



United States
Department of
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Agricultural
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Science and Technology
Programs

Pesticide Data Program

Annual Summary Calendar Year 2002



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United States
Department of
Agriculture

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 12th Annual Summary, which includes data for calendar year 2002. PDP data continue to demonstrate that the Nation's food supply is among the safest in the world.

The United States 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 and the most current laboratory methods, PDP has tested both fresh and processed fruit and vegetables, grains, milk, beef, and poultry. In 2001, PDP introduced testing of finished drinking water.

PDP data are essential for the implementation of the 1996 Food Quality Protection Act, which directs the Secretary of Agriculture to collect pesticide residue data on foods most likely consumed by infants and children. The Environmental Protection Agency uses PDP data as a critical component of pesticide dietary assessments. 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. Ten States participated in 2002: California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin. Because these States together represent all regions of the country and over half the Nation's population, reliable conclusions about our food supply can be drawn from PDP results.

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

Sincerely,

A. J. Yates
Administrator



AMS-Agricultural Marketing Service

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Acronyms

AMS	Agricultural Marketing Service
APHIS	Animal and Plant Health Inspection Service
ARS	Agricultural Research Service
CARAT	Committee to Advise on Reassessment and Transition
CDFA	California Department of Food and Agriculture
CFR	Code of Federal Regulations
CV	Coefficient of Variation
EMRL	Extraneous Maximum Residue Limit
EPA	Environmental Protection Agency
ERS	Economic Research Service
ESA	Ethane Sulfonic Acid
FAO	Fresh Aquatic Organism
FAS	Foreign Agricultural Service
FDA	Food and Drug Administration
FQPA	Food Quality Protection Act
FSIS	Food Safety and Inspection Service
GC	Gas Chromatography
GIPSA	Grain Inspection, Packers & Stockyards Administration
GLPs	Good Laboratory Practices
HA	Health Advisory
HPLC	High Performance Liquid Chromatography
JMPR	Joint Meeting on Pesticide Residues
LIB	Laboratory Information Bulletin
LOD	Limit of Detection
LOQ	Limit of Quantitation
MCL	Maximum Contaminant Level
MRM	Multiresidue Method
MRL	Maximum Residue Limit
MS	Mass Spectrometry
NAS	National Academy of Sciences
NASS	National Agricultural Statistics Service
NPDWR	National Primary Drinking Water Regulation
OA	Oxanilic Acid
OPMP	Office of Pest Management Policy
PAM	Pesticide Analytical Manual
PDP	Pesticide Data Program
QA/QC	Quality Assurance/Quality Control
QAO	Quality Assurance Officer
QAU	Quality Assurance Unit
SOP	Standard Operating Procedure
SPE	Solid Phase Extraction
SRM	Selective Residue Method
RDE	Remote Data Entry
TRAC	Tolerance Reassessment Advisory Committee
USDA	United States Department of Agriculture
USGS	United States Geological Survey

Preface

In 1991, the United States Department of Agriculture (USDA) was charged with designing and implementing a program to collect data on pesticide residues in food. The responsibility for this program was given to the USDA Agricultural Marketing Service (AMS), which began operating the Pesticide Data Program (PDP) in May 1991. The data produced by PDP are reported in an annual summary each year.

PDP planning and policy are developed collaboratively by various USDA agencies and the Environmental Protection Agency (EPA). USDA agencies include AMS, the National Agricultural Statistics Service (NASS), the Economic Research Service (ERS), the Agricultural Research Service (ARS), and the Office of Pest Management Policy (OPMP).

PDP data support and strengthen the ability of the Government to respond to food safety and marketing issues. PDP provides EPA with data needed for pesticide dietary risk assessments. EPA data needs increased after the passage of the 1996 Food Quality Protection Act (FQPA) and with EPA's use of sophisticated assessment models that require the scope and reliability of the extensive PDP database. Using PDP data, EPA has been able to prepare assessments that more accurately evaluate exposure to pesticide residues in the American diet.

In estimating the potential risks of pesticide residues in food, EPA uses a stepwise 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 and at the maximum rate and frequency allowed. EPA may also assume that residues on treated crops are present at the maximum allowed level. Exposure estimates based on such assumptions are likely to exceed actual exposure

significantly. When an initial assessment indicates potential risk of concern, EPA refines its assessment using realistic exposure data. Refinements may include using data on the percent of a crop treated with a pesticide; studies of the effects of washing, cooking, processing, and storage; and residue monitoring data - this is when PDP data can be pivotal. PDP sampling procedures were designed to capture actual residues in the food supply as close as possible to the time of consumption.

PDP concentrates its efforts in providing better pesticide residue data on foods most consumed by children. This PDP policy is guided by the requirements of the 1996 Food Quality Protection Act and by recommendations made in 1993 by the National Academy of Sciences (NAS) in "*Pesticides in the Diets of Infants and Children.*"

The States participating in PDP deserve special recognition for their contributions to the program. The dedication and flexibility of sample collectors allow AMS to adjust sampling protocols to respond to changing trends in commodity distribution and availability. Laboratory staff is critical to increased productivity and improved analytical methods. PDP acknowledges the contributions of NASS in providing statistical support; the Food Safety and Inspection Service in providing sample collection services for beef; the AMS National Science Laboratory and the Grain Inspection, Packers and Stockyards Administration Laboratory in providing testing services to the program. PDP also acknowledges the exceptional support of the Health Effects Division staff of the EPA Office of Pesticide Programs in helping set the direction for PDP.

USDA welcomes all comments on this summary and on the Pesticide Data Program. Comments may be submitted using the form provided on the final page of this report or electronically to amsmpo.data@usda.gov.

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

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Executive Summary

The U.S. Department of Agriculture's Agricultural Marketing Service (AMS) initiated the Pesticide Data Program (PDP) in May 1991 to collect data on pesticide residues in foods. This publication summarizes PDP results for 2002. PDP results are released annually in a calendar-year summary in both hard copy and on the Internet.

PDP data are used by the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the USDA Economic Research Service and Foreign Agricultural Service, academic institutions as well as groups within the private sector representing food producers, environmental interests, and food safety organizations. EPA uses PDP data to prepare realistic pesticide dietary exposure assessments as part of its ongoing effort to implement the 1996 Food Quality Protection Act. PDP data are also used by the Government and agricultural community to examine pesticide residue issues that may affect agricultural practices and U.S. trade. PDP data are also useful in promoting export of U.S. commodities, particularly in the competitive global market, and addressing food safety issues.

In 2002, program operations were carried out with the support of 10 States: California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin. Federal laboratories providing testing services include the AMS National Science Laboratory and the Grain Inspection, Packers and Stockyards Administration (GIPSA) Laboratory. The USDA Food Safety and Inspection Service (FSIS) provided sample collection services for beef samples in 2002. Participating water utilities currently provide the drinking water samples. The AMS Monitoring Programs Office is responsible for administering the program, coordinating sampling actions, directing

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

PDP food sampling is based on a rigorous statistical design that ensures that the data are reliable for use in exposure assessments and can be used to draw various conclusions about the Nation's food supply. Pesticides and commodities included each year in PDP are selected based on EPA data needs and on information about the types and amounts of food consumed by infants and children. Fruit and vegetable samples collected by each of the 10 participating States are apportioned according to that State's population. Samples are taken close to the time and point of consumption. They are randomly chosen and reflect the commodity that is typically available to the consumer throughout the year. Samples are selected without regard to country of origin 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 and sample collection is limited to the season when the commodity is available.

During 2002, PDP tested fresh and processed fruit and vegetables, barley, rice, beef tissues and drinking water for various insecticides, herbicides, fungicides, and growth regulators. Of the 12,899 samples collected and analyzed, 10,056 were fruit and vegetable commodities including, apple juice, apple sauce, canned and frozen sweet peas, sweet corn, as well as fresh apples, asparagus, bananas, broccoli, carrots, celery, cucumbers, mushrooms, onions, peaches, pineapples, potatoes, spinach and sweet bell peppers. PDP also tested 725 samples of barley, 495 rice samples, 924 beef samples, and 699 drinking water samples.

Approximately 78 percent of all samples were domestic and 20 percent were imported. Approximately 1 percent of the samples were of mixed origin and less than 1 percent was of unknown origin. Asparagus, bananas, cucumbers, peaches, and pineapples accounted for most of the imported commodities.

Approximately 47 percent of the fruit and vegetable samples, 15 percent of barley samples, 18 percent of rice samples, and 15 percent of the beef tissue samples had detectable residues. Residues detected in beef samples resulted almost entirely from detections of persistent chemicals and their metabolites, most of which have been canceled for agricultural use for a number of years.

Overall, approximately 58 percent of all samples contained no detectable residues, 19 percent contained 1 residue, and 23 percent contained more than 1 residue. Generally, fewer residues were found in processed products and grains than in fresh commodities. Low levels of environmental contaminants were detected in carrots, celery, potatoes, spinach, and beef adipose tissues. However, the concentrations detected were below levels that trigger regulatory actions.

In finished drinking water, PDP detected low levels (measured in parts per trillion) of some pesticides, primarily widely used herbicides. None of the detections exceeded established

EPA Maximum Contaminant Levels (MCL) or Health Advisory (HA) levels.

A tolerance is the maximum amount of a pesticide residue allowable on a raw agricultural commodity. Established tolerances are listed in the Code of Federal Regulations (CFR), Title 40, Part 180. In 2002, PDP testing found residues exceeding an established tolerance in 0.3 percent of the 12,200 samples (excluding drinking water). Residues with no established tolerance were found in 2.7 percent of all samples (excluding drinking water). These residues were detected at very low concentrations and may be due to spray drift, crop rotations, or the use of sanitizers in food handling establishments. PDP reports these findings to FDA when they are reported by testing laboratories.

PDP continuously strives to improve methods for the collection, testing, and reporting of data. PDP data are freely available to EPA and other Federal and State agencies charged with regulating and setting policies on the use of pesticides. Data are available to all stakeholders by hard copy, Internet access or custom reports generated by the office.

Additional copies of this summary report may be obtained by calling the Monitoring Programs Office at (703) 330-2300 or by mailing the form provided at the end of this report. This report is also available on the PDP Web site at <http://www.ams.usda.gov/science/pdp>.

Pesticide Data Program (PDP)

Annual Summary, Calendar Year 2002

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

This summary of results for 2002 is the 12th annual summary of the USDA Pesticide Data Program. This publication and the PDP database file for 2002 are available on the Internet at www.ams.usda.gov/science/pdp. Annual summaries and database files for previous years are also on the Internet. Printed copies of all previous summary reports are available on request from the AMS Monitoring Programs Office.

Many USDA offices work together to achieve the goals and objectives of PDP. The USDA National Agricultural Statistics Service (NASS) provides statistically reliable data on chemical usage at the State level and collects economic data that link chemical usage with economic characteristics. USDA's Economic Research Service analyzes data from the USDA's Agricultural Marketing Service (AMS) and from NASS to understand producer behavior and to determine the impact various production practices, policies, and regulations might have on the Nation's agricultural production, food supply, and consumers. The nationwide food consumption surveys of USDA's Agricultural Research Service provide data about the diets of Americans of all ages. This survey data can be linked to PDP residue in pesticide exposure assessments. AMS, through its Science and Technology Programs, oversees the planning and policy development for PDP.

Figure 1 illustrates the three major PDP components: sample collection, laboratory analysis, and database management. In 2002, all samples except beef and drinking water samples were collected by 10 States (California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin) through cooperative agreements with their respective agencies. Beef samples were collected through USDA's Food Safety and Inspection Service

(FSIS). Water sampling was conducted by participating drinking water treatment facility personnel in five States (California, Colorado, Kansas, New York, and Texas). Laboratory services were provided by eight States (California, Colorado, Florida, Michigan, New York, Ohio, Texas, and Washington) and two Federal laboratories: the AMS National Science Laboratory and the Grain Inspection, Packers, and Stockyards Administration (GIPSA) Laboratory. The AMS Monitoring Programs Office is responsible for administrative, sampling, technical, and database activities.

The 10 States participating in PDP are shown in Figure 2 as well as the 13 neighboring States that are in the direct distribution networks of the PDP participating States. These neighboring States are Alaska, Connecticut, Delaware, Hawaii, Idaho, Massachusetts, Nevada, New Jersey, New Mexico, Oklahoma, Vermont, Virginia, and Wyoming. Together, these States represent about 50 percent of the Nation's population and all 4 census regions of the United States. These States also represent the major producers of fruit and vegetables.

The sample collection frame for beef was customized to reflect National distribution. AMS worked with FSIS to ensure that sample collections reflect growing seasons and nationwide distribution. Water sites are selected in collaboration with EPA based on data needs.

AMS works closely with EPA to select commodities and pesticides for PDP testing. Commodities selected are those most often consumed by the United States consumers, with emphasis on foods consumed by infants and children. During 2002, the 22 commodities sampled and analyzed by PDP were apples, apple juice, apple sauce, asparagus, bananas, barley, beef, broccoli, carrots, celery, cucumbers, mushrooms, onions, peaches, pineapples,

Figure 1. Overview of PDP Management and Operations

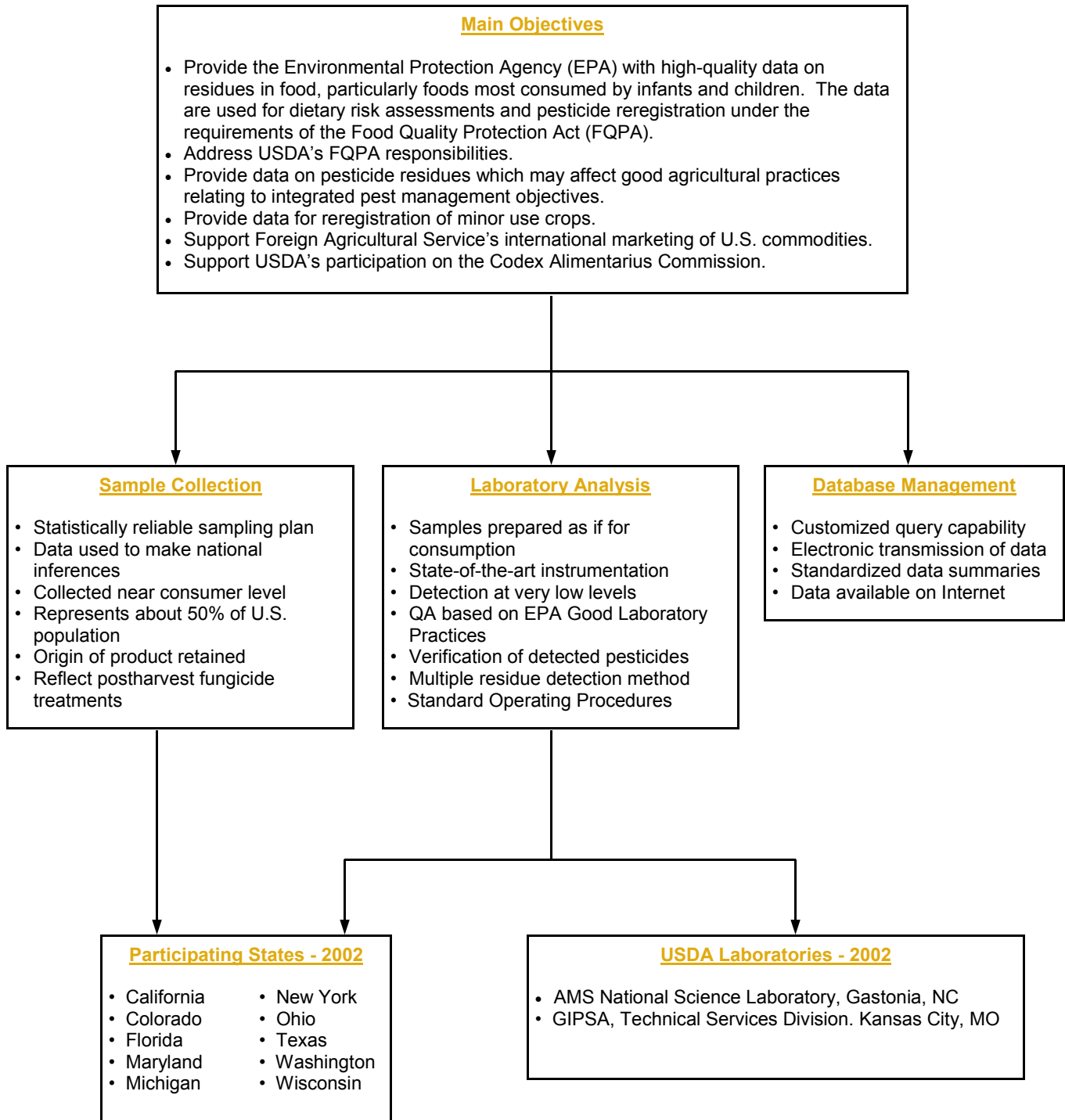
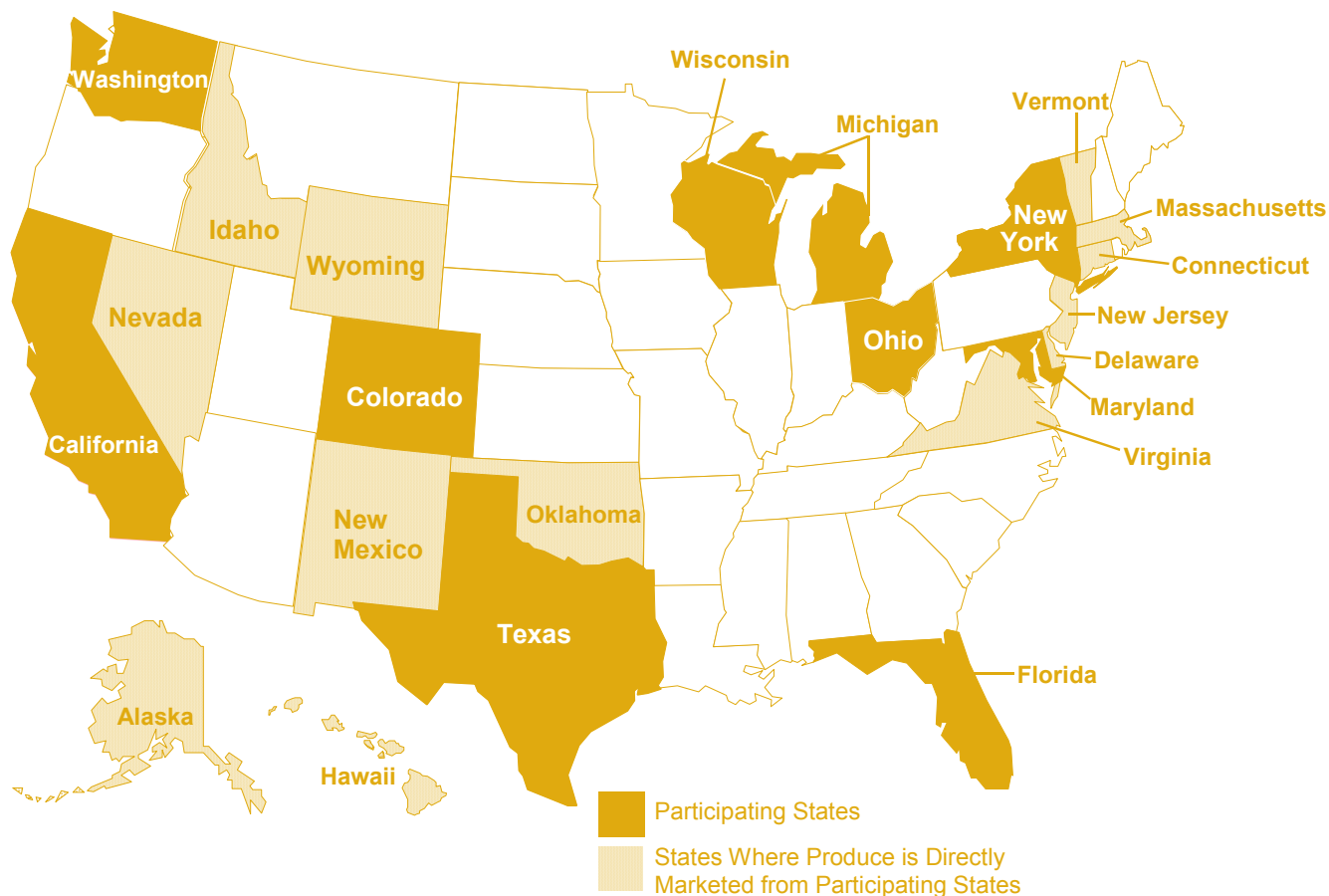


Figure 2. Participating States and Their Geographical Distribution Areas



potatoes, rice, spinach, sweet corn (canned and frozen), sweet peas (canned and frozen), sweet bell peppers, and finished drinking water. Pesticides screened by PDP include compounds for which toxicity data and preliminary estimates of dietary exposure indicate the need for more extensive residue data. In 2002, PDP also monitored pesticides for which EPA had modified use directions (i.e., reduced application rates or frequency) as part of risk mitigation requirements. PDP reviews and updates commodities and pesticides in the program to address EPA data needs.

PDP has an important role in the implementation of the 1996 Food Quality Protection Act. This law directs the Secretary of Agriculture to collect pesticide residue data on commodities highly consumed by infants and children. PDP data are used by EPA to review the safety of existing tolerances (maximum residue limits). Other Government agencies and industry have used PDP

data to promote the export of United States commodities to international markets.

Customized queries of the PDP database were requested from various sources to support risk assessment and pesticide information priorities. For example, PDP has generated customized datasets and reports for EPA, other Federal and State agencies, grower groups, chemical manufacturers, and universities to provide residue findings for specific commodity/compound pairs. Data can be sorted by data elements such as sample origin, product type, and date of collection.

PDP has also provided information to the Codex Alimentarius Commission and the World Health Organization on residues of environmental contaminants in foods, methods of analysis, and the PDP Proficiency Evaluation Sample program.

Fruit and vegetable samples are collected at sites as close to the time and point of consumption as

possible. These sites include terminal markets and large chain store distribution centers from which food commodities are released 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 2002, more than 500 sites granted access and provided information 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. Sampling sites are proprietary program information and specific site locations are not disclosed.

Because PDP collects data on food commodities primarily for exposure assessment evaluations, program operations differ markedly from those followed by regulatory monitoring programs for tolerance enforcement. PDP samples are collected close to the point of consumption and are prepared emulating consumer practices. Sampling is based on EPA data needs and does not interfere with commodity distribution. Laboratory operations are designed to achieve the lowest detectable levels rather than quick sample turn around. Pesticide testing focuses on registered uses for the commodities in the PDP program rather than screening for all potential illegal uses. Appendix A identifies the commodity history in PDP from the beginning of the program in 1991 through 2003.

II. Sampling Operations

◆ Background

The goal of the PDP sampling program is to obtain a statistically defensible representation of the United States food supply. In this manner, PDP data reflect actual pesticide residue exposure from food. Using a rigorous statistical design, PDP has developed extensive procedures to ensure

that samples are selected randomly from the National food distribution system and reflect what is typically available to the consumer. The Standard Operating Procedures (SOPs) for PDP sampling are available on the Internet at www.ams.usda.gov/science/pdp.

Fruit, vegetable, and grain samples are collected by trained State inspectors at terminal markets and large chain store distribution centers. At these locations, information is usually available about the identity and origin of the sample. This information is captured for inclusion in PDP database files.

PDP sample origin data identifies the State or country where the commodity was produced. A comparison of PDP sample origin data to State production and import data shows that PDP sampling is representative of the United States food supply. PDP sampling operations are adjusted according to product availability. The number of food samples collected in each participating State is determined by State population. Beef samples were collected at Federally inspected slaughter facilities by Federal personnel and water samples were collected by water treatment facility personnel. The commodity collection schedule for 2002 is shown in Table 1.

SOPs provide criteria for site selection and specific instructions for sample selection, shipping and handling, and chain-of-custody. SOPs are updated as needed and serve as a technical reference in conducting program sampling reviews to ensure that program goals and objectives are met.

PDP Sample Information Forms are used for chain-of-custody and to capture necessary information needed to characterize the sample. Sample collectors use the forms to record information such as the (1) State of sample collection, (2) collection date, (3) sampling site (four-digit 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 also is recorded, such as the State or

Table 1. Commodity Collection Schedule for 2002

Commodity	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Apples	X	X	X	
Apple Juice	X	X	X	X
Apple Sauce			X	X
Asparagus	X	X	X	X
Bananas	X	X	X	X
Barley	X	X	X	X
Beef	X	X		
Broccoli	X	X	X	X
Carrots	X	X	X	
Celery	X	X	X	X
Cucumbers				X
Mushrooms	X	X	X	X
Onions	X	X	X	X
Peaches	X	X	X	
Pineapple	X	X		
Potatoes	X	X		
Rice	X	X	X	
Spinach			X	X
Sweet Bell Peppers				X
Sweet Corn, Canned	X	X	X	
Sweet Corn, Frozen				X
Sweet Peas, Canned	X	X	X	
Sweet Peas, Frozen				X
Water, Finished Drinking	X	X	X	X

X = Sample Collection

country of origin, product variety, production claims such as organic, or any postharvest chemical applications.

In most cases, samples of a commodity collected for PDP throughout the nation are sent to a single laboratory. Commodities are shipped to maintain sample integrity, i.e., by overnight delivery and the use of gel cold packs as appropriate.

◆ Fresh and Processed Fruit and Vegetables

Approximately 78 percent of all samples collected were fruit and vegetables, including fresh and processed products. In 2002, the fresh commodities collected for PDP were apples,

asparagus, bananas, broccoli, carrots, celery, cucumbers, mushrooms, onions, peaches, pineapples, potatoes, spinach, and sweet bell peppers. The processed commodities were apple juice, apple sauce, corn (sweet), and peas (sweet). All fresh and frozen fruit and vegetable samples weigh from 3 to 5 pounds. The weight of samples of canned commodities can vary, but usually range from 1 to 3 pounds.

Samples were collected at either terminal markets or large chain store distribution centers. 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 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 of having NASS perform their quarterly site selection. The number of sampling sites and the volume of produce distributed by the sites vary greatly between States. Sampling plans that included 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 selecting specific sampling dates within a week. Because sampling sites were selected for the entire quarter, States may assign the sites to particular months based on geographic location.

State population figures are used to assign the number of fruit and vegetable samples scheduled for collection each month. These population-based numbers are as follows: 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 of each commodity per year.

A total of 10,056 fresh and processed fruit and vegetable samples were collected and analyzed during 2002. The number of samples collected per State is shown in Table 2. The total number of samples per commodity and the percentage of each that were either domestic, imported, or of unknown origin is shown in Figure 3. Fruit and vegetable samples originated from 37 States and 27 foreign countries (Appendix B).

◆ Barley and Rice

In 2002, PDP collected 495 samples of milled rice and 725 samples of regular milled, pearl, pot, or scotch barley. One-pound samples were collected

from routine PDP sampling sites. Analysis was performed by the Grain Inspection, Packers, and Stockyards Administration (GIPSA) Laboratory in Kansas City, MO. Results for rice and barley are shown in Appendix F and G, respectively. Barley sampling began in October 2001 but analysis was not initiated until January 2002; therefore, the data shown are for 15 months of sample collections.

◆ Beef

In 2002, PDP continued the beef testing program. Beef samples were collected by USDA FSIS personnel in Federally inspected slaughter facilities throughout the United States. Samples were shipped to the AMS National Science Laboratory for analysis. Each sample consisted of adipose, liver, and muscle tissues. A minimum weight of 1 pound per tissue was required.

FSIS provided information about the location and annual production volume of slaughter facility sites. These data were used by PDP to weight each site and determine sampling volume. Larger producing sites were sampled more frequently.

FSIS collected beef samples at 50 slaughter facilities in 15 States. Beef testing included: (steer, heifer, and cow carcasses) 301 adipose tissue, 313 liver tissue, and 310 muscle tissue samples. Figure 4 identifies the States with major beef processing plants where samples were collected. These sites represent approximately 97 percent of the U.S. production of beef.

◆ Drinking Water

In 2002, PDP continued sampling community water systems in New York and California; five new sites in Kansas, Colorado, and Texas were added. The sites in California and New York were selected to reflect two highly-populated regions with divergent climates and hydro-geological settings. These sites reflect the diversity of land uses within the two States and include metropolitan areas, agricultural regions, and protected watersheds. Samples from these States are collected bimonthly at 11 sites in New York and 11 sites in California.

Table 2. Samples Collected and Analyzed per Commodity by Each Participating State

Fresh Fruit and Vegetables

State	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	Total Fresh
California	126	166	167	167	168	126	42	165	168	137	83	84	42	84	1,725
Colorado	18	24	24	24	24	18	6	24	24	21	12	12	6	12	249
Florida	63	84	82	83	84	63	20	84	84	67	41	42	21	42	860
Maryland	36	42	46	48	48	36	12	47	48	34	23	24	12	21	477
Michigan	54	71	72	72	72	54	18	72	72	56	34	35	18	34	734
New York	81	108	108	108	108	81	27	108	108	97	54	54	27	54	1,123
Ohio	54	61	71	72	72	54	17	70	72	37	36	36	18	35	705
Texas	70	83	85	91	89	68	23	88	93	67	41	47	24	45	914
Washington	36	45	48	48	48	36	12	46	48	31	24	24	12	24	482
Wisconsin	18	24	24	24	24	18	6	24	24	16	12	12	6	12	244
	556	708	727	737	737	554	183	728	741	563	360	370	186	363	7,513

Processed Fruit and Vegetables

Grain Product

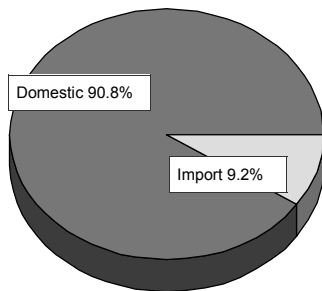
State	Processed Fruit and Vegetables				Total Processed	Total F&V	Grain Product	
	AC	AJ	CS	PS			BY	RI
California	81	161	159	160	561	2,286	184	113
Colorado	12	24	24	24	84	333	29	17
Florida	41	83	83	83	290	1,150	58	61
Maryland	24	47	47	48	166	643	60	36
Michigan	35	71	72	71	249	983	64	42
New York	53	108	108	106	375	1,498	130	80
Ohio	34	71	71	72	248	953	61	38
Texas	43	92	92	93	320	1,234	60	62
Washington	24	48	48	48	168	650	60	30
Wisconsin	11	24	23	24	82	326	19	16
	358	729	727	729	2,543	10,056	725	495

Commodities

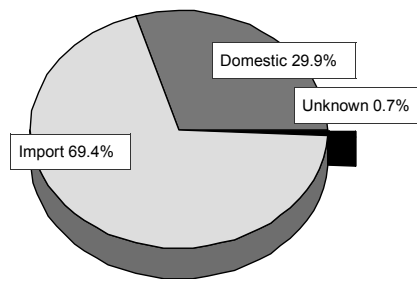
AC = Apple Sauce	CE = Celery	PN = Pineapples
AJ = Apple Juice	CR = Carrots	PO = Potatoes
AP = Apples	CS = Sweet Corn (Canned/Frozen)	PP = Sweet Bell Peppers
AS = Asparagus	CU = Cucumbers	PS = Sweet Peas (Canned/Frozen)
BN = Bananas	MU = Mushrooms	RI = Rice
BR = Broccoli	ON = Onions	SP = Spinach
BY = Barley	PC = Peaches	

Figure 3. Commodity Origin

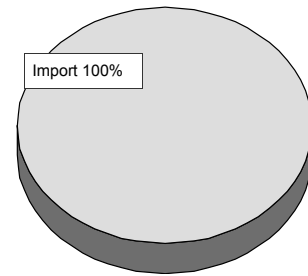
A. Fresh Commodities



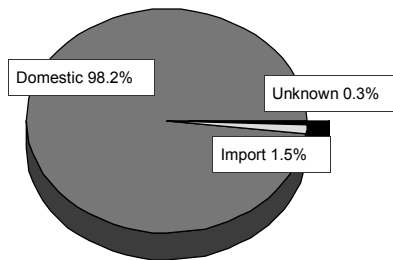
Apples (556 Samples)



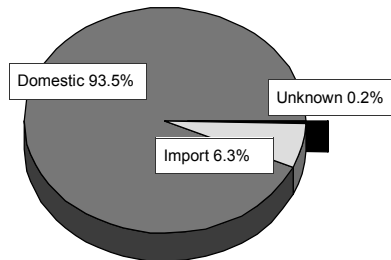
Asparagus (708 Samples)



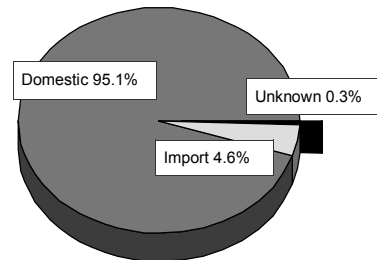
Bananas (727 Samples)



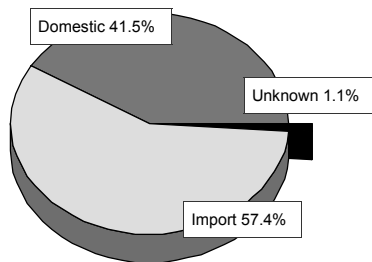
Broccoli (737 Samples)



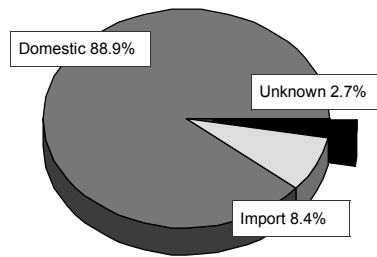
Carrots (554 Samples)



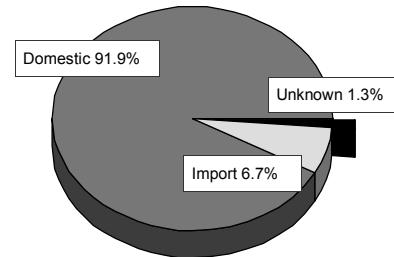
Celery (737 Samples)



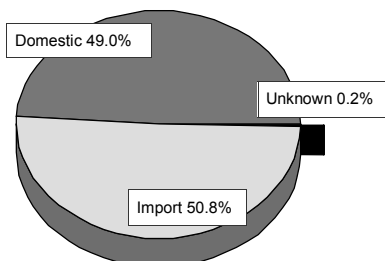
Cucumbers (183 Samples)



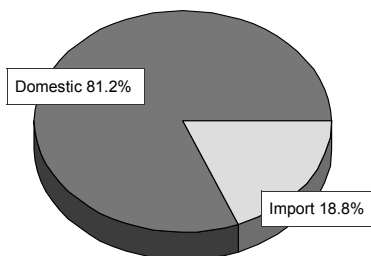
Mushrooms (728 Samples)



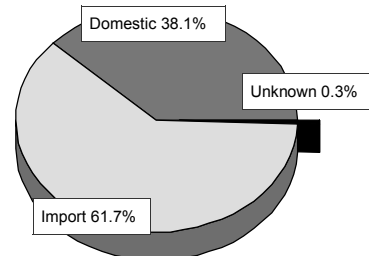
Onions (741 Samples)



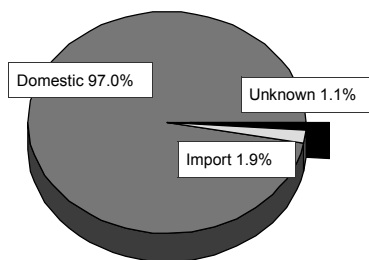
Peaches (563 Samples)



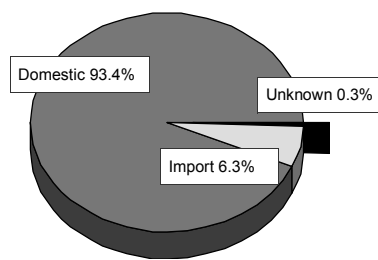
Sweet Peppers (186 Samples)



Pineapples (360 Samples)

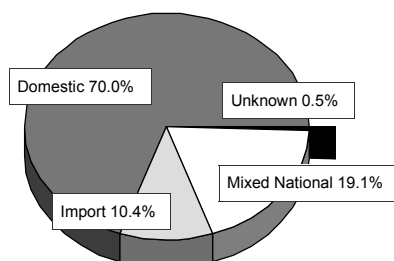


Potatoes (370 Samples)

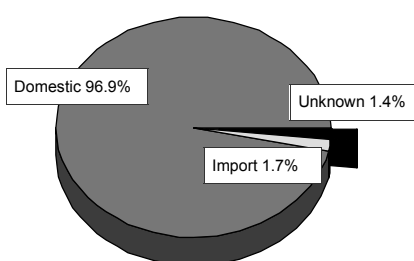


Spinach (363 Samples)

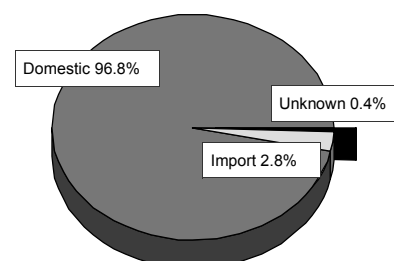
B. Processed Commodities



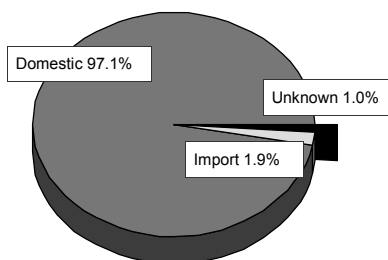
Apple Juice (729 Samples)



Apple Sauce (358 Samples)



Sweet Corn (727 Samples)



Sweet Peas (729 Samples)

The sites in Colorado, Kansas, and Texas are small, rural community water systems in regions where EPA needs monitoring data. These sites serve populations of fewer than 50,000 people, use surface water, and are regions for which EPA had ancillary data (such as agricultural pesticide usage). Treatment method was not part of the criteria for site selection. Sample collections occurred weekly at these five sites (two in Colorado, two in Kansas, and one in Texas).

III. Laboratory Operations

◆ Overview

Ten laboratories (7 State and 3 Federal) performed analyses for PDP during 2002. These laboratories are equipped with instrumentation capable of detecting residues at very low levels. The laboratory staff receives 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 Fruit and Vegetables**

PDP participating laboratories analyzing fruit and vegetables monitored 158 pesticides plus 48 metabolites, degradates, and 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 then prepared emulating the practices of the average consumer to more closely represent actual exposure to residues. Fresh samples are prepared as follows: (1) apples are washed with stems and cores removed; (2) asparagus and spinach have inedibles removed and are washed; (3) bananas are peeled; (4) broccoli and celery are washed with inedible portions of stem/stalk removed; (5) carrots are washed with stem cap portions removed; (6) cucumbers, mushrooms, and potatoes are washed with inedibles removed; (7) onions are peeled and washed; (8) peaches are washed, stems and leaves removed, and pitted; (9) pineapples are washed with tops, cores, and shells removed; and (10) sweet bell peppers are washed with stems, cores, and seeds removed. Processed samples are prepared as follows: (1) fresh and reconstituted apple juices are mixed until homogeneous; (2) apple juice from concentrates are diluted according to label directions and mixed until homogeneous; and (3) canned and frozen fruit and vegetables are homogenized with their entire contents, including any liquid present.

Laboratories are permitted to refrigerate fresh incoming 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 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.

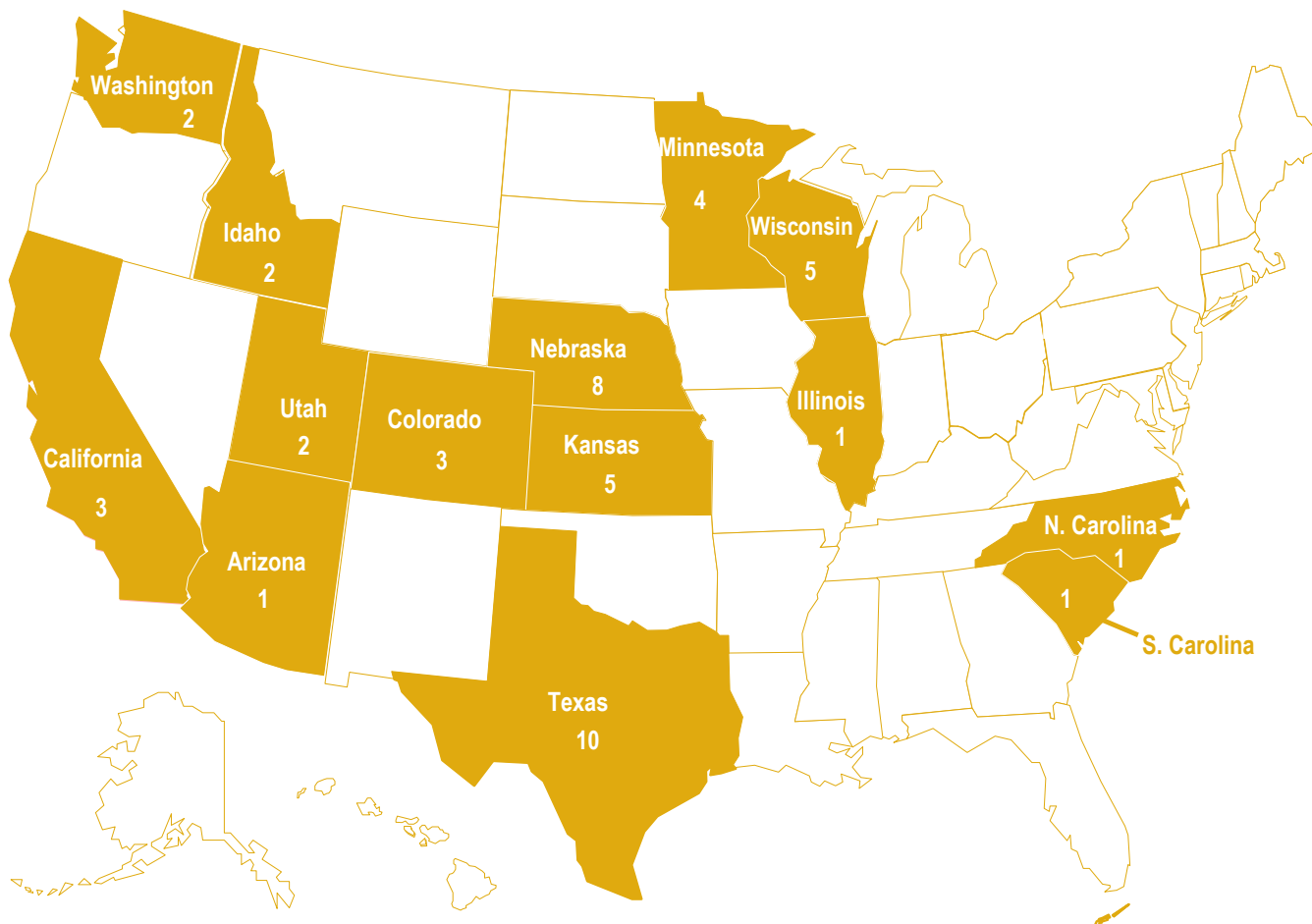
For analysis of fruit and vegetables, variations and combinations of the FDA Luke I (Section 302 of Pesticide Analytical Manual (PAM) I) and Luke II (FDA Laboratory Information Bulletin (LIB) 3896) extraction procedures are used by PDP laboratories in Michigan, Ohio, and Texas. California, Florida, and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

Various types of chromatography are used for the initial identification and quantitation of pesticides. All residues initially identified must be verified. Verification is accomplished by various forms of mass spectrometry or alternate detection systems, depending on the concentration reported. LODs for various selective detectors are generally lower than those achieved by mass spectrometry. Verification is deemed necessary due to the complexity of commodity matrices and the low concentration levels of detected residues. The verification process provides an extra measure of confidence in the identification of both the pesticide residue and its concentration.

◆ **Barley and Rice**

The USDA GIPSA laboratory in Kansas City, MO, monitored barley samples for 45 pesticides

Figure 4. Beef Sample Collection



Samples collected in 15 states at 50 processing plants.

plus 8 metabolites and isomers and rice samples for 35 pesticides plus 6 metabolites and isomers. On arrival at the testing facility, samples were visually examined for acceptability and discarded if spoiled or otherwise inedible. Rice samples were refrigerated at 10°C, or lower, until homogenization; they were then ground and analyzed. Surplus sample aliquots, not used for the initial testing, were retained refrigerated in the event that replication of analysis or verification testing was required. Extraction of rice samples was accomplished using solvent extraction and SPE cleanup coupled with mass spectrometry (MS) detection or post-column derivatization, high performance liquid chromatography (HPLC) detection systems.

◆ Beef

The USDA AMS National Science Laboratory in Gastonia, NC, monitored beef adipose, liver, and muscle tissues for 75 pesticides plus 30 metabolites, degradates, and isomers. Upon arrival at the testing facility, samples were visually examined for acceptability and discarded if warm to the touch, spoiled, or leaking. Tissues were frozen at 0°C or lower until homogenized. Tissues were ground with dry ice and extracted using microwave extraction technology followed by gel permeation chromatography cleanup. Surplus sample aliquots, 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 MS detection, selective detectors, or post-column derivatization HPLC.

◆ **Drinking Water**

The California, Colorado, and New York laboratories analyzed drinking water for approximately 153 pesticides plus 59 metabolites and isomers determined as compounds of interest based on consultations with EPA and multiresidue feasibility. Each sample consisted of three one-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. One 1-liter bottle was extracted for compounds amenable to gas chromatography (GC) analysis and one for compounds amenable to HPLC 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) analogues of alachlor, acetochlor, and metolachlor]. Extraction methods used were based on SPE methods developed by the U.S. Geological Survey and were independently validated by each testing laboratory. Samples were analyzed using MS detection (single and tandem GC and HPLC technologies), selective detectors, or post-column derivatization HPLC detection systems.

◆ **Quality Assurance Program**

The main objectives of the quality assurance/quality control (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). A QA Committee, comprised of program Quality Assurance Officers (QAOs), is responsible for annually reviewing program SOPs and addressing QA issues. For day-to-day quality assurance oversight, PDP relies on the Quality Assurance Unit (QAU) at each participating facility. As required under EPA GLPs, the QAU

operates independently from the laboratory staff. Preliminary QA/QC review procedures are performed on-site by each laboratory's QAU. Final review procedures are performed by PDP staff who are responsible for collating and reviewing data for conformance with SOPs. Additionally, PDP staff also monitors the participants' performance through proficiency testing samples, QAU quarterly internal reviews, and on-site visits. Additional information on the PDP QA program is provided in Appendix C.

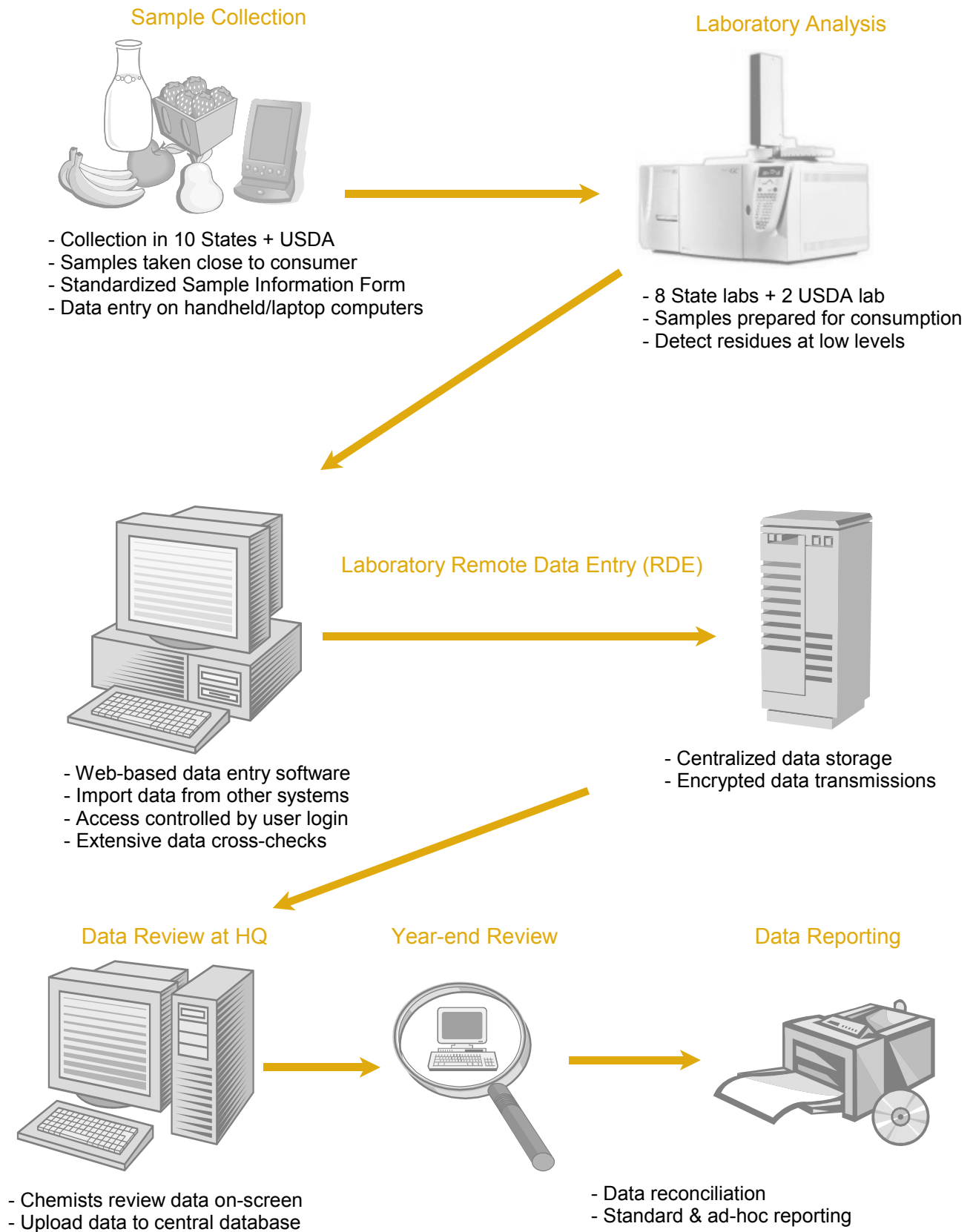
IV. Database Management

PDP maintains an electronic database that serves as a central data repository. The central database resides at the Monitoring Programs Office in Manassas, VA. The data captured and stored in the PDP database include product information, residue findings, and process control recoveries for each sample analyzed along with QA/QC fortified recoveries for each set of samples. Each calendar year survey is stored in a separate database structure, allowing easier administration and reporting of data. The PDP data life-cycle is depicted in Figure 5.

◆ **Electronic Data Life-Cycle**

PDP utilizes the Remote Data Entry (RDE) system, a customized software application that allows participating State and Federal laboratories to enter and transmit data electronically. In April 2003, a reengineered, Web-based RDE system was implemented. The new 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 run the new RDE system. From 1994 to 2003, PDP utilized the legacy RDE system, a distributed Windows-based software application that also provided interactive data entry screens. However, the legacy RDE required the laboratories to transmit the data electronically via modem and standard telephone lines. Before the implementation of RDE, all data collected from PDP laboratories arrived in paper format, requiring a laborious data entry process by PDP headquarters staff.

Figure 5. PDP Data Life Cycle



The RDE data entry screens have extensive edits and cross-checks built in 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 makes it easy to perform ad-hoc queries (data searches) on the database. The data entry screens also perform edits on numeric fields, dates, and other character fields to ensure that entries are within prescribed boundaries.

At PDP headquarters, the RDE system allows the staff chemists to review the data on-screen and then to mark the data as ready-for-upload to the central PDP database. The upload routine launched from the RDE system converts and passes the data to the PDP database. The database is presently maintained using Microsoft Access in a Windows 2000 operating environment. PDP Headquarters plans to migrate to the Microsoft SQL Server 2000 environment for more secure and robust database management. Access to the central PDP database is limited to PDP staff personnel only and is controlled through password protection and user access rights. System backups are done each night and back-up tapes are sent to off-site storage once a week.

◆ Data Reporting

The PDP staff receives and responds to requests for data from Government agencies and interested outside parties. Ad-hoc queries and custom reports are generated to fill such data 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 most database management software packages.

V. Sample Results and Discussion

◆ Sample Results

In 2002, PDP conducted surveys on various foods including fresh and processed fruit and vegetables, barley, rice, beef, and drinking water. Of the 12,899 samples collected and analyzed, 10,056 were fruit and vegetable commodities, 495 were rice samples, 725 were barley samples, 924 were beef samples, and 699 were drinking water samples.

Approximately 47 percent of the fruit and vegetable samples (fresh and processed) had detectable pesticide residues. Pesticide residues also were detected in 18 percent of the rice samples, 15 percent of the barley samples and 15 percent of the beef tissues. Approximately 78 percent of all samples were domestic and 21 percent were imports. Less than one percent of the samples were of unknown origin. Appendix D includes a comparison of residues for selected commodities with a significant import component.

Appendix E shows the distribution of residues in fruit and vegetables during 2002. The results present the minimum and maximum concentrations detected; any tolerance violations; the analytical limits of detection (LODs); EPA tolerance levels; and when applicable, the corresponding Codex Alimentarius maximum residue limits (MRLs) and extraneous maximum residue limits (EMRLs). Appendices F, G, H, and I provide similar information for rice, barley, beef, and drinking water, respectively. Table 3 gives an overview of the number of residue detections per commodity.

Food monitoring data together with dietary consumption surveys are used to estimate dietary exposure to pesticides by EPA to ensure the safety of existing pesticides. EPA uses all data reported by PDP, including sample results reported as below the LOD. 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. Overall, 58 percent of the samples were reported as below the LOD (non-detects) and for samples with residues, the vast majority of the detections were well below established tolerances.

◆ National Estimates

The PDP sampling program incorporates participating States that represent approximately 50 percent of the Nation's population. There are little or no significant differences across these States and, it can be inferred, across all states. Potentially more critical are differences in the residue content of fresh commodities across seasons. As in the past, sample data have been weighted to reflect the monthly distribution of product at the wholesale level. This method results in nearly unbiased estimates of pesticide residues in PDP commodities at the National level.

National estimates for selected pesticide/commodity pairs are shown in Appendix J. The analysis in this Appendix shows that, in most cases for each pesticide/commodity pair, the levels of detected residues are a small fraction of the tolerance level. A range of values for the sample mean (average) residue concentration 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 for the range 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 pairs are shown. The ratio of the 90th percentile to the tolerance, as a normalization factor, is also provided. Percent detections and percentiles for fresh apples, bananas, beef adipose tissue, broccoli, carrots, celery, cucumbers, mushrooms, peaches, potatoes, spinach, and sweet bell peppers were weighted to

reflect monthly variations in marketing. No weighting adjustments were made for rice, apple juice, or apple sauce.

Appendix K displays the estimated distributions of 16 representative pesticide/commodity pairs. These graphs visually demonstrate 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. These pesticide/commodity pairs included in Appendix K are thiabendazole/apple juice, thiabendazole/apple sauce, thiabendazole/apples, DCPA/broccoli, DDE p,p'/carrots, chlorothalnil/celery, diazinon/mushrooms, fludioxonil/peaches, permethrin/spinach, and tebufenazide/sweet peppers. In some cases, there is convergence of the mean upper and lower bound into a single line due to the insignificant differences between them. In addition, Appendix K displays estimated distributions of atrazine and metolachlor and their respective metabolites desethyl atrazine, desisopropyl atrazine, metolachlor ethanesulfonic acid, and metolachlor oxanilic acid detected in drinking water. Results for these compounds are expressed in parts per trillion.

◆ Fresh vs. Processed

The 2002 PDP data show that residue profiles for fresh products are significantly different than for processed products. Various factors may explain these differences in residue profiles. Raw agricultural commodities, if specifically grown for processing, are likely to receive different pest management treatments than fresh market products. Another factor affecting residue concentration or reduction may be a direct result of processing effects such as heat, time, and product preparation. A comparison of residues for fresh and processed products is shown in Table 4. Data used for this table are the most recent data collected by PDP for the processed product and the corresponding fresh product.

Thiabendazole was detected in approximately 72 percent of fresh apples but residues were detected

Table 3. Number of Samples and Residues Detected by Commodity

	Total Samples Analyzed	Samples with Residues Detected	Percent of Samples with Detections	Different Pesticides Detected	Different Residues Detected	Total Residue Detections
Fresh Fruit and Vegetables:						
Apples	556	508	91	19	23	1259
Asparagus	708	72	10	16	20	80
Bananas	727	280	39	7	7	291
Broccoli	737	224	30	12	15	270
Carrots	554	472	85	22	29	996
Celery	737	694	94	26	33	2563
Cucumbers	183	126	69	21	25	305
Mushrooms	728	449	62	17	20	663
Onion	741	1	0	1	1	1
Peaches	563	552	98	34	41	2346
Pineapples	360	39	11	6	6	42
Potatoes	370	333	90	15	17	424
Spinach	363	267	74	22	23	449
Sweet Bell Peppers	186	139	75	30	35	377
TOTAL FRESH	7,513	4,156	55%			10,066
Processed Fruit and Vegetables:						
Apple Juice	729	289	40	8	8	334
Apple Sauce	358	173	48	7	7	275
Sweet Corn	727	29	4	2	2	29
Sweet Peas	729	69	9	6	8	91
TOTAL PROCESSED	2,543	560	22%			729
Fruit and Vegetables:						
Number of Samples Analyzed = 10,056						
Number of Samples with Residues Detected = 4,716						
Percent with Residue Detections = 46.9%						
Total Number of Different Pesticides Detected = 78						
Total Number of Different Residues Detected = 98						
Total Number of Residue Detections = 10,795						
Processed Grain Product:						
Barley	725	107	15	12	14	121
Rice	495	90	18	6	6	95
TOTAL GRAIN	1,220	197	16%			216
Meat Tissues:						
Beef, Adipose	301	140	47	8	10	185
Beef, Liver	313	0	0	0	0	0
Beef, Muscle	310	0	0	0	0	0
TOTAL MEATS	924	140	15%			185

All Commodities (excludes 699 drinking water samples):

Number of Samples Analyzed = 12,200
 Number of Samples with Residues Detected = 5,053
 Percent with Residue Detections = 41.4%
 Total Number of Different Pesticides Detected = 83
 Total Number of Different Residues Detected = 104
 Total Number of Residue Detections = 11,196

Table 4. Selected Residue Comparisons, Fresh vs. Processed

Pesticide	APPLES -- Fresh (2002)			APPLE JUICE (2002)			APPLE SAUCE (2002)		
	% of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Azinphos methyl	36.9	0.013	0.30	0.1	0.022	0.022	0.6	0.022	0.022
Captan	10.3	0.020	2.4	--	--	--	--	--	--
Diphenylamine	76.3	0.033	2.3	8.5	0.017	0.074	40.2	0.016	0.29
Phosmet	12.9	0.008	0.31	--	--	--	--	--	--
Thiabendazole	71.6	0.05	6.9	28.4	0.050	0.71	24.0	0.050	0.77
Pesticide	SPINACH -- Fresh (2002)			SPINACH -- Canned (1998)			SPINACH -- Frozen (1999)		
	% of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples with Detects	Minimum Value Detected, ppm	Maximum Value Detected, ppm
DDE p,p'	27.8	0.012	0.065	21.2	0.005	0.030	42.7	0.003	0.070
Methomyl	5.5	0.020	0.90	--	--	--	10.1	0.013	0.83
Permethrin Total	61.4	0.048	20	78.8	0.13	8.5	60.6	0.13	7.6
Permethrin cis	NA	NA	NA	80.8	0.013	4.4	67.4	0.002	8.3
Permethrin trans	NA	NA	NA	82.6	0.008	4.8	67.8	0.002	7.8

-- No detections for commodity/pesticide pair
 NA No analysis performed for commodity/pesticide pair

in only 28 and 24 percent of the apple juice and apple sauce samples, respectively. Azinphos methyl was detected in about 37 percent of fresh apples, but residues were detected in only 0.1 and 0.6 percent of the apple juice and apple sauce samples, respectively. Diphenylamine was reported in about 76 percent of fresh apples, but was only detected in 8.5 percent of apple juice samples and 40 percent of apple sauce samples. Captan was reported in 10 percent of fresh apples, but no residues were detected in apple juice or apple sauce. Phosmet was not detected in apple juice or apple sauce but was detected in 13 percent of fresh apples.

Spinach samples from 1998 (canned), 1999 (frozen), and 2002 (fresh) samples showed less variation in the residue values than apple samples.

DDE p,p' was detected in 28 percent of fresh spinach samples, 21 percent of canned spinach, and 43 percent of frozen spinach. Permethrin was detected in 61 percent of fresh spinach samples, 79 percent of canned spinach, and 61 percent of frozen spinach. Methomyl was detected in fresh and frozen spinach samples, but not in canned spinach.

◆ **Drinking Water Results**

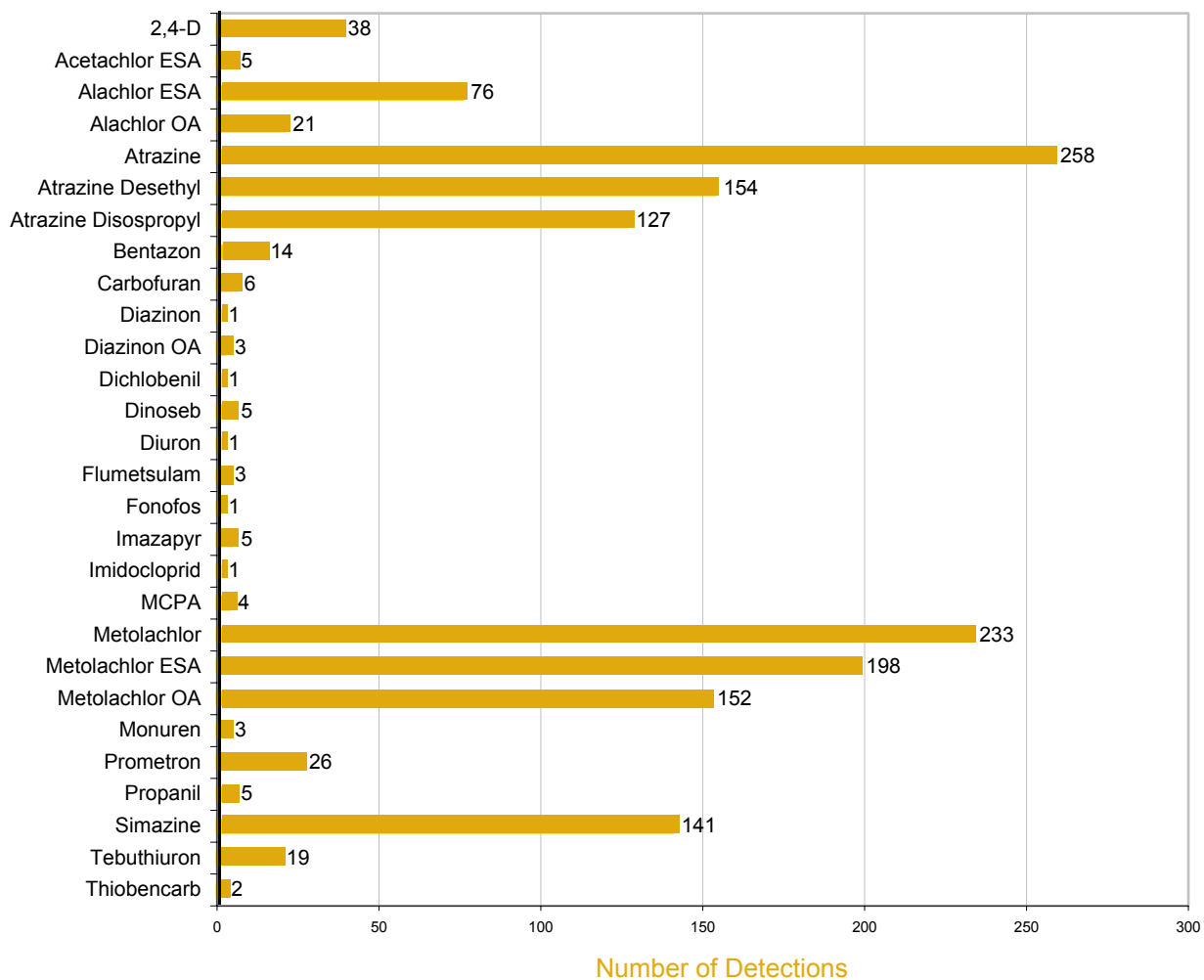
Appendix I gives results for the PDP testing of finished drinking water from monitoring sites in New York, California, Texas, Kansas, and Colorado. Each watershed reflects the local topography, watershed size, geomorphology, soil types, geology, land use, land management practices, crops grown, pesticides applied, and

application methods. Due to the complexities associated with water quality assessments, these data reflect the unique characteristics of the watersheds from which the samples were obtained rather than national water quality.

PDP analyzed 699 samples in 2002 using multi-residue methods to test for more than 150 pesticides and metabolites. Most of the treatment plants participating in the 2002 survey use surface water for their source waters. The data presented here are from the finished water, (post-disinfection) collected just before distribution to the customers. The concentrations of pesticides

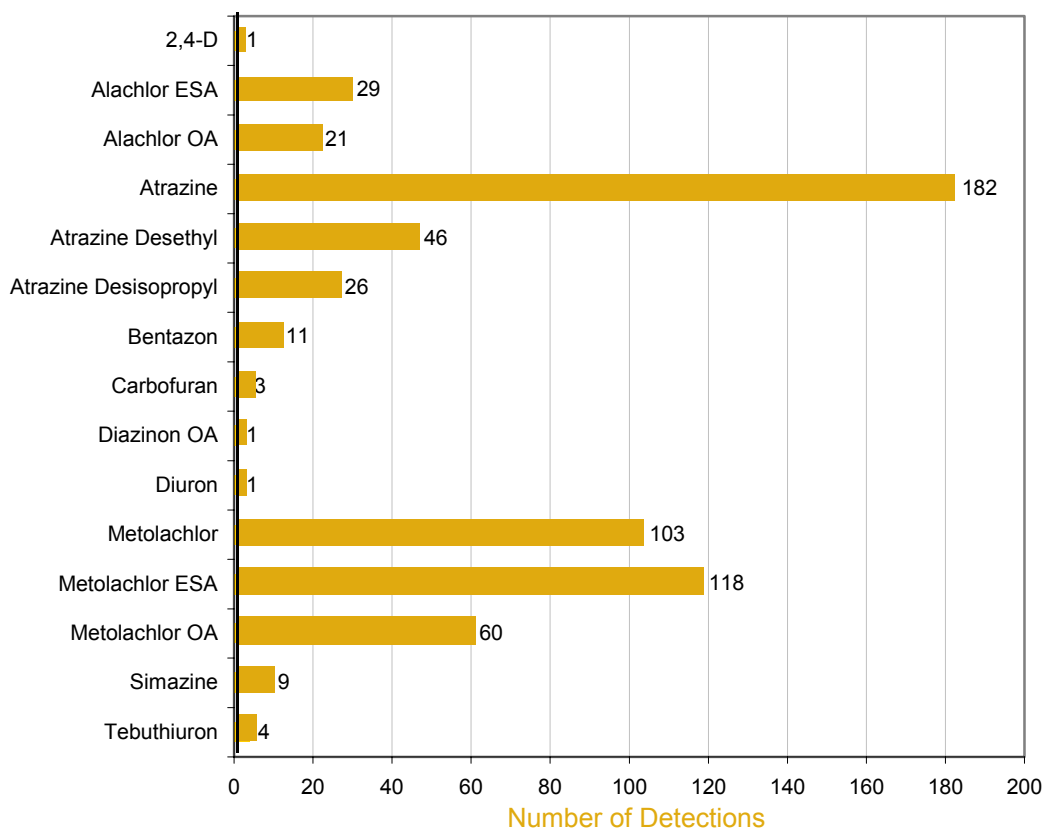
found were very low (that is, at parts-per-trillion levels or 0.000000001 g per 1 Kg or 1 L of water). PDP detected 28 different pesticides in 372 samples (Figure 6A); most of the detections were of herbicides. The majority (59%) of the detects were at or below the Limit of Quantification (LOQ), which is typically three times the Limit of Detection (LOD). Only 16 different pesticides were detected above the LOQ and none of the samples exceeded EPA MCLs for any pesticide measured (Figure 6B). The majority of pesticides included in the PDP screens were not detected.

Figure 6A. Pesticides Detected in Drinking Water



ESA = Ethane Sulfonic Acid
 OA = Oxanilic Acid

Figure 6B. Pesticides Detected Above Limit of Quantification in Drinking Water



ESA = Ethane Sulfonic Acid
OA = Oxanilic Acid

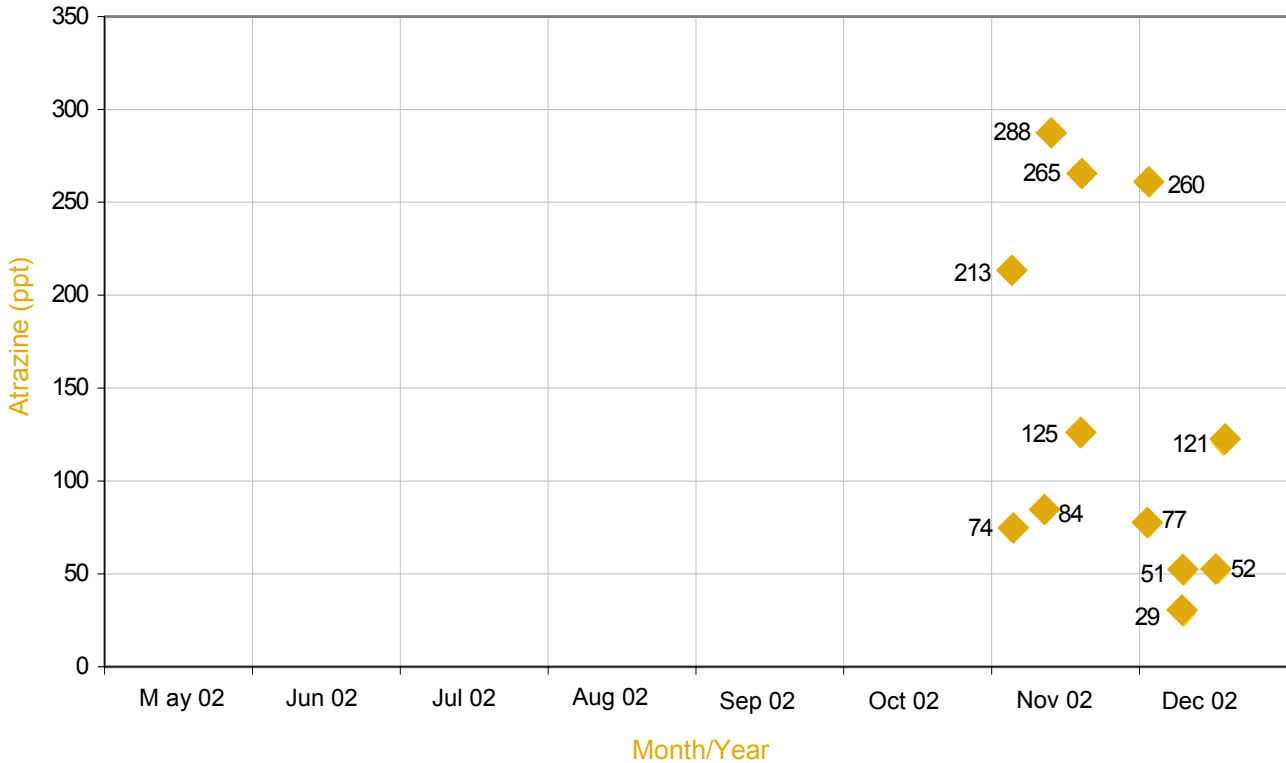
The comprehensive list of pesticides in the PDP multiresidue screens are shown in Appendix I. All MCL or HA values are listed; however, many of the compounds PDP tests for do not have established regulatory standards. Therefore, EPA Freshwater Aquatic Organism (FAO) criteria, which are much lower than human MCLs or HAs, are also given. These criteria are lower than human levels due primarily to higher exposure, as aquatic organisms live all or most of their lives in water. There were no detections by PDP for any of the pesticides with FAO values. Additional information regarding EPA drinking water standards can be obtained at <http://www.epa.gov/safewater/standard/setting.html>.

Pesticides are often applied seasonally and are most likely to be found in water soon after application because of runoff and leaching. Figure 6C demonstrates this observation illustrating the

seasonality of atrazine detections from the Kansas sites.

Of the 27 community water systems surveyed, 7 sites had source water in protected watersheds, which are defined as source water in an area controlled for chemical applications and land use; 4 of the source water intakes were in urban regions, defined as less than 10 percent of the land around the source water used for agriculture; and 16 of the sites were located in predominately agricultural areas, defined as regions where more than 20 percent of the land surrounding the source water is used for agriculture (Table 5). The sites with protected watersheds had no detections above the LOQ. The sites in urban regions had one site with detections above the LOQ. Most of the sites in agricultural regions had multiple detections above the LOQ; however, two sites had no

Figure 6C. Seasonality of Atrazine Detections from Kansas Sites



detections. Possible reasons for the two agricultural sites with no detections above the LOQ could be due to regional differences in precipitation, agricultural practices, and water treatment methods. These data reflect the uniqueness of each watershed and the land use and agricultural practices within that watershed. National inferences cannot be made from these data.

◆ Import vs. Domestic Residue Comparisons

Information about the origin of each PDP sample is noted when the sample is collected. Figure 3 illustrates the portion of domestic and import samples for each PDP commodity in 2002. The data generated by PDP reflect pesticide residues in foods available to the United States consumer, including both domestic and imported products. Many commodities are almost entirely of domestic origin with only a minor import component. However, some fresh commodities, such as asparagus, cucumbers, and peaches are from domestic growers during part of the year and

imported during the remaining months. Appendix D shows a comparison of selected residues detected in fresh peaches grown in the United States and Chile, and residues detected in asparagus grown in the United States, Mexico, and Peru. The data indicate that for peaches, 98 percent of Chilean product had residues compared to 95 percent of samples from the United States. However, the distributions of pesticide types are not the same. For example, about 20 percent of Chilean peaches were found to contain residues of methamidophos compared to less than 1 percent for the United States product. Conversely, less than 1 percent of Chilean peaches were found to contain residues of dicloran, compared to 24 percent detected in the United States product.

For asparagus, 4 percent of domestic samples had residues, compared to 10 percent of Mexican samples and 11 percent originating from Peru. Peruvian asparagus had more residues of chlorpyrifos and methomyl than asparagus from the United States or Mexico. However, the

Table 5. Watershed Classifications

Site Classification	Number of Sites	Sites with Detections Above LOQ	Number of Detects (Mean/Median)	Range of Detects
Protected ^a	6	0	0/0	0
Urban ^b	5	2	0.4/0	0-4
Agricultural ^c	16	13	37/23	0-160

^a Source water for community water system is in area controlled for chemical applications and land use.

^b Less than 10% of county in farmland.

^c Greater than 20% of county in farmland.

detection rate for metribuzin was higher for the Mexican product.

◆ Postharvest Applications

Pesticides can be applied before and after harvest depending on the crop and approved label use. PDP data captures both pre- and postharvest uses because samples are collected at points where all pesticide applications have already taken place. Pesticides with postharvest application are used primarily as fungicides, but some insecticides and sprouting inhibitors are important crop treatments. For example, chlorpropham, which is used on potatoes in storage to inhibit sprouting, was detected in 87 percent of 2002 potato samples (Appendix E). Some detections reported by PDP in Appendix E that were most likely generated by postharvest applications in the raw agricultural commodity include residues of the fungicides chlorthalonil (celery), dicloran (carrots, peaches), diphenylamine (apples), imazalil (bananas), iprodione (peaches), orthophenylphenol (apples, carrots, cucumbers, peaches, pineapples, sweet bell peppers), piperonyl butoxide (apples, barley, pineapples, sweet peas), and thiabendazole (apples, bananas, mushrooms, potatoes).

◆ Environmental Contaminants

DDT, DDD, and DDE

A total of 9,967 fruit and vegetable (Appendix E), 725 barley (Appendix G), 495 rice (Appendix F), and 301 beef adipose samples (Appendix H) were screened for DDE p,p', a metabolite of

DDT. Other DDT metabolites tested include DDE o,p', DDD o,p', and DDD p,p'. Use of DDT has been prohibited in the United States since 1972. However, because of its environmental persistence, residues of the DDE p,p' metabolite were detected in 3.6 percent of the fruit and vegetable samples tested. Residues of DDE p,p' were found primarily in carrots (35 percent), spinach (28 percent), celery (6 percent), and beef adipose (37 percent) samples. No residues of DDT or its metabolites were detected in any rice samples and only one sample of barley contained DDE p,p'. All other detections of DDT metabolites were below the established action levels.

OTHER EXTRANEEOUS PESTICIDES

In 1974, all aldrin and dieldrin uses were canceled in the United States. In 1978, all heptachlor uses were canceled. In 1986, chlordane uses, except termiticide uses, were canceled. However, residues of dieldrin, heptachlor epoxide (metabolite of heptachlor), or chlordane were detected in apples, broccoli, carrots, cucumbers, mushrooms, potatoes, and sweet bell peppers during the 2002 program. Dieldrin, the most frequently detected extraneous residue, was found in one percent of carrot samples and less in other fruit and vegetables. No residues of dieldrin or heptachlor epoxide were detected in rice or barley. Heptachlor epoxide and dieldrin were detected in 3 and 15 percent of beef adipose samples, respectively (Appendix H). All detections were below the established action levels.

◆ Multiple Residue Detections

PDP provides data that can be used by EPA in evaluating the incidence of multiple residue detections. The data are very useful in assessments that consider cumulative exposure to pesticides determined by EPA to have common mechanisms of toxicity. No correlation between the incidence of multiple residues and tolerance violations has been noted.

The distribution of multiple residues in the PDP database is given in Appendix L. These data indicate that more than one residue was detected in 23 percent of all samples tested. Most multiple residue detections result from application of more than one pesticide on a crop during a growing season. However, other factors contribute to the number of multiple residue detections such as degradation of a pesticide so that the parent and one or more metabolites are detected, spray drift, transfer through crop rotation, cross contamination at packing facilities, or persistent environmental residues.

A parent compound and its metabolites are reported in PDP as separate detections. For example, a single application of the pesticide endosulfan may result in residues of the parent compound endosulfan I and metabolites endosulfan II and endosulfan sulfate. Thus, three residue detections could result from the use of a single pesticide.

In most cases, results shown in Appendix L are for residues detected in samples analyzed by PDP as composites of 3-5 pounds, depending on the commodity. Therefore, the number of residues reported does not necessarily reflect the number of residues per individual sample or per single serving of a commodity.

◆ Tolerance Violations

A tolerance is defined under Section 408 of the Federal Food, Drug, and Cosmetic Act as the maximum quantity of a pesticide residue allowable on a raw agricultural commodity and is applicable to processed foods. EPA is in the

process of reassessing tolerances to ensure that they meet the standards required by the Food Quality Protection Act (FQPA). Under FQPA, the safety standard for a pesticide tolerance is defined as "a reasonable certainty that no harm will result from aggregate exposure to the chemical residue, including all anticipated dietary exposures for which there is reliable information."

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 is responsible for enforcement of tolerances for all imported foods and domestic foods moved through interstate commerce. States are responsible at the local level. When agencies with enforcement authority collect samples for tolerance enforcement purposes, they must adhere to a quick turnaround time and chain-of-custody protocols which enable them to detain the sampled lot until test results are available.

PDP is not an enforcement program. Consequently, PDP emphasizes detection of residues at the lowest detectable levels rather than quick turnaround times. Also, PDP samples are collected to avoid interference with commodity distribution. 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 E, F, G, and H. 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 breakdown 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 (i.e., if residues of metabolites were detected in the same sample), PDP combined residues of parent and metabolites of endosulfan, ethion, fenamiphos, and quintozone, and isomers of lambda cyhalothrin and iprodione to count the total number of samples with tolerance violations.

Residues exceeding the tolerance were detected in 0.3 percent of the 12,200 samples (excluding water samples) tested in 2002 (33 samples with 1 residue each). Residues with no established tolerance were found in 2.7 percent of the samples (314 samples with 1 residue each, 17 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 residue may be due to spray drift or crop rotations. These residue findings are listed in Appendix M.

◆ Synopsis

In 2002, a total of 10,056 fresh and processed fruit and vegetable samples, 495 rice samples,

725 barley samples, 924 beef samples, and 699 drinking water samples were analyzed for various pesticides including insecticides, herbicides, and fungicides. Multiple residue methods were used to detect various organochlorines, organophosphates, organosulfurs, organonitrogens, N-methyl carbamates, pyrethroids, imidazoles, triazines, and conazoles/triazoles.

Approximately 78 percent of all samples tested were domestic, 20 percent were imported, 1 percent were of mixed origin, and less than 1 percent were of unknown origin. Of all samples tested, 0.3 percent were reported as containing residues exceeding the tolerance and 2.7 percent as without tolerances listed in 40 CFR, Part 180.

Overall, 58 percent of all samples had no detectable residues, 19 percent contained 1 residue, and 23 percent contained more than 1 residue. Most of the residues were detected in fruit and vegetable commodities. Environmental contaminants were detected mainly in carrots and beef adipose tissue. Overall, levels of residues detected were well below tolerances.

For more information on PDP, contact the Monitoring Programs Office (703) 330-2300, facsimile: (703) 369-0678, electronic mail: amsmpo.data@usda.gov.



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Appendix A

Commodity History

Appendix A identifies commodities sampled by the Pesticide Data Program through December 2003. Updates to this list are posted on the PDP Web site at <http://www.ams.usda.gov/science/pdp>.

COMMODITY HISTORY

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 (T-1)	Jan-03	Dec-03
Asparagus	Jan-02	Jun-03
Bananas	Sep-91	Sep-95
Bananas	Jan-01	Dec-02
Broccoli	Oct-92	Dec-94
Broccoli	Jan-01	Dec-02
Cantaloupe	Jul-98	Jun-00
Cantaloupe	Oct-03	
Carrots ¹	Oct-92	Sep-96
Carrots	Oct-00	Sep-02
Celery	Feb-92	Mar-94
Celery	Jan-01	Dec-02
Cherries ²	May-00	Aug-01
Cucumbers	Jan-99	Dec-00
Cucumbers	Oct-02	
Grapefruit	Aug-91	Dec-93
Grapes ¹	May-91	Dec-96
Grapes	Jan-00	Dec-01
Green Beans	Feb-92	Dec-95
Green Beans	Jan-00	Dec-01
Lettuce	May-91	Dec-94
Lettuce	Oct-99	Sep-01
Milk ¹	Jan-96	Oct-98
Mushrooms	Oct-01	Sep-03
Nectarines ³	Jul-00	Sep-01
Onions	Jan-02	Dec-03
Oranges ¹	Aug-91	Dec-96

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

1 Excludes sampling hiatus September - November 1996

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

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

4 Sampling adjusted for market availability. Peaches were sampled for 2 years (Jan-01 - Sep-02) for a total of 16 months.

5 Frozen collected when fresh unavailable.

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

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

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

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

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

Processed Commodities

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

1 Excludes sampling hiatus September - November 1996.

2 Excludes sampling hiatus January 1999.

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

4 Frozen collected when fresh unavailable

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

Grains

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

Drinking Water

States	Start Date	End Date
California, New York	Mar-01	Dec-03
Colorado, Kansas, Texas	May-02	Dec-03

Meat / Poultry Products

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

Appendix B

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

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

As shown in Appendix B, fruit and vegetable samples originated from 37 States and 30 foreign countries (includes mixed national origin). There were 148 domestic and 31 imported samples from unknown origins.

Beef and drinking water samples are excluded from Appendix B. Figure 4 shows the State of origin for beef samples. Origins for drinking water samples are described in Section II – Sampling Operations.

Appendix B. SAMPLE ORIGIN BY STATE OR COUNTRY *
(Determined by Grower, Packer or Distributor)

Part 1. Domestic Samples

States = 37	Fresh F&V													Processed F&V				Grain		No. of Domestic	% of Total			
	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	AC	AJ	CS	PS	BY			RI		
Alabama												1										1	<0.1	
Arizona	1	1		12	1	9	1					2		2									29	0.3
Arkansas															4	7	8	8		49			76	0.7
California	29	149		637	620	393	11	219	128	190	41	51	67	231	22	61	223	216	157	57		3,502	31.1	
Colorado		2		4	1	7		13	45	2		16		9	1	1	2	2	105			210	1.9	
Connecticut								3							83	73			1			160	1.4	
Florida	1	5		9	19		36	22	5		76	21	36	9	6	11	24	25	20	23		348	3.1	
Georgia						34	14		30	16			14		2	2	7	7				126	1.1	
Hawaii									1		17											18	0.2	
Idaho	6	1		1	5			48	4			81			3	10	32	35	59	9		294	2.6	
Illinois														1	22	31	43	40	191	30		358	3.2	
Kentucky									9				1	2								12	0.1	
Maine				9									5		1	1	6	5	1	5		33	0.3	
Maryland	6			2	1		2	2	8	1			2	2	15	7	24	19	1			92	0.8	
Massachusetts													5	4		4			2			15	0.1	
Michigan	26	2		1	17	24	1	33	27	2		4	1	18	26	45	38	32	11	20		328	2.9	
Minnesota	8			1					2			8			7		84	91		12		213	1.9	
Missouri	1								1													2	<0.1	
Montana								1														1	<0.1	
Nebraska														2					4			6	0.1	
Nevada									29				1									30	0.3	
New Jersey		5					1	3	2	12		2	3	3	2	1	5		33	9		81	0.7	
New Mexico									21				1									22	0.2	
New York	35	1		3	1	1		6	58	2	1	17	1	2	9	29	65	77	12	20		340	3.0	
North Carolina	2	1		1			3		1				2	3	1							14	0.1	
North Dakota														4								4	<0.1	
Ohio	6	2			1	2		3	21	4		6	4	3	12	11	9	10	11	12		117	1.0	
Oklahoma					8	6		16	1				1	1	11	19	24	25	29	15		156	1.4	
Oregon	3					1		1	47				16	2	4	10	16	16	23	5		144	1.3	
Pennsylvania	2							224	6	1		4	1	19	25	9	2	5	5	5		308	2.7	
South Carolina										21				2					1			24	0.2	
Tennessee									1								1	1	2			5	<0.1	
Texas	15	4		22	23	18	3	43	72				36	6	15	24	22	61	57	12	197	630	5.6	
Utah								4	7													11	0.1	
Virginia	3									1					13	23	7	5	1	1		54	0.5	
Washington	347	27		12	1	15		18	87	10			59	6	49	119	11	12	10	8		791	7.0	
Wisconsin	1	4		2			1	5	13	2	1	9		6	2	9	5	13	6	5		84	0.7	
Unknown State	13	8		9	7	3	3	30	12	8	1	1	13	4	4	5	7	7	9	4		148	1.3	
No. of Domestic	505	212	0	724	701	518	76	647	681	276	137	359	151	339	347	510	704	708	706	486		8,787		
% of Total	90.8	29.9	0.0	98.2	95.1	93.5	41.5	88.9	91.9	49.0	38.1	97.0	81.2	93.4	96.9	70.0	96.8	97.1	97.4	98.2			78.0	

Part 2. Imported Samples

Countries = 27	Fresh F&V														Processed F&V				Grain		No. of Imports	% of Total				
	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	AC	AJ	CS	PS	BY	RI						
Argentina	1	3							1								15								20	0.2
Canada	6	5		4	7	29	2	61	8			7	10	11		6	9	15	11	12					203	1.8
Chile	19	13							3	283							1								319	2.8
China																	1								1	<0.1
Colombia		8	94																						102	0.9
Costa Rica			148								170														318	2.8
Dominican Republic							1																		1	<0.1
Ecuador		10	210						1		11														232	2.1
France																		2							2	<0.1
Germany																	3								3	<0.1
Guatemala		3	165																						168	1.5
Honduras			71								22														93	0.8
Hungary																	6								6	<0.1
India																				1					1	<0.1
Israel													4												4	<0.1
Italy																	6								6	<0.1
Mexico		183	4	7	27	4	102		26	1	18		14	12		25									423	3.8
Netherlands													7												7	<0.1
New Zealand	23	1																							24	0.2
Nicaragua			3																						3	<0.1
Panama											1														1	<0.1
Peru		265	8						12																285	2.5
Poland																1		3		1					5	<0.1
Russia																				1					1	<0.1
South Africa	1																3								4	<0.1
Taiwan																	6								6	<0.1
Thailand																		3				3			6	<0.1
Unknown Country	1		24			2			1																28	0.2
No. of Imports	51	491	727	11	34	35	105	61	50	286	222	7	35	23	6	76	20	14	14	4				2,272		
% of Total	9.1	69	100	1.4	4.6	6.3	57	8.3	6.7	51	62	1.7	19	6.3	1.6	10	2.8	1.9	1.9	<0.1						20.1

Part 3. Mixed Origin

	Fresh F&V														Processed F&V				Grain		No. of Mixed	% of Total				
	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	AC	AJ	CS	PS	BY	RI						
Argentina / Austria / Brazil / Chile / China / Germany / Hungary / Italy / Turkey / USA																	1								1	<0.1
Argentina / Chile / China / Hungary / New Zealand / Poland / South Africa																	2								2	<0.1
Argentina / Chile																	2								2	<0.1
Argentina / Chile / China																	1								1	<0.1

	Fresh F&V														Processed F&V				Grain		No. of	% of
	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	AC	AJ	CS	PS	BY	RI	Mixed	Total
Argentina / Chile / China / Germany / USA															2						2	<0.1
Argentina / Chile / South Africa / USA															1						1	<0.1
Argentina / Chile / USA															2						2	<0.1
Argentina / China															1						1	<0.1
Argentina / China / Germany															1						1	<0.1
Argentina / China / Hungary / USA															1						1	<0.1
Argentina / Germany															1						1	<0.1
Argentina / Germany / Italy / USA															1						1	<0.1
Argentina / Germany / Poland															2						2	<0.1
Argentina / Germany / USA															3						3	<0.1
Argentina / Hungary															1						1	<0.1
Argentina / Hungary / USA															6						6	<0.1
Argentina / Italy / Poland / USA															2						2	<0.1
Argentina / New Zealand															1						1	<0.1
Argentina / Poland / USA															2						2	<0.1
Argentina / South Africa / USA															2						2	<0.1
Argentina / USA															6						6	<0.1
Argentina / Chile / Germany / Hungary / Poland / Turkey / USA															2						2	<0.1
Canada / South Africa															1						1	<0.1
Chile / China / Germany / Poland															1						1	<0.1
Chile / Germany / Hungary / Poland															1						1	<0.1
Chile / Hungary															1						1	<0.1
Chile / Hungary / USA															5						5	<0.1
Chile / South Africa															1						1	<0.1
Chile / South Africa / USA															1						1	<0.1
Chile / USA															6						6	<0.1
China / Germany															1						1	<0.1

	Fresh F&V														Processed F&V				Grain		No. of Mixed	% of Total
	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	AC	AJ	CS	PS	BY	RI		
China / Germany / Hungary															2						2	<0.1
China / Germany / Turkey															1						1	<0.1
China / Hungary															4						4	<0.1
China / Hungary / South Africa															3						3	<0.1
China / Hungary / USA															1						1	<0.1
China / South Africa															4						4	<0.1
China / USA															6						6	<0.1
Germany / Hungary / Turkey															1						1	<0.1
Germany / Italy / Poland / Turkey															4						4	<0.1
Germany / Poland															3						3	<0.1
Germany / Poland / South Africa															1						1	<0.1
Germany / Turkey															4						4	<0.1
Hungary / Italy															1						1	<0.1
Hungary / Italy / USA															2						2	<0.1
Hungary / South Africa / USA															1						1	<0.1
Hungary / USA															15						15	0.1
Italy / Poland															1						1	<0.1
Italy / Poland / USA															2						2	<0.1
Italy / Turkey															4						4	<0.1
Italy / USA															1						1	<0.1
Poland / USA															7						7	<0.1
South Africa / USA															7						7	<0.1
Unknown Mixed Origin															3						3	<0.1
No. of Mixed Origin	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	139	0	0	0	0	139	
% of Total															19.0							1.2

Part 4. Unknown Origin

	Fresh F&V														Processed F&V				Grain		No. of	% of
	AP	AS	BN	BR	CE	CR	CU	MU	ON	PC	PN	PO	PP	SP	AC	AJ	CS	PS	BY	RI	Unknown	Total
Unknown Origin	0	5	0	2	2	1	2	20	10	1	1	4	0	1	5	4	3	7	5	5	78	
% of Total	0	0.7	0	0.2	0.2	0.1	1	2.7	1.3	0.1	0.2	1	0	0.2	1.4	0.5	0.4	0.9	0.6	1		0.7

GRAND TOTALS 556 708 727 737 737 554 183 728 741 563 360 370 186 363 358 729 727 729 725 495 11,276

COMMODITIES		
AC = Apple Sauce	CE = Celery	PN = Pineapples
AJ = Apple Juice	CR = Carrots	PO = Potatoes
AP = Apples	CS = Sweet Corn, canned/frozen	PP = Sweet Bell Peppers
AS = Asparagus	CU = Cucumbers	PS = Sweet Peas, canned/frozen
BN = Bananas	MU = Mushrooms	RI = Rice
BR = Broccoli	ON = Onions	SP = Spinach
BY = Barley	PC = Peaches	

Appendix C

Quality Assurance Program Elements

PDP's Quality Assurance (QA) program covers all aspects of data gathering, from sample collection to data reporting. QA protocols for sampling are designed to protect sample integrity from the time of collection to the time of delivery at the testing facilities. QA protocols for testing comprise all laboratory operations from the time of sample receipt to the time data are reported to PDP's central database. PDP laboratories guarantee reported results by adherence to strict QA requirements. As described in this appendix, the QA program has five elements: 1) Standard Operating Procedures; 2) On-site Reviews; 3) Proficiency Check Samples; 4) Quality Control Procedures; and 5) Method Performance and Verification Procedures.

APPENDIX C. QUALITY ASSURANCE PROGRAM ELEMENTS

1. Standard Operating Procedures (SOPs) - Written SOPs are in place to provide uniform administrative, sampling, and laboratory procedures. SOPs are revised annually to accommodate changes in the program. Before submission, data are reviewed by each Quality Assurance Unit (QAU) for completeness and adherence to PDP requirements.
2. On-site Reviews - On-site reviews are performed to determine compliance with PDP SOPs. Improvements in sampling, chain-of-custody, recordkeeping, laboratory, and electronic data transmission procedures are made as a result of on-site reviews.
3. Proficiency Testing Samples- All facilities are required to participate in PDP's Proficiency Testing program. For fresh and processed fruit and vegetables, grains, and meat products, multiresidue test samples containing pesticide(s) of known quantities are periodically issued to the applicable laboratories and tested 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 2002, PDP laboratories received 4 multiresidue proficiency testing sets consisting of 12 fruit and vegetable samples, 1 beef set consisting of 4 samples, 1 barley set consisting of 3 samples, and 2 drinking water sets consisting of 4 samples. For fruit and vegetable multiresidue screening, a total of 18 samples covering 4 commodities were fortified with 41 compounds, with 4 repeated once, 4 repeated twice, and 1 repeated 3 times, at levels generally 10 times the limit of quantitation (LOQ). Results yield an overall mean recovery of 89 percent with a percent coefficient of variation (%C.V.) of 27 percent. Five incurred residues were present in these sets in four commodities at levels ranging from 0.002– 0.25 ppm.

In addition, laboratories performing multiresidue analysis for fruit and vegetables participated in the AOAC Proficiency Testing Program during 2002. PDP laboratories participated in three rounds consisting of grapefruit, cabbage, and cantaloupe test samples. Four samples and a matrix blank were supplied for each set. Analytical levels were generally greater than 0.15 ppm. Laboratories not analyzing compounds tested by AOAC were not held responsible for these compounds.

For drinking water, a commercial vendor supplied proficiency test solutions based on common analytical profiles and detection limits. Test solutions were used for spiking due to stability concerns. For each proficiency testing set, the vendor supplied the laboratory's QAU with a custom GC mix and a custom LC mix. The QAU prepared the appropriate dilutions, fortifying one liter of filtered tap water with the GC dilution and one liter with the LC dilution. The spiked samples were then presented to the laboratory staff for analysis.

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

- a. Reagent Blank: For analysis of fruit and vegetables and beef, barley, and rice, an amount of distilled water, equivalent to the natural moisture content of the commodity, is run through the entire analytical process to determine glassware cleanliness and system integrity.
- b. 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 give background information on naturally occurring

chemicals and the second is used to prepare a matrix spike.

c. Matrix Spike(s): Prior to extraction, a portion(s) of matrix blank is spiked with marker pesticides to determine the accuracy of the analyst and instrument performance. Marker pesticides are compounds selected from different pesticide classes (organochlorines, organophosphates, pyrethroids, carbamates, triazines), which have physical and chemical characteristics similar to those in the class they represent. The use of marker pesticides to monitor recoveries is a modification of PDP's previous requirements that called for spiking with all pesticides. Because of the large number of pesticides in the program, spiking with all compounds required multiple spike mixtures to avert coelution problems, which, in turn, resulted in lengthy run times. During 2002, PDP laboratories quantitated a total of 27,456 matrix spikes, with an overall mean recovery of 90 percent, overall standard deviation of 26 percent, and overall %C.V. of 29 percent.

d. Process Control Spike: A compound of 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 2002, PDP laboratories quantitated a total of 50,500 process controls on 12,899 samples, with an overall mean recovery of 96 percent, overall standard deviation of 20 percent, and overall %C.V. of 21 percent. Of these process controls, 867 (1.7 percent) were rerun due to initial failure to meet PDP recovery criteria. These rerun values are not included in these statistics for illustrative purposes; however, reported data are those obtained from sample reanalysis.

5. Method Performance and Verification Procedures - Laboratories are required to determine and verify the limits of detection (LODs) and LOQs for each pesticide/commodity pair. LODs depend on matrix, analyte, and detector used, and range from 0.001 to 0.34 ppm for fruit and vegetables, barley, and rice, from 0.2 to 34 parts per billion (ppb) for beef, and from 0.6 parts per trillion (ppt) to 1.7 ppb for drinking water. (*Information on specific LODs and LOQs is available upon request.*) Verification by mass spectrometry or a suitable alternate detection system is required for all initial determinations. Verified residue amounts above LOD and below LOQ are reported as below quantifiable level and assigned values at? LOQ at the request of EPA for use in dietary risk assessment. If a detected residue exceeds the established tolerance, the sample is reanalyzed from the frozen homogenate, along with the appropriate blanks and a spike of the residue at the suspected level.

Appendix D

Import vs. Domestic Pesticide Residue Comparisons

PDP was 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 D 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 peaches are compared with data for samples originating in Chile for 2000 through 2002. Only residues detected in more than 10 percent of all samples are included in this comparison. Residue data for asparagus from the United States are compared with data for samples originating in Mexico and Peru for 2002. Only residues detected in more than 10 individual samples are included in this 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 National differences in residue findings were due to the pesticides used to sustain crop protection based on the environment, climate, and growing conditions.

**2000-2002 Distribution of Residues for Peaches
United States Samples vs. Samples Originating in Chile**

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2000	273	249	91	787
	2001	263	259	98	1031
	2002	276	271	98	912
	2000-2002	812	779	95	2,730
Chile	2000	260	252	97	1067
	2001	265	262	99	1284
	2002	283	277	98	1419
	2000-2002	808	791	98	3,770

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Azinphos methyl	United States	812	117	14
	Chile	808	636	79
Carbaryl	United States	812	158	19
	Chile	808	236	29
Chlorpyrifos	United States	812	109	13
	Chile	808	432	53
Dicloran	United States	812	194	24
	Chile	808	4	< 1
Esfenvalerate	United States	537	34	6
	Chile	680	93	14
Fenvalerate	United States	537	31	6
	Chile	680	122	18
Fludioxonil	United States	539	265	49
	Chile	548	0	0
Iprodione	United States	789	287	36
	Chile	808	692	86
Iprodione met. isomer	United States	802	140	17
	Chile	808	475	59
Methamidophos	United States	812	1	< 1
	Chile	808	158	20
Phosmet	United States	812	561	69
	Chile	808	331	41

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

**2002 Distribution of Residues for Asparagus
United States Samples vs. Samples Originating in
Mexico and Peru**

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2002	212	8	4	10
Mexico	2002	183	19	10	22
Peru	2002	265	29	11	31

**2002 Distribution of Residues for Asparagus Samples
Originating in Mexico and Peru vs. United States
(Only Pesticides with Residue Detections in at least 10 Samples)**

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Chlorpyrifos	United States	212	0	0
	Mexico	183	3	2
	Peru	265	16	6
Methomyl	United States	212	2	1
	Mexico	183	3	2
	Peru	265	9	3
Metribuzin	United States	212	0	0
	Mexico	183	9	5
	Peru	265	0	0

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

Appendix E

Distribution of Residues by Pesticide in Fruit and Vegetables

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

Some LODs and values detected have been rounded up to 3 decimal places for reporting purposes. The 2002 database that is made available for download from the PDP Web site will contain the actual values.

In 2002, 10,056 fruit and vegetable samples were analyzed, of which 7,513 were fresh product and 2,543 were processed product.

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

Codex MRLs are recommended on the basis of appropriate residue data obtained mainly from supervised trials. The residue data thus obtained reflect registered or approved usage of the pesticide in accordance with "good agricultural practices." Also, Codex MRLs are established only where there is supporting evidence concerning the safety to humans as determined by the Joint Food and Agriculture/World Health Organization (FAO/WHO) Meeting on Pesticide Residues; this means that Codex Maximum Residue Limits represent residue levels which are toxicologically acceptable. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: Pesticide Residues in Food database at http://apps.fao.org/CodexSystem/pestdes/pest_q-e.htm.

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

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Acephate (insecticide)							
Apples	556	0			0.002 - 0.006	0.02	-
Asparagus	191	0			0.002 ^	0.02	-
Bananas	638	0			0.002 - 0.006	0.02	-
Broccoli	125	0			0.002 ^	0.02	2
Carrots	536	0			0.002 - 0.003	0.02	-
Celery	737	359	48.7	0.003 - 1.8	0.002 ^	10.0	-
Cucumbers	129	1	0.8	0.003 ^	0.002 ^	0.02	-
Mushrooms	728	0			0.002 - 0.003	0.02	-
Peaches	563	0			0.002 - 0.003	0.02	-
Pineapples	106	0			0.002 ^	0.02	-
Potatoes	370	2	0.5	0.003 - 0.008	0.002 - 0.005	0.02	0.5
Spinach	363	2	0.6	0.008 - 0.025	0.005 ^	0.02	-
Sweet Bell Peppers	186	41	22	0.004 - 1.1	0.003 ^	4.0	-
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.005	0.02	-
Sweet Peas, Canned/Frozen	729	0			0.002 - 0.004	0.02	-
TOTAL	6,684	405					
Alachlor (herbicide)							
Asparagus	18	0			0.010 ^	NT	-
Broccoli	53	0			0.010 ^	NT	-
Pineapples	35	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.010 - 0.016	0.05	-
TOTAL	833	0					
Aldicarb (insecticide)							
Apples	556	0			0.020 - 0.021	NT	-
Asparagus	105	0			0.012 ^	NT	-
Bananas	638	0			0.012 - 0.021	NT	-
Broccoli	125	0			0.012 ^	NT	-
Carrots	518	0			0.002 - 0.012	NT	-
Celery	126	0			0.012 ^	NT	-
Cucumbers	129	0			0.021 ^	NT	-
Peaches	563	0			0.002 ^	NT	-
Pineapples	106	0			0.012 ^	NT	-
Potatoes	370	0			0.012 - 0.020	1	-
Spinach	363	0			0.020 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	118	0			0.012 ^	NT	-
Sweet Peas, Canned/Frozen	104	0			0.012 ^	NT	-
TOTAL	4,007	0					
Aldicarb sulfone (metabolite of Aldicarb)							
Apples	556	0			0.021 - 0.022	NT	-
Asparagus	53	0			0.021 ^	NT	-
Bananas	638	0			0.021 - 0.022	NT	-
Broccoli	53	0			0.021 ^	NT	-
Carrots	536	0			0.002 - 0.021	NT	-
Celery	126	0			0.021 ^	NT	-
Cucumbers	129	0			0.021 ^	NT	-
Peaches	313	0			0.002 ^	NT	-
Pineapples	106	0			0.021 ^	NT	-
Potatoes	370	2	0.5	0.035 - 0.062	0.021 - 0.038	1	-
Spinach	363	0			0.038 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	34	0			0.021 ^	NT	-
Sweet Peas, Canned/Frozen	18	0			0.021 ^	NT	-
TOTAL	3,481	2					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Aldicarb sulfoxide (metabolite of Aldicarb)							
Apples	556	0			0.017 - 0.026	NT	-
Asparagus	87	0			0.027 ^	NT	-
Bananas	638	0			0.017 - 0.027	NT	-
Broccoli	125	0			0.027 ^	NT	-
Carrots	536	0			0.002 - 0.027	NT	-
Celery	126	0			0.027 ^	NT	-
Cucumbers	129	0			0.026 ^	NT	-
Peaches	527	0			0.002 ^	NT	-
Pineapples	106	0			0.027 ^	NT	-
Potatoes	370	12	3.2	0.045 - 0.19	0.027 - 0.038	1	-
Spinach	363	0			0.038 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.027 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.027 ^	NT	-
TOTAL	4,006	12					
Aldrin (insecticide) (parent of Dieldrin)							
Asparagus	500	0			0.002 ^	0.03	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.002 ^	0.03	0.05
TOTAL	1,021	0					
Allethrin (insecticide)							
Asparagus	395	0			0.015 ^	NT	-
Sweet Bell Peppers	48	0			0.030 ^	EX	-
Sweet Peas, Canned/Frozen	<u>414</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	857	0					
Ametryn (herbicide)							
Apples	123	0			0.011 ^	NT	-
Asparagus	123	0			0.010 ^	NT	-
Bananas	727	0			0.010 - 0.025	0.25	-
Broccoli	125	0			0.010 ^	NT	-
Carrots	144	0			0.010 ^	NT	-
Celery	126	0			0.010 ^	NT	-
Cucumbers	129	0			0.011 ^	NT	-
Mushrooms	126	0			0.010 ^	NT	-
Pineapples	360	0			0.010 ^	0.25	-
Potatoes	108	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	206	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	<u>104</u>	<u>0</u>			0.010 ^	NT	-
TOTAL	2,401	0					
Anilazine (fungicide)							
Asparagus	334	0			0.011 ^	NT	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.011 ^	NT	-
TOTAL	855	0					
Atrazine (herbicide)							
Apples	556	0			0.011 - 0.025	NT	-
Asparagus	623	0			0.008 - 0.010	NT	-
Bananas	638	0			0.010 - 0.025	NT	-
Broccoli	125	0			0.010 ^	NT	-
Carrots	536	0			0.002 - 0.010	NT	-
Celery	126	0			0.010 ^	NT	-
Cucumbers	129	0			0.011 ^	NT	-
Mushrooms	642	0			0.002 - 0.010	NT	-
Peaches	563	0			0.002 ^	NT	-
Pineapples	106	0			0.010 ^	NT	-
Potatoes	370	0			0.010 - 0.024	NT	-
Spinach	363	0			0.024 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned/Frozen	727	0			0.010 - 0.024	0.25	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.008 - 0.010	NT	-
TOTAL	6,333	0					
Azinphos methyl (insecticide)							
Apple Juice	729	1	0.1	0.022 ^	0.013 ^	1.5	-
Apple Sauce	358	2	0.6	0.022 ^	0.013 ^	1.5	-
Apples	556	205	36.9	0.013 - 0.3	0.008 - 0.011	1.5	2
Asparagus	623	0			0.008 - 0.011	NT	0.5
Bananas	638	0			0.008 - 0.011	NT	1
Broccoli	737	0			0.006 - 0.008	2.0	1
Carrots	536	0			0.003 - 0.020	NT	0.5
Celery	737	6	0.8	0.003 - 0.19	0.002 - 0.008	2.0	0.5
Cucumbers	183	0			0.008 ^	2.0	0.2
Mushrooms	642	0			0.003 - 0.020	NT	0.5
Peaches	563	262	46.5	0.005 - 0.52	0.003 - 0.020	2.0	2
Pineapples	106	0			0.008 ^	NT	1
Potatoes	370	0			0.008 - 0.012	0.2	0.05
Spinach	363	0			0.012 ^	2.0	0.5
Sweet Bell Peppers	186	1	0.5	0.13 ^	0.020 ^	0.3	1
Sweet Corn, Canned/Frozen	135	0			0.008 ^	NT	0.5
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.008 - 0.011	NT	0.5
TOTAL	8,105	477					
Bifenthrin (insecticide)							
Apples	123	0			0.011 ^	NT	-
Asparagus	623	0			0.010 - 0.011	NT	-
Bananas	281	0			0.010 - 0.011	NT	-
Broccoli	737	0			0.008 - 0.010	NT	-
Carrots	536	0			0.003 - 0.010	NT	-
Celery	144	0			0.010 ^	NT	-
Cucumbers	183	1	0.5	0.018 ^	0.010 - 0.011	0.4	-
Mushrooms	642	0			0.003 - 0.010	NT	-
Peaches (V-5)	563	5	0.9	0.013 - 0.12	0.003 ^	NT	-
Pineapples	106	0			0.010 ^	NT	-
Potatoes	108	0			0.010 ^	0.05	0.05
Spinach (V-2)	2	2	100	0.027 - 0.64	0.016 ^	NT	-
Sweet Bell Peppers	186	25	13.4	0.005 - 0.061	0.003 ^	0.5	-
Sweet Corn, Canned/Frozen	727	0			0.010 - 0.016	0.05	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.010 - 0.011	0.05	-
TOTAL	5,690	33					
Bromacil (herbicide)							
Apples	123	0			0.015 ^	NT	-
Asparagus	105	0			0.015 ^	NT	-
Bananas	246	0			0.015 ^	NT	-
Broccoli	125	0			0.015 ^	NT	-
Carrots	144	0			0.015 ^	NT	-
Celery	126	0			0.015 ^	NT	-
Cucumbers	129	0			0.015 ^	NT	-
Mushrooms	126	0			0.015 ^	NT	-
Pineapples	360	0			0.015 - 0.029	0.1	-
Potatoes	108	0			0.015 ^	NT	-
Sweet Corn, Canned/Frozen	118	0			0.015 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	1,832	0					
Buprofezin (insecticide)							
Asparagus	417	0			0.015 ^	NT	-
Cucumbers	183	0			0.009 - 0.015	0.50	-
Sweet Peas, Canned/Frozen	<u>479</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	1,079	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Butylate (herbicide)							
Asparagus	18	0			0.010 ^	NT	-
Broccoli	71	0			0.010 ^	NT	-
Pineapples	35	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	<u>683</u>	<u>0</u>			0.010 - 0.016	0.1	-
TOTAL	807	0					
Cadusafos (insecticide)							
Apples	123	0			0.005 ^	NT	-
Bananas	709	0			0.005 - 0.025	0.01	0.01
Cucumbers	129	0			0.005 ^	NT	-
Pineapples	<u>17</u>	<u>0</u>			0.005 ^	NT	-
TOTAL	978	0					
Captafol (fungicide) (parent of THPI)							
Apples	123	0			0.018 ^	NT	-
Asparagus	123	0			0.018 ^	NT	-
Bananas	317	0			0.018 ^	NT	-
Broccoli	125	0			0.018 ^	NT	-
Carrots	144	0			0.018 ^	NT	-
Celery	126	0			0.018 ^	NT	-
Mushrooms	126	0			0.018 ^	NT	-
Onion	706	0			0.018 - 0.035	0.1	-
Pineapples	106	0			0.018 ^	NT	-
Potatoes	370	0			0.017 - 0.018	0.5	-
Spinach	363	0			0.017 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.018 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.015 - 0.018	NT	-
TOTAL	3,407	0					
Captan (fungicide) (parent of THPI)							
Apple Juice	729	0			0.012 ^	25.0	-
Apple Sauce	358	0			0.012 ^	25.0	-
Apples	556	57	10.3	0.020 - 2.4	0.012 ^	25.0	25
Asparagus	123	0			0.012 ^	NT	-
Bananas	638	0			0.012 ^	NT	-
Broccoli	737	0			0.006 - 0.020	2	-
Carrots	554	0			0.012 - 0.32	2	-
Celery	591	1	0.2	0.020 ^	0.012 - 0.014	50	-
Cucumbers	147	0			0.012 ^	25	-
Mushrooms	583	0			0.012 - 0.13	NT	-
Onion	543	0			0.012 - 0.014	25	-
Peaches	563	42	7.5	0.032 - 3.8	0.019 ^	50.0	15
Pineapples	106	0			0.012 ^	NT	-
Potatoes	370	0			0.012 ^	25.0	-
Spinach	363	0			0.012 ^	100	-
Sweet Bell Peppers	186	2	1.1	0.032 ^	0.019 ^	25	-
Sweet Corn, Canned/Frozen	641	0			0.012 ^	2	-
Sweet Peas, Canned/Frozen	<u>140</u>	<u>0</u>			0.012 ^	2	-
TOTAL	7,928	102					
Carbaryl (insecticide)							
Apple Juice	729	47	6.4	0.017 - 0.040	0.010 ^	10	-
Apple Sauce	358	23	6.4	0.017 - 0.078	0.010 ^	10	-
Apples	556	14	2.5	0.013 - 0.22	0.008 - 0.021	10	5
Asparagus (X-1)	708	6	0.8	0.020 - 15	0.008 - 0.020	10	10
Bananas	727	0			0.008 - 0.021	10	5
Broccoli	737	0			0.008 - 0.010	10	-
Carrots	554	0			0.001 - 0.008	10	2
Celery	737	4	0.5	0.003 - 0.16	0.002 - 0.008	10.0	-
Cucumbers	183	11	6.0	0.013 - 0.063	0.008 ^	10	3
Peaches	563	182	32.3	0.002 - 3.2	0.001 ^	10	10
Pineapples	360	9	2.5	0.013 - 0.11	0.008 - 0.010	2.0	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Potatoes	370	0			0.008 ^	0.2	0.2
Spinach	363	0			0.008 ^	12	-
Sweet Bell Peppers	186	9	4.8	0.002 - 0.55	0.001 ^	10	-
Sweet Corn, Canned/Frozen	727	0			0.008 ^	5	1
Sweet Peas, Canned/Frozen	122	0			0.008 ^	10	-
TOTAL	7,980	305					
Carbofuran (insecticide) (parent of 3-Hydroxycarbofuran)							
Apples	556	0			0.018 - 0.031	NT	-
Asparagus	123	0			0.013 ^	NT	-
Bananas	727	0			0.013 - 0.031	0.1	0.1
Broccoli	125	0			0.013 ^	NT	-
Carrots	536	0			0.002 - 0.013	NT	0.5
Celery	126	0			0.013 ^	NT	-
Cucumbers	183	4	2.2	0.022 - 0.14	0.013 - 0.018	0.2	-
Peaches	563	0			0.002 ^	NT	-
Pineapples	106	0			0.013 ^	NT	-
Potatoes	370	0			0.008 - 0.013	1	0.1
Spinach	363	0			0.008 ^	NT	-
Sweet Bell Peppers	186	3	1.6	0.003 - 0.015	0.002 ^	0.2	-
Sweet Corn, Canned/Frozen	727	0			0.008 - 0.013	0.2	0.1
Sweet Peas, Canned/Frozen	122	0			0.013 ^	NT	-
TOTAL	4,813	7					
Carbophenothion (insecticide)							
Carrots	392	0			0.001 - 0.002	NT	-
Mushrooms	516	0			0.001 - 0.002	NT	-
Peaches	563	0			0.001 - 0.002	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
TOTAL	1,657	0					
Carboxin (fungicide)							
Asparagus	18	0			0.008 ^	NT	-
Broccoli	53	0			0.008 ^	NT	-
Pineapples	35	0			0.008 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.008 - 0.016	0.2	-
TOTAL	833	0					
Chlordane cis (insecticide) (isomer of Chlordane)							
Asparagus	500	0			0.002 ^	0.1 AL	0.02
Carrots	392	6	1.5	0.001 ^	0.001 ^	0.1 AL	0.02
Mushrooms (V-1)	516	1	0.2	0.001 ^	0.001 ^	NT	0.02
Peaches	563	0			0.001 ^	0.1 AL	0.02
Sweet Bell Peppers	186	2	1.1	0.001 - 0.003	0.001 ^	0.1 AL	0.02
Sweet Peas, Canned/Frozen	521	0			0.010 ^	0.1 AL	0.02
TOTAL	2,678	9					
Chlordane trans (insecticide) (isomer of Chlordane)							
Asparagus	500	0			0.002 ^	0.1 AL	0.02
Carrots	392	5	1.3	0.001 ^	0.001 ^	0.1 AL	0.02
Peaches	563	0			0.001 ^	0.1 AL	0.02
Sweet Bell Peppers	186	0			0.001 ^	0.1 AL	0.02
Sweet Peas, Canned/Frozen	521	0			0.010 ^	0.1 AL	0.02
TOTAL	2,162	5					
Chlorethoxyfos (insecticide)							
Broccoli	35	0			0.010 ^	NT	-
Pineapples	18	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.010 - 0.016	0.01	-
TOTAL	780	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Chlorfenvinphos beta (insecticide)							
Carrots	44	0			0.001 ^	NT	0.4
Mushrooms	15	0			0.001 ^	NT	-
Peaches	36	0			0.001 ^	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.003 ^	NT	-
TOTAL	281	0					
Chlorothalonil (fungicide)							
Apples	556	0			0.004 - 0.008	NT	-
Asparagus	688	0			0.002 - 0.005	0.1	-
Bananas	727	0			0.004 - 0.008	0.5	0.2
Broccoli	715	8	1.1	0.003 - 0.053	0.002 - 0.005	5	5
Carrots	162	0			0.005 ^	1	1
Celery	519	323	62.2	0.004 - 11	0.003 - 0.005	15	10
Cucumbers	183	5	2.7	0.013 - 0.21	0.005 - 0.008	5	5
Mushrooms	212	2	0.9	0.008 - 0.088	0.005 ^	1.0	-
Pineapples	106	0			0.005 ^	NT	-
Potatoes	348	0			0.005 - 0.007	0.1	0.2
Spinach (V-1)	363	1	0.3	0.17 ^	0.007 ^	NT	-
Sweet Corn, Canned/Frozen	402	0			0.005 - 0.007	1	0.01
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.002 - 0.005	NT	-
TOTAL	5,624	339					
Chlorpropham (herbicide, growth regulator)							
Apples	556	0			0.011 - 0.025	NT	-
Asparagus (V-1)	623	1	0.2	0.049 ^	0.010 - 0.011	NT	-
Bananas	637	0			0.010 - 0.025	NT	-
Broccoli	125	0			0.010 ^	NT	-
Carrots	126	0			0.010 ^	NT	-
Celery	108	0			0.010 ^	NT	-
Cucumbers	129	0			0.011 ^	NT	-
Mushrooms (V-1)	642	1	0.2	0.041 ^	0.006 - 0.010	NT	-
Peaches (V-2)	2	2	100	0.010 ^	0.006 ^	NT	-
Pineapples	106	0			0.010 ^	NT	-
Potatoes	370	322	87	0.017 - 26	0.010 - 0.017	50	-
Spinach	363	0			0.017 ^	0.3	-
Sweet Bell Peppers	186	0			0.006 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.010 - 0.011	NT	-
TOTAL	4,751	326					
Chlorpyrifos (insecticide)							
Apple Juice	729	0			0.010 ^	1.5	-
Apple Sauce	358	0			0.010 ^	1.5	-
Apples	556	3	0.5	0.007 - 0.059	0.004 ^	1.5	1
Asparagus	708	20	2.8	0.006 - 0.29	0.004 ^	5.0	-
Bananas	727	1	0.1	0.007 ^	0.004 ^	0.01	-
Broccoli	737	19	2.6	0.007 - 0.058	0.004 ^	1.0	-
Carrots	536	36	6.7	0.002 - 0.020	0.001 - 0.004	0.1	0.5
Celery	737	22	3.0	0.003 - 0.016	0.002 - 0.004	0.1	0.05
Cucumbers (X-1)	183	6	3.3	0.007 - 0.070	0.004 ^	0.05	-
Mushrooms	728	1	0.1	0.002 ^	0.001 - 0.004	0.1	0.05
Onion	216	0			0.010 ^	0.5	0.05
Peaches (X-4)	563	194	34.5	0.002 - 0.079	0.001 ^	0.05	-
Pineapples	106	0			0.004 ^	0.1	-
Potatoes	370	0			0.004 ^	0.1	0.05
Spinach	363	8	2.2	0.007 - 0.1	0.004 ^	0.1	-
Sweet Bell Peppers	186	9	4.8	0.002 - 0.23	0.001 ^	1.0	-
Sweet Corn, Canned/Frozen	727	0			0.004 ^	0.1	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.004 ^	0.05	-
TOTAL	9,259	319					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Clomazone (herbicide)							
Asparagus	518	0			0.008 - 0.015	NT	-
Broccoli	71	0			0.008 ^	NT	-
Cucumbers	183	0			0.008 - 0.009	0.1	-
Pineapples	35	0			0.008 ^	NT	-
Sweet Bell Peppers	186	0			0.014 ^	0.05	-
Sweet Corn, Canned/Frozen	17	0			0.008 ^	NT	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.008 - 0.015	0.05	-
TOTAL	1,739	0					
Coumaphos (insecticide)							
Carrots	392	0			0.001 - 0.003	NT	-
Mushrooms	15	0			0.001 ^	NT	-
Peaches	563	0			0.001 - 0.009	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.009 ^	NT	-
TOTAL	1,156	0					
Coumaphos oxygen analog (metabolite of Coumaphos)							
Carrots	392	0			0.004 - 0.012	NT	-
Mushrooms	516	0			0.004 - 0.012	NT	-
Peaches	563	0			0.004 - 0.012	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.012 ^	NT	-
TOTAL	1,657	0					
Cyanazine (herbicide)							
Asparagus	18	0			0.035 ^	NT	-
Broccoli	53	0			0.035 ^	NT	-
Pineapples	35	0			0.035 ^	NT	-
Sweet Corn, Canned/Frozen	<u>206</u>	<u>0</u>			0.035 ^	0.05	-
TOTAL	312	0					
Cycloate (herbicide)							
Spinach	<u>363</u>	<u>0</u>			0.016 ^	0.05	-
TOTAL	363	0					
Cyfluthrin (insecticide)							
Apples	123	0			0.060 ^	0.05	0.5
Asparagus	708	0			0.023 - 0.060	0.05	-
Bananas	727	0			0.050 - 0.060	0.05	-
Broccoli	125	0			0.060 ^	0.05	-
Carrots	554	0			0.025 - 0.060	0.20	-
Celery	126	0			0.060 ^	0.05	-
Cucumbers	129	0			0.060 ^	0.05	-
Mushrooms	728	0			0.025 - 0.060	0.05	-
Onion	741	0			0.048 - 0.060	0.05	-
Peaches	563	0			0.025 - 0.041	0.05	-
Pineapples	106	0			0.060 ^	0.05	-
Potatoes	370	0			0.030 - 0.060	0.05	-
Spinach	363	0			0.030 ^	0.05	-
Sweet Bell Peppers	186	0			0.14 ^	0.50	0.2
Sweet Corn, Canned/Frozen	727	0			0.030 - 0.060	0.05	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.023 - 0.060	0.05	-
TOTAL	7,005	0					
Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) (insecticide) **							
Asparagus (X-7)	500	7	1.4	0.025 - 0.46	0.015 ^	0.01	-
Broccoli	522	1	0.2	0.017 ^	0.010 ^	0.4	-
Carrots	392	0			0.003 ^	0.01	-
Mushrooms	516	0			0.003 ^	0.01	-
Onion	524	0			0.006 ^	0.1	-
Peaches	563	1	0.2	0.005 ^	0.003 ^	0.01	-
Spinach (X-2)	2	2	100	0.12 - 0.14	0.016 ^	0.01	-
Sweet Bell Peppers	186	5	2.7	0.005 - 0.015	0.003 ^	0.01	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned/Frozen	521	0			0.016 ^	0.05	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.015 ^	0.01	-
TOTAL	4,247	16					
Cyhalothrin, Lambda (insecticide)							
Apples	123	0			0.060 ^	0.01	0.2
Asparagus	123	0			0.060 ^	0.01	-
Bananas	299	0			0.060 ^	0.01	-
Broccoli	215	0			0.060 ^	0.4	-
Carrots	144	0			0.060 ^	0.01	-
Celery	126	0			0.060 ^	0.01	-
Cucumbers	146	0			0.060 ^	0.01	-
Mushrooms	212	0			0.060 ^	0.01	-
Onion	216	0			0.060 ^	0.1	-
Pineapples	106	0			0.060 ^	0.01	-
Potatoes	108	0			0.060 ^	0.01	0.02
Sweet Corn, Canned/Frozen	206	0			0.060 ^	0.05	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.060 ^	0.01	-
TOTAL	2,232	0					
Cyhalothrin, Lambda epimer R157836 (isomer of Cyhalothrin, Lambda)							
Carrots	117	0			0.003 ^	0.01	-
Mushrooms	103	0			0.003 ^	0.01	-
Peaches	<u>157</u>	<u>0</u>			0.003 ^	0.01	-
TOTAL	377	0					
Cypermethrin (insecticide)							
Apples	556	0			0.036 - 0.045	NT	2
Asparagus (V-3)	536	3	0.6	0.038 - 1.1	0.023 - 0.035	NT	-
Bananas	567	0			0.035 - 0.045	NT	-
Broccoli	737	0			0.016 - 0.035	2	1
Carrots	446	0			0.023 - 0.052	NT	0.05
Cucumbers	129	0			0.036 ^	NT	0.2
Mushrooms	552	0			0.026 - 0.077	NT	0.05
Onion	741	0			0.035 - 0.052	0.10	0.1
Peaches	563	0			0.023 - 0.052	NT	2
Pineapples	52	0			0.035 ^	NT	-
Potatoes	18	0			0.035 ^	NT	0.05
Spinach	363	6	1.7	0.050 - 0.3	0.030 ^	10.00	2
Sweet Bell Peppers	186	0			0.17 ^	0.2	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.023 ^	NT	0.05
TOTAL	5,967	9					
Cyprodinil (fungicide)							
Apple Juice	729	0			0.008 ^	0.1	-
Apple Sauce	358	0			0.008 ^	0.1	-
Apples	<u>556</u>	<u>0</u>			0.025 ^	0.1	-
TOTAL	1,643	0					
Cyromazine (insect growth regulator)							
Carrots (V-1)	1	1	100	0.11 ^	0.066 ^	NT	-
Mushrooms	35	35	100	0.11 - 0.76	0.066 - 0.11	1.0	5
Sweet Bell Peppers	<u>138</u>	<u>0</u>			0.11 ^	1.0	-
TOTAL	174	0					
DCPA (herbicide)							
Apples	556	0			0.005 - 0.006	NT	-
Asparagus (V-1)	623	1	0.2	0.004 ^	0.002 - 0.006	NT	-
Bananas	620	0			0.005 - 0.006	NT	-
Broccoli	737	167	22.7	0.003 - 0.053	0.002 - 0.006	5	-
Carrots (V-1)	536	1	0.2	0.001 ^	0.001 - 0.006	NT	-
Celery (V-3)	647	3	0.5	0.010 - 0.012	0.006 - 0.007	NT	-
Cucumbers	183	0			0.006 ^	1	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	642	0			0.001 - 0.006	NT	-
Onion	741	0			0.006 - 0.007	1	-
Peaches (V-1)	563	1	0.2	0.001 ^	0.001 ^	NT	-
Pineapples	106	0			0.006 ^	NT	-
Potatoes	370	0			0.006 - 0.007	2	-
Spinach (V-1)	363	1	0.3	0.012 ^	0.007 ^	NT	-
Sweet Bell Peppers	186	9	4.8	0.001 - 0.010	0.001 ^	2	-
Sweet Corn, Canned/Frozen	727	0			0.006 - 0.007	0.05	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.002 - 0.006	NT	-
TOTAL	8,243	183					
DDD o,p' (metabolite of DDT)							
Carrots	392	3	0.8	0.002 ^	0.001 ^	3 AL	0.2
Mushrooms	516	0			0.001 ^	0.5 AL	-
Peaches	563	0			0.001 ^	0.2 AL	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.001 ^	0.1 AL	-
TOTAL	1,657	3					
DDD p,p' (metabolite of DDT)							
Apples	556	0			0.006 - 0.008	0.1 AL	-
Asparagus	708	0			0.004 - 0.008	0.5 AL	-
Bananas	620	0			0.006 - 0.008	NT	-
Broccoli	215	0			0.008 ^	NT	-
Carrots	554	16	2.9	0.002 - 0.036	0.001 - 0.008	3 AL	0.2
Celery	216	0			0.008 ^	0.5 AL	-
Cucumbers	183	0			0.008 ^	0.1 AL	-
Mushrooms	715	1	0.1	0.002 ^	0.001 - 0.008	0.5 AL	-
Peaches	563	0			0.001 ^	0.2 AL	-
Pineapples	106	0			0.008 ^	0.2 AL	-
Potatoes	108	0			0.008 ^	1 AL	-
Sweet Bell Peppers	170	0			0.001 ^	0.1 AL	-
Sweet Corn, Canned/Frozen	206	0			0.008 ^	0.1 AL	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.004 - 0.008	0.2 AL	-
TOTAL	5,649	17					
DDE p,p' (metabolite of DDT)							
Apple Juice	729	0			0.005 ^	0.1 AL	-
Apple Sauce	358	0			0.005 ^	0.1 AL	-
Apples	556	0			0.003 - 0.007	0.1 AL	-
Asparagus	708	0			0.004 - 0.007	0.5 AL	-
Bananas	638	0			0.003 - 0.007	NT	-
Broccoli	737	0			0.004 - 0.007	0.5 AL	-
Carrots	554	195	35.2	0.003 - 0.15	0.002 - 0.007	3 AL	0.2
Celery	737	47	6.4	0.005 - 0.012	0.003 - 0.007	0.5 AL	-
Cucumbers	183	0			0.007 ^	0.1 AL	-
Mushrooms	728	0			0.002 - 0.007	0.5 AL	-
Onion	741	0			0.005 - 0.007	0.2 AL	-
Peaches	563	0			0.002 ^	0.2 AL	-
Pineapples	360	0			0.005 - 0.007	0.2 AL	-
Potatoes	370	13	3.5	0.011 - 0.015	0.007 ^	1 AL	-
Spinach	363	101	27.8	0.012 - 0.065	0.007 ^	0.5 AL	-
Sweet Bell Peppers	186	0			0.002 ^	0.1 AL	-
Sweet Corn, Canned/Frozen	727	0			0.007 ^	0.1 AL	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.004 - 0.007	0.2 AL	-
TOTAL	9,967	356					
DDT o,p' (insecticide)							
Apples	433	0			0.005 ^	0.1 AL	-
Bananas	321	0			0.005 ^	NT	-
Carrots	392	25	6.4	0.002 - 0.006	0.001 - 0.002	3 AL	0.2

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	516	1	0.2	0.002 ^	0.001 - 0.002	0.5 AL	-
Peaches	563	0			0.001 - 0.002	0.2 AL	-
Sweet Bell Peppers	186	0			0.002 ^	0.1 AL	-
TOTAL	2,411	26					
DDT p,p' (insecticide)							
Apples	556	0			0.005 - 0.008	0.1 AL	-
Asparagus	708	0			0.004 - 0.008	0.5 AL	-
Bananas	620	0			0.005 - 0.008	NT	-
Broccoli	215	0			0.008 ^	NT	-
Carrots	303	10	3.3	0.003 - 0.11	0.002 - 0.008	3 AL	0.2
Celery	216	0			0.008 ^	0.5 AL	-
Cucumbers	183	0			0.008 ^	0.1 AL	-
Mushrooms	728	1	0.1	0.011 ^	0.002 - 0.008	0.5 AL	-
Peaches	563	0			0.002 ^	0.2 AL	-
Pineapples	106	0			0.008 ^	0.2 AL	-
Potatoes	108	0			0.008 ^	1 AL	-
Sweet Bell Peppers	186	0			0.002 ^	0.1 AL	-
Sweet Corn, Canned/Frozen	206	0			0.008 ^	0.1 AL	-
Sweet Peas, Canned/Frozen	729	0			0.004 - 0.008	0.2 AL	-
TOTAL	5,427	11					
DEF - Tribufos (herbicide)							
Carrots	321	0			0.001 ^	NT	-
Mushrooms	275	0			0.001 ^	NT	-
Peaches	36	0			0.001 ^	NT	-
TOTAL	632	0					
Deltamethrin (insecticide) (includes parent Tralomethrin)							
Asparagus	500	0			0.011 - 0.037	0.05	-
Carrots	378	0			0.019 - 0.024	0.05	0.01
Mushrooms	516	0			0.019 - 0.13	0.05	0.01
Onion	524	0			0.048 ^	0.05	-
Peaches	563	0			0.019 - 0.024	0.05	0.05
Sweet Bell Peppers	186	0			0.080 ^	0.05	-
Sweet Peas, Canned/Frozen	521	0			0.011 - 0.075	0.05	0.1
TOTAL	3,188	0					
Demeton-S sulfone (insecticide) (metabolite of Demeton-S)							
Carrots	392	0			0.003 - 0.015	NT	-
Peaches	563	0			0.003 - 0.015	NT	-
Sweet Bell Peppers (V-2)	186	2	1.1	0.025 ^	0.015 ^	NT	-
TOTAL	1,141	2					
Desmedipham (herbicide)							
Carrots	377	0			0.026 - 0.18	NT	-
Peaches (V-1)	545	1	0.2	0.045 ^	0.026 - 0.088	NT	-
Sweet Bell Peppers	186	0			0.030 ^	NT	-
TOTAL	1,108	1					
Diazinon (insecticide)							
Apple Juice	729	6	0.8	0.018 ^	0.011 ^	0.5	-
Apple Sauce	358	0			0.011 ^	0.5	-
Apples	556	9	1.6	0.003 - 0.061	0.002 - 0.005	0.5	2
Asparagus	620	0			0.002 - 0.004	NT	-
Bananas	727	0			0.002 - 0.005	0.1	-
Broccoli	737	0			0.002 - 0.004	0.7	0.5
Carrots	554	13	2.3	0.003 - 0.069	0.002 - 0.004	0.75	0.5
Celery	737	41	5.6	0.002 - 0.019	0.001 - 0.002	0.7	-
Cucumbers	183	2	1.1	0.003 ^	0.002 ^	0.75	0.1
Mushrooms	728	189	26.0	0.003 - 0.19	0.002 - 0.004	0.75	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Onion	216	0			0.010 ^	0.75	0.05
Peaches	563	55	9.8	0.003 - 0.049	0.002 - 0.004	0.7	0.2
Pineapples	360	1	0.3	0.018 ^	0.002 - 0.011	0.5	0.1
Potatoes	370	0			0.002 - 0.007	0.1	0.01
Spinach	363	1	0.3	0.012 ^	0.007 ^	0.7	0.5
Sweet Bell Peppers	186	0			0.004 ^	0.5	0.05
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.007	0.7	0.02
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.002 - 0.004	NT	-
TOTAL	9,443	317					

Diazinon oxygen analog (metabolite of Diazinon)

Apple Juice	729	0			0.018 ^	NT	-
Apple Sauce	358	0			0.018 ^	NT	-
Apples	556	0			0.003 - 0.025	NT	-
Asparagus	123	0			0.003 ^	NT	-
Bananas	727	0			0.003 - 0.025	NT	-
Broccoli	737	0			0.003 - 0.005	NT	-
Carrots	554	0			0.002 - 0.003	NT	-
Celery	737	0			0.002 - 0.003	NT	-
Cucumbers	183	0			0.003 ^	0.75	0.1
Mushrooms	728	0			0.002 - 0.003	NT	-
Onion	216	0			0.010 ^	0.75	0.05
Peaches	563	0			0.002 - 0.003	NT	-
Pineapples	360	0			0.003 - 0.018	NT	-
Potatoes	370	0			0.003 - 0.016	NT	-
Spinach	363	0			0.016 ^	0.7	0.5
Sweet Bell Peppers	186	0			0.003 ^	0.5	0.05
Sweet Corn, Canned/Frozen	727	0			0.003 - 0.016	NT	-
Sweet Peas, Canned/Frozen	<u>707</u>	<u>0</u>			0.001 - 0.003	NT	-
TOTAL	8,924	0					

Dichlobenil (herbicide)

Apple Juice	729	0			0.012 ^	0.5	-
Apple Sauce	358	0			0.012 ^	0.5	-
Apples	556	0			0.025 ^	0.5	-
Carrots	392	0			0.013 - 0.019	NT	-
Mushrooms	102	0			0.013 ^	NT	-
Peaches	531	0			0.013 - 0.019	0.15	-
Sweet Bell Peppers	<u>156</u>	<u>0</u>			0.019 ^	NT	-
TOTAL	2,824	0					

Dichlorvos - DDVP (insecticide) (also a metabolite of Naled)

Apples	556	0			0.002 - 0.013	NT	-
Asparagus	708	0			0.002 ^	NT	-
Bananas	727	0			0.002 - 0.013	NT	-
Broccoli	125	0			0.002 ^	NT	-
Carrots	536	0			0.002 - 0.003	NT	-
Celery	737	0			0.001 - 0.002	NT	-
Cucumbers	183	0			0.002 ^	NT	-
Mushrooms	728	0			0.002 - 0.003	NT	0.5
Onion	216	0			0.010 ^	NT	-
Peaches (V-2)	552	2	0.4	0.041 - 0.057	0.002 - 0.003	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	370	0			0.002 - 0.003	NT	-
Spinach	363	0			0.003 ^	NT	-
Sweet Bell Peppers (V-2)	186	2	1.1	0.005 ^	0.003 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.003	NT	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.002 ^	NT	-
TOTAL	7,549	4					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Dicloran (fungicide)							
Apples	556	0			0.003 - 0.008	NT	-
Asparagus	623	0			0.004 - 0.008	NT	-
Bananas	638	0			0.003 - 0.008	NT	-
Broccoli	89	0			0.008 ^	NT	-
Carrots	554	1	0.2	0.013 ^	0.002 - 0.008	10	10
Celery (X-1)	737	340	46.1	0.013 - 18	0.008 ^	15	-
Cucumbers	183	0			0.008 ^	5	-
Mushrooms	642	0			0.002 - 0.008	NT	-
Onion	741	0			0.007 - 0.008	10	10
Peaches	563	46	8.2	0.003 - 0.28	0.002 ^	20	15
Pineapples	106	0			0.008 ^	NT	-
Potatoes	370	1	0.3	0.026 ^	0.008 - 0.010	0.25	-
Spinach	363	0			0.010 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.008 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.004 - 0.008	NT	-
TOTAL	7,129	388					
Dicofol o,p' (insecticide)							
Carrots (V-1)	392	1	0.3	0.005 ^	0.003 - 0.010	NT	-
Mushrooms	516	0			0.003 ^	NT	-
Peaches	563	23	4.1	0.004 - 0.17	0.003 ^	10	5
Sweet Bell Peppers	<u>186</u>	<u>21</u>	11.3	0.005 - 0.071	0.003 ^	5	-
TOTAL	1,657	45					
Dicofol p,p' (isomer of Dicofol o,p')							
Apple Juice	729	0			0.010 ^	5	-
Apple Sauce	358	2	0.6	0.017 ^	0.010 ^	5	-
Apples	556	2	0.4	0.042 ^	0.020 - 0.028	5	-
Asparagus	536	0			0.010 - 0.015	NT	-
Bananas	532	0			0.010 - 0.025	NT	-
Broccoli	35	0			0.010 ^	NT	-
Carrots (V-1)	428	1	0.2	0.014 ^	0.003 - 0.010	NT	-
Celery	36	0			0.010 ^	NT	-
Cucumbers	183	7	3.8	0.017 - 0.14	0.010 - 0.020	5	0.5
Mushrooms	570	0			0.003 - 0.010	NT	-
Peaches	563	30	5.3	0.005 - 0.7	0.003 ^	10	5
Pineapples	35	0			0.010 ^	NT	-
Potatoes	316	0			0.010 - 0.018	NT	-
Spinach	363	0			0.018 ^	NT	-
Sweet Bell Peppers	186	31	16.7	0.005 - 0.72	0.003 ^	5	-
Sweet Corn, Canned/Frozen	35	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	<u>539</u>	<u>0</u>			0.010 - 0.015	NT	-
TOTAL	6,000	73					
Dieldrin (insecticide) (also a metabolite of Aldrin)							
Apple Juice	729	0			0.005 ^	0.03 AL	-
Apple Sauce	358	0			0.005 ^	0.03 AL	-
Apples	556	2	0.4	0.003 ^	0.002 - 0.006	0.03 AL	0.05
Asparagus	708	0			0.002 - 0.006	0.03 AL	-
Bananas	727	0			0.002 - 0.006	0.02 AL	-
Broccoli	737	1	0.1	0.002 ^	0.001 - 0.006	0.03 AL	-
Carrots	554	6	1.1	0.008 ^	0.005 - 0.006	0.1 AL	0.1
Celery	737	0			0.006 ^	0.03 AL	-
Cucumbers	183	1	0.5	0.010 ^	0.006 ^	0.1 AL	-
Mushrooms	728	0			0.005 - 0.006	NT	0.1
Onion	741	0			0.006 ^	0.1 AL	-
Peaches	563	0			0.005 ^	0.02 AL	-
Pineapples	360	0			0.005 - 0.006	0.03 AL	-
Potatoes	370	1	0.3	0.010 ^	0.006 - 0.018	0.1 AL	0.1
Spinach	363	0			0.018 ^	0.05 AL	-
Sweet Bell Peppers	186	0			0.005 ^	0.05 AL	-
Sweet Corn, Canned/Frozen	727	0			0.006 - 0.018	0.02 AL	0.1
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.006 ^	0.03 AL	0.05
TOTAL	9,535	11					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Difenoconazole (fungicide)							
Sweet Corn, Canned/Frozen	521	0			0.072 ^	0.1	-
TOTAL	521	0					
Diflubenzuron (insecticide)							
Mushrooms	516	14	2.7	0.011 - 0.054	0.006 - 0.007	0.2	-
Sweet Bell Peppers (V-5)	186	5	2.7	0.011 - 0.13	0.006 ^	NT	-
TOTAL	702	5					
Dimethenamid (herbicide)							
Sweet Corn, Canned/Frozen	521	0			0.016 ^	0.01	-
TOTAL	521	0					
Dimethoate (insecticide) (parent of Omethoate)							
Apple Juice	729	0			0.009 ^	2	-
Apple Sauce	358	5	1.4	0.015 ^	0.009 ^	2	-
Apples	556	5	0.9	0.021 - 0.090	0.002 - 0.005	2	1
Asparagus	707	2	0.3	0.003 ^	0.002 - 0.004	0.15	-
Bananas	638	0			0.002 - 0.005	NT	1
Broccoli	737	26	3.5	0.003 - 0.028	0.002 - 0.006	2	-
Carrots	536	0			0.001 - 0.002	NT	1
Celery	737	70	9.5	0.002 - 0.12	0.001 - 0.002	2	1
Cucumbers (V-4)	147	4	2.7	0.003 - 0.1	0.002 ^	NT	-
Mushrooms	642	0			0.001 - 0.002	NT	-
Peaches (V-8)	563	8	1.4	0.002 - 0.006	0.001 - 0.002	NT	2
Pineapples	106	0			0.002 ^	NT	-
Potatoes	370	0			0.002 - 0.007	0.2	0.05
Spinach	363	8	2.2	0.012 - 0.11	0.007 ^	2	1
Sweet Bell Peppers	186	5	2.7	0.004 - 0.090	0.002 ^	2	-
Sweet Corn, Canned/Frozen	135	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	729	52	7.1	0.003 - 0.072	0.002 - 0.004	2	0.5
TOTAL	8,239	185					
Dimethomorph (fungicide)							
Asparagus	123	0			0.030 ^	NT	-
Bananas	106	0			0.030 ^	NT	-
Broccoli	125	0			0.030 ^	NT	-
Carrots	126	0			0.030 ^	NT	-
Celery	108	0			0.030 ^	NT	-
Cucumbers	183	0			0.030 ^	1.0	-
Mushrooms	72	0			0.030 ^	NT	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	370	0			0.016 - 0.030	0.05	-
Spinach	363	0			0.016 ^	NT	-
Sweet Bell Peppers	186	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.030 ^	0.05	-
Sweet Peas, Canned/Frozen	122	0			0.030 ^	NT	-
TOTAL	2,125	0					
Diphenamid (herbicide)							
Apple Juice	729	0			0.020 ^	0.1	-
Apple Sauce	358	0			0.020 ^	0.1	-
Apples	556	0			0.006 - 0.025	0.1	-
Asparagus	623	0			0.006 - 0.015	NT	-
Bananas	317	0			0.006 ^	NT	-
Broccoli	125	0			0.006 ^	NT	-
Carrots	536	0			0.006 - 0.010	NT	-
Celery	126	0			0.006 ^	NT	-
Cucumbers	129	0			0.006 ^	NT	-
Mushrooms	624	0			0.006 - 0.010	NT	-
Peaches	547	0			0.007 - 0.010	0.1	-
Pineapples	106	0			0.006 ^	NT	-
Potatoes	370	0			0.006 - 0.018	1	-
Spinach	363	0			0.018 ^	NT	-
Sweet Bell Peppers	186	0			0.010 ^	0.1	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned/Frozen	118	0			0.006 ^	NT	-
Sweet Peas, Canned/Frozen	<u>625</u>	<u>0</u>			0.006 - 0.015	NT	-
TOTAL	6,438	0					
Diphenylamine (fungicide)							
Apple Juice	729	62	8.5	0.017 - 0.074	0.010 ^	10	-
Apple Sauce	358	144	40.2	0.016 - 0.29	0.010 ^	10	-
Apples	556	424	76.3	0.033 - 2.3	0.020 - 0.025	10	5
Asparagus	536	0			0.010 - 0.015	NT	-
Bananas	550	0			0.010 - 0.025	NT	-
Broccoli	35	0			0.010 ^	NT	-
Carrots	428	0			0.003 - 0.010	NT	-
Celery	36	0			0.010 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	-
Mushrooms	537	0			0.003 - 0.010	NT	-
Peaches (V-32)	563	32	5.7	0.005 - 0.12	0.003 ^	NT	-
Pineapples	35	0			0.010 ^	NT	-
Potatoes	298	0			0.008 - 0.010	NT	-
Spinach	363	0			0.008 ^	NT	-
Sweet Bell Peppers (V-1)	186	1	0.5	0.005 ^	0.003 ^	NT	-
Sweet Corn, Canned/Frozen	35	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.010 - 0.015	NT	-
TOTAL	5,930	663					
Disulfoton (insecticide)							
Apples	556	0			0.003 - 0.013	NT	-
Asparagus	707	0			0.003 - 0.004	NT	-
Bananas	638	0			0.003 - 0.013	NT	-
Broccoli	737	0			0.003 - 0.006	0.75	0.5
Carrots	536	0			0.002 - 0.003	NT	0.5
Celery	188	0			0.001 - 0.003	NT	0.5
Cucumbers	129	0			0.003 ^	NT	0.5
Mushrooms	642	0			0.002 - 0.003	NT	0.5
Peaches	563	0			0.002 ^	NT	-
Pineapples	360	0			0.003 - 0.010	0.75	0.1
Potatoes	370	0			0.003 - 0.007	0.75	0.5
Spinach	363	0			0.007 ^	0.75	0.5
Sweet Bell Peppers	186	0			0.002 ^	0.1	0.5
Sweet Corn, Canned/Frozen	727	0			0.003 - 0.007	0.3	0.5
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.003 - 0.004	0.75	0.5
TOTAL	7,431	0					
Disulfoton sulfone (metabolite of Disulfoton)							
Apples	556	0			0.004 - 0.008	NT	-
Asparagus	708	0			0.004 ^	NT	-
Bananas	638	0			0.004 - 0.008	NT	-
Broccoli	737	0			0.004 - 0.005	0.75	0.5
Carrots	536	0			0.001 - 0.009	NT	0.5
Celery (V-1)	188	1	0.5	0.007 ^	0.004 ^	NT	0.5
Cucumbers	129	0			0.004 ^	NT	0.5
Mushrooms	141	0			0.001 - 0.004	NT	0.5
Peaches	547	0			0.001 - 0.009	NT	0.5
Pineapples	360	0			0.004 - 0.010	0.75	0.1
Potatoes	370	0			0.004 - 0.009	NT	0.5
Spinach	363	0			0.009 ^	0.75	0.5
Sweet Bell Peppers	186	2	1.1	0.015 ^	0.009 ^	0.1	0.5
Sweet Corn, Canned/Frozen	727	0			0.004 - 0.009	0.3	0.5
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.004 ^	0.75	0.5
TOTAL	6,915	3					
Endosulfan I (insecticide)							
Apple Juice	729	0			0.004 ^	2.0	-
Apple Sauce	358	0			0.004 ^	2.0	-
Apples	556	11	2.0	0.007 - 0.030	0.004 - 0.005	2.0	1
Asparagus (V-1)	623	1	0.2	0.025 ^	0.002 - 0.005	NT	2
Bananas	638	0			0.004 - 0.005	NT	2

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Broccoli	737	9	1.2	0.003 - 0.19	0.002 - 0.005	2.0	2
Carrots	554	1	0.2	0.010 ^	0.005 - 0.006	0.2	0.2
Celery	737	16	2.2	0.008 - 0.21	0.005 ^	2.0	2
Cucumbers	183	48	26.2	0.008 - 0.082	0.005 ^	2.0	2
Mushrooms	642	0			0.005 - 0.006	NT	2
Onion	543	0			0.005 ^	NT	0.2
Peaches	563	6	1.1	0.010 - 0.025	0.006 ^	2.0	2
Pineapples	360	0			0.004 - 0.005	2.0	2
Potatoes	370	1	0.3	0.012 ^	0.005 - 0.007	0.2	0.2
Spinach	363	0			0.007 ^	2.0	2
Sweet Bell Peppers	186	7	3.8	0.010 - 0.030	0.006 ^	2.0	2
Sweet Corn, Canned/Frozen	727	0			0.005 - 0.007	0.2	2
Sweet Peas, Canned/Frozen	729	1	0.1	0.004 ^	0.002 - 0.005	2.0	2
TOTAL	9,598	101					

Endosulfan II (metabolite of Endosulfan)

Apple Juice	729	0			0.004 ^	2.0	-
Apple Sauce	358	0			0.004 ^	2.0	-
Apples	556	14	2.5	0.007 - 0.028	0.004 - 0.006	2.0	1
Asparagus (V-1)	623	1	0.2	0.010 ^	0.004 - 0.006	NT	2
Bananas	638	0			0.004 - 0.006	NT	2
Broccoli	737	5	0.7	0.003 - 0.14	0.002 - 0.006	2.0	2
Carrots	554	0			0.006 ^	0.2	0.2
Celery	737	14	1.9	0.008 - 0.078	0.005 - 0.006	2.0	2
Cucumbers	183	26	14.2	0.010 - 0.057	0.006 ^	2.0	2
Mushrooms	642	0			0.006 ^	NT	2
Onion	525	0			0.005 ^	NT	0.2
Peaches	563	10	1.8	0.010 - 0.052	0.006 ^	2.0	2
Pineapples	360	0			0.004 - 0.006	2.0	2
Potatoes	370	0			0.006 - 0.007	0.2	0.2
Spinach	363	1	0.3	0.012 ^	0.007 ^	2.0	2
Sweet Bell Peppers	186	10	5.4	0.010 - 0.067	0.006 - 0.040	2.0	2
Sweet Corn, Canned/Frozen	727	0			0.006 - 0.007	0.2	2
Sweet Peas, Canned/Frozen	729	0			0.004 - 0.006	2.0	2
TOTAL	9,580	81					

Endosulfan sulfate (metabolite of Endosulfan)

Apple Juice	729	0			0.004 ^	2.0	-
Apple Sauce	358	0			0.004 ^	2.0	-
Apples	556	2	0.4	0.008 ^	0.005 - 0.006	2.0	1
Asparagus (V-1)	623	1	0.2	0.039 ^	0.004 - 0.007	NT	2
Bananas	638	0			0.005 - 0.007	NT	2
Broccoli	737	15	2.0	0.003 - 0.093	0.002 - 0.007	2.0	2
Carrots	554	8	1.4	0.012 - 0.051	0.007 - 0.040	0.2	0.2
Celery	737	14	1.9	0.012 - 0.13	0.007 ^	2.0	2
Cucumbers	183	79	43.2	0.010 - 0.2	0.006 - 0.007	2.0	2
Mushrooms	642	0			0.007 - 0.060	NT	2
Onion	525	0			0.007 ^	NT	0.2
Peaches	563	15	2.7	0.016 - 0.29	0.010 - 0.040	2.0	2
Pineapples	360	0			0.004 - 0.007	2.0	2
Potatoes	370	18	4.9	0.012 - 0.037	0.007 ^	0.2	0.2
Spinach	363	7	1.9	0.012 - 0.1	0.007 ^	2.0	2
Sweet Bell Peppers	186	3	1.6	0.032 ^	0.020 ^	2.0	2
Sweet Corn, Canned/Frozen	727	0			0.007 ^	0.2	2
Sweet Peas, Canned/Frozen	729	1	0.1	0.006 ^	0.004 - 0.007	2.0	2
TOTAL	9,580	163					

Endrin (insecticide)

Asparagus	500	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	521	0			0.002 ^	NT	-
TOTAL	1,021	0					

EPTC (herbicide)

Carrots	377	0			0.063 - 0.065	0.1	-
Mushrooms	503	0			0.063 - 0.065	NT	-
Peaches	563	0			0.063 - 0.065	NT	-
Sweet Bell Peppers	186	0			0.063 ^	0.1	-
TOTAL	1,629	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Esfenvalerate (insecticide) (isomer of Fenvalerate)							
Apple Juice	729	0			0.097 ^	0.05	-
Apple Sauce	358	0			0.097 ^	0.05	-
Apples	123	0			0.051 ^	0.05	-
Asparagus	208	0			0.038 ^	0.05	-
Bananas	321	0			0.038 - 0.051	0.05	-
Broccoli	215	0			0.038 ^	0.05	-
Carrots	279	0			0.003 - 0.038	0.05	-
Celery	180	0			0.038 ^	0.05	-
Cucumbers	54	0			0.038 ^	0.05	-
Mushrooms	315	0			0.003 - 0.038	0.05	-
Onion	661	0			0.005 - 0.038	0.05	-
Peaches	157	20	12.7	0.006 - 0.033	0.003 ^	0.05	-
Pineapples	106	0			0.038 ^	0.05	-
Potatoes	370	0			0.021 - 0.038	0.05	-
Spinach	362	0			0.021 ^	0.05	-
Sweet Corn, Canned/Frozen	727	0			0.021 - 0.038	0.05	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.038 ^	0.05	-
TOTAL	5,373	20					
Esfenvalerate+Fenvalerate Total (insecticide)							
Apples	247	0			0.035 ^	2.0	-
Asparagus	458	0			0.038 ^	0.05	-
Bananas	274	0			0.035 - 0.099	0.05	-
Carrots	260	0			0.003 ^	0.5	-
Cucumbers	129	0			0.099 ^	0.5	-
Mushrooms	413	0			0.003 - 0.011	0.05	-
Peaches	406	47	11.6	0.006 - 0.35	0.003 ^	10.0	-
Spinach (X-1)	1	1	100	0.37 ^	0.042 ^	0.05	-
Sweet Bell Peppers	186	7	3.8	0.035 - 0.33	0.011 ^	1.0	-
Sweet Peas, Canned/Frozen	<u>477</u>	<u>0</u>			0.038 ^	0.05	-
TOTAL	2,851	55					
Ethalfuralin (herbicide)							
Carrots	392	0			0.017 ^	NT	-
Cucumbers	183	0			0.011 - 0.015	0.05	-
Mushrooms	516	0			0.017 ^	NT	-
Peaches	563	0			0.017 ^	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.017 ^	NT	-
TOTAL	1,840	0					
Ethiofencarb (insecticide)							
Mushrooms	516	0			0.016 - 0.017	NT	-
Peaches	563	0			0.016 - 0.11	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.016 ^	NT	-
TOTAL	1,265	0					
Ethion (insecticide)							
Apples	433	0			0.005 ^	NT	-
Asparagus	623	0			0.002 - 0.004	NT	-
Bananas	445	0			0.002 - 0.005	NT	-
Broccoli	125	0			0.002 ^	NT	-
Carrots	518	0			0.001 - 0.002	NT	-
Celery	170	0			0.001 - 0.002	NT	-
Mushrooms	624	0			0.001 - 0.002	NT	-
Peaches	563	0			0.001 ^	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	352	0			0.002 - 0.004	NT	-
Spinach	363	0			0.004 ^	NT	-
Sweet Bell Peppers	186	0			0.001 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.002 - 0.004	NT	-
TOTAL	5,286	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Ethion di oxon (metabolite of Ethion)							
Carrots	321	0			0.001 ^	NT	-
Mushrooms	275	0			0.001 ^	NT	-
Peaches	<u>502</u>	<u>0</u>			0.001 ^	NT	-
TOTAL	1,098	0					
Ethion mono oxon (metabolite of Ethion)							
Asparagus	36	0			0.002 ^	NT	-
Bananas	36	0			0.002 ^	NT	-
Broccoli	53	0			0.002 ^	NT	-
Carrots	428	0			0.001 - 0.002	NT	-
Celery	36	0			0.002 ^	NT	-
Mushrooms	552	0			0.001 - 0.002	NT	-
Peaches	563	0			0.001 - 0.002	NT	-
Pineapples	18	0			0.002 ^	NT	-
Potatoes	36	0			0.002 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	<u>35</u>	<u>0</u>			0.002 ^	NT	-
TOTAL	1,996	0					
Ethoprop (insecticide)							
Apples	556	0			0.002 - 0.015	NT	-
Asparagus	123	0			0.002 ^	NT	-
Bananas	727	6	0.8	0.003 - 0.025	0.002 - 0.015	0.02	0.02
Broccoli	125	0			0.002 ^	NT	-
Carrots	144	0			0.002 ^	NT	-
Celery	170	0			0.001 - 0.002	NT	-
Cucumbers	183	0			0.002 ^	0.02	0.02
Mushrooms	126	0			0.002 ^	NT	-
Pineapples	360	0			0.002 - 0.010	0.02	0.02
Potatoes	370	0			0.002 - 0.016	0.02	0.02
Spinach	363	0			0.016 ^	NT	-
Sweet Bell Peppers	186	0			0.001 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.016	0.02	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.002 ^	NT	0.02
TOTAL	4,282	6					
Etridiazole (fungicide)							
Asparagus	500	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.002 ^	NT	-
TOTAL	1,021	0					
Fenamiphos (insecticide)							
Apple Juice	729	0			0.009 ^	0.25	-
Apple Sauce	358	0			0.009 ^	0.25	-
Apples	556	0			0.004 - 0.014	0.25	-
Asparagus	686	0			0.001 - 0.015	0.02	-
Bananas	727	0			0.004 - 0.014	0.10	0.1
Broccoli	125	0			0.004 ^	NT	0.05
Carrots	554	0			0.001 - 0.004	NT	0.2
Celery	170	0			0.002 - 0.004	NT	-
Cucumbers	129	0			0.004 ^	NT	-
Mushrooms	642	0			0.001 - 0.004	NT	-
Peaches	563	0			0.001 - 0.002	0.25	-
Pineapples	360	0			0.004 - 0.009	0.30	0.05
Potatoes	370	0			0.004 - 0.006	NT	0.2
Spinach	363	0			0.006 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.004 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.004 ^	NT	-
TOTAL	7,296	0					
Fenamiphos sulfone (metabolite of Fenamiphos)							
Apple Juice	729	0			0.019 ^	0.25	-
Apple Sauce	358	0			0.019 ^	0.25	-
Apples	556	0			0.008 - 0.012	0.25	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Asparagus	686	0			0.008 - 0.020	0.02	-
Bananas	727	0			0.008 - 0.012	0.10	0.1
Broccoli	125	0			0.008 ^	NT	0.05
Carrots	554	0			0.001 - 0.008	NT	0.2
Celery	188	0			0.003 - 0.008	NT	-
Cucumbers	129	0			0.008 ^	NT	-
Mushrooms	642	0			0.001 - 0.008	NT	-
Peaches	563	0			0.001 - 0.002	0.25	-
Pineapples	360	0			0.008 - 0.019	0.30	0.05
Potatoes	370	0			0.008 - 0.036	NT	0.2
Spinach	363	0			0.036 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.008 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.008 - 0.009	NT	-
TOTAL	7,314	0					
Fenamiphos sulfoxide (metabolite of Fenamiphos)							
Carrots	392	0			0.001 - 0.002	NT	0.2
Mushrooms	516	0			0.001 - 0.002	NT	-
Peaches	563	0			0.001 - 0.002	0.25	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.006 ^	NT	-
TOTAL	1,657	0					
Fenarimol (fungicide)							
Carrots	392	0			0.010 ^	NT	-
Mushrooms	516	0			0.010 ^	NT	-
Peaches	563	0			0.010 ^	NT	0.5
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.010 ^	NT	-
TOTAL	1,657	0					
Fenbuconazole (fungicide)							
Apples	123	0			0.030 ^	NT	-
Asparagus	123	0			0.030 ^	NT	-
Bananas	727	0			0.025 - 0.030	0.3	0.05
Broccoli	125	0			0.030 ^	NT	-
Carrots	536	0			0.014 - 0.030	NT	-
Celery	126	0			0.030 ^	NT	-
Cucumbers	129	0			0.030 ^	NT	0.2
Mushrooms	642	0			0.014 - 0.030	NT	-
Peaches	563	24	4.3	0.024 - 0.083	0.014 ^	2.0	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	108	0			0.030 ^	NT	-
Sweet Bell Peppers	186	0			0.014 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.030 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.030 ^	NT	-
TOTAL	3,751	24					
Fenitrothion (insecticide)							
Carrots	392	0			0.001 - 0.006	NT	-
Mushrooms	15	0			0.001 ^	NT	-
Peaches	563	0			0.001 - 0.006	NT	1
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.006 ^	NT	-
TOTAL	1,156	0					
Fenitrothion oxygen analog (metabolite of Fenitrothion)							
Carrots	321	0			0.002 ^	NT	-
Mushrooms	275	0			0.002 ^	NT	-
Peaches	<u>502</u>	<u>0</u>			0.002 ^	NT	-
TOTAL	1,098	0					
Fenpropathrin (insecticide)							
Apples	123	3	2.4	0.033 ^	0.020 ^	5.0	-
Asparagus	623	0			0.015 - 0.020	NT	-
Bananas	299	0			0.020 ^	NT	-
Broccoli	737	0			0.010 - 0.020	3.0	-
Carrots	536	0			0.016 - 0.020	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Celery	144	0			0.020 ^	NT	-
Cucumbers	183	0			0.020 ^	0.5	-
Mushrooms	642	0			0.016 - 0.020	NT	-
Peaches	563	0			0.016 ^	NT	-
Pineapples	106	0			0.020 ^	NT	-
Potatoes	108	0			0.020 ^	NT	-
Sweet Bell Peppers	186	0			0.016 ^	NT	1
Sweet Corn, Canned/Frozen	135	0			0.020 ^	NT	-
Sweet Peas, Canned/Frozen	<u>626</u>	<u>0</u>			0.015 - 0.020	NT	-
TOTAL	5,011	3					
Fenthion (insecticide)							
Carrots	392	0			0.002 ^	NT	-
Mushrooms	516	0			0.002 ^	NT	-
Peaches	563	0			0.002 ^	NT	-
Sweet Bell Peppers (V-1)	<u>186</u>	<u>1</u>	0.5	0.004 ^	0.002 ^	NT	-
TOTAL	1,657	1					
Fenvalerate (insecticide) (isomer of Esfenvalerate)							
Apple Juice	729	0			0.050 ^	2.0	-
Apple Sauce	358	0			0.050 ^	2.0	-
Apples	309	0			0.035 - 0.099	2.0	2
Asparagus	250	0			0.038 - 0.057	0.05	-
Bananas	453	0			0.035 - 0.099	0.05	-
Broccoli	737	0			0.015 - 0.057	2.0	2
Carrots	279	0			0.005 - 0.057	0.5	0.05
Celery	180	0			0.057 ^	0.05	2
Cucumbers	54	0			0.057 ^	0.5	0.2
Mushrooms	315	0			0.005 - 0.057	0.05	-
Onion	661	0			0.011 - 0.057	0.05	-
Peaches	157	21	13.4	0.009 - 0.044	0.005 ^	10.0	5
Pineapples	106	0			0.057 ^	0.05	-
Potatoes	370	0			0.042 - 0.057	0.05	0.05
Spinach	362	0			0.042 ^	0.05	-
Sweet Corn, Canned/Frozen	727	0			0.042 - 0.057	0.1	0.1
Sweet Peas, Canned/Frozen	<u>252</u>	<u>0</u>			0.038 - 0.057	0.05	-
TOTAL	6,299	21					
Fludioxonil (fungicide)							
Apples	123	0			0.015 ^	NT	-
Asparagus	87	0			0.015 ^	NT	-
Bananas	299	0			0.015 ^	NT	-
Broccoli	197	0			0.015 ^	0.01	-
Carrots	554	0			0.012 - 0.015	0.02	-
Celery	108	0			0.015 ^	0.01	-
Cucumbers	129	0			0.015 ^	0.01	-
Mushrooms	642	0			0.012 - 0.015	NT	-
Onion	216	0			0.015 ^	0.2	-
Peaches	563	172	30.6	0.020 - 1.8	0.012 ^	5.0	-
Pineapples	106	0			0.015 ^	NT	-
Potatoes	108	0			0.015 ^	0.02	-
Spinach	363	0			0.036 ^	0.01	-
Sweet Bell Peppers	186	0			0.012 ^	0.01	-
Sweet Corn, Canned/Frozen	705	0			0.015 - 0.036	0.02	-
Sweet Peas, Canned/Frozen	<u>671</u>	<u>0</u>			0.001 - 0.015	0.01	-
TOTAL	5,057	172					
Fluridone (herbicide)							
Asparagus	105	0			0.035 ^	NT	-
Bananas	106	0			0.035 ^	NT	-
Broccoli	215	0			0.035 ^	0.1	-
Carrots	540	0			0.013 - 0.088	0.1	-
Celery	126	0			0.035 ^	0.1	-
Cucumbers	183	0			0.035 - 0.036	0.1	-
Mushrooms	258	0			0.013 - 0.035	NT	-
Peaches	563	0			0.013 - 0.088	0.1	-
Pineapples	106	0			0.035 ^	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Potatoes	370	0			0.016 - 0.035	0.1	-
Spinach	363	0			0.016 ^	0.1	-
Sweet Bell Peppers	186	0			0.024 - 0.16	0.1	-
Sweet Corn, Canned/Frozen	727	0			0.016 - 0.035	0.1	-
Sweet Peas, Canned/Frozen	<u>251</u>	<u>0</u>			0.015 - 0.035	0.1	-
TOTAL	4,099	0					
Folpet (fungicide)							
Apple Juice	729	0			0.010 ^	25	-
Apple Sauce	358	0			0.010 ^	25	-
Apples	556	0			0.012 - 0.013	25	-
Asparagus	453	0			0.015 - 0.019	NT	-
Bananas	550	0			0.012 - 0.019	NT	-
Broccoli	35	0			0.019 ^	NT	-
Carrots	36	0			0.019 ^	NT	-
Celery	36	0			0.019 ^	NT	-
Cucumbers	183	1	0.5	0.028 ^	0.012 - 0.017	15	2
Mushrooms	36	0			0.019 ^	NT	-
Pineapples	35	0			0.019 ^	NT	-
Potatoes	298	0			0.019 - 0.066	NT	-
Spinach	363	0			0.066 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.019 ^	NT	-
Sweet Peas, Canned/Frozen	<u>35</u>	<u>0</u>			0.019 ^	NT	-
TOTAL	3,720	1					
Fonofos (insecticide)							
Apples	123	0			0.002 ^	NT	-
Asparagus	208	0			0.002 ^	0.05	-
Bananas	727	0			0.002 - 0.025	0.1	-
Broccoli	125	0			0.002 ^	NT	-
Carrots	554	0			0.001 - 0.002	0.1	-
Celery	737	0			0.002 ^	0.1	-
Cucumbers	129	0			0.002 ^	NT	-
Mushrooms	642	0			0.001 - 0.002	NT	-
Peaches	36	0			0.001 ^	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	370	0			0.002 - 0.010	0.1	-
Spinach	363	0			0.010 ^	0.1	-
Sweet Bell Peppers	186	0			0.002 ^	0.1	-
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.010	0.1	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.002 ^	0.1	-
TOTAL	5,241	0					
Fonofos oxygen analog (metabolite of Fonofos)							
Carrots	321	0			0.001 ^	0.1	-
Mushrooms	15	0			0.001 ^	NT	-
Peaches	<u>502</u>	<u>0</u>			0.001 ^	NT	-
TOTAL	838	0					
Heptachlor (insecticide)							
Apples	433	0			0.003 ^	0.01 AL	-
Asparagus	536	0			0.001 - 0.006	0.01 AL	-
Bananas	357	0			0.003 - 0.006	NT	-
Broccoli	35	0			0.006 ^	0.01 AL	-
Carrots	428	0			0.002 - 0.006	0.01 AL	-
Celery	36	0			0.006 ^	0.01 AL	-
Mushrooms	552	0			0.002 - 0.006	NT	-
Peaches	563	0			0.002 ^	0.01 AL	-
Pineapples	35	0			0.006 ^	0.02 AL	0.01
Potatoes	298	0			0.004 - 0.006	0.01 AL	-
Spinach	363	0			0.004 ^	0.01 AL	-
Sweet Bell Peppers	186	0			0.002 ^	0.01 AL	-
Sweet Corn, Canned/Frozen	17	0			0.006 ^	0.01 AL	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.001 - 0.006	0.01 AL	-
TOTAL	4,395	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Heptachlor epoxide (metabolite of Heptachlor)							
Apple Juice	729	0			0.003 ^	0.01 AL	-
Apple Sauce	358	0			0.003 ^	0.01 AL	-
Apples	556	0			0.001 - 0.006	0.01 AL	-
Asparagus	708	0			0.002 - 0.006	0.01 AL	-
Bananas	638	0			0.001 - 0.006	NT	-
Broccoli	737	0			0.001 - 0.006	0.01 AL	-
Carrots	554	0			0.004 - 0.006	0.01 AL	-
Celery	737	0			0.004 - 0.006	0.01 AL	-
Cucumbers	183	0			0.006 ^	0.02 AL	-
Mushrooms	728	0			0.004 - 0.006	NT	-
Onion	741	0			0.004 - 0.006	0.01 AL	-
Peaches	563	0			0.004 ^	0.01 AL	-
Pineapples	360	0			0.003 - 0.006	0.02 AL	0.01
Potatoes	370	1	0.3	0.007 ^	0.004 - 0.006	0.01 AL	-
Spinach	363	0			0.004 ^	0.01 AL	-
Sweet Bell Peppers	186	0			0.004 ^	0.01 AL	-
Sweet Corn, Canned/Frozen	727	0			0.004 - 0.006	0.01 AL	-
Sweet Peas, Canned/Frozen	729	0			0.002 - 0.006	0.01 AL	-
TOTAL	9,967	1					
Hexachlorobenzene - HCB (impurity of Quintozene)							
Apples	556	0			0.001 - 0.002	NT	-
Asparagus	623	0			0.001 - 0.002	NT	-
Bananas	620	0			0.001 - 0.002	NT	-
Broccoli	737	0			0.001 - 0.002	0.1	-
Carrots (V-1)	144	1	0.7	0.003 ^	0.002 ^	NT	-
Celery	144	0			0.002 ^	NT	-
Cucumbers	18	0			0.002 ^	NT	-
Mushrooms	126	0			0.002 ^	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	370	0			0.002 - 0.003	0.1	-
Spinach	363	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	643	0			0.001 - 0.003	NT	-
TOTAL	4,585	1					
Hexaconazole (fungicide)							
Apples	123	0			0.020 ^	NT	0.1
Asparagus	123	0			0.020 ^	NT	-
Bananas	727	0			0.020 - 0.025	0.7	0.1
Broccoli	125	0			0.020 ^	NT	-
Carrots	144	0			0.020 ^	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	-
Mushrooms	126	0			0.020 ^	NT	-
Pineapples	106	0			0.020 ^	NT	-
Potatoes	108	0			0.020 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.020 ^	NT	-
Sweet Peas, Canned/Frozen	122	0			0.020 ^	NT	-
TOTAL	2,094	0					
Hexazinone (herbicide)							
Asparagus	123	0			0.010 ^	NT	-
Bananas	107	0			0.010 ^	NT	-
Broccoli	125	0			0.010 ^	NT	-
Carrots	126	0			0.010 ^	NT	-
Celery	126	0			0.010 ^	NT	-
Mushrooms	126	0			0.010 ^	NT	-
Pineapples	360	0			0.010 - 0.014	0.5	-
Potatoes	108	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	122	0			0.010 ^	NT	-
TOTAL	1,458	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
3-Hydroxycarbofuran (metabolite of Carbofuran)							
Apples	556	0			0.017 - 0.021	NT	-
Asparagus	123	0			0.013 ^	NT	-
Bananas	727	0			0.013 - 0.021	0.1	0.1
Broccoli	71	0			0.013 ^	NT	-
Carrots	450	0			0.002 - 0.013	NT	0.5
Celery	126	0			0.013 ^	NT	-
Cucumbers	183	0			0.013 - 0.021	0.2	-
Peaches	563	0			0.002 ^	NT	-
Pineapples	106	0			0.013 ^	NT	-
Potatoes	370	0			0.012 - 0.013	1	0.1
Spinach	363	0			0.012 ^	NT	-
Sweet Bell Peppers	186	2	1.1	0.009 - 0.010	0.002 ^	0.2	-
Sweet Corn, Canned/Frozen	727	2	0.3	0.020 - 0.039	0.012 - 0.013	0.2	0.1
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.013 ^	NT	-
TOTAL	4,673	4					
Imazalil (fungicide)							
Apples	556	0			0.030 - 0.044	NT	5
Asparagus	123	0			0.030 ^	NT	-
Bananas (X-2)	727	47	6.5	0.050 - 0.23	0.030 - 0.044	0.20	2
Broccoli	125	0			0.030 ^	NT	-
Carrots	144	0			0.030 ^	NT	-
Celery	126	0			0.030 ^	NT	-
Cucumbers	129	0			0.030 ^	NT	0.5
Mushrooms (V-1)	642	1	0.2	0.050 ^	0.010 - 0.030	NT	-
Peaches (V-2)	563	2	0.4	0.016 ^	0.010 ^	NT	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	370	0			0.030 ^	NT	5
Spinach	363	0			0.030 ^	NT	-
Sweet Bell Peppers	186	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.030 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.030 ^	NT	-
TOTAL	4,417	50					
Imidacloprid (insecticide)							
Sweet Peas, Canned/Frozen	<u>499</u>	<u>0</u>			0.010 ^	NT	-
TOTAL	499	0					
Iprodione (fungicide)							
Apples	556	0			0.021 - 0.024	NT	5
Asparagus	623	0			0.021 - 0.023	NT	-
Bananas	638	0			0.021 - 0.024	NT	-
Broccoli	737	0			0.016 - 0.021	25.0	25
Carrots	441	137	31.1	0.014 - 0.32	0.008 - 0.056	5.0	10
Celery (V-1)	144	1	0.7	0.035 ^	0.021 ^	NT	-
Cucumbers	129	0			0.021 ^	NT	2
Mushrooms (V-2)	642	2	0.3	0.014 ^	0.008 - 0.021	NT	-
Peaches (X-2)	540	296	54.8	0.014 - 33	0.008 - 0.042	20.0	10
Pineapples	106	0			0.021 ^	NT	-
Potatoes	370	0			0.008 - 0.021	0.5	-
Spinach	363	0			0.008 ^	NT	-
Sweet Bell Peppers	170	0			0.028 ^	NT	-
Sweet Corn, Canned/Frozen	331	0			0.008 - 0.021	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.021 - 0.023	NT	-
TOTAL	6,433	436					
Iprodione metabolite isomer (metabolite of Iprodione)							
Carrots	392	0			0.051 - 0.34	5.0	-
Mushrooms	516	0			0.051 - 0.096	NT	-
Peaches	563	201	35.7	0.085 - 10	0.051 - 0.17	20.0	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.096 ^	NT	-
TOTAL	1,657	201					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lindane - BHC gamma (insecticide)							
Apple Juice	729	1	0.1	0.003 ^	0.002 ^	1	-
Apple Sauce	358	0			0.002 ^	1	-
Apples	556	0			0.002 - 0.003	1	0.5
Asparagus	708	0			0.002 ^	1	-
Bananas	638	0			0.002 - 0.003	NT	-
Broccoli	737	2	0.3	0.002 - 0.003	0.001 - 0.002	1	-
Carrots	554	0			0.002 - 0.003	0.5 AL	0.2
Celery	737	0			0.002 - 0.004	1	-
Cucumbers	183	0			0.002 ^	3	-
Mushrooms	728	1	0.1	0.021 ^	0.002 - 0.003	3	-
Onion	525	0			0.004 ^	1	-
Peaches	563	0			0.003 ^	1	-
Pineapples	360	0			0.002 ^	1	-
Potatoes	370	0			0.002 - 0.006	0.5 AL	0.05
Spinach	363	1	0.3	0.018 ^	0.006 ^	1	2
Sweet Bell Peppers	186	0			0.003 ^	1	-
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.006	0.5 AL	-
Sweet Peas, Canned/Frozen	729	0			0.002 ^	0.5 AL	0.1
TOTAL	9,751	5					
Linuron (herbicide)							
Apples	5	0			0.024 ^	NT	-
Asparagus	708	3	0.4	0.027 - 0.2	0.008 - 0.025	7.0	-
Broccoli	71	0			0.025 ^	NT	-
Carrots	530	132	24.9	0.042 - 0.83	0.025 - 0.2	1	-
Celery	736	12	1.6	0.030 - 0.12	0.018 - 0.025	0.5	-
Peaches	563	0			0.029 - 0.030	NT	-
Pineapples	52	0			0.025 ^	NT	-
Potatoes	370	0			0.025 - 0.097	1	-
Spinach	363	0			0.097 ^	NT	-
Sweet Bell Peppers	186	0			0.008 ^	NT	-
Sweet Corn, Canned/Frozen	206	0			0.025 ^	0.25	-
Sweet Peas, Canned/Frozen	521	0			0.008 ^	NT	-
TOTAL	4,311	147					
Malathion (insecticide)							
Apple Juice	729	0			0.018 ^	8	-
Apple Sauce	358	0			0.018 ^	8	-
Apples	556	0			0.004 - 0.010	8	2
Asparagus	708	0			0.004 ^	8	-
Bananas	638	0			0.004 - 0.010	NT	-
Broccoli	737	1	0.1	0.008 ^	0.004 - 0.005	8	5
Carrots	554	0			0.002 - 0.004	8	0.5
Celery	737	190	25.8	0.003 - 5.5	0.002 - 0.004	8	1
Cucumbers	183	0			0.004 ^	8	-
Mushrooms	728	0			0.002 - 0.004	8	-
Onion	216	0			0.010 ^	8	-
Peaches	563	4	0.7	0.005 - 0.086	0.002 - 0.003	8	6
Pineapples	360	0			0.004 - 0.018	8	-
Potatoes	370	0			0.004 - 0.007	8	0.5
Spinach	363	0			0.007 ^	8	8
Sweet Bell Peppers	186	0			0.003 ^	8	-
Sweet Corn, Canned/Frozen	727	0			0.004 - 0.007	2	-
Sweet Peas, Canned/Frozen	729	0			0.004 ^	8	0.5
TOTAL	9,442	195					
Malathion oxygen analog (metabolite of Malathion)							
Apple Juice	729	0			0.028 ^	NT	-
Apple Sauce	358	0			0.028 ^	NT	-
Apples	556	0			0.003 - 0.025	NT	-
Asparagus	208	0			0.003 ^	8	-
Bananas	317	0			0.003 ^	NT	-
Broccoli	737	0			0.003 - 0.005	NT	-
Carrots	554	0			0.002 - 0.003	NT	-
Celery (V-1)	737	1	0.1	0.005 ^	0.002 - 0.003	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cucumbers	183	0			0.003 ^	NT	-
Mushrooms	728	0			0.002 - 0.003	NT	-
Onion	216	0			0.010 ^	8	-
Peaches	563	0			0.002 - 0.003	NT	-
Pineapples	360	0			0.003 - 0.028	NT	-
Potatoes	370	0			0.003 - 0.007	NT	-
Spinach	363	0			0.007 ^	NT	-
Sweet Bell Peppers	186	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.003 - 0.007	NT	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.003 - 0.006	NT	-
TOTAL	8,621	1					
Metalaxyl (fungicide)							
Apple Juice	729	0			0.033 ^	0.2	-
Apple Sauce	358	0			0.033 ^	0.2	-
Apples	556	0			0.011 - 0.025	0.2	1
Asparagus	686	0			0.010 - 0.015	7.0	0.05
Bananas	317	0			0.010 - 0.011	NT	-
Broccoli	737	0			0.010 ^	2.0	0.5
Carrots	554	41	7.4	0.010 - 0.032	0.006 - 0.1	0.5	0.05
Celery	737	0			0.006 - 0.010	5.0	-
Cucumbers	183	47	25.7	0.017 - 0.096	0.010 - 0.011	1.0	0.5
Mushrooms	642	0			0.006 - 0.010	NT	-
Peaches	563	0			0.006 ^	1.0	-
Pineapples	360	0			0.010 - 0.033	0.1	-
Potatoes	370	4	1.1	0.013 - 0.017	0.008 - 0.010	0.5	0.05
Spinach	363	5	1.4	0.013 ^	0.008 ^	10.0	2
Sweet Bell Peppers	186	12	6.5	0.010 - 0.16	0.006 ^	1.0	-
Sweet Corn, Canned/Frozen	727	0			0.008 - 0.010	0.1	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.010 - 0.015	0.2	-
TOTAL	8,797	109					
Methamidophos (insecticide) (also a metabolite of Acephate)							
Apples (X-1)	556	1	0.2	0.090 ^	0.002 - 0.005	0.02	-
Asparagus	208	0			0.002 ^	0.02	-
Bananas	639	1	0.2	0.003 ^	0.002 - 0.005	0.02	-
Broccoli	737	0			0.002 - 0.010	1.0	-
Carrots	536	1	0.2	0.002 ^	0.001 - 0.002	0.02	-
Celery	737	243	33.0	0.002 - 0.22	0.001 - 0.002	1.0	1
Cucumbers	183	26	14.2	0.003 - 0.38	0.002 ^	1.0	1
Mushrooms	728	0			0.001 - 0.002	0.02	-
Peaches (X-9)	563	71	12.6	0.001 - 0.49	0.001 ^	0.02	-
Pineapples	106	0			0.002 ^	0.02	-
Potatoes	370	3	0.8	0.003 - 0.013	0.002 - 0.004	0.1	0.05
Spinach	363	5	1.4	0.007 - 0.021	0.004 ^	0.02	-
Sweet Bell Peppers	186	50	26.9	0.002 - 0.44	0.001 ^	1.0	1
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.004	0.02	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>1</u>	0.1	0.003 ^	0.002 - 0.008	0.02	-
TOTAL	7,368	402					
Methidathion (insecticide)							
Apples	433	0			0.007 ^	0.05	0.5
Asparagus	536	0			0.004 ^	NT	-
Bananas	357	0			0.004 - 0.007	NT	-
Broccoli	35	0			0.004 ^	NT	-
Carrots	428	0			0.001 - 0.004	NT	-
Celery	80	0			0.001 - 0.004	NT	-
Mushrooms	552	0			0.001 - 0.004	NT	-
Peaches	563	1	0.2	0.002 ^	0.001 - 0.002	0.05	0.2
Pineapples	18	0			0.004 ^	NT	0.05
Potatoes	298	0			0.004 - 0.010	NT	0.02
Spinach	363	0			0.010 ^	NT	-
Sweet Bell Peppers	186	0			0.008 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.004 ^	NT	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.004 ^	NT	0.1
TOTAL	4,422	1					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Methiocarb (insecticide) (analyzed as sulfoxide)							
Apples	556	0			0.018 - 0.043	NT	-
Bananas	514	0			0.018 - 0.043	NT	-
Carrots	392	0			0.002 - 0.005	NT	-
Cucumbers	129	0			0.018 ^	NT	-
Peaches	563	0			0.002 - 0.005	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.005 ^	NT	-
TOTAL	2,340	0					
Methomyl (insecticide)							
Apple Juice	729	0			0.012 ^	1	-
Apple Sauce	358	0			0.012 ^	1	-
Apples	556	0			0.012 ^	1	2
Asparagus	708	15	2.1	0.010 - 1.5	0.010 - 0.020	2	2
Bananas	638	0			0.012 ^	NT	-
Broccoli	737	0			0.012 - 0.015	3	-
Carrots	554	0			0.001 - 0.012	0.2	-
Celery	737	83	11.3	0.002 - 0.15	0.001 - 0.012	3	2
Cucumbers	183	0			0.012 ^	0.2	0.2
Peaches	563	34	6.0	0.002 - 0.9	0.001 ^	5	5
Pineapples	106	0			0.012 ^	NT	0.2
Potatoes	370	0			0.012 ^	0.2	0.1
Spinach	363	20	5.5	0.020 - 0.9	0.012 ^	6	5
Sweet Bell Peppers	186	21	11.3	0.002 - 0.43	0.001 ^	2	-
Sweet Corn, Canned/Frozen	727	0			0.012 ^	0.1	2
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.010 - 0.012	5	5
TOTAL	8,244	173					
Methoprene (insect growth regulator)							
Asparagus	18	0			0.015 ^	NT	-
Broccoli	53	0			0.015 ^	NT	-
Mushrooms	728	1	0.1	0.024 ^	0.013 - 0.022	1.0	0.2
Pineapples	35	0			0.015 ^	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.014 ^	NT	-
TOTAL	1,020	1					
Methoxychlor Total (insecticide)							
Apples	556	3	0.5	0.059 - 0.2	0.014 - 0.020	14	-
Bananas	514	0			0.014 - 0.020	NT	-
Broccoli	522	0			0.006 ^	14	-
Carrots	392	0			0.002 ^	14	-
Cucumbers	129	0			0.020 ^	14	-
Mushrooms	516	2	0.4	0.003 - 0.011	0.002 ^	14	-
Peaches	563	0			0.002 ^	14	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.002 ^	14	-
TOTAL	3,378	5					
Methoxychlor olefin (metabolite of Methoxychlor)							
Carrots	392	0			0.001 ^	NT	-
Mushrooms	511	0			0.001 ^	NT	-
Peaches	563	0			0.001 ^	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.001 ^	14	-
TOTAL	1,652	0					
Methoxychlor p,p' (insecticide)							
Apple Juice	729	0			0.015 ^	14	-
Apple Sauce	358	0			0.015 ^	14	-
Asparagus	689	0			0.008 - 0.020	14	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Bananas	106	0			0.020 ^	NT	-
Broccoli	215	0			0.020 ^	14	-
Carrots	162	0			0.020 ^	14	-
Celery	144	0			0.020 ^	NT	-
Cucumbers	54	0			0.020 ^	14	-
Mushrooms	212	0			0.020 ^	14	-
Pineapples	360	0			0.014 - 0.020	14	-
Potatoes	370	0			0.009 - 0.020	1	-
Spinach	363	0			0.009 ^	14	-
Sweet Corn, Canned/Frozen	727	0			0.009 - 0.020	14	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.008 - 0.020	14	-
TOTAL	5,218	0					
Metolachlor (herbicide)							
Apples	123	0			0.020 ^	NT	-
Asparagus	582	0			0.010 - 0.015	NT	-
Bananas	317	0			0.010 - 0.020	NT	-
Broccoli	125	0			0.010 ^	NT	-
Carrots (V-2)	536	2	0.4	0.002 ^	0.001 - 0.010	NT	-
Celery	737	2	0.3	0.013 ^	0.008 - 0.010	0.1	-
Cucumbers	129	0			0.020 ^	NT	-
Mushrooms	642	0			0.001 - 0.010	NT	-
Peaches	563	0			0.001 ^	0.1	-
Pineapples	106	0			0.010 ^	NT	-
Potatoes	370	0			0.010 - 0.016	0.2	-
Spinach	363	0			0.016 ^	0.3	-
Sweet Bell Peppers	186	0			0.001 ^	0.1	-
Sweet Corn, Canned/Frozen	727	0			0.010 - 0.016	0.1	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.010 - 0.015	0.3	-
TOTAL	6,235	4					
Metribuzin (herbicide)							
Apples	123	0			0.030 ^	NT	-
Asparagus (X-1)	708	11	1.6	0.016 - 0.4	0.015 - 0.030	0.1	-
Bananas	317	0			0.030 ^	NT	-
Broccoli	125	0			0.030 ^	NT	-
Carrots	554	0			0.013 - 0.030	0.3	-
Celery	126	0			0.030 ^	NT	-
Cucumbers	129	0			0.030 ^	NT	-
Mushrooms	642	0			0.013 - 0.030	NT	-
Peaches	563	0			0.013 ^	NT	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	370	0			0.016 - 0.030	0.6	-
Spinach	363	0			0.016 ^	NT	-
Sweet Bell Peppers	186	0			0.013 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.016 - 0.030	0.05	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.015 - 0.030	0.1	-
TOTAL	5,768	11					
Mevinphos Total (insecticide)							
Apples	556	0			0.004 - 0.011	NT	-
Bananas	514	0			0.004 - 0.011	NT	-
Broccoli	522	0			0.008 ^	1.0	1
Celery	477	0			0.004 ^	NT	-
Cucumbers	129	0			0.004 ^	0.2	0.2
Potatoes	262	0			0.012 ^	NT	-
Spinach	363	0			0.012 ^	1.0	0.5
Sweet Corn, Canned/Frozen	521	0			0.012 ^	NT	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.008 ^	0.25	0.1
TOTAL	3,865	0					
Mevinphos E (isomer of Mevinphos)							
Asparagus	123	0			0.002 ^	NT	-
Bananas	124	0			0.002 ^	NT	-
Broccoli	215	0			0.002 ^	1.0	1

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Carrots	536	0			0.001 - 0.002	NT	-
Celery	260	0			0.002 - 0.003	1.0	-
Cucumbers	54	0			0.002 ^	0.2	0.2
Mushrooms	642	0			0.001 - 0.002	NT	-
Peaches	563	0			0.001 ^	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	108	0			0.002 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	0.25	-
Sweet Corn, Canned/Frozen	135	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.002 ^	0.25	0.1
TOTAL	3,260	0					
Mevinphos Z (isomer of Mevinphos)							
Asparagus	123	0			0.002 ^	NT	-
Bananas	124	0			0.002 ^	NT	-
Broccoli	215	0			0.002 ^	1.0	1
Carrots	188	0			0.001 - 0.002	NT	-
Celery	260	0			0.002 - 0.003	1.0	-
Cucumbers	54	0			0.002 ^	0.2	0.2
Mushrooms	141	0			0.001 - 0.002	NT	-
Peaches	36	0			0.001 ^	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	108	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.002 ^	0.25	0.1
TOTAL	1,698	0					
Monocrotophos (insecticide)							
Potatoes	352	0			0.003 - 0.007	NT	0.05
Spinach	<u>363</u>	<u>0</u>			0.007 ^	NT	-
TOTAL	715	0					
Myclobutanil (fungicide)							
Apple Juice	729	0			0.015 ^	0.5	-
Apple Sauce	358	0			0.015 ^	0.5	-
Apples	556	1	0.2	0.042 ^	0.020 - 0.025	0.5	0.5
Asparagus	686	0			0.020 - 0.023	0.02	-
Bananas	727	0			0.020 - 0.025	4.0	-
Broccoli	125	0			0.020 ^	0.03	-
Carrots	521	1	0.2	0.010 ^	0.003 - 0.020	0.03	-
Celery	126	0			0.020 ^	0.03	-
Cucumbers	183	1	0.5	0.033 ^	0.020 ^	0.20	-
Mushrooms	642	0			0.006 - 0.020	NT	-
Peaches	515	10	1.9	0.010 - 0.11	0.003 - 0.040	2.0	0.5
Pineapples	106	0			0.020 ^	NT	-
Potatoes	370	0			0.008 - 0.020	0.03	-
Spinach (X-1)	363	1	0.3	0.043 ^	0.008 ^	0.03	-
Sweet Bell Peppers	186	1	0.5	0.010 ^	0.006 ^	1.0	-
Sweet Corn, Canned/Frozen	707	0			0.008 - 0.020	0.03	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.020 - 0.023	0.03	-
TOTAL	7,629	15					
Napropamide (herbicide)							
Apples	123	0			0.020 ^	0.1	-
Asparagus	208	0			0.020 ^	0.1	-
Bananas	317	0			0.020 ^	NT	-
Broccoli	737	0			0.015 - 0.020	0.1	-
Carrots	536	0			0.007 - 0.020	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	183	0			0.020 ^	0.1	-
Mushrooms	642	0			0.007 - 0.020	NT	-
Peaches	563	0			0.007 ^	0.1	-
Pineapples	106	0			0.020 ^	NT	-
Potatoes	108	0			0.020 ^	NT	-
Sweet Bell Peppers	186	0			0.007 ^	0.1	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned/Frozen	135	0			0.020 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.020 ^	NT	-
TOTAL	4,092	0					
Nitrapyrin (bactericide)							
Broccoli	53	0			0.035 ^	NT	-
Pineapples	35	0			0.035 ^	NT	-
Spinach	59	0			0.016 ^	NT	-
Sweet Corn, Canned/Frozen	<u>727</u>	<u>0</u>			0.016 - 0.035	0.1	-
TOTAL	874	0					
Norflurazon (herbicide)							
Apple Juice	729	0			0.030 ^	0.1	-
Apple Sauce	358	0			0.030 ^	0.1	-
Apples	556	0			0.020 - 0.025	0.1	-
Asparagus	664	0			0.010 - 0.020	0.05	-
Bananas	638	0			0.020 - 0.025	NT	-
Broccoli	125	0			0.020 ^	NT	-
Carrots	144	0			0.020 ^	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	-
Mushrooms	642	0			0.005 - 0.020	NT	-
Peaches	563	0			0.005 ^	0.1	-
Pineapples	106	0			0.020 ^	NT	-
Potatoes	370	0			0.018 - 0.020	NT	-
Spinach	363	0			0.018 ^	NT	-
Sweet Bell Peppers	186	0			0.005 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.020 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.020 ^	NT	-
TOTAL	5,956	0					
Norflurazon desmethyl (metabolite of Norflurazon)							
Apple Juice	729	0			0.030 ^	0.1	-
Apple Sauce	358	0			0.030 ^	0.1	-
Apples	556	0			0.025 - 0.030	0.1	-
Asparagus	664	0			0.010 - 0.030	0.05	-
Bananas	603	0			0.025 - 0.030	NT	-
Broccoli	125	0			0.030 ^	NT	-
Carrots	144	0			0.030 ^	NT	-
Celery	126	0			0.030 ^	NT	-
Cucumbers	129	0			0.030 ^	NT	-
Mushrooms	642	0			0.012 - 0.030	NT	-
Peaches	563	0			0.012 - 0.018	0.1	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	370	0			0.021 - 0.030	NT	-
Spinach	363	0			0.021 ^	NT	-
Sweet Bell Peppers	186	0			0.018 ^	NT	-
Sweet Corn, Canned/Frozen	206	0			0.030 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.030 ^	NT	-
TOTAL	5,992	0					
Omethoate (metabolite of Dimethoate)							
Apple Juice	729	0			0.014 ^	2	-
Apple Sauce	358	0			0.014 ^	2	-
Apples	556	5	0.9	0.007 - 0.050	0.004 - 0.009	2	1
Asparagus	707	2	0.3	0.007 - 0.036	0.004 - 0.008	0.15	-
Bananas	638	0			0.004 - 0.009	NT	1
Broccoli	719	7	1.0	0.007 - 0.017	0.004 - 0.010	2	-
Carrots	536	0			0.002 - 0.004	NT	1
Celery	737	111	15.1	0.003 - 0.041	0.002 - 0.004	2	1
Cucumbers (V-3)	129	3	2.3	0.007 - 0.018	0.004 ^	NT	-
Mushrooms	642	0			0.002 - 0.004	NT	-
Peaches	563	0			0.002 ^	NT	2
Pineapples	106	0			0.004 ^	NT	-
Potatoes	370	0			0.004 - 0.018	0.2	0.05
Spinach	363	26	7.2	0.030 - 0.65	0.018 ^	2	1

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Bell Peppers	186	3	1.6	0.013 ^	0.008 ^	2	-
Sweet Corn, Canned/Frozen	135	0			0.004 ^	NT	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>15</u>	2.1	0.007 - 0.015	0.004 - 0.008	2	0.5
TOTAL	8,203	172					
Oxadixyl (fungicide)							
Apples	123	0			0.015 ^	NT	-
Asparagus	142	0			0.015 ^	NT	-
Bananas	299	0			0.015 ^	NT	-
Broccoli	125	0			0.015 ^	0.1	-
Carrots	554	0			0.013 - 0.015	0.1	-
Celery	126	0			0.015 ^	0.1	-
Cucumbers	183	3	1.6	0.025 ^	0.015 ^	0.1	-
Mushrooms	642	0			0.013 - 0.015	NT	-
Peaches	563	0			0.013 ^	NT	-
Pineapples	106	0			0.015 ^	NT	-
Potatoes	108	0			0.015 ^	0.1	-
Spinach	363	0			0.008 ^	0.1	-
Sweet Bell Peppers	186	0			0.013 ^	0.1	-
Sweet Corn, Canned/Frozen	135	0			0.015 ^	0.1	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.015 ^	0.1	-
TOTAL	3,863	3					
Oxamyl (insecticide)							
Apple Juice	729	0			0.015 ^	2	-
Apple Sauce	358	0			0.015 ^	2	-
Apples	556	0			0.020 - 0.021	2	2
Asparagus	35	0			0.018 ^	NT	-
Bananas	727	0			0.018 - 0.021	0.3	0.2
Broccoli	89	0			0.018 ^	NT	-
Carrots	554	0			0.002 - 0.018	0.1	0.1
Celery	737	272	36.9	0.002 - 0.31	0.001 - 0.018	3	5
Cucumbers	183	20	10.9	0.030 - 0.24	0.018 - 0.021	2.0	2
Mushrooms	18	0			0.018 ^	NT	-
Peaches	326	0			0.002 ^	NT	-
Pineapples	360	0			0.015 - 0.018	1	1
Potatoes	370	0			0.008 - 0.018	0.1	0.1
Spinach	363	0			0.008 ^	NT	-
Sweet Bell Peppers	186	26	14.0	0.003 - 0.23	0.002 ^	3	2
Sweet Corn, Canned/Frozen	34	0			0.018 ^	NT	-
Sweet Peas, Canned/Frozen	<u>18</u>	<u>0</u>			0.018 ^	NT	-
TOTAL	5,643	318					
Oxychlordan (metabolite of Chlordane)							
Carrots	392	0			0.002 ^	0.1 AL	0.02
Mushrooms	516	0			0.002 ^	NT	0.02
Peaches	563	0			0.002 ^	0.1 AL	0.02
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.002 ^	NT	0.02
TOTAL	1,657	0					
Oxydemeton methyl (insecticide)							
Asparagus	500	0			0.023 ^	NT	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.023 ^	NT	-
TOTAL	1,021	0					
Oxydemeton methyl sulfone (metabolite of Oxydemeton methyl)							
Apple Juice	729	0			0.015 ^	1	-
Apple Sauce	358	0			0.015 ^	1	-
Apples	556	0			0.015 ^	1	-
Asparagus	123	0			0.015 ^	NT	-
Bananas	638	0			0.015 ^	NT	-
Broccoli	737	0			0.015 - 0.016	1	-
Carrots	188	0			0.002 - 0.015	NT	-
Celery	188	0			0.004 - 0.015	NT	-
Cucumbers	183	0			0.015 ^	1	-
Mushrooms	126	0			0.015 ^	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Peaches	36	0			0.002 ^	NT	-
Pineapples	106	0			0.015 ^	NT	-
Potatoes	370	0			0.015 - 0.090	NT	-
Spinach	363	0			0.090 ^	NT	-
Sweet Bell Peppers	186	0			0.015 ^	0.75	-
Sweet Corn, Canned/Frozen	402	0			0.015 - 0.090	0.5	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	5,411	0					
Oxyfluorfen (herbicide)							
Apples	123	0			0.030 ^	0.05	-
Asparagus	123	0			0.030 ^	NT	-
Bananas	727	0			0.005 - 0.030	NT	-
Broccoli	737	0			0.005 - 0.030	0.05	-
Carrots	536	0			0.003 - 0.030	NT	-
Celery	126	0			0.030 ^	NT	-
Cucumbers	129	0			0.030 ^	NT	-
Mushrooms	642	0			0.003 - 0.030	NT	-
Peaches	563	0			0.003 ^	0.05	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	108	0			0.030 ^	NT	-
Sweet Bell Peppers	186	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	118	0			0.030 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.030 ^	NT	-
TOTAL	4,346	0					
Parathion (insecticide)							
Apple Juice	729	0			0.019 ^	1	-
Apple Sauce	358	0			0.019 ^	1	-
Apples	556	0			0.003 - 0.010	1	0.05
Asparagus	623	0			0.003 - 0.008	NT	-
Bananas	638	0			0.003 - 0.010	NT	-
Broccoli	737	0			0.003 - 0.005	1	-
Carrots	554	6	1.1	0.003 - 0.018	0.002 - 0.010	1	-
Celery	737	2	0.3	0.002 ^	0.001 - 0.003	1	-
Cucumbers	183	0			0.003 ^	1	-
Mushrooms	642	0			0.002 - 0.010	NT	-
Onion	216	0			0.010 ^	1	-
Peaches	563	0			0.002 - 0.010	1	1
Pineapples	360	0			0.003 - 0.033	1	-
Potatoes	370	0			0.003 - 0.006	0.1	0.05
Spinach	363	0			0.006 ^	1	-
Sweet Bell Peppers	186	0			0.010 ^	1	-
Sweet Corn, Canned/Frozen	727	0			0.003 - 0.006	1	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.003 - 0.008	NT	-
TOTAL	9,185	8					
Parathion methyl (insecticide)							
Apples	433	0			0.006 ^	1	-
Asparagus	535	0			0.002 - 0.004	NT	-
Bananas	357	0			0.002 - 0.006	NT	-
Broccoli	35	0			0.002 ^	1	0.2
Carrots (V-1)	428	1	0.2	0.005 ^	0.001 - 0.008	NT	1
Celery	80	0			0.001 - 0.002	1	5
Mushrooms	552	0			0.001 - 0.008	NT	-
Peaches	563	0			0.001 - 0.008	1	-
Pineapples	18	0			0.002 ^	1	-
Potatoes	298	0			0.002 - 0.006	0.1	0.05
Spinach	363	0			0.006 ^	NT	0.5
Sweet Bell Peppers	186	0			0.008 ^	1	-
Sweet Corn, Canned/Frozen	17	0			0.002 ^	1	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.002 - 0.004	NT	-
TOTAL	4,421	1					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Parathion methyl oxygen analog (metabolite of Parathion methyl)							
Asparagus	36	0			0.003 ^	NT	-
Bananas	36	0			0.003 ^	NT	-
Broccoli	35	0			0.003 ^	NT	-
Carrots	428	0			0.002 - 0.016	NT	-
Celery	36	0			0.003 ^	NT	-
Mushrooms	552	0			0.002 - 0.016	NT	-
Peaches	563	0			0.002 - 0.016	NT	-
Pineapples	18	0			0.003 ^	NT	-
Potatoes	36	0			0.003 ^	NT	-
Sweet Bell Peppers	186	0			0.016 ^	1	-
Sweet Corn, Canned/Frozen	17	0			0.003 ^	NT	-
Sweet Peas, Canned/Frozen	35	0			0.003 ^	NT	-
TOTAL	1,978	0					
Parathion oxygen analog (metabolite of Parathion)							
Apple Juice	729	0			0.041 ^	NT	-
Apple Sauce	358	0			0.041 ^	NT	-
Apples	556	0			0.003 - 0.025	NT	-
Asparagus	123	0			0.002 ^	NT	-
Bananas	317	0			0.002 - 0.003	NT	-
Broccoli	737	0			0.002 - 0.005	NT	-
Carrots	554	0			0.002 - 0.003	1	-
Celery	737	0			0.002 ^	NT	-
Cucumbers	183	0			0.002 - 0.003	1	-
Mushrooms	642	0			0.002 - 0.003	NT	-
Onion	216	0			0.010 ^	1	-
Peaches	563	0			0.002 - 0.003	NT	-
Pineapples	360	0			0.002 - 0.041	NT	-
Potatoes	370	0			0.002 - 0.016	NT	-
Spinach	363	0			0.016 ^	1	-
Sweet Bell Peppers	186	0			0.010 ^	1	-
Sweet Corn, Canned/Frozen	727	0			0.002 - 0.016	NT	-
Sweet Peas, Canned/Frozen	122	0			0.002 ^	NT	-
TOTAL	7,843	0					
Pebulate (herbicide)							
Asparagus	480	0			0.015 ^	NT	-
Sweet Peas, Canned/Frozen	521	0			0.015 ^	NT	-
TOTAL	1,001	0					
Pendimethalin (herbicide)							
Apples	123	0			0.020 ^	NT	-
Asparagus	540	0			0.015 - 0.020	NT	-
Bananas	317	0			0.020 ^	NT	-
Broccoli	125	0			0.020 ^	NT	-
Carrots	144	0			0.020 ^	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	-
Mushrooms	126	0			0.020 ^	NT	-
Pineapples	106	0			0.020 ^	NT	-
Potatoes	370	0			0.016 - 0.020	0.1	-
Spinach	363	0			0.016 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.016 - 0.020	0.1	-
Sweet Peas, Canned/Frozen	729	0			0.015 - 0.020	0.1	-
TOTAL	3,925	0					
Pentachloroaniline - PCA (metabolite of Quintozene)							
Asparagus	500	0			0.004 ^	NT	-
Sweet Peas, Canned/Frozen	521	0			0.004 ^	NT	-
TOTAL	1,021	0					
Pentachlorobenzene - PCB (metabolite of Quintozene)							
Apples	433	0			0.004 ^	NT	-
Asparagus	623	0			0.002 ^	NT	-
Bananas	445	0			0.002 - 0.004	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Broccoli	737	0			0.001 - 0.002	0.1	-
Carrots	536	0			0.002 ^	NT	-
Celery	144	0			0.002 ^	NT	-
Mushrooms	629	0			0.002 ^	NT	-
Peaches	563	0			0.002 ^	NT	-
Pineapples	106	0			0.002 ^	NT	-
Potatoes	370	11	3.0	0.003 - 0.023	0.002 ^	0.1	-
Spinach (V-1)	363	1	0.3	0.003 ^	0.002 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	0.1	-
Sweet Corn, Canned/Frozen	135	0			0.002 ^	NT	-
Sweet Peas, Canned/Frozen	643	0			0.002 ^	NT	-
TOTAL	5,913	12					
Pentachlorophenyl methyl sulfide (metabolite of Quintozene)							
Asparagus	500	0			0.004 ^	NT	-
Sweet Peas, Canned/Frozen	521	0			0.004 ^	NT	-
TOTAL	1,021	0					
Permethrin Total (insecticide)							
Asparagus	500	0			0.038 ^	1.0	1
Broccoli	522	5	1.0	0.025 - 0.12	0.015 ^	1.0	2
Potatoes	262	0			0.029 ^	0.05	0.05
Spinach	363	223	61.4	0.048 - 20	0.029 ^	20.0	2
Sweet Corn, Canned/Frozen	521	0			0.029 ^	0.1	0.1
Sweet Peas, Canned/Frozen	521	0			0.038 ^	NT	-
TOTAL	2,689	228					
Permethrin cis (isomer of Permethrin)							
Apple Juice	729	0			0.029 ^	0.05	-
Apple Sauce	358	0			0.029 ^	0.05	-
Apples	556	0			0.011 - 0.015	0.05	2
Asparagus	208	0			0.015 ^	1.0	1
Bananas	638	0			0.011 - 0.015	NT	-
Broccoli	215	0			0.015 ^	1.0	2
Carrots	522	0			0.001 - 0.015	NT	0.1
Celery	737	147	19.9	0.025 - 0.32	0.015 - 0.026	5.0	2
Cucumbers	183	1	0.5	0.025 ^	0.015 ^	3.0	0.5
Mushrooms	728	16	2.2	0.002 - 0.22	0.001 - 0.015	6.0	0.1
Onion	543	0			0.015 - 0.019	0.1	-
Peaches	563	13	2.3	0.002 - 0.043	0.001 - 0.002	5.0	2
Pineapples	106	0			0.015 ^	NT	-
Potatoes	108	0			0.015 ^	0.05	0.05
Sweet Bell Peppers	186	13	7	0.004 - 0.078	0.002 ^	1.0	-
Sweet Corn, Canned/Frozen	206	0			0.015 ^	0.1	0.1
Sweet Peas, Canned/Frozen	122	0			0.015 ^	NT	-
TOTAL	6,708	190					
Permethrin trans (isomer of Permethrin)							
Apple Juice	729	0			0.029 ^	0.05	-
Apple Sauce	358	0			0.029 ^	0.05	-
Apples	556	0			0.012 ^	0.05	2
Asparagus	208	0			0.015 ^	1.0	1
Bananas	638	0			0.012 - 0.015	NT	-
Broccoli	215	0			0.015 ^	1.0	2
Carrots	522	0			0.001 - 0.015	NT	0.1
Celery	737	120	16.3	0.025 - 0.32	0.015 - 0.026	5.0	2
Cucumbers	183	1	0.5	0.025 ^	0.012 - 0.015	3.0	0.5
Mushrooms	728	13	1.8	0.002 - 0.2	0.001 - 0.015	6.0	0.1
Onion	543	0			0.015 - 0.019	0.1	-
Peaches	563	14	2.5	0.002 - 0.076	0.001 - 0.002	5.0	2
Pineapples	106	0			0.015 ^	NT	-
Potatoes	108	0			0.015 ^	0.05	0.05
Sweet Bell Peppers	186	16	8.6	0.003 - 0.18	0.002 ^	1.0	-
Sweet Corn, Canned/Frozen	206	0			0.015 ^	0.1	0.1
Sweet Peas, Canned/Frozen	122	0			0.015 ^	NT	-
TOTAL	6,708	164					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Phenmedipham (herbicide)							
Carrots	392	0			0.065 - 0.066	NT	-
Peaches	545	0			0.065 - 0.066	NT	-
Spinach	363	1	0.3	0.16 ^	0.097 ^	0.5	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.016 ^	NT	-
TOTAL	1,486	1					
Phenothrin (insecticide)							
Asparagus	439	0			0.015 - 0.030	NT	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	960	0					
Phenthoate (insecticide)							
Carrots	392	0			0.004 - 0.006	NT	-
Mushrooms	516	0			0.004 - 0.006	NT	-
Peaches	511	0			0.004 - 0.006	NT	-
Sweet Bell Peppers (V-1)	<u>186</u>	<u>1</u>	0.5	0.010 ^	0.006 ^	NT	-
TOTAL	1,605	1					
o-Phenylphenol (fungicide)							
Apple Juice	729	8	1.1	0.017 ^	0.010 ^	25.0	-
Apple Sauce	358	13	3.6	0.017 ^	0.010 ^	25.0	-
Apples	556	16	2.9	0.018 - 0.11	0.011 - 0.025	25.0	-
Asparagus (V-2)	708	2	0.3	0.017 - 0.033	0.010 - 0.015	NT	-
Bananas (V-6)	638	6	0.9	0.017 ^	0.010 - 0.025	NT	-
Broccoli (V-3)	215	3	1.4	0.017 ^	0.010 ^	NT	-
Carrots	554	17	3.1	0.005 - 0.017	0.003 - 0.010	20	-
Celery (V-13)	144	13	9.0	0.017 - 0.036	0.010 ^	NT	-
Cucumbers	183	2	1.1	0.017 - 0.018	0.010 - 0.011	10	-
Mushrooms (V-132)	728	132	18.1	0.005 - 0.56	0.003 - 0.010	NT	-
Onion (V-1)	1	1	100	0.017 ^	0.010 ^	NT	-
Peaches	563	41	7.3	0.005 - 0.046	0.003 ^	20.0	-
Pineapples	360	8	2.2	0.017 ^	0.010 ^	10.0	-
Potatoes (V-8)	370	8	2.2	0.013 - 0.040	0.008 - 0.010	NT	-
Spinach	363	0			0.008 ^	NT	-
Sweet Bell Peppers	186	5	2.7	0.005 - 0.014	0.003 ^	10	-
Sweet Corn, Canned (V-27)	727	27	3.7	0.013 - 0.14	0.008 - 0.010	NT	-
Sweet Peas, Canned (V-15)	<u>643</u>	<u>15</u>	2.3	0.017 - 0.19	0.010 - 0.015	NT	-
TOTAL	8,026	317					
Phorate (insecticide)							
Apples	556	0			0.005 - 0.014	NT	-
Asparagus	622	0			0.004 - 0.011	NT	-
Bananas	638	0			0.005 - 0.014	NT	-
Broccoli	125	0			0.011 ^	NT	-
Carrots	536	0			0.002 - 0.011	NT	-
Celery	170	0			0.001 - 0.011	NT	-
Cucumbers	129	0			0.005 ^	NT	-
Mushrooms	642	0			0.002 - 0.011	NT	-
Peaches	563	0			0.002 ^	NT	-
Pineapples	360	0			0.006 - 0.011	NT	-
Potatoes	370	0			0.011 - 0.012	0.5	0.2
Spinach	363	0			0.012 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.011 - 0.012	0.1	0.05
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.004 - 0.011	NT	-
TOTAL	6,630	0					
Phorate oxygen analog (metabolite of Phorate)							
Carrots	392	0			0.001 ^	NT	-
Mushrooms	516	0			0.001 ^	NT	-
Peaches	563	0			0.001 ^	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.001 ^	NT	-
TOTAL	1,657	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Phorate sulfone (metabolite of Phorate)							
Apples	556	0			0.004 - 0.015	NT	-
Asparagus	623	0			0.004 - 0.012	NT	-
Bananas	638	0			0.004 - 0.015	NT	-
Broccoli	125	0			0.004 ^	NT	-
Carrots	536	0			0.002 - 0.004	NT	-
Celery	170	0			0.002 - 0.004	NT	-
Cucumbers	129	0			0.004 ^	NT	-
Mushrooms	642	0			0.002 - 0.004	NT	-
Peaches	563	0			0.002 - 0.003	NT	-
Pineapples	360	0			0.004 - 0.017	NT	-
Potatoes	370	2	0.5	0.007 - 0.040	0.004 - 0.024	0.5	0.2
Spinach	363	0			0.024 ^	NT	-
Sweet Bell Peppers	186	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.004 - 0.012	0.1	0.05
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.004 - 0.012	NT	-
TOTAL	6,631	2					
Phorate sulfoxide (metabolite of Phorate)							
Apples	433	0			0.020 ^	NT	-
Bananas	321	0			0.020 ^	NT	-
Carrots	392	0			0.004 - 0.009	NT	-
Mushrooms	516	0			0.004 - 0.009	NT	-
Peaches	563	0			0.004 - 0.009	NT	-
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.009 ^	NT	-
TOTAL	2,411	0					
Phosalone (insecticide)							
Apple Juice	729	0			0.040 ^	10.0	-
Apple Sauce	358	0			0.040 ^	10.0	-
Apples	556	0			0.005 - 0.019	10.0	5
Asparagus	536	0			0.006 - 0.015	NT	-
Bananas	550	0			0.005 - 0.019	NT	-
Broccoli	35	0			0.006 ^	NT	-
Carrots	428	0			0.001 - 0.006	NT	-
Celery	36	0			0.006 ^	NT	-
Cucumbers	129	0			0.005 ^	NT	-
Mushrooms	552	0			0.001 - 0.006	NT	-
Peaches	563	0			0.001 - 0.002	15.0	-
Pineapples	18	0			0.006 ^	NT	-
Potatoes	36	0			0.006 ^	NT	-
Sweet Bell Peppers	186	0			0.008 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.006 ^	NT	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.006 - 0.015	NT	-
TOTAL	5,285	0					
Phosmet (insecticide)							
Apple Juice	729	0			0.018 ^	10.0	-
Apple Sauce	358	0			0.018 ^	10.0	-
Apples	556	72	12.9	0.008 - 0.31	0.005 - 0.013	10.0	10
Asparagus	623	0			0.005 - 0.008	NT	-
Bananas	638	0			0.005 - 0.013	NT	-
Broccoli	125	0			0.005 ^	NT	-
Carrots (V-2)	536	2	0.4	0.002 ^	0.001 - 0.008	NT	-
Celery	170	0			0.005 ^	NT	-
Cucumbers	129	0			0.005 ^	NT	-
Mushrooms	642	0			0.001 - 0.008	NT	-
Peaches	563	365	64.8	0.002 - 1.4	0.001 - 0.008	10	10
Pineapples	106	0			0.005 ^	NT	-
Potatoes	370	0			0.005 - 0.012	0.1	0.05
Spinach	363	0			0.012 ^	NT	-
Sweet Bell Peppers	186	0			0.008 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.005 - 0.012	0.5	0.05
Sweet Peas, Canned/Frozen	<u>729</u>	<u>5</u>	0.7	0.008 - 0.3	0.005 - 0.008	0.5	0.2
TOTAL	7,550	444					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Phosphamidon (insecticide)							
Apple Juice	729	0			0.020 ^	1	-
Apple Sauce	358	0			0.020 ^	1	-
Apples	556	2	0.4	0.020 - 0.14	0.006 - 0.012	1	0.5
Asparagus	535	0			0.012 - 0.015	NT	-
Bananas	550	0			0.006 - 0.012	NT	-
Broccoli	35	0			0.012 ^	NT	0.2
Carrots	428	0			0.001 - 0.012	NT	0.2
Celery	36	0			0.012 ^	NT	-
Cucumbers	129	0			0.006 ^	NT	0.1
Mushrooms	569	0			0.001 - 0.012	NT	-
Peaches	563	0			0.001 - 0.002	NT	0.2
Pineapples	18	0			0.012 ^	NT	-
Potatoes	298	0			0.012 - 0.029	NT	0.05
Spinach	363	0			0.029 ^	NT	0.2
Sweet Bell Peppers	186	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.012 ^	NT	-
Sweet Peas, Canned/Frozen	556	0			0.012 - 0.015	NT	0.2
TOTAL	5,926	2					
Piperonyl butoxide (insecticide)							
Apple Juice	729	2	0.3	0.023 - 0.078	0.014 ^	8.0	-
Apple Sauce	358	0			0.014 ^	8.0	-
Apples	556	0			0.011 - 0.025	8.0	-
Asparagus	480	0			0.010 - 0.015	EX	-
Bananas	317	0			0.010 - 0.011	EX	-
Broccoli	125	0			0.010 ^	EX	-
Carrots	536	0			0.005 - 0.010	EX	-
Celery	647	5	0.8	0.012 - 0.065	0.007 - 0.010	EX	-
Cucumbers	129	0			0.011 ^	EX	-
Mushrooms	642	23	3.6	0.008 - 0.41	0.005 - 0.010	EX	-
Onion	18	0			0.010 ^	EX	-
Peaches	563	0			0.005 ^	8.0	-
Pineapples	360	7	1.9	0.017 - 0.023	0.010 - 0.014	8.0	-
Potatoes	370	0			0.008 - 0.010	0.25	-
Spinach	363	25	6.9	0.013 - 2.2	0.008 ^	EX	-
Sweet Bell Peppers	186	0			0.005 ^	EX	-
Sweet Corn, Canned/Frozen	727	0			0.008 - 0.010	20.0	-
Sweet Peas, Canned/Frozen	729	1	0.1	0.017 ^	0.010 - 0.015	8.0	-
TOTAL	7,835	63					
Pirimicarb (insecticide)							
Carrots	392	0			0.010 ^	NT	-
Mushrooms	516	0			0.010 ^	NT	-
Peaches (V-3)	563	3	0.5	0.016 ^	0.010 ^	NT	0.5
Sweet Bell Peppers	177	0			0.010 ^	NT	1
TOTAL	1,648	3					
Pirimiphos methyl (insecticide)							
Apples	123	0			0.003 ^	NT	2
Asparagus	518	0			0.003 - 0.004	NT	-
Bananas	211	0			0.003 ^	NT	-
Broccoli	18	0			0.003 ^	NT	-
Carrots	392	0			0.001 - 0.002	NT	1
Cucumbers	129	0			0.003 ^	NT	1
Mushrooms	516	0			0.001 - 0.002	NT	5
Peaches	563	0			0.001 - 0.002	NT	-
Pineapples	34	0			0.003 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.003 - 0.016	8.0	-
Sweet Peas, Canned/Frozen	521	0			0.004 ^	NT	0.05
TOTAL	3,938	0					
Prallethrin (insecticide)							
Asparagus	39	0			0.015 ^	1.0	-
Broccoli	71	0			0.010 ^	1.0	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	728	0			0.007 - 0.010	1.0	-
Onion	740	0			0.010 - 0.046	1.0	-
Pineapples	35	0			0.010 ^	1.0	-
Sweet Bell Peppers	186	0			0.010 ^	1.0	-
Sweet Peas, Canned/Frozen	<u>208</u>	<u>0</u>			0.010 ^	1.0	-
TOTAL	2,007	0					
Procymidone (fungicide)							
Asparagus	536	0			0.004 - 0.015	NT	-
Bananas	36	0			0.015 ^	NT	-
Broccoli	35	0			0.015 ^	NT	-
Carrots	36	0			0.015 ^	NT	-
Celery	36	0			0.015 ^	NT	-
Mushrooms	36	0			0.015 ^	NT	-
Pineapples	35	0			0.015 ^	NT	-
Potatoes	36	0			0.015 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.015 ^	NT	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	1,359	0					
Profenofos (insecticide)							
Asparagus	500	0			0.011 ^	NT	-
Carrots	392	0			0.001 - 0.002	NT	-
Mushrooms	15	0			0.001 ^	NT	-
Peaches	36	0			0.001 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	0.5
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.011 ^	NT	-
TOTAL	1,650	0					
Prometryn (herbicide)							
Apples	123	0			0.011 ^	NT	-
Asparagus (V-1)	123	1	0.8	0.017 ^	0.010 ^	NT	-
Bananas	299	0			0.010 - 0.011	NT	-
Broccoli	125	0			0.010 ^	NT	-
Carrots	554	0			0.007 - 0.010	0.1	-
Celery	737	1	0.1	0.013 ^	0.008 - 0.010	0.5	-
Cucumbers	129	0			0.011 ^	NT	-
Mushrooms	642	0			0.007 - 0.010	NT	-
Peaches	563	0			0.007 ^	NT	-
Pineapples	106	0			0.010 ^	NT	-
Potatoes	108	0			0.010 ^	NT	-
Spinach	363	0			0.049 ^	NT	-
Sweet Bell Peppers	186	0			0.007 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.010 ^	NT	-
TOTAL	4,315	2					
Pronamide (herbicide)							
Apple Juice	680	0			0.008 ^	0.1	-
Apple Sauce	308	0			0.008 ^	0.1	-
Apples	556	0			0.005 - 0.006	0.1	-
Asparagus	554	0			0.007 - 0.008	NT	-
Bananas	550	0			0.005 - 0.007	NT	-
Broccoli	35	0			0.007 ^	NT	-
Carrots	428	0			0.006 - 0.007	NT	-
Celery	36	0			0.007 ^	NT	-
Mushrooms	552	0			0.006 - 0.007	NT	-
Peaches	563	0			0.006 ^	0.1	-
Pineapples	35	0			0.007 ^	NT	-
Potatoes	298	0			0.007 - 0.018	NT	-
Spinach	363	0			0.018 ^	NT	-
Sweet Bell Peppers	186	0			0.006 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.007 ^	NT	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.007 - 0.008	NT	-
TOTAL	5,717	0					

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Propargite (insecticide)							
Apple Juice	729	0			0.049 ^	NT	-
Apple Sauce	358	0			0.049 ^	NT	-
Apples (V-2)	556	2	0.4	0.033 - 0.12	0.020 - 0.025	NT	5
Asparagus	105	0			0.020 ^	NT	-
Bananas (V-2)	638	2	0.3	0.033 ^	0.020 - 0.025	NT	-
Broccoli	125	0			0.020 ^	NT	-
Carrots	536	0			0.020 - 0.024	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	0.5
Mushrooms	627	0			0.020 - 0.024	NT	-
Peaches (V-16)	563	16	2.8	0.041 - 0.61	0.024 ^	NT	7
Pineapples	106	0			0.020 ^	NT	-
Potatoes	370	0			0.008 - 0.020	0.1	0.1
Spinach	341	0			0.008 ^	NT	-
Sweet Bell Peppers	186	0			0.024 ^	NT	-
Sweet Corn, Canned/Frozen	705	0			0.008 - 0.020	0.1	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.015 - 0.020	NT	-
TOTAL	6,843	20					
Propetamphos (insecticide)							
Apples	123	0			0.003 ^	0.1	-
Asparagus	18	0			0.003 ^	0.1	-
Bananas	211	0			0.003 ^	0.1	-
Broccoli	18	0			0.003 ^	0.1	-
Celery	477	0			0.002 ^	0.1	-
Cucumbers	129	0			0.003 ^	0.1	-
Mushrooms	18	0			0.003 ^	0.1	-
Onion	216	0			0.010 ^	0.1	-
Pineapples	34	0			0.003 ^	0.1	-
Sweet Peas, Canned/Frozen	<u>173</u>	<u>0</u>			0.003 ^	0.1	-
TOTAL	1,417	0					
Propiconazole (fungicide)							
Apples	123	0			0.036 ^	NT	-
Bananas	514	0			0.025 - 0.036	0.2	0.1
Carrots	365	0			0.014 ^	NT	-
Celery	521	66	12.7	0.035 - 0.11	0.021 ^	5.0	-
Cucumbers	129	0			0.036 ^	NT	-
Mushrooms	516	0			0.014 ^	0.1	-
Onion	525	0			0.018 ^	NT	-
Peaches	563	35	6.2	0.024 - 0.085	0.014 ^	1.0	1
Pineapples	254	0			0.030 ^	0.1	-
Sweet Bell Peppers	186	0			0.014 ^	NT	-
Sweet Corn, Canned/Frozen	<u>521</u>	<u>0</u>			0.016 ^	0.1	-
TOTAL	4,217	101					
Propiconazole I (isomer of Propiconazole)							
Asparagus	123	0			0.015 ^	NT	-
Bananas	213	0			0.015 ^	0.2	0.1
Broccoli	142	0			0.015 ^	NT	-
Carrots	144	0			0.015 ^	NT	-
Celery	216	15	6.9	0.025 - 0.095	0.015 ^	5.0	-
Mushrooms	212	0			0.015 ^	0.1	-
Pineapples	106	0			0.015 ^	0.1	-
Potatoes	108	0			0.015 ^	NT	-
Sweet Corn, Canned/Frozen	206	0			0.015 ^	0.1	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	1,592	15					
Propiconazole II (isomer of Propiconazole)							
Asparagus	123	0			0.020 ^	NT	-
Bananas	213	0			0.020 ^	0.2	0.1
Broccoli	125	0			0.020 ^	NT	-
Carrots	144	0			0.020 ^	NT	-
Celery	216	18	8.3	0.033 - 0.15	0.020 ^	5.0	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	212	0			0.020 ^	0.1	-
Pineapples	106	0			0.020 ^	0.1	-
Potatoes	108	0			0.020 ^	NT	-
Sweet Corn, Canned/Frozen	206	0			0.020 ^	0.1	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.020 ^	NT	-
TOTAL	1,575	18					
Pymetrozine (insecticide)							
Sweet Bell Peppers	<u>186</u>	<u>0</u>			0.010 ^	0.2	-
TOTAL	186	0					
Pyridaben (insecticide)							
Apple Juice	729	0			0.031 ^	0.5	-
Apple Sauce	358	0			0.031 ^	0.5	-
Apples	<u>556</u>	<u>0</u>			0.025 ^	0.5	-
TOTAL	1,643	0					
Pyriproxyfen (insecticide, growth regulator)							
Apple Juice	729	0			0.031 ^	0.2	-
Apple Sauce	358	0			0.031 ^	0.2	-
Apples	556	0			0.025 ^	0.2	-
Asparagus	500	0			0.015 ^	0.10	-
Bananas	321	0			0.025 ^	0.10	-
Sweet Peas, Canned/Frozen	<u>521</u>	<u>0</u>			0.015 ^	0.10	-
TOTAL	2,985	0					
Quintozene - PCNB (fungicide) (parent of HCB, PCA and PCB)							
Apples	556	0			0.001 - 0.003	NT	-
Asparagus (V-1)	623	1	0.2	0.002 ^	0.002 - 0.003	NT	-
Bananas	638	0			0.001 - 0.003	NT	-
Broccoli	737	0			0.001 - 0.003	0.1	0.02
Carrots	507	0			0.003 ^	NT	-
Celery	144	0			0.003 ^	NT	-
Cucumbers (V-1)	129	1	0.8	0.005 ^	0.003 ^	NT	-
Mushrooms	642	0			0.003 ^	NT	-
Peaches	547	0			0.003 ^	NT	-
Pineapples	106	0			0.003 ^	NT	-
Potatoes	370	7	1.9	0.007 - 0.038	0.003 - 0.004	0.1	0.2
Spinach	363	0			0.004 ^	NT	-
Sweet Bell Peppers	186	0			0.003 ^	0.1	0.01
Sweet Corn, Canned/Frozen	135	0			0.003 ^	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.002 - 0.003	NT	-
TOTAL	6,326	9					
Resmethrin (insecticide)							
Asparagus	587	1	0.2	0.017 ^	0.010 - 0.015	3.0	-
Bananas	514	0			0.011 - 0.025	3.0	-
Broccoli	71	0			0.010 ^	3.0	-
Carrots	132	0			0.007 - 0.045	3.0	-
Mushrooms	728	0			0.007 - 0.010	3.0	-
Onion	216	0			0.010 - 0.020	3.0	-
Peaches	563	0			0.007 ^	3.0	-
Pineapples	51	0			0.010 ^	3.0	-
Potatoes	18	0			0.010 ^	3.0	-
Sweet Bell Peppers	170	0			0.007 ^	3.0	-
Sweet Corn, Canned/Frozen	727	0			0.010 - 0.032	3.0	-
Sweet Peas, Canned/Frozen	<u>729</u>	<u>0</u>			0.010 - 0.015	3.0	-
TOTAL	4,506	1					
Simazine (herbicide)							
Apple Juice	729	0			0.018 ^	0.25	-
Apple Sauce	358	0			0.018 ^	0.25	-
Apples	556	0			0.011 - 0.025	0.25	-
Asparagus	708	0			0.010 - 0.011	NT	-
Bananas	727	0			0.010 - 0.025	0.2	-
Broccoli	107	0			0.010 ^	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Carrots	536	0			0.002 - 0.010	NT	-
Celery	126	0			0.010 ^	NT	-
Cucumbers	129	0			0.011 ^	NT	-
Mushrooms	642	0			0.002 - 0.010	NT	-
Peaches	563	0			0.002 ^	0.25	-
Pineapples	106	0			0.010 ^	NT	-
Potatoes	370	0			0.010 - 0.018	NT	-
Spinach	363	0			0.018 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	705	0			0.010 - 0.018	0.25	-
Sweet Peas, Canned/Frozen	643	0			0.010 - 0.011	NT	-
TOTAL	7,554	0					
Sulprofos (insecticide)							
Carrots	392	0			0.002 ^	NT	-
Mushrooms	516	0			0.002 ^	NT	-
Peaches	563	0			0.002 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
TOTAL	1,657	0					
Tebuconazole (fungicide)							
Apples	123	0			0.020 ^	NT	-
Asparagus	623	0			0.020 - 0.023	NT	-
Bananas	727	0			0.020 - 0.025	0.05	0.05
Broccoli	125	0			0.020 ^	NT	-
Carrots	536	0			0.019 - 0.020	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	0.2
Mushrooms	642	0			0.019 - 0.020	NT	-
Peaches	563	26	4.6	0.032 - 0.97	0.019 ^	1.0	1
Pineapples	106	0			0.020 ^	NT	-
Potatoes	108	0			0.020 ^	NT	-
Sweet Bell Peppers	186	0			0.019 ^	NT	0.5
Sweet Corn, Canned/Frozen	135	0			0.020 ^	NT	-
Sweet Peas, Canned/Frozen	643	0			0.020 - 0.023	NT	-
TOTAL	4,772	26					
Tebufenozide (insecticide)							
Sweet Bell Peppers	186	24	12.9	0.010 - 0.12	0.006 ^	1.0	-
Sweet Peas, Canned/Frozen	486	0			0.010 ^	2.0	-
TOTAL	672	24					
Tecnazene (fungicide)							
Asparagus	500	0			0.001 ^	NT	-
Carrots	377	0			0.005 - 0.032	NT	-
Mushrooms	516	0			0.005 ^	NT	-
Peaches	250	0			0.005 ^	NT	-
Sweet Bell Peppers	186	0			0.005 ^	NT	-
Sweet Peas, Canned/Frozen	521	0			0.001 ^	NT	-
TOTAL	2,350	0					
Tefluthrin (insecticide)							
Broccoli	53	0			0.010 ^	NT	-
Pineapples	35	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	206	0			0.010 ^	0.06	-
TOTAL	294	0					
TEPP (insecticide)							
Carrots	392	0			0.003 - 0.006	NT	-
Peaches	547	0			0.003 - 0.006	NT	-
Sweet Bell Peppers	186	0			0.006 ^	NT	-
TOTAL	1,125	0					
Terbacil (herbicide)							
Apple Juice	729	0			0.020 ^	0.1	-
Apple Sauce	358	0			0.020 ^	0.1	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Apples	556	0			0.020 - 0.025	0.1	-
Asparagus	708	0			0.015 - 0.020	0.4	-
Bananas	620	0			0.020 - 0.025	NT	-
Broccoli	125	0			0.020 ^	NT	-
Carrots	536	0			0.006 - 0.020	NT	-
Celery	126	0			0.020 ^	NT	-
Cucumbers	129	0			0.020 ^	NT	-
Mushrooms	642	0			0.006 - 0.020	NT	-
Peaches	563	0			0.006 ^	0.1	-
Pineapples	106	0			0.020 ^	NT	-
Potatoes	370	0			0.018 - 0.020	NT	-
Spinach	363	0			0.018 ^	NT	-
Sweet Bell Peppers	186	0			0.006 ^	NT	-
Sweet Corn, Canned/Frozen	331	0			0.018 - 0.020	NT	-
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.015 - 0.020	NT	-
TOTAL	7,091	0					
Terbufos (insecticide)							
Apples	556	0			0.006 - 0.014	NT	-
Asparagus	622	0			0.004 - 0.006	NT	-
Bananas	727	0			0.006 - 0.014	0.025	0.05
Broccoli	125	0			0.006 ^	NT	0.05
Carrots	536	0			0.001 - 0.006	NT	-
Celery	170	0			0.001 - 0.006	NT	-
Cucumbers	129	0			0.006 ^	NT	-
Mushrooms	642	0			0.001 - 0.006	NT	-
Peaches	563	0			0.001 - 0.002	NT	-
Pineapples	106	0			0.006 ^	NT	-
Potatoes	370	0			0.006 - 0.015	NT	-
Spinach	363	0			0.015 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.006 - 0.015	0.05	0.01
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.004 - 0.006	NT	-
TOTAL	6,465	0					
Terbufos sulfone (metabolite of Terbufos)							
Apples	556	0			0.004 - 0.007	NT	-
Asparagus	623	0			0.004 ^	NT	-
Bananas	727	0			0.004 - 0.007	0.025	0.05
Broccoli	125	0			0.004 ^	NT	0.05
Carrots	536	0			0.001 - 0.004	NT	-
Celery	170	0			0.002 - 0.004	NT	-
Cucumbers	129	0			0.004 ^	NT	-
Mushrooms	642	0			0.001 - 0.004	NT	-
Peaches	563	0			0.001 - 0.002	NT	-
Pineapples	106	0			0.004 ^	NT	-
Potatoes	370	0			0.004 - 0.048	NT	-
Spinach	363	0			0.048 ^	NT	-
Sweet Bell Peppers	186	0			0.002 ^	NT	-
Sweet Corn, Canned/Frozen	727	0			0.004 - 0.018	0.05	0.01
Sweet Peas, Canned/Frozen	<u>643</u>	<u>0</u>			0.004 ^	NT	-
TOTAL	6,466	0					
Tetrachlorvinphos (insecticide)							
Apples	556	0			0.006 - 0.010	NT	-
Asparagus	623	0			0.004 ^	NT	-
Bananas	638	0			0.004 - 0.010	NT	-
Broccoli	125	0			0.004 ^	NT	-
Carrots	536	0			0.002 - 0.004	NT	-
Celery	170	0			0.002 - 0.004	NT	-
Cucumbers	129	0			0.006 ^	NT	-
Mushrooms	642	0			0.002 - 0.004	NT	-
Peaches	36	0			0.002 ^	NT	-
Pineapples	106	0			0.004 ^	NT	-
Potatoes	370	0			0.004 - 0.008	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Spinach	363	0			0.008 ^	NT	-
Sweet Bell Peppers	186	0			0.003 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.004 ^	NT	-
Sweet Peas, Canned/Frozen	122	0			0.004 ^	NT	-
TOTAL	4,737	0					
Tetradifon (insecticide)							
Apple Juice	729	0			0.008 ^	5	-
Apple Sauce	358	0			0.008 ^	5	-
Apples	556	0			0.005 - 0.006	5	-
Asparagus	536	0			0.004 - 0.011	NT	-
Bananas	550	0			0.005 - 0.011	NT	-
Broccoli	35	0			0.011 ^	NT	-
Carrots	413	0			0.010 - 0.011	NT	-
Celery	36	0			0.011 ^	NT	-
Cucumbers	183	0			0.006 - 0.012	1	-
Mushrooms	526	0			0.010 - 0.011	NT	-
Peaches	547	0			0.010 ^	5	-
Pineapples	35	0			0.011 ^	NT	-
Potatoes	316	0			0.011 - 0.029	NT	-
Spinach	363	0			0.029 ^	NT	-
Sweet Bell Peppers	186	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.011 ^	NT	-
Sweet Peas, Canned/Frozen	556	0			0.004 - 0.011	NT	-
TOTAL	5,942	0					
Tetrahydrophthalimide - THPI (metabolite of Captafol and Captan)							
Apples	8	8	100	0.12 - 0.66	0.12 ^	25	-
Asparagus	478	0			0.015 ^	NT	-
Sweet Peas, Canned/Frozen	499	0			0.015 ^	2.0	-
TOTAL	985	0					
Tetramethrin (insecticide)							
Asparagus	250	0			0.015 - 0.15	NT	-
Sweet Peas, Canned/Frozen	521	0			0.015 ^	NT	-
TOTAL	771	0					
Thiabendazole (fungicide)							
Apple Juice	729	207	28.4	0.050 - 0.71	0.030 ^	10.0	-
Apple Sauce	358	86	24.0	0.050 - 0.77	0.030 ^	10.0	-
Apples	556	398	71.6	0.050 - 6.9	0.030 ^	10.0	10
Asparagus (V-1)	124	1	0.8	0.058 ^	0.030 - 0.035	NT	-
Bananas	727	228	31.4	0.050 - 0.35	0.030 ^	3.0	5
Broccoli	125	0			0.030 ^	NT	-
Carrots	554	0			0.016 - 0.030	10	-
Celery	90	0			0.030 ^	NT	-
Cucumbers	129	0			0.030 ^	NT	-
Mushrooms	728	226	31.0	0.026 - 2.8	0.016 - 0.030	40.0	-
Peaches (V-13)	563	13	2.3	0.026 - 0.028	0.016 - 0.017	NT	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	370	16	4.3	0.075 - 0.97	0.030 - 0.045	10.0	15
Spinach	363	0			0.045 ^	NT	-
Sweet Bell Peppers	186	0			0.016 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.030 ^	NT	-
Sweet Peas, Canned/Frozen	122	0			0.030 ^	NT	-
TOTAL	5,965	1,175					
Thiobencarb (herbicide)							
Apples	123	0			0.011 ^	NT	-
Asparagus	123	0			0.020 ^	NT	-
Bananas	281	0			0.010 - 0.011	NT	-
Broccoli	125	0			0.020 ^	NT	-
Carrots	144	0			0.020 ^	NT	-
Celery	737	0			0.015 - 0.020	0.2	-
Cucumbers	129	0			0.011 ^	NT	-
Mushrooms	126	0			0.020 ^	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Pineapples	106	0			0.010 ^	NT	-
Potatoes	108	0			0.020 ^	NT	-
Sweet Corn, Canned/Frozen	135	0			0.020 ^	NT	-
Sweet Peas, Canned/Frozen	122	0			0.010 - 0.020	NT	-
TOTAL	2,259	0					
Tralomethrin (insecticide)							
Asparagus	20	0			0.015 ^	0.02	-
TOTAL	20	0					
Tri-Allate (herbicide)							
Asparagus	518	0			0.010 - 0.015	NT	-
Broccoli	71	0			0.010 ^	NT	-
Pineapples	35	0			0.010 ^	NT	-
Sweet Corn, Canned/Frozen	17	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	729	0			0.010 - 0.015	0.05	-
TOTAL	1,370	0					
Triadimefon (fungicide)							
Apple Juice	729	0			0.013 ^	1.0	0.5
Apple Sauce	358	0			0.013 ^	1.0	-
Apples	556	0			0.006 - 0.026	1.0	-
Asparagus	623	0			0.011 - 0.025	NT	-
Bananas	638	0			0.025 - 0.026	NT	-
Broccoli	125	0			0.025 ^	NT	-
Carrots	536	0			0.003 - 0.025	NT	-
Celery	126	0			0.025 ^	NT	-
Cucumbers	183	0			0.025 - 0.026	0.3	-
Mushrooms	642	0			0.003 - 0.025	NT	-
Peaches	563	0			0.003 - 0.006	NT	-
Pineapples	360	16	4.4	0.012 - 0.042	0.007 - 0.025	3.0	2
Potatoes	370	0			0.023 - 0.025	NT	-
Spinach	363	0			0.023 ^	NT	-
Sweet Bell Peppers	186	0			0.006 ^	NT	0.1
Sweet Corn, Canned/Frozen	135	0			0.025 ^	NT	0.01
Sweet Peas, Canned/Frozen	643	0			0.011 - 0.025	NT	0.05
TOTAL	7,136	16					
Triadimenol (metabolite of Triadimefon)							
Broccoli	53	0			0.015 ^	NT	-
Pineapples	52	1	1.9	0.025 ^	0.015 ^	3.0	1
Sweet Corn, Canned/Frozen	206	0			0.015 ^	0.05	2
TOTAL	311	1					
Trifluralin (herbicide)							
Apples	556	0			0.006 - 0.017	NT	-
Asparagus	708	0			0.015 - 0.017	0.05	-
Bananas	638	0			0.006 - 0.017	NT	-
Broccoli	737	1	0.1	0.007 ^	0.004 - 0.017	0.05	-
Carrots	554	326	58.8	0.001 - 0.21	0.001 - 0.017	1.0	-
Celery	737	0			0.010 - 0.017	0.05	-
Cucumbers	183	0			0.017 ^	0.05	-
Mushrooms	642	0			0.001 - 0.017	NT	-
Peaches	563	0			0.001 ^	0.05	-
Pineapples	106	0			0.017 ^	NT	-
Potatoes	370	0			0.008 - 0.017	0.05	-
Spinach	363	0			0.008 ^	0.05	-
Sweet Bell Peppers	186	0			0.001 ^	0.05	-
Sweet Corn, Canned/Frozen	135	0			0.017 ^	NT	-
Sweet Peas, Canned/Frozen	729	0			0.015 - 0.017	0.05	-
TOTAL	7,207	327					
Vernolate (herbicide)							
Asparagus	123	0			0.050 ^	NT	-
Bananas	124	0			0.050 ^	NT	-
Broccoli	125	0			0.050 ^	NT	-

Pesticide/Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Carrots	126	0			0.050 ^	NT	-
Celery	126	0			0.050 ^	NT	-
Mushrooms	90	0			0.050 ^	NT	-
Pineapples	106	0			0.050 ^	NT	-
Potatoes	370	0			0.016 - 0.050	0.1	-
Spinach	363	0			0.016 ^	NT	-
Sweet Corn, Canned/Frozen	705	0			0.016 - 0.050	0.1	-
Sweet Peas, Canned/Frozen	<u>122</u>	<u>0</u>			0.050 ^	NT	-
TOTAL	2,380	0					
Vinclozolin (fungicide)							
Apples	556	0			0.002 ^	NT	1
Asparagus	536	0			0.003 - 0.010	NT	-
Bananas	550	0			0.002 - 0.010	NT	-
Broccoli	52	0			0.010 ^	NT	-
Carrots	428	0			0.004 - 0.010	NT	-
Celery	36	0			0.010 ^	NT	-
Cucumbers	183	4	2.2	0.003 ^	0.002 - 0.010	1.0	1
Mushrooms	552	0			0.004 - 0.010	NT	-
Peaches	547	0			0.004 ^	25.0	5
Pineapples	36	0			0.010 ^	NT	-
Potatoes	298	0			0.010 - 0.014	NT	0.1
Spinach	363	0			0.014 ^	NT	-
Sweet Bell Peppers	186	0			0.004 ^	3.0	3
Sweet Corn, Canned/Frozen	17	0			0.010 ^	NT	-
Sweet Peas, Canned/Frozen	<u>556</u>	<u>0</u>			0.003 - 0.010	NT	-
TOTAL	4,896	4					

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

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

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

EX Exempt from tolerance application.

(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 F

Distribution of Residues by Pesticide in Rice

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

In 2002, PDP analyzed 495 rice samples. A total of 90 samples (18 percent) were reported with residue detections. All residue detections were much lower than the established tolerances.

Codex MRLs are recommended on the basis of appropriate residue data obtained mainly from supervised trials. The residue data thus obtained reflect registered or approved usage of the pesticide in accordance with "good agricultural practices." Also, Codex MRLs are established only where there is supporting evidence concerning the safety to humans as determined by the Joint Food and Agriculture/World Health Organization (FAO/WHO) Meeting on Pesticide Residues; this means that Codex Maximum Residue Limits represent residue levels which are toxicologically acceptable. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: Pesticide Residues in Food database at http://apps.fao.org/CodexSystem/pestdes/pest_q-e.htm.

APPENDIX F. DISTRIBUTION OF RESIDUES BY PESTICIDE IN RICE

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/ EMRL ppm
3-Hydroxycarbofuran	495				0.013 ^	0.2	-
Aldicarb	495				0.009 ^	NT	-
Aldicarb sulfone	495				0.011 ^	NT	-
Aldicarb sulfoxide	495				0.011 ^	NT	-
Carbaryl	417	2	0.5	0.010 ^	0.006 ^	5.0	5
Carbofuran	495				0.012 ^	0.2	-
Carboxin	495				0.008 ^	0.2	-
Chlorpyrifos methyl	495	3	0.6	0.003 ^	0.002 ^	6.0	0.1
Clomazone	495				0.003 ^	0.02	-
DDE p,p'	495				0.004 ^	0.5	0.1
Dieldrin	495				0.008 ^	0.02	0.02
Dimethomorph	495				0.007 ^	0.05	-
Disulfoton	495				0.004 ^	0.75	0.5
Disulfoton sulfone	475				0.013 ^	0.75	0.5
Fenvalerate	475				0.012 ^	0.05	2
Fludioxonil	382				0.006 ^	0.02	-
Fluridone	479				0.004 ^	0.1	-
Flutolanil (fungicide)	495	3	0.6	0.003 - 0.010	0.002 ^	7.0	-
Heptachlor epoxide	495				0.004 ^	0.01	0.02
Iprodione	495				0.010 ^	10.0	-
Lambda cyhalothrin total	438				0.006 ^	1.0	-
Lindane-BHC gamma	495				0.008 ^	0.1	0.5
Malathion	475	20	4.2	0.008 - 0.097	0.005 ^	8.0	8
Malathion oxygen analog	495				0.006 ^	NT	-
Metalaxyl	495				0.025 ^	0.1	5
Methomyl	456				0.009 ^	NT	-
Methoxychlor p,p'	495	11	2.2	0.017 ^	0.010 ^	2.0	-
Metolachlor	495				0.003 ^	0.1	-
Molinate (herbicide)	193				0.008 ^	0.1	-
Oxadixyl	495				0.020 ^	0.1	-
Oxamyl	495				0.018 ^	NT	-
Parathion	495				0.036 ^	1	-
Parathion oxygen analog	475				0.040 ^	NT	-
Pendimethalin	495				0.009 ^	0.1	-
Piperonyl butoxide	495	56	11.3	0.033 ^	0.020 ^	20	-
Propanil (herbicide)	495				0.004 ^	2	-
Propetamphos	495				0.004 ^	0.1	-
Propiconazole	495				0.017 ^	0.1	-
Propoxur (insecticide)	495				0.004 ^	NT	-
TCMTB (fungicide)	343				0.010 ^	0.1	-
Thiobencarb	435				0.005 ^	0.2	-

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

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

Appendix G

Distribution of Residues by Pesticide in Barley

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

In 2002, PDP analyzed 725 barley samples. A total of 107 samples (15 percent) were reported with residue detections. All residue detections were much lower than the established tolerances.

Codex MRLs are recommended on the basis of appropriate residue data obtained mainly from supervised trials. The residue data thus obtained reflect registered or approved usage of the pesticide in accordance with "good agricultural practices." Also, Codex MRLs are established only where there is supporting evidence concerning the safety to humans as determined by the Joint Food and Agriculture/World Health Organization (FAO/WHO) Meeting on Pesticide Residues; this means that Codex Maximum Residue Limits represent residue levels which are toxicologically acceptable. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: Pesticide Residues in Food database at http://apps.fao.org/CodexSystem/pestdes/pest_q-e.htm.

APPENDIX G. DISTRIBUTION OF RESIDUES BY PESTICIDE IN BARLEY

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/ EMRL ppm
3-Hydroxycarbofuran	667				0.013 ^	0.1	-
Aldicarb	725				0.009 ^	NT	0.02
Aldicarb sulfone	705				0.011 ^	NT	0.02
Aldicarb sulfoxide	667				0.011 ^	NT	0.02
Allethrin	685				0.005 ^	2	-
Carbaryl	467				0.006 ^	0.2	5
Carbofuran	725				0.012 ^	0.1	-
Carboxin	568				0.020 ^	0.2	-
Chlorpyrifos methyl	723	30	4.1	0.008 - 0.060	0.005 ^	6.0	-
Cyfluthrin	705	1	0.1	0.067 ^	0.040 ^	2.0	-
DDE p,p'	725	1	0.1	0.005 ^	0.003 ^	0.5	0.1
Deltamethrin	678				0.030 ^	0.05	1
Dichlorvos-DDVP	158	6	3.8	0.033 ^	0.020 ^	0.5	5
Diclofop methyl (herbicide)	725				0.003 ^	0.1	-
Dieldrin	687				0.010 ^	0.02	0.02
Difenoconazole	725				0.005 ^	0.1	-
Dimethomorph	705				0.003 ^	NT	-
Disulfoton	725				0.003 ^	0.75	0.2
Disulfoton sulfone	705				0.040 ^	0.75	0.2
Endosulfan I	705	1	0.1	0.017 ^	0.010 ^	0.1	-
Endosulfan II	725	1	0.1	0.033 ^	0.020 ^	0.1	-
Endosulfan sulfate	680				0.005 ^	0.1	-
Esfenvalerate+Fenvalerate Total	705				0.050 ^	0.05	-
Fludioxonil	687	3	0.4	0.017 ^	0.010 ^	0.02	--
Fluridone	705	1	0.1	0.008 ^	0.005 ^	0.1	-
Heptachlor epoxide	725				0.005 ^	0.01	-
Imazalil	687				0.015 ^	0.05	-
Imidacloprid	725				0.015 ^	NT	-
Lambda cyhalothrin total	665				0.003 ^	0.05	-
Lindane-BHC gamma	20				0.010 ^	0.1	0.5
Malathion	508	9	1.8	0.008 - 0.64	0.005 ^	8	-
Malathion oxygen analog	657	1	0.2	0.017 ^	0.010 ^	8	-
Metalaxyl	725				0.005 ^	0.2	0.05
Methamidophos	480				0.020 ^	0.02	-
Methomyl	725				0.009 ^	1	0.5
Methoprene	725				0.25 ^	5.0	5
Methoxychlor p,p'	725				0.005 ^	2	-
Metolachlor	725	1	0.1	0.008 ^	0.005 ^	0.1	-
Metribuzin	725				0.010 ^	0.75	-
Myclobutanil	707				0.005 ^	0.03	-

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
Oxadixyl	725				0.010 ^	0.1	-
Oxamyl	647				0.018 ^	NT	-
Parathion	725				0.010 ^	1	-
Parathion oxygen analog	725				0.010 ^	1	-
Piperonyl butoxide	725	31	4.3	0.017 - 0.089	0.010 ^	20	-
Propanil	725				0.005 ^	0.2	-
Propiconazole	725				0.010 ^	0.1	0.05
Resmethrin	725	32	4.4	0.017 - 0.12	0.010 ^	3.0	-
TCMTB	604				0.020 ^	0.1	-
Tebuconazole	707				0.010 ^	2.0	0.2
Tri Allate	665				0.010 ^	NT	-
Triadimenol	705				0.060 ^	NT	0.5
Trifluralin	725	3	0.4	0.005 ^	0.003 ^	0.05	-

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

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

Appendix H

Distribution of Residues by Pesticide in Beef

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

In 2002, beef tissue samples were analyzed which included 301 adipose samples, 313 liver samples, and 310 muscle samples. Of the 301 adipose samples analyzed, a total of 140 samples (47 percent) were reported with residue detections. No residues were detected in the liver and muscle samples. One of the adipose samples contained a residue for which no EPA tolerance was established.

Codex MRLs are recommended on the basis of appropriate residue data obtained mainly from supervised trials. The residue data thus obtained reflect registered or approved usage of the pesticide in accordance with "good agricultural practices." Also, Codex MRLs are established only where there is supporting evidence concerning the safety to humans as determined by the Joint Food and Agriculture/World Health Organization (FAO/WHO) Meeting on Pesticide Residues; this means that Codex Maximum Residue Limits represent residue levels which are toxicologically acceptable. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs shown in this appendix are from the Codex Alimentarius: Pesticide Residues in Food database at http://apps.fao.org/CodexSystem/pestdes/pest_q-e.htm.

APPENDIX H. DISTRIBUTION OF RESIDUES BY PESTICIDE IN BEEF

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/ EMRL ppb
Accephate							
Beef, Adipose	301				1.8 ^	100	100
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	100	100
Aldicarb							
Beef, Adipose	301				18 ^	10	-
Beef, Liver	313				4.5 ^	NT	-
Beef, Muscle	310				4.5 ^	10	10
Aldicarb sulfone							
Beef, Adipose	301				18 ^	10	-
Beef, Liver	313				4.5 ^	NT	-
Beef, Muscle	310				4.5 ^	10	10
Aldicarb sulfoxide							
Beef, Adipose	301				18 ^	10	-
Beef, Liver	313				4.5 ^	NT	-
Beef, Muscle	310				4.5 ^	10	10
Amitraz (insecticide)							
Beef, Muscle	310				1.5 ^	50	50
Atrazine							
Beef, Muscle	310				1.1 ^	20	-
Azinphos methyl							
Beef, Adipose	301				3.2 ^	NT	-
Beef, Liver	313				3.2 ^	NT	-
Beef, Muscle	310				3.2 ^	NT	-
Azinphos methyl oxygen analog (metabolite of Azinphos methyl)							
Beef, Adipose	301				24 ^	NT	-
Beef, Liver	313				24 ^	NT	-
Beef, Muscle	310				24 ^	NT	-
BHC alpha (insecticide)							
Beef, Adipose	301				3.3 ^	300 AL	-
BHC beta							
Beef, Adipose	301				0.7 ^	300 AL	-
Bifenthrin							
Beef, Adipose	301				0.9 ^	1000	500
Beef, Muscle	310				0.4 ^	500	500
Captan							
Beef, Adipose	301				5.0 ^	50	-

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/ EMRL ppb
Carbaryl							
Beef, Adipose	301				14 ^	100	-
Beef, Liver	313				3.6 ^	1000	-
Beef, Muscle	310				3.6 ^	100	200
Carbofuran							
Beef, Adipose	301				24 ^	20	50
Beef, Liver	313				6.0 ^	NT	-
Beef, Muscle	310				6.0 ^	20	50
Carbophenothion							
Beef, Adipose	301				1.8 ^	NT	-
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	NT	-
Chlordane cis							
Beef, Adipose	301				0.4 ^	300 AL	50
Chlordane trans							
Beef, Adipose	301				1.5 ^	300 AL	50
Chlorfenvinphos alpha							
Beef, Adipose	301				3.2 ^	200 AL	-
Beef, Liver	313				3.2 ^	NT	-
Beef, Muscle	310				3.2 ^	NT	-
Chlorpropham							
Beef, Adipose	301				2.4 ^	50	-
Beef, Muscle	310				2.4 ^	50	-
Chlorpyrifos							
Beef, Adipose	301				2.8 ^	300	2000
Beef, Liver	313				2.8 ^	NT	-
Beef, Muscle	310				2.8 ^	50	2000
Chlorpyrifos methyl							
Beef, Adipose	301				1.8 ^	500	50
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	500	50
Chlorpyrifos methyl oxygen analog (metabolite of Chlorpyrifos methyl)							
Beef, Adipose	301				7.6 ^	500	-
Beef, Liver	313				7.6 ^	NT	-
Beef, Muscle	310				7.6 ^	500	-
Coumaphos							
Beef, Adipose	301				3.0 ^	1000	-
Beef, Liver	313				3.0 ^	NT	-
Beef, Muscle	310				3.0 ^	1000	-

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/ EMRL ppb
Coumaphos oxygen analog							
Beef, Adipose	301				12 ^	NT	-
Beef, Liver	313				12 ^	NT	-
Beef, Muscle	310				12 ^	NT	-
Cyfluthrin							
Beef, Adipose	301				2.5 ^	1000	-
Beef, Muscle	310				6.2 ^	400	-
Cypermethrin							
Beef, Adipose	301				3.9 ^	50	200
Beef, Muscle	310				2.2 ^	50	200
DDD p,p'							
Beef, Adipose	301				0.8 ^	5000 AL	5000
DDE p,p'							
Beef, Adipose	301	112	37.2	4.5 - 1100	2.7 ^	5000 AL	5000
DDT p,p'							
Beef, Adipose	301	4	1.3	4.7 - 11.5	1.1 ^	5000 AL	5000
DEF-Tribufos							
Beef, Adipose	301				2.0 ^	20	-
Beef, Liver	313				2.0 ^	NT	-
Beef, Muscle	310				2.0 ^	20	-
Diazinon							
Beef, Adipose	301	1	0.3	3.0 ^	1.8 ^	700	700
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	700	700
Diazinon oxygen analog							
Beef, Adipose	301				2.4 ^	NT	-
Beef, Liver	313				2.4 ^	NT	-
Beef, Muscle	310				2.4 ^	NT	-
Dichlorvos-DDVP							
Beef, Adipose	301				1.0 ^	20	-
Beef, Liver	313				1.0 ^	NT	-
Beef, Muscle	310				1.0 ^	20	50
Dicofol p,p'							
Beef, Adipose	301				1.8 ^	NT	3000
Beef, Muscle	310				2.5 ^	NT	3000
Dieldrin							
Beef, Adipose	301	45	15.0	2.2 - 18	1.3 ^	300 AL	200
Difenoconazole (fungicide)							
Beef, Adipose	301				5.4 ^	50	-
Beef, Muscle	310				2.1 ^	50	-

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/ EMRL ppb
Dimethoate							
Beef, Adipose	301				1.8 ^	20	-
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	20	-
Endosulfan I							
Beef, Adipose	301				0.4 ^	200	100
Endosulfan II							
Beef, Adipose	301	1	0.3	3.1 ^	0.5 ^	200	100
Endosulfan sulfate							
Beef, Adipose	301	8	2.7	0.5 - 34	0.3 ^	200	100
Endrin							
Beef, Adipose	301				0.9 ^	NT	-
Esfenvalerate							
Beef, Adipose	301				3.8 ^	NT	-
Beef, Muscle	310				8.0 ^	NT	-
Ethalfuralin							
Beef, Adipose	301				5.2 ^	NT	-
Beef, Muscle	310				1.8 ^	NT	-
Ethion							
Beef, Adipose	301				1.2 ^	2500	-
Beef, Liver	313				1.2 ^	NT	-
Beef, Muscle	310				1.2 ^	2500	-
Ethion di oxon							
Beef, Adipose	301				5.8 ^	2500	-
Beef, Liver	313				5.8 ^	NT	-
Beef, Muscle	310				5.8 ^	2500	-
Ethion mono oxon							
Beef, Adipose	301				1.8 ^	2500	-
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	2500	-
Etridiazole							
Beef, Adipose	301				4.1 ^	100	-
Beef, Muscle	310				3.2 ^	100	-
Fenamiphos							
Beef, Adipose	301				3.8 ^	50	-
Beef, Liver	313				3.8 ^	NT	-
Beef, Muscle	310				3.8 ^	50	-
Fenamiphos sulfone							
Beef, Adipose	301				12 ^	50	-
Beef, Liver	313				12 ^	NT	-
Beef, Muscle	310				12 ^	50	-

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/ EMRL ppb
Fenamiphos sulfoxide							
Beef, Adipose	301				24 ^	50	-
Beef, Liver	313				24 ^	NT	-
Beef, Muscle	310				24 ^	50	-
Fenitrothion							
Beef, Adipose	301				2.0 ^	NT	50
Beef, Liver	313				2.0 ^	NT	-
Beef, Muscle	310				2.0 ^	NT	50
Fenpropathrin							
Beef, Adipose	301				2.4 ^	1000	500
Beef, Muscle	310				5.0 ^	100	500
Fenthion							
Beef, Adipose	301				2.0 ^	100	2000
Beef, Liver	313				2.0 ^	NT	-
Beef, Muscle	310				2.0 ^	100	2000
Fenthion sulfone (metabolite of Fenthion)							
Beef, Adipose	301				2.0 ^	100	2000
Beef, Liver	313				2.0 ^	NT	-
Beef, Muscle	310				2.0 ^	100	2000
Fenvalerate							
Beef, Adipose	301				1.1 ^	1500	1000
Beef, Muscle	310				0.7 ^	1500	1000
Fluvalinate (insecticide)							
Beef, Adipose	301				10 ^	10	-
Beef, Muscle	310				1.7 ^	10	-
Heptachlor							
Beef, Adipose	301				0.6 ^	200 AL	200
Heptachlor epoxide							
Beef, Adipose	301	10	3.3	1.3 - 7.7	0.8 ^	200 AL	200
Hexachlorobenzene-HCB							
Beef, Adipose (V-1)	301	1	0.3	7.4 ^	1.0 ^	NT	-
3-Hydroxycarbofuran							
Beef, Adipose	301				24 ^	20	50
Beef, Liver	313				6.0 ^	NT	-
Beef, Muscle	310				6.0 ^	20	50
Iprodione							
Beef, Adipose	301				2.6 ^	500	-
Beef, Liver	313				7.7 ^	3000	-
Beef, Muscle	310				2.2 ^	500	-

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/EMRL ppb
Isofenphos (insecticide)							
Beef, Adipose	301				2.2 ^	NT	-
Beef, Liver	313				2.2 ^	NT	-
Beef, Muscle	310				2.2 ^	NT	-
Lindane-BHC gamma							
Beef, Adipose	301	1	0.3	3.3 ^	2.0 ^	7000	2000
Linuron							
Beef, Adipose	301				14 ^	1000	-
Malathion							
Beef, Adipose	301				3.2 ^	4000	-
Beef, Liver	313				3.2 ^	NT	-
Beef, Muscle	310				3.2 ^	4000	-
Malathion oxygen analog							
Beef, Adipose	301				6.0 ^	NT	-
Beef, Liver	313				6.0 ^	NT	-
Beef, Muscle	310				6.0 ^	NT	-
Methamidophos							
Beef, Adipose	301				1.2 ^	100	10
Beef, Liver	313				1.2 ^	NT	-
Beef, Muscle	310				1.2 ^	100	10
Methidathion							
Beef, Adipose	301				2.6 ^	50	20
Beef, Liver	313				2.6 ^	NT	-
Beef, Muscle	310				2.6 ^	50	20
Methiocarb							
Beef, Adipose	301				34 ^	NT	-
Beef, Liver	313				8.4 ^	NT	-
Beef, Muscle	310				8.4 ^	NT	50
Methomyl							
Beef, Adipose	301				13 ^	NT	-
Beef, Liver	313				3.3 ^	NT	-
Beef, Muscle	310				3.3 ^	NT	20
Methoxychlor p,p'							
Beef, Adipose	301				2.2 ^	3000	-
Metribuzin							
Beef, Adipose	301				1.3 ^	700	-
Beef, Liver	313				4.5 ^	NT	-
Beef, Muscle	310				0.6 ^	700	-
Myclobutanil							
Beef, Adipose	301				3.4 ^	50	-
Beef, Liver	313				10 ^	1000	-
Beef, Muscle	310				1.4 ^	100	10

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/EMRL ppb
Nonachlor cis (insecticide)							
Beef, Adipose	301				0.6 ^	300 AL	-
Nonachlor trans							
Beef, Adipose	301				5.3 ^	300 AL	-
Omethoate							
Beef, Adipose	301				2.6 ^	20	-
Beef, Liver	313				2.6 ^	NT	-
Beef, Muscle	310				2.6 ^	20	-
Oxadiazon (herbicide)							
Beef, Adipose	301				0.8 ^	10	-
Beef, Liver	313				2.6 ^	NT	-
Beef, Muscle	310				0.4 ^	10	-
Oxychlordan							
Beef, Adipose	301	2	0.7	2.3 - 2.6	0.5 ^	300 AL	50
Oxydemeton methyl sulfone							
Beef, Adipose	301				7.6 ^	10	-
Beef, Liver	313				7.6 ^	NT	-
Beef, Muscle	310				7.6 ^	10	-
Oxyfluorfen							
Beef, Adipose	301				0.6 ^	50	-
Beef, Muscle	310				0.2 ^	50	-
Parathion							
Beef, Adipose	301				2.2 ^	NT	-
Beef, Liver	313				2.2 ^	NT	-
Beef, Muscle	310				2.2 ^	NT	-
Parathion methyl							
Beef, Adipose	301				1.8 ^	NT	-
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	NT	-
Parathion methyl oxygen analog							
Beef, Adipose	301				2.8 ^	NT	-
Beef, Liver	313				2.8 ^	NT	-
Beef, Muscle	310				2.8 ^	NT	-
Parathion oxygen analog							
Beef, Adipose	301				2.4 ^	NT	-
Beef, Liver	313				2.4 ^	NT	-
Beef, Muscle	310				2.4 ^	NT	-
Permethrin cis							
Beef, Adipose	301				12 ^	3000	1000
Beef, Muscle	310				2.1 ^	250	1000

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/ EMRL ppb
Permethrin trans							
Beef, Adipose	301				12 ^	3000	1000
Phorate							
Beef, Adipose	301				1.4 ^	50	-
Beef, Liver	313				1.4 ^	NT	-
Beef, Muscle	310				1.4 ^	50	50
Phorate oxygen analog							
Beef, Adipose	301				1.6 ^	50	-
Beef, Liver	313				1.6 ^	NT	-
Beef, Muscle	310				1.6 ^	50	50
Phorate sulfone							
Beef, Adipose	301				1.6 ^	50	-
Beef, Liver	313				1.6 ^	NT	-
Beef, Muscle	310				1.6 ^	50	50
Phorate sulfoxide							
Beef, Adipose	301				20 ^	50	-
Beef, Liver	313				20 ^	NT	-
Beef, Muscle	310				20 ^	50	50
Phosalone							
Beef, Adipose	301				2.2 ^	NT	-
Beef, Liver	313				2.2 ^	NT	-
Beef, Muscle	310				2.2 ^	NT	-
Phosmet							
Beef, Adipose	301				2.4 ^	200	1000
Beef, Liver	313				2.4 ^	NT	-
Beef, Muscle	310				2.4 ^	200	1000
Pirimiphos methyl							
Beef, Adipose	301				2.0 ^	200	-
Beef, Liver	313				2.0 ^	2000	-
Beef, Muscle	310				2.0 ^	200	50
Profenofos							
Beef, Adipose	301				2.4 ^	50	-
Beef, Liver	313				2.4 ^	NT	-
Beef, Muscle	310				2.4 ^	50	50
Pronamide							
Beef, Adipose	301				1.2 ^	20	-
Beef, Liver	313				12 ^	400	-
Beef, Muscle	310				1.2 ^	20	-
Propargite							
Beef, Adipose	301				24 ^	100	100
Beef, Liver	313				9.6 ^	NT	-
Beef, Muscle	310				8.6 ^	100	100

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppb	LODs, ppb	EPA Tolerance Level, ppb	Codex MRL/EMRL ppb
Propham (herbicide)							
Beef, Liver	313				1.7 ^	NT	-
Beef, Muscle	310				1.4 ^	NT	-
Propiconazole							
Beef, Adipose	301				3.5 ^	100	-
Beef, Liver	313				1.3 ^	2000	-
Beef, Muscle	310				0.7 ^	100	50
Simazine							
Beef, Muscle	310				1.5 ^	20	-
Sulprofos							
Beef, Adipose	301				1.8 ^	NT	-
Beef, Liver	313				1.8 ^	NT	-
Beef, Muscle	310				1.8 ^	NT	-
Tetrachlorvinphos							
Beef, Adipose	301				3.0 ^	1500	-
Beef, Liver	313				3.0 ^	NT	-
Beef, Muscle	310				3.0 ^	NT	-
Thiobencarb							
Beef, Liver	313				7.3 ^	NT	-
Beef, Muscle	310				5.5 ^	200	-
Triadimefon							
Beef, Adipose	301				3.2 ^	1000	-
Beef, Muscle	310				1.0 ^	1000	50
Triadimenol							
Beef, Adipose	301				13 ^	100	-
Beef, Muscle	310				3.7 ^	100	50
Triflumizole (fungicide)							
Beef, Adipose	301				1.3 ^	500	-
Beef, Muscle	310				0.9 ^	50	-

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

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

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

Appendix I

Distribution of Residues by Pesticide in Drinking Water

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

The MCLs are legally enforceable standards that apply to public water systems. 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. 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. Health Advisories and FAO criteria are not legally enforceable Federal standards, but serve as technical guidance to assist Federal, State, and local officials.

In 2002, PDP analyzed 699 drinking water samples. A total of 372 samples (53 percent) were reported with residue detections. None of the residue detections exceeded the established MCLs or HAs.

APPENDIX I. DISTRIBUTION OF RESIDUES BY PESTICIDE IN DRINKING WATER

Pesticide	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA*, ppt	EPA FAO, ppt
2,4,5-T	H	241				3 - 45	50,000		
2,4-D	H	230	38	16.5	12 - 22	7.2 - 7.2	70,000		
3,5-Dichloroaniline	FM	29				25 - 25			
3-Hydroxycarbofuran	IM	550				6 - 97.5			
3-ketocarbofuran	IM	214				20 - 20			
Acetochlor	H	403				10 - 49.5			
Acetochlor ethanesulfonic acid	HM	377	5	1.3	20 ^	12 - 1650			
Acetochlor oxanilic acid	HM	402				24 - 300			
Alachlor	H	553				5 - 9.8	2000		
Alachlor ethanesulfonic acid	HM	233	76	32.6	20 - 1443	12 - 300			
Alachlor oxanilic acid	HM	411	21	5.1	121 - 392	24 - 300			
Aldicarb sulfone	IM	214				60 - 60	7000 ^a	7000 ^b	
Aldicarb sulfoxide	IM	214				20 - 20	7000 ^a	7000 ^b	
Aldrin	I	105				5 - 5			3000
Atrazine	H	582	258	44.3	3.8 - 287.6	2.3 - 7.5	3000	200,000	
Atrazine desethyl	HM	317	154	48.6	41.3 - 190	25 - 25			
Atrazine desisopropyl	HM	317	127	40.1	16.3 - 83.2	9.8 - 50			
Azinphos methyl	I	669				12 - 253			
Barban	H	29				5 - 5			
Bendiocarb	I	553				3 - 20			
Benfluralin	H	380				2 - 13			
Benomyl	F	230				3.6 - 3.6			
Bensulfuron methyl	H	230				1.2 - 1.2			
Bentazon	H	186	14	7.5	2.0 - 18	1.2 - 1.2		200,000	
BHC alpha	I	115				2 - 2			
Bifenthrin	I	380				5 - 13			
Bromacil	H	197				9.6 - 9.6		90,000	
Bromoxynil	H	230				6 - 11.3			
Butachlor	H	288				5.3 - 5.3			
Butylate	H	115				10 - 10			
Captan	F	294				100 - 100			
Carbaryl	I	550				3 - 20		700,000	
Carbofuran	I	550	6	1.1	1.0 - 79	0.6 - 22.5	40,000		
Carbophenothion	I	668				5.3 - 32			
Chloramben	H	208				60 - 60			
Chlordane cis	I	547				2.3 - 10	2000		2400

Pesticide	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA*, ppt	EPA FAO, ppt
Chlordane trans	I	668				2.3 - 10	2000		2400
Chlorfenvinphos beta	I	288				4.1 - 4.1			
Chlorfenvinphos total	I	381				12 - 18			
Chlorothalonil	F	29				50 - 50			
Chlorpyrifos	I	664				6 - 27		20,000	83
Chlorpyrifos methyl	I	658				9 - 22			
Chlorpyrifos oxygen analog	IM	381				12 - 59			
Clopyralid	I	285				21 - 97.5			
Coumaphos	I	669				3.8 - 121			
Coumaphos oxygen analog	IM	381				21 - 1400			
Cyanazine	H	317				24.8 - 25		1000	
Cycloate	H	177				6 - 6			
Cyfluthrin	I	265				100 - 100			
Cypermethrin	I	380				45 - 100			
DCPA	H	582				0.8 - 5			
DCPA monoacid	H	164				222 - 222			
DDD o,p'	IM	288				3.8 - 3.8			
DDD p,p'	IM	288				3.8 - 3.8			
DDE o,p'	IM	29				4 - 4			
DDE p,p'	IM	668				2.5 - 10			
DDT o,p'	IM	288				3.8 - 3.8			
DDT p,p'	IM	288				3.8 - 7.5			
DEF-Tribufos	H	669				3.8 - 18			
Diazinon	I	658	1	0.2	10 ^	6 - 14		600	
Diazinon oxygen analog	IM	664	3	0.5	15 - 37	6 - 70			
Dichlobenil	H	370	1	0.3	11.2 ^	2.5 - 50			
Dichlorprop	H	209				4.2 - 4.2			
Dichlorvos-DDVP	I	371				6 - 12			
Dicloran	F	288				7.5 - 7.5			
Dicofol p,p'	I	582				5 - 25			
Dicrotophos	I	381				9 - 180			
Dieldrin	I	582				5 - 15		2000	240
Dimethoate	I	659				5.3 - 63			
Dinoseb	H	219	5	2.3	1.0 ^	0.6 - 0.6	7000		
Diphenamid	H	317				24 - 25			
Disulfoton	I	669				6 - 150			
Disulfoton sulfone	IM	553				3.8 - 9			
Diuron	H	270	1	0.4	58 ^	4.8 - 30			

Pesticide	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA*, ppt	EPA FAO, ppt
Endosulfan I	I	582				5 - 150			220
Endosulfan II	IM	668				12 - 150			220
Endosulfan sulfate	IM	668				10 - 37.5			
Endrin	I	668				22 - 175	2000	2000	86
EPTC	H	115				2.5 - 6.7			
Esfenvalerate	I	380				20 - 50			
Ethalfuralin	H	647				10 - 60			
Ethion	I	664				2.3 - 10			
Ethion di oxon	IM	116				53 - 53			
Ethion mono oxon	IM	669				3.8 - 30			
Ethoprop	I	669				3 - 10			
Fenamiphos	I	669				3.8 - 172		2000	
Fenamiphos sulfone	IM	381				15 - 384			
Fenarimol	F	288				37.5 - 37.5			
Fenitrothion	I	669				3.8 - 28			
Fenitrothion oxygen analog	IM	381				12 - 83			
Fenthion	I	669				6 - 79			
Fenthion-O analog	IM	669				7.5 - 175			
Fenuron	H	281				15 - 20			
Fenvalerate	I	265				20 - 20			
Fludioxonil	F	288				37.5 - 37.5			
Flumetsulam	H	230	3	1.3	10 ^	6 - 6			
Fluometuron	H	345				1.8 - 10.5			
Fonofos	I	669	1	0.1	7.5 ^	3.8 - 30		10,000	
Fonofos oxygen analog	IM	288				2.3 - 2.3			
Heptachlor	I	115				5 - 5	400		520
Heptachlor epoxide	IM	582				5 - 15	200		520
Hexachlorobenzene-HCB	O	29				10 - 10	1000		
Imazalil	F	29				35 - 35			
Imazameth	H	51				10 - 10			
Imazamethabenz methyl	H	270				0.6 - 10			
Imazamox	H	281				2.4 - 15			
Imazapic	H	230				2.4 - 2.4			
Imazapyr	H	336	5	1.5	1.5 ^	0.9 - 22.5			
Imazaquin	H	281				2.4 - 20			
Imazethapyr	H	270				2.4 - 10			
Imidacloprid	I	281	1	0.4	2.5 ^	1.5 - 15			
Iprodione	F	317				30 - 100			

Pesticide	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA*, ppt	EPA FAO, ppt
Isofenphos	I	669				4.5 - 18			
Isofenphos oxygen analog	IM	116				36 - 36			
Isoxaflutole	H	46				1.2 - 1.2			
Lactofen	H	115				50 - 50			
Lindane-BHC gamma	I	392				10 - 11.3		200	950
Linuron	H	339				15 - 112.5			
Malathion	I	669				6 - 22		10,000	100
Malathion oxygen analog	IM	265				9 - 9			
MCPA	H	285	4	1.4	12 ^	7.2 - 225			
MCPB	H	230				21 - 21			
Metalaxyl	F	317				22.5 - 25			
Methidathion	I	659				5.3 - 28			
Methidathion oxygen analog	IM	669				12 - 428			
Methiocarb	I	399				15 - 20			
Methomyl	I	495				1.8 - 23			
Methoxychlor olefin	IM	288				3.8 - 3.8	40000 ^b		30
Methoxychlor p,p'	I	265				10 - 10	40000 ^b		30
Methoxychlor Total	I	403				7.5 - 40	40000 ^b		30
Metolachlor	H	582	233	40.0	5.0 - 226	3 - 6		100,000	
Metolachlor ethanesulfonic acid	HM	381	198	51.9	20 - 2240	12 - 300			
Metolachlor oxanilic acid	HM	404	152	37.6	20 - 1405	12 - 300			
Metribuzin	H	582				25 - 45		200,000	
Metsulfuron methyl	H	162				8.4 - 8.4			
Mevinphos E	I	277				2.6 - 3.4			
Mevinphos Total	I	381				9 - 42			
Molinate	H	273				9.8 - 12			
Monuron	H	396	3	0.8	7.5 ^	4.5 - 20			
Myclobutanil	F	582				5 - 20			
N-(3-hydroxy)propyl EPTC	HM	29				25 - 25			
Napropamide	H	582				24 - 50			
Neburon	H	270				1.2 - 10			
Nicosulfuron	H	219				4.8 - 4.8			
Norflurazon	H	288				18.8 - 18.8			
Norflurazon desmethyl	HM	288				37.5 - 37.5			
Oxadiazon	H	317				15 - 15			
Oxadixyl	F	288				48.8 - 48.8			
Oxamyl	I	484				6 - 20	200,000	200,000	
Oxychloridane	IM	668				4 - 20			

Pesticide	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA*, ppt	EPA FAO, ppt
Oxydemeton methyl	I	116				580 - 580			
Oxydemeton methyl sulfone	IM	265				30 - 30			
Oxyfluorfen	H	582				11.3 - 25			
Parathion ethyl	I	553				6 - 7.5			
Parathion methyl	I	553				4.5 - 6			
Parathion methyl oxygen analog	IM	669				9 - 130			
Parathion oxygen analog	IM	381				9 - 63			
Pebulate	H	29				25 - 25			
Pendimethalin	H	668				4.5 - 20			
Permethrin cis	I	156				8 - 25			
Permethrin trans	I	375				9 - 25			
Phenthoate	I	288				15 - 15			
Phorate	I	625				6 - 121			
Phorate oxygen analog	IM	669				5.3 - 275			
Phorate sulfone	IM	669				6 - 36			
Phorate sulfoxide	IM	404				15 - 260			
Phosalone	I	669				4.5 - 33			
Phosalone oxygen analog	IM	381				15 - 303			
Phosmet	I	381				12 - 255			
Phosphamidon	I	669				10.5 - 197			
Picloram	H	285				30 - 45	500,000	500,000	
Piperonyl butoxide	I	288				18.8 - 18.8			
Pirimicarb	I	277				37.5 - 37.5			
Pirimiphos methyl	I	669				5.3 - 30			
Profenofos	I	669				2.3 - 9			
Prometon	H	553	26	4.7	2.5 ^	1.5 - 50		100,000	
Prometryn	H	294				10 - 15			
Pronamide	H	553				13 - 22.5		50,000	
Propachlor	H	668				5.3 - 16		90,000	
Propanil	H	582	5	0.9	41.6 ^	24.8 - 25			
Propargite	I	668				90 - 180			
Propetamphos	I	669				3 - 16			
Propham	H	252				11.3 - 18		100,000	
Propiconazole	F	288				37.5 - 37.5			
Propiconazole I	F	265				50 - 50			
Propiconazole II	F	265				50 - 50			
Propoxur	I	560				13 - 25			
Quintozene-PCNB	F	277				11.3 - 11.3			

Pesticide	Pest. Type	Number of Samples	Samples with Detects	% of Samples with Detects	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA*, ppt	EPA FAO, ppt
S-(2-hydroxy)propyl EPTC	HM	115				5 - 125			
Siduron	H	230				2.4 - 2.4			
Simazine	H	668	141	21.1	6.3 - 49	3.8 - 15	4000	90,000	
Sulfotep	I	669				1.5 - 8.1			
Sulprofos	I	669				6 - 46			
Sulprofos oxygen analog	IM	381				12 - 98			
Tebuconazole	F	288				60 - 60			
Tebupirimfos	I	636				3.8 - 20			
Tebupirimfos oxygen analog	IM	669				4.5 - 32			
Tebuthiuron	H	336	19	5.7	1.0 - 14	0.6 - 15		500,000	
Tefluthrin	I	115				5 - 5			
Terbacil	H	317				5 - 22.5		90,000	
Terbufos	I	381				6 - 100		900	
Terbufos sulfone	IM	669				4.5 - 18			
Terbufos-O analog	IM	669				3 - 93			
Tetrachlorvinphos	I	669				6 - 26			
Tetradifon	I	553				10 - 37.5			
Thiobencarb	H	553	2	0.4	49 - 78	10 - 24.8			
Tolclofos methyl	F	115				5 - 5			
Tralomethrin	I	115				100 - 300			
Tri Allate	H	288				24.8 - 24.8			
Triadimefon	F	582				5 - 50			
Triclopyr	H	274				12 - 30			
Trifluralin	H	29				2.5 - 2.5			
Vinclozolin	F	294				5 - 5			

* = EPA Health Advisory values shown are for lifetime exposure.

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

a = EPA has issued an administrative stay for MCLs for aldicarb and its metabolites. However, HAs are in effect.

b = Level shown is for combined concentration of parent compound and all fractions (including isomers, degradates, and metabolites).

Pesticide Types:

F = Fungicide, FM = Fungicide Metabolite

H = Herbicide, HM = Herbicide Metabolite

I = Insecticide, IM = Insecticide Metabolite

Appendix J

National Estimates for Concentration Percentiles vs. Tolerance (Pairs With Residue Detections in at Least 10 Percent of Samples)

Appendix J shows 57 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 carrots/trifluralin pair, the 50th percentile, or median, is estimated to be 0.002 ppm. This means that PDP estimates that at least 50 percent of carrots available to U.S. consumers had trifluralin residues of 0.002 ppm or less, while at least 50 percent had residues of 0.002 ppm or more. Similarly, the 75th percentile (or the upper quartile) for this pair is estimated to be 0.017 ppm, which means that at least 75 percent of carrots had trifluralin residues of 0.017 ppm or less, while at least 25 percent had residues of 0.017 ppm or more. Finally, the 90th percentile (or the last decile) is estimated to be 0.044 ppm, meaning that at least 90 percent of all carrots had trifluralin residues of 0.044 ppm or less, while at least 10 percent had residues of 0.044 ppm or more.

Percent detections and percentiles for apples, bananas, beef, broccoli, carrots, celery, cucumbers, mushrooms, peaches, potatoes, spinach, and sweet bell peppers were weighted based on marketing data.

APPENDIX J. NATIONAL ESTIMATES FOR CONCENTRATION PERCENTILES vs. TOLERANCE

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) **		Percentiles			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
1 Apples (W) (January through September only)							
Azinphos methyl	37.4	0.017	0.023	*	0.020	0.048	0.032
Captan	10.3	0.018	0.028	*	*	0.014	0.001
Diphenylamine	76.3	0.481	0.486	0.420	0.780	1.100	0.110
Phosmet	12.9	0.006	0.016	*	*	0.021	0.002
Thiabendazole	71.5	0.589	0.597	0.290	0.550	1.800	0.180
2 Apple Juice							
Thiabendazole	28.4	0.054	0.076	*	0.080	0.230	0.023
3 Apple Sauce (July through December only)							
Diphenylamine	40.2	0.022	0.028	*	0.032	0.069	0.007
Thiabendazole	24.0	0.051	0.074	*	*	0.190	0.019
4 Bananas (W)							
Thiabendazole	31.3	0.024	0.045	*	0.035	0.095	0.238
5 Beef, adipose (W²) (January through July only)							
DDE p,p'	37.3	10.145	11.839	*	4.946	8.542	0.002
Dieldrin	14.8	0.630	1.738	*	*	2.380	0.008
6 Broccoli (W)							
DCPA	23.3	0.003	0.005	*	*	0.010	0.002
7 Carrots (W) (January through September only)							
DDE p,p'	35.0	0.005	0.008	*	0.005	0.018	0.006
Iprodione	29.0	0.013	0.025	*	0.015	0.048	0.010
Linuron	25.6	0.029	0.057	*	0.029	0.093	0.093
Trifluralin	59.1	0.014	0.018	0.002	0.017	0.044	0.044
8 Celery (W)							
Acephate	48.5	0.053	0.054	*	0.039	0.170	0.017
Chlorothalonil	50.0	0.177	0.179	*	0.100	0.440	0.029
Dicloran	46.4	0.180	0.184	*	0.170	0.480	0.032
Malathion	25.9	0.026	0.028	*	0.003	0.068	0.009
Methamidiphos	32.9	0.004	0.004	*	0.003	0.010	0.010
Methomyl	11.2	0.002	0.006	*	*	0.002	0.001
Omethoate	14.8	0.002	0.004	*	*	0.009	0.005
Oxamyl	36.9	0.012	0.017	*	0.007	0.038	0.013
Permethrin cis	19.9	0.011	0.029	*	*	0.047	0.009
Permethrin trans	16.3	0.008	0.028	*	*	0.038	0.008
Propiconazole	12.5	0.006	0.025	*	*	0.025	0.005
9 Cucumbers (W) (October through December only)							
Endosulfan I	26.4	0.005	0.009	*	0.006	0.015	0.008
Endosulfan II	14.3	0.003	0.008	*	*	0.011	0.006
Endosulfan sulfate	43.3	0.011	0.015	*	0.019	0.031	0.016
Metalaxyl	25.7	0.010	0.018	*	0.012	0.036	0.036
Methamidiphos	14.6	0.007	0.009	*	*	0.007	0.007
Oxamyl	10.5	0.009	0.027	*	*	0.021	0.011

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) **		Percentiles			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
10 Mushrooms (W)							
Diazinon	25.9	0.005	0.008	*	0.002	0.013	0.017
o-Phenylphenol	17.8	0.005	0.009	*	*	0.015	NT
Thiabendazole	31.3	0.099	0.113	*	0.075	0.380	0.010
11 Peaches (W) (January through September only ³)							
Azinphos methyl	18.6	0.009	0.014	*	*	0.029	0.015
Captan	13.9	0.040	0.057	*	*	0.061	0.001
Carbaryl	23.3	0.067	0.068	*	*	0.170	0.017
Chlorpyrifos	15.4	0.001	0.002	*	*	0.002	0.044
Dicloran	13.7	0.006	0.008	*	*	0.005	0.000 ⁴
Fludioxonil	61.0	0.230	0.234	0.084	0.320	0.670	0.134
Iprodione	15.6	0.082	0.093	*	*	0.027	0.001
Phosmet	80.9	0.073	0.074	0.025	0.085	0.190	0.019
Propiconazole	13.7	0.005	0.017	*	*	0.026	0.026
12 Potatoes (W) (January through July only)							
Chlorpropham	86.9	2.298	2.300	1.700	3.300	5.100	0.102
13 Rice (January through September only)							
Piperonyl butoxide	11.3	0.005	0.023	*	*	0.023	0.001
14 Spinach (W) (July through December only)							
DDE p,p'	27.4	0.006	0.011	*	0.008	0.024	0.048
Permethrin Total	61.3	1.824	1.835	0.390	2.400	5.900	0.295
15 Sweet Bell Peppers (W) October through December only)							
Acephate	21.5	0.034	0.037	*	*	0.082	0.021
Bifenthrin	13.3	0.003	0.006	*	*	0.013	0.026
Dicofol o,p'	11.5	0.003	0.005	*	*	0.006	0.001
Dicofol p,p'	17.0	0.020	0.023	*	*	0.039	0.008
Methamidophos	26.4	0.015	0.015	*	0.002	0.038	0.038
Methomyl	11.8	0.009	0.010	*	*	0.005	0.003
Oxamyl	14.3	0.007	0.008	*	*	0.008	0.003
Tebufenozide	13.0	0.003	0.008	*	*	0.011	0.011

- 1 Includes some pairs with detections in less than 10 percent of the samples, but with estimated detections in over 10 percent of the population.
- 2 Weighs the contribution from each month equally.
- 3 Captures over 65 percent of the annual arrivals.
- 4 Less than 0.001 (Tolerance in 50 ppm).

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

** 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.

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

NT No Tolerance established.

Appendix K

Cumulative Distributions of Residues for Selected Pesticide/Commodity Pairs

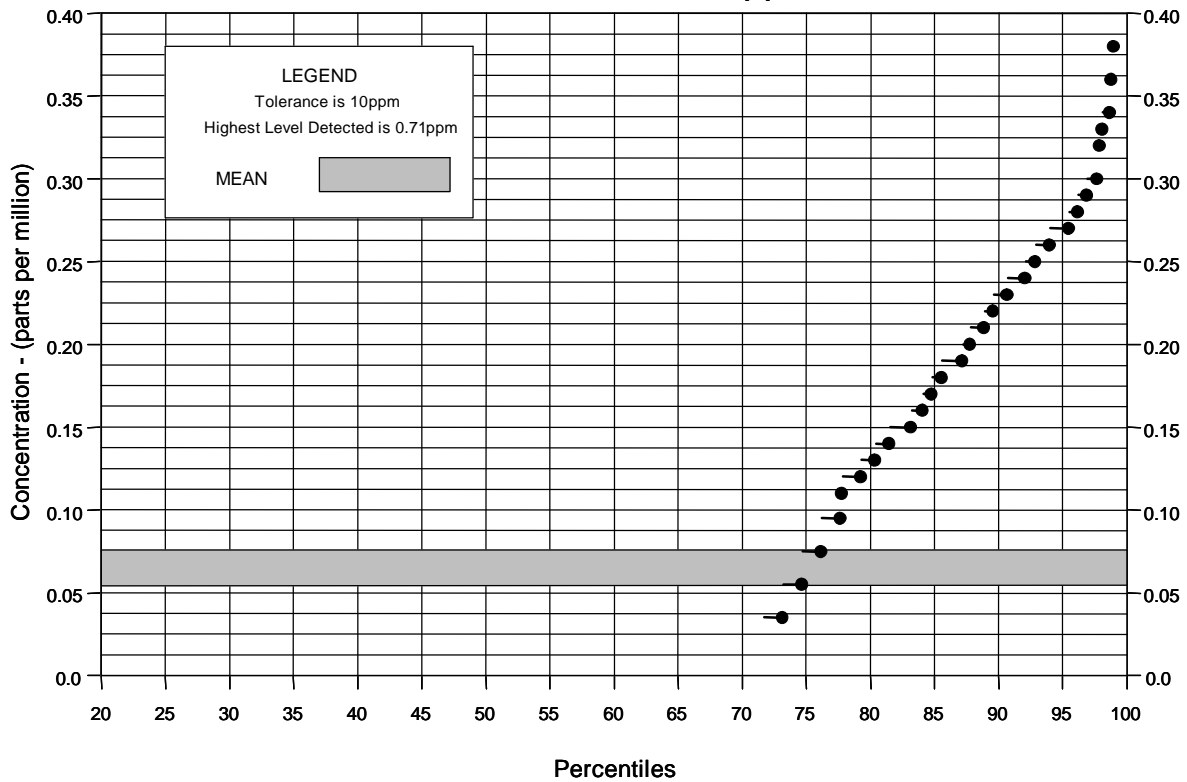
In Appendix K, the concentrations detected (in parts per million, except where otherwise noted) are plotted versus the calculated percentiles for the following 16 pesticide/commodity pairs:

Thiabendazole / Apple Juice
Thiabendazole / Apple Sauce
Thiabendazole / Apples
DCPA / Broccoli
DDE p,p' / Carrots
Chlorothalonil / Celery
Diazinon / Mushrooms
Fludioxonil / Peaches
Permethrin Total / Spinach
Tebufenozide / Sweet Bell Peppers
Atrazine / Drinking Water
Desethyl Atrazine / Drinking Water
Desisopropyl Atrazine / Drinking Water
Metolachlor / Drinking Water
Metolachlor Ethanesulfonic Acid (ESA) / Drinking Water
Metolachlor Oxanilic Acide (OA) / Drinking Water

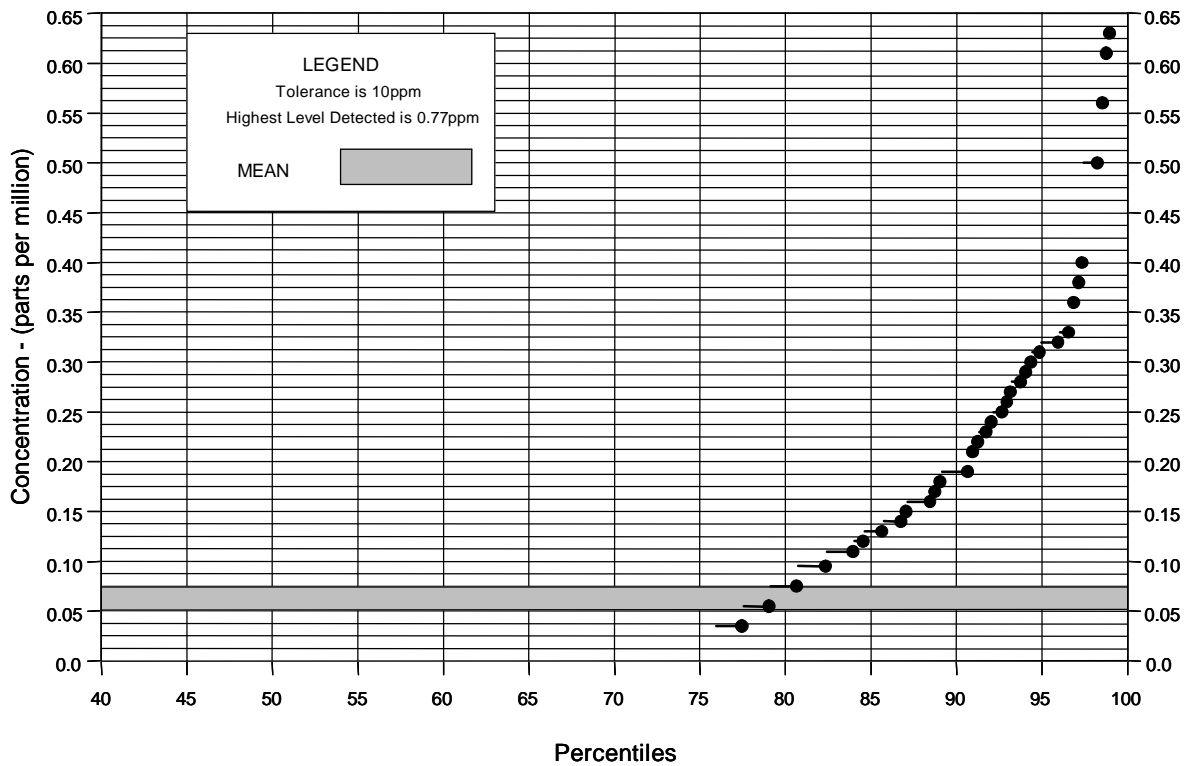
The distribution of residues for all of the PDP pesticide/commodity pairs has the same curved shape. The highest percentile graphed in the appendix is the 99th, which in each case is lower than the highest concentration detected in the sample (refer to the value shown in each graph's legend). Inclusion 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 peaches available to U.S. consumers in 2002 had fludioxonil residue concentrations of 0.084 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 fludioxonil in peaches, this is 39 percent. The shaded bar denotes the range of values estimated for the mean. For fludioxonil/peaches, the mean range is approximately 0.23 - 0.234 ppm, corresponding to the 67th percentile.

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

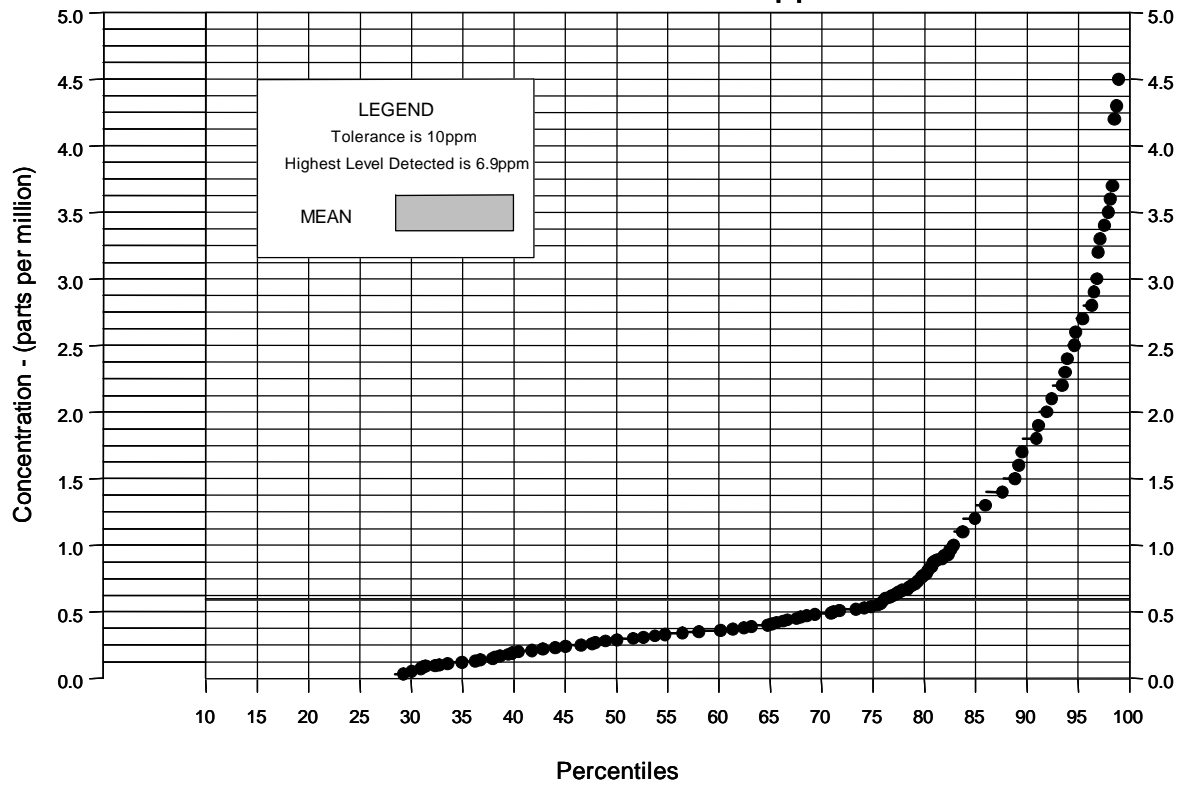
Thiabendazole/ Apple Juice



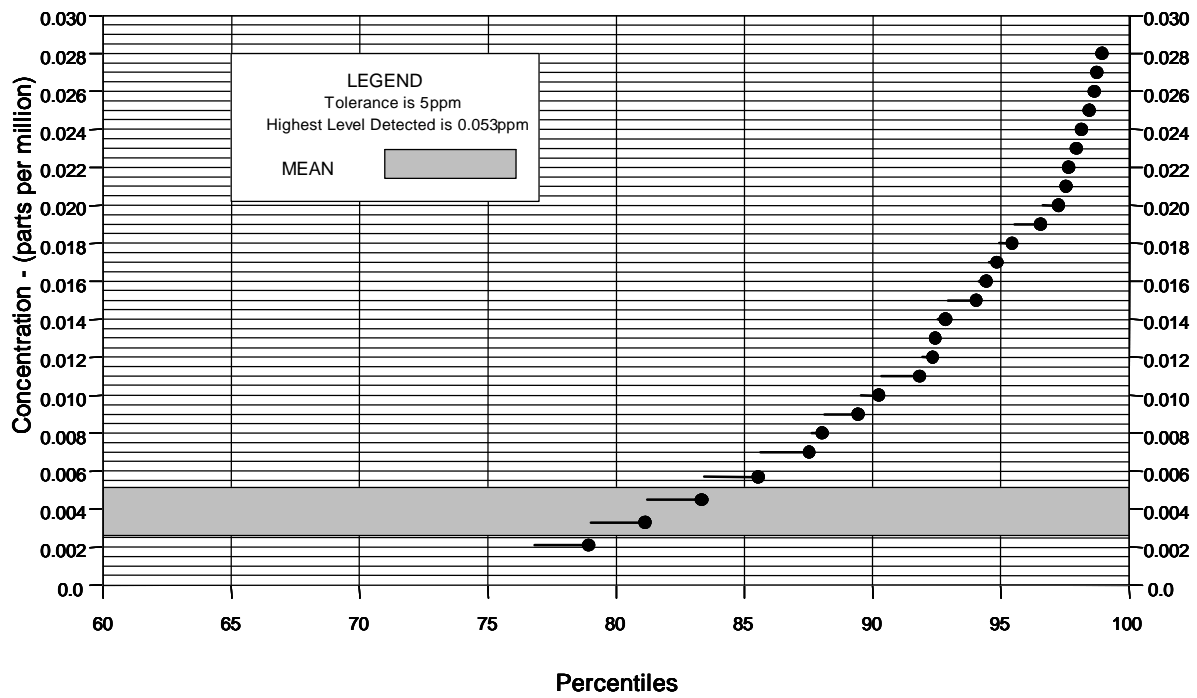
Thiabendazole/ Apple Sauce



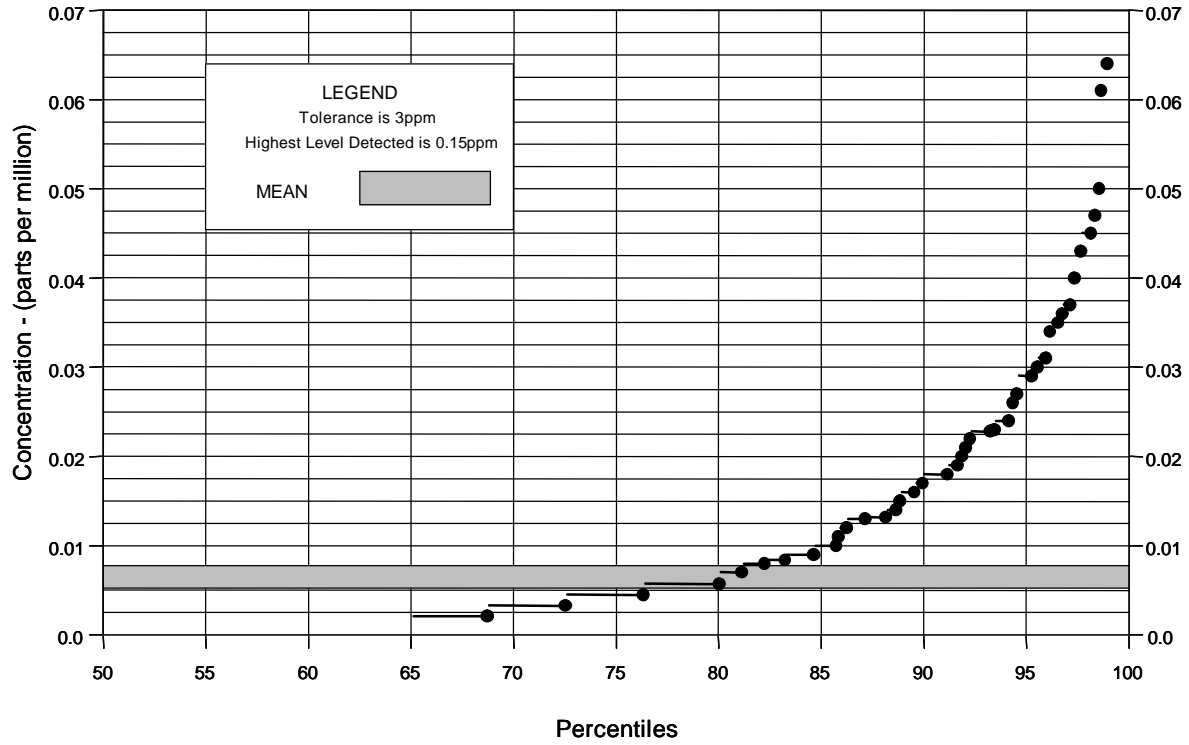
Thiabendazole/ Apples



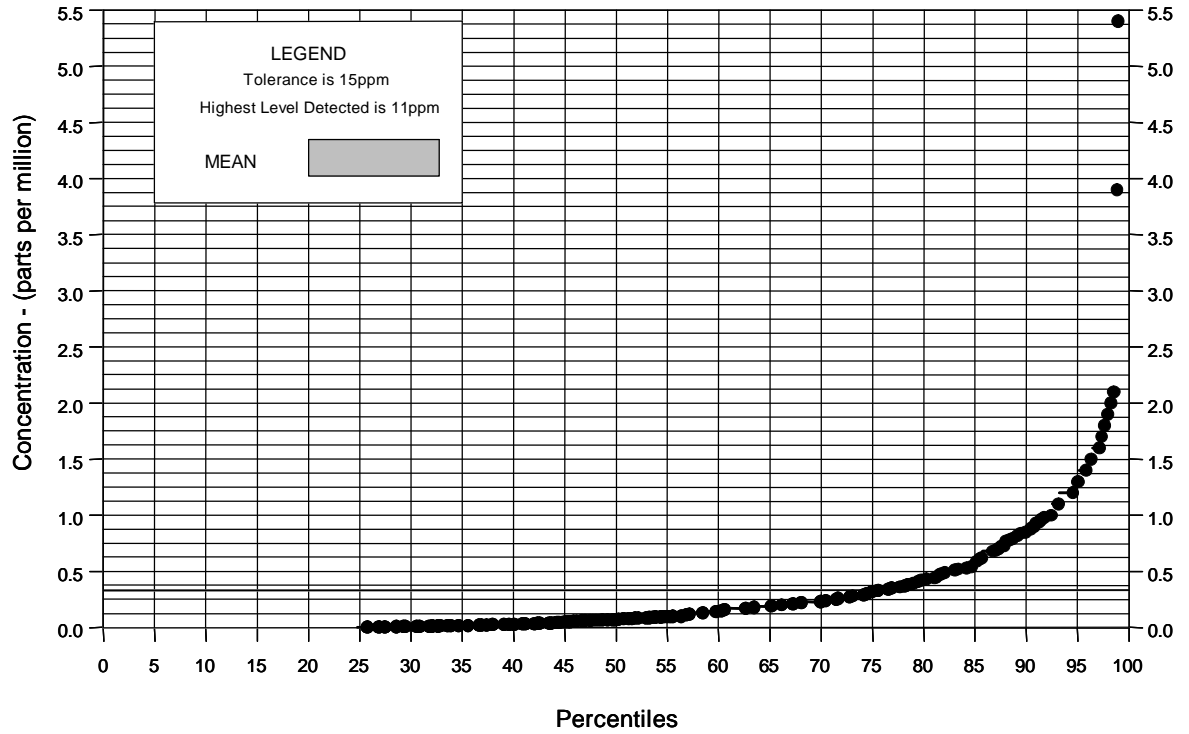
DCPA / Broccoli



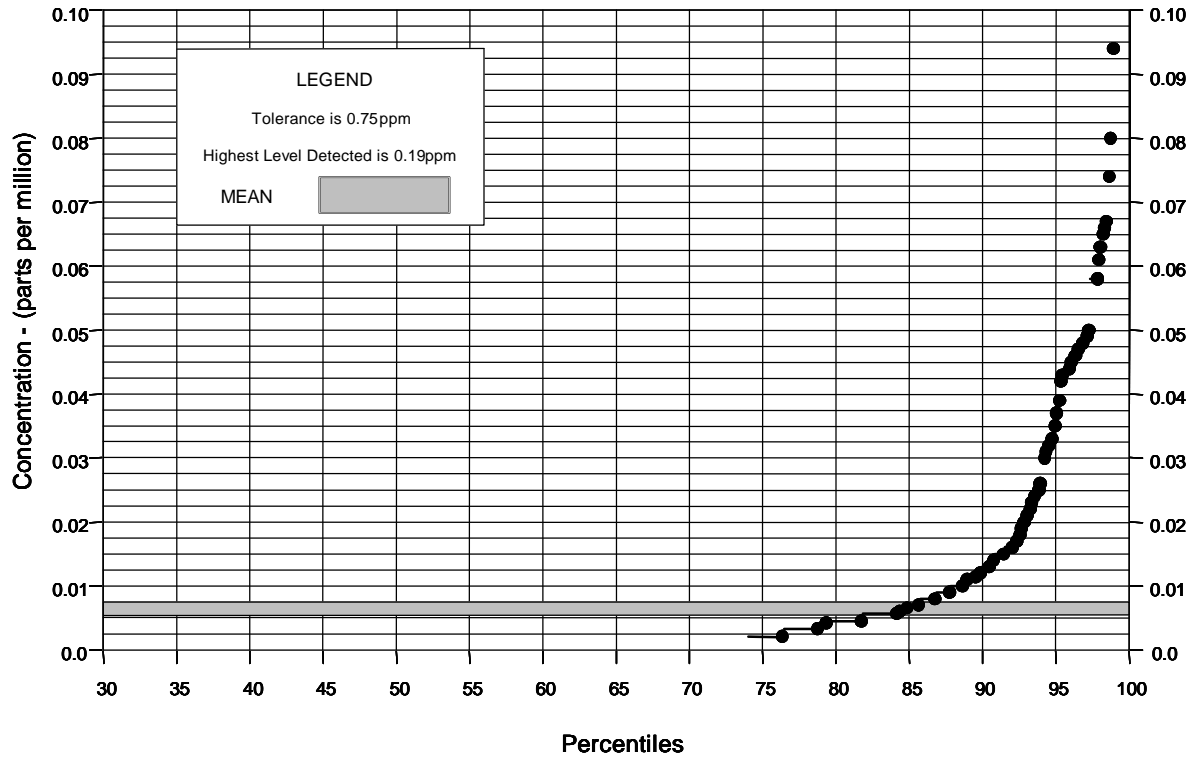
DDE p,p' / Carrots



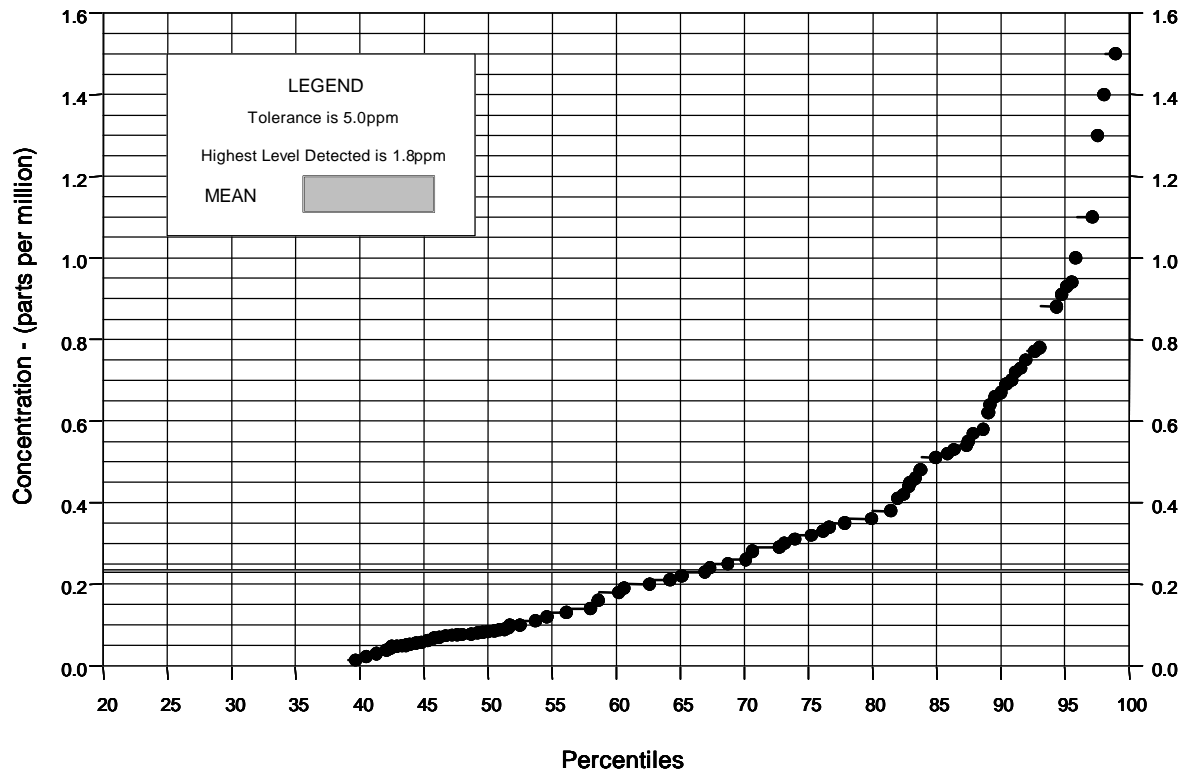
Chlorothalonil/ Celery



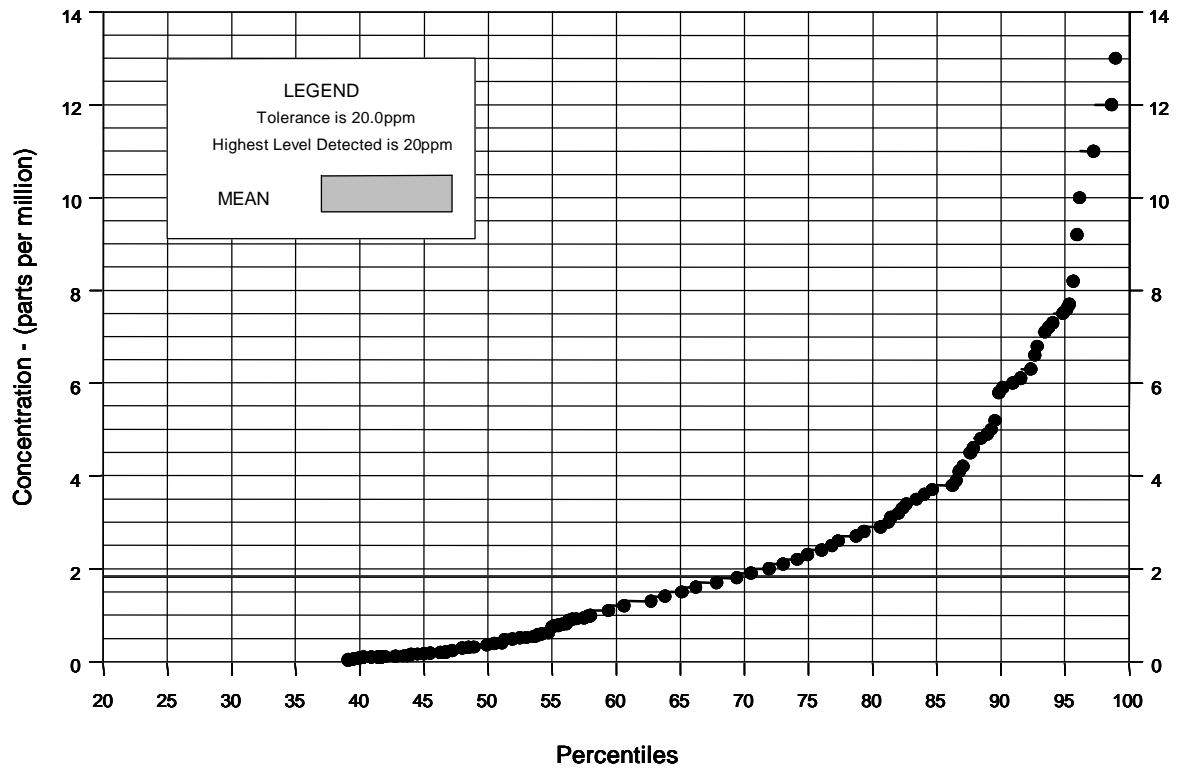
Diazinon / Mushrooms



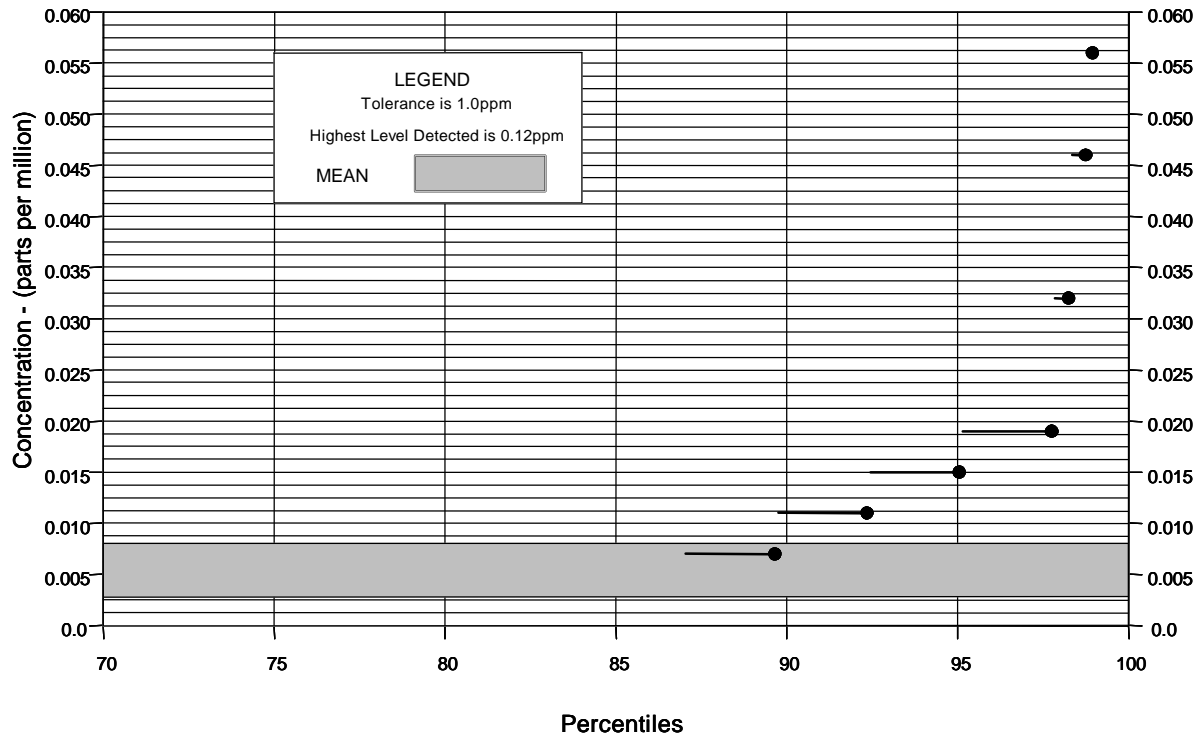
Fludioxonil / Peaches



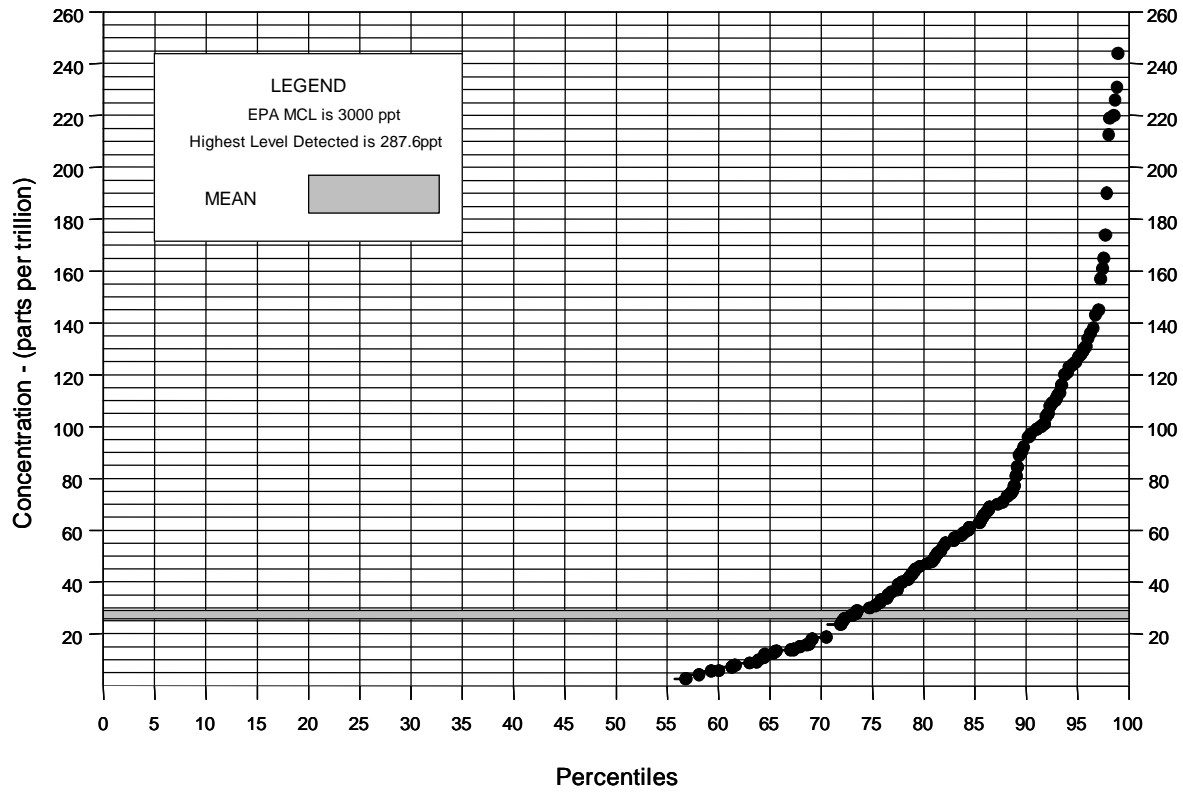
Permethrin Total / Spinach



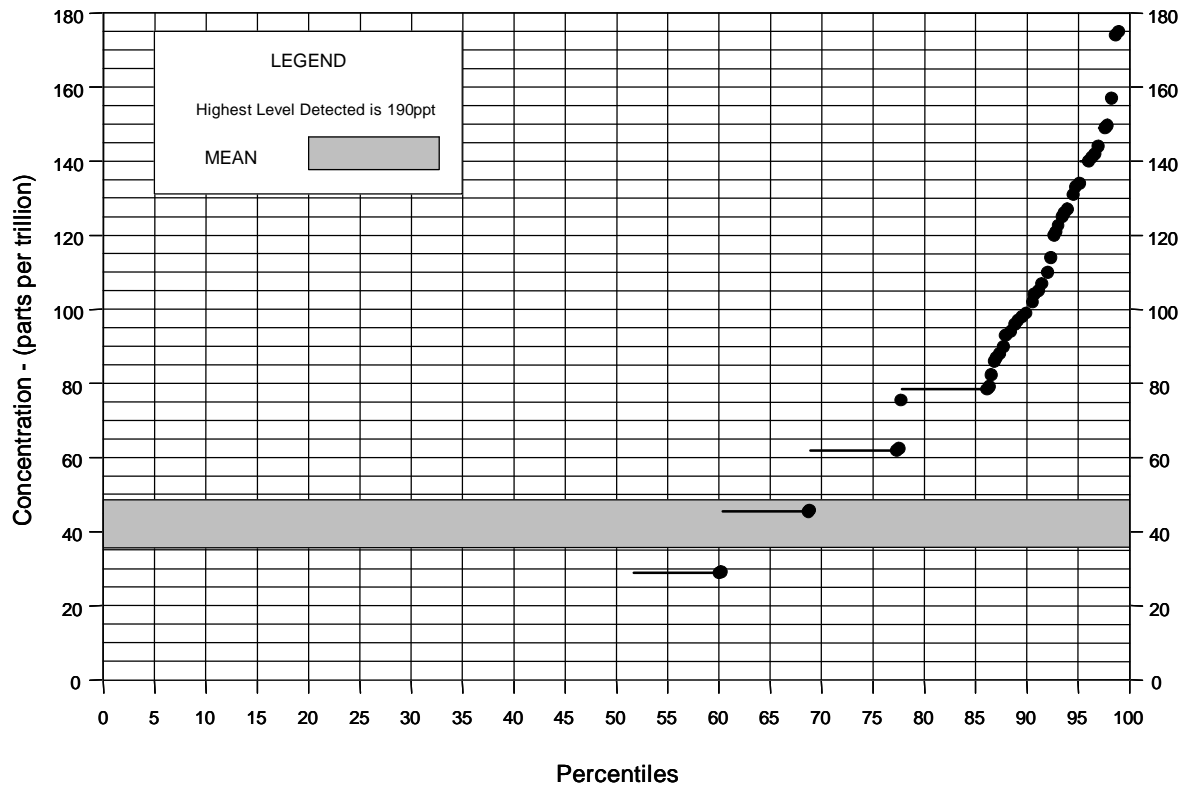
Tebufenozide / Sweet Bell Peppers



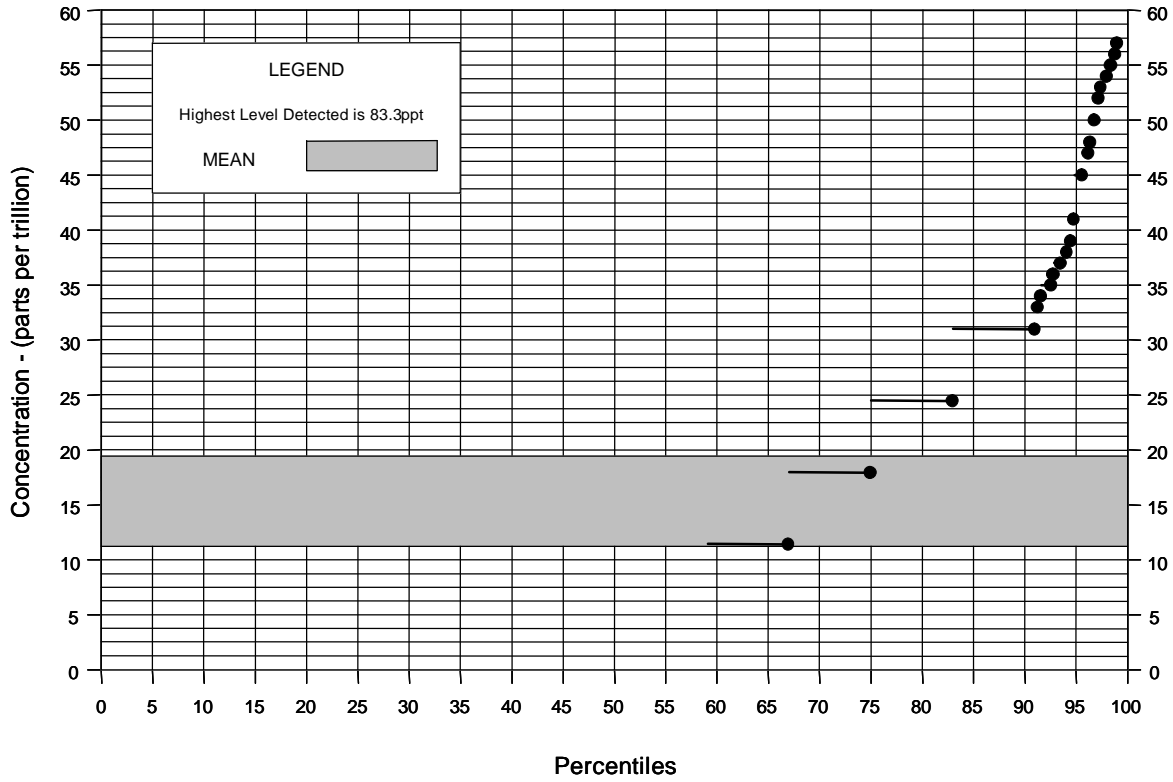
Atrazine / Drinking Water



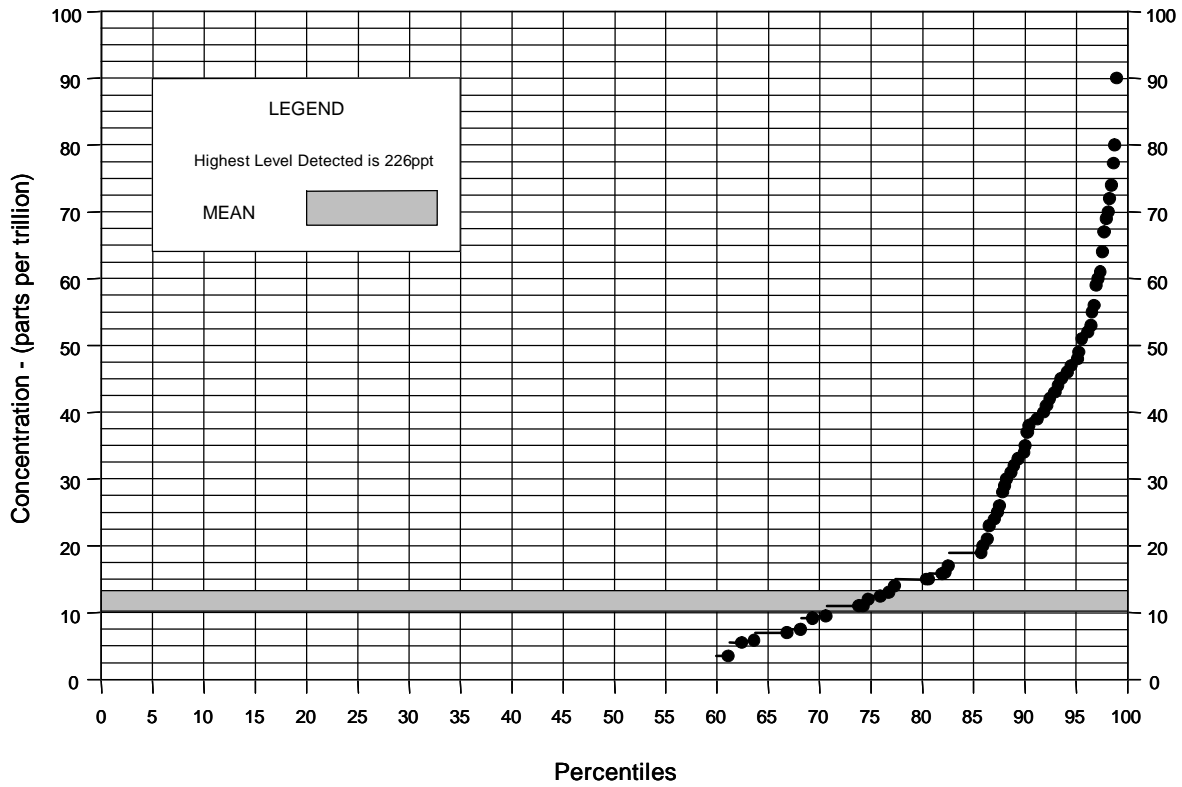
Desethyl Atrazine / Drinking Water



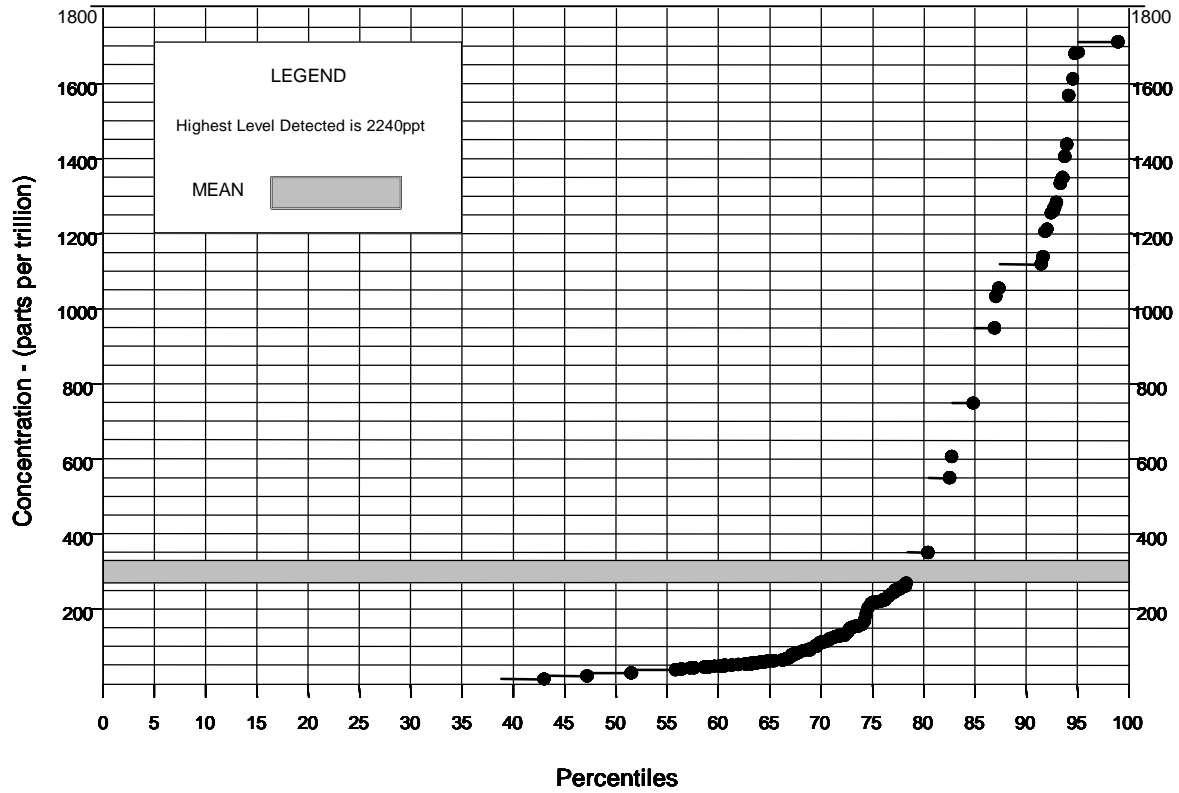
Desisopropyl Atrazine / Drinking Water



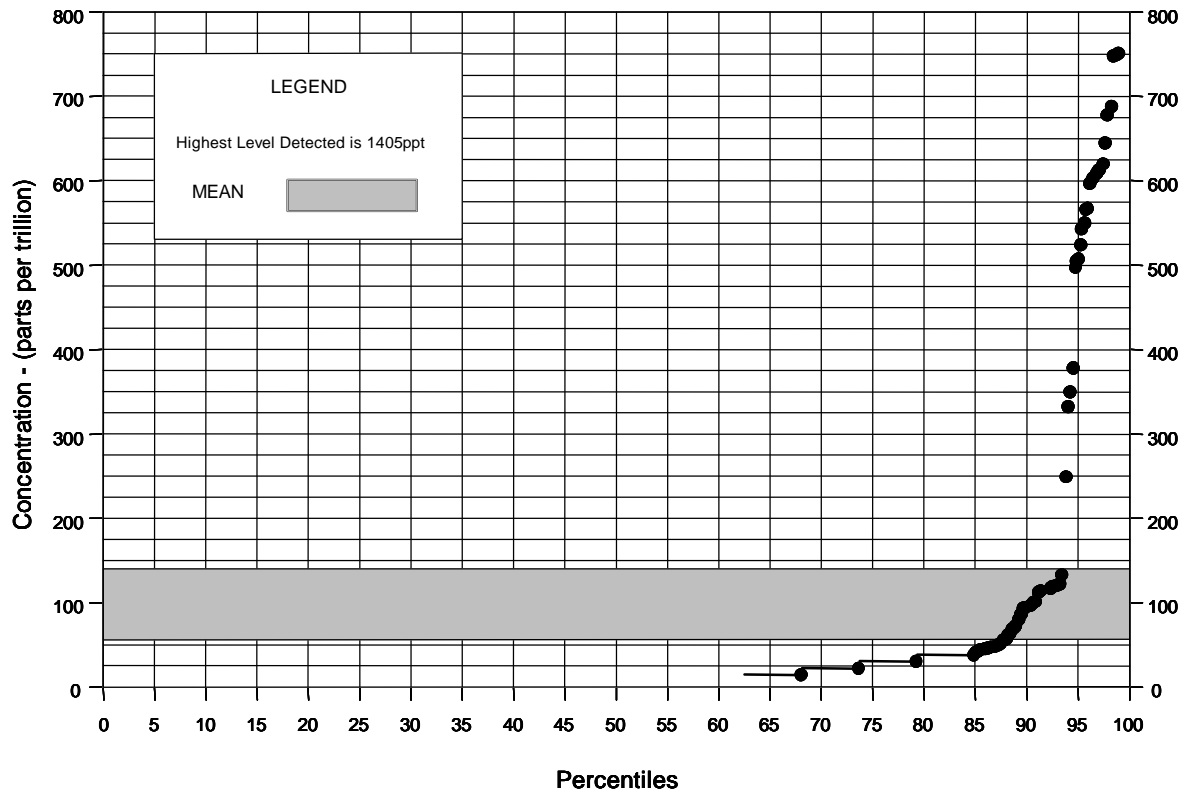
Metolachlor / Drinking Water



Metolachlor Ethanesulfonic Acid (ESA) / Drinking Water



Metolachlor Oxanilic Acid (OA) / Drinking Water



Appendix L

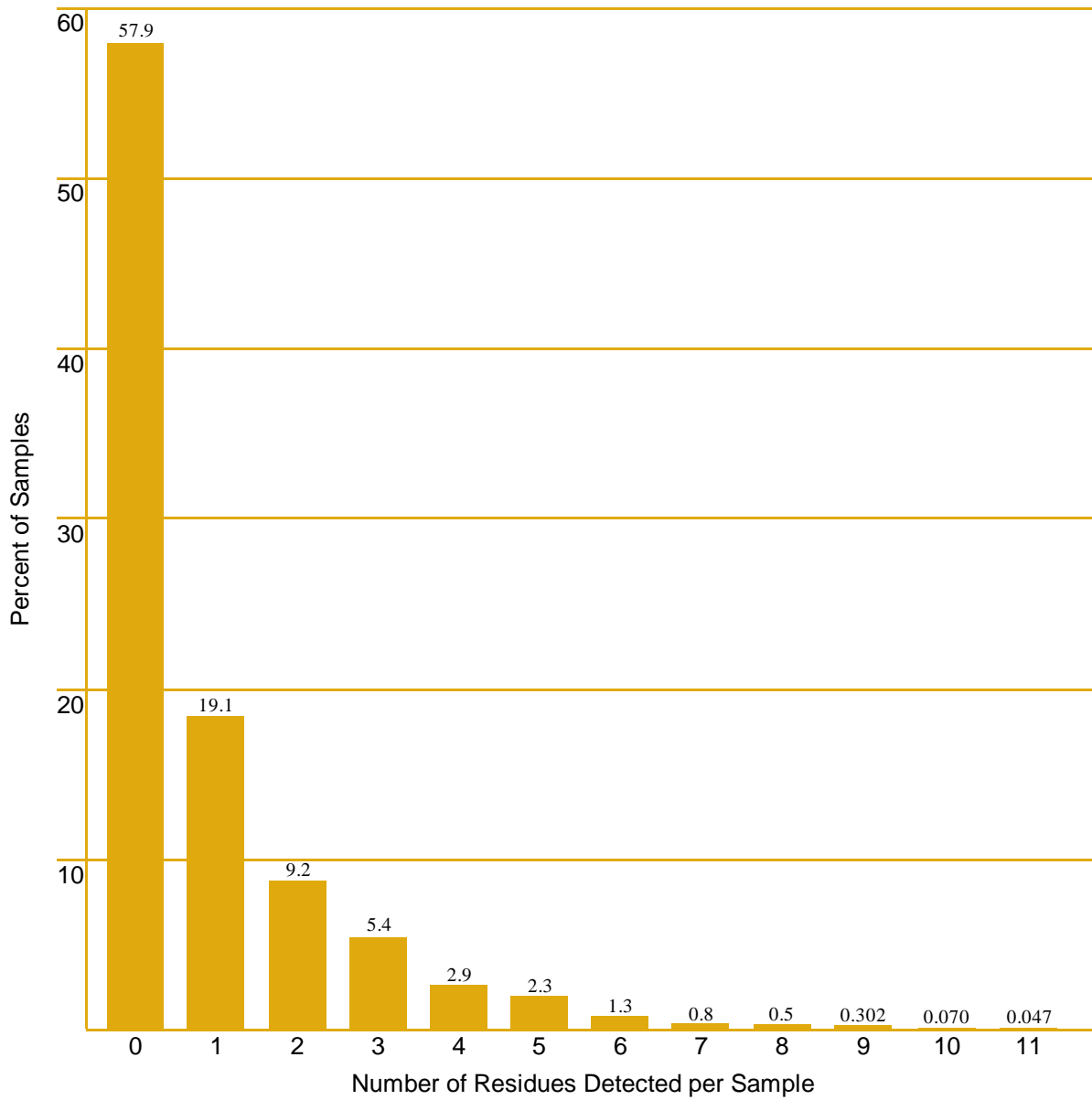
Number of Residues Detected per Sample

Appendix L shows the percentage of samples versus the number of residues detected per sample. Page 1 shows the overall number of samples and percentages (of total number of samples analyzed) for each detection group across all commodities. Page 2 shows the number of residues detected by individual commodity. For the 12,899 samples tested, 57.9 percent of the samples had no detectable residues, 19.1 percent had 1 residue, and 23 percent of the samples had more than 1 residue.

This appendix reports the number of distinct residues. A parent compound and its metabolites are reported as separate detections. For example, a single application of the pesticide endosulfan may result in residues of the parent compound endosulfan I and metabolites endosulfan II and endosulfan sulfate. Thus, three residue detections could result from use of a single pesticide.

In most cases, results shown in this appendix are for residues detected in samples analyzed by PDP as composites of 3-5 pounds, depending on the commodity. Therefore, the number of residues reported does not necessarily reflect the number of residues per individual sample or per single serving of a commodity.

APPENDIX L. SAMPLES vs. NUMBER OF RESIDUES DETECTED PER SAMPLE



	Number of Residues Detected per Sample											
	0	1	2	3	4	5	6	7	8	9	10	11
Number of Samples	7474	2468	1192	695	379	303	173	102	59	39	9	6
Percent of Total Samples	57.9	19.1	9.2	5.4	2.9	2.3	1.3	0.8	0.5	0.302	0.070	0.047

TOTAL NUMBER OF SAMPLE = 12,899

Commodity (# of samples)	Number of Residues Detected per Sample											
	0	1	2	3	4	5	6	7	8	9	10	11
Fresh Fruit and Vegetables:												
	Percent											
Apples (556)	8.6	11.2	39.2	29.3	10.1	1.3	0.2	0.2	--	--	--	--
Asparagus (708)	89.8	9.2	0.8	0.1	--	--	--	--	--	--	--	--
Bananas (727)	61.5	37.0	1.5	--	--	--	--	--	--	--	--	--
Broccoli (737)	69.6	25.8	3.3	1.1	0.3	--	--	--	--	--	--	--
Carrots (554)	14.8	31.4	28.7	15.0	6.3	2.5	0.9	0.2	0.2	--	--	--
Celery (737)	5.8	11.5	15.2	19.7	15.3	17.4	9.5	3.8	1.1	0.5	--	0.1
Cucumbers (183)	31.1	20.8	19.7	14.2	9.3	2.7	2.2	--	--	--	--	--
Mushrooms (728)	38.3	38.6	17.7	4.7	0.4	0.3	--	--	--	--	--	--
Onion (741)	99.9	0.1	--	--	--	--	--	--	--	--	--	--
Peaches (563)	2.0	5.5	13.5	19.4	16.3	18.8	11.4	8.3	3.2	1.6	--	--
Pineapples (360)	89.2	10.0	0.8	--	--	--	--	--	--	--	--	--
Potatoes (370)	10.0	71.1	14.1	4.1	0.8	--	--	--	--	--	--	--
Spinach (363)	26.4	37.5	25.3	8.3	1.9	0.3	0.3	--	--	--	--	--
Sweet Bell Peppers (186)	25.3	17.2	25.3	14.5	9.1	3.8	1.6	0.5	1.6	1.1	--	--
Processed Fruit and Vegetables:												
Apple Juice (729)	60.4	33.7	5.6	0.3	--	--	--	--	--	--	--	--
Apple Sauce (358)	51.7	23.2	21.8	3.4	--	--	--	--	--	--	--	--
Sweet Corn (727)	96.0	4.0	--	--	--	--	--	--	--	--	--	--
Sweet Peas (729)	90.5	6.4	3.0	--	--	--	--	--	--	--	--	--
Number of Samples	5340	2068	1106	655	345	270	148	78	30	15	0	1
Percent of Total Samples	53.1	20.6	11.0	6.5	3.4	2.7	1.5	0.8	0.3	0.149	0	0.010
TOTAL NUMBER OF FRUIT & VEGETABLE SAMPLES = 10,056												
Processed Grain Product:												
Barley (725)	85.2	13.4	1.2	--	--	--	0.1	--	--	--	--	--
Rice (495)	81.8	17.4	0.6	0.2	--	--	--	--	--	--	--	--
Number of Samples	1023	183	12	1	--	--	1	--	--	--	--	--
Percent of Total Samples	83.9	15.0	1.0	0.1	--	--	0.1	--	--	--	--	--
Beef Product:												
Beef Adipose (301)	53.4	35.9	7.0	3.0	0.7	--	--	--	--	--	--	--
Beef Liver (313)	100	--	--	--	--	--	--	--	--	--	--	--
Beef Muscle (310)	100	--	--	--	--	--	--	--	--	--	--	--
Number of Samples	784	108	21	9	2	--	--	--	--	--	--	--
Percent of Total Samples	84.8	11.7	2.3	1.0	0.2	--	--	--	--	--	--	--
Water:												
Water, Drinking (699)	46.8	15.6	7.6	4.3	4.6	4.7	3.4	3.4	4.1	3.4	1.3	0.7
Number of Samples	327	109	53	30	32	33	24	24	29	24	9	5

Appendix M

Fruit and Vegetable Samples Reported to FDA as Exceeding the Tolerance or Without Established Tolerance (per Code of Federal Regulations, Title 40, Part 180)

Appendix M 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 2002, a total of 360 samples with 387 residues were reported to the FDA as Presumptive Tolerance Violations.

A total of 33 fruit and vegetable samples were found to have residues at levels exceeding the established tolerance. Samples containing a residue exceeding an established tolerance included 1 apple sample, 9 asparagus samples, 2 banana samples, 1 celery sample, 1 cucumber sample, 15 peach samples, and 4 spinach samples.

In addition, 333 fruit and vegetable samples were found to have residues for which no tolerance was established.

- ? 314 samples contained 1 residue for which no tolerance was established.
- ? 17 samples contained 2 residues for which no tolerance was established.
- ? 2 samples contained 3 residues for which no tolerance was established.

Six of the 333 samples also contained one residue each that exceeded an established tolerance.

Appendix M 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 M. 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
1 Apples / Methamidophos	0.005	0.09	0.02
2 Asparagus / Carbaryl	0.01	15	10
3 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.46	0.01
4 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.14	0.01
5 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.14	0.01
6 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.095	0.01
7 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.093	0.01
8 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.025	0.01
9 Asparagus / Cyhalothrin, Lambda Total (Cyhalothrin-L + R157836 epimer) ¹	0.015	0.025	0.01
10 Asparagus / Metribuzin	0.03	0.4	0.1
11 Bananas / Imazalil	0.044	0.23	0.20
12 Bananas / Imazalil	0.03	0.21	0.20
13 Celery / Dicloran	0.008	18	15
14 Cucumbers / Chlorpyrifos	0.004	0.07	0.05
15 Peaches / Chlorpyrifos	0.001	0.079	0.05
16 Peaches / Chlorpyrifos	0.001	0.078	0.05
17 Peaches / Chlorpyrifos	0.001	0.071	0.05
18 Peaches / Chlorpyrifos	0.001	0.056	0.05
19 Peaches / Iprodione	0.008	33	20
20 Peaches / Iprodione	0.008	32	20
21 Peaches / Methamidophos	0.001	0.49	0.02
22 Peaches / Methamidophos	0.001	0.16	0.02
23 Peaches / Methamidophos	0.001	0.12	0.02
24 Peaches / Methamidophos	0.001	0.062	0.02
25 Peaches / Methamidophos	0.001	0.061	0.02
26 Peaches / Methamidophos	0.001	0.056	0.02
27 Peaches / Methamidophos	0.001	0.052	0.02
28 Peaches / Methamidophos	0.001	0.04	0.02
29 Peaches / Methamidophos	0.001	0.031	0.02
30 Spinach / Esfenvalerate+Fenvalerate Total	0.042	0.37	0.10
31 Spinach / Lambda cyhalothrin Total	0.016	0.14	0.01
32 Spinach / Lambda cyhalothrin Total	0.016	0.12	0.01
33 Spinach / Myclobutanil	0.008	0.043	0.03

Distribution of Residues with No Tolerance Listed in 40 CFR, Part 180, by Commodity/Pesticide
(Includes Samples of Unknown Origin)

Commodity / Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
1 Apples						
Propargite	556	2	0.4	0.033 - 0.12	0.02 - 0.025	NT
2 Asparagus						
Chlorpropham	623	1	0.2	0.049 ^	0.01 - 0.011	NT
Cypermethrin	536	3	0.6	0.038 - 1.1	0.023 - 0.035	NT
DCPA	623	1	0.2	0.004 ^	0.002 - 0.006	NT
Endosulfan I	623	1	0.2	0.025 ^	0.002 - 0.005	NT
Endosulfan II	623	1	0.2	0.01 ^	0.004 - 0.006	NT
Endosulfan sulfate	623	1	0.2	0.039 ^	0.004 - 0.007	NT
o-Phenylphenol ²	708	2	0.3	0.017 - 0.033	0.01 - 0.015	NT
Prometryn	123	1	0.8	0.017 ^	0.01 ^	NT
Quintozene (PCNB)	623	1	0.2	0.002 ^	0.002 - 0.003	NT
Thiabendazole	124	1	0.8	0.058 ^	0.03 - 0.035	NT
3 Bananas						
o-Phenylphenol ²	638	6	0.9	0.017 ^	0.01 - 0.025	NT
Propargite	638	2	0.3	0.033 ^	0.02 - 0.025	NT
4 Beef						
Hexachlorobenzene (HCB)	301	1	0.3	7.4 ^ (ppb)	1 ^ (ppb)	NT
5 Broccoli						
o-Phenylphenol ²	215	3	1.4	0.017 ^	0.01 ^	NT
6 Carrots						
Cyromazine	1	1	100	0.11 ^	0.066 ^	NT
DCPA	536	1	0.2	0.001 ^	0.001 - 0.006	NT
Dicofol o,p'	392	1	0.3	0.005 ^	0.003 - 0.01	NT
Dicofol p,p'	428	1	0.2	0.014 ^	0.003 - 0.01	NT
Hexachlorobenzene (HCB)	144	1	0.7	0.003 ^	0.002 ^	NT
Metolachlor	536	2	0.4	0.002 ^	0.001 - 0.01	NT
Parathion methyl	428	1	0.2	0.005 ^	0.001 - 0.008	NT
Phosmet	536	2	0.4	0.002 ^	0.001 - 0.008	NT
7 Celery						
DCPA	647	3	0.5	0.01 - 0.012	0.006 - 0.007	NT
Disulfoton sulfone	188	1	0.5	0.007 ^	0.004 ^	NT
Iprodione	144	1	0.7	0.035 ^	0.021 ^	NT
Malathion oxygen analog	737	1	0.1	0.005 ^	0.002 - 0.003	NT
o-Phenylphenol ²	144	13	9	0.017 - 0.036	0.01 ^	NT
8 Cucumbers						
Dimethoate	147	4	2.7	0.003 - 0.1	0.002 ^	NT
Omethoate ³	129	3	2.3	0.007 - 0.018	0.004 ^	NT
Quintozene (PCNB)	129	1	0.8	0.005 ^	0.003 ^	NT
9 Mushrooms						
Chlordane cis	516	1	0.2	0.001 ^	0.001 ^	NT
Chlorpropham	642	1	0.2	0.041 ^	0.006 - 0.01	NT
Imazalil	642	1	0.2	0.05 ^	0.01 - 0.03	NT
Iprodione	642	2	0.3	0.014 ^	0.008 - 0.021	NT
o-Phenylphenol ²	728	132	18.1	0.005 - 0.56	0.003 - 0.01	NT

Commodity / Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
10 Onions						
o-Phenylphenol ²	1	1	100	0.017 ^	0.01 ^	NT
11 Peaches						
Bifenthrin	563	5	0.9	0.013 - 0.12	0.003 ^	NT
Chlorpropham	2	2	100	0.01 ^	0.006 ^	NT
DCPA	563	1	0.2	0.001 ^	0.001 ^	NT
Desmedipham	545	1	0.2	0.045 ^	0.026 - 0.088	NT
Dichlorvos (DDVP)	552	2	0.4	0.041 - 0.057	0.002 - 0.003	NT
Dimethoate	563	8	1.4	0.002 - 0.006	0.001 - 0.002	NT
Diphenylamine (DPA)	563	32	5.7	0.005 - 0.12	0.003 ^	NT
Imazalil	563	2	0.4	0.016 ^	0.01 ^	NT
Pirimicarb	563	3	0.5	0.016 ^	0.01 ^	NT
Propargite	563	16	2.8	0.041 - 0.61	0.024 ^	NT
Thiabendazole	563	13	2.3	0.026 - 0.028	0.016 - 0.017	NT
12 Potatoes						
o-Phenylphenol ²	370	8	2.2	0.013 - 0.04	0.008 - 0.01	NT
13 Spinach						
Bifenthrin	2	2	100	0.027 - 0.64	0.016 ^	NT
Chlorothalonil	363	1	0.3	0.17 ^	0.007 ^	NT
DCPA	363	1	0.3	0.012 ^	0.007 ^	NT
Pentachlorobenzene (PCB)	363	1	0.3	0.003 ^	0.002 ^	NT
14 Sweet Bell Peppers						
Demeton-S sulfone	186	2	1.1	0.025 ^	0.015 ^	NT
Dichlorvos (DDVP)	186	2	1.1	0.005 ^	0.003 ^	NT
Diflubenzuron	186	5	2.7	0.011 - 0.13	0.006 ^	NT
Diphenylamine (DPA)	186	1	0.5	0.005 ^	0.003 ^	NT
Fenthion	186	1	0.5	0.004 ^	0.002 ^	NT
Phenthoate	186	1	0.5	0.01 ^	0.006 ^	NT
15 Sweet Corn, Canned/Frozen						
o-Phenylphenol ²	727	27	3.7	0.013 - 0.14	0.008 - 0.01	NT
16 Sweet Peas, Canned/Frozen						
o-Phenylphenol ²	643	15	2.3	0.017 - 0.19	0.01 - 0.015	NT

^ The same concentration was reported for all detections or LODs.

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

- 1 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).
- 2 o-Phenylphenol is a disinfectant approved for use in food handling establishments, including production facilities for commodities identified above.
- 3 Three detections within the same samples as Dimethoate.

PESTICIDE DATA PROGRAM

Annual Summary Calendar Year 2002

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