
Propanil	H	742				100 ^	50
Propargite	I	742				30 ^	80
Propham	H	742				20 ^	NT
Propiconazole	F	742				20 ^	50
Pyraclostrobin	F	742				40 ^	100
Pyrethrins	I	742				40 ^	NT
Pyridaben	I	742				6.0 ^	10
Pyrimethanil	F	742				10 ^	30
Pyriproxyfen	I	742				10 ^	100
Quintozene (PCNB)	F	742				1.0 ^	NT
Sethoxydim	H	742				1.0 ^	500
Simazine	H	742				25 ^	20
Spirodiclofen	A	742				2.0 ^	10
Spiromesifen Total (parent + enol metabolite)	I	742				10 ^	100
Tebuconazole	F	742				3.0 ^	100
Tebufenozide	I	742				6.0 ^	40
Tebuthiuron	H	742				2.0 ^	300
Tefluthrin	I	742				1.0 ^	NT
Tetrachlorvinphos	I	742				10 ^	500
Tetraconazole	F	742				10 ^	10
Tetradifon	I	742				1.0 ^	NT
Tetramethrin	I	742				12 ^	NT
Thiabendazole	F	742				8.0 ^	400
Thiamethoxam	I	742				20 ^	20

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*
Thidiazuron	P	742				25 ^	50
Triadimefon	F	742				6.0 ^	40
Triadimenol	F	742				90 ^	40
Trifloxystrobin	F	742				2.0 ^	20
Triflumizole	F	742				40 ^	50
Triticonazole	F	742				40 ^	NT
Vinclozolin	F	742				1.0 ^	50

Many of the listed tolerances 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.

NOTES

* = EPA Tolerances 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.

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

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

NR = Residues were found where no tolerance was established by EPA; however, the residues for this pesticide/commodity pair are substantially below the detection limit of FDA official methods, and are therefore considered to be of no regulatory significance by FDA.

AL = Numbers shown are Action Levels established by FDA 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.

Pesticide Types:

A = Acaricide

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide

I = Insecticide, IM = Insecticide Metabolite

R = Insect Growth Regulator

S = Herbicide Safener

Appendix F

Distribution of Residues by Pesticide in Corn Grain

Appendix F shows residue detections for all compounds tested in corn grain, including range of values detected, range of Limits of Detection (LODs), and U.S. Environmental Protection Agency (EPA) tolerance references for each pair.

In 2007, PDP analyzed 660 corn grain samples. PDP detected 14 different pesticide residues in the corn grain samples.

Action levels (ALs) are shown in this appendix, where applicable, and denote Action Level values established by FDA. Under the FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

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.

EPA tolerances as published in 40 CFR Part 180 are expressed in parts per million (ppm). Because corn grain residues are expressed in parts per billion (ppb), EPA Tolerances 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.

APPENDIX F. DISTRIBUTION OF RESIDUES BY PESTICIDE IN CORN GRAIN

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*
3-Hydroxycarbofuran	IM	660				6.0 ^	200
Acetochlor	H	655	1	0.2	3.0 ^	2.0 ^	50
Alachlor	H	660				2.0 ^	200
Aldrin	I	614				1.0 ^	20 AL
Ametryn	H	650				3.0 ^	250
Amicarbazone	H	649				50 ^	50
Atrazine	H	640				4.0 ^	250
Azoxystrobin	F	629				6.0 ^	50
Bendiocarb	I	580				3.0 ^	SU
Benoxacor	S	640				1.0 ^	10
BHC alpha	I	654				1.0 ^	50 AL
Bifenthrin	I	640				4.0 ^	50
Boscalid	F	597				1.0 ^	200
Carbaryl	I	600	3	0.5	3.0 - 31	3.0 ^	5000
Carbofuran	I	635				3.0 ^	200
Carboxin	F	615				2.0 ^	200
Carfentrazone ethyl	H	660				1.0 ^	100
Chlordane cis	I	660				1.0 ^	100 AL
Chlordane trans	I	660				8.0 ^	100 AL
Chlorpyrifos	I	650	195	30	2.0 - 8.0	1.0 ^	100
Clothianidin	I	655				10 ^	20
Cyanazine (V-1)	H	534	1	0.2	3.0 ^	2.0 ^	NT
Cyfluthrin	I	647				8.0 ^	4000
Cyhalothrin, epimer R157836	I	629	1	0.2	11 ^	3.0 ^	50
Cyhalothrin, Lambda	I	620	1	0.2	3.0 ^	2.0 ^	50
Cypermethrin	I	622				15 ^	50
DDD p,p'	IM	647				2.0 ^	500 AL
DDE p,p'	IM	634				1.0 ^	500 AL
DDT p,p'	I	660				6.0 ^	500 AL
Deltamethrin (includes parent Tralomethrin)	I	624	4	0.6	20 ^	12 ^	1000
Diazinon	I	418				1.0 ^	700

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*
Diazinon oxygen analog	IM	479				1.0 ^	NT
Dieldrin	I	620				4.0 ^	20 AL
Difenoconazole	F	386				4.0 ^	NT
Dimethenamid	H	640				1.0 ^	10
Dimethoate	I	621				8.0 ^	100
Dimethomorph	F	575				3.0 ^	50
Diuron	H	658				3.0 ^	1000
Endosulfan I	I	621				4.0 ^	200
Endosulfan II	IM	611				2.0 ^	200
Endosulfan sulfate	IM	630				1.0 ^	200
Esfenvalerate	I	578				2.0 ^	50
Ethoprop	I	641				2.0 ^	20
Fipronil	I	660				12 ^	20
Fludioxonil	F	582				8.0 ^	20
Flufenacet	H	660	1	0.2	59 ^	3.0 ^	50
Flumiclorac pentyl	H	660				6.0 ^	10
Fluridone	H	351				12 ^	100
Fluthiacet methyl	H	570				50 ^	10
Fonofos	I	660				4.0 ^	NT
Furilazole	S	660				12 ^	10
Heptachlor	I	621				4.0 ^	10 AL
Heptachlor epoxide	IM	655				2.0 ^	10 AL
Hexythiazox	I	660				6.0 ^	50
Hydroprene	R	620				6.0 ^	200
Imidacloprid	I	655				6.0 ^	50
Indoxacarb	I	544				4.0 ^	20
Isoxadifen ethyl	S	551				10 ^	100
Lindane (BHC gamma)	I	660				10 ^	500 AL
Linuron	H	660				3.0 ^	250
Malathion	I	659	250	37.9	3.0 - 695	2.0 ^	8000
Malathion oxygen analog	IM	660				4.0 ^	NT
Metalaxyl	F	660				4.0 ^	100
Methomyl	I	660				3.0 ^	100
Methoxychlor p,p' (V-2)	IM	660	2	0.3	10 ^	6.0 ^	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*
Methoxyfenozide	I	623				6.0 ^	50
Metolachlor	H	660	1	0.2	7.0 ^	4.0 ^	100
Metribuzin	H	660				8.0 ^	50
Myclobutanil	F	580				2.0 ^	30
Omethoate	IM	504				12 ^	100
Oxydemeton methyl sulfone	IM	350				4.0 ^	500
Oxyfluorfen	H	621				2.0 ^	50
Parathion ethyl	I	660				8.0 ^	1000
Parathion methyl	I	550				4.0 ^	1000
Parathion methyl oxygen analog	IM	494				2.0 ^	NT
Parathion oxygen analog	IM	660				60 ^	NT
Pendimethalin	H	660				12 ^	100
Permethrin Total	I	649	1	0.2	23 ^	14 ^	50
Phorate	I	621				16 ^	100
Phorate sulfone	IM	620				4.0 ^	100
Phorate sulfoxide	IM	560				2.0 ^	100
Piperonyl butoxide	I	641	16	2.5	3.0 - 128	2.0 ^	20000
Pirimiphos methyl	I	340	8	2.4	2.0 - 49	1.0 ^	8000
Prometryn	H	660				3.0 ^	250
Propachlor oxanilic acid (OA)	HM	660				2.0 ^	100
Propargite	I	600				4.0 ^	100
Propetamphos	I	640				4.0 ^	100
Propiconazole	F	412				8.0 ^	200
Pyraclostrobin	F	655				3.0 ^	100
Pyraflufen ethyl	H	656				6.0 ^	10
Pyriproxyfen	I	417				2.0 ^	1100
Resmethrin	I	615				1.0 ^	3000
Simazine	H	640				3.0 ^	250
Spinosad A	IM	599				10 ^	1500
Spinosad D	IM	618				10 ^	1500
Spiromesifen Total (parent + enol metabolite)	I	634				2.0 ^	20
TCMTB	F	391				4.0 ^	100
Tefluthrin	I	660				3.0 ^	60

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*
Terbufos	I	640				8.0 ^	50
Terbufos sulfone	IM	660				8.0 ^	50
Thiamethoxam	I	280				1.0 ^	20
Triadimenol	F	99				24 ^	50
Trifloxystrobin	F	655				3.0 ^	50
Trifluralin	H	620				2.0 ^	50

Many of the listed tolerances 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.

NOTES

* = EPA Tolerances 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.

^ = 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 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.

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

Pesticide Types:

F = Fungicide

H = Herbicide, H = Herbicide Metabolite

I = Insecticide, IM = Insecticide Metabolite

R = Insect Growth Regulator

S = Herbicide Safener

Appendix G

Distribution of Residues by Pesticide in Groundwater

Appendix G shows residue detections for all compounds tested in groundwater, including range of values detected and range of Limits of Detection (LODs) for each pair in parts per trillion (ppt).

In 2007, PDP analyzed 272 groundwater samples from 74 collection sites (private wells). PDP detected 27 different pesticide residues (including metabolites) in the groundwater samples. Most of the detections were for herbicides. The samples with detectable residues came from 37 different sites.

APPENDIX G. DISTRIBUTION OF RESIDUES BY PESTICIDE IN GROUNDWATER

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppt	Range of LODs, ppt
2,4-D	H	272	8	2.9	4.2 - 48.6	2.5 ^
2,4-DB	H	272				4.0 ^
Acetochlor	H	272	1	0.4	635 ^	10 ^
Acetochlor ethanesulfonic acid (ESA)	HM	272	8	2.9	60.3 - 824	9.0 ^
Acetochlor oxanilic acid (OA)	HM	272	1	0.4	1019 ^	10 ^
Alachlor	H	272	2	0.7	17 - 58	10 ^
Alachlor ethanesulfonic acid (ESA)	HM	272	36	13.2	20.8 - 4310	12.5 ^
Alachlor oxanilic acid (OA)	HM	272				10 ^
Atrazine	H	272	25	9.2	17 - 166	10 ^
Bensulfuron methyl	H	272				5.0 ^
Bentazon	H	1	1	100	0.50 ^	0.30 ^
Boscalid	F	272				100 ^
Bromacil	H	272	1	0.4	10 ^	6.0 ^
Carbaryl	I	272	3	1.1	12.5 - 61.2	7.5 ^
Carbofuran	I	272				4.0 ^
Chlorimuron ethyl	H	272				6.0 ^
Chlorothalonil	F	272				30 ^
Chlorpyrifos	I	272				30 ^
Clomazone	H	272				30 ^
Clopyralid	H	272				12.5 ^
Cyanazine	H	272				50 ^
DCPA	H	272				30 ^
Desethyl atrazine	HM	272	34	12.5	17 - 1550	10 ^
Desethyl-desisopropyl atrazine	HM	272	24	8.8	25 - 688	15 ^
Desisopropyl atrazine	HM	272	10	3.7	83 - 191	50 ^
Diazinon	I	272				30 ^
Dichlobenil	H	263				5.0 ^
Dimethenamid	H	272				10 ^
Dimethenamid ethanesulfonic acid (ESA)	HM	272	7	2.6	37.9 - 158	2.0 ^
Dimethenamid oxanilic acid (OA)	HM	272	4	1.5	20.1 - 44.1	3.0 ^
Dimethoate	I	272				50 ^
Disulfoton sulfone	IM	272				6.0 ^
Diuron	H	272	2	0.7	7.0 - 14.1	4.0 ^
EPTC	H	272				30 ^

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppt	Range of LODs, ppt
Ethalfuralin	H	272				30 ^
Flufenacet oxanilic acid (OA)	HM	272				2.5 ^
Fluometuron	H	263				50 ^
Fonofos	I	272				30 ^
Halosulfuron	H	272				9.0 ^
Hydroxy atrazine	HM	272	11	4	3.0 - 39.3	2.0 ^
Imazamethabenz acid	H	272				3.0 ^
Imazamethabenz methyl	H	272				1.5 ^
Imazamox	H	272				4.0 ^
Imazapic	H	272				3.0 ^
Imazapyr	H	272	3	1.1	4.2 ^	2.5 ^
Imazaquin	H	272				5.0 ^
Imazethapyr	H	272				2.0 ^
Linuron	H	272				6.0 ^
Malathion	I	272	3	1.1	50 - 312	30 ^
Malathion oxygen analog	IM	263				300 ^
MCPA	H	272				1.5 ^
MCPB	H	272				3.0 ^
Metalaxyl	F	272	8	2.9	4.2 - 29.1	2.5 ^
Methidathion	I	263				100 ^
Methidathion oxygen analog	IM	263				700 ^
Metolachlor	H	272	6	2.2	25 - 115	15 ^
Metolachlor ethanesulfonic acid (ESA)	HM	272	55	20.2	5.0 - 18000	3.0 ^
Metolachlor oxanilic acid (OA)	HM	272	24	8.8	5.0 - 4360	3.0 ^
Metribuzin	H	272				30 ^
Metsulfuron methyl	H	272				7.0 ^
Myclobutanil	F	272				50 ^
Neburon	H	272				3.0 ^
Nicosulfuron	H	272				8.0 ^
Parathion methyl	I	272				30 ^
Pendimethalin	H	272				30 ^
Permethrin cis	IM	263				50 ^
Permethrin trans	IM	263				50 ^
Phorate	I	272				30 ^
Phorate oxygen analog	IM	263				50 ^

Pesticide	Pest. Type	Number of Samples	Samples with Detections	% of Samples w/ Detects	Range of Values Detected, ppt	Range of LODs, ppt
Phorate sulfone	IM	263				100 ^
Phorate sulfoxide	IM	263				100 ^
Picloram	H	272	2	0.7	20.8 - 56.2	12.5 ^
Prometon	H	272				30 ^
Prometryn	H	272				1.0 ^
Propachlor	H	272				30 ^
Propachlor oxanilic acid (OA)	HM	272				3.0 ^
Propanil	H	272				30 ^
Propazine	H	272				30 ^
Propiconazole	F	272				50 ^
Propoxur	I	272				3.0 ^
Siduron	H	272				2.0 ^
Simazine	H	272	1	0.4	50 ^	30 ^
Sulfometuron methyl	H	272	4	1.5	8.6 - 17.7	2.5 ^
Tebuconazole	F	272				50 ^
Tebupirimfos	I	272				30 ^
Tebuthiuron	H	272				30 ^
Terbufos	I	272				30 ^
Tetraconazole	F	272				30 ^
Thifensulfuron	H	272				5.0 ^
Thiobencarb	H	272				2.5 ^
Tri Allate	H	272				30 ^
Triasulfuron	H	272	1	0.4	12 ^	7.0 ^
Trifluralin	H	272				30 ^
Triticonazole	F	263				500 ^

NOTES

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

Pesticide Types:

F = Fungicide

H = Herbicide, HM = Herbicide Metabolite

I = Insecticide, IM = Insecticide Metabolite

Appendix H

Distribution of Residues by Pesticide in Drinking Water

Appendix H shows residue detections for all compounds tested in drinking water, including range of values detected and range of Limits of Detection (LODs). The U.S. 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 2007, PDP analyzed 734 drinking water samples, including 370 finished drinking water samples and 364 untreated (raw intake) drinking water samples. PDP detected 46 different pesticide residues in finished drinking water and 52 residues in the untreated intake water; most of the detections were herbicides. None of the finished drinking water samples exceeded EPA MCLs or HAs 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 can 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/wqctable/index.html>. Health Advisories and FAO criteria are not legally enforceable Federal standards, but serve as technical guidance to assist Federal, State, and local officials.

EPA MCL, HA, and FAO values are expressed in parts per million (ppm). Because drinking water residues are expressed in parts per trillion (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 H. 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		113				220 ^			
Water, Untreated		91				220 ^			
2,4,5-T	H								
Water, Finished		369				1.6 - 22		70,000	
Water, Untreated		362				1.6 - 22			
2,4-D	H								
Water, Finished		369	191	51.8	1.1 - 3830	0.65 - 90	70,000		
Water, Untreated		362	190	52.5	1.1 - 2042	0.65 - 90			
2,4-DB	H								
Water, Finished		369				14 - 151			
Water, Untreated		362				14 - 151			
Acetochlor	H								
Water, Finished		369	2	0.5	82.4 - 193	9.2 - 49.5			
Water, Untreated		364	12	3.3	15.3 - 346	9.2 - 49.5			
Acetochlor ethanesulfonic acid (ESA)	HM								
Water, Finished		370	66	17.8	2.7 - 982	1.6 - 45			
Water, Untreated		363	72	19.8	2.7 - 532	1.6 - 45			
Acetochlor oxanilic acid (OA)	HM								
Water, Finished		370	85	23	2.3 - 950	1.4 - 45			
Water, Untreated		363	86	23.7	7.8 - 918	1.4 - 45			
Acifluorfen	H								
Water, Finished		118				80 ^			
Water, Untreated		118				80 ^			
Alachlor	H								
Water, Finished		369	2	0.5	75 - 216	7.8 - 45	2,000		
Water, Untreated		364	2	0.5	16.3 - 75	7.8 - 45			
Alachlor ethanesulfonic acid (ESA)	HM								
Water, Finished		370	104	28.1	2.8 - 254	1.7 - 45			
Water, Untreated		363	117	32.2	2.8 - 1037	1.7 - 45			
Alachlor oxanilic acid (OA)	HM								
Water, Finished		370	35	9.5	1.0 - 75	0.61 - 45			
Water, Untreated		363	50	13.8	1.0 - 75	0.61 - 45			
Aldicarb	I								
Water, Finished		233				5.3 - 1500	3,000	7,000	
Water, Untreated		231				5.3 - 1500			
Aldicarb sulfone	IM								
Water, Finished		118				200 ^	2,000	7,000	
Water, Untreated		118				200 ^			

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
Aldicarb sulfoxide	IM								
Water, Finished		118				0.50 ^	4,000	7,000	
Water, Untreated		118				0.50 ^			
Aldrin	I								
Water, Finished		253				9.6 - 25			
Water, Untreated		250				9.6 - 25			3,000
Atrazine	H								
Water, Finished		368	260	70.7	1.1 - 860	0.66 - 25	3,000		
Water, Untreated		363	235	64.7	1.1 - 1713	0.66 - 25			
Azinphos methyl	I								
Water, Finished		250				10 - 12			
Water, Untreated		245				10 - 12			
Azinphos methyl oxygen analog	IM								
Water, Finished		135				8.7 ^			
Water, Untreated		132				8.7 ^			
Benfluralin	H								
Water, Finished		146				9.8 - 50			
Water, Untreated		144				9.8 - 50			
Benomyl	F								
Water, Finished		118				30 ^			
Water, Untreated		118				30 ^			
Bensulfuron methyl	H								
Water, Finished		299				1.2 - 54			
Water, Untreated		296				1.2 - 54			
Bentazon	H								
Water, Finished		369	36	9.8	0.30 - 10	0.18 - 209		200,000	
Water, Untreated		362	90	24.9	0.30 - 65	0.18 - 209			
BHC alpha	I								
Water, Finished		118				20 ^			
Water, Untreated		118				20 ^			
Bifenthrin	I								
Water, Finished		253				3.2 - 5.0			
Water, Untreated		250	1	0.4	8.0 ^	3.2 - 5.0			
Bromacil	H								
Water, Finished		251				2.5 - 9.6		70,000	
Water, Untreated		244	11	4.5	4.2 - 180	2.5 - 9.6			
Bromoxynil	H								
Water, Finished		234				6.0 - 38			
Water, Untreated		230				6.0 - 38			
Bromuconazole 46	FM								
Water, Finished		135				6.5 ^			
Water, Untreated		132				6.5 ^			
Bromuconazole 47	FM								
Water, Finished		135				9.4 ^			
Water, Untreated		132				9.4 ^			

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
Butachlor	H								
Water, Finished		250				1.9 - 5.3			
Water, Untreated		245				1.9 - 5.3			
Butylate	H								
Water, Finished		253				1.8 - 10		400,000	
Water, Untreated		250				1.8 - 10			
Carbaryl	I								
Water, Finished		369				12 - 23			
Water, Untreated		362	1	0.3	38 ^	12 - 23			
Carbendazim (MBC)	F								
Water, Finished		116	1	0.9	3.0 ^	1.8 ^			
Water, Untreated		112	7	6.2	3.0 ^	1.8 ^			
Carbofuran	I								
Water, Finished		369	3	0.8	1.0 - 2.0	0.60 - 16	40,000		
Water, Untreated		362	5	1.4	1.0 - 120	0.60 - 16			
Carbophenothion	I								
Water, Finished		219				5.3 - 11			
Water, Untreated		215				5.3 - 11			
Chloramben	H								
Water, Finished		111				60 ^		100,000	
Water, Untreated		108				60 ^			
Chlordane cis	I								
Water, Finished		233				2.3 - 5.0	2,000 ⁴		
Water, Untreated		231				2.3 - 5.0		2,400	
Chlordane trans	I								
Water, Finished		233				2.3 - 5.0	2,000 ⁴		
Water, Untreated		231				2.3 - 5.0		2,400	
Chlorfenvinphos total	I								
Water, Finished		369				7.5 - 24			
Water, Untreated		364				7.5 - 24			
Chlorimuron ethyl	H								
Water, Finished		238				8.4 - 13			
Water, Untreated		233	10	4.3	14 - 32	8.4 - 13			
Chlorothalonil	F								
Water, Finished		118				50 ^			
Water, Untreated		118				50 ^			
Chlorpyrifos	I								
Water, Finished		234				6.0 - 11		2,000	
Water, Untreated		232				6.0 - 11			83
Chlorpyrifos methyl	I								
Water, Finished		234				11.3 - 14			
Water, Untreated		232				11.3 - 14			
Chlorpyrifos oxygen analog	IM								
Water, Finished		119				510 ^			
Water, Untreated		119				510 ^			

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
Clopyralid	H								
Water, Finished		369	45	12.2	5.7 - 684	3.4 - 151			
Water, Untreated		362	40	11	5.7 - 190	3.4 - 151			
Coumaphos	I								
Water, Finished		234				12 - 61			
Water, Untreated		232				12 - 61			
Cyanazine	H								
Water, Finished		368				1.7 - 25		1,000	
Water, Untreated		363				1.7 - 25			
Cycloate	H								
Water, Finished		223				3.3 - 6.0			
Water, Untreated		218				3.3 - 6.0			
Cyfluthrin	I								
Water, Finished		253				40 - 75			
Water, Untreated		250				40 - 75			
Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	I								
Water, Finished		253				21 - 75			
Water, Untreated		250				21 - 75			
Cypermethrin	I								
Water, Finished		253				74 - 90			
Water, Untreated		250				74 - 90			
Cyphenothrin	I								
Water, Finished		253				14 - 75			
Water, Untreated		250				14 - 75			
Cyproconazole	F								
Water, Finished		135				3.1 ^			
Water, Untreated		132				3.1 ^			
DCPA	H								
Water, Finished		233	2	0.9	1.3 ^	0.80 - 2.5		70,000	
Water, Untreated		231				0.75 - 2.5			
DCPA monoacid	H								
Water, Finished		116				222 ^			
Water, Untreated		112				222 ^			
DDD o,p'	IM								
Water, Finished		115				3.8 ^			
Water, Untreated		113				3.8 ^			
DDD p,p'	IM								
Water, Finished		115				3.8 ^			
Water, Untreated		113				3.8 ^			
DDE o,p'	IM								
Water, Finished		118				4.0 ^			
Water, Untreated		118				4.0 ^			

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
DDE p,p'	IM								
Water, Finished		232				2.5 - 7.5			
Water, Untreated		231				2.5 - 7.5			
DDT o,p'	I								
Water, Finished		115				3.7 - 3.8			
Water, Untreated		113				3.7 - 3.8			
DDT p,p'	I								
Water, Finished		110				3.8 ^			
Water, Untreated		112				3.8 ^			
Deltamethrin (includes parent Tralomethrin)	I								
Water, Finished		135				84 ^			
Water, Untreated		132				84 ^			
Desethyl Atrazine	HM								
Water, Finished		368	186	50.5	0.72 - 345.4	0.43 - 25			
Water, Untreated		363	188	51.8	0.72 - 243	0.43 - 25			
Desisopropyl atrazine	HM								
Water, Finished		368	121	32.9	5.2 - 142	3.1 - 50			
Water, Untreated		363	120	33.1	5.2 - 551	3.1 - 50			
Diazinon	I								
Water, Finished		369				3.3 - 7.5	1,000		
Water, Untreated		364	1	0.3	16.4 ^	3.3 - 7.5			170
Diazinon oxygen analog	IM								
Water, Finished		234				9.0 - 49			
Water, Untreated		232				9.0 - 49			
Dicamba	H								
Water, Finished		253	2	0.8	25 - 68	15 - 270	400,000		
Water, Untreated		250	2	0.8	25 - 110	15 - 270			
Dichlobenil	H								
Water, Finished		233				6.5 - 45			
Water, Untreated		231				6.5 - 45			
Dichlorprop	H								
Water, Finished		251				1.7 - 1.8			
Water, Untreated		244				1.7 - 1.8			
Dichlorvos (DDVP)	I								
Water, Finished		233	1	0.4	27 ^	11.3 - 16			
Water, Untreated		230	2	0.9	27 - 59.5	11.3 - 16			
Dicloran	F								
Water, Finished		115				7.5 ^			
Water, Untreated		113				7.5 ^			
Dicofol p,p'	I								
Water, Finished		233				5.0 - 11.3			
Water, Untreated		231				5.0 - 11.3			

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
Dicrotophos	I								
Water, Finished		119				132 ^			
Water, Untreated		119				132 ^			
Dieldrin	I								
Water, Finished		233				15 - 25			
Water, Untreated		231				15 - 25			240
Difenoconazole	F								
Water, Finished		135				12 ^			
Water, Untreated		132				12 ^			
Dimethenamid	H								
Water, Finished		230	14	6.1	1.0 - 3.4	0.60 - 45			
Water, Untreated		226	18	8	1.0 - 58	0.60 - 45			
Dimethenamid ESA	HM								
Water, Finished		119				45 ^			
Water, Untreated		119				45 ^			
Dimethenamid oxanilic acid (OA)	HM								
Water, Finished		254	11	4.3	1.0 - 2.5	0.63 - 45			
Water, Untreated		251	38	15.1	1.0 - 41	0.63 - 45			
Dimethenamid/Dimethenamid P	H								
Water, Finished		135	3	2.2	4.2 - 12	2.5 ^			
Water, Untreated		132	23	17.4	4.2 - 220	2.5 ^			
Dimethoate	I								
Water, Finished		368				5.3 - 52			
Water, Untreated		364				5.3 - 52			
Dinoseb	H								
Water, Finished		251				0.60 - 0.78	7,000	7,000	
Water, Untreated		244				0.60 - 0.78			
Diphenamid	H								
Water, Finished		115				24 ^		200,000	
Water, Untreated		113				24 ^			
Disulfoton	I								
Water, Finished		325				6.0 - 8.8		700	
Water, Untreated		320				6.0 - 8.8			
Disulfoton sulfone	IM								
Water, Finished		250				4.1 - 12.5			
Water, Untreated		245	1	0.4	6.8 ^	4.1 - 12.5			
Diuron	H								
Water, Finished		251	19	7.6	5.8 - 106	3.5 - 9.6			
Water, Untreated		244	44	18	5.8 - 80	3.5 - 9.6			
Endosulfan I	I								
Water, Finished		233				22.5 - 50			
Water, Untreated		231				22.5 - 50			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		228				18.8 - 50			
Water, Untreated		226				18.8 - 50			220
Endosulfan sulfate	IM								
Water, Finished		115				30 ^			
Water, Untreated		113				30 ^			
Endrin	I								
Water, Finished		233				22 - 52.5	2,000	2,000	
Water, Untreated		231				22 - 52.5			86
Epoxiconazole	F								
Water, Finished		135				13 ^			
Water, Untreated		132				13 ^			
EPTC	H								
Water, Finished		368				2.5 - 61.9			
Water, Untreated		363				2.5 - 61.9			
Esfenvalerate	I								
Water, Finished		118				50 ^			
Water, Untreated		118				50 ^			
Esfenvalerate+Fenvalerate Total	I								
Water, Finished		135				19 - 38			
Water, Untreated		132				19 - 38			
Ethalfuralin	H								
Water, Finished		233				60 - 100			
Water, Untreated		231				60 - 100			
Ethion	I								
Water, Finished		369				2.3 - 25			
Water, Untreated		364				2.3 - 25			
Ethion di oxon	IM								
Water, Finished		119				35 ^			
Water, Untreated		119				35 ^			
Ethion mono oxon	IM								
Water, Finished		234				3.8 - 51			
Water, Untreated		232				3.8 - 51			
Ethoprop	I								
Water, Finished		369				4.5 - 6.0			
Water, Untreated		364				4.5 - 6.0			
Fenamiphos	I								
Water, Finished		234				7.5 - 26		700	
Water, Untreated		232				7.5 - 26			
Fenamiphos sulfone	IM								
Water, Finished		119				193 ^			
Water, Untreated		119				193 ^			
Fenarimol	F								
Water, Finished		115				37.5 - 250			
Water, Untreated		113				37.5 - 250			

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
Fenbuconazole	F								
Water, Finished		251				3.0 - 4.8			
Water, Untreated		244				3.0 - 4.8			
Fenitrothion	I								
Water, Finished		369				6.0 - 52			
Water, Untreated		364				6.0 - 52			
Fenpropathrin	I								
Water, Finished		250				14 - 60			
Water, Untreated		245				14 - 60			
Fenthion	I								
Water, Finished		369				6.0 - 22			
Water, Untreated		364				6.0 - 22			
Fenthion-O analog	IM								
Water, Finished		234				7.5 - 99			
Water, Untreated		232				7.5 - 99			
Fenuron	H								
Water, Finished		234				15 - 27			
Water, Untreated		230				15 - 27			
Fipronil	I								
Water, Finished		116				12 ^			
Water, Untreated		112				12 ^			
Fludioxonil	F								
Water, Finished		115				37.5 ^			
Water, Untreated		113				37.5 ^			
Flufenacet	H								
Water, Finished		119	1	0.8	75 ^	45 ^			
Water, Untreated		119				45 ^			
Flufenacet ESA	HM								
Water, Finished		119				45 ^			
Water, Untreated		119				45 ^			
Flufenacet OA	HM								
Water, Finished		135				0.75 ^			
Water, Untreated		132				0.75 ^			
Flumetsulam	H								
Water, Finished		368				6.0 - 128			
Water, Untreated		362				6.0 - 128			
Fluometuron	H								
Water, Finished		251	15	6	2.0 - 42	1.2 - 4.2		90,000	
Water, Untreated		244	19	7.8	2.0 - 28	1.2 - 4.2			
Fluvalinate	I								
Water, Finished		135				130 ^			
Water, Untreated		132				130 ^			
Fonofos	I								
Water, Finished		115				7.5 ^		10,000	
Water, Untreated		113				7.5 ^			

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
Halosulfuron methyl	H								
Water, Finished		129				3.3 ^			
Water, Untreated		127				3.3 ^			
Heptachlor	I								
Water, Finished		118				50 ^	400		
Water, Untreated		118				50 ^			520
Heptachlor epoxide	IM								
Water, Finished		233				15 - 25	200		
Water, Untreated		231				15 - 25			520
Hexachlorobenzene (HCB)	FM								
Water, Finished		118				10 ^	1,000		
Water, Untreated		118				10 ^			
Hexaconazole	F								
Water, Finished		135				20 ^			
Water, Untreated		132				20 ^			
Hydroxy Atrazine	HM								
Water, Finished		135	97	71.9	2.0 - 83	1.2 ^			
Water, Untreated		132	94	71.2	2.0 - 160	1.2 ^			
3-Hydroxycarbofuran	IM								
Water, Finished		234				24 - 45			
Water, Untreated		230				24 - 45			
Imazamethabenz acid	H								
Water, Finished		135	4	3	1.0 ^	0.60 ^			
Water, Untreated		132	3	2.3	1.0 ^	0.60 ^			
Imazamethabenz methyl	H								
Water, Finished		369				0.31 - 4.1			
Water, Untreated		362	3	0.8	0.52 - 1.0	0.31 - 4.1			
Imazamox	H								
Water, Finished		251				2.4 - 3.1			
Water, Untreated		244				2.4 - 3.1			
Imazapic	H								
Water, Finished		251	12	4.8	1.5 - 13	0.90 - 2.4			
Water, Untreated		244	9	3.7	1.5 - 18	0.90 - 2.4			
Imazapyr	H								
Water, Finished		251	80	31.9	1.5 - 17	0.90 - 1.0			
Water, Untreated		244	80	32.8	1.5 - 34	0.90 - 1.0			
Imazaquin	H								
Water, Finished		357				1.1 - 9.0			
Water, Untreated		351				1.1 - 9.0			
Imazethapyr	H								
Water, Finished		369	5	1.4	2.0 - 4.0	1.0 - 7.4			
Water, Untreated		362	16	4.4	2.0 - 70	1.0 - 7.4			
Imidacloprid	I								
Water, Finished		368	11	3	2.5 ^	1.5 - 42			
Water, Untreated		362	13	3.6	2.5 ^	1.5 - 42			

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		169				4.5 - 9.5			
Water, Untreated		166				4.5 - 9.5			
Isofenphos oxygen analog	IM								
Water, Finished		119				52 ^			
Water, Untreated		119				52 ^			
Lindane (BHC gamma)	I								
Water, Finished		368				10 - 20	200		
Water, Untreated		363				10 - 20			950
Linuron	H								
Water, Finished		369	1	0.3	315 ^	3.0 - 189			
Water, Untreated		362				3.0 - 189			
Malathion	I								
Water, Finished		369				6.0 - 21		100,000	
Water, Untreated		364				6.0 - 21			
Malathion oxygen analog	IM								
Water, Finished		115				6.0 ^			
Water, Untreated		113				6.0 ^			
MCPA	H								
Water, Finished		369	26	7	1.3 - 240	0.78 - 91		30,000	
Water, Untreated		362	55	15.2	1.3 - 800	0.78 - 91			
MCPB	H								
Water, Finished		369				6.6 - 228			
Water, Untreated		362				6.6 - 228			
Mecoprop (MCP)	H								
Water, Finished		118				52 ^			
Water, Untreated		118				52 ^			
Metalaxyl	F								
Water, Finished		368				3.0 - 25			
Water, Untreated		363				3.0 - 25			
Methidathion	I								
Water, Finished		234				5.3 - 31			
Water, Untreated		232				5.3 - 31			
Methidathion oxygen analog	IM								
Water, Finished		115				22.5 ^			
Water, Untreated		113				22.5 ^			
Methiocarb	I								
Water, Finished		234				15 ^			
Water, Untreated		230				15 ^			
Methomyl	I								
Water, Finished		368				3.6 - 75		200,000	
Water, Untreated		362				3.6 - 75			
Methoxychlor olefin	IM								
Water, Finished		115				3.8 ^	40,000	40,000	
Water, Untreated		113				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
Methoxychlor Total	I								
Water, Finished		233				7.5 - 40	40,000	40,000	
Water, Untreated		231				7.5 - 40			
Metolachlor	H								
Water, Finished		369	85	23	2.5 - 1056	1.5 - 45		700,000	
Water, Untreated		364	102	28	2.5 - 2000	1.5 - 45			
Metolachlor ethanesulfonic acid (ESA)	HM								
Water, Finished		370	224	60.5	0.60 - 1860	0.36 - 45			
Water, Untreated		363	236	65	0.60 - 1470	0.36 - 45			
Metolachlor oxanilic acid (OA)	HM								
Water, Finished		370	131	35.4	5.3 - 1730	3.2 - 45			
Water, Untreated		363	141	38.8	5.3 - 1130	3.2 - 45			
Metribuzin	H								
Water, Finished		233				35 - 45		70,000	
Water, Untreated		231				35 - 45			
Metsulfuron methyl	H								
Water, Finished		232				1.5 - 8.4			
Water, Untreated		227				1.5 - 8.4			
Mevinphos Total	I								
Water, Finished		234				6.0 - 15			
Water, Untreated		232				6.0 - 15			
Molinate	H								
Water, Finished		233				9.8 - 12			
Water, Untreated		231				9.8 - 12			
Monuron	H								
Water, Finished		234				6.0 - 53			
Water, Untreated		230	1	0.4	185 ^	6.0 - 53			
Myclobutanil	F								
Water, Finished		368				6.1 - 50			
Water, Untreated		362	3	0.8	83 ^	6.1 - 50			
Napropamide	H								
Water, Finished		233				24 - 25			
Water, Untreated		231				24 - 25			
Neburon	H								
Water, Finished		369				1.2 - 75			
Water, Untreated		362				1.2 - 75			
Nicosulfuron	H								
Water, Finished		159				1.7 - 4.8			
Water, Untreated		162	10	6.2	2.8 - 28	1.7 - 4.8			
Norflurazon	H								
Water, Finished		233	1	0.4	31.3 ^	18.8 - 31			
Water, Untreated		231	1	0.4	31.3 ^	18.8 - 31			

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
Norflurazon desmethyl	HM								
Water, Finished		233				37.5 - 72			
Water, Untreated		231				37.5 - 72			
Omethoate	IM								
Water, Finished		135				0.30 ^			
Water, Untreated		132				0.30 ^			
Oxadiazon	H								
Water, Finished		228				15 ^			
Water, Untreated		227				15 ^			
Oxadixyl	F								
Water, Finished		110				48.8 ^			
Water, Untreated		108				48.8 ^			
Oxamyl	I								
Water, Finished		191				15 - 20	200,000		
Water, Untreated		189				15 - 20			
Oxychlorane	IM								
Water, Finished		115				7.5 ^			
Water, Untreated		113				7.5 ^			
Oxydemeton methyl	I								
Water, Finished		119				255 ^			
Water, Untreated		119				255 ^			
Oxyfluorfen	H								
Water, Finished		228				11.3 - 75			
Water, Untreated		226				11.3 - 75			
Parathion ethyl	I								
Water, Finished		250				7.5 - 15			
Water, Untreated		245				7.5 - 15			
Parathion methyl	I								
Water, Finished		250				4.5 - 53			
Water, Untreated		245				4.5 - 53			
Parathion methyl oxygen analog	IM								
Water, Finished		250				9.8 - 11			
Water, Untreated		245				9.8 - 11			
Parathion oxygen analog	IM								
Water, Finished		234				7.5 - 104			
Water, Untreated		232				7.5 - 104			
Pebulate	H								
Water, Finished		233				2.3 - 25			
Water, Untreated		231				2.3 - 25			
Pendimethalin	H								
Water, Finished		233	1	0.4	7.5 ^	4.5 - 25			
Water, Untreated		231				4.5 - 25			
Permethrin cis	IM								
Water, Finished		253				4.5 - 9.0			
Water, Untreated		250				4.5 - 9.0			

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
Permethrin trans	IM								
Water, Finished		135				7.5 ^			
Water, Untreated		132				7.5 ^			
Phenothrin	I								
Water, Finished		135				27 ^			
Water, Untreated		132				27 ^			
Phenthoate	I								
Water, Finished		115				15 ^			
Water, Untreated		113				15 ^			
Phorate	I								
Water, Finished		369				5.2 - 12			
Water, Untreated		364				5.2 - 12			
Phorate oxygen analog	IM								
Water, Finished		234				5.3 - 10			
Water, Untreated		232				5.3 - 10			
Phorate sulfone	IM								
Water, Finished		234				6.0 - 16			
Water, Untreated		232				6.0 - 16			
Phorate sulfoxide	IM								
Water, Finished		234				37.5 - 199			
Water, Untreated		232				37.5 - 199			
Phosalone	I								
Water, Finished		234				4.5 - 52			
Water, Untreated		232				4.5 - 52			
Phosalone oxygen analog	IM								
Water, Finished		119				631 ^			
Water, Untreated		119				631 ^			
Phosmet	I								
Water, Finished		119				227 ^			
Water, Untreated		119				227 ^			
Phosphamidon	I								
Water, Finished		169				12 - 297			
Water, Untreated		166				12 - 297			
Picloram	H								
Water, Finished		369	2	0.5	50 ^	22 - 447	500,000		
Water, Untreated		362	3	0.8	50 ^	22 - 447			
Piperonyl butoxide	I								
Water, Finished		115				18.8 ^			
Water, Untreated		113				18.8 ^			
Pirimicarb	I								
Water, Finished		115				37.5 ^			
Water, Untreated		113				37.5 ^			
Pirimiphos methyl	I								
Water, Finished		234				5.3 - 8.8			
Water, Untreated		232				5.3 - 8.8			

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
Prallethrin	I								
Water, Finished		253				25 ^			
Water, Untreated		250				25 ^			
Profenofos	I								
Water, Finished		234				12 - 30			
Water, Untreated		232				12 - 30			
Prometon	H								
Water, Finished		368	171	46.5	0.28 - 28	0.17 - 50		100,000	
Water, Untreated		363	175	48.2	0.28 - 23	0.17 - 50			
Prometryn	H								
Water, Finished		368	1	0.3	0.28 ^	0.17 - 24			
Water, Untreated		363	2	0.6	0.28 - 0.76	0.17 - 24			
Pronamide	H								
Water, Finished		233				5.0 - 22.5			
Water, Untreated		231				5.0 - 22.5			
Propachlor	H								
Water, Finished		250				0.64 - 5.3			
Water, Untreated		245				0.64 - 5.3			
Propachlor OA	HM								
Water, Finished		135				1.4 ^			
Water, Untreated		132				1.4 ^			
Propanil	H								
Water, Finished		284				6.7 - 25			
Water, Untreated		279				6.7 - 25			
Propargite	I								
Water, Finished		228				60 - 90			
Water, Untreated		226				60 - 90			
Propazine	H								
Water, Finished		250	1	0.4	7.5 ^	3.3 - 4.5			
Water, Untreated		245	7	2.9	5.5 - 12	3.3 - 4.5			
Propetamphos	I								
Water, Finished		115				6.0 ^			
Water, Untreated		113				6.0 ^			
Propham	H								
Water, Finished		112				18 ^		100,000	
Water, Untreated		108				18 ^			
Propiconazole	F								
Water, Finished		369				6.0 - 55			
Water, Untreated		362	1	0.3	10.5 ^	6.0 - 55			
Propoxur	I								
Water, Finished		115				24.8 ^			
Water, Untreated		113				24.8 ^			
Quintozene (PCNB)	F								
Water, Finished		115				11.3 ^			
Water, Untreated		113				11.3 ^			

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
Resmethrin	I								
Water, Finished		253				7.8 - 50			
Water, Untreated		250				7.8 - 50			
Siduron	H								
Water, Finished		251				2.1 - 2.4			
Water, Untreated		244				2.1 - 2.4			
Simazine	H								
Water, Finished		368	123	33.4	1.2 - 240	0.71 - 15	4,000		
Water, Untreated		363	146	40.2	1.2 - 802	0.71 - 15			
Sulfometuron methyl	H								
Water, Finished		337	3	0.9	25 ^	1.9 - 15			
Water, Untreated		333	8	2.4	3.2 - 25	1.9 - 15			
Sulfotep	I								
Water, Finished		234				2.4 - 4.5			
Water, Untreated		232				2.4 - 4.5			
Sulprofos	I								
Water, Finished		234				6.0 - 11			
Water, Untreated		232				6.0 - 11			
Sulprofos oxygen analog	IM								
Water, Finished		119				37 ^			
Water, Untreated		119				37 ^			
Tebuconazole	F								
Water, Finished		365				4.8 - 60			
Water, Untreated		359				4.8 - 60			
Tebupirimfos	I								
Water, Finished		159				7.5 - 12			
Water, Untreated		157				7.5 - 12			
Tebupirimfos oxygen analog	IM								
Water, Finished		234				9.0 - 13			
Water, Untreated		232				9.0 - 13			
Tebuthiuron	H								
Water, Finished		369	158	42.8	0.35 - 55	0.21 - 10	500,000		
Water, Untreated		362	171	47.2	0.35 - 220	0.21 - 10			
Tecnazene	P								
Water, Finished		115				18.8 ^			
Water, Untreated		113				18.8 ^			
Tefluthrin	I								
Water, Finished		253				2.1 - 5.0			
Water, Untreated		250				2.1 - 5.0			
Terbacil	H								
Water, Finished		250				1.6 - 22.5	90,000		
Water, Untreated		245				1.6 - 22.5			
Terbufos	I								
Water, Finished		254				5.2 - 6.3	400		
Water, Untreated		251				5.2 - 6.3			

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
Terbufos sulfone	IM								
Water, Finished		234				4.5 - 7.7			
Water, Untreated		232				4.5 - 7.7			
Terbufos-O analog	IM								
Water, Finished		115				6.0 ^			
Water, Untreated		113				6.0 ^			
Tetrachlorvinphos	I								
Water, Finished		369				6.0 - 63			
Water, Untreated		364				6.0 - 63			
Tetraconazole	F								
Water, Finished		251	5	2	6.2 ^	1.8 - 3.7			
Water, Untreated		244	7	2.9	6.2 - 13	1.8 - 3.7			
Tetradifon	I								
Water, Finished		281				7.2 - 75			
Water, Untreated		276				7.2 - 75			
Tetramethrin	I								
Water, Finished		253				28 - 75			
Water, Untreated		250				28 - 75			
Thifensulfuron	H								
Water, Finished		129				8.9 ^			
Water, Untreated		127				8.9 ^			
Thiobencarb	H								
Water, Finished		251				7.7 - 18			
Water, Untreated		244				7.7 - 18			
Tolclofos methyl	F								
Water, Finished		118				8.0 ^			
Water, Untreated		118				8.0 ^			
Tralomethrin	I								
Water, Finished		118				300 ^			
Water, Untreated		118				300 ^			
Tri Allate	H								
Water, Finished		368				10.5 - 24.8			
Water, Untreated		363				10.5 - 24.8			
Triadimefon	F								
Water, Finished		369				3.4 - 50			
Water, Untreated		362				3.4 - 50			
Triadimenol	F								
Water, Finished		135				39 ^			
Water, Untreated		132				39 ^			
Triasulfuron	H								
Water, Finished		123				3.1 ^			
Water, Untreated		121				3.1 ^			
Triazole acetic acid (TAA)	FM								
Water, Finished		97				30 ^			
Water, Untreated		85				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
Triazole alanine (TA)	FM								
Water, Finished		128				13 ^			
Water, Untreated		123				13 ^			
Triclopyr	H								
Water, Finished		369	69	18.7	2.7 - 566	1.6 - 43			
Water, Untreated		362	71	19.6	2.7 - 847	1.6 - 43			
Trifluralin	H								
Water, Finished		233	1	0.4	2.5 ^	1.5 - 75		10,000	
Water, Untreated		231				1.5 - 75			
Triticonazole	F								
Water, Finished		135				28 ^			
Water, Untreated		132				28 ^			
Vinclozolin	F								
Water, Finished		161				6.0 - 35			
Water, Untreated		159				6.0 - 35			

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 I

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

Appendix I gives the number of fruit and vegetable, almond, heavy cream, and honey samples per State or country of origin and the number of samples of unknown origin. Where available, the 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 I, fruit and vegetable, almond, heavy cream, and honey samples originated from 39 States, the District of Columbia, and 26 foreign countries. There were 519 domestic and 28 imported samples from unknown States and countries, respectively. There were an additional 139 samples from unknown origins. Corn grain samples were all of domestic origin. Overall, for all samples except groundwater and drinking water, 75 percent were from U.S. sources, 23 percent were imports, 1 percent were of mixed origin, and approximately 1 percent were of unknown origin.

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

Part 1. Domestic Samples

States = 39	Fresh F&V													Processed F&V				Nuts	Dairy	Honey	# of	% of
	BB	BN	BR	CE	CH	CR	GB	GK	GL	NE	PC	SS	TO	AJ	BZ	PZ	RA	AL	CM	HY	Samples	Total
Alabama													1								1	<0.1
Arizona				1		26		2	8				9	8		1			2	1	58	0.5
Arkansas												1	2	8	1	15	19		46	10	102	0.9
California	68		573	566	156	468	112	165	94	301	260	88	112	42	4	62	244	172	129	27	3643	33.0
Colorado						10	12	1	13		1	2	6	1				1	33	1	81	0.7
Connecticut													1					1			2	<0.1
Delaware												1									1	<0.1
Florida	94		18	70	1	9	166	12	10		2	110	202	12		52	9	6	35	16	824	7.5
Georgia	7					26	30	22	53		10	42		3		1					194	1.8
Idaho				2	3						5			1		40	10	2	33	3	99	0.9
Illinois			1			3	1					2		9	1	55	10	23	20	5	130	1.2
Indiana				3				1	2	2								2			10	0.1
Iowa																				12	12	0.1
Kansas																				4	4	<0.1
Maine			11											1		4	4		8		28	0.3
Maryland			6	3	1	4	17	4	11	1	1	3	6	1	1	16	2	4	37	4	122	1.1
Massachusetts				1		1	1							5					8		16	0.1
Michigan	47		5	27	2	31	9	2	2	1	6	14	16	35	5	17	9	17	61	7	313	2.8
Minnesota			7			6	6	2	2	2		3		2	1	7	1	2	8	1	50	0.5
Mississippi	1																				1	<0.1
Nebraska												2									2	<0.1
New Hampshire																				2	2	<0.1
New Jersey	32		1				3	14	11	1	15	19	6	5		3	1	8	29		148	1.3
New York			8	1	4	2	20	4	5		3	14	10	31		20	10	12	32	1	177	1.6
North Carolina	6		2			1	3	3	6			4	5								30	0.3
North Dakota																2					2	<0.1
Ohio			2	5		11	46	11	24		6	14	13	13		15	9	22	70	13	274	2.5
Oklahoma																2					2	<0.1
Oregon	34			18	1	4		2		1	1					10	8			1	80	0.7
Pennsylvania							12	1		1			3	2		129	5	8	12	3	176	1.6
South Carolina								9	15		9	1	11								45	0.4
Tennessee													8							1	9	0.1
Texas	18		29	24	4	20	28	36	32	5	5	36	20	5	2	38	20	42	85	9	458	4.2
Utah																		2			2	<0.1
Vermont																			7		7	0.1
Virginia							10						14	3							27	0.2
Washington	1		4	1	203	2	5	7	1	23	19	9	2	44		26		8	44	1	400	3.6
Washington D.C.													2								2	<0.1
West Virginia											2										2	<0.1
Wisconsin			1	1		1		2	2				2	1		3	1	4	19	3	40	0.4
Unknown State	9		21	10	14	7	105	39	45	10	13	91	28	7	3	70	5	15	24	3	519	4.7
No. of Domestics	317	0	689	710	408	632	590	336	337	347	361	463	480	231	18	588	367	351	742	128	8,095	
% of Total	45	0	94	96	97	85	80	87	95	62	65	62	65	63	82	74	99	97	100	69		73.4
Number and Percentage computed with 660 Corn Grain samples of domestic origin added:																					8,755	74.9

Part 2. Imported Samples

Countries = 18	Fresh F&V													Processed F&V				Nuts	Dairy	Honey	# of	% of
	BB	BN	BR	CE	CH	CR	GB	GK	GL	NE	PC	SS	TO	AJ	BZ	PZ	RA	AL	CM	HY	Samples	Total
Argentina	100													3			2				105	1
Canada	57		9	6	10	81	3	4				4	43		2	191				6	416	3.8
Chile	228									212	188			2	2		1				633	5.7
China														61							61	0.6
Colombia		54																			54	0.5
Costa Rica		173																			173	1.6
Dominican Republic												1									1	<0.1
Ecuador		204																			204	1.9
Germany														2							2	<0.1
Guatemala		176					3														179	1.6
Honduras		92											1								93	0.8
Mexico	3	15	33	18		30	103	39	1		2	254	199	4							701	6.4
Netherlands																3					4	<0.1
New Zealand	5													1							6	0.1
Nicaragua		1																			1	<0.1
Panama		2																			2	<0.1
South Africa																	1				1	<0.1
Turkey														5							5	<0.1
Unknown Country	1	27																			28	0.3
No. of Imports	394	744	42	24	10	111	109	43	1	212	190	259	244	78	4	194	4	0	0	6	2,669	
% of Total	55	100	6	3	2	15	15	11	<1	38	34	35	33	21	18	24	1	0	0	3		24.2
Percentage computed with 660 Corn Grain samples of domestic origin added:																						22.8

Part 3. Mixed National Origin Samples

	Processed F&V				Nuts	Dairy	Honey	# of	% of
	AJ	BZ	PZ	RA	AL	CM	HY	Samples	Total
Argentina / Australia / Canada / USA							1	1	<0.1
Argentina / Austria / Brazil / Chile / China / Germany	2							2	<0.1
Argentina / Austria / Chile / China / Germany / Turkey / USA	3							3	<0.1
Argentina / Brazil / Canada / India							1	1	<0.1
Argentina / Brazil / India / USA							1	1	<0.1
Argentina / Canada							2	2	<0.1
Argentina / Canada / India / USA							1	1	<0.1
Argentina / Canada / India / Vietnam / USA							2	2	<0.1
Argentina / Canada / USA							35	35	0.3
Argentina / Chile							1	1	<0.1
Argentina / Chile / China	2							2	<0.1
Argentina / Chile / China / Poland / USA	2							2	<0.1
Argentina / Chile / China / USA	1							1	<0.1
Argentina / China	9							9	0.1
Argentina / China / Germany / Italy	4							4	<0.1
Argentina / China / USA	12							12	0.1
Argentina / New Zealand / Turkey	2							2	<0.1
Argentina / USA							1	1	<0.1
Brazil / Canada / USA							1	1	<0.1
Canada / USA							4	4	<0.1
Chile / Germany	1							1	<0.1
China / New Zealand	2							2	<0.1
China / Poland / Turkey	1							1	<0.1
China / USA	13							14	0.1
Mexico / Uruguay / USA							1	1	<0.1
New Zealand / Turkey	2							2	<0.1
New Zealand / Turkey / USA	1							1	<0.1
New Zealand / USA	1							1	<0.1
Poland / Turkey	1							1	<0.1
Spain / USA					9			9	0.1
No. of Mixed National Origin Samples	59				9		52	120	
% of Total	16				2		28		1.1

Appendix J

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 J 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 blueberries are compared with data for samples originating in Argentina and Chile for 2007. Residue data for peaches from the United States are compared with data for samples originating in Chile for 2007. Residue data for tomatoes from the United States are compared with data for samples originating in Mexico for 2007. 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 J. Import vs. Domestic Pesticide Residue Comparisons

2007 Distribution of Residues for Blueberry Samples Originating in Argentina and 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
Boscalid	United States	317	164	51.7
	Argentina	100	22	22.0
	Chile	228	6	2.6
Captan	United States	85	18	21.2
	Argentina	30	4	13.3
	Chile	69	15	21.7
Carbendazim (MBC)	United States	232	44	19.0
	Argentina	70	38	54.3
	Chile	159	55	34.6
Cyprodinil	United States	85	18	21.2
	Argentina	30	6	20.0
	Chile	69	0	0
Fludioxonil	United States	317	28	8.8
	Argentina	100	14	14.0
	Chile	228	1	0.4
Imidacloprid	United States	317	53	16.7
	Argentina	100	15	15.0
	Chile	228	3	1.3
Iprodione	United States	317	13	4.1
	Argentina	100	54	54.0
	Chile	228	65	28.5
Pyraclostrobin	United States	317	159	50.2
	Argentina	100	21	21.0
	Chile	228	3	1.3
Tetrahydrophthalimide (THPI)	United States	317	80	25.2
	Argentina	100	6	6.0
	Chile	228	38	16.7

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

**2007 Distribution of Residues for Peach 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
Azinphos methyl	United States	361	9	2.5
	Chile	188	163	86.7
Boscalid	United States	361	85	23.5
	Chile	188	0	0
Carbaryl	United States	361	48	13.3
	Chile	188	39	20.7
Chlorpyrifos	United States	361	13	3.6
	Chile	188	87	46.3
Cyhalothrin, Lambda	United States	361	14	3.9
	Chile	188	86	45.7
Fludioxonil	United States	361	243	67.3
	Chile	188	0	0
Iprodione	United States	361	6	1.7
	Chile	188	185	98.4
Methoxyfenozide	United States	361	106	29.4
	Chile	188	6	3.2
1-Naphthol	United States	338	38	11.2
	Chile	188	18	9.6
Phosmet	United States	361	200	55.4
	Chile	188	1	0.5
Propiconazole	United States	361	59	16.3
	Chile	188	1	0.5
Spinosad	United States	97	7	7.2
	Chile	53	19	35.8

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

**2007 Distribution of Residues for Tomato 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
Azoxystrobin	United States	480	34	7.1
	Mexico	199	38	19.1
Chlorothalonil	United States	480	92	19.2
	Mexico	199	19	9.5
Endosulfan I	United States	480	46	9.6
	Mexico	199	32	16.1
Endosulfan II	United States	480	84	17.5
	Mexico	199	44	22.1
Endosulfan sulfate	United States	480	86	17.9
	Mexico	199	35	17.6

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

Appendix K

National Estimates for Concentration Percentiles vs. Tolerance

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

Appendix K 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 bananas/thiabendazole pair, the 50th percentile, or median, is estimated to be 0.012 ppm. This means that PDP estimates that at least 50 percent of bananas available to U.S. consumers had thiabendazole residues of 0.012 ppm or less, while at least 50 percent had residues of 0.012 ppm or more. Similarly, the 75th percentile (or the upper quartile) for this pair is estimated to be 0.030 ppm, which means that at least 75 percent of bananas had thiabendazole residues of 0.030 ppm or less, while at least 25 percent had residues of 0.030 ppm or more. Finally, the 90th percentile is estimated to be 0.054 ppm, meaning that at least 90 percent of all bananas had thiabendazole residues of 0.054 ppm or less, while at least 10 percent had residues of 0.054 ppm or more.

Percent detections and percentiles for all commodities except corn grain and heavy cream were weighted based on marketing data.

**APPENDIX K. 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		Percentiles (ppm)			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
1 Almonds (W) (July - December only) (in parts per billion)							
Boscalid	17.8	2.039	6.147	*	*	7.522	0.011
Chlorpyrifos	45.3	1.949	2.496	*	2.581	6.403	0.032
Piperonyl butoxide	59.6	11.607	12.415	4.703	13.800	24.700	0.003
2 Bananas (W)							
Imazalil	25.9	0.004	0.011	*	0.004	0.015	0.005
Thiabendazole	63.6	0.020	0.023	0.012	0.030	0.054	0.018
3 Blueberries (W)							
Boscalid	34.9	0.072	0.076	*	0.042	0.250	0.071
Fludioxonil	10.9	0.004	0.014	*	*	0.006	0.003
Imidacloprid	15.0	0.001	0.004	*	*	0.003	0.001
Iprodione	18.5	0.049	0.057	*	*	0.057	0.004
Pyraclostrobin	32.1	0.009	0.009	*	0.004	0.019	0.005
Tetrahydrophthalimide (THPI)	21.6	0.049	0.070	*	*	0.140	0.007
4 Broccoli (W)							
DCPA	49.9	0.002	0.003	*	0.002	0.006	0.001
Imidacloprid	71	0.002	0.002	0.001	0.002	0.005	0.001
5 Carrots (W)							
Azoxystrobin	18.9	0.001	0.001	*	*	0.003	0.005
Boscalid	10.9	0.003	0.020	*	*	0.009	0.012
DDE p,p'	30.4	0.003	0.005	*	0.003	0.011	0.004
Iprodione	17.2	0.009	0.035	*	*	0.045	0.009
Pyraclostrobin	39.5	0.002	0.002	*	0.002	0.005	0.012
Trifluralin	55.1	0.019	0.022	0.003	0.031	0.058	0.058
6 Celery (W)							
Acephate	38.3	0.027	0.028	*	0.013	0.092	0.009
Acetamiprid	30.3	0.002	0.002	*	0.002	0.005	0.027
Azoxystrobin	22.5	0.008	0.008	*	*	0.017	0.001
Dicloran	48.7	0.132	0.138	*	0.130	0.360	0.024
Dimethoate	9.8	0.002	0.004	*	*	*	*
Imidacloprid	47.3	0.001	0.004	*	0.001	0.004	0.001
Linuron	29.2	0.003	0.005	*	0.004	0.010	0.019
Malathion	23.9	0.017	0.019	*	*	0.047	0.006
Methamidophos	23.3	0.002	0.003	*	*	0.005	0.005
Omethoate	15.5	0.002	0.005	*	*	0.008	0.004
Oxamyl	18.9	0.006	0.012	*	*	0.019	0.006
Permethrin cis	47.7	0.011	0.014	*	0.015	0.035	0.007
Permethrin trans	48.7	0.011	0.014	*	0.016	0.036	0.007
Propiconazole	19.4	0.006	0.014	*	*	0.023	0.005

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) ²		Percentiles (ppm)			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
7 Cherries (W) (May - September only)							
Azinphos methyl	17.3	0.004	0.006	*	*	0.011	0.006
Bifenthrin	49.7	0.001	0.004	*	0.002	0.004	0.076
Carbaryl	18.2	0.014	0.017	*	*	0.025	0.003
Imidacloprid	15.9	0.008	0.036	*	*	0.039	0.013
Myclobutonil	23.4	0.009	0.014	*	*	0.023	0.005
Pyraclostrobin	44.7	0.013	0.016	*	0.017	0.041	0.046
Tebuconazole	15.5	0.044	0.100	*	*	0.130	0.033
Trifloxystrobin	11.5	0.001	0.002	*	*	0.002	0.001
8 Corn Grain (in parts per billion)							
Chlorpyrifos	30.0	1.125	1.825	*	3.000	4.000	0.040
Malathion	37.9	7.283	8.524	*	4.500	13.000	0.002
9 Green Beans (W)							
Acephate	21.5	0.057	0.060	*	*	0.150	0.050
Azoxystrobin	21.7	0.010	0.011	*	*	0.015	0.005
Chlorothalonil	12.0	0.038	0.046	*	*	0.016	0.003
Endosulfan I	7.7	0.004	0.013	*	*	*	*
Endosulfan sulfate	12.3	0.015	0.024	*	*	0.024	0.012
Methamidophos	20.0	0.023	0.027	*	*	0.068	0.068
10 Greens, Collard (W)							
Azoxystrobin	45.5	0.112	0.113	*	0.013	0.220	0.009
Boscalid	2.3	0.002	0.010	*	*	*	*
Cypermethrin	13.4	0.100	0.153	*	*	0.190	0.014
Imidacloprid	24.0	0.008	0.015	*	*	0.023	0.006
Methoxyfenozide	5.1	0.024	0.031	*	*	*	*
Pyraclostrobin	21.4	0.028	0.030	*	*	0.054	0.003
11 Greens, Kale (W)							
Azoxystrobin	23.5	0.081	0.082	*	*	0.078	0.003
Imidacloprid	30.4	0.019	0.026	*	0.016	0.043	0.012
Methoxyfenozide	9.4	0.055	0.063	*	*	*	*
Pyraclostrobin	9.2	0.030	0.032	*	*	*	*
12 Heavy Cream (in parts per billion)							
Cyhalothrin, Total	34.8	1.113	1.765	*	1.419	2.900	0.007
DDE p,p'	59.7	2.245	2.648	1.330	3.800	5.504	0.004
Hexachlorobenzene (HCB)	41.8	0.095	0.211	*	0.200	0.220	NT
13 Honey (in parts per billion)							
Coumaphos	53.7	0.960	1.423	1.000	1.500	2.000	0.013
Fluvalinate	7.8	0.161	1.083	*	*	*	*

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) ²		Percentiles (ppm)			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
14 Nectarines (W)							
Azinphos methyl	8.5	0.004	0.007	*	*	*	*
Chlorpyrifos	5.4	0.001	0.005	*	*	*	*
Fenhexamid	9.1	0.032	0.056	*	*	*	*
Fludioxonil	57.8	0.233	0.280	0.198	0.410	0.610	0.122
Iprodione	9.8	0.222	0.258	*	*	*	*
Phosmet	54.9	0.025	0.027	0.006	0.033	0.086	0.017
Propiconazole	17.0	0.025	0.055	*	*	0.090	0.045
15 Peaches (W)							
Azinphos methyl	10.7	0.006	0.009	*	*	0.004	0.002
Boscalid	21.8	0.010	0.011	*	*	0.022	0.013
Carbaryl	14.3	0.018	0.02	*	*	0.009	0.001
Chlorpyrifos	7.7	0.001	0.005	*	*	*	*
Cyhalothrin, Lambda	8.1	0.001	0.005	*	*	*	*
Fludioxonil	59.6	0.379	0.384	0.087	0.610	1.100	0.220
Iprodione	11.0	0.153	0.167	*	*	0.200	0.010
Methoxyfenozide	26.2	0.012	0.012	*	0.002	0.035	0.012
1-Naphthol	11.3	0.015	0.024	*	*	0.032	0.003
Phosmet	49.7	0.077	0.079	*	0.064	0.210	0.021
Propiconazole	14.4	0.041	0.069	*	*	0.090	0.045
16 Potatoes, Frozen (W)							
Chlorpropham	48.7	0.296	0.301	*	0.570	0.820	0.027
Imidacloprid	37.9	0.002	0.005	*	0.003	0.005	0.013
17 Raisins (W) (January - June only)							
Boscalid	24.7	0.011	0.031	*	*	0.043	0.005
Propargite	27.2	0.031	0.065	*	0.006	0.064	0.006
Trifloxystrobin	18.2	0.002	0.024	*	*	0.007	0.001
18 Summer Squash (W)							
Dieldrin	13.0	0.004	0.007	*	*	0.008	0.075
Endosulfan I	43.8	0.011	0.013	*	0.013	0.032	0.032
Endosulfan II	14.7	0.001	0.004	*	*	0.005	0.005
Endosulfan sulfate	68.4	0.029	0.030	0.023	0.047	0.071	0.071
19 Tomatoes (W)							
Azoxystrobin	9.7	0.001	0.005	*	*	*	*
Chlorothalonil	14.5	0.005	0.009	*	*	0.011	0.021
Endosulfan I	9.6	0.002	0.005	*	*	*	*
Endosulfan II	16.2	0.004	0.007	*	*	0.013	0.013
Endosulfan sulfate	15.1	0.002	0.006	*	*	0.009	0.009

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 or without observations in all participating States.
- 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.
- * 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.

Weighting the sample for national estimates:

National estimates were computed from the samples collected in nine participating States by benchmarking the data to national numbers. For example, if 35 percent of a commodity consumed domestically in 2007 was known to be in category A, while 65 percent was in category B, the commodity sample would be divided into the two categories. If P_A of the commodity sample in category A had a detectable residue of a pesticide while P_B of the sample in category B had a detectable residue of that same pesticide, then the national estimate of detectable residues for the pesticide/commodity pair was $.35 \times P_A + .65 \times P_B$.

For 2007, estimates were benchmarked to place-of-origin data, usually imported versus domestically-grown product. Analysis showed place-of-origin is often strongly correlated with pesticide residues. The Economic Research Service (ERS) supplied 2007 import fractions for most domestically-consumed commodities. A single fraction was provided covering both fresh nectarines and peaches. Similarly, a single import fraction was deduced for all greens.

Bananas, being 100 percent imported, were benchmarked by country of origin using Foreign Agricultural Service (FAS) 2006 data.

Some commodities were further benchmarked by State of origin using National Agricultural Statistics Service (NASS) data, with several States often grouped together (e.g., Florida and Georgia or all States other than California). Similarly, some commodities were further benchmarked by country of origin using FAS data.

Most domestic data were for 2007, but 2002 Census-of-Agriculture data were used for greens because NASS does not collect annual greens data. Summer squash was benchmarked to all-squash numbers (both winter and summer varieties). This is the only level of aggregation at which NASS and ERS collect and publish data.

Slightly under 5 percent of domestic samples and 1.5 percent of imported samples had no State/country of origin. To use these records, samples marked as domestic (or imported) but without a specific originating State (or country) were prorated across the benchmarking States (or countries) using averages within the collection State and season. For example, if 40 percent of the winter sample of a commodity collected in Texas had California listed as the State of origin and 60 percent came from other States, then a winter sample of that commodity collected in Texas and marked as domestic, but without a State of origin, would be treated as 40 percent from California and 60 percent from other States. A similar process was used for samples with unknown import/domestic status (0.5 percent of the samples).

Appendix L

Cumulative Distributions of Residues for Selected Pesticide/Commodity Pairs

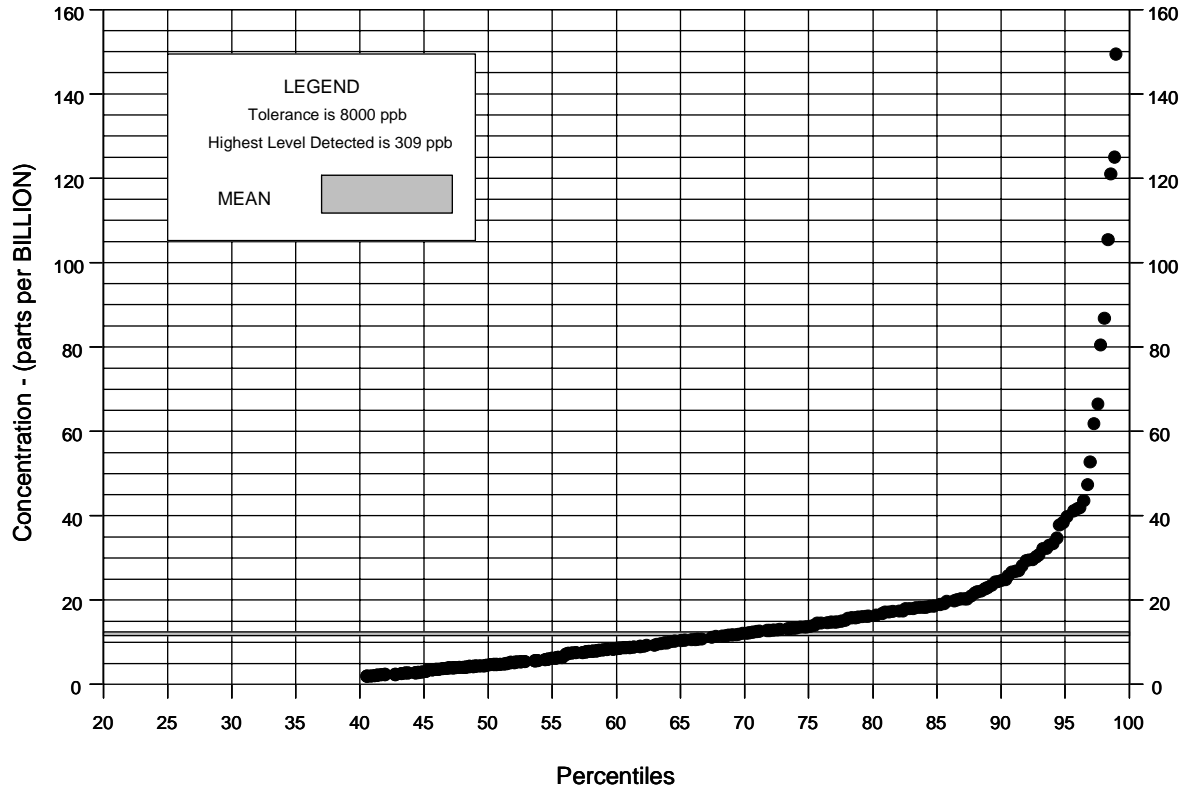
In Appendix L, the concentrations detected (in parts per million, except where otherwise noted) are plotted versus the calculated percentiles for the following 12 pesticide/commodity pairs:

- Piperonyl butoxide / Almonds
- Boscalid / Blueberries
- Imidacloprid / Broccoli
- Bifenthrin / Cherries
- Azoxystrobin / Collard Greens
- Acephate / Green Beans
- Fludioxonil / Nectarines
- Phosmet / Nectarines
- Fludioxonil / Peaches
- Phosmet / Peaches
- Propargite / Raisins
- Trifloxystrobin / Raisins

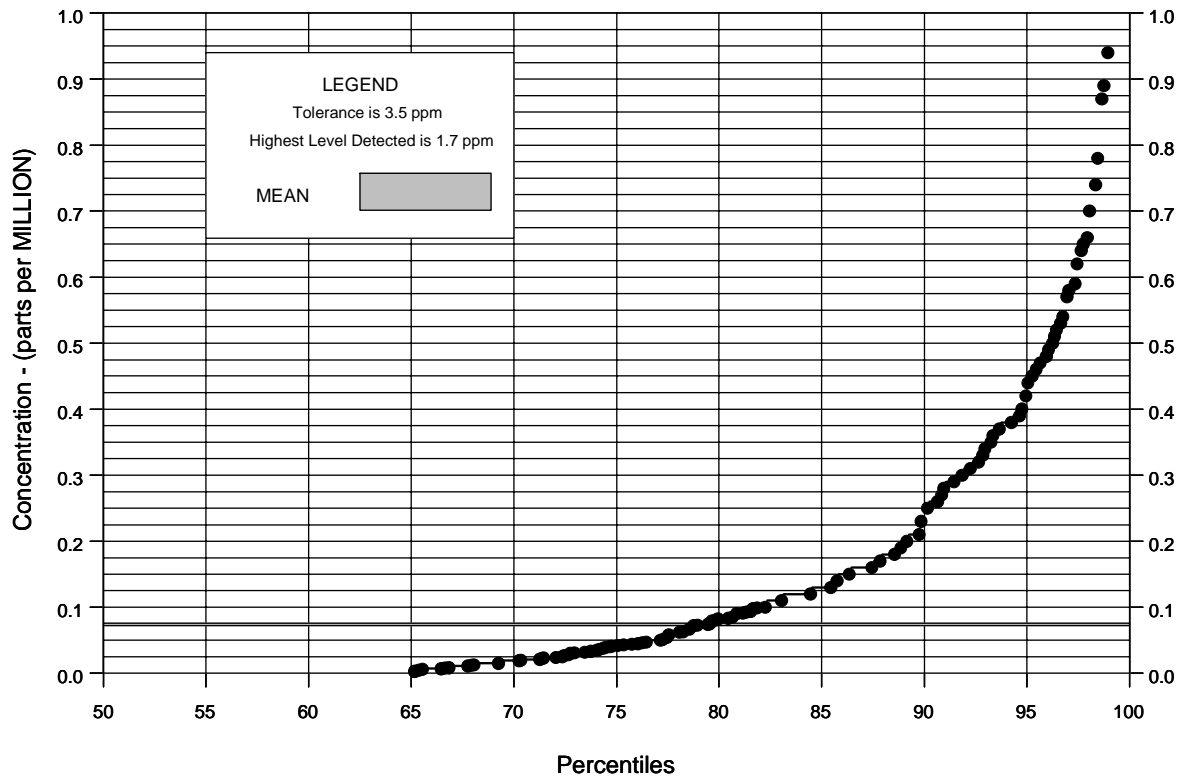
The distribution of residues for all of the PDP pesticide/commodity pairs has the same curved shape. For each pesticide/commodity pair, the highest percentile graphed in the appendix (99th) is lower than the highest concentration detected in the sample (refer to the value shown in each graph's legend). Inclusion of the highest concentration would cause graph distortion, which would obscure concentrations in the low ranges. The tolerance for the pesticide/commodity pair is also 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 nectarines available to U.S. consumers in 2007 had phosmet residue concentrations of 0.006 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 phosmet in nectarines, this is 45 percent. The shaded bar denotes the range of values estimated for the mean. In some cases, there is convergence of the mean upper and lower bound into a single line due to the insignificant differences between them. For phosmet in nectarines, the mean range is approximately 0.025 – 0.027 ppm, corresponding to the 69th percentile.

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

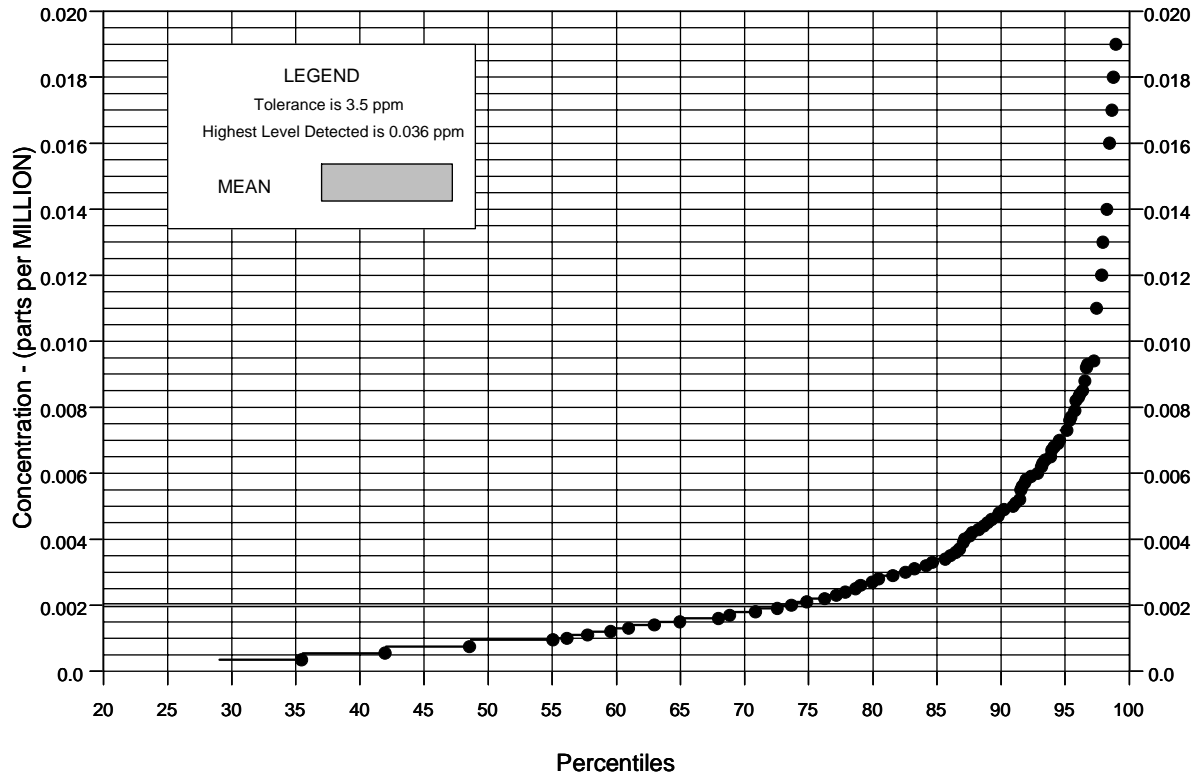
Piperonyl butoxide / Almonds



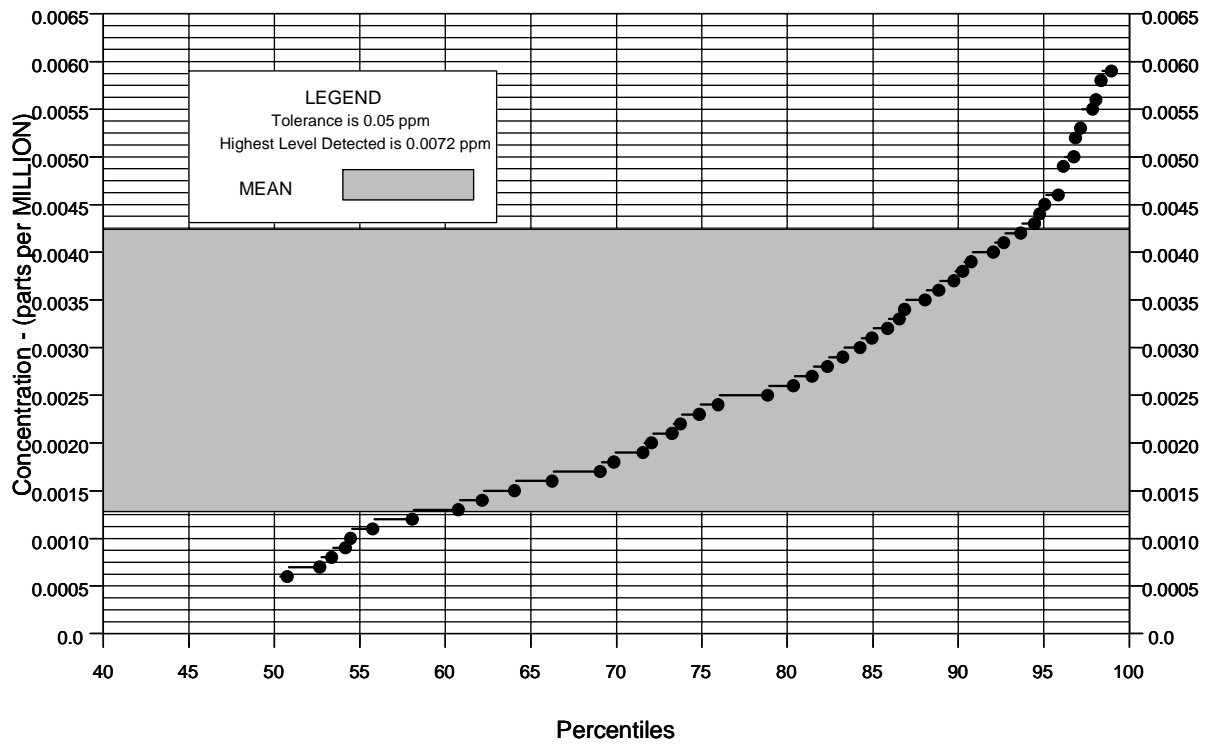
Boscalid / Blueberries



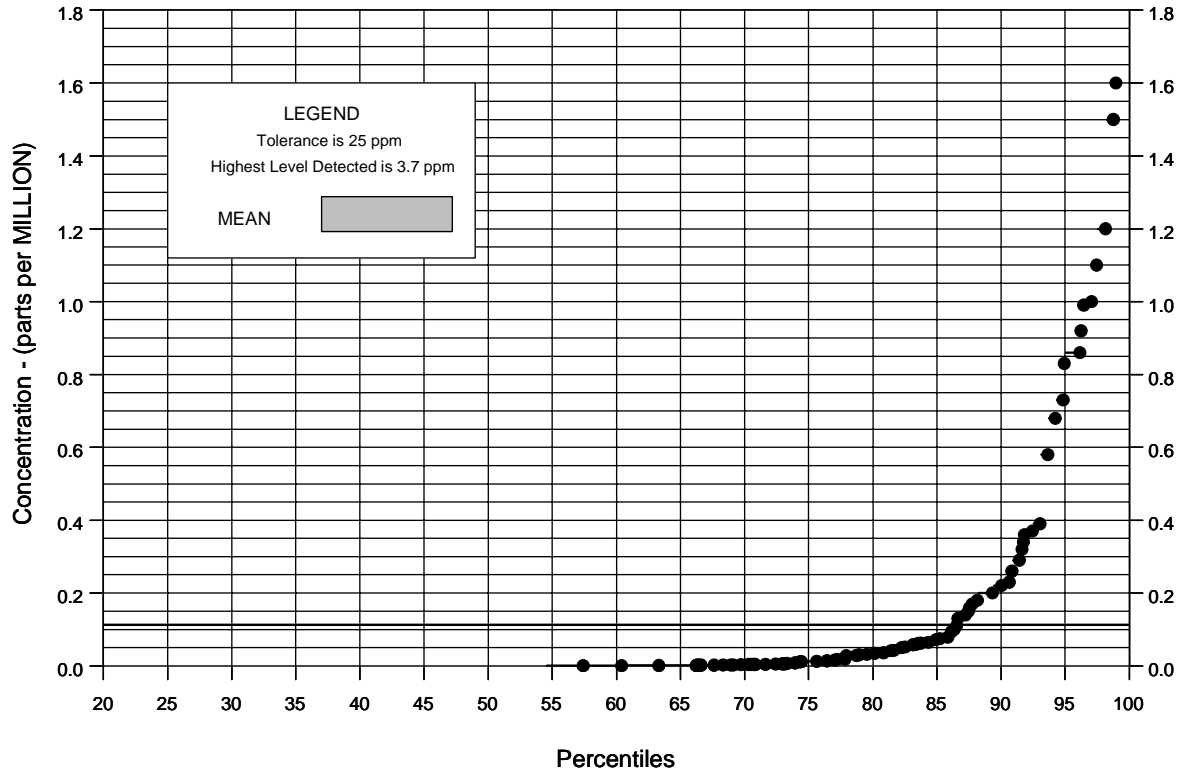
Imidacloprid / Broccoli



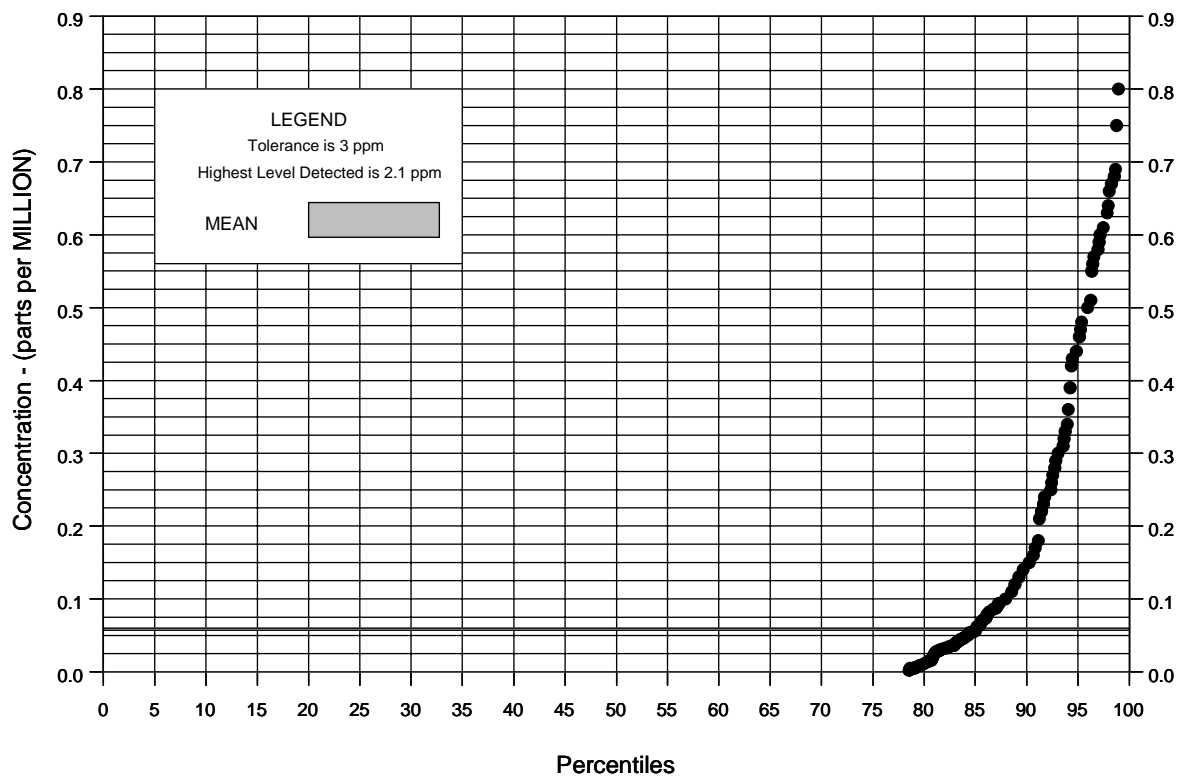
Bifenthrin / Cherries



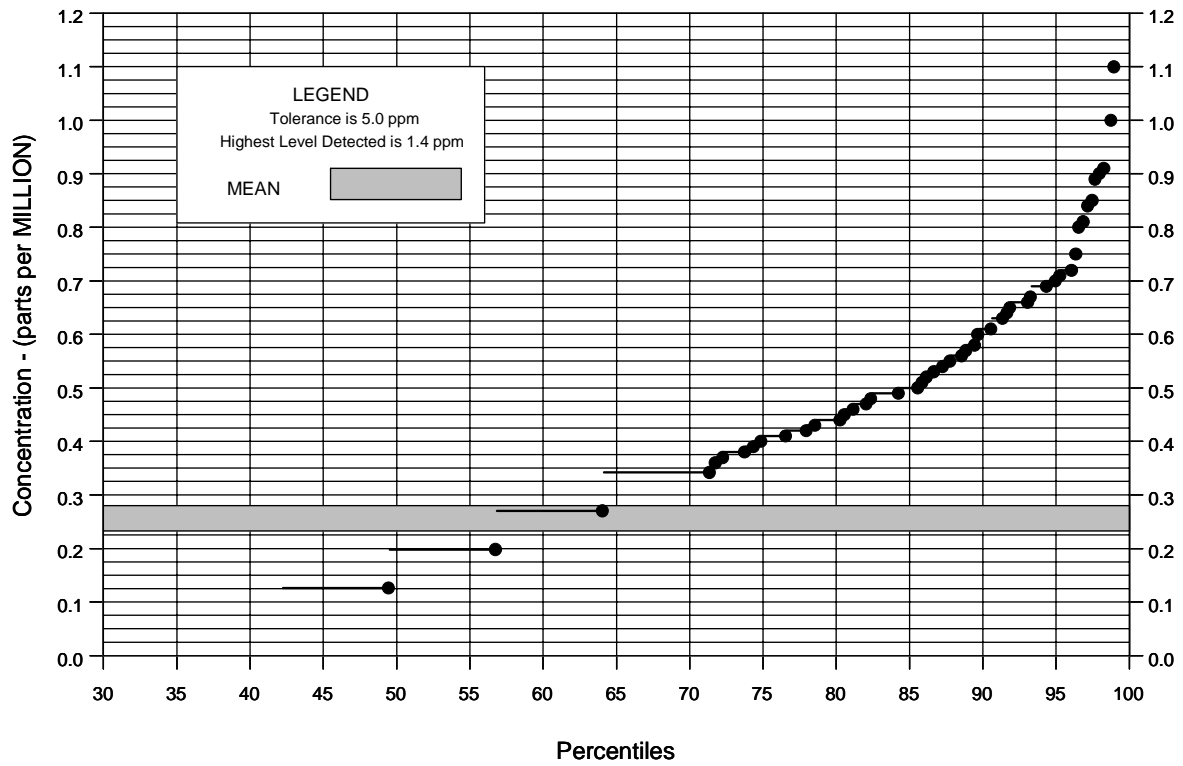
Azoxystrobin / Collard Greens



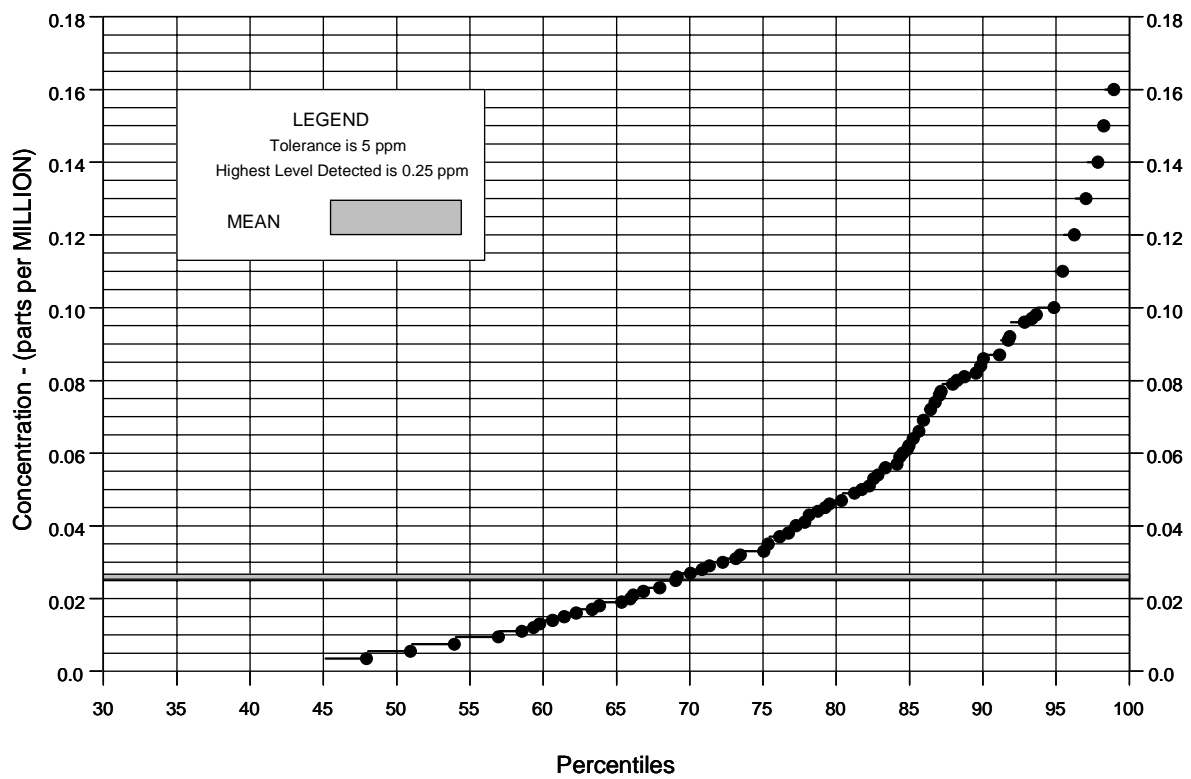
Acephate / Green Beans



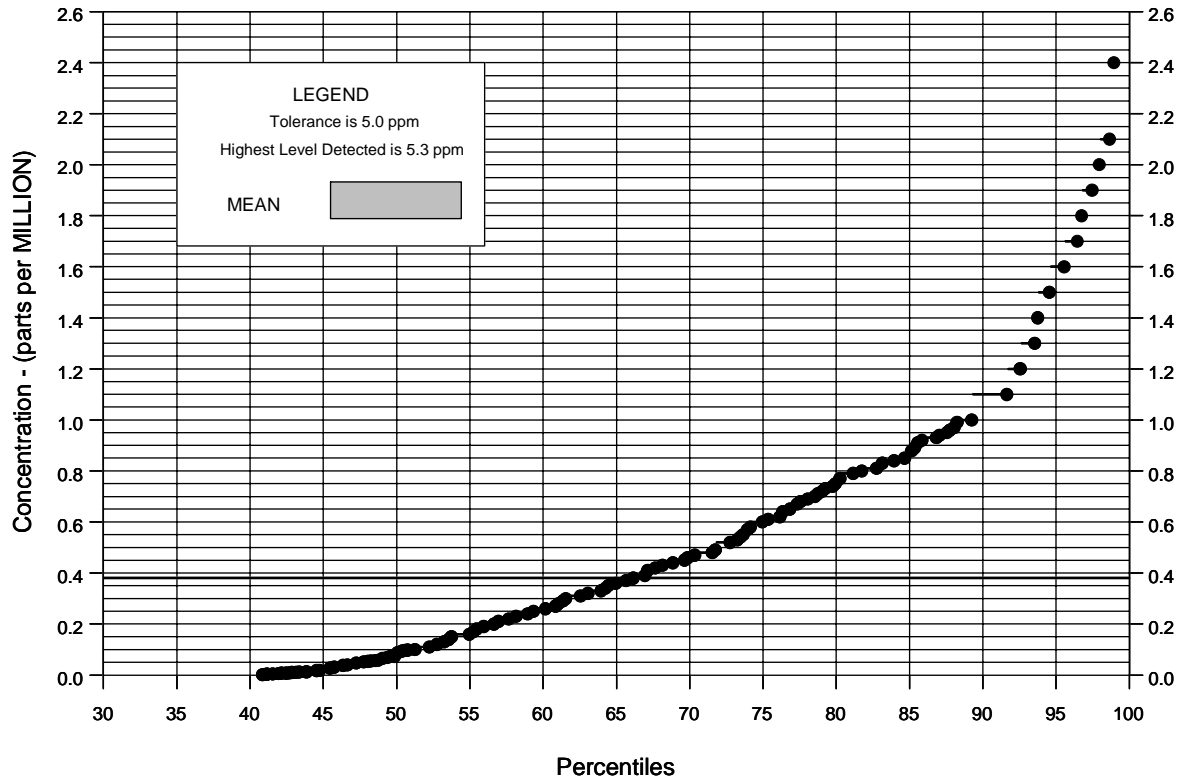
Fludioxonil / Nectarines



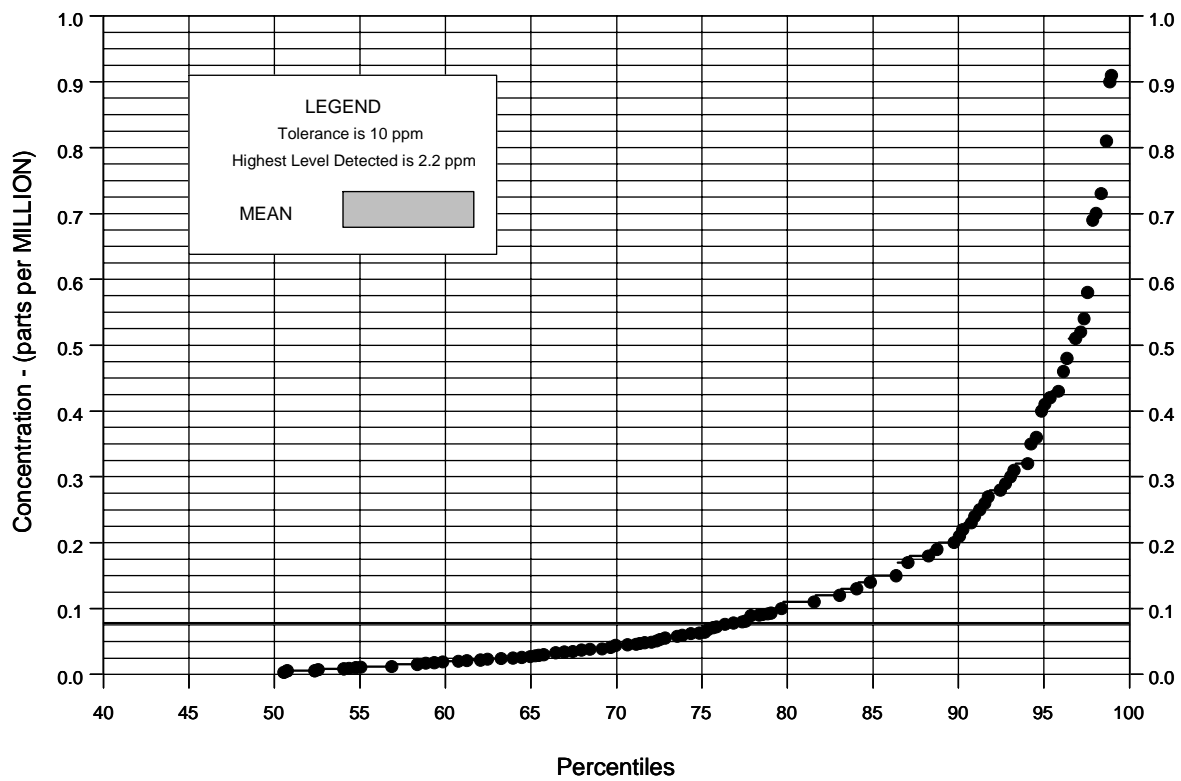
Phosmet / Nectarines



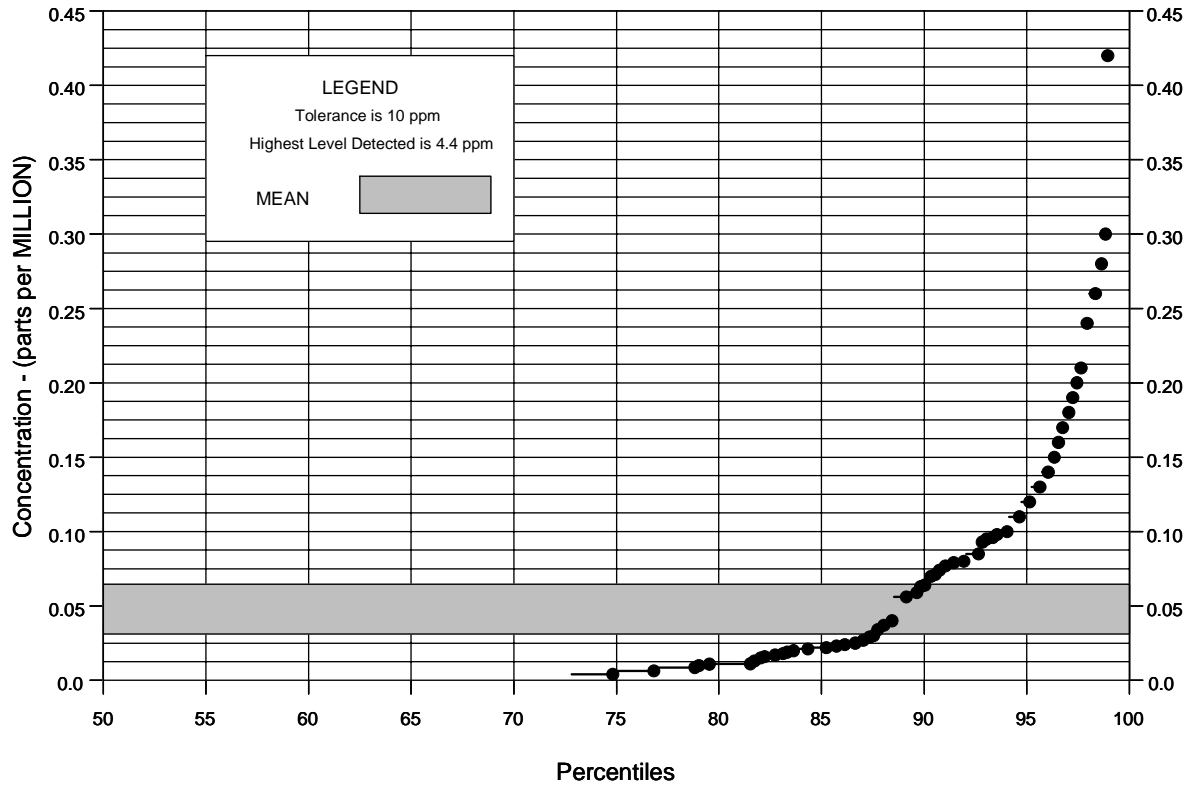
Fludioxonil / Peaches



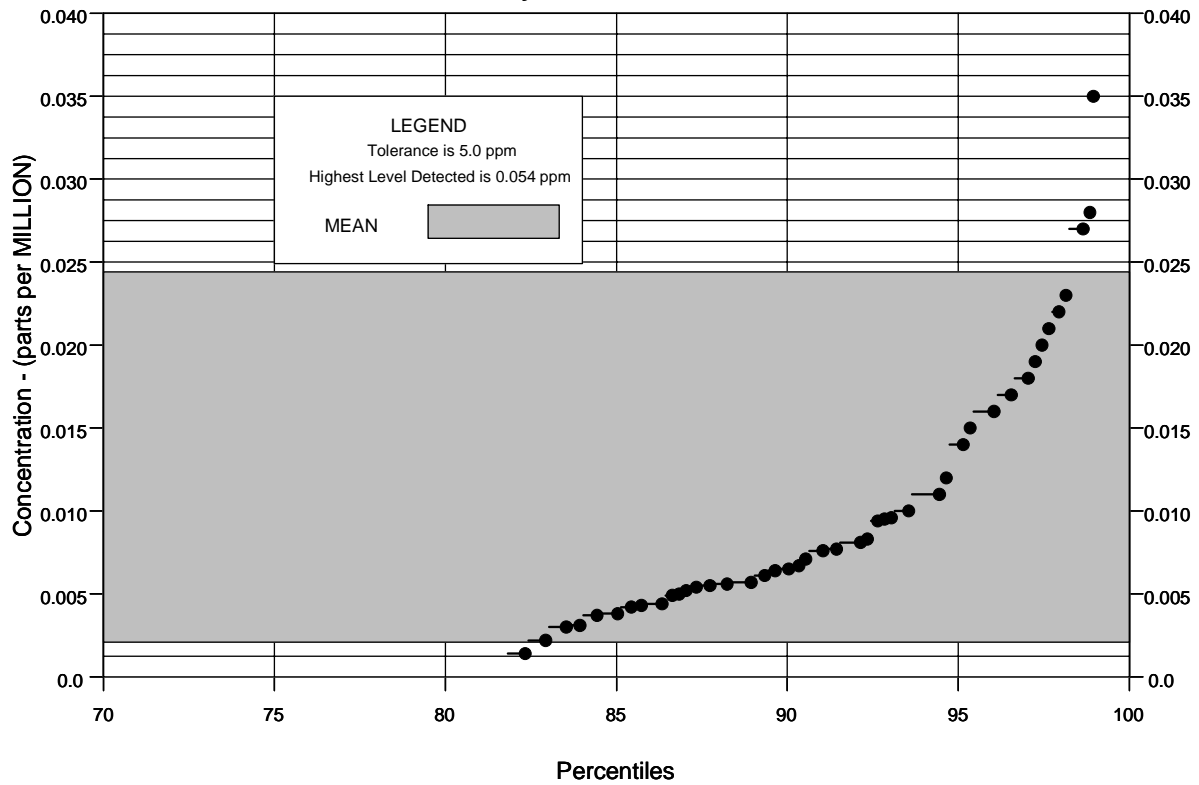
Phosmet / Peaches



Propargite / Raisins



Trifloxystrobin / Raisins



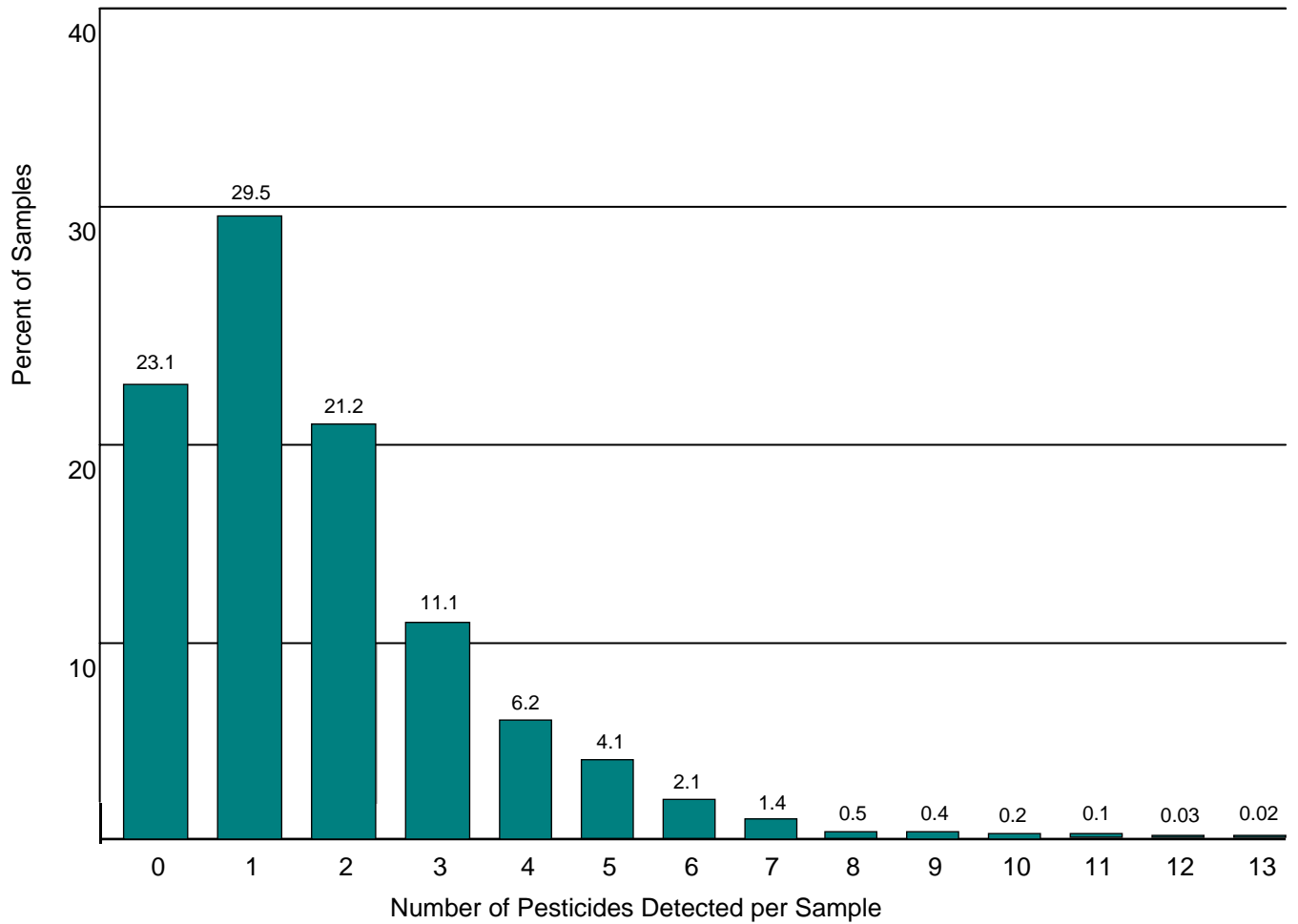
Appendix M

Number of Pesticides Detected per Sample

Appendix M shows the percentage of samples versus the number of pesticides detected per sample, excluding groundwater and drinking water samples. 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 11,683 samples analyzed, 23.1 percent of the samples had no detectable pesticides, 29.5 percent had 1 pesticide, and 47.4 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.

APPENDIX M. SAMPLES vs. NUMBER OF PESTICIDES¹ DETECTED PER SAMPLE²



	Number of Pesticides Detected per Sample													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Number of Samples	2,696	3,444	2,482	1,296	728	480	246	162	60	50	21	13	3	2
Percent of Total Samples	23.1	29.5	21.2	11.1	6.2	4.1	2.1	1.4	0.5	0.4	0.2	0.1	0.03	0.02

TOTAL NUMBER OF SAMPLES = 11,683

Multiple pesticide detections may result from: application of more than one pesticide, spray drift, crop rotation, cross-contamination, and/or indicate the presence of environmental contaminants.

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 groundwater and finished/untreated drinking water samples.

APPENDIX M. 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	13
Fresh Fruit and Vegetables:														
	Percent													
Bananas (744)	27.3	47.3	24.1	1.3	--	--	--	--	--	--	--	--	--	--
Blueberries (711)	18.3	20.4	20.4	15.2	10.4	7.2	2.5	2.7	0.8	1.0	0.1	0.7	0.1	0.1
Broccoli (736)	12.0	32.2	40.5	11.3	2.2	1.8	0.1	--	--	--	--	--	--	--
Carrots (744)	20.8	27.8	17.5	15.9	10.1	5.4	1.6	0.8	0.1	--	--	--	--	--
Celery (739)	3.5	6.2	9.3	14.6	14.1	15.6	11.8	10.7	5.4	5.0	2.3	1.1	0.3	0.1
Cherries (419)	10.0	21.7	18.1	14.8	16.0	10.3	6.0	2.9	0.2	--	--	--	--	--
Green Beans (739)	27.6	22.6	16.6	11.8	11.5	5.5	2.7	0.8	0.7	--	0.1	--	--	--
Greens, Collard (353)	20.4	23.5	17.6	12.2	11.3	9.3	3.1	2.0	0.3	0.3	--	--	--	--
Greens, Kale (386)	23.3	29.0	19.7	11.9	7.3	3.9	2.1	1.8	0.8	0.3	--	--	--	--
Nectarines (563)	7.8	14.0	41.7	27.5	6.4	1.8	0.7	--	--	--	--	--	--	--
Peaches (555)	4.3	9.5	19.8	25.8	16.9	12.3	7.2	3.1	0.4	0.5	0.2	--	--	--
Summer Squash (742)	20.2	47.8	23.5	5.9	1.5	0.8	0.3	--	--	--	--	--	--	--
Tomatoes (741)	42.2	32.7	16.6	6.6	1.6	0.1	0.1	--	--	--	--	--	--	--
Processed Fruit and Vegetables:														
Apple Juice (368)	82.3	5.2	2.2	3.8	3.5	2.4	0.5	--	--	--	--	--	--	--
Blueberries, Frozen (22)	18.2	22.7	9.1	--	13.6	4.5	9.1	13.6	4.5	--	4.5	--	--	--
Potatoes, Frozen (800)	17.9	45.5	30.5	5.1	1.0	--	--	--	--	--	--	--	--	--
Raisins (372)	40.9	25.8	9.9	4.3	5.4	8.3	3.5	1.6	--	0.3	--	--	--	--
Percent of Total Samples	22.0	27.3	21.5	11.6	7.0	4.9	2.5	1.7	0.6	0.51	0.22	0.13	0.03	0.02
Actual Number of Samples	2,143	2,653	2,091	1,127	686	477	246	162	60	50	21	13	3	2
TOTAL NUMBER OF FRUIT & VEGETABLE SAMPLES = 9,734														
Nut Product:														
Almonds (361)	22.2	29.9	31.3	15.0	1.4	0.3	--	--	--	--	--	--	--	--
Actual Number of Samples	80	108	113	54	5	1	--	--	--	--	--	--	--	--
Grain Product:														
Corn Grain (660)	37.3	52.7	9.4	0.6	--	--	--	--	--	--	--	--	--	--
Actual Number of Samples	246	348	62	4	--	--	--	--	--	--	--	--	--	--
Honey Product:														
Honey (186)	45.2	47.8	6.5	0.5	--	--	--	--	--	--	--	--	--	--
Actual Number of Samples	84	89	12	1	--	--	--	--	--	--	--	--	--	--
Dairy Product:														
Heavy Cream (742)	19.3	33.2	27.5	14.8	5.0	0.3	--	--	--	--	--	--	--	--
Actual Number of Samples	143	246	204	110	37	2	--	--	--	--	--	--	--	--

NOTES

¹ Parent compounds and their metabolites are combined to report the number of "pesticides" rather than the number of "residues."

² Excludes the 272 groundwater and 734 drinking water samples.

Appendix N

Fruit and Vegetable Samples Reported to the U.S. Food and Drug Administration as Exceeding the Tolerance or Without Established Tolerance

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

Appendix N 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 2007, a total of 432 samples with 473 residues were reported to the FDA as Presumptive Tolerance Violations.

A total of 49 fruit and vegetable samples were found to have residues at levels exceeding the established tolerance, including 6 blueberry samples, 3 celery samples, 2 green bean samples, 11 collard green samples, 9 kale samples, 5 nectarine samples, 3 peach samples, 9 summer squash samples, and 1 tomato sample. Of those 49 samples, 8 were reported as imported produce.

45 samples contained 1 residue exceeding the established tolerance.
3 samples contained 2 residues exceeding the established tolerances.
1 samples contained 4 residues exceeding the established tolerances.

In addition, 386 samples were found to have residues for which no tolerance was established, including 377 fruit and vegetable samples, 3 corn grain samples and 6 honey samples.

356 samples contained 1 residue for which no tolerance was established.
28 samples contained 2 residues for which no tolerance was established.
2 samples contained 3 residues for which no tolerance was established.

Three of the 386 samples also contained 1 residue each 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 N 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 N. 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	Country of Origin
1 Blueberries / Carbendazim (MBC)	0.0003	8	7.0	Chile
2 Blueberries / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.006	0.13	0.01	U.S.
3 Blueberries / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.006	0.027	0.01	U.S.
4 Blueberries / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.006	0.023	0.01	U.S.
5 Blueberries / Simazine	0.002	0.35	0.25	U.S.
6 Blueberries / Simazine	0.002	0.29	0.25	U.S.
7 Celery / Fludioxonil	0.012	0.02	0.01	U.S.
8 Celery / Fludioxonil	0.012	0.02	0.01	U.S.
9 Celery / Fludioxonil	0.012	0.02	0.01	U.S.
10 Green Beans / Chlorothalonil	0.008	9.1	5	U.S.
11 Green Beans / Clothianidin	0.01	0.054	0.02	U.S.
12 Greens, Collard / Acephate	0.03	0.16	0.02	U.S.
13 Greens, Collard / Chlorpyrifos	0.004	6.3	2.0	U.S.
14 Greens, Collard / Cyhalothrin, Lambda	0.006	0.099	0.01	U.S.
15 Greens, Collard / Cyhalothrin, Lambda	0.006	0.092	0.01	U.S.
16 Greens, Collard / Cyhalothrin, Lambda	0.006	0.078	0.01	U.S.
17 Greens, Collard / Cyhalothrin, Lambda	0.006	0.06	0.01	U.S.
18 Greens, Collard / Cyhalothrin, Lambda	0.006	0.023	0.01	U.S.
19 Greens, Collard / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.05	0.45	0.01	U.S.
20 Greens, Collard / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.05	0.35	0.01	U.S.
21 Greens, Collard / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.05	0.082	0.01	U.S.
22 Greens, Collard / Methamidophos	0.05	0.083	0.02	U.S.
23 Greens, Collard / Myclobutanil	0.075	3.3	0.03	U.S.
24 Greens, Kale / Acephate	0.03	0.24	0.02	U.S.
25 Greens, Kale / Acephate	0.03	0.05	0.02	Canada
26 Greens, Kale / Acephate	0.03	0.05	0.02	U.S.
27 Greens, Kale / Acetamiprid	0.01	1.6	1.20	U.S.
28 Greens, Kale / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.05	0.2	0.01	U.S.

Commodity / Pesticide	Limit of Detection, ppm	Concentration Detected, ppm	EPA Tolerance Level, ppm	Country of Origin
29 Greens, Kale / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.05	0.15	0.01	U.S.
30 Greens, Kale / Cyhalothrin, Total (Cyhalothrin-L + R157836 epimer)	0.05	0.071	0.01	U.S.
31 Greens, Kale / Diazinon	0.002	2.1	0.7	U.S.
32 Greens, Kale / Esfenvalerate+Fenvalerate Total	0.13	0.26	0.05	U.S.
33 Greens, Kale / Metalaxyl	0.015	0.66	0.1	Mexico
34 Greens, Kale / Methamidophos	0.05	0.18	0.02	U.S.
35 Greens, Kale / Methamidophos	0.05	0.083	0.02	U.S.
36 Greens, Kale / Myclobutanil	0.075	0.85	0.03	Mexico
37 Nectarines / Esfenvalerate	0.061	0.1	0.05	U.S.
38 Nectarines / Esfenvalerate	0.061	0.1	0.05	U.S.
39 Nectarines / Esfenvalerate	0.061	0.1	0.05	U.S.
40 Nectarines / Esfenvalerate	0.061	0.1	0.05	U.S.
41 Nectarines / Methamidophos	0.007	0.03	0.02	Chile
42 Peaches / Fludioxonil	0.015	5.3	5.0	U.S.
43 Peaches / Methamidophos	0.002	0.056	0.02	Chile
44 Peaches / Methamidophos	0.002	0.046	0.02	Chile
45 Summer Squash / Acephate	0.005	0.46	0.02	U.S.
46 Summer Squash / Acephate	0.005	0.052	0.02	U.S.
47 Summer Squash / Chlorpyrifos	0.004	0.33	0.1	U.S.
48 Summer Squash / Heptachlor epoxide	0.002	0.046	0.02	U.S.
49 Summer Squash / Heptachlor epoxide	0.002	0.036	0.02	U.S.
50 Summer Squash / Heptachlor epoxide	0.002	0.035	0.02	U.S.
51 Summer Squash / Heptachlor epoxide	0.002	0.03	0.02	U.S.
52 Summer Squash / Methamidophos	0.004	0.061	0.02	U.S.
53 Summer Squash / Methamidophos	0.002	0.031	0.02	Mexico
54 Summer Squash / Methomyl	0.006	0.56	0.2	U.S.
55 Tomatoes / Esfenvalerate	0.072	0.12	0.05	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 Bananas								
o-Phenylphenol ¹	744	16	2.2	0.017 ^	0.010 - 0.033	0	16	0
2 Blueberries								
Atrazine	504	1	0.2	0.003 ^	0.002 ^	0	1	0
Buprofezin	504	4	0.8	0.0002 - 0.002	0.0001 ^	3	1	0
DCPA	504	2	0.4	0.001 - 0.004	0.0007 ^	2	0	0
Diflubenzuron	504	1	0.2	0.011 ^	0.007 ^	1	0	0
Malathion oxygen analog	711	7	1	0.005 - 0.013	0.002 - 0.004	6	1	0
Methiocarb	504	1	0.2	0.002 ^	0.0006 ^	1	0	0
Myclobutanil	711	1	0.1	0.001 ^	0.0006 - 0.020	0	1	0
o-Phenylphenol ¹	694	13	1.9	0.005 - 0.043	0.003 - 0.033	13	0	0
Pyrimethanil	504	3	0.6	0.0005 ^	0.0003 ^	1	2	0
Tebuconazole	504	2	0.4	0.003 ^	0.002 ^	0	2	0
Thiabendazole	668	2	0.3	0.0005 - 0.002	0.0001 - 0.001	1	1	0
Trifloxystrobin	504	1	0.2	0.0007 ^	0.0004 ^	1	0	0
3 Broccoli								
Buprofezin	736	2	0.3	0.0002 - 0.0009	0.0001 ^	2	0	0
Carbofuran	736	2	0.3	0.0005 ^	0.0003 ^	1	1	0
Chlorpropham	736	1	0.1	0.064 ^	0.006 - 0.020	1	0	0
Dicloran	736	5	0.7	0.003 ^	0.002 ^	5	0	0
Etoxazole	736	2	0.3	0.0002 ^	0.0001 ^	2	0	0
Fenpyroximate	722	1	0.1	0.006 ^	0.0006 - 0.002	1	0	0
3-Hydroxycarbofuran	736	3	0.4	0.002 - 0.028	0.0006 - 0.001	2	1	0
Pirimiphos methyl	736	1	0.1	0.011 ^	0.002 ^	1	0	0
Pronamide	736	3	0.4	0.010 ^	0.006 ^	3	0	0
Pyrimethanil	736	7	1	0.0005 - 0.003	0.0003 ^	7	0	0
Thiabendazole	736	8	1.1	0.0002 - 0.0007	0.0001 ^	6	1	1
4 Carrots								
Chlorpropham	1	1	100	0.017 ^	0.010 ^	1	0	0
Clofentezine	1	1	100	0.004 ^	0.003 ^	1	0	0
Parathion methyl	1	1	100	0.003 ^	0.002 ^	1	0	0
Pentachlorobenzene (PCB) ²	2	2	100	0.003 ^	0.002 ^	2	0	0
Permethrin cis ³	216	1	0.5	0.020 ^	0.012 ^	1	0	0
Permethrin trans ³	216	1	0.5	0.020 ^	0.012 ^	1	0	0
Phosmet	1	1	100	0.022 ^	0.005 ^	0	1	0
Quintozene (PCNB) ²	216	4	1.9	0.010 - 0.026	0.003 ^	4	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.
5 Celery								
Cycloate	525	10	1.9	0.001 - 0.003	0.0006 ^	10	0	0
Cyprodinil	2	2	100	0.013 - 0.049	0.008 ^	2	0	0
DCPA	527	64	12.1	0.001 - 0.012	0.0007 - 0.003	61	1	2
Dimethomorph	526	15	2.9	0.002 - 0.004	0.0009 - 0.002	15	0	0
Iprodione	495	1	0.2	0.014 ^	0.008 - 0.12	1	0	0
Malathion oxygen analog	739	1	0.1	0.003 ^	0.002 - 0.004	1	0	0
Metribuzin	525	1	0.2	0.022 ^	0.013 ^	1	0	0
Norflurazon	467	1	0.2	0.008 ^	0.005 ^	1	0	0
o-Phenylphenol ¹	686	5	0.7	0.005 - 0.052	0.003 - 0.033	5	0	0
Piperonyl butoxide	525	3	0.6	0.019 - 0.033	0.005 ^	3	0	0
Pyrimethanil	525	14	2.7	0.0005 - 0.005	0.0003 ^	14	0	0
Thiabendazole	739	4	0.5	0.0002 - 0.002	0.0001 - 0.001	3	1	0
6 Cherries								
Thiabendazole	122	2	1.6	0.002 - 0.007	0.001 ^	2	0	0
7 Corn Grain (in parts per billion)								
				(ppb)	(ppb)			
Cyanazine	534	1	0.2	3.0 ^	2.0 ^	1	0	0
Methoxychlor p,p'	660	2	0.3	10 ^	6.0 ^	2	0	0
8 Green Beans								
Carbofuran	528	2	0.4	0.069 - 0.14	0.010 ^	2	0	0
Chlorpropham	528	1	0.2	0.085 ^	0.038 ^	1	0	0
Dinotefuran	528	19	3.6	0.011 - 0.18	0.010 ^	19	0	0
Fenpropathrin	1	1	100	0.10 ^	0.020 ^	0	1	0
3-Hydroxycarbofuran	528	2	0.4	0.018 - 0.030	0.010 ^	2	0	0
Oxamyl	507	1	0.2	0.011 ^	0.010 ^	0	1	0
o-Phenylphenol ¹	709	1	0.1	0.032 ^	0.010 - 0.033	0	0	1
Pyrimethanil	530	3	0.6	0.003 - 0.011	0.003 ^	3	0	0
Thiabendazole	739	9	1.2	0.002 - 0.026	0.001 - 0.010	7	2	0
Trifloxystrobin	739	2	0.3	0.001 - 0.008	0.0007 - 0.005	0	2	0
9 Greens, Collard								
Chlorothalonil	1	1	100	0.013 ^	0.008 ^	1	0	0
Dicloran	214	1	0.5	0.018 ^	0.013 ^	1	0	0
Dinotefuran	236	3	1.3	0.012 - 0.12	0.010 ^	3	0	0
Famoxadone	1	1	100	2.2 ^	0.002 ^	1	0	0
Linuron	1	1	100	0.017 ^	0.002 ^	1	0	0
Malathion oxygen analog	353	1	0.3	0.005 ^	0.003 - 0.006	1	0	0
Methoxychlor p,p'	1	1	100	0.002 ^	0.001 ^	1	0	0
Metolachlor	335	1	0.3	0.060 ^	0.010 - 0.030	1	0	0
Norflurazon desmethyl	236	1	0.4	0.012 ^	0.010 ^	1	0	0
Pendimethalin	237	3	1.3	0.023 - 0.037	0.015 - 0.020	3	0	0
o-Phenylphenol ¹	335	11	3.3	0.017 - 0.060	0.010 - 0.033	9	0	2
Piperonyl butoxide	353	5	1.4	0.017 - 0.13	0.010 - 0.015	5	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.
10 Greens, Kale								
Chlorothalonil	1	1	100	0.070 ^	0.008 ^	1	0	0
Dinotefuran	289	3	1	0.008 - 0.044	0.005 - 0.010	3	0	0
Fenamiphos sulfoxide	287	1	0.3	0.007 ^	0.005 ^	1	0	0
Methoxychlor p,p'	2	2	100	0.002 ^	0.001 ^	2	0	0
Pendimethalin	291	4	1.4	0.022 - 0.033	0.015 - 0.020	4	0	0
Permethrin Total	290	18	6.2	0.11 - 8.4	0.10 ^	17	1	0
Permethrin cis ³	96	4	4.2	0.065 - 4.6	0.012 ^	4	0	0
Permethrin trans ³	96	4	4.2	0.056 - 3.7	0.012 ^	4	0	0
o-Phenylphenol ¹	373	5	1.3	0.017 - 0.039	0.010 - 0.033	3	2	0
Propargite	1	1	100	0.007 ^	0.004 ^	1	0	0
Quinoxifen	1	1	100	0.0008 ^	0.0005 ^	1	0	0
Trifloxystrobin	287	1	0.3	0.010 ^	0.005 ^	1	0	0
11 Honey (in parts per billion)								
				(ppb)	(ppb)			
Dicloran	186	1	0.5	1.0 ^	1.0 ^	1	0	0
Dicofol p,p'	186	3	1.6	1.3 - 3.6	1.0 ^	3	0	0
Vinclozolin	186	2	1.1	10.6 - 10.7	1.0 ^	0	2	0
12 Peaches								
Allethrin	555	1	0.2	0.12 ^	0.010 ^	1	0	0
Diphenylamine (DPA)	151	1	0.7	0.017 ^	0.010 ^	0	1	0
Imazalil	507	7	1.4	0.006 - 0.050	0.004 - 0.10	3	4	0
Parathion methyl	2	2	100	0.002 - 0.15	0.001 - 0.002	2	0	0
Propargite	523	11	2.1	0.006 - 0.96	0.004 - 0.020	11	0	0
Thiabendazole	524	34	6.5	0.002 - 0.65	0.001 - 0.030	6	28	0
13 Potatoes, Frozen								
o-Phenylphenol ¹	757	7	0.9	0.017 - 0.046	0.010 - 0.033	6	0	1
14 Raisins								
o-Phenylphenol ¹	108	2	1.9	0.033 ^	0.020 ^	2	0	0
Procymidone	264	1	0.4	1.0 ^	0.050 ^	0	1	0
Thiabendazole	108	1	0.9	0.002 ^	0.001 ^	1	0	0
15 Summer Squash								
o-Phenylphenol ¹	179	2	1.1	0.017 ^	0.010 - 0.033	2	0	0

NOTES

¹ o-Phenylphenol is a fungicide with a number of crop tolerances. It is also an ingredient in many cleaning products and is used in the paper manufacturing process. Residues of o-Phenylphenol may be the result of direct use, transfer across commodities, or may originate from various paper and cleaning products.

² Pentachlorobenzene (PCB) metabolite was detected within the same samples as Quintozene (PCNB).

³ Permethrin cis and trans isomers were detected within the same samples.

Note:

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

PESTICIDE DATA PROGRAM

Annual Summary Calendar Year 2007

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