



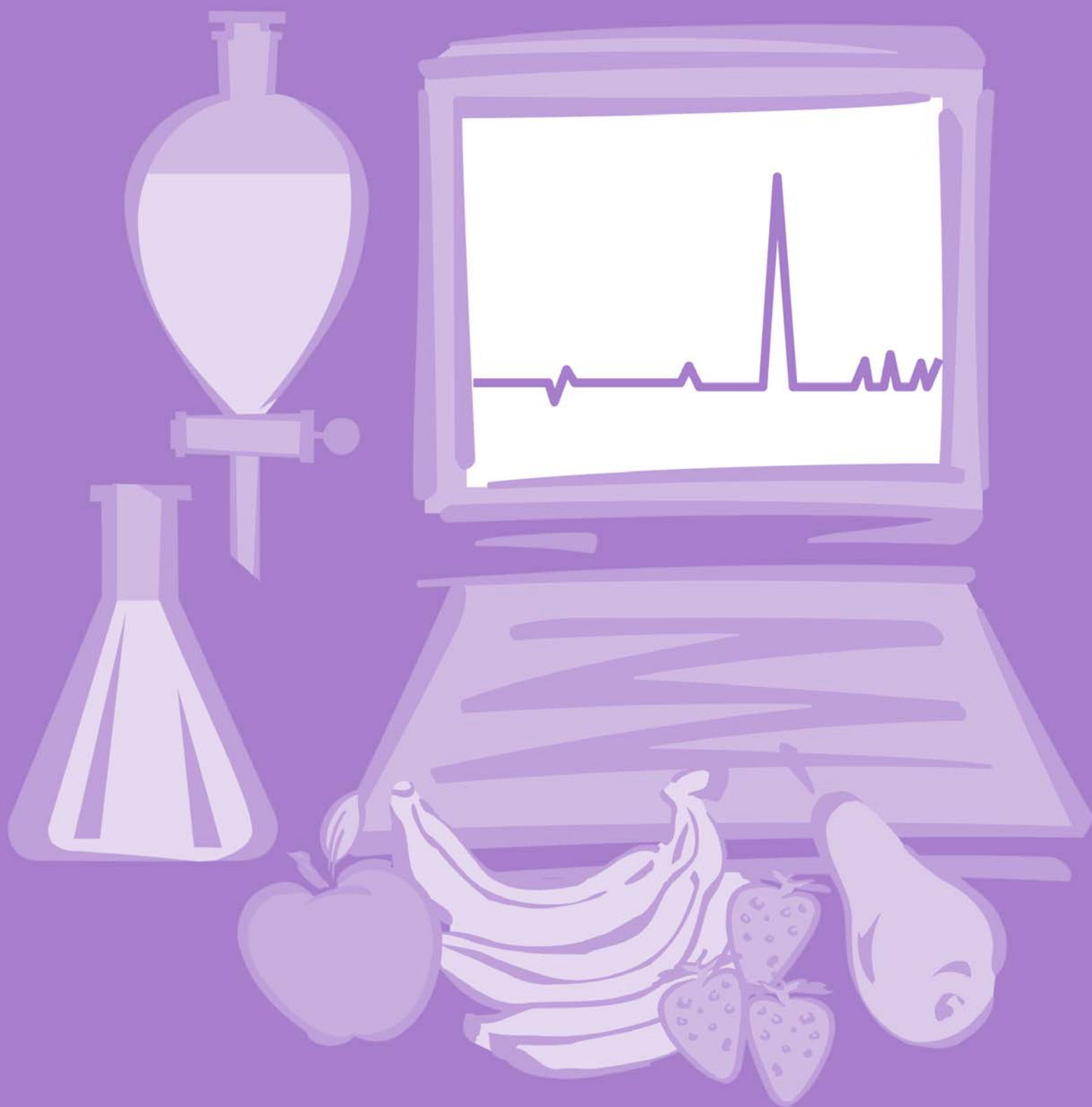
United States
Department of
Agriculture

Agricultural
Marketing
Service

Science and Technology
Programs

Pesticide Data Program

Annual Summary Calendar Year 2001





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 eleventh Annual Summary, which includes data for calendar year 2001. 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 fruits and vegetables, grains, milk, beef, and poultry. In 2001, PDP introduced testing of finished drinking water.

PDP data are essential to 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 2001: 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
An Equal Opportunity Provider and Employer

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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
DE-42/43	Dextrose Equivalent Corn Syrup 42/43
EMRL	Extraneous Maximum Residue Limit
EPA	Environmental Protection Agency
ERS	Economic Research Service
FAS	Foreign Agricultural Service
FDA	Food and Drug Administration
FQPA	Food Quality Protection Act
FSIS	Food Safety and Inspection Service
GIPSA	Grain Inspection, Packers & Stockyards Administration
GLPs	Good Laboratory Practices
HA	Health Advisory
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
NAS	National Academy of Sciences
NASS	National Agricultural Statistics Service
NMRAL	National Monitoring and Residue Laboratory
NPDWR	National Primary Drinking Water Regulation
OPMP	Office of Pest Management Policy
PDP	Pesticide Data Program
QA/QC	Quality Assurance/Quality Control
QAO	Quality Assurance Officer
QAU	Quality Assurance Unit
SOP	Standard Operating Procedure
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 is 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 Government's ability to respond to food safety and marketing issues. PDP provides EPA with data needed for pesticide dietary risk assessments. EPA data needs have increased following 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 step-wise tiered approach. As a first step, EPA may use a "conservative" worst-case scenario and assume that a pesticide is applied to the fullest extent permitted by the pesticide label – 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 are critical to increased productivity and improved analytical methods. PDP thanks NASS for providing statistical support; the Food Safety and Inspection Service (FSIS) for providing sample collection services for beef and poultry; the AMS National Science Laboratory (formerly known as the AMS Eastern Laboratory), the Grain Inspection, Packers and Stockyards Administration (GIPSA) Laboratory, and the National Monitoring and Residue Laboratory of the USDA Animal and Plant Health Inspection Service (APHIS) for providing testing services to the program. The United States Geological Survey (USGS) provided valuable support in the initiation of PDP testing of drinking water. 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 Pesticide Data Program (PDP) was initiated by USDA in May 1991 to collect data on pesticide residues in foods. This publication summarizes PDP results for 2001. 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, the USDA Economic Research Service and Foreign Agricultural Service, as well as groups within the private sector. 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 also are used by the Government and agricultural community to examine pesticide residue issues which may affect agricultural practices and U.S. trade. PDP data have been helpful in identifying crops where alternative pest management practices are needed. PDP data are also useful in promoting export of U.S. commodities in a competitive global market and addressing food safety issues.

Program operations are 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 (formerly known as the AMS Eastern Laboratory), the Grain Inspection, Packers and Stockyards Administration (GIPSA) Laboratory, and, through December 2001, the National Monitoring and Residue Laboratory of the USDA Animal and Plant Health Inspection Service (APHIS). The USDA Food Safety and Inspection Service (FSIS) provided sample collection services for beef and poultry. The United States Geological Survey (USGS) worked with PDP in developing the water program and collected samples early in 2001. Later in the year, the participating water utilities provided the drinking water samples. The AMS Monitoring Programs Office is responsible for administrative, sampling, technical, and 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. 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 what is typically available to the consumer throughout the year. Samples are selected without regard for commodity origin. 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.

The PDP pilot program to test finished drinking water was initiated in New York and California—two highly populated regions with divergent climates and hydrogeological conditions. PDP data on pesticide residues in drinking water will be valuable for exposure assessments which, because of limited data, have generally used assumptions or models to predict residue levels.

In 2001, in addition to drinking water, PDP tested fresh and processed fruits and vegetables, rice, and beef and poultry tissues for various insecticides, herbicides, fungicides, and growth regulators. Of the 12,264 samples collected and analyzed, 9,903 were fruit and vegetable commodities including canned sweet peas, canned sweet corn, and tomato paste, as well as fresh apples, bananas, broccoli, carrots, celery, cherries, grapes, green beans, lettuce, mushrooms, nectarines, oranges, peaches, pineapples, and potatoes. PDP also tested 689 rice samples, 911 beef samples, 464 poultry samples, and 297 drinking water samples.

Approximately 82 percent of all samples were domestic and 17 percent were imported (less than 1 percent was of unknown origin). Bananas, grapes, green beans, peaches, and pineapples accounted for most of the imported commodities. All cherries and nectarines were domestic.

Approximately 64 percent of the fruit and vegetable samples (domestic and imported), 49 percent of drinking water samples, and 19 percent of the beef tissue samples had detectable residues. Residues detected in beef samples resulted almost entirely from low level detections of persistent chemicals that have been canceled for agricultural use for many years. There were no detectable residues in the poultry samples.

Overall, approximately 44 percent of all samples contained no detectable residues, 24 percent contained 1 residue, and 32 percent contained more than 1 residue. Fewer residues were detected in processed products and rice than in fresh commodities. No detectable residues were found in any of the canned sweet pea samples. Residues were detected in only two samples of canned sweet corn. Seventy percent of tomato paste samples and 69 percent of rice samples had no detectable residues. Low levels of environmental contaminants were detected in broccoli, carrots, lettuce, potatoes, and beef adipose. 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 or Health Advisory 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 2001, PDP testing found residues exceeding an established tolerance in 0.1 percent of the 12,264 samples. Residues with no established tolerance were found in 1.8 percent of all samples. These residues were detected at very low concentrations and are likely due to spray drift or crop rotations or could result from use of registered disinfectants and sanitizers used in food handling establishments. PDP reports these findings to FDA as they are reported by testing laboratories.

PDP laboratories maintain an ongoing verification of limits of detection (LODs) for each compound screened. These data are used by EPA to calculate possible exposure contributed by samples reported as “non-detects,” or not containing a residue above a stated LOD.

PDP continuously strives to improve methods for the collection, testing, and reporting of data. PDP data are available to EPA and other Federal and State agencies charged with regulating and setting policies on the use of pesticides.

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 2001

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 2001 is the 11th annual summary of the USDA Pesticide Data Program. This publication and the PDP database file for 2001 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 upon 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. The USDA Economic Research Service analyzes data from the USDA 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 the USDA 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 program, oversees the planning and policy development for PDP.

Figure 1 illustrates the three major PDP components: sample collection, laboratory analysis, and database management. In 2001, all samples except poultry, 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. Poultry and beef samples

were collected through the USDA Food Safety and Inspection Service (FSIS). The water program was initiated in 2001 with the assistance of the United States Geological Survey (USGS). USGS collected the initial water samples. Later in the year, sampling was conducted by the drinking water treatment facility participants. Laboratory services were provided by seven States (California, Florida, Michigan, New York, Ohio, Texas, and Washington) and three Federal laboratories: the AMS National Science Laboratory (formerly known as the AMS Eastern Laboratory), the Grain Inspection, Packers, and Stockyards Administration (GIPSA) Laboratory, and, until September 2001, the National Monitoring and Residue Analysis Laboratory of the USDA Animal and Plant Health Inspection Service (APHIS). 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. Figure 2 also shows the 12 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, 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.

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 2001. Figure 4 identifies the States with major beef processing plants where samples were collected by FSIS. These sites represent approximately 97 percent of the production of beef. Poultry sampling, which was initiated in April 2000,

Figure 1. Overview of PDP Management and Operations

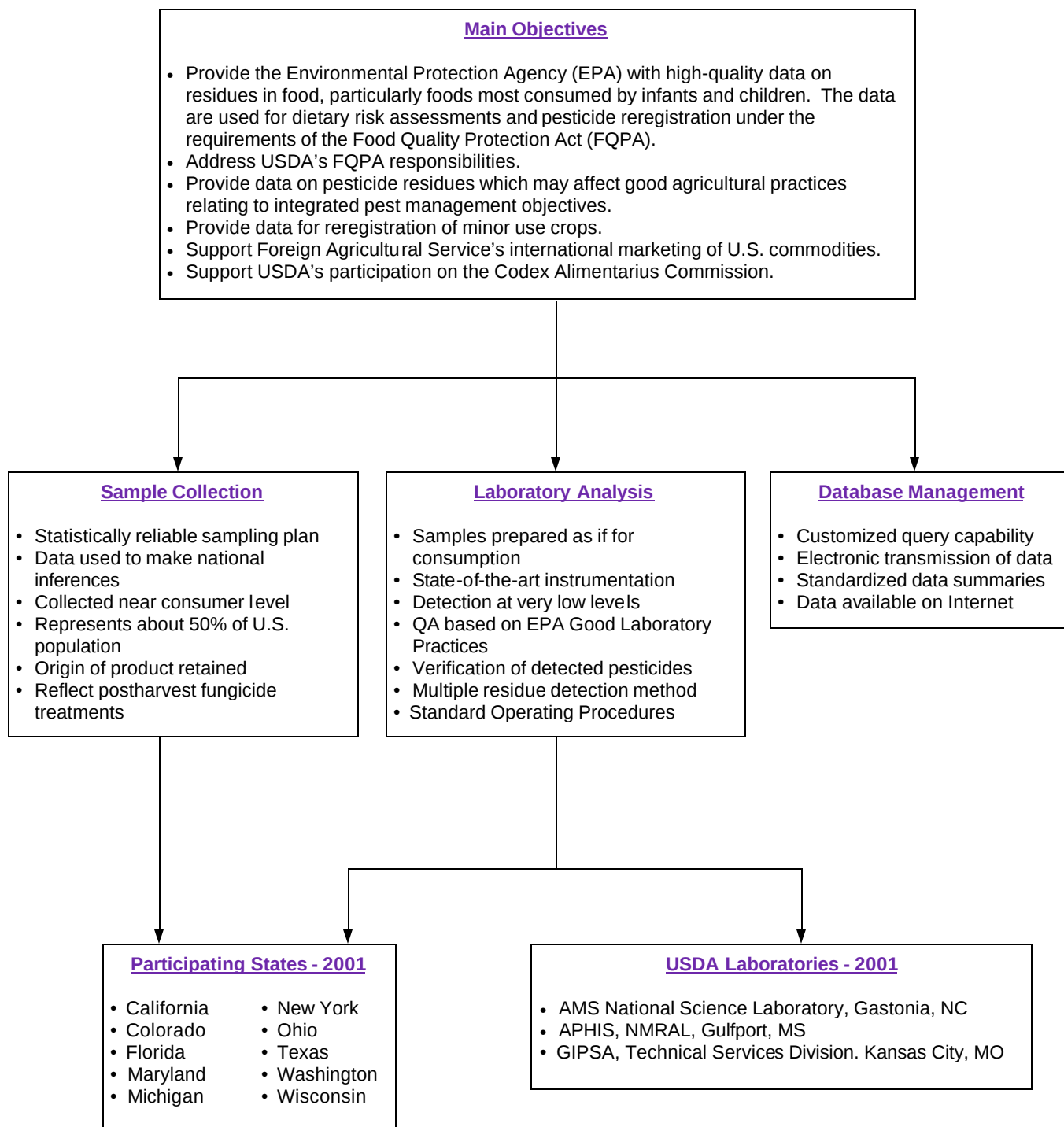
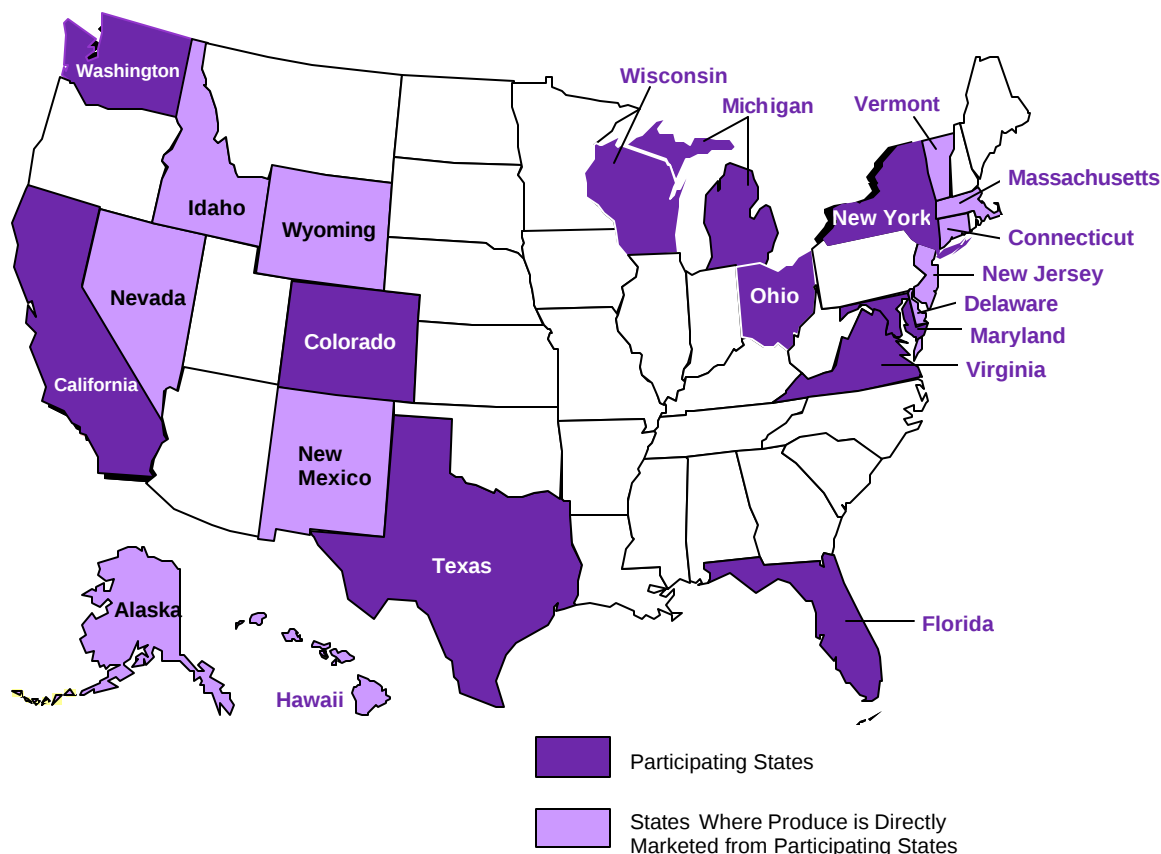


Figure 2. Participating States and Their Geographical Distribution Areas



concluded in March 2001. Poultry samples were taken from 110 sites in 21 States that represent 96 percent of the production of young chickens.

AMS works closely with EPA to select the commodities and the pesticides included in PDP testing. Commodities selected are those most often consumed by the American public, with emphasis on those consumed by infants and children. During 2001, the 21 food commodities sampled and analyzed by PDP were apples, bananas, beef, broccoli, carrots, celery, cherries, grapes, green beans, lettuce, mushrooms, nectarines, oranges, peaches, pineapples, potatoes, poultry, rice, canned sweet corn, canned sweet peas, and canned tomato paste. PDP also tested finished drinking water for the first time. 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 2001, 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 extraneous residues in foods (i.e., environmental contaminants such as DDT and its metabolites), 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 2001, over 600 sampling sites granted access and provided information to sample collectors. This cooperation is important to PDP and makes it possible to adjust sampling protocols in response to fluctuations in food distribution and production.

Because PDP's main objective is to collect data 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 commodities in PDP from the beginning of the program in 1991 through 2002.

II. Sampling Operations

• Background

The goal of the PDP sampling program is to obtain a statistically reliable representation of the United States food supply so that 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 where the commodity was produced or the importing country. A comparison of PDP sample origin data to State production data and to 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. For seasonal commodities, such as cherries, the number of samples collected will increase or decrease with market availability.

Beef and poultry samples are collected at Federally-inspected slaughter facilities by Federal personnel. The sampling plans for both beef and poultry were developed to reflect National consumption.

PDP drinking water samples were collected in two highly populated regions at sites with different climates and hydrogeological conditions. PDP testing provides valuable information about these two regions. However, because of the regional characteristics of all drinking water, PDP sampling does not represent National drinking water consumption.

In 2001, commodities were collected according to the following schedule: apples, bananas, broccoli, carrots, celery, grapes, green beans, oranges, pineapples, potatoes, and rice were collected throughout the year; cherries were collected from May 21 through August 16; lettuce, nectarines, and peaches from January through September; barley, mushrooms, canned sweet corn, and canned sweet peas from October through December; canned tomato paste samples from January through June; poultry samples from January through March; and beef samples from June through December.

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 uses Sample Information Forms to document information required for chain-of-custody of PDP samples and for information that will be included in the PDP database files. 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 country of origin, product variety, production claims such as “organic,” any post harvest chemical applications, etc.

Most PDP laboratories concentrate on testing a few commodities rather than analyzing all of the PDP commodities in their collection region. In most cases, all samples of a commodity collected for PDP throughout the nation are sent to a single laboratory. This arrangement results in larger sample sets, increased laboratory productivity and efficiency, and reduced quality control costs.

• Fresh and Processed Fruit and Vegetables

Fruit and vegetables, including fresh and processed products, comprised about 81 percent of all samples collected. In 2001, the fresh commodities collected for PDP were apples, bananas, broccoli, carrots, celery, cherries, grapes, green beans, lettuce, mushrooms, nectarines, oranges, peaches, pineapples, and potatoes. The processed commodities collected were canned sweet corn, canned sweet peas, and canned tomato paste. All fresh fruit and vegetable samples weigh from three to five pounds. The weight of samples of canned commodities can vary but usually range from one to three pounds.

Samples were collected at either terminal markets or large chain store distribution centers. Participating State agencies compile and maintain lists of sampling sites. For each site, 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 their statistical

procedures for site weighting and selection. States are also given the option of having NASS perform their quarterly site selection for them. 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 States 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 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. In addition to routine collection targets, an adjusted sample collection frame-work (weighted sampling scheme) is used to compensate for the seasonality of selected commodities. Under this weighted scheme, cherry samples were collected to reflect market availability.

A total of 9,903 fresh and processed fruit and vegetable samples were collected and analyzed during 2001. Table 1 shows the number of samples collected per State. Figure 3 shows the total number of samples per commodity and the percentage of each that were either domestic, imported, or of unknown origin. Appendix B provides a more detailed breakdown of sample origin by State or country. Fruit and vegetable samples originated from 40 States and 17 foreign countries.

• Barley and Rice

In 2001, PDP collected 689 samples of milled rice and 166 samples of regular milled, pearl, pot, or scotch barley. Samples were collected from

routine PDP sampling sites, which include major distribution centers and terminal markets. One-pound samples of barley and rice were collected. Analysis was performed by the Grain Inspection, Packers, and Stockyards Administration (GIPSA) Laboratory in Kansas City, MO. Results for rice are shown in Appendix F. Barley sampling began in October 2001 but analysis was not initiated until January 2002. Testing results will be included in the PDP summary report for 2002.

• Beef and Poultry

In 2001, PDP initiated a testing program for beef and continued the poultry testing program. Beef and poultry samples are collected by USDA FSIS personnel in Federally-inspected slaughter facilities throughout the United States. Samples are shipped to the AMS National Science Laboratory in Gastonia, NC, for analysis. Each sample consisted of adipose, liver, and muscle tissues. A minimum weight of one pound per tissue is required.

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

FSIS collected samples from 110 Federally-inspected poultry slaughter facilities in 21 States and 62 beef slaughter facilities in 20 States. For poultry, 155 adipose tissue, 155 liver tissue, and 154 muscle tissue samples were collected and analyzed. Beef testing included steer, heifer, and cow carcasses; 291 adipose tissue, 311 liver tissue, and 309 muscle tissue samples. Figure 4 shows the beef sample collection scheme.

• Drinking Water

The PDP water sampling pilot program was initiated at community water systems in New York and California. These sites were selected to reflect two highly populated regions with divergent climates and hydrogeological

Table 1. Samples Collected and Analyzed per Commodity by Each Participating State

Fresh Fruit and Vegetables																Total Fresh
State	AP	BN	BR	CE	CH	CR	GB	GR	LT	MU	NE	OG	PC	PN	PO	
California	162	142	161	166	57	167	159	142	123	41	80	166	117	166	162	2,011
Colorado	24	24	24	24	11	24	24	24	18	6	12	24	18	24	24	305
Florida	84	84	84	84	35	82	81	84	63	21	43	85	67	84	84	1,065
Maryland	48	47	47	47	22	48	43	48	36	12	22	48	30	47	48	593
Michigan	72	72	68	72	26	72	69	72	54	18	36	72	52	71	72	898
New York	108	99	100	108	49	107	107	99	81	27	54	108	87	108	104	1,346
Ohio	71	72	72	72	18	72	67	72	54	18	33	73	36	70	72	872
Texas	95	91	94	95	38	95	91	95	72	23	46	97	70	91	96	1,189
Washington	48	48	47	48	20	48	44	46	36	12	24	48	33	47	48	597
Wisconsin	24	23	23	20	10	24	22	23	17	6	12	24	19	22	23	292
	736	702	720	736	286	739	707	705	554	184	362	745	529	730	733	9,168

Processed Fruit and Vegetables					Grain Product	
State	CS	PS	TP	Total Processed	Total F&V	RI
California	42	42	83	167	2,178	151
Colorado	6	6	12	24	329	22
Florida	21	21	42	84	1,149	77
Maryland	12	12	24	48	641	43
Michigan	17	18	36	71	969	68
New York	27	27	53	107	1,453	107
Ohio	17	17	35	69	941	68
Texas	22	24	48	94	1,283	96
Washington	12	12	24	48	645	39
Wisconsin	5	6	12	23	315	18
	181	185	369	735	9,903	689

Commodities

AP = Apples

BN = Bananas

BR = Broccoli

CE = Celery

CH = Cherries

CR = Carrots

CS = Sweet Corn (Canned)

GB = Green Beans

GR = Grapes

LT = Lettuce

MU = Mushrooms

NE = Nectarines

OG = Oranges

PC = Peaches

PN = Pineapples

PO = Potatoes

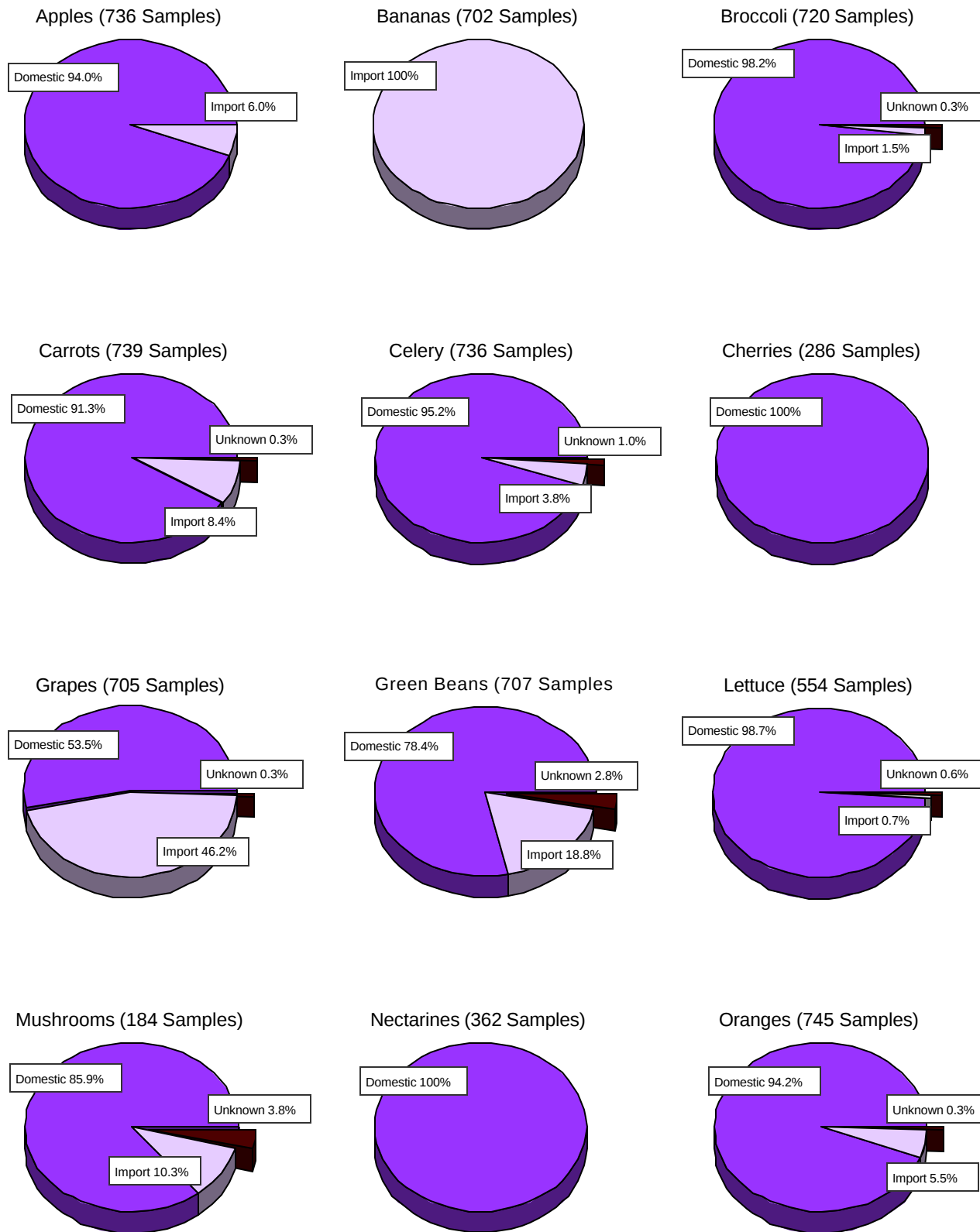
PS = Sweet Peas (Canned)

RI = Rice

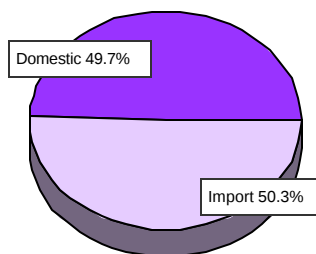
TP = Tomato Paste (Canned)

Figure 3. Commodity Origin

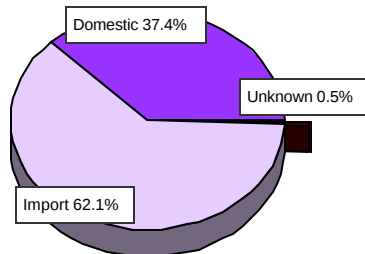
A. Fresh Commodities



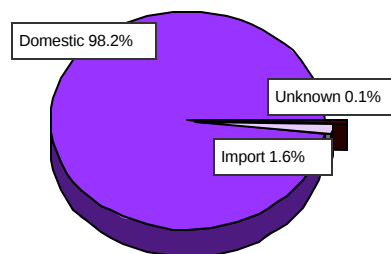
Peaches (529 Samples)



Pineapples (730 Samples)

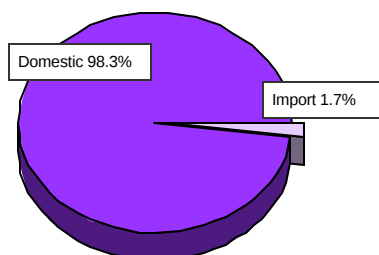


Potatoes (733 Samples)

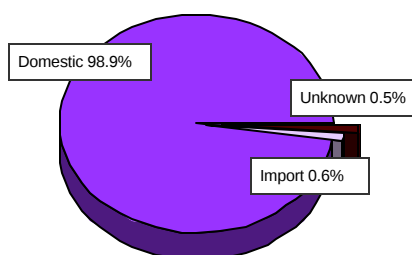


B. Processed Commodities

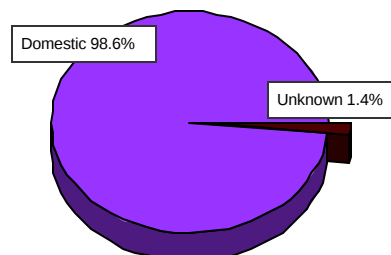
Sweet Corn (181 Samples)



Sweet Peas (185 Samples)



Tomato Paste (369 Samples)



conditions. Sites reflected the diversity of land uses within California and New York and included major metropolitan areas, agricultural regions, and highly protected watersheds. Source waters for water systems participating in PDP finished drinking water sampling were primarily surface waters. Samples were collected approximately twice a month at 10 sites in California and 11 sites in New York throughout the year. Samples were analyzed at PDP laboratories.

III. Laboratory Operations

• Overview

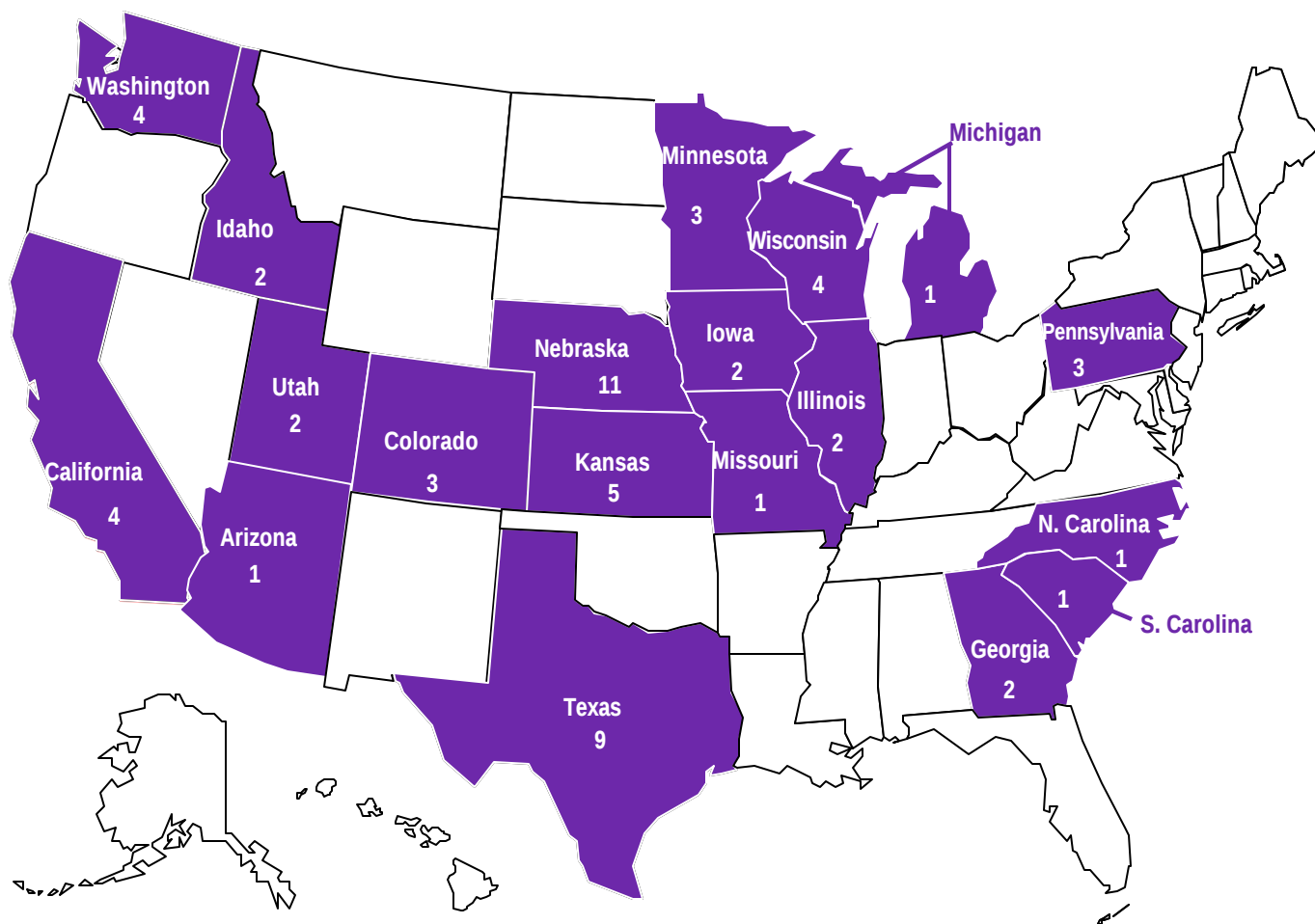
Ten laboratories (seven State and three Federal) performed analyses for PDP during 2001. These laboratories are equipped with instrumentation capable of detecting residues at very low levels. The laboratory staff receive intensive training and must demonstrate analytical proficiency on an ongoing basis. Program scientists continuously test new technologies and develop new techniques to improve the levels of detection. Major changes in methodology are evaluated and their soundness

demonstrated and documented in accordance with PDP SOPs.

• Fresh and Processed Fruit and Vegetables

PDP participating laboratories analyzing fruit and vegetables monitored 152 pesticides plus 50 metabolites, degradates, and isomers using multiresidue methods (MRMs) and 1 pesticide by single or selective residue methods (SRMs). On 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) bananas and oranges are peeled; (3) broccoli and celery are washed with inedible portions of stem/stalk removed; (4) carrots are washed with stem cap portions removed; (5) cherries, nectarines, and peaches are washed, stems and leaves removed, and pitted; (6) green beans are washed with stems and leaves removed; (7) grapes, lettuce, mushrooms, and

Figure 4. Beef Sample Collection



Samples collected in 20 states at 62 processing plants.

potatoes are washed with inedibles removed; and (8) pineapples are washed with tops, cores, and shells removed. For processed fruit and vegetables, canned and frozen products are homogenized with their entire contents, including any liquid present. Tomato paste is diluted at the time of extraction.

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 can 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 PAM I) and Luke II (FDA's Laboratory Information Bulletin 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 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. An SRM was used to determine formetanate and was independently validated by the laboratory performing the analysis.

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.

• Rice

The USDA Kansas City, MO, GIPSA laboratory monitored rice samples for 33 pesticides plus 8 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

detection or post-column derivatization, high-performance liquid chromatography detection systems.

• Poultry and Beef

The USDA AMS National Science Laboratory in Gastonia, NC, monitored poultry adipose, liver, and muscle tissues for 69 pesticides plus 28 metabolites, degradates, and isomers and beef adipose, liver, and muscle tissues for 74 pesticides plus 31 metabolites, degradates, and isomers. On 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 homogenization. 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 mass spectrometry detection, selective detectors, or post-column derivatization, high-performance liquid chromatography detection systems.

• Drinking Water

The California and New York laboratories analyzed drinking water for approximately 120 pesticides plus 50 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. On 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 one-liter bottle was extracted for compounds amenable to gas chromatography (GC) analysis and one for compounds amenable to liquid chromatography (LC) analysis. The remaining bottle was held in reserve or extracted for specialty compounds

requiring separate extraction/analytical procedures (e.g., ethane sulfonic acid (ESA) and oxanilic acid (OA) analogues of alachlor, acetochlor, and metolachlor). Extraction methods used were based on methods developed by the U. S. Geological Survey and were independently validated by each testing laboratory. Samples were analyzed using mass spectrometry detection (single and tandem GC and LC technologies), selective detectors, or post-column derivatization, high-performance liquid chromatography 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 PDP's QA program is provided through SOPs based on EPA's 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 monitor the participants' performance through proficiency evaluation 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 which serves as a central repository for its residue monitoring data. The central database resides at PDP, 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 collected and analyzed along with QA/QC recoveries for each group or set of samples. Each calendar year survey is stored in a separate database structure, allowing for easier administration and reporting of data. The PDP data life-cycle is depicted in Figure 5.

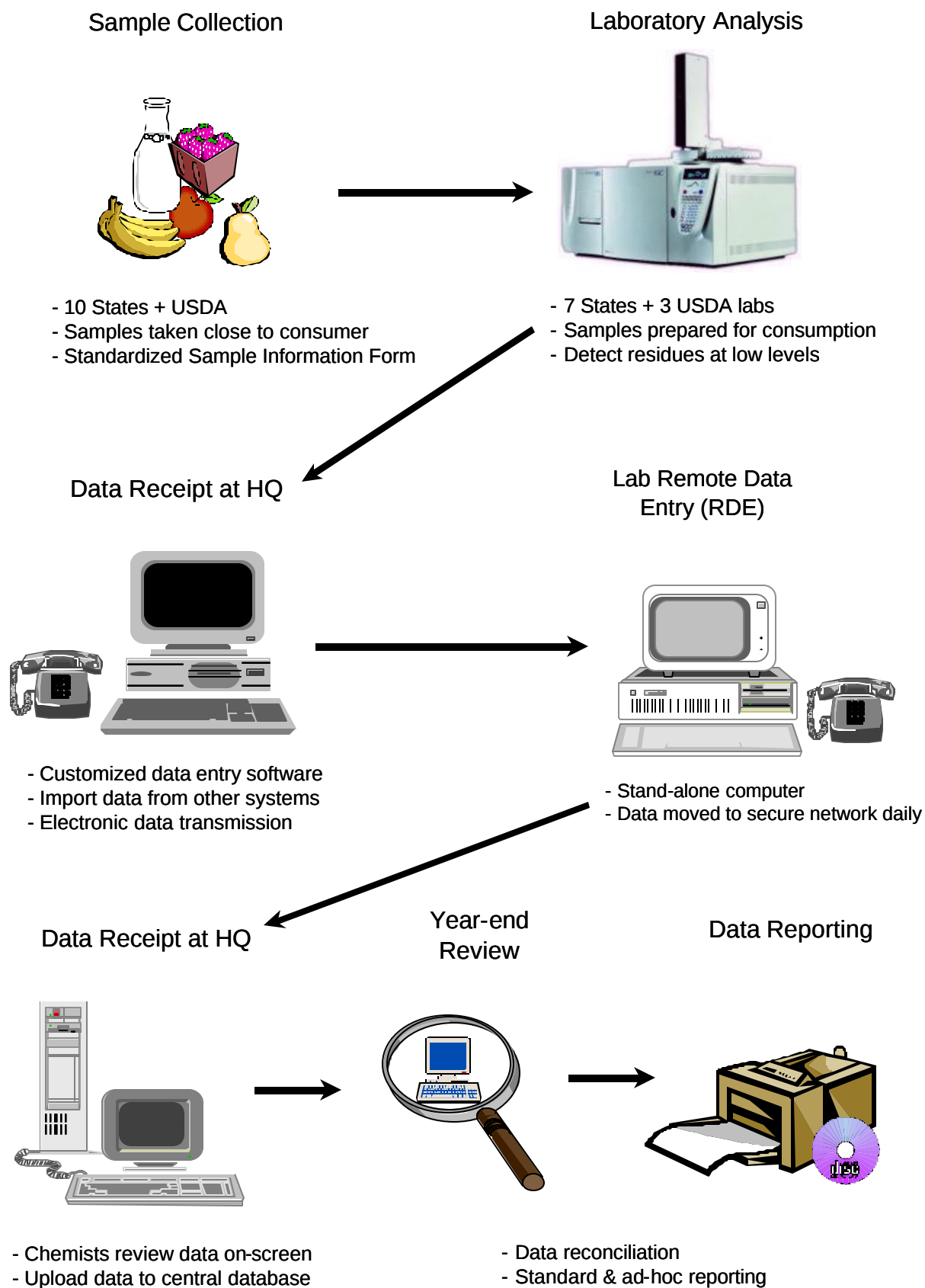
• Electronic Data Life-Cycle

In 1994, PDP implemented the Remote Data Entry (RDE) system, which is a customized software application. RDE provides interactive data entry screens to participating State and Federal laboratories. The residue monitoring data are then electronically transmitted to PDP headquarters via modem and standard telephone lines. Before the implementation of RDE, all data collected from PDP laboratories arrived in paper format, requiring an exhausting data entry process by PDP headquarters staff.

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.

Several methods of control are employed by the RDE system to protect the security and integrity of the data. At the laboratory, the system includes a check to ensure that a set of data (for 1 commodity for 1 month) has been reviewed and approved for release by a responsible reviewing officer. This greatly reduces the chance of receiving incomplete or invalid data. After one or more data sets are selected for electronic transfer to PDP headquarters, the

Figure 5. PDP Data Life Cycle



data for those sets are written to separate files and those files are encrypted (scrambled) as a security measure. Also prior to electronic transfer, a digital signature file is created to accompany each of the data files. The digital signature file captures a “picture” of the data along with a private key code unique to the participating laboratory. After the digital data files are received at PDP headquarters and are moved to a secure network drive, the files are decrypted (unscrambled). The validation of the digital signature attached to the data files ensures that the sender is an authorized participating laboratory and that the data files have not been altered or corrupted, intentionally or otherwise.

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. A reengineered, web-based RDE system is expected to become operational in January 2003. The new RDE system will be a centralized system, with all user interface software and database files residing in Washington, DC. The laboratory users will require only a web browser to run the new RDE system. At the same time, the central PDP database will be migrated from Microsoft Access to the SQL Server 2000 environment. Access to the central PDP database is limited to PDP staff personnel only and is controlled through password protection and user access rights. System back-ups are 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 2001, PDP conducted surveys on various foods including fresh and processed fruits and vegetables, rice, beef and poultry tissues, and drinking water. Of the 12,264 samples collected and analyzed, 9,903 were fruit and vegetable commodities, 689 were enriched milled rice, 464 were poultry samples, 911 were beef tissues, and 297 were drinking water.

Approximately 64 percent of the fruit and vegetable samples had detectable pesticide residues. Pesticide residues also were detected in 31 percent of the rice samples, 19 percent of the beef tissues, and 49 percent of the drinking water samples. Approximately 82 percent of all samples were domestic and 17 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 residue findings for fruit and vegetables. 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, poultry, beef, and drinking water respectively. Table 2 gives an

overview of the number of residue detections per commodity class.

The PDP data, as well as other monitoring data, are used to refine estimates of dietary exposure to 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. Non-detects can be used in conjunction with percent crop treated data to determine what proportion of these values may be zeroes. Overall, 44 percent of the samples were reported as below the LOD (non-detects) and for samples with residues, most detections were below established tolerances.

• National Estimates

PDP data on food commodities can be used to compute nearly unbiased estimates of pesticide residues in PDP commodities at the national level. The PDP sampling frame incorporates population figures in participating States, representing approximately 50 percent of the Nation's population. Because there are no significant differences in residue detections across these States, it can be inferred that there are no significant differences across all States.

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, cherries, grapes, green beans, lettuce, mushrooms, nectarines, oranges, peaches, and potatoes were weighted to reflect marketing data. No weighting adjustments were made for rice and tomato paste because market data were not available.

Appendix K displays the estimated distributions of twelve representative pesticide/commodity pairs. These graphs visually demonstrate that the overwhelming majority of pesticide testing results and the respective means (average values) are at bw 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 azinphos methyl/apples, DDE p,p'/beef adipose, acephate/celery, methamidophos/celery, trifluralin/carrots, tebuconazole/cherries, acephate/green beans, methamidophos/green beans, captan/grapes, phosmet/nectarines, chlorpropham/potatoes, and atrazine/drinking water. In some cases, there is convergence of the upper and lower bound into a single line, because the use of zero or the LOD for non-detected values becomes insignificant.

• Fresh vs. Processed

The 2001 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 3. Data used for this table are the most recent data collected by PDP for the processed product and the corresponding fresh product. Captan was detected in 31 percent of fresh grapes

Table 2. Number of Samples and Residues Detected by Commodity

	Total Samples Analyzed	Samples with Residues Detected	% of Samples with Detections	Different Residues Detected	Total Residue Detections
<u>Fresh Fruit and Vegetables:</u>					
Apples	736	671	91	24	1,584
Bananas	702	317	45	3	334
Broccoli	720	209	29	22	265
Carrots	739	600	81	35	1,270
Celery	736	693	94	35	2,321
Cherries	286	254	89	37	828
Grapes	705	515	73	22	903
Green Beans	707	440	62	29	1,150
Lettuce	554	272	49	29	562
Mushrooms	184	121	66	12	192
Nectarines	362	351	97	25	1,171
Oranges	745	615	83	14	837
Peaches	529	522	99	38	2,318
Pineapples	730	54	7	6	57
Potatoes	733	601	82	18	795
TOTAL FRESH	9,168	6,235	68		14,587
<u>Processed Fruit and Vegetables:</u>					
Sweet Corn, Canned	181	2	1	1	2
Sweet Peas, Canned	185	0	0	0	0
Tomato Paste, Canned	369	112	30	8	191
TOTAL PROCESSED	735	114	15		193
<u>Fruit and Vegetables:</u>					
Number of Samples Analyzed = 9,903					
Number of Samples with Residues Detected = 6,349					
Percent with Residue Detections = 64.1%					
Total Number of Different Residues Detected = 100					
Total Number of Residue Detections = 14,780					
<u>Processed Grain Product:</u>					
Rice	689	214	31	8	237
<u>Water Project:</u>					
Water, Drinking	297	145	49	17	455
<u>Meat Tissues:</u>					
Beef, Adipose	291	173	59	10	218
Beef, Liver	311	0	0	0	0
Beef, Muscle	309	1	<1	1	1
Poultry, Adipose	155	0	0	0	0
Poultry, Liver	155	0	0	0	0
Poultry, Muscle	154	0	0	0	0
TOTAL MEATS	1375	174	13		219
<u>All Commodities:</u>					
Number of Samples Analyzed = 12,264					
Number of Samples with Residues Detected = 6,882					
Percent with Residue Detections = 56.1%					
Total Number of Different Residues Detected = 116					
Total Number of Residue Detections = 15,691					

Table 3. Selected Residue Comparisons, Fresh vs. Processed

Pesticide	GRAPES -- Fresh (2001)			GRAPE JUICE (1999)		
	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Captan	31.5	0.013	0.90	--	--	--
Carbaryl	5.8	0.017	1.7	40.6	0.003	0.086
Iprodione	19.1	0.020	1.4	0.4	0.052	0.052
Myclobutanil	24.0	0.025	0.24	--	--	--
Omethoate	10.7	0.003	0.13	0.3	0.015	0.015

Pesticide	GREEN BEANS — Fresh (2001)			GREEN BEANS -- Canned/Frozen (1998)		
	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Acephate	26.2	0.003	2.5	47.7	0.003	0.54
Dimethoate	10.9	0.002	0.80	1.4	0.003	0.012
Omethoate	10.7	0.003	0.13	0.8	0.007	0.008
Endosulfan I	16.7	0.008	0.36	--	--	--
Endosulfan II	11.7	0.010	0.34	--	--	--
Endosulfan sulfate	25.5	0.012	0.62	--	--	--
Methamidophos	26.9	0.002	0.49	48.5	0.002	0.21
Vinclozolin	5.4	0.012	0.57	14.2	0.010	0.13

Pesticide	TOMATOES -- Fresh (1999)			TOMATO PASTE -- Canned (2001)		
	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Chlorpyrifos	15.1	0.005	0.094	8.7	0.007	0.007
Endosulfan I	25.5	0.003	0.51	10.3	0.005	0.033
Endosulfan II	35.7	0.005	0.23	20.3	0.005	0.053
Endosulfan sulfate	34.6	0.005	0.13	5.1	0.005	0.005
Methamidophos	20.9	0.002	0.32	0.5	0.012	0.012
Permethrin cis	14.9	0.013	0.075	--	--	--
Permethrin trans	15.7	0.008	0.081	--	--	--

but no residues were detected in any of the grape juice samples. Myclobutanil was reported in fresh grapes at 24 percent, but was not detected in grape juice. In contrast, carbaryl was reported in 41 percent of grape juice samples, a much higher detection rate than the 6 percent detected in fresh grapes. For fresh green beans, endosulfan I, endosulfan II, and endosulfan sulfate were detected at 17, 12, and 26 percent of the samples respectively, whereas no detections were reported in any of the canned or frozen green beans tested. Permethrins were detected in 15 percent of fresh tomatoes, but were not detected in canned tomato paste. Detection rates for endosulfans and methamidophos in fresh tomatoes were also significantly higher than in canned tomato paste.

• 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 uses are fungicides and selected herbicides (plant growth regulators). 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 dicloran (nectarines and peaches), diphenylamine (apples), imazalil (oranges), and thiabendazole (apples, bananas, mushrooms, and oranges). Chlorpropham, a growth regulator (sprout inhibitor) used on potatoes in storage, accounts for the 76 percent detection rate.

• Drinking Water Results

Appendix I gives results of PDP testing of finished drinking water at sites in New York and California; additional site information is presented in the Sampling Operations section of this summary. PDP analyzed 297 samples in 2001 using multiresidue methods to test for more than 150 pesticides and metabolites. PDP detected low residue levels in 145 (49 percent) of the samples; the detects were primarily of

widely used herbicides. 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 testing methods were developed to detect residues in water at parts-per-trillion (ppt) levels and to test for as many pesticides and metabolites as possible, including some that are unlikely to be present in drinking water because of current agricultural or residential use patterns.

Maximum Contaminant Levels (MCLs) or Health Advisory (HA) levels exist for 35 analytes in the PDP drinking water testing profiles (Appendix I). Additional information regarding EPA drinking water standards can be obtained at <http://www.epa.gov/safewater/standard/setting.html>. MCLs are set by EPA as legally enforceable levels under the Safe Drinking Water Act. HAs are unenforceable EPA estimates of acceptable drinking water levels. None of the PDP residue detections exceeded established MCLs or HAs.

In some cases MCLs or HAs are established for pesticides but corresponding MCLs or HAs have not been set for metabolites of these pesticides. For example, the MCL for atrazine is 3,000 ppt and the HA is 200,000 ppt. PDP detected atrazine in 121 samples at levels ranging from 12.5-140 ppt. PDP also tested for two atrazine metabolites and found levels ranging from 16.3-220 ppt in approximately 45 percent of samples. There are no established MCLs or HAs for the metabolites.

• Environmental Contaminants

DDT, DDD, and DDE

A total of 9,900 fruit and vegetable, 689 rice, 155 poultry, 291 beef, and 288 drinking water samples 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, due to the environmental persistence, residues of the DDE p,p' metabolite were detected in 4.4 percent of the 11,323 samples tested. Residues of DDE p,p' were found primarily in carrots (35 percent), lettuce (6 percent), potatoes (6 percent), and beef adipose (50.5 percent) samples. No residues of DDT or its metabolites were detected in any rice, poultry, or drinking water samples. Three broccoli samples had residues of DDE p,p' for which no established tolerance or action level exists. 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. And, in 1986, chlordane uses, except termiticide uses, were canceled. However, residues of dieldrin, heptachlor epoxide (metabolite of heptachlor), and chlordane were detected in broccoli, carrots, and potatoes. Dieldrin was found in 1.2 percent of carrot samples and less than one percent of potato and broccoli samples. (Because dieldrin is a metabolite of aldrin, dieldrin residues can indicate persistence of either dieldrin itself or of aldrin.) Heptachlor epoxide (a metabolite of heptachlor) was detected in less than one percent of carrot samples. Chlordane was also detected in carrots. The cis isomer of chlordane was detected in 1.9 percent and the trans isomer in 2.2 percent of carrot samples (Appendix E). All detections were below the established action levels.

• **Single/Selective Residue Analyses**

FORMETANATE

A total of 1,307 samples (537 apples, 319 nectarines, and 451 oranges) were tested for formetanate. Formetanate residues were detected in 16.9 percent of the nectarines and 0.2 percent of the apples. There were no detections in oranges. All detections were at levels well below the established tolerances.

• **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 which consider cumulative exposure to pesticides determined by EPA to have common mechanisms of toxicity.

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 32 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 – 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 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.

No correlation exists between the incidence of multiple residues and tolerance violations.

• **Import vs. Domestic Residue Comparisons**

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 commodities, such as grapes, peaches, and pineapples, are domestic during warm weather months and imported during winter months. Appendix D shows a comparison of selected residues detected in fresh green beans grown in the United States and Mexico, and residues detected in grapes and peaches grown in the United States and Chile. The data indicate that, for green beans, 73 percent of Mexican product had residues compared to 64 percent of United States samples. Mexican green beans were found to contain residues of acephate and methamidophos at 2 and 7 percent respectively compared to 31 percent for both compounds in the United States product. Conversely, Mexican green beans were found to contain residues of endosulfan I, endosulfan II, and endosulfan sulfate at 32, 14, and 59 percent, respectively, compared with 15, 12, and 19 percent detected in the United States product.

For grapes, 92 percent of Chilean samples had residues, compared to 58 percent of United States samples. The percent of Chilean grapes containing residues of captan, dimethoate, iprodione, and omethoate was higher than those for grapes grown in the United States. The detection rate for myclobutanil was higher for the United States grown product.

For peaches, 98 percent of Chilean product had residues, compared to 95 percent of United States samples. The percent of Chilean peaches containing residues of azinphos methyl, chlorpyrifos, esfenvalerate, fenvalerate, and iprodione was higher than those for peaches grown in the United States. Detection rates for dicloran, fludioxonil, and phosmet were higher for the United States grown product. The detection rate for carbaryl was about the same for the Chilean and United States products.

• 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 allow 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 turn-around time. 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 from sample collection to data reporting.

Residues exceeding the established tolerance are noted with an "X" in Appendices E, F, G, H, and I. 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; 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 0.1 percent of the 12,264 samples tested in 2001 (14 samples with 1 residue each). Residues with no established tolerance were found in 1.7 percent of the samples (192 samples with 1 residue, 18 samples with 2 residues each, and 2 samples with 3 residues each). In most cases, these residues were detected at very low levels and may be due to spray drift or crop rotations. These residue findings are listed in Appendix M.

• Synopsis

In 2001, a total of 9,903 fresh and processed fruit and vegetable samples, 689 rice samples, 911 beef samples, 464 poultry samples, and 297 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, triazines, and conazoles/triazoles. A single residue method was used to detect formetanate residues in apples, nectarines, and oranges.

Approximately 82 percent of all samples tested were domestic, 17 percent were imported, and less than one percent was of unknown origin. Of all samples tested, 0.1 percent were reported as containing residues exceeding the tolerance and 1.7 percent as without tolerances listed in 40 CFR, Part 180.

Overall, 44 percent of all samples had no detectable residues, 24 percent contained one residue, and 32 percent contained more than one residue. Most of the residues were detected in fruit and vegetable commodities. Environmental contaminants were detected mainly in carrots and beef adipose tissue. Postharvest applications contributed significantly to the number of residues detected in apples, bananas, nectarines, oranges, peaches, and potatoes. Overall, levels of residues detected were 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 2002. 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
Asparagus	Jan-02	
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
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	
Nectarines ³	Jul-00	Sep-01
Onions	Jan-02	
Oranges ¹	Aug-91	Dec-96
Oranges	Jan-00	Dec-01
Peaches	Feb-92	Sep-96

Commodity	Start Date	End Date
Peaches (S-3)	Jan-00	Sep-00
Peaches	Jan-01	Sep-02
Pears	Jan-97	Jun-99
Pears (S-1)	Jul-98	Jun-99
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 ⁴	Jan-98	Sep-00
Sweet Bell Peppers	Jan-99	Dec-00
Sweet Bell Peppers	Oct-02	
Sweet Potatoes ¹	Jan-96	Jun-98
Tomatoes ¹	Jul-96	Jun-99
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 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.

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
Corn Syrup ²	Jan-98	Jun-99
Grape Juice	Jan-98	Dec-99
Green Beans, Canned/Frozen ¹	Jan-96	Jun-98
Orange Juice	Jan-97	Dec-98
Peaches, Canned	Dec-96	Dec-97
Peanut Butter	Jan-00	Dec-00
Pear Juice, Concentrate/Puree	Jul-02	
Pears, Canned	Jul-99	Jun-00
Peas, Canned/Frozen	Apr-94	Jun-96
Peas, Canned/Frozen ³	Oct-01	
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	
Tomato Paste, Canned	Jan-01	Jun-01
Tomatoes, Canned	Jul-99	Jun-00
Winter Squash, Frozen	Apr-97	Jun-99

Grains

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

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

Drinking Water

States	Start Date	End Date
California, New York	Mar-01	
Colorado, Kansas, Texas	Jan-02	

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 rice 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 40 States and 17 foreign countries. There were 213 domestic and 29 imported samples from unknown origins.

Beef, poultry, and drinking water samples are excluded from Appendix B. Figure 4 shows the State of origin for beef samples. Origins for poultry and 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

	Fresh F&V																Processed F&V			Grain	No. of	% of
States = 40	AP	BN	BR	CE	CH	CR	GB	GR	LT	MU	NE	OG	PC	PN	PO	CS	PS	TP	RI	Domestic	Total	
Arizona			9			15	2		5			2			1		1			35	0.3	
Arkansas																	1	5	69	75	0.7	
California	60		619	621	44	522	100	335	499	57	323	584	176	86	130	59	60	237	90	4602	43.448	
Colorado			2		3	9	7		8	1		1			43		2			76	0.7	
Delaware															5					5	<0.1	
Florida	2		1	11	1		124	11	3	8	5	71		143	23	5	3	5	20	436	4.2	
Georgia						8	47						21			1	1	1		79	0.7	
Hawaii														33						33	0.3	
Idaho	11				2	9							2		140	3	5	3	7	182	1.7	
Illinois	1		2			1	10					1			5	13	9	21	55	118	1.1	
Indiana	1																	1		2	<0.1	
Kansas															1					1	<0.1	
Kentucky							3								4					7	0.1	
Maine			16												13	3		1	2	35	0.3	
Maryland	1		3				2		1	2					1	3	2	4	3	22	0.2	
Massachusetts	1						1								2					4	<0.1	
Michigan	27			23		29	16	5	1	4			2		17	13	11	20	34	202	1.9	
Minnesota	15						1	9							18	19	39		6	107	1	
Mississippi											1									1	<0.1	
Missouri															2					2	<0.1	
Montana															2					2	<0.1	
Nebraska	1														2					3	<0.1	
Nevada															10					10	0.1	
New Jersey							4		2		8		15		1	1		1	14	46	0.4	
New York	52		2		6	4	26	1	5	1			2	1	32	23	22	14	41	232	2.2	
North Carolina	3						7		1				1		4					16	0.2	
North Dakota															6					6	<0.1	
Ohio	10		1	2	1	1	25		2	4	2	1	2		23	2	1	7	21	105	1	
Oklahoma	4			9		7	1			8					2	4	4	6	11	56	0.5	
Oregon	7				21	1	2			2					36	9	4	4	4	90	0.9	
Pennsylvania	4								52				5		7			8	2	78	0.7	
South Carolina	1								1				13							15	0.1	
Tennessee							12													12	0.1	
Texas	16		28	25		37	21	5	9	8		34	1	4	64	12	10	21	275	570	5.4	
Utah					1						1				1					3	<0.1	
Vermont															1					1	<0.1	
Virginia	7								1				3		1	2			5	19	0.2	
Washington	459		9	4	200	21	10	1	7	4	18	1	9		92	1	4	1	10	851	8	
West Virginia	1		1				11						2							15	0.1	
Wisconsin	2		6		2	1	5	4	1	2		1		1	22	2	4	1		54	0.5	
Unknown State	6		8	6	5	10	117	6	1	5	4	6	9	5	9	3		3	10	213	2	
No. of Domestics	692		707	701	286	675	554	377	547	158	362	702	263	273	720	178	183	364	679	8,421		
% of Total	94		98	95	100	91	78	53	99	86	100	94	50	37	98	98	99	99	99		79.5	

Part 2. Imported Samples

	Fresh F&V																Processed F&V			Grain	No. of Imports	% of Total
Countries = 17	AP	BN	BR	CE	CH	CR	GB	GR	LT	MU	NE	OG	PC	PN	PO	CS	PS	TP	RI			
Argentina	3							3												6	0.1	
Australia												16								16	0.2	
Canada	5		5	3		51	1		3	19					11	3	1			102	1	
Chile	23	1						280					265							569	5.4	
Colombia		94																		94	0.9	
Costa Rica		170												354						524	4.9	
Ecuador		195												31						226	2.1	
Guatemala		138					1													139	1.3	
Honduras		60												23						83	0.8	
India																		1		1	<0.1	
Mexico		10	5	25		10	131	35	1			6	1	43						267	2.5	
New Zealand	13																			13	0.1	
Nicaragua		5																		5	<0.1	
Panama		5																		5	<0.1	
Peru		1						1												2	<0.1	
South Africa								7				19								26	0.2	
Thailand																			3	3	<0.1	
Unknown Country		23	1			1								2	1				1	29	0.1	
No. of Imports	44	702	11	28		62	133	326	4	19		41	266	453	12	3	1		5	2,110		
% of Total	6	100	2	4		8	19	46	1	10		6	50	62	2	2	1		1		19.9	

Part 3. Unknown Origin

	Fresh F&V																Processed F&V			Grain	No. of Unknown	% of Total
	AP	BN	BR	CE	CH	CR	GB	GR	LT	MU	NE	OG	PC	PN	PO	CS	PS	TP	RI			
Unknown Origin			2	7		2	20	2	3	7		2		4	1		1	5		5	61	
% of Total			0.3	1		0.3	3	0.3	0.5	4		0.3		1	0.1		1	1		1		0.6

GRAND TOTALS 736 702 720 736 286 739 707 705 554 184 362 745 529 726 733 181 185 369 689 10,592

COMMODITIES		
AP = Apples	GB = Green Beans	PN = Pineapples
BN = Bananas	GR = Grapes	PO = Potatoes
BR = Broccoli	LT = Lettuce	PS = Sweet Peas, canned
CE = Celery	MU = Mushrooms	RI = Rice
CH = Cherries	NE = Nectarines	TP = Tomato Paste, canned
CR = Carrots	OG = Oranges	
CS = Sweet Corn, canned	PC = Peaches	

* = Excludes poultry, beef, and water samples.

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 Check Samples - All facilities are required to participate in PDP's Check Sample program. Check samples are issued to laboratories performing analysis with multiresidue methods and/or single/selective residue methods. Periodically, one to three prepared commodities, containing pesticide(s) of known quantities, are sent to the participating 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 2001, PDP laboratories received 6 proficiency sample sets consisting of 18 fruit and vegetable samples for multiresidue screening, 2 sets consisting of 9 fruit and vegetable samples for single/selective residue screening, 1 beef multiresidue set consisting of 4 samples, 1 rice multiresidue set consisting of 3 samples, and 2 drinking water multiresidue sets consisting of 4 samples. For fruit and vegetable multiresidue screening, a total of 48 samples covering 6 commodities were fortified with 57 compounds, with 9 repeated once, 3 repeated twice, 1 repeated 3 times, 2 repeated 4 times, and 1 repeated 5 times, at levels generally 1-10 times the limit of quantitation (LOQ). Results yield an overall mean recovery of 98 percent with a percent coefficient of variation (%C.V.) of 26 percent. Five incurred residues were present in these sets in four commodities at levels ranging from 0.002 – 0.25 ppm.

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, not to exceed 20 samples per set, which include the sample set and the following components.

a. Reagent Blank: For analysis of fruit and vegetables and poultry, beef, 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), 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 2001, PDP laboratories quantitated a total of 23,478 matrix spikes, with an overall mean recovery of 92

percent, overall standard deviation of 32 percent, and overall %C.V. of 34 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 2001, PDP laboratories quantitated a total of 53,066 process controls on 12,264 samples, with an overall mean recovery of 96 percent, overall standard deviation of 19 percent, and overall %C.V. of 20 percent. Of these process controls, 317 (0.6 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 0.005 to 0.85 ppm for fruit and vegetables and rice, from 0.2 to 41.6 parts per billion (ppb) for poultry and beef, and from 1.5 parts per trillion (ppt) to 100 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 **2** 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 green beans from the United States are compared with data for samples originating in Mexico for 2000 and 2001. Residue data for domestic grapes and peaches are compared with data for samples originating in Chile for 2000 and 2001. Only residues detected in more than 10 percent of all samples are included in each comparison. All pesticides detected were registered in the United States. However, the profiles of residue findings were markedly different in the United States samples versus samples from these exporting countries. The National differences in residue findings were due to the pesticides used to sustain crop protection based on the environment, climate, and growing conditions.

2000-2001 Distribution of Residues for Green Beans United States Samples vs. Samples Originating in Mexico

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2000	583	396	68	1052
	2001	554	330	60	910
	2000-2001	1137	726	64	1,962
Mexico	2000	112	80	71	160
	2001	131	97	74	207
	2000-2001	243	177	73	367

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

2000-2001 Distribution of Residues for Green Bean Samples Originating in Mexico vs. United States (Only Pesticides with Residue Detections in at least 10 Percent of all Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Acephate	United States	1,137	357	31
	Mexico	243	4	2
Endosulfan I	United States	1,137	174	15
	Mexico	243	77	32
Endosulfan II	United States	1,137	137	12
	Mexico	243	33	14
Endosulfan sulfate	United States	1,137	220	19
	Mexico	243	143	59
Methamidophos	United States	1,137	353	31
	Mexico	243	17	7

2000-2001 Distribution of Residues for Grapes United States Samples vs. Samples Originating in Chile

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	2000	395	220	56	313
	2001	377	225	60	304
	2000-2001	772	445	58	617
Chile	2000	291	263	90	654
	2001	280	260	93	544
	2000-2001	571	523	92	1,198

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

2000-2001 Distribution of Residues for Grape Samples Originating in Chile vs. United States (Only Pesticides with Residue Detections in at least 10 Percent of all Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Captan	United States	772	11	1
	Chile	571	410	72
Dimethoate	United States	772	6	1
	Chile	571	130	23
Omethoate	United States	772	4	1
	Chile	571	157	27
Iprodione	United States	772	110	14
	Chile	571	223	39
Myclobutanil	United States	772	267	35
	Chile	571	28	5

2000-2001 Distribution of Residues for Peaches United States Samples vs. Samples Originating in Chile

Origin	Commodity	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
		2000-2001	536	508	95	1,818
Chile		2000	260	252	97	1067
		2001	265	262	99	1284
		2000-2001	525	514	98	2,351

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

2000-2001 Distribution of Residues for Peach Samples Originating in Chile vs. United States (Only Pesticides with Residue Detections in at least 10 Percent of all Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Azinphos methyl	United States	536	80	15
	Chile	525	412	78
Carbaryl	United States	536	96	18
	Chile	525	118	22
Chlorpyrifos	United States	536	75	14
	Chile	525	272	52
Dicloran	United States	536	149	28
	Chile	525	3	1
Esfenvalerate	United States	536	34	6
	Chile	525	74	14
Fenvalerate	United States	536	31	6
	Chile	525	102	19
Fludioxonil	United States	263	93	35
	Chile	265	0	0
Iprodione	United States	536	248	46
	Chile	525	437	83
Iprodione met. isomer	United States	526	133	25
	Chile	525	282	54
Phosmet	United States	536	343	64
	Chile	525	186	35

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.

In 2001, 9,903 fruit and vegetable samples were analyzed, of which 9,168 were fresh product and 735 were processed product (canned).

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 in commodities represent toxicological pesticide residue levels, based on Acceptable Daily Intakes (ADIs) permitted by the Joint (Food and Agriculture/World Health Organization-FAO/WHO) Meeting on Pesticide Residues (JMPR). The JMPR is an independently appointed panel of expert scientists. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs used in this appendix are values of pesticides and their metabolites, for the commodities either individually or part of a commodity group, as they appear in the Codex Alimentarius (Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Codex Committee on Pesticide Residues, Thirty-second Session, The Hague, The Netherlands, 1-8 May 2000, *Residues of Pesticides in Foods and Animal Feeds*, Food and Agriculture Organization of the United Nations/World Health Organization, Agenda Item 6, CX PR 00/5, April 2000; and Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, Codex Committee on Pesticide Residues, Thirty-third Session, The Hague, The Netherlands, 2-7 April 2001, *Consideration of Draft and Proposed Draft Maximum Residue Limits in Foods and Animal Feeds at Steps 7 and 4*, Food and Agriculture Organization of the United Nations/World Health Organization, Agenda Item 6, CX PR 01/9, March 2001).

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

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Acephate (insecticide)							
Apples	736	0			0.006 ^	0.02	-
Bananas	702	0			0.002 - 0.006	0.02	-
Broccoli	190	0			0.002 ^	0.02	2
Carrots	739	1	0.1	0.006 ^	0.0018 - 0.002	0.02	-
Celery	736	377	51.2	0.002 - 1.3	0.0015 - 0.002	10.0	-
Cherries (V-1)	286	1	0.3	0.21 ^	0.002 ^	NT	-
Green Beans	707	185	26.2	0.002 - 2.5	0.0015 - 0.002	3	-
Lettuce	554	54	9.7	0.003 - 0.24	0.002 - 0.005	10	5
Mushrooms	184	0			0.0018 - 0.002	0.02	-
Nectarines	100	0			0.002 ^	0.02	-
Oranges	214	0			0.002 ^	0.02	-
Peaches	529	0			0.0018 - 0.002	0.02	-
Pineapples	213	0			0.002 ^	0.02	-
Potatoes	733	0			0.002 - 0.005	0.02	0.5
Sweet Corn, Canned	181	0			0.002 - 0.005	0.02	-
Sweet Peas, Canned	185	0			0.002 - 0.0045	0.02	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.0075 ^	0.02	-
TOTAL	7,358	618					
Alachlor (herbicide)							
Sweet Corn, Canned	181	0			0.010 - 0.016	0.05	-
Apples	736	0			0.020 ^	NT	-
Bananas	702	0			0.012 - 0.020	NT	-
Broccoli	190	0			0.012 ^	NT	-
Carrots	739	0			0.0018 - 0.012	NT	-
Celery	213	0			0.012 ^	NT	-
Cherries	286	0			0.002 - 0.012	NT	-
Green Beans	202	0			0.012 ^	NT	-
Lettuce	554	0			0.012 - 0.020	NT	-
Nectarines	100	0			0.012 ^	NT	-
Oranges	214	0			0.012 ^	0.3	0.2
Peaches	529	0			0.0018 - 0.006	NT	-
Pineapples	213	0			0.012 ^	NT	-
Potatoes	733	0			0.012 - 0.020	1	-
Sweet Corn, Canned	54	0			0.012 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.012 ^	NT	-
TOTAL	5,700	0					
Aldicarb sulfone (insecticide) (metabolite of Aldicarb)							
Apples	736	0			0.022 ^	NT	-
Bananas	685	0			0.021 - 0.022	NT	-
Broccoli	208	0			0.021 ^	NT	-
Carrots	724	0			0.0018 - 0.021	NT	-
Celery	235	0			0.004 - 0.021	NT	-
Cherries	286	0			0.002 - 0.021	NT	-
Green Beans	686	0			0.004 - 0.021	NT	-
Lettuce	554	0			0.021 - 0.075	NT	-
Nectarines	100	0			0.021 ^	NT	-
Oranges	745	0			0.003 - 0.021	0.3	0.2
Peaches	414	0			0.0018 - 0.006	NT	-
Pineapples	195	0			0.021 ^	NT	-
Potatoes	733	9	1.2	0.035 - 0.11	0.021 - 0.075	1	-
Sweet Corn, Canned	54	0			0.021 ^	NT	-
Sweet Peas, Canned	<u>18</u>	<u>0</u>			0.021 ^	NT	-
TOTAL	6,373	9					
Aldicarb sulfoxide (metabolite of Aldicarb)							
Apples	736	0			0.017 ^	NT	-
Bananas	702	0			0.017 - 0.027	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Broccoli	208	0			0.027 ^	NT	-
Carrots	724	0			0.0018 - 0.027	NT	-
Celery	694	0			0.004 - 0.027	NT	-
Cherries	271	0			0.002 - 0.027	NT	-
Grapes (V-1)	310	1	0.3	0.025 ^	0.015 ^	NT	0.2
Green Beans	223	0			0.004 - 0.027	NT	-
Lettuce	554	0			0.027 - 0.0375	NT	-
Nectarines	100	0			0.027 ^	NT	-
Oranges	745	4	0.5	0.005 - 0.017	0.003 - 0.027	0.3	0.2
Peaches	526	0			0.0018 - 0.006	NT	-
Pineapples	213	0			0.027 ^	NT	-
Potatoes	733	12	1.6	0.045 - 0.43	0.027 - 0.0375	1	-
Sweet Corn, Canned	54	0			0.027 ^	NT	-
Sweet Peas, Canned	54	0			0.027 ^	NT	-
TOTAL	6,847	17					
Aldrin (insecticide) (parent of Dieldrin)							
Sweet Peas, Canned	131	0			0.0015 ^	0.03 ^{AL}	0.05
TOTAL	131	0					
Allethrin (insecticide)							
Sweet Peas, Canned	66	0			0.015 ^	NT	-
Tomato Paste, Canned	369	0			0.050 ^	NT	-
TOTAL	435	0					
Ametryn (herbicide)							
Bananas	702	0			0.010 - 0.025	0.25	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	215	0			0.010 ^	NT	-
Celery	213	0			0.010 ^	NT	-
Cherries	79	0			0.010 ^	NT	-
Green Beans	202	0			0.010 ^	NT	-
Lettuce	159	0			0.010 ^	NT	-
Mushrooms	53	0			0.010 ^	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	214	0			0.010 ^	NT	-
Pineapples	730	0			0.010 ^	0.25	-
Potatoes	210	0			0.010 ^	NT	-
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	54	0			0.010 ^	NT	-
TOTAL	3,193	0					
Anilazine (fungicide)							
Apples	101	0			0.018 ^	NT	-
Sweet Peas, Canned	131	0			0.011 ^	NT	-
TOTAL	232	0					
Atrazine (herbicide)							
Apples	736	0			0.025 ^	NT	-
Bananas	702	0			0.010 - 0.025	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	739	0			0.0019 - 0.010	NT	-
Celery	179	0			0.010 ^	NT	-
Cherries	286	0			0.0019 - 0.010	NT	-
Green Beans	202	0			0.010 ^	NT	-
Lettuce (V-1)	554	1	0.2	0.017 ^	0.010 - 0.024	NT	-
Mushrooms	184	0			0.0019 - 0.010	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	214	0			0.010 ^	NT	-
Peaches	529	0			0.0019 - 0.002	NT	-
Pineapples	213	0			0.010 ^	NT	-
Potatoes	733	0			0.010 - 0.024	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned	181	0			0.010 - 0.024	0.25	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.0075 - 0.010	NT	-
TOTAL	5,945	1					
Azinphos methyl (insecticide)							
Apples	736	266	36.1	0.018 - 0.28	0.011 ^	1.5	2
Bananas	702	0			0.008 - 0.011	NT	1
Broccoli	720	0			0.006 - 0.008	2.0	1
Carrots (V-1)	739	1	0.1	0.005 ^	0.003 - 0.008	NT	0.5
Celery	736	11	1.5	0.010 - 0.069	0.006 - 0.008	2.0	0.5
Cherries	286	150	52.4	0.005 - 0.17	0.003 - 0.008	2.0	2
Grapes	705	1	0.1	0.022 ^	0.013 ^	4.0	1
Green Beans	707	0			0.006 - 0.008	2.0	0.5
Lettuce	554	0			0.008 - 0.012	NT	0.5
Mushrooms	184	0			0.003 - 0.008	NT	0.5
Nectarines	359	23	6.4	0.012 - 0.12	0.007 - 0.008	2.0	2
Oranges	745	0			0.007 - 0.008	2.0	1
Peaches	529	272	51.4	0.005 - 0.56	0.003 ^	2.0	2
Pineapples	213	0			0.008 ^	NT	1
Potatoes	733	0			0.008 - 0.012	0.2	0.05
Sweet Corn, Canned	54	0			0.008 ^	NT	0.5
Sweet Peas, Canned	185	0			0.008 - 0.011	NT	0.5
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.012 ^	2.0	-
TOTAL	9,256	724					
Azoxystrobin (fungicide)							
Tomato Paste, Canned	<u>369</u>	<u>12</u>	3.3	0.025 - 0.27	0.025 ^	0.6	-
TOTAL	369	12					
Bifenthrin (insecticide)							
Bananas	172	0			0.010 ^	NT	-
Broccoli	720	0			0.008 - 0.010	NT	-
Carrots	707	0			0.0029 - 0.010	NT	-
Celery	195	0			0.010 ^	NT	-
Cherries	286	0			0.0029 - 0.010	NT	-
Green Beans	202	1	0.5	0.017 ^	0.010 ^	0.05	-
Lettuce	141	0			0.010 ^	3.0	-
Mushrooms	184	0			0.0029 - 0.010	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	179	0			0.010 ^	0.05	0.05
Peaches	529	0			0.0029 - 0.003	NT	-
Pineapples	177	0			0.010 ^	NT	-
Potatoes	192	0			0.010 ^	0.05	0.05
Sweet Corn, Canned	181	0			0.010 - 0.016	0.05	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.010 - 0.0113	0.05	-
TOTAL	4,150	1					
Bromacil (herbicide)							
Bananas	126	0			0.015 ^	NT	-
Broccoli	172	0			0.015 ^	NT	-
Carrots	197	0			0.015 ^	NT	-
Celery	161	0			0.015 ^	NT	-
Cherries	79	0			0.015 ^	NT	-
Green Beans	202	0			0.015 ^	NT	-
Lettuce	141	0			0.015 ^	NT	-
Mushrooms	53	0			0.015 ^	NT	-
Nectarines	100	0			0.015 ^	NT	-
Oranges	214	0			0.015 ^	0.1	-
Pineapples	730	0			0.015 - 0.029	0.1	-
Potatoes	174	0			0.015 ^	NT	-
Sweet Corn, Canned	54	0			0.015 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	2,457	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Buprofezin (insecticide)							
Sweet Peas, Canned	66	0			0.015 ^	NT	-
Tomato Paste, Canned	347	0			0.020 ^	1.0	-
TOTAL	413	0					
Butylate (herbicide)							
Sweet Corn, Canned	181	0			0.010 - 0.016	0.1	-
TOTAL	181	0					
Cadusafos (insecticide)							
Bananas	684	0			0.005 - 0.025	0.01	0.01
TOTAL	684	0					
Captafol (fungicide) (parent of THPI)							
Bananas	189	0			0.018 ^	NT	-
Broccoli	190	0			0.018 ^	NT	-
Carrots	215	0			0.018 ^	NT	-
Celery	213	0			0.018 ^	NT	-
Cherries	79	0			0.018 ^	NT	-
Green Beans	202	0			0.018 ^	NT	-
Lettuce	159	0			0.018 ^	NT	-
Mushrooms	53	0			0.018 ^	NT	-
Nectarines	100	0			0.018 ^	NT	-
Oranges	745	0			0.006 - 0.018	NT	-
Pineapples	213	0			0.018 ^	NT	-
Potatoes	733	0			0.017 - 0.018	0.5	-
Sweet Corn, Canned	54	0			0.018 ^	NT	-
Sweet Peas, Canned	185	0			0.015 - 0.018	NT	-
Tomato Paste, Canned	369	0			0.015 ^	15.0	-
TOTAL	3,699	0					
Captan (fungicide) (parent of THPI)							
Apples	736	103	14	0.020 - 2.2	0.012 ^	25.0	25
Bananas	702	0			0.012 ^	NT	-
Broccoli	720	0			0.006 - 0.012	2	-
Carrots	739	0			0.012 - 0.064	2	-
Celery	670	3	0.4	0.020 - 0.070	0.012 - 0.016	50	-
Cherries	286	4	1.4	0.032 - 1.6	0.012 - 0.0192	100	-
Grapes	705	222	31.5	0.013 - 0.9	0.008 ^	50.0	-
Green Beans	202	2	1	0.020 ^	0.012 ^	25	-
Lettuce	554	0			0.012 ^	100	-
Mushrooms	169	0			0.012 - 0.0192	NT	-
Nectarines	359	6	1.7	0.007 - 0.065	0.004 - 0.012	50.0	-
Oranges	214	0			0.012 ^	NT	-
Peaches	513	44	8.6	0.032 - 4.9	0.019 - 0.0192	50.0	15
Pineapples	213	0			0.012 ^	NT	-
Potatoes	733	0			0.012 ^	25.0	-
Sweet Corn, Canned	181	0			0.012 ^	2	-
Sweet Peas, Canned	54	0			0.012 ^	2	-
Tomato Paste, Canned	369	0			0.0075 ^	25.0	-
TOTAL	8,119	384					
Carbaryl (insecticide)							
Apples	736	26	3.5	0.035 - 0.48	0.021 ^	10	5
Bananas	702	0			0.008 - 0.021	10	5
Broccoli	720	0			0.008 - 0.010	10	-
Carrots	739	0			0.001 - 0.008	10	2
Celery	736	7	1	0.007 - 0.13	0.0015 - 0.008	10.0	-
Cherries	286	158	55.2	0.002 - 0.72	0.001 - 0.008	10	10
Grapes	705	41	5.8	0.017 - 1.7	0.010 ^	10	5
Green Beans	707	24	3.4	0.007 - 0.87	0.004 - 0.008	10	5
Lettuce	554	0			0.008 ^	10	10
Nectarines	359	33	9.2	0.005 - 1.5	0.003 - 0.008	10	10

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Oranges	745	27	3.6	0.005 - 0.057	0.003 - 0.008	10	7
Peaches	529	131	24.8	0.002 - 0.84	0.001 - 0.004	10	10
Pineapples	730	7	1	0.013 - 0.060	0.008 - 0.010	2.0	-
Potatoes	733	0			0.008 ^	0.2	0.2
Sweet Corn, Canned	181	0			0.008 ^	5	1
Sweet Peas, Canned	54	0			0.008 ^	10	-
Tomato Paste, Canned	369	2	0.5	0.018 - 0.043	0.011 ^	10.0	-
TOTAL	9,585	456					
Carbofuran (insecticide) (parent of 3-Hydroxycarbofuran)							
Apples	736	0			0.031 ^	NT	-
Bananas	702	0			0.013 - 0.031	0.1	0.1
Broccoli	208	0			0.013 ^	NT	-
Carrots	739	0			0.0018 - 0.013	NT	0.5
Celery	235	0			0.003 - 0.013	NT	-
Cherries	286	0			0.002 - 0.013	NT	-
Grapes	705	0			0.015 ^	0.2	-
Green Beans	707	0			0.003 - 0.013	NT	-
Lettuce	554	0			0.008 - 0.013	NT	-
Nectarines	100	0			0.013 ^	NT	-
Oranges	214	0			0.013 ^	NT	-
Peaches	529	0			0.0018 - 0.006	NT	-
Pineapples	213	0			0.013 ^	NT	-
Potatoes	733	0			0.008 - 0.013	1	0.1
Sweet Corn, Canned	181	0			0.008 - 0.013	0.2	0.1
Sweet Peas, Canned	54	0			0.013 ^	NT	-
TOTAL	6,896	0					
Carbophenothion (insecticide)							
Carrots	524	0			0.001 - 0.0012	NT	-
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.0012 ^	NT	-
Peaches	529	0			0.001 - 0.0012	NT	-
TOTAL	1,391	0					
Carboxin (fungicide)							
Sweet Corn, Canned	181	0			0.008 - 0.016	0.2	-
TOTAL	181	0					
Chlordane cis (insecticide) (isomer of Chlordane)							
Carrots	524	10	1.9	0.001 - 0.004	0.001 ^	0.1 ^{AL}	0.02
Cherries	207	0			0.001 ^	0.1 ^{AL}	0.02
Mushrooms	131	0			0.001 ^	NT	0.02
Oranges	531	0			0.001 ^	0.1 ^{AL}	0.02
Peaches	529	0			0.001 ^	0.1 ^{AL}	0.02
Sweet Peas, Canned	131	0			0.010 ^	0.1 ^{AL}	0.02
TOTAL	2,053	10					
Chlordane trans (insecticide) (isomer of Chlordane)							
Carrots	511	11	2.2	0.001 - 0.005	0.001 ^	0.1 ^{AL}	0.02
Cherries	207	0			0.001 ^	0.1 ^{AL}	0.02
Oranges	531	0			0.001 - 0.004	0.1 ^{AL}	0.02
Peaches	529	0			0.001 ^	0.1 ^{AL}	0.02
Sweet Peas, Canned	131	0			0.010 ^	0.1 ^{AL}	-
TOTAL	1,909	11					
Chlorethoxyfos (insecticide)							
Sweet Corn, Canned	181	0			0.010 - 0.016	0.01	-
TOTAL	181	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Chlorfenvinphos beta (insecticide)							
Carrots	524	0			0.001 - 0.0011	NT	0.4
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.0011 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 - 0.0011	NT	-
TOTAL	1,391	0					
Chlorothalonil (fungicide)							
Apples	736	0			0.004 ^	NT	-
Bananas	702	1	0.1	0.022 ^	0.004 - 0.005	0.5	0.2
Broccoli	720	5	0.7	0.003 - 0.028	0.002 - 0.005	5	5
Carrots	215	1	0.5	0.008 ^	0.005 ^	1	1
Celery	341	160	46.9	0.004 - 4.4	0.0026 - 0.020	15	10
Cherries	79	0			0.005 ^	0.5	0.5
Green Beans	202	20	9.9	0.008 - 0.36	0.005 ^	5	5
Lettuce (V-1)	554	1	0.2	0.022 ^	0.005 - 0.007	NT	-
Mushrooms	53	2	3.8	0.008 ^	0.005 ^	1.0	-
Nectarines	359	0			0.001 - 0.005	0.5	-
Oranges	214	0			0.005 ^	NT	-
Pineapples	213	0			0.005 ^	NT	-
Potatoes	733	0			0.005 - 0.007	0.1	0.2
Sweet Corn, Canned	97	0			0.005 - 0.007	1	0.01
Sweet Peas, Canned	185	0			0.0023 - 0.005	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.0045 ^	5.0	-
TOTAL	5,772	190					
Chlorpropham (herbicide, growth regulator)							
Apples	736	0			0.025 ^	NT	-
Bananas	702	0			0.010 - 0.025	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	215	0			0.010 ^	NT	-
Celery	702	0			0.010 - 0.020	NT	-
Cherries	79	0			0.010 ^	NT	-
Green Beans	707	0			0.010 - 0.020	NT	-
Lettuce	554	0			0.010 - 0.017	NT	-
Mushrooms	184	0			0.0058 - 0.010	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	214	0			0.010 ^	NT	-
Peaches (V-1)	1	1	100	0.010 ^	0.006 ^	NT	-
Pineapples	213	0			0.010 ^	NT	-
Potatoes	733	555	75.7	0.017 - 17	0.010 - 0.017	50	-
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.010 - 0.011	NT	-
TOTAL	5,587	556					
Chlorpyrifos (insecticide)							
Apples	736	58	7.9	0.007 - 0.31	0.004 ^	1.5	1
Bananas	702	0			0.004 ^	0.01	-
Broccoli	720	17	2.4	0.007 - 0.18	0.004 ^	1.0	-
Carrots	739	12	1.6	0.002 - 0.1	0.0012 - 0.004	0.1	0.5
Celery	736	10	1.4	0.003 - 0.027	0.002 - 0.004	0.1	0.05
Cherries	286	4	1.4	0.002 ^	0.0012 - 0.004	1	-
Grapes	705	44	6.2	0.015 - 0.33	0.009 ^	0.5	1
Green Beans	707	6	0.8	0.003 ^	0.002 - 0.004	0.1	0.2
Lettuce	554	7	1.3	0.007 - 0.084	0.004 ^	1.0	0.1
Mushrooms	184	1	0.5	0.007 ^	0.0012 - 0.004	0.1	0.05
Nectarines	359	8	2.2	0.003 - 0.066	0.002 - 0.007	0.1	-
Oranges	745	12	1.6	0.003 - 0.007	0.002 - 0.004	1.0	1
Peaches (X-3)	529	179	33.8	0.002 - 0.15	0.001 - 0.0012	0.05	-
Pineapples	213	0			0.004 ^	0.1	-
Potatoes	733	0			0.004 ^	0.1	0.05
Sweet Corn, Canned	181	0			0.004 ^	0.1	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Peas, Canned	185	0	8.7	0.007 ^	0.0038 - 0.004	0.05	-
Tomato Paste, Canned	<u>369</u>	<u>32</u>			0.0045 - 0.015	0.5	-
TOTAL	9,383	390					
Clomazone (herbicide)							
Sweet Corn, Canned	54	0			0.008 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.008 - 0.015	0.05	-
TOTAL	239	0					
Coumaphos (insecticide)							
Carrots	524	0			0.001 ^	NT	-
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.001 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 ^	NT	-
TOTAL	1,391	0					
Coumaphos oxygen analog (metabolite of Coumaphos)							
Carrots	524	0			0.0036 - 0.004	NT	-
Cherries	207	0			0.004 ^	NT	-
Mushrooms	131	0			0.0036 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.0036 - 0.004	NT	-
TOTAL	1,391	0					
Cyanazine (herbicide)							
Sweet Corn, Canned	<u>54</u>	<u>0</u>			0.035 ^	0.05	-
TOTAL	54	0					
Cyfluthrin (insecticide)							
Bananas	702	0			0.050 - 0.060	0.05	-
Broccoli	208	0			0.060 ^	0.05	-
Carrots	739	0			0.0247 - 0.0824	0.20	-
Celery	213	0			0.060 ^	0.05	-
Cherries	286	0			0.0247 - 0.0832	0.05	-
Green Beans	202	0			0.060 ^	0.05	-
Lettuce	159	0			0.060 ^	0.05	-
Mushrooms	184	0			0.0247 - 0.060	0.05	-
Nectarines	100	0			0.060 ^	0.05	-
Oranges	745	0			0.039 - 0.060	0.2	-
Peaches	529	0			0.0247 - 0.025	0.05	-
Pineapples	213	0			0.060 ^	0.05	-
Potatoes	733	0			0.030 - 0.060	0.05	-
Sweet Corn, Canned	181	0			0.030 - 0.060	0.05	-
Sweet Peas, Canned	185	0			0.023 - 0.060	0.05	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.045 ^	0.5	-
TOTAL	5,748	0					
Cypermethrin (insecticide)							
Apples	736	0			0.045 ^	NT	2
Bananas	513	0			0.045 ^	NT	-
Broccoli	720	0			0.016 - 0.035	2	1
Carrots	577	0			0.023 - 0.035	NT	0.05
Celery	36	0			0.035 ^	NT	-
Cherries	207	0			0.023 ^	NT	1
Green Beans	72	0			0.035 ^	NT	0.5
Lettuce	36	1	2.8	0.058 ^	0.035 ^	10.0	2
Mushrooms	166	0			0.035 - 0.0768	NT	0.05
Oranges	54	0			0.035 ^	NT	2
Peaches	529	0			0.023 ^	NT	2
Pineapples	16	0			0.035 ^	NT	-
Potatoes	36	0			0.035 ^	NT	0.05
Sweet Corn, Canned	54	0			0.035 ^	NT	0.05
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.023 ^	NT	0.05
TOTAL	3,883	1					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cyprodinil (fungicide)							
Apples	<u>736</u>	<u>0</u>			0.025 ^	0.1	-
TOTAL	736	0					
Cyromazine (insect growth regulator)							
Mushrooms	<u>11</u>	<u>11</u>	100	0.11 - 0.24	0.0658 ^	1.0	5
TOTAL	11	11					
DCPA (herbicide)							
Apples	736	0			0.005 ^	NT	-
Bananas	702	0			0.005 - 0.006	NT	-
Broccoli	720	155	21.5	0.003 - 0.063	0.002 - 0.006	5	-
Carrots (V-1)	739	1	0.1	0.001 ^	0.001 - 0.006	NT	-
Celery	213	0			0.006 ^	NT	-
Cherries (V-2)	286	2	0.7	0.004 ^	0.001 - 0.006	NT	-
Green Beans	202	0			0.006 ^	2	-
Lettuce	554	59	10.6	0.010 - 0.1	0.006 - 0.007	2	-
Mushrooms	184	0			0.001 - 0.006	NT	-
Nectarines	100	0			0.006 ^	NT	-
Oranges	214	0			0.006 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.006 ^	NT	-
Potatoes	733	0			0.006 - 0.007	2	-
Sweet Corn, Canned	181	0			0.006 - 0.007	0.05	-
Sweet Peas, Canned	185	0			0.0023 - 0.006	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.003 ^	1.0	-
TOTAL	6,860	217					
DDD o,p' (metabolite of DDT)							
Carrots	524	7	1.3	0.002 - 0.007	0.001 ^	3 ^{AL}	0.2
Cherries	207	0			0.001 ^	0.2 ^{AL}	-
Mushrooms	131	0			0.001 ^	0.5 ^{AL}	-
Peaches	<u>529</u>	<u>0</u>			0.001 ^	0.2 ^{AL}	-
TOTAL	1,391	7					
DDD p,p' (metabolite of DDT)							
Apples	736	0			0.006 ^	0.1 ^{AL}	-
Bananas	702	0			0.006 - 0.008	NT	-
Broccoli	208	0			0.008 ^	NT	-
Carrots	739	17	2.3	0.002 ^	0.001 - 0.008	3 ^{AL}	0.2
Celery	213	0			0.008 ^	0.5 ^{AL}	-
Cherries	286	0			0.001 - 0.008	0.2 ^{AL}	-
Green Beans	202	0			0.008 ^	0.2 ^{AL}	-
Lettuce	159	0			0.008 ^	0.5 ^{AL}	-
Mushrooms	184	0			0.001 - 0.008	0.5 ^{AL}	-
Nectarines	100	0			0.008 ^	0.2 ^{AL}	-
Oranges	745	0			0.001 - 0.008	0.1 ^{AL}	-
Peaches	529	0			0.001 ^	0.2 ^{AL}	-
Pineapples	213	0			0.008 ^	0.2 ^{AL}	-
Potatoes	210	0			0.008 ^	1 ^{AL}	-
Sweet Corn, Canned	54	0			0.008 ^	0.1 ^{AL}	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.0045 - 0.008	0.2 ^{AL}	-
TOTAL	5,465	17					
DDE p,p' (metabolite of DDT)							
Apples	736	0			0.003 ^	0.1 ^{AL}	-
Bananas	702	0			0.003 - 0.007	NT	-
Broccoli (V-3)	720	3	0.4	0.007 ^	0.004 - 0.007	NT	-
Carrots	739	259	35	0.003 - 0.21	0.0019 - 0.007	3 ^{AL}	0.2
Celery	736	10	1.4	0.010 - 0.012	0.006 - 0.007	0.5 ^{AL}	-
Cherries	286	0			0.0019 - 0.007	0.2 ^{AL}	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grapes	705	0			0.006 ^	0.05 ^{AL}	-
Green Beans	707	4	0.6	0.010 - 0.012	0.006 - 0.007	0.2 ^{AL}	-
Lettuce	554	33	6	0.008 - 0.024	0.007 ^	0.5 ^{AL}	-
Mushrooms	184	0			0.0019 - 0.007	0.5 ^{AL}	-
Nectarines	359	0			0.001 - 0.007	0.2 ^{AL}	-
Oranges	745	0			0.001 - 0.007	0.1 ^{AL}	-
Peaches	529	0			0.0019 - 0.002	0.2 ^{AL}	-
Pineapples	730	0			0.006 - 0.007	0.2 ^{AL}	-
Potatoes	733	44	6	0.012 - 0.025	0.007 ^	1 ^{AL}	-
Sweet Corn, Canned	181	0			0.007 ^	0.1 ^{AL}	-
Sweet Peas, Canned	185	0			0.0045 - 0.007	0.2 ^{AL}	-
Tomato Paste, Canned	369	0			0.006 - 0.020	0.5 ^{AL}	-
TOTAL	9,900	353					
DDT o,p' (insecticide)							
Apples	736	0			0.005 ^	0.1 ^{AL}	-
Bananas	513	0			0.005 ^	NT	-
Carrots	524	28	5.3	0.002 - 0.013	0.001 ^	3 ^{AL}	0.2
Cherries	207	0			0.001 ^	0.2 ^{AL}	-
Mushrooms	131	0			0.001 ^	0.5 ^{AL}	-
Peaches	529	0			0.001 ^	0.2 ^{AL}	-
TOTAL	2,640	28					
DDT p,p' (insecticide)							
Apples	736	0			0.005 ^	0.1 ^{AL}	-
Bananas	702	0			0.005 - 0.008	NT	-
Broccoli	208	0			0.008 ^	NT	-
Carrots	739	35	4.7	0.003 - 0.021	0.0019 - 0.032	3 ^{AL}	0.2
Celery	213	0			0.008 ^	0.5 ^{AL}	-
Cherries	286	0			0.0019 - 0.008	0.2 ^{AL}	-
Green Beans	202	0			0.008 ^	0.2 ^{AL}	-
Lettuce	159	1	0.6	0.013 ^	0.008 ^	0.5 ^{AL}	-
Mushrooms	184	0			0.0019 - 0.008	0.5 ^{AL}	-
Nectarines	100	0			0.008 ^	0.2 ^{AL}	-
Oranges	745	0			0.003 - 0.008	0.1 ^{AL}	-
Peaches	529	0			0.0019 - 0.002	0.2 ^{AL}	-
Pineapples	213	0			0.008 ^	0.2 ^{AL}	-
Potatoes	210	0			0.008 ^	1 ^{AL}	-
Sweet Corn, Canned	54	0			0.008 ^	0.1 ^{AL}	-
Sweet Peas, Canned	185	0			0.0045 - 0.008	0.2 ^{AL}	-
TOTAL	5,465	36					
DEF-Tribufos (herbicide)							
Carrots	524	0			0.001 ^	NT	-
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.001 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
TOTAL	1,391	0					
Deltamethrin (insecticide)							
Carrots	524	0			0.019 - 0.064	0.05	0.01
Cherries	190	0			0.0192 ^	0.05	0.05
Mushrooms	131	0			0.0192 ^	0.05	0.01
Peaches	529	0			0.019 - 0.0192	0.05	0.05
Sweet Peas, Canned	131	0			0.011 ^	0.05	0.1
Tomato Paste, Canned	369	0			0.075 ^	1.0	-
TOTAL	1,874	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Demeton-S sulfone (insecticide) (metabolite of Demeton-S)							
Carrots	524	0			0.003 ^	NT	-
Cherries	207	0			0.003 ^	NT	-
Peaches	529	0			0.003 ^	NT	-
TOTAL	1,260	0					
Desmedipham (herbicide)							
Carrots	509	0			0.0879 - 0.18	NT	-
Cherries	190	0			0.088 ^	NT	-
Peaches	511	0			0.0879 - 0.44	NT	-
TOTAL	1,210	0					
Diazinon (insecticide)							
Apples	736	7	1	0.008 - 0.079	0.005 ^	0.5	2
Bananas	702	0			0.002 - 0.005	0.1	-
Broccoli	720	1	0.1	0.007 ^	0.002 - 0.004	0.7	0.5
Carrots	739	19	2.6	0.003 - 0.077	0.0018 - 0.002	0.75	0.5
Celery	736	25	3.4	0.002 - 0.021	0.001 - 0.002	0.7	-
Cherries	286	4	1.4	0.003 - 0.006	0.002 ^	0.75	1
Grapes	705	1	0.1	0.049 ^	0.011 ^	0.75	-
Green Beans	707	3	0.4	0.004 - 0.21	0.001 - 0.002	0.5	0.2
Lettuce	554	37	6.7	0.003 - 0.11	0.002 - 0.007	0.7	0.5
Mushrooms	184	44	23.9	0.003 - 0.097	0.0018 - 0.002	0.75	-
Nectarines	359	4	1.1	0.003 - 0.010	0.002 ^	0.5	-
Oranges	745	0			0.002 ^	0.7	-
Peaches	529	56	10.6	0.003 - 0.092	0.0018 - 0.002	0.7	0.2
Pineapples	730	0			0.002 - 0.011	0.5	0.1
Potatoes	733	0			0.002 - 0.007	0.1	0.01
Sweet Corn, Canned	181	0			0.002 - 0.007	0.7	0.02
Sweet Peas, Canned	185	0			0.002 - 0.0045	NT	-
Tomato Paste, Canned	369	0			0.0045 ^	0.75	-
TOTAL	9,900	201					
Diazinon oxygen analog (metabolite of Diazinon)							
Apples	736	0			0.025 ^	NT	-
Bananas	702	0			0.003 - 0.025	NT	-
Broccoli	720	0			0.003 - 0.005	NT	-
Carrots	739	0			0.0015 - 0.003	NT	-
Celery	736	0			0.002 - 0.003	NT	-
Cherries	286	0			0.002 - 0.003	NT	-
Grapes	705	0			0.018 ^	NT	-
Green Beans	707	0			0.002 - 0.003	NT	-
Lettuce	159	0			0.003 ^	NT	-
Mushrooms	184	0			0.0015 - 0.003	NT	-
Nectarines	359	0			0.003 - 0.005	NT	-
Oranges	745	0			0.003 - 0.005	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	730	0			0.003 - 0.018	NT	-
Potatoes	733	0			0.003 - 0.016	NT	-
Sweet Corn, Canned	181	0			0.003 - 0.016	NT	-
Sweet Peas, Canned	185	0			0.001 - 0.003	NT	-
Tomato Paste, Canned	369	0			0.003 ^	NT	-
TOTAL	9,505	0					
Dichlobenil (herbicide)							
Apples	736	0			0.025 ^	0.5	-
Carrots	510	0			0.013 - 0.0132	NT	-
Cherries	158	0			0.0132 ^	0.15	-
Mushrooms	117	0			0.0132 ^	NT	-
Peaches	512	0			0.013 - 0.0132	0.15	-
TOTAL	2,033	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Dichlorvos-DDVP (insecticide) (also a metabolite of Naled)							
Apples	736	0			0.013 ^	NT	-
Bananas	702	0			0.002 - 0.013	NT	-
Broccoli	155	0			0.002 ^	NT	-
Carrots	739	0			0.0015 - 0.002	NT	-
Celery	736	0			0.002 ^	NT	-
Cherries	286	0			0.002 ^	NT	-
Grapes	705	0			0.002 ^	NT	-
Green Beans	707	0			0.002 ^	NT	-
Lettuce	554	0			0.002 - 0.003	NT	-
Mushrooms	184	0			0.0015 - 0.002	NT	0.5
Nectarines	100	0			0.002 ^	NT	-
Oranges	745	0			0.001 - 0.002	NT	-
Peaches	512	0			0.0015 - 0.002	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	733	0			0.002 - 0.003	NT	-
Sweet Corn, Canned	181	0			0.002 - 0.003	NT	-
Sweet Peas, Canned	185	0			0.0015 - 0.002	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.006 ^	0.5	-
TOTAL	8,542	0					
Dicloran (fungicide)							
Apples	736	0			0.003 ^	NT	-
Bananas	702	0			0.003 - 0.008	NT	-
Broccoli (V-1)	136	1	0.7	0.013 ^	0.008 ^	NT	-
Carrots	739	0			0.0019 - 0.008	10	10
Celery	736	376	51.1	0.013 - 3.1	0.0079 - 0.008	15	-
Cherries	286	0			0.0019 - 0.008	20	-
Grapes	705	22	3.1	0.007 - 0.64	0.004 ^	10	10
Green Beans	707	20	2.8	0.013 - 3.5	0.0079 - 0.008	20	-
Lettuce	554	2	0.4	0.030 - 0.031	0.008 - 0.010	10	10
Mushrooms	184	0			0.0019 - 0.008	NT	-
Nectarines	359	67	18.7	0.003 - 0.81	0.002 - 0.008	20	-
Oranges	214	0			0.008 ^	NT	-
Peaches	529	68	12.9	0.003 - 2.3	0.0019 - 0.002	20	15
Pineapples	213	0			0.008 ^	NT	-
Potatoes	733	14	1.9	0.013 - 0.24	0.008 - 0.010	0.25	-
Sweet Corn, Canned	54	0			0.008 ^	NT	-
Sweet Peas, Canned	185	0			0.0038 - 0.008	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.006 ^	5.0	-
TOTAL	8,141	570					
Dicofol o,p' (insecticide)							
Carrots (V-1)	524	1	0.2	0.009 ^	0.0026 - 0.003	NT	-
Celery	523	0			0.015 ^	NT	-
Cherries	207	1	0.5	0.005 ^	0.0029 ^	5	5
Green Beans	461	0			0.015 ^	5	2
Mushrooms	131	0			0.0029 ^	NT	-
Peaches	<u>529</u>	<u>35</u>	6.6	0.004 - 0.23	0.0026 - 0.003	10	5
TOTAL	2,375	37					
Dicofol p,p' (isomer of Dicofol o,p')							
Apples	736	8	1.1	0.047 - 0.41	0.028 ^	5	-
Bananas	685	0			0.010 - 0.028	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots (V-1)	739	1	0.1	0.005 ^	0.0029 - 0.010	NT	-
Celery	736	0			0.010 - 0.015	NT	-
Cherries	286	2	0.7	0.014 - 0.023	0.0029 - 0.010	5	5
Grapes	705	9	1.3	0.017 - 1.2	0.010 ^	5	5
Green Beans	707	0			0.010 - 0.015	5	2
Lettuce	554	0			0.010 - 0.018	NT	-
Mushrooms	184	0			0.0029 - 0.010	NT	-
Nectarines	359	29	8.1	0.017 - 0.57	0.010 - 0.013	10	

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Oranges	745	5	0.7	0.017 ^	0.010 - 0.013	10	5
Peaches	529	48	9.1	0.005 - 1.3	0.0029 - 0.003	10	5
Pineapples	195	0			0.010 ^	NT	-
Potatoes	733	0			0.010 - 0.018	NT	-
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	185	0			0.010 - 0.015	NT	-
Tomato Paste, Canned	369	0			0.030 ^	5.0	-
TOTAL	8,709	102					
Dieldrin (insecticide) (also a metabolite of Aldrin)							
Apples	736	0			0.002 ^	0.03 ^{AL}	0.05
Bananas	702	0			0.002 - 0.006	0.02 ^{AL}	-
Broccoli	720	2	0.3	0.002 ^	0.001 - 0.006	0.03 ^{AL}	-
Carrots	739	9	1.2	0.008 ^	0.0048 - 0.006	0.1 ^{AL}	0.1
Celery	736	0			0.006 - 0.008	0.03 ^{AL}	-
Cherries	286	0			0.0048 - 0.006	0.3 ^{AL}	0.05
Green Beans	707	0			0.006 - 0.016	0.05 ^{AL}	0.05
Lettuce	554	0			0.006 - 0.018	0.03 ^{AL}	0.05
Mushrooms	184	0			0.0048 - 0.006	NT	0.1
Nectarines	100	0			0.006 ^	0.3 ^{AL}	-
Oranges	214	0			0.006 ^	0.02 ^{AL}	0.05
Peaches	529	0			0.0048 - 0.005	0.02 ^{AL}	-
Pineapples	730	0			0.005 - 0.006	0.03 ^{AL}	-
Potatoes	733	3	0.4	0.010 - 0.030	0.006 - 0.018	0.1 ^{AL}	0.1
Sweet Corn, Canned	181	0			0.006 - 0.018	0.02 ^{AL}	0.1
Sweet Peas, Canned	54	0			0.006 ^	0.03 ^{AL}	0.05
Tomato Paste, Canned	369	0			0.010 ^	0.05 ^{AL}	-
TOTAL	8,274	14					
Difenoconazole (fungicide)							
Sweet Corn, Canned	127	0			0.072 ^	0.1	-
TOTAL	127	0					
Diflubenzuron (insecticide)							
Mushrooms	131	1	0.8	0.055 ^	0.0067 ^	0.2	-
TOTAL	131	1					
Dimethenamid (herbicide)							
Sweet Corn, Canned	127	0			0.016 ^	0.01	-
TOTAL	127	0					
Dimethoate (insecticide) (parent of Omethoate)							
Apples	736	8	1.1	0.008 - 0.55	0.005 ^	2	1
Bananas	702	0			0.002 - 0.005	NT	1
Broccoli	720	20	2.8	0.003 - 0.055	0.002 - 0.006	2	-
Carrots	739	0			0.001 - 0.002	NT	1
Celery	736	44	6	0.002 - 0.14	0.001 - 0.002	2	1
Cherries	286	7	2.4	0.002 - 0.14	0.001 - 0.002	2	2
Grapes	705	61	8.7	0.015 - 0.35	0.009 ^	1	1
Green Beans	707	77	10.9	0.002 - 0.8	0.001 - 0.002	2	-
Lettuce (X-1)	554	25	4.5	0.003 - 5.0	0.002 - 0.007	2	2
Mushrooms (V-4)	184	4	2.2	0.002 - 0.007	0.0012 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	745	1	0.1	0.002 ^	0.001 - 0.002	2	2
Peaches (V-17)	529	17	3.2	0.002 - 0.007	0.001 - 0.0012	NT	2
Pineapples	213	0			0.002 ^	NT	-
Potatoes	733	0			0.002 - 0.007	0.2	0.05
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	185	0			0.002 - 0.0045	2	0.5
Tomato Paste, Canned	369	0			0.003 ^	2.0	-
TOTAL	8,997	264					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Dimethomorph (fungicide)							
Bananas	74	0			0.030 ^	NT	-
Broccoli	155	0			0.030 ^	NT	-
Carrots	143	0			0.030 ^	NT	-
Celery	87	0			0.030 ^	NT	-
Cherries	67	0			0.030 ^	NT	-
Green Beans	151	0			0.030 ^	NT	-
Lettuce	54	0			0.030 ^	NT	-
Mushrooms	36	0			0.030 ^	NT	-
Nectarines	68	0			0.030 ^	NT	-
Oranges	125	0			0.030 ^	NT	-
Pineapples	106	0			0.030 ^	NT	-
Potatoes	733	0			0.016 - 0.030	0.05	-
Sweet Corn, Canned	54	0			0.030 ^	0.05	-
Sweet Peas, Canned	54	0			0.030 ^	NT	-
TOTAL	1,907	0					
Diphenamid (herbicide)							
Apples	736	0			0.025 ^	0.1	-
Bananas	172	0			0.006 ^	NT	-
Broccoli	208	0			0.006 ^	NT	-
Carrots	721	0			0.006 - 0.007	NT	-
Celery	195	0			0.006 ^	NT	-
Cherries	286	0			0.006 - 0.0067	NT	-
Green Beans	184	0			0.006 ^	NT	-
Lettuce	536	0			0.006 - 0.018	NT	-
Mushrooms	184	0			0.006 - 0.0067	NT	-
Nectarines	100	0			0.006 ^	NT	-
Oranges	178	0			0.006 ^	NT	-
Peaches	529	0			0.0067 - 0.0224	0.1	-
Pineapples	195	0			0.006 ^	NT	-
Potatoes	733	0			0.006 - 0.018	1	-
Sweet Corn, Canned	54	0			0.006 ^	NT	-
Sweet Peas, Canned	185	0			0.006 - 0.015	NT	-
Tomato Paste, Canned	369	0			0.020 ^	0.1	-
TOTAL	5,565	0					
Diphenylamine-DPA (fungicide)							
Apples	736	492	66.8	0.042 - 2.7	0.025 ^	10	5
Bananas	702	0			0.010 - 0.025	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	739	0			0.0029 - 0.010	NT	-
Celery	213	0			0.010 ^	NT	-
Cherries	286	0			0.0029 - 0.010	NT	-
Green Beans	202	0			0.010 ^	NT	-
Lettuce	554	0			0.008 - 0.010	NT	-
Mushrooms	184	0			0.0029 - 0.010	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	214	0			0.010 ^	NT	-
Peaches (V-28)	529	28	5.3	0.005 - 0.12	0.0029 - 0.003	NT	-
Pineapples	213	0			0.010 ^	NT	-
Potatoes	733	0			0.008 - 0.010	NT	-
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	185	0			0.010 - 0.015	NT	-
TOTAL	5,852	520					
Disulfoton (insecticide)							
Apples	736	0			0.013 ^	NT	-
Bananas	702	0			0.003 - 0.013	NT	-
Broccoli	720	1	0.1	0.010 ^	0.003 - 0.006	0.75	0.5
Carrots	739	0			0.0015 - 0.003	NT	0.5
Celery	715	0			0.001 - 0.003	NT	0.5
Cherries	286	0			0.002 - 0.003	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Green Beans	707	0			0.001 - 0.003	0.75	0.5
Lettuce	554	0			0.003 - 0.007	0.75	0.5
Mushrooms	184	0			0.0015 - 0.003	NT	0.5
Nectarines	100	0			0.003 ^	NT	-
Oranges	214	0			0.003 ^	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	730	0			0.003 - 0.010	0.75	0.1
Potatoes	733	0			0.003 - 0.007	0.75	0.5
Sweet Corn, Canned	181	0			0.003 - 0.007	0.3	0.5
Sweet Peas, Canned	185	0			0.003 - 0.0038	0.75	0.5
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.025 ^	0.75	-
TOTAL	8,384	1					

Disulfoton sulfone (metabolite of Disulfoton)

Apples	736	0			0.008 ^	NT	-
Bananas	702	0			0.004 - 0.008	NT	-
Broccoli	720	2	0.3	0.008 - 0.026	0.004 - 0.005	0.75	0.5
Carrots	739	0			0.001 - 0.004	NT	0.5
Celery (V-1)	718	1	0.1	0.007 ^	0.004 ^	NT	0.5
Cherries	286	0			0.001 - 0.004	NT	-
Green Beans	707	0			0.004 ^	0.75	0.5
Lettuce	554	3	0.5	0.007 - 0.015	0.004 - 0.009	0.75	0.5
Mushrooms	184	0			0.001 - 0.004	NT	0.5
Nectarines	100	0			0.004 ^	NT	-
Oranges	214	0			0.004 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
Pineapples	730	0			0.004 - 0.010	0.75	0.1
Potatoes	733	0			0.004 - 0.009	NT	0.5
Sweet Corn, Canned	181	0			0.004 - 0.009	0.3	0.5
Sweet Peas, Canned	185	0			0.0038 - 0.004	0.75	0.5
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.0075 ^	0.75	-
TOTAL	8,387	6					

Endosulfan I (insecticide)

Apples	736	8	1.1	0.007 - 0.037	0.004 ^	2.0	1
Bananas	702	0			0.004 - 0.005	NT	2
Broccoli	720	9	1.2	0.003 - 0.059	0.002 - 0.005	2.0	2
Carrots	739	1	0.1	0.010 ^	0.005 - 0.020	0.2	0.2
Celery	736	16	2.2	0.008 - 0.24	0.005 - 0.006	2.0	2
Cherries	286	1	0.3	0.010 ^	0.005 - 0.006	2.0	1
Grapes	705	0			0.004 ^	2.0	2
Green Beans	707	118	16.7	0.008 - 0.36	0.005 - 0.006	2.0	0.5
Lettuce	554	28	5.1	0.008 - 0.57	0.005 - 0.007	2.0	1
Mushrooms	184	0			0.005 - 0.006	NT	2
Nectarines	359	5	1.4	0.002 - 0.003	0.001 - 0.005	2.0	2
Oranges	214	0			0.005 ^	NT	0.5
Peaches	529	17	3.2	0.010 - 0.094	0.006 ^	2.0	2
Pineapples	730	0			0.004 - 0.005	2.0	2
Potatoes	733	1	0.1	0.012 ^	0.005 - 0.007	0.2	0.2
Sweet Corn, Canned	181	0			0.005 - 0.007	0.2	2
Sweet Peas, Canned	185	0			0.0023 - 0.005	2.0	2
Tomato Paste, Canned	<u>369</u>	<u>38</u>	10.3	0.005 - 0.033	0.003 - 0.010	2.0	-
TOTAL	9,369	242					

Endosulfan II (metabolite of Endosulfan)

Apples	736	13	1.8	0.007 - 0.078	0.004 ^	2.0	1
Bananas	702	0			0.004 - 0.006	NT	2
Broccoli	720	9	1.2	0.003 - 0.066	0.002 - 0.006	2.0	2
Carrots	739	0			0.006 ^	0.2	0.2
Celery	736	16	2.2	0.010 - 0.16	0.0059 - 0.006	2.0	2
Cherries	286	14	4.9	0.010 - 0.034	0.006 ^	2.0	1
Grapes	705	3	0.4	0.007 ^	0.004 ^	2.0	2
Green Beans	707	83	11.7	0.010 - 0.34	0.0059 - 0.006	2.0	0.5

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lettuce	554	19	3.4	0.012 - 0.44	0.006 - 0.007	2.0	1
Mushrooms	184	0			0.006 ^	NT	2
Nectarines	359	12	3.3	0.002 - 0.007	0.001 - 0.006	2.0	2
Oranges	214	0			0.006 ^	NT	0.5
Peaches	529	27	5.1	0.010 - 0.13	0.006 ^	2.0	2
Pineapples	730	0			0.004 - 0.006	2.0	2
Potatoes	733	1	0.1	0.012 ^	0.006 - 0.007	0.2	0.2
Sweet Corn, Canned	181	0			0.006 - 0.007	0.2	2
Sweet Peas, Canned	185	0			0.0038 - 0.006	2.0	2
Tomato Paste, Canned	369	75	20.3	0.005 - 0.053	0.003 - 0.010	2.0	-
TOTAL	9,369	272					
Endosulfan sulfate (metabolite of Endosulfan)							
Apples	736	4	0.5	0.008 - 0.025	0.005 ^	2.0	1
Bananas	702	0			0.005 - 0.007	NT	2
Broccoli	720	20	2.8	0.003 - 0.051	0.002 - 0.007	2.0	2
Carrots	739	2	0.3	0.016 - 0.041	0.007 - 0.010	0.2	0.2
Celery	736	15	2	0.012 - 0.13	0.007 - 0.010	2.0	2
Cherries	286	21	7.3	0.012 - 0.082	0.007 - 0.0096	2.0	1
Grapes	705	1	0.1	0.008 ^	0.005 ^	2.0	2
Green Beans	707	180	25.5	0.012 - 0.62	0.007 - 0.010	2.0	0.5
Lettuce	554	51	9.2	0.012 - 0.52	0.007 ^	2.0	1
Mushrooms	184	0			0.007 - 0.0096	NT	2
Nectarines	359	18	5	0.002 - 0.013	0.001 - 0.007	2.0	21
Oranges	214	0			0.007 ^	NT	0.5
Peaches	529	35	6.6	0.016 - 0.14	0.0096 - 0.010	2.0	2
Pineapples	730	0			0.005 - 0.007	2.0	2
Potatoes	733	52	7.1	0.012 - 0.069	0.007 ^	0.2	0.2
Sweet Corn, Canned	181	0			0.007 ^	0.2	2
Sweet Peas, Canned	185	0			0.0038 - 0.007	2.0	2
Tomato Paste, Canned	369	19	5.1	0.005 ^	0.003 ^	2.0	-
TOTAL	9,369	418					
Endrin (insecticide)							
Sweet Peas, Canned	131	0			0.0015 ^	NT	-
TOTAL	131	0					
EPTC (herbicide)							
Carrots	510	0			0.065 - 0.0653	0.1	-
Cherries	190	0			0.0653 ^	NT	-
Mushrooms	131	0			0.0653 ^	NT	-
Peaches	498	0			0.065 - 0.0653	NT	-
TOTAL	1,329	0					
Esfenvalerate (insecticide) (isomer of Fenvalerate)							
Bananas	189	0			0.038 ^	0.05	-
Broccoli	208	0			0.038 ^	0.05	-
Carrots	739	0			0.003 - 0.038	0.05	-
Celery	736	0			0.019 - 0.038	0.05	-
Cherries	286	2	0.7	0.005 - 0.013	0.0033 - 0.038	0.05	-
Green Beans (X-3)	707	12	1.7	0.032 - 0.085	0.019 - 0.038	0.05	-
Lettuce	554	0			0.021 - 0.038	5.0	-
Mushrooms	184	0			0.0034 - 0.038	0.05	-
Nectarines	100	0			0.038 ^	0.05	-
Oranges	214	0			0.038 ^	0.05	-
Peaches	529	63	11.9	0.005 - 0.034	0.003 - 0.0112	0.05	-
Pineapples	213	0			0.038 ^	0.05	-
Potatoes	733	0			0.021 - 0.038	0.05	-
Sweet Corn, Canned	181	0			0.021 - 0.038	0.05	-
Sweet Peas, Canned	54	0			0.038 ^	0.05	-
TOTAL	5,627	77					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Ethalfuralin (herbicide)							
Carrots	524	0			0.0168 - 0.017	NT	-
Cherries	207	0			0.0168 ^	NT	-
Mushrooms	116	0			0.0168 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.0168 - 0.017	NT	-
TOTAL	1,376	0					
Ethiofencarb (insecticide)							
Cherries	207	0			0.0168 ^	-	-
Mushrooms	131	0			0.0168 ^	-	-
Peaches	<u>529</u>	<u>0</u>			0.0168 - 0.017	-	-
TOTAL	867	0					
Ethion (insecticide)							
Apples	736	0			0.005 ^	NT	-
Bananas	702	0			0.002 - 0.005	NT	-
Broccoli	208	0			0.002 ^	NT	-
Carrots	739	0			0.001 - 0.002	NT	-
Celery	736	0			0.001 - 0.002	NT	-
Cherries	286	0			0.001 - 0.002	NT	-
Grapes	705	0			0.006 ^	NT	-
Green Beans	707	0			0.001 - 0.002	NT	-
Lettuce	554	0			0.002 - 0.004	NT	-
Mushrooms	184	0			0.001 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	745	3	0.4	0.002 ^	0.001 - 0.002	2.0	5
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	733	0			0.002 - 0.004	NT	-
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.002 - 0.0045	NT	-
TOTAL	8,116	3					
Ethion di oxon (metabolite of Ethion)							
Carrots	524	0			0.001 ^	NT	-
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.001 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 ^	NT	-
TOTAL	1,391	0					
Ethion mono oxon (metabolite of Ethion)							
Bananas	189	0			0.002 ^	NT	-
Broccoli	208	0			0.002 ^	NT	-
Carrots	739	0			0.001 - 0.002	NT	-
Celery	213	0			0.002 ^	NT	-
Cherries	286	0			0.001 - 0.002	NT	-
Green Beans	202	0			0.002 ^	NT	-
Lettuce	159	0			0.002 ^	NT	-
Mushrooms	184	0			0.001 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	745	0			0.002 ^	2.0	-
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	210	0			0.002 ^	NT	-
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.002 ^	NT	-
TOTAL	4,085	0					
Ethoprop (insecticide)							
Apples	736	0			0.015 ^	NT	-
Bananas	702	0			0.002 - 0.015	0.02	0.02
Broccoli	208	0			0.002 ^	NT	-
Carrots	215	0			0.002 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Celery	736	0			0.001 - 0.002	NT	-
Cherries	79	0			0.002 ^	NT	-
Green Beans	707	0			0.001 - 0.002	0.02	-
Lettuce	159	0			0.002 ^	NT	0.02
Mushrooms	53	0			0.002 ^	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	214	0			0.002 ^	NT	-
Pineapples	730	0			0.002 - 0.010	0.02	0.02
Potatoes	733	0			0.002 - 0.016	0.02	0.02
Sweet Corn, Canned	181	0			0.002 - 0.016	0.02	-
Sweet Peas, Canned	54	0			0.002 ^	NT	0.02
TOTAL	5,607	0					
Etridiazole (fungicide)							
Sweet Peas, Canned	131	0			0.0015 ^	NT	-
Tomato Paste, Canned	369	0			0.003 ^	0.15	-
TOTAL	500	0					
Fenamiphos (insecticide)							
Apples	736	0			0.014 ^	0.25	-
Bananas	702	0			0.004 - 0.014	0.10	0.1
Broccoli	208	0			0.004 ^	NT	0.05
Carrots	739	0			0.001 - 0.004	NT	0.2
Celery	736	0			0.002 - 0.004	NT	-
Cherries	286	0			0.001 - 0.004	0.25	-
Grapes	705	0			0.009 ^	0.10	0.1
Green Beans	707	0			0.002 - 0.004	NT	-
Lettuce	554	0			0.004 - 0.006	NT	-
Mushrooms	184	0			0.001 - 0.004	NT	-
Nectarines	100	0			0.004 ^	NT	-
Oranges	745	0			0.004 - 0.005	0.60	0.5
Peaches	529	0			0.001 ^	0.25	-
Pineapples	730	0			0.004 - 0.009	0.30	0.05
Potatoes	733	0			0.004 - 0.006	NT	0.2
Sweet Corn, Canned	54	0			0.004 ^	NT	-
Sweet Peas, Canned	185	0			0.0038 - 0.004	NT	-
TOTAL	8,633	0					
Fenamiphos sulfone (metabolite of Fenamiphos)							
Apples	736	0			0.012 ^	0.25	-
Bananas	702	0			0.008 - 0.012	0.10	0.1
Broccoli	208	0			0.008 ^	NT	0.05
Carrots	739	0			0.001 - 0.008	NT	0.2
Celery	736	0			0.003 - 0.008	NT	-
Cherries	286	0			0.001 - 0.008	0.25	-
Grapes	705	0			0.020 ^	0.10	0.1
Green Beans	707	0			0.003 - 0.008	NT	-
Lettuce	554	0			0.008 - 0.036	NT	-
Mushrooms	184	0			0.001 - 0.008	NT	-
Nectarines	100	0			0.008 ^	NT	-
Oranges	745	0			0.005 - 0.008	0.60	0.5
Peaches	529	0			0.001 ^	0.25	-
Pineapples	730	0			0.008 - 0.019	0.30	0.05
Potatoes	733	0			0.008 - 0.036	NT	0.2
Sweet Corn, Canned	54	0			0.008 ^	NT	-
Sweet Peas, Canned	185	0			0.008 - 0.009	NT	-
TOTAL	8,633	0					
Fenamiphos sulfoxide (metabolite of Fenamiphos)							
Carrots	524	0			0.001 ^	NT	0.2
Cherries	207	0			0.001 ^	0.25	-
Grapes	1	1	100	0.037 ^	0.022 ^	0.10	0.1

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	131	0			0.001 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 ^	0.25	-
TOTAL	1,392	1					
Fenarimol (fungicide)							
Carrots	524	0			0.0096 - 0.010	NT	-
Cherries	207	33	15.9	0.016 - 0.14	0.0096 ^	1.0	1
Mushrooms	131	0			0.0096 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.0096 - 0.010	NT	0.5
TOTAL	1,391	33					
Fenbuconazole (fungicide)							
Bananas	686	0			0.025 - 0.030	0.3	0.05
Broccoli	190	0			0.030 ^	NT	-
Carrots	739	0			0.014 - 0.030	NT	-
Celery	195	0			0.030 ^	NT	-
Cherries	286	9	3.1	0.024 - 0.26	0.0144 - 0.030	2.0	1
Green Beans	202	0			0.030 ^	NT	-
Lettuce	141	0			0.030 ^	NT	-
Mushrooms	184	0			0.0144 - 0.030	NT	-
Nectarines	359	78	21.7	0.027 - 0.097	0.016 - 0.030	2.0	-
Oranges	214	0			0.030 ^	NT	-
Peaches	529	26	4.9	0.024 - 0.15	0.014 - 0.0144	2.0	-
Pineapples	213	0			0.030 ^	NT	-
Potatoes	210	0			0.030 ^	NT	-
Sweet Corn, Canned	54	0			0.030 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.030 ^	NT	-
TOTAL	4,256	113					
Fenitrothion (insecticide)							
Carrots	524	0			0.001 ^	NT	-
Cherries	207	0			0.001 ^	NT	0.5
Mushrooms	131	0			0.001 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 ^	NT	1
TOTAL	1,391	0					
Fenitrothion oxygen analog (metabolite of Fenitrothion)							
Carrots	524	0			0.0015 - 0.002	NT	-
Cherries	207	0			0.002 ^	NT	-
Mushrooms	131	0			0.0015 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.0015 - 0.002	NT	-
TOTAL	1,391	0					
Fenpropathrin (insecticide)							
Bananas	134	0			0.020 ^	NT	-
Broccoli	720	0			0.010 - 0.020	3.0	-
Carrots	685	0			0.0158 - 0.020	NT	-
Celery	177	0			0.020 ^	NT	-
Cherries (V-1)	270	1	0.4	0.026 ^	0.0158 - 0.020	NT	-
Green Beans	184	0			0.020 ^	NT	-
Lettuce	70	0			0.020 ^	NT	-
Mushrooms	184	0			0.0158 - 0.020	NT	-
Nectarines	100	0			0.020 ^	NT	-
Oranges	143	0			0.020 ^	2.0	-
Peaches	529	0			0.0158 - 0.016	NT	-
Pineapples (V-1)	159	1	0.6	0.13 ^	0.020 ^	NT	-
Potatoes	120	0			0.020 ^	NT	-
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	185	0			0.015 - 0.020	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.020 ^	0.6	-
TOTAL	4,083	2					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Fenthion (insecticide)							
Carrots	524	0			0.0015 - 0.002	NT	-
Cherries	207	0			0.002 ^	NT	2
Mushrooms	131	0			0.0015 ^	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
TOTAL	1,391	0					
Fenvalerate (insecticide) (isomer of Esfenvalerate)							
Apples	736	1	0.1	0.058 ^	0.035 ^	2.0	2
Bananas	702	0			0.035 - 0.057	0.05	-
Broccoli	720	0			0.015 - 0.057	2.0	2
Carrots	739	0			0.005 - 0.057	0.5	0.05
Celery	736	0			0.019 - 0.057	0.05	2
Cherries	286	1	0.3	0.021 ^	0.0053 - 0.057	10.0	2
Green Beans	707	1	0.1	0.032 ^	0.019 - 0.057	2.0	1
Lettuce	554	0			0.042 - 0.057	0.05	2
Mushrooms	184	0			0.0053 - 0.057	0.05	-
Nectarines	359	1	0.3	0.033 ^	0.020 - 0.057	10.0	-
Oranges	214	0			0.057 ^	0.05	2
Peaches	529	56	10.6	0.008 - 0.046	0.005 - 0.0176	10.0	5
Pineapples	213	0			0.057 ^	0.05	-
Potatoes	733	0			0.042 - 0.057	0.05	0.05
Sweet Corn, Canned	181	0			0.042 - 0.057	0.1	0.1
Sweet Peas, Canned	185	0			0.038 - 0.057	0.05	-
Tomato Paste, Canned	369	0			0.060 ^	1.0	-
TOTAL	8,147	60					
Fludioxonil (fungicide)							
Bananas	143	0			0.015 ^	NT	-
Broccoli	208	0			0.015 ^	0.01	-
Carrots	739	0			0.012 - 0.015	0.02	-
Celery	161	0			0.015 ^	0.01	-
Cherries	286	0			0.012 - 0.015	NT	-
Green Beans	202	0			0.015 ^	0.01	-
Lettuce	141	0			0.015 ^	0.01	-
Mushrooms	184	0			0.012 - 0.015	NT	-
Nectarines	100	51	51	0.025 - 0.7	0.015 ^	5.0	-
Oranges	214	0			0.015 ^	NT	-
Peaches	529	93	17.6	0.020 - 2.0	0.012 ^	5.0	-
Pineapples	195	0			0.015 ^	NT	-
Potatoes	174	0			0.015 ^	0.02	-
Sweet Corn, Canned	181	0			0.015 - 0.036	0.02	-
Sweet Peas, Canned	185	0			0.001 - 0.015	0.01	-
Tomato Paste, Canned	369	0			0.020 ^	0.01	-
TOTAL	4,011	144					
Fluridone (herbicide)							
Bananas	140	0			0.035 ^	NT	-
Broccoli	208	0			0.035 ^	0.1	-
Carrots	724	0			0.013 - 0.044	0.1	-
Celery	125	0			0.035 ^	0.1	-
Cherries	282	0			0.0132 - 0.035	0.1	-
Green Beans	202	0			0.035 ^	0.1	-
Lettuce	125	0			0.035 ^	0.1	-
Mushrooms	167	0			0.0132 - 0.088	NT	-
Nectarines	68	0			0.035 ^	0.1	-
Oranges	214	0			0.035 ^	0.1	-
Peaches	529	0			0.013 - 0.22	0.1	-
Pineapples	195	0			0.035 ^	NT	-
Potatoes	733	0			0.016 - 0.035	0.1	-
Sweet Corn, Canned	181	0			0.016 - 0.035	0.1	-
Sweet Peas, Canned	98	0			0.015 - 0.035	0.1	-
TOTAL	3,991	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Folpet (fungicide)							
Apples	736	0			0.013 ^	25	-
Bananas	702	0			0.013 - 0.019	NT	-
Broccoli	172	0			0.019 ^	NT	-
Carrots	215	0			0.019 ^	NT	-
Celery	213	0			0.019 ^	NT	-
Cherries	79	0			0.019 ^	NT	-
Grapes	705	1	0.1	0.038 ^	0.010 ^	25.0	2
Green Beans	202	0			0.019 ^	NT	-
Lettuce	554	0			0.019 - 0.066	50	-
Mushrooms	53	0			0.019 ^	NT	-
Nectarines	100	0			0.019 ^	NT	-
Oranges	214	0			0.019 ^	NT	-
Pineapples	213	0			0.019 ^	NT	-
Potatoes	733	0			0.019 - 0.066	NT	-
Sweet Corn, Canned	54	0			0.019 ^	NT	-
Sweet Peas, Canned	54	0			0.019 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.015 ^	25.0	-
TOTAL	5,368	1					
Fonofos (insecticide)							
Bananas	702	0			0.002 - 0.025	0.1	-
Broccoli	208	0			0.002 ^	NT	-
Carrots	739	0			0.001 - 0.002	0.1	-
Celery	736	0			0.0015 - 0.002	0.1	-
Cherries	286	0			0.001 - 0.002	NT	-
Green Beans	707	0			0.0015 - 0.002	0.1	-
Lettuce	159	0			0.002 ^	0.1	-
Mushrooms	184	0			0.001 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	214	0			0.002 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	733	0			0.002 - 0.010	0.1	-
Sweet Corn, Canned	181	0			0.002 - 0.010	0.1	-
Sweet Peas, Canned	54	0			0.002 ^	0.1	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.009 ^	0.1	-
TOTAL	6,114	0					
Fonofos oxygen analog (metabolite of Fonofos)							
Carrots	524	0			0.001 ^	0.1	-
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.001 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 ^	NT	-
TOTAL	1,391	0					
Formetanate hydrochloride (insecticide)							
Apples	537	1	0.2	0.18 ^	0.050 ^	3	-
Nectarines	319	54	16.9	0.083 - 0.64	0.050 ^	4	-
Oranges	<u>451</u>	<u>0</u>			0.050 ^	4	-
TOTAL	1,307	55					
Heptachlor (insecticide)							
Apples	736	0			0.003 ^	0.01 ^{AL}	-
Bananas	702	0			0.003 - 0.006	NT	-
Broccoli	208	0			0.006 ^	0.01 ^{AL}	-
Carrots	739	0			0.0019 - 0.006	0.01 ^{AL}	-
Celery	213	0			0.006 ^	0.01 ^{AL}	-
Cherries	269	0			0.0019 - 0.006	0.01 ^{AL}	-
Green Beans	202	0			0.006 ^	0.01 ^{AL}	-
Lettuce	554	0			0.004 - 0.006	0.01 ^{AL}	-
Mushrooms	184	0			0.0019 - 0.006	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Nectarines	100	0			0.006 ^	0.01 ^{AL}	-
Oranges	745	0			0.006 ^	0.01 ^{AL}	0.01
Peaches	529	0			0.0019 - 0.002	0.01 ^{AL}	-
Pineapples	213	0			0.006 ^	0.02 ^{AL}	0.01
Potatoes	733	0			0.004 - 0.006	0.01 ^{AL}	-
Sweet Corn, Canned	54	0			0.006 ^	0.01 ^{AL}	-
Sweet Peas, Canned	185	0			0.001 - 0.006	0.01 ^{AL}	-
TOTAL	6,366	0					
Heptachlor epoxide (metabolite of Heptachlor)							
Apples	736	0			0.001 ^	0.01 ^{AL}	-
Bananas	702	0			0.001 - 0.006	NT	-
Broccoli	720	0			0.001 - 0.006	0.01 ^{AL}	-
Carrots	739	1	0.1	0.013 ^	0.0038 - 0.006	0.01 ^{AL}	-
Celery	736	0			0.005 - 0.006	0.01 ^{AL}	-
Cherries	286	0			0.0038 - 0.006	0.01 ^{AL}	-
Green Beans	707	0			0.005 - 0.006	0.01 ^{AL}	-
Lettuce	554	0			0.004 - 0.006	0.01 ^{AL}	-
Mushrooms	184	0			0.0038 - 0.006	NT	-
Nectarines	359	0			0.001 - 0.006	0.01 ^{AL}	-
Oranges	745	0			0.001 - 0.006	0.01 ^{AL}	0.01
Peaches	529	0			0.0038 - 0.004	0.01 ^{AL}	-
Pineapples	730	0			0.005 - 0.006	0.02 ^{AL}	0.01
Potatoes	733	0			0.004 - 0.006	0.01 ^{AL}	-
Sweet Corn, Canned	181	0			0.004 - 0.006	0.01 ^{AL}	-
Sweet Peas, Canned	185	0			0.0015 - 0.006	0.01 ^{AL}	-
Tomato Paste, Canned	369	0			0.003 ^	0.05 ^{AL}	-
TOTAL	9,195	1					
Hexachlorobenzene-HCB (impurity of Quintozene)							
Apples	736	0			0.001 ^	NT	-
Bananas	702	0			0.001 - 0.002	NT	-
Broccoli	720	0			0.001 - 0.002	0.1	-
Carrots	215	0			0.002 ^	NT	-
Celery	715	0			0.002 - 0.004	NT	-
Cherries	79	0			0.002 ^	NT	-
Green Beans	707	0			0.002 - 0.004	0.1	-
Lettuce	554	0			0.002 - 0.003	NT	-
Mushrooms	53	0			0.002 ^	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	214	0			0.002 ^	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	733	1	0.1	0.003 ^	0.002 - 0.003	0.1	-
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	185	0			0.001 - 0.008	NT	-
Tomato Paste, Canned	369	0			0.003 ^	NT	-
TOTAL	6,349	1					
Hexaconazole (fungicide)							
Bananas	702	0			0.020 - 0.025	0.7	0.1
Broccoli	208	0			0.020 ^	NT	-
Carrots	161	0			0.020 ^	NT	-
Celery	177	0			0.020 ^	NT	-
Cherries	67	0			0.020 ^	NT	-
Green Beans	167	0			0.020 ^	NT	-
Lettuce	70	0			0.020 ^	NT	-
Mushrooms	53	0			0.020 ^	NT	-
Nectarines	100	0			0.020 ^	NT	-
Oranges	143	0			0.020 ^	NT	-
Pineapples	124	0			0.020 ^	NT	-
Potatoes	138	0			0.020 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	54	0			0.020 ^	NT	-
TOTAL	2,218	0					
Hexazinone (herbicide)							
Bananas	159	0			0.010 ^	NT	-
Broccoli	190	0			0.010 ^	NT	-
Carrots	215	0			0.010 ^	NT	-
Celery	195	0			0.010 ^	NT	-
Cherries	79	0			0.010 ^	NT	-
Green Beans	202	0			0.010 ^	NT	-
Lettuce	159	0			0.010 ^	NT	-
Mushrooms	53	0			0.010 ^	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	214	0			0.010 ^	NT	-
Pineapples	730	0			0.010 - 0.014	0.5	-
Potatoes	210	0			0.010 ^	NT	-
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	54	0			0.010 ^	NT	-
TOTAL	2,614	0					
3-Hydroxycarbofuran (metabolite of Carbofuran)							
Apples	736	0			0.017 ^	NT	-
Bananas	702	0			0.013 - 0.017	0.1	0.1
Broccoli	154	0			0.013 ^	NT	-
Carrots	709	0			0.0018 - 0.013	NT	0.5
Celery	672	0			0.003 - 0.013	NT	-
Cherries	286	0			0.002 - 0.013	NT	-
Grapes	705	0			0.010 ^	0.2	-
Green Beans	202	0			0.013 ^	NT	-
Lettuce	554	0			0.012 - 0.013	NT	-
Nectarines	100	0			0.013 ^	NT	-
Oranges	214	0			0.013 ^	NT	-
Peaches	529	0			0.0018 - 0.006	NT	-
Pineapples	213	0			0.013 ^	NT	-
Potatoes	733	0			0.012 - 0.013	1	0.1
Sweet Corn, Canned	181	0			0.012 - 0.013	0.2	0.1
Sweet Peas, Canned	54	0			0.013 ^	NT	-
TOTAL	6,744	0					
Imazalil (fungicide)							
Apples	736	0			0.044 ^	NT	5
Bananas	702	58	8.3	0.050 - 0.096	0.030 - 0.044	0.20	2
Broccoli	208	0			0.030 ^	NT	-
Carrots	215	0			0.030 ^	NT	-
Celery	195	0			0.030 ^	NT	-
Cherries	286	0			0.0096 - 0.030	NT	-
Green Beans	202	0			0.030 ^	NT	-
Lettuce	554	0			0.030 ^	NT	-
Mushrooms	184	0			0.0096 - 0.030	NT	-
Nectarines	100	0			0.030 ^	NT	-
Oranges	745	473	63.5	0.010 - 0.64	0.010 - 0.030	10.0	5
Peaches (V-5)	529	5	0.9	0.016 - 0.036	0.0096 - 0.010	NT	-
Pineapples	213	0			0.030 ^	NT	-
Potatoes	733	0			0.030 ^	NT	5
Sweet Corn, Canned	54	0			0.030 ^	NT	-
Sweet Peas, Canned	54	0			0.030 ^	NT	-
TOTAL	5,710	536					
Imidacloprid (insecticide)							
Nectarines	259	0			0.010 ^	1.0	-
Oranges	531	10	1.9	0.014 - 0.12	0.010 ^	1.0	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Peas, Canned	131	0			0.010 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.025 ^	6.0	-
TOTAL	1,290	10					
Iprodione (fungicide)							
Apples (V-1)	736	1	0.1	0.040 ^	0.024 ^	NT	5
Bananas	702	0			0.021 - 0.024	NT	-
Broccoli	720	0			0.016 - 0.021	25.0	25
Carrots	727	192	26.4	0.013 - 0.16	0.008 - 0.028	5.0	10
Celery	736	0			0.012 - 0.021	NT	-
Cherries	286	43	15	0.014 - 2.1	0.0084 - 0.021	20.0	10
Grapes	705	135	19.1	0.020 - 1.4	0.012 ^	60.0	10
Green Beans	707	49	6.9	0.020 - 1.3	0.012 - 0.021	2.0	2
Lettuce	554	7	1.3	0.013 - 0.43	0.008 - 0.021	25.0	10
Mushrooms	184	0			0.0084 - 0.021	NT	-
Nectarines	359	205	57.1	0.010 - 3.7	0.006 - 0.021	20.0	-
Oranges	214	0			0.021 ^	NT	-
Peaches	529	349	66	0.013 - 9.1	0.008 - 0.0084	20.0	10
Pineapples	213	0			0.021 ^	NT	-
Potatoes	733	0			0.008 - 0.021	0.5	-
Sweet Corn, Canned	54	0			0.021 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.021 - 0.023	NT	-
TOTAL	8,344	981					
Iprodione metabolite isomer (metabolite of Iprodione)							
Carrots	409	0			0.051 - 0.85	5.0	-
Cherries	191	4	2.1	0.28 - 0.57	0.17 - 0.3408	20.0	-
Mushrooms	131	0			0.0511 - 0.85	NT	-
Peaches	<u>519</u>	<u>209</u>	40.3	0.085 - 2.2	0.051 - 0.34	20.0	-
TOTAL	1,250	213					
Lambda cyhalothrin Total (insecticide)							
Bananas	189	0			0.060 ^	0.01	-
Broccoli	208	0			0.060 ^	0.4	-
Carrots	739	0			0.0028 - 0.060	0.01	-
Celery	213	0			0.060 ^	0.01	-
Cherries	286	0			0.0028 - 0.060	0.01	-
Green Beans	202	0			0.060 ^	0.01	-
Lettuce	159	14	8.8	0.1 - 0.58	0.060 ^	2.0	-
Mushrooms	184	0			0.0028 - 0.060	0.01	-
Nectarines	100	0			0.060 ^	0.01	-
Oranges	214	0			0.060 ^	0.01	-
Peaches	529	0			0.0028 - 0.0094	0.01	-
Pineapples	213	0			0.060 ^	0.01	-
Potatoes	210	0			0.060 ^	0.01	0.02
Sweet Corn, Canned	181	0			0.016 - 0.060	0.05	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.060 ^	0.01	-
TOTAL	3,681	14					
Lambda cyhalothrin R ester (isomer of Lambda cyhalothrin)							
Broccoli	512	3	0.6	0.017 ^	0.010 ^	0.4	-
Sweet Peas, Canned	131	0			0.015 ^	0.01	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.015 ^	0.1	-
TOTAL	1,012	3					
Lambda cyhalothrin S ester (isomer of Lambda cyhalothrin)							
Carrots	524	0			0.003 - 0.0032	0.01	-
Cherries	207	0			0.0032 - 0.0107	0.01	-
Mushrooms	131	0			0.0032 ^	0.01	-
Peaches	<u>529</u>	<u>0</u>			0.003 - 0.0106	0.01	-
TOTAL	1,391	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lindane-BHC gamma (insecticide)							
Apples	736	0			0.003 ^	1	0.5
Bananas	702	0			0.002 - 0.003	NT	-
Broccoli	720	1	0.1	0.003 ^	0.001 - 0.002	1	-
Carrots	739	0			0.002 - 0.003	0.5 ^{AL}	0.2
Celery	736	0			0.002 - 0.0039	1	-
Cherries	286	0			0.002 - 0.0029	1	0.5
Grapes	705	0			0.002 ^	1.0	0.5
Green Beans	707	0			0.002 - 0.0039	0.5 ^{AL}	-
Lettuce	554	0			0.002 - 0.006	3	2
Mushrooms	184	0			0.002 - 0.0029	3	-
Nectarines	359	0			0.001 - 0.002	1	-
Oranges	745	0			0.001 - 0.002	0.5 ^{AL}	-
Peaches	529	0			0.0029 - 0.003	1	-
Pineapples	730	0			0.002 ^	1	-
Potatoes	733	0			0.002 - 0.006	0.5 ^{AL}	0.05
Sweet Corn, Canned	181	0			0.002 - 0.006	0.5 ^{AL}	-
Sweet Peas, Canned	185	0			0.0015 - 0.002	0.5 ^{AL}	0.1
Tomato Paste, Canned	369	0			0.003 ^	3.0	-
TOTAL	9,900	1					
Linuron (herbicide)							
Broccoli	83	0			0.025 ^	NT	-
Carrots	739	101	13.7	0.042 - 0.66	0.025 - 0.030	1	-
Celery	718	15	2.1	0.030 - 0.083	0.018 - 0.025	0.5	-
Cherries	207	0			0.030 ^	NT	-
Green Beans	70	0			0.025 ^	NT	-
Lettuce	36	0			0.025 ^	NT	-
Oranges	36	0			0.025 ^	NT	-
Peaches	529	0			0.030 ^	NT	-
Potatoes	697	0			0.025 - 0.097	1	-
Sweet Corn, Canned	54	0			0.025 ^	0.25	-
Sweet Peas, Canned	131	0			0.0075 ^	NT	-
TOTAL	3,300	116					
Malathion (insecticide)							
Apples	736	0			0.010 ^	8	2
Bananas	702	0			0.004 - 0.010	NT	-
Broccoli	720	0			0.004 - 0.005	8	5
Carrots	739	2	0.3	0.003 ^	0.0015 - 0.004	8	0.5
Celery	736	148	20.1	0.003 - 0.52	0.002 - 0.004	8	1
Cherries	286	32	11.2	0.003 - 0.018	0.002 - 0.004	8	6
Grapes	705	0			0.018 ^	8	8
Green Beans	707	0			0.002 - 0.004	8	2
Lettuce	554	0			0.004 - 0.007	8	8
Mushrooms	184	0			0.0015 - 0.004	8	-
Nectarines	359	0			0.002 - 0.004	8	-
Oranges	745	0			0.002 - 0.004	8	4
Peaches	529	2	0.4	0.006 ^	0.0015 - 0.002	8	6
Pineapples	730	0			0.004 - 0.018	8	-
Potatoes	733	0			0.004 - 0.007	8	0.5
Sweet Corn, Canned	181	0			0.004 - 0.007	2	-
Sweet Peas, Canned	185	0			0.0038 - 0.004	8	0.5
Tomato Paste, Canned	369	0			0.003 ^	8.0	-
TOTAL	9,900	184					
Malathion oxygen analog (metabolite of Malathion)							
Apples	716	0			0.025 ^	NT	-
Bananas	189	0			0.003 ^	NT	-
Broccoli	720	0			0.003 - 0.005	NT	-
Carrots	739	0			0.0015 - 0.003	NT	-
Celery	736	0			0.002 - 0.003	NT	-
Cherries	286	0			0.002 - 0.003	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Grapes	705	0			0.028 ^	NT	-
Green Beans	707	0			0.002 - 0.003	NT	-
Lettuce	141	0			0.003 ^	NT	-
Mushrooms	184	0			0.0015 - 0.003	NT	-
Nectarines	359	0			0.003 ^	NT	-
Oranges	745	0			0.003 ^	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	730	0			0.003 - 0.028	NT	-
Potatoes	733	0			0.003 - 0.007	NT	-
Sweet Corn, Canned	181	0			0.003 - 0.007	NT	-
Sweet Peas, Canned	185	0			0.003 - 0.0056	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.003 ^	NT	-
TOTAL	8,954	0					

Metalaxyl (fungicide)

Apples	736	0			0.025 ^	0.2	1
Bananas	189	0			0.010 ^	NT	-
Broccoli	720	0			0.010 ^	2.0	0.5
Carrots	739	61	8.3	0.010 - 0.046	0.006 - 0.010	0.5	0.05
Celery	736	0			0.010 - 0.012	5.0	-
Cherries	286	1	0.3	0.010 ^	0.006 - 0.010	1.0	-
Grapes	705	0			0.033 ^	2.0	1
Green Beans	707	1	0.1	0.020 ^	0.010 - 0.012	0.2	-
Lettuce	554	3	0.5	0.013 ^	0.008 - 0.010	5.0	2
Mushrooms	184	0			0.006 - 0.010	NT	-
Nectarines	359	0			0.010 ^	1.0	-
Oranges	723	0			0.010 ^	1.0	5
Peaches	529	0			0.006 ^	1.0	-
Pineapples	730	0			0.010 - 0.033	0.1	-
Potatoes	733	13	1.8	0.013 - 0.017	0.008 - 0.010	0.5	0.05
Sweet Corn, Canned	181	0			0.008 - 0.010	0.1	-
Sweet Peas, Canned	185	0			0.010 - 0.015	0.2	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.020 ^	3.0	-
TOTAL	9,365	79					

Methamidophos (insecticide) (also a metabolite of Acephate)

Apples	736	0			0.005 ^	0.02	-
Bananas	702	0			0.002 - 0.005	0.02	-
Broccoli	720	2	0.3	0.003 - 0.11	0.002 - 0.010	1.0	-
Carrots (X-1)	739	2	0.3	0.001 - 0.18	0.001 - 0.002	0.02	-
Celery	736	213	28.9	0.002 - 0.048	0.001 - 0.002	1.0	1
Cherries	286	1	0.3	0.002 ^	0.001 - 0.002	0.02	-
Green Beans	707	190	26.9	0.002 - 0.49	0.001 - 0.002	1.0	-
Lettuce	554	23	4.2	0.003 - 0.021	0.002 - 0.004	1.0	1
Mushrooms	184	0			0.001 - 0.002	0.02	-
Nectarines	100	0			0.002 ^	0.02	-
Oranges	214	0			0.002 ^	0.02	-
Peaches (X-6)	529	50	9.5	0.002 - 0.052	0.001 ^	0.02	-
Pineapples	213	0			0.002 ^	0.02	-
Potatoes	733	7	1	0.003 - 0.013	0.002 - 0.004	0.1	0.05
Sweet Corn, Canned	181	0			0.002 - 0.004	0.02	-
Sweet Peas, Canned	185	0			0.002 - 0.0075	0.02	-
Tomato Paste, Canned	<u>369</u>	<u>2</u>	0.5	0.012 ^	0.0075 ^	1.0	-
TOTAL	7,888	490					

Methidathion (insecticide)

Apples	736	0			0.007 ^	0.05	0.5
Bananas	702	0			0.004 - 0.007	NT	-
Broccoli	190	0			0.004 ^	NT	-
Carrots	739	0			0.001 - 0.004	NT	-
Celery (V-1)	736	1	0.1	0.002 ^	0.001 - 0.004	NT	-
Cherries	286	0			0.001 - 0.004	0.05	0.2
Green Beans	707	0			0.001 - 0.004	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Lettuce	554	0			0.004 - 0.010	NT	-
Mushrooms	184	0			0.0012 - 0.004	NT	-
Nectarines	359	0			0.002 - 0.004	0.05	0.2
Oranges	745	5	0.7	0.003 - 0.007	0.002 - 0.004	2.0	2
Peaches	529	2	0.4	0.002 - 0.004	0.001 - 0.0012	0.05	0.2
Pineapples	213	0			0.004 ^	NT	0.05
Potatoes	733	0			0.004 - 0.010	NT	0.02
Sweet Corn, Canned	54	0			0.004 ^	NT	-
Sweet Peas, Canned	185	0			0.0038 - 0.004	NT	0.1
TOTAL	7,652	8					
Methiocarb (insecticide) (analyzed as sulfoxide)							
Apples	736	0			0.043 ^	NT	-
Bananas	513	0			0.043 ^	NT	-
Carrots	524	0			0.002 - 0.008	NT	-
Cherries (V-1)	207	1	0.5	0.046 ^	0.0024 - 0.008	NT	-
Peaches	529	0			0.002 - 0.008	NT	-
TOTAL	2,509	1					
Methomyl (insecticide)							
Apples	736	9	1.2	0.020 - 0.12	0.012 ^	1	2
Bananas	702	0			0.012 ^	NT	-
Broccoli	720	1	0.1	0.025 ^	0.012 - 0.015	3	-
Carrots	724	0			0.001 - 0.012	0.2	-
Celery	736	93	12.6	0.001 - 0.2	0.001 - 0.012	3	2
Cherries	286	0			0.001 - 0.012	NT	-
Grapes	705	49	7	0.020 - 0.9	0.012 - 0.032	5	5
Green Beans	707	37	5.2	0.007 - 0.081	0.004 - 0.012	2	2
Lettuce	554	20	3.6	0.020 - 2.0	0.012 - 0.025	5	5
Nectarines	359	21	5.8	0.005 - 0.17	0.003 - 0.012	5	5
Oranges	745	1	0.1	0.005 ^	0.003 - 0.012	2	1
Peaches	526	24	4.6	0.002 - 0.77	0.001 - 0.004	5	5
Pineapples	213	0			0.012 ^	NT	0.2
Potatoes	733	0			0.012 - 0.025	0.2	0.1
Sweet Corn, Canned	181	0			0.012 ^	0.1	2
Sweet Peas, Canned	185	0			0.010 - 0.012	5	5
Tomato Paste, Canned	369	0			0.011 ^	1.0	-
TOTAL	9,181	255					
Methoprene (insect growth regulator)							
Mushrooms	184	0			0.015 - 0.0224	1.0	0.2
Sweet Corn, Canned	54	0			0.015 ^	NT	-
TOTAL	238	0					
Methoxychlor Total (insecticide)							
Apples	736	6	0.8	0.023 - 0.38	0.014 ^	14	-
Bananas	513	0			0.014 ^	NT	-
Broccoli	512	0			0.006 ^	14	-
Carrots	524	0			0.0019 - 0.002	14	-
Cherries	207	5	2.4	0.003 - 0.31	0.0019 ^	14	-
Mushrooms	131	0			0.0019 ^	14	-
Peaches	529	0			0.0019 - 0.002	14	-
TOTAL	3,152	11					
Methoxychlor olefin (metabolite of Methoxychlor)							
Carrots	524	0			0.001 ^	NT	-
Cherries (V-3)	207	3	1.4	0.002 - 0.007	0.001 ^	NT	-
Mushrooms	131	0			0.001 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
TOTAL	1,391	3					
Methoxychlor p,p' (insecticide)							
Bananas	189	0			0.020 ^	NT	-
Broccoli	208	0			0.020 ^	14	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Carrots	215	0			0.020 ^	14	-
Celery	736	0			0.020 - 0.026	NT	-
Cherries	79	1	1.3	0.34 ^	0.020 ^	14	-
Grapes	705	0			0.014 - 0.023	14	-
Green Beans	707	0			0.020 - 0.026	14	-
Lettuce	554	0			0.009 - 0.020	14	-
Mushrooms	53	0			0.020 ^	14	-
Nectarines	359	0			0.002 - 0.020	14	-
Oranges	214	0			0.020 ^	NT	-
Pineapples	730	1	0.1	0.057 ^	0.014 - 0.023	14	-
Potatoes	733	0			0.009 - 0.020	1	-
Sweet Corn, Canned	181	0			0.009 - 0.020	14	-
Sweet Peas, Canned	185	0			0.0075 - 0.020	14	-
Tomato Paste, Canned	369	0			0.0075 ^	14.0	-
TOTAL	6,217	2					
Metolachlor (herbicide)							
Bananas	172	0			0.010 ^	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots (V-3)	739	3	0.4	0.002 ^	0.001 - 0.010	NT	-
Celery	736	0			0.008 - 0.010	0.1	-
Cherries	286	0			0.0014 - 0.010	0.1	-
Green Beans	707	0			0.008 - 0.010	15.0	-
Lettuce	159	0			0.010 ^	NT	-
Mushrooms	170	0			0.0014 - 0.010	NT	-
Nectarines	359	0			0.010 - 0.012	0.1	-
Oranges	214	0			0.010 ^	NT	-
Peaches	529	0			0.001 - 0.0014	0.1	-
Pineapples	213	0			0.010 ^	NT	-
Potatoes	733	0			0.010 - 0.016	0.2	-
Sweet Corn, Canned	181	0			0.010 - 0.016	0.1	-
Sweet Peas, Canned	185	0			0.010 - 0.015	0.3	-
TOTAL	5,591	3					
Metribuzin (herbicide)							
Bananas	189	0			0.030 ^	NT	-
Broccoli	208	0			0.030 ^	NT	-
Carrots	739	0			0.013 - 0.030	0.3	-
Celery	195	0			0.030 ^	NT	-
Cherries	286	0			0.0132 - 0.030	NT	-
Green Beans	202	0			0.030 ^	NT	-
Lettuce	159	0			0.030 ^	NT	-
Mushrooms	184	0			0.0132 - 0.030	NT	-
Nectarines	100	0			0.030 ^	NT	-
Oranges	214	0			0.030 ^	NT	-
Peaches	529	0			0.013 - 0.0132	NT	-
Pineapples	213	0			0.030 ^	NT	-
Potatoes	733	1	0.1	0.050 ^	0.016 - 0.030	0.6	-
Sweet Corn, Canned	181	0			0.016 - 0.030	0.05	-
Sweet Peas, Canned	185	0			0.015 - 0.030	0.1	-
TOTAL	4,317	1					
Mevinphos Total (insecticide)							
Apples	736	0			0.011 ^	NT	-
Bananas	513	0			0.011 ^	NT	-
Broccoli	512	0			0.008 ^	1.0	1
Grapes	705	0			0.003 ^	0.5	0.5
Lettuce	395	0			0.012 ^	0.5	-
Oranges	531	0			0.001 ^	NT	0.2
Potatoes	523	0			0.012 ^	NT	-
Sweet Corn, Canned	127	0			0.012 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Peas, Canned	131	0			0.0075 ^	0.25	0.1
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.003 ^	0.2	-
TOTAL	4,542	0					
Mevinphos E (isomer of Mevinphos)							
Bananas	189	0			0.002 ^	NT	-
Broccoli	208	0			0.002 ^	1.0	1
Carrots	739	0			0.001 - 0.002	NT	-
Celery	736	0			0.002 - 0.003	1.0	-
Cherries	286	0			0.001 - 0.002	NT	-
Green Beans	707	0			0.002 - 0.003	NT	0.05
Lettuce	159	0			0.002 ^	0.5	-
Mushrooms	184	0			0.001 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	214	0			0.002 ^	NT	0.2
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	210	0			0.002 ^	NT	-
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.002 ^	0.25	0.1
TOTAL	4,582	0					
Mevinphos Z (isomer of Mevinphos)							
Bananas	189	0			0.002 ^	NT	-
Broccoli	208	0			0.002 ^	1.0	1
Carrots	739	0			0.001 - 0.002	NT	-
Celery	736	1	0.1	0.012 ^	0.002 - 0.003	1.0	-
Cherries	286	0			0.001 - 0.002	NT	-
Green Beans	707	0			0.002 - 0.003	NT	0.05
Lettuce	159	0			0.002 ^	0.5	-
Mushrooms	184	0			0.001 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	214	0			0.002 ^	NT	0.2
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	210	0			0.002 ^	NT	-
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.002 ^	0.25	0.1
TOTAL	4,582	1					
Monocrotophos (insecticide)							
Potatoes	715	0			0.003 - 0.007	NT	0.05
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.010 - 0.033	0.5	-
TOTAL	1,084	0					
Myclobutanil (fungicide)							
Apples	736	0			0.025 ^	0.5	-
Bananas	702	0			0.020 - 0.025	4.0	-
Broccoli	190	0			0.020 ^	0.03	-
Carrots	721	0			0.0029 - 0.020	0.03	-
Celery	213	0			0.020 ^	0.03	-
Cherries	286	157	54.9	0.005 - 0.22	0.0029 - 0.020	5.0	1
Grapes	705	169	24	0.025 - 0.24	0.015 ^	1.0	1
Green Beans	202	1	0.5	0.073 ^	0.020 ^	1.0	-
Lettuce	536	1	0.2	0.013 ^	0.008 - 0.020	0.03	-
Mushrooms	184	0			0.0096 - 0.020	NT	-
Nectarines	359	8	2.2	0.013 - 0.067	0.008 - 0.020	2.0	-
Oranges	214	0			0.020 ^	NT	-
Peaches	529	13	2.5	0.005 - 0.069	0.0029 - 0.003	2.0	0.5
Pineapples	213	0			0.020 ^	NT	-
Potatoes	715	0			0.008 - 0.020	0.03	-
Sweet Corn, Canned	181	0			0.008 - 0.020	0.03	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Peas, Canned	185	0			0.020 - 0.023	0.03	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.018 ^	1.0	-
TOTAL	7,240	349					
Napropamide (herbicide)							
Bananas	154	0			0.020 ^	NT	-
Broccoli	720	0			0.015 - 0.020	0.1	-
Carrots	685	0			0.0067 - 0.020	NT	-
Celery	177	0			0.020 ^	NT	-
Cherries	274	0			0.0067 - 0.020	0.1	-
Green Beans	184	0			0.020 ^	NT	-
Lettuce	70	0			0.020 ^	NT	-
Mushrooms	184	0			0.0067 - 0.020	NT	-
Nectarines	100	0			0.020 ^	0.1	-
Oranges	143	0			0.020 ^	0.1	-
Peaches	529	0			0.0067 - 0.007	0.1	-
Pineapples	159	0			0.020 ^	NT	-
Potatoes	120	0			0.020 ^	NT	-
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.020 ^	NT	-
TOTAL	3,607	0					
Nitrapyrin (bactericide)							
Sweet Corn, Canned	<u>181</u>	<u>0</u>			0.016 - 0.035	0.1	-
TOTAL	181	0					
Norflurazon (herbicide)							
Apples	736	0			0.025 ^	0.1	-
Bananas	702	0			0.020 - 0.025	NT	-
Broccoli	208	0			0.020 ^	NT	-
Carrots	215	0			0.020 ^	NT	-
Celery	195	0			0.020 ^	NT	-
Cherries	286	0			0.0048 - 0.020	0.1	-
Grapes	705	0			0.030 ^	0.1	-
Green Beans	202	0			0.020 ^	NT	-
Lettuce	554	0			0.018 - 0.020	NT	-
Mushrooms	184	0			0.0048 - 0.020	NT	-
Nectarines	359	0			0.010 - 0.020	0.1	-
Oranges	745	0			0.010 - 0.020	0.2	-
Peaches	529	0			0.0048 - 0.005	0.1	-
Pineapples	195	0			0.020 ^	NT	-
Potatoes	733	0			0.018 - 0.020	NT	-
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.020 ^	NT	-
TOTAL	6,656	0					
Norflurazon desmethyl (metabolite of Norflurazon)							
Apples	736	0			0.025 ^	0.1	-
Bananas	689	0			0.025 - 0.030	NT	-
Broccoli	208	0			0.030 ^	NT	-
Carrots	215	0			0.030 ^	NT	-
Celery	177	0			0.030 ^	NT	-
Cherries	286	0			0.012 - 0.040	0.1	-
Grapes	705	0			0.030 ^	0.1	-
Green Beans	202	0			0.030 ^	NT	-
Lettuce	554	0			0.021 - 0.030	NT	-
Mushrooms	184	0			0.012 - 0.030	NT	-
Nectarines	359	2	0.6	0.011 - 0.014	0.010 - 0.030	0.1	-
Oranges	745	0			0.010 - 0.030	0.2	-
Peaches	529	4	0.8	0.020 ^	0.012 - 0.040	0.1	-
Pineapples	213	0			0.030 ^	NT	-
Potatoes	733	0			0.021 - 0.030	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned	54	0			0.030 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.030 ^	NT	-
TOTAL	6,643	6					
Omethoate (metabolite of Dimethoate)							
Apples	736	7	1	0.015 - 0.11	0.009 ^	2	2
Bananas	702	0			0.004 - 0.009	NT	-
Broccoli	720	1	0.1	0.017 ^	0.004 - 0.010	2	-
Carrots	739	0			0.0024 - 0.004	NT	-
Celery	736	60	8.2	0.002 - 0.048	0.0015 - 0.004	2	-
Cherries	286	4	1.4	0.005 - 0.088	0.003 - 0.004	2	-
Grapes	705	77	10.9	0.023 - 0.15	0.014 ^	1	-
Green Beans	707	76	10.7	0.002 - 0.13	0.0015 - 0.004	2	-
Lettuce	554	15	2.7	0.007 - 0.41	0.004 - 0.018	2	0.2
Mushrooms (V-1)	184	1	0.5	0.004 ^	0.0024 - 0.004	NT	-
Nectarines	100	0			0.004 ^	NT	-
Oranges	723	0			0.004 - 0.033	2	-
Peaches (V-1)	529	1	0.2	0.017 ^	0.0024 - 0.003	NT	2
Pineapples	213	0			0.004 ^	NT	-
Potatoes	733	0			0.004 - 0.018	0.2	-
Sweet Corn, Canned	54	0			0.004 ^	NT	-
Sweet Peas, Canned	185	0			0.004 - 0.0075	2	0.5
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.0075 ^	2.0	-
TOTAL	8,975	242					
Oxadixyl (fungicide)							
Bananas	189	0			0.015 ^	NT	-
Broccoli	208	0			0.015 ^	0.1	-
Carrots	739	0			0.013 - 0.015	0.1	-
Celery	195	0			0.015 ^	0.1	-
Cherries	286	0			0.0132 - 0.015	NT	-
Green Beans	202	0			0.015 ^	NT	-
Lettuce	159	0			0.015 ^	0.1	-
Mushrooms	184	0			0.0132 - 0.015	NT	-
Nectarines	100	0			0.015 ^	NT	-
Oranges	214	0			0.015 ^	NT	-
Peaches	529	0			0.013 - 0.0132	NT	-
Pineapples	213	0			0.015 ^	NT	-
Potatoes	210	0			0.015 ^	0.1	-
Sweet Corn, Canned	54	0			0.015 ^	0.1	-
Sweet Peas, Canned	<u>98</u>	<u>0</u>			0.015 ^	0.1	-
TOTAL	3,580	0					
Oxamyl (insecticide)							
Apples	736	1	0.1	0.033 ^	0.020 ^	2	2
Bananas	685	0			0.018 - 0.036	0.3	0.2
Broccoli	208	0			0.018 ^	NT	-
Carrots	724	0			0.0018 - 0.018	0.1	0.1
Celery	736	253	34.4	0.001 - 0.48	0.001 - 0.018	3	5
Cherries	286	0			0.002 - 0.018	NT	-
Green Beans (V-2)	707	2	0.3	0.008 - 0.031	0.005 - 0.018	NT	0.2
Lettuce	554	0			0.008 - 0.021	NT	-
Mushrooms	18	0			0.018 ^	NT	-
Nectarines	100	0			0.018 ^	NT	-
Oranges	745	1	0.1	0.005 ^	0.003 - 0.018	3	5
Peaches	444	0			0.0018 - 0.006	NT	-
Pineapples	712	0			0.015 - 0.018	1	1
Potatoes	733	0			0.008 - 0.018	0.1	0.1
Sweet Corn, Canned	54	0			0.018 ^	NT	-
Sweet Peas, Canned	18	0			0.018 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.011 ^	2.0	-
TOTAL	7,829	257					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Oxychlordan (metabolite of Chlordane)							
Carrots	509	0			0.002 - 0.0024	0.1 ^{AL}	0.02
Cherries	207	0			0.0024 ^	0.1 ^{AL}	0.02
Mushrooms	131	0			0.0024 ^	NT	0.02
Peaches	529	0			0.002 - 0.0024	0.1 ^{AL}	0.02
TOTAL	1,376	0					
Oxydemeton methyl (insecticide)							
Sweet Peas, Canned	131	0			0.023 ^	NT	-
TOTAL	131	0					
Oxydemeton methyl sulfone (metabolite of Oxydemeton methyl)							
Apples	736	0			0.015 ^	1	-
Bananas	702	0			0.015 ^	NT	-
Broccoli	720	0			0.015 - 0.016	1	-
Carrots	739	0			0.0015 - 0.015	NT	-
Celery (V-1)	718	1	0.1	0.007 ^	0.004 - 0.015	NT	-
Cherries	286	0			0.002 - 0.015	NT	-
Grapes	705	0			0.056 ^	0.1	-
Green Beans	707	0			0.004 - 0.015	0.5	-
Lettuce	554	0			0.015 - 0.090	2	-
Mushrooms	53	0			0.015 ^	NT	-
Nectarines	100	0			0.015 ^	NT	-
Oranges	745	0			0.002 - 0.015	1	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	213	0			0.015 ^	NT	-
Potatoes	733	0			0.015 - 0.090	NT	-
Sweet Corn, Canned	181	0			0.015 - 0.090	0.5	-
Sweet Peas, Canned	54	0			0.015 ^	NT	-
TOTAL	8,475	1					
Oxyfluorfen (herbicide)							
Bananas	702	0			0.005 - 0.030	NT	-
Broccoli	720	0			0.005 - 0.030	0.05	-
Carrots	739	0			0.0029 - 0.030	NT	-
Celery	195	0			0.030 ^	NT	-
Cherries	286	0			0.0029 - 0.030	0.05	-
Grapes	705	0			0.019 ^	0.05	-
Green Beans	202	0			0.030 ^	NT	-
Lettuce	159	0			0.030 ^	NT	-
Mushrooms	184	0			0.0029 - 0.030	NT	-
Nectarines	359	0			0.012 - 0.030	0.05	-
Oranges	214	0			0.030 ^	NT	-
Peaches	529	0			0.0029 - 0.003	0.05	-
Pineapples	213	0			0.030 ^	NT	-
Potatoes	210	0			0.030 ^	NT	-
Sweet Corn, Canned	54	0			0.030 ^	NT	-
Sweet Peas, Canned	54	0			0.030 ^	NT	-
TOTAL	5,525	0					
Parathion (insecticide)							
Apples	736	0			0.010 ^	1	0.05
Bananas	702	0			0.003 - 0.010	NT	-
Broccoli	720	0			0.003 - 0.005	1	-
Carrots	739	9	1.2	0.003 - 0.031	0.0018 - 0.003	1	-
Celery	736	1	0.1	0.59 ^	0.001 - 0.003	1	-
Cherries	286	0			0.002 - 0.003	1	-
Grapes	705	0			0.033 ^	1	-
Green Beans	707	0			0.001 - 0.003	1	-
Lettuce	554	1	0.2	0.010 ^	0.003 - 0.006	1	-
Mushrooms	184	0			0.0018 - 0.003	NT	-
Nectarines	359	0			0.002 - 0.003	1	-
Oranges	745	0			0.002 - 0.003	NT	0.5

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Peaches	529	0			0.0018 - 0.002	1	1
Pineapples	730	0			0.003 - 0.033	1	-
Potatoes	733	0			0.003 - 0.006	0.1	0.05
Sweet Corn, Canned	181	0			0.003 - 0.006	1	-
Sweet Peas, Canned	185	0			0.003 - 0.0075	NT	-
Tomato Paste, Canned	369	0			0.0075 ^	1.0	-
TOTAL	9,900	11					
Parathion methyl (insecticide)							
Apples	736	1	0.1	0.010 ^	0.006 ^	1	-
Bananas	702	0			0.002 - 0.006	NT	-
Broccoli	208	0			0.002 ^	1	0.2
Carrots	739	1	0.1	0.002 ^	0.001 - 0.002	1	1
Celery	736	2	0.3	0.007 - 0.011	0.001 - 0.002	1	5
Cherries	286	0			0.001 - 0.002	1	0.01
Grapes	705	0			0.013 ^	1	-
Green Beans	707	4	0.6	0.002 - 0.003	0.001 - 0.002	1	0.05
Lettuce	554	0			0.002 - 0.006	1	0.05
Mushrooms	184	0			0.0012 - 0.002	NT	-
Nectarines	359	0			0.002 ^	1	-
Oranges	745	0			0.002 ^	NT	-
Peaches	529	6	1.1	0.002 - 0.004	0.001 - 0.0012	1	-
Pineapples	213	0			0.002 ^	1	-
Potatoes	733	0			0.002 - 0.006	0.1	0.05
Sweet Corn, Canned	54	0			0.002 ^	1	-
Sweet Peas, Canned	185	0			0.002 - 0.0038	NT	-
TOTAL	8,375	14					
Parathion methyl oxygen analog (metabolite of Parathion methyl)							
Bananas	189	0			0.003 ^	NT	-
Broccoli	197	0			0.003 ^	NT	-
Carrots	739	0			0.0024 - 0.003	NT	-
Celery	213	0			0.003 ^	NT	-
Cherries	286	0			0.003 ^	NT	-
Grapes	705	0			0.019 ^	NT	-
Green Beans	202	0			0.003 ^	NT	-
Lettuce	159	0			0.003 ^	NT	-
Mushrooms	184	0			0.0024 - 0.003	NT	-
Nectarines	359	0			0.002 - 0.003	NT	-
Oranges	745	0			0.002 - 0.003	NT	-
Peaches	529	0			0.0024 - 0.003	NT	-
Pineapples	213	0			0.003 ^	NT	-
Potatoes	210	0			0.003 ^	NT	-
Sweet Corn, Canned	54	0			0.003 ^	NT	-
Sweet Peas, Canned	54	0			0.003 ^	NT	-
TOTAL	5,038	0					
Parathion oxygen analog (metabolite of Parathion)							
Apples	736	0			0.025 ^	NT	-
Bananas	189	0			0.002 ^	NT	-
Broccoli	720	0			0.002 - 0.005	NT	-
Carrots	739	0			0.0015 - 0.002	NT	-
Celery	736	0			0.002 ^	NT	-
Cherries	286	0			0.002 ^	NT	-
Grapes	705	0			0.041 ^	NT	-
Green Beans	707	0			0.002 ^	NT	-
Lettuce	141	0			0.002 ^	NT	-
Mushrooms	184	0			0.0015 - 0.002	NT	-
Nectarines	188	0			0.002 - 0.005	NT	-
Oranges	745	0			0.001 - 0.002	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	730	0			0.002 - 0.041	NT	-
Potatoes	733	0			0.002 - 0.016	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Sweet Corn, Canned	181	0			0.002 - 0.016	NT	-
Sweet Peas, Canned	54	0			0.002 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.003 ^	NT	-
TOTAL	8,672	0					
Pebulate (herbicide)							
Sweet Peas, Canned	131	0			0.015 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.050 ^	0.1	-
TOTAL	500	0					
Pendimethalin (herbicide)							
Bananas	173	0			0.020 ^	NT	-
Broccoli	208	0			0.020 ^	NT	-
Carrots	215	0			0.020 ^	NT	-
Celery	217	0			0.020 - 0.021	NT	-
Cherries	79	0			0.020 ^	NT	-
Green Beans	707	0			0.020 - 0.021	NT	-
Lettuce	159	0			0.020 ^	NT	-
Mushrooms	53	0			0.020 ^	NT	-
Nectarines	100	0			0.020 ^	NT	-
Oranges	214	0			0.020 ^	NT	-
Pineapples	213	0			0.020 ^	NT	-
Potatoes	733	0			0.016 - 0.020	0.1	-
Sweet Corn, Canned	181	0			0.016 - 0.020	0.1	-
Sweet Peas, Canned	<u>164</u>	<u>0</u>			0.015 - 0.020	0.1	-
TOTAL	3,416	0					
Pentachloroaniline-PCA (metabolite of Quintozene)							
Sweet Peas, Canned	131	0			0.0045 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.0045 ^	0.1	-
TOTAL	500	0					
Pentachlorobenzene-PCB (metabolite of Quintozene)							
Apples	736	0			0.004 ^	NT	-
Bananas	702	0			0.002 - 0.004	NT	-
Broccoli	720	1	0.1	0.003 ^	0.001 - 0.002	0.1	-
Carrots	739	0			0.0019 - 0.002	NT	-
Celery	213	0			0.002 ^	NT	-
Cherries	79	0			0.002 ^	NT	-
Green Beans	202	0			0.002 ^	0.1	-
Lettuce	554	0			0.002 ^	NT	-
Mushrooms	184	0			0.0019 - 0.002	NT	-
Nectarines	100	0			0.002 ^	NT	-
Oranges	214	0			0.002 ^	NT	-
Peaches	512	0			0.0019 - 0.002	NT	-
Pineapples	213	0			0.002 ^	NT	-
Potatoes	733	21	2.9	0.003 - 0.020	0.002 ^	0.1	-
Sweet Corn, Canned	54	0			0.002 ^	NT	-
Sweet Peas, Canned	185	0			0.0015 - 0.002	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.003 ^	0.1	-
TOTAL	6,509	22					
Pentachlorophenyl methyl sulfide (metabolite of Quintozene)							
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.0045 ^	NT	-
TOTAL	131	0					
Permethrin Total (insecticide)							
Broccoli	512	7	1.4	0.025 - 0.23	0.015 ^	1.0	2
Lettuce	395	58	14.7	0.048 - 3.9	0.029 ^	20.0	2
Potatoes	523	0			0.029 ^	0.05	0.05
Sweet Corn, Canned	127	0			0.029 ^	0.1	0.1
Sweet Peas, Canned	131	0			0.038 ^	NT	-
Tomato Paste, Canned	<u>369</u>	<u>0</u>			0.038 ^	2.0	-
TOTAL	2,057	65					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Permethrin cis (isomer of Permethrin)							
Apples	736	0			0.011 ^	0.05	2
Bananas	702	0			0.011 - 0.015	NT	-
Broccoli	208	2	1	0.025 - 0.079	0.015 ^	1.0	2
Carrots (V-1)	739	1	0.1	0.001 ^	0.001 - 0.015	NT	0.1
Celery	736	193	26.2	0.025 - 0.2	0.015 - 0.020	5.0	2
Cherries	286	2	0.7	0.001 - 0.037	0.001 - 0.015	3.0	2
Green Beans (V-2)	707	2	0.3	0.025 ^	0.015 - 0.026	NT	1
Lettuce	159	44	27.7	0.025 - 0.97	0.015 ^	20.0	2
Mushrooms	184	1	0.5	0.11 ^	0.0022 - 0.015	6.0	0.1
Nectarines	100	0			0.015 ^	NT	2
Oranges	214	0			0.015 ^	NT	0.5
Peaches	529	11	2.1	0.002 - 0.055	0.001 - 0.0023	5.0	2
Pineapples	213	0			0.015 ^	NT	-
Potatoes	210	0			0.015 ^	0.05	0.05
Sweet Corn, Canned	54	0			0.015 ^	0.1	0.1
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	5,831	256					
Permethrin trans (isomer of Permethrin)							
Apples	736	0			0.012 ^	0.05	2
Bananas	702	0			0.012 - 0.015	NT	-
Broccoli	208	2	1	0.025 - 0.091	0.015 ^	1.0	2
Carrots	739	0			0.001 - 0.015	NT	0.1
Celery	736	167	22.7	0.025 - 0.22	0.015 - 0.020	5.0	2
Cherries	286	2	0.7	0.001 - 0.045	0.001 - 0.015	3.0	2
Green Beans (V-2)	707	2	0.3	0.025 ^	0.015 - 0.026	NT	1
Lettuce	159	43	27	0.025 - 1.2	0.015 ^	20.0	2
Mushrooms	184	1	0.5	0.12 ^	0.0018 - 0.015	6.0	0.1
Nectarines	100	0			0.015 ^	NT	2
Oranges	214	0			0.015 ^	NT	0.5
Peaches	529	11	2.1	0.002 - 0.083	0.001 - 0.0017	5.0	2
Pineapples	213	0			0.015 ^	NT	-
Potatoes	210	0			0.015 ^	0.05	0.05
Sweet Corn, Canned	54	0			0.015 ^	0.1	0.1
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	5,831	228					
Phenmedipham (herbicide)							
Carrots	509	0			0.0665 - 0.44	NT	-
Cherries	190	0			0.0665 ^	NT	-
Peaches	<u>511</u>	<u>0</u>			0.0665 - 1.1	NT	-
TOTAL	1,210	0					
Phenothrin (insecticide)							
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.015 ^	-	-
TOTAL	131	0					
Phenthoate (insecticide)							
Carrots	524	0			0.0038 - 0.004	-	-
Cherries	207	0			0.0038 ^	-	-
Mushrooms	131	0			0.0038 ^	-	-
Peaches	<u>529</u>	<u>0</u>			0.0038 - 0.004	-	-
TOTAL	1,391	0					
o-Phenylphenol (fungicide)							
Apples	736	7	1	0.042 ^	0.025 ^	25.0	-
Bananas	702	0			0.010 - 0.025	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	739	4	0.5	0.005 ^	0.0029 - 0.010	20	-
Celery	213	0			0.010 ^	NT	-
Cherries	286	0			0.0029 - 0.010	5.0	-
Grapes (V-9)	9	9	100	0.017 ^	0.010 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Green Beans	202	0			0.010 ^	NT	-
Lettuce	554	0			0.008 - 0.010	NT	-
Mushrooms (V-63)	184	63	34.2	0.005 - 0.18	0.0029 - 0.010	NT	-
Nectarines	359	4	1.1	0.011 - 0.022	0.010 ^	5.0	-
Oranges	745	14	1.9	0.011 - 0.040	0.010 ^	10.0	-
Peaches	529	11	2.1	0.005 - 0.024	0.0029 - 0.003	20.0	-
Pineapples	730	8	1.1	0.017 ^	0.010 ^	10.0	-
Potatoes (V-8)	733	8	1.1	0.013 - 0.099	0.008 - 0.010	NT	-
Sweet Corn, Canned (V-2)	181	2	1.1	0.013 - 0.070	0.008 - 0.010	NT	-
Sweet Peas, Canned	185	0			0.010 - 0.015	NT	-
Tomato Paste, Canned	<u>369</u>	<u>11</u>	3	0.021 - 0.055	0.020 ^	10.0	-
TOTAL	7,664	141					

Phorate (insecticide)

Apples	736	0			0.014 ^	NT	-
Bananas	702	0			0.011 - 0.014	NT	-
Broccoli	208	0			0.011 ^	NT	-
Carrots	739	0			0.0018 - 0.011	NT	-
Celery	736	0			0.001 - 0.011	NT	-
Cherries	286	0			0.002 - 0.011	NT	-
Green Beans	707	0			0.001 - 0.011	0.1	0.1
Lettuce	554	0			0.011 - 0.012	NT	-
Mushrooms	184	0			0.0018 - 0.011	NT	-
Nectarines	100	0			0.011 ^	NT	-
Oranges	214	0			0.011 ^	NT	-
Peaches	529	0			0.0018 - 0.002	NT	-
Pineapples	730	0			0.006 - 0.011	NT	-
Potatoes	733	0			0.011 - 0.012	0.5	0.2
Sweet Corn, Canned	181	0			0.011 - 0.012	0.1	0.05
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.0038 - 0.011	NT	-
TOTAL	7,524	0					

Phorate oxygen analog (metabolite of Phorate)

Carrots	524	0			0.001 - 0.0012	NT	-
Cherries	207	0			0.001 ^	NT	-
Mushrooms	131	0			0.0012 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.001 - 0.0012	NT	-
TOTAL	1,391	0					

Phorate sulfone (metabolite of Phorate)

Apples	736	0			0.015 ^	NT	-
Bananas	702	0			0.004 - 0.015	NT	-
Broccoli	208	0			0.004 ^	NT	-
Carrots (V-1)	739	1	0.1	0.007 ^	0.0015 - 0.004	NT	-
Celery	736	0			0.002 - 0.004	NT	-
Cherries	286	0			0.002 - 0.004	NT	-
Green Beans	707	0			0.002 - 0.004	0.1	0.1
Lettuce	554	0			0.004 - 0.024	NT	-
Mushrooms	184	0			0.0015 - 0.004	NT	-
Nectarines	100	0			0.004 ^	NT	-
Oranges	214	0			0.004 ^	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	730	0			0.004 - 0.017	NT	-
Potatoes	733	13	1.8	0.007 - 0.053	0.004 - 0.024	0.5	0.2
Sweet Corn, Canned	181	0			0.004 - 0.012	0.1	0.05
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.004 - 0.012	NT	-
TOTAL	7,524	14					

Phorate sulfoxide (metabolite of Phorate)

Apples	736	0			0.020 ^	NT	-
Bananas	513	0			0.020 ^	NT	-
Carrots	524	0			0.0036 - 0.004	NT	-
Cherries	207	0			0.004 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	131	0			0.0036 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.0036 - 0.004	NT	-
TOTAL	2,640	0					
Phosalone (insecticide)							
Apples	736	0			0.019 ^	10.0	5
Bananas	702	0			0.006 - 0.019	NT	-
Broccoli	208	0			0.006 ^	NT	-
Carrots	739	0			0.001 - 0.006	NT	-
Celery	213	0			0.006 ^	NT	-
Cherries	286	0			0.001 - 0.006	15.0	-
Grapes	705	0			0.040 ^	10.0	-
Green Beans	202	0			0.006 ^	NT	-
Lettuce	159	0			0.006 ^	NT	-
Mushrooms	184	0			0.0012 - 0.006	NT	-
Nectarines	100	0			0.006 ^	NT	-
Oranges	214	0			0.006 ^	NT	-
Peaches	529	0			0.001 - 0.0012	15.0	-
Pineapples	213	0			0.006 ^	NT	-
Potatoes	210	0			0.006 ^	NT	-
Sweet Corn, Canned	54	0			0.006 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.006 - 0.015	NT	-
TOTAL	5,639	0					
Phosmet (insecticide)							
Apples	736	80	10.9	0.022 - 0.76	0.013 ^	10.0	10
Bananas	702	0			0.005 - 0.013	NT	-
Broccoli	208	0			0.005 ^	NT	-
Carrots (V-9)	739	9	1.2	0.002 - 0.009	0.001 - 0.005	NT	-
Celery (V-1)	736	1	0.1	0.020 ^	0.005 - 0.0053	NT	-
Cherries	286	5	1.7	0.002 - 0.038	0.001 - 0.005	10	-
Grapes	705	9	1.3	0.030 - 0.69	0.018 ^	10	10
Green Beans	707	0			0.005 - 0.0053	NT	-
Lettuce	554	0			0.005 - 0.012	NT	-
Mushrooms	184	0			0.0012 - 0.005	NT	-
Nectarines	359	269	74.9	0.003 - 0.42	0.002 - 0.005	5	5
Oranges	745	0			0.002 - 0.005	5	5
Peaches	529	333	62.9	0.002 - 4.6	0.001 - 0.0012	10	10
Pineapples	213	0			0.005 ^	NT	-
Potatoes	733	0			0.005 - 0.012	0.1	0.05
Sweet Corn, Canned	181	0			0.005 - 0.012	0.5	0.05
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.005 - 0.0075	0.5	0.2
TOTAL	8,502	706					
Phosphamidon (insecticide)							
Apples	736	0			0.012 ^	1	0.5
Bananas	702	0			0.012 ^	NT	-
Broccoli	208	0			0.012 ^	NT	0.2
Carrots	739	0			0.001 - 0.012	NT	0.2
Celery	213	0			0.012 ^	NT	-
Cherries	286	0			0.001 - 0.012	NT	0.2
Green Beans	202	0			0.012 ^	NT	0.2
Lettuce	554	0			0.012 - 0.029	NT	0.1
Mushrooms	184	0			0.0012 - 0.012	NT	-
Nectarines	100	0			0.012 ^	NT	-
Oranges	745	0			0.002 - 0.012	NT	0.4
Peaches	529	0			0.001 - 0.0012	NT	0.2
Pineapples	213	0			0.012 ^	NT	-
Potatoes	733	0			0.012 - 0.029	NT	0.05
Sweet Corn, Canned	54	0			0.012 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.012 - 0.015	NT	0.2
TOTAL	6,383	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Piperonyl butoxide (insecticide)							
Apples	736	0			0.025 ^	8.0	-
Bananas	173	0			0.010 ^	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	739	0			0.0048 - 0.010	NT	-
Celery	199	1	0.5	0.017 ^	0.010 - 0.013	EX	-
Cherries	286	1	0.3	0.53 ^	0.0048 - 0.010	8.0	-
Grapes	705	0			0.014 ^	8.0	-
Green Beans	707	0			0.010 - 0.020	8.0	-
Lettuce	123	1	0.8	0.15 ^	0.010 ^	EX	-
Mushrooms	184	10	5.4	0.008 - 0.81	0.0048 - 0.010	EX	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	745	1	0.1	0.017 ^	0.010 ^	8.0	-
Peaches	529	0			0.0048 - 0.005	8.0	-
Pineapples	730	8	1.1	0.017 - 0.050	0.010 - 0.014	8.0	-
Potatoes	733	0			0.008 - 0.010	0.25	-
Sweet Corn, Canned	181	0			0.008 - 0.010	20.0	-
Sweet Peas, Canned	185	0			0.010 - 0.015	8.0	-
Tomato Paste, Canned	369	0			0.020 ^	8.0	-
TOTAL	7,632	22					
Pirimicarb (insecticide)							
Carrots	524	0			0.0096 - 0.010	NT	-
Cherries	207	0			0.0096 ^	NT	-
Mushrooms	131	0			0.0096 ^	NT	-
Peaches (V-2)	529	2	0.4	0.017 - 0.041	0.0096 - 0.010	NT	0.5
TOTAL	1,391	2					
Pirimiphos methyl (insecticide)							
Carrots	524	0			0.001 - 0.0012	NT	1
Cherries	207	0			0.001 ^	NT	2
Mushrooms	131	0			0.0012 ^	NT	5
Peaches	529	0			0.001 - 0.0012	NT	-
Sweet Corn, Canned	181	0			0.003 - 0.016	8.0	-
Sweet Peas, Canned	131	0			0.0038 ^	NT	0.05
TOTAL	1,703	0					
Prallethrin (insecticide)							
Mushrooms	184	0			0.0067 - 0.010	1.0	-
Sweet Corn, Canned	54	0			0.010 ^	1.0	-
Sweet Peas, Canned	54	0			0.010 ^	1.0	-
TOTAL	292	0					
Procymidone (fungicide)							
Bananas	189	0			0.015 ^	NT	-
Broccoli	208	0			0.015 ^	NT	-
Carrots	215	0			0.015 ^	NT	-
Celery	213	0			0.015 ^	NT	-
Cherries	79	0			0.015 ^	NT	10
Grapes	705	0			0.014 ^	NT	5
Green Beans	202	0			0.015 ^	NT	1
Lettuce	159	0			0.015 ^	NT	5
Mushrooms	53	0			0.015 ^	NT	-
Nectarines	100	0			0.015 ^	NT	-
Oranges	214	0			0.015 ^	NT	-
Pineapples	213	0			0.015 ^	NT	-
Potatoes	210	0			0.015 ^	NT	-
Sweet Corn, Canned	54	0			0.015 ^	NT	-
Sweet Peas, Canned	185	0			0.015 ^	NT	-
TOTAL	2,999	0					
Profenofos (insecticide)							
Carrots	524	0			0.001 ^	NT	-
Cherries	207	0			0.001 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	131	0			0.001 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.011 ^	NT	-
TOTAL	1,522	0					
Prometryn (herbicide)							
Bananas	189	0			0.010 ^	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	739	0			0.0067 - 0.010	0.1	-
Celery	736	2	0.3	0.013 - 0.017	0.008 - 0.010	0.5	-
Cherries	286	0			0.0067 - 0.010	NT	-
Green Beans	202	0			0.010 ^	NT	-
Lettuce	159	0			0.010 ^	NT	-
Mushrooms	184	0			0.0067 - 0.010	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	214	0			0.010 ^	NT	-
Peaches	529	0			0.0067 - 0.007	NT	-
Pineapples	213	0			0.010 ^	NT	-
Potatoes	210	0			0.010 ^	NT	-
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.010 ^	NT	-
TOTAL	4,077	2					
Pronamide (herbicide)							
Apples	736	0			0.005 ^	0.1	-
Bananas	702	0			0.005 - 0.007	NT	-
Broccoli	208	0			0.007 ^	NT	-
Carrots	739	0			0.006 - 0.007	NT	-
Celery	213	0			0.007 ^	NT	-
Cherries	286	0			0.006 - 0.007	0.1	-
Grapes	705	0			0.008 ^	0.1	-
Green Beans (V-1)	202	1	0.5	0.012 ^	0.007 ^	NT	-
Lettuce	554	5	0.9	0.012 - 0.023	0.007 - 0.018	1.0	-
Mushrooms	184	0			0.006 - 0.007	NT	-
Nectarines	359	0			0.002 - 0.007	0.1	-
Oranges	214	0			0.007 ^	NT	-
Peaches	529	0			0.006 ^	0.1	-
Pineapples	213	0			0.007 ^	NT	-
Potatoes	733	0			0.007 - 0.018	NT	-
Sweet Corn, Canned	54	0			0.007 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.007 - 0.0075	NT	-
TOTAL	6,816	6					
Propargite (insecticide)							
Apples (V-1)	736	1	0.1	0.15 ^	0.025 ^	NT	5
Bananas	702	0			0.020 - 0.025	NT	-
Broccoli	208	0			0.020 ^	NT	-
Carrots	739	0			0.020 - 0.025	NT	-
Celery	217	0			0.014 - 0.020	NT	-
Cherries	286	0			0.020 - 0.0245	NT	-
Grapes	705	4	0.6	0.067 - 0.25	0.040 ^	10	10
Green Beans	707	0			0.014 - 0.020	NT	20
Lettuce	554	0			0.008 - 0.020	NT	-
Mushrooms	184	0			0.020 - 0.0245	NT	-
Nectarines	359	176	49	0.010 - 1.2	0.010 - 0.020	4	7
Oranges	745	0			0.010 - 0.020	5	5
Peaches (V-17)	529	17	3.2	0.041 - 0.85	0.0245 - 0.025	NT	7
Pineapples	213	0			0.020 ^	NT	-
Potatoes	733	0			0.008 - 0.020	0.1	0.1
Sweet Corn, Canned	181	0			0.008 - 0.020	0.1	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.015 - 0.020	NT	-
TOTAL	7,983	198					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Propetamphos (insecticide)							
Mushrooms	18	0			0.003 ^	0.1	-
Potatoes	18	0			0.003 ^	0.1	-
Sweet Corn, Canned	36	0			0.003 ^	0.1	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.003 ^	0.1	-
TOTAL	126	0					
Propiconazole (fungicide)							
Bananas	513	0			0.025 ^	0.2	0.1
Carrots	524	0			0.014 - 0.0144	NT	-
Celery	523	53	10.1	0.037 - 0.13	0.022 ^	5.0	-
Cherries	207	56	27.1	0.024 - 0.4	0.0144 ^	1.0	1
Mushrooms	131	0			0.0144 ^	0.1	-
Nectarines	259	21	8.1	0.005 - 0.051	0.005 ^	1.0	1
Peaches	529	34	6.4	0.024 - 0.091	0.014 - 0.0144	1.0	1
Pineapples	517	0			0.030 ^	0.1	-
Sweet Corn, Canned	<u>127</u>	<u>0</u>			0.016 ^	0.1	-
TOTAL	3,330	164					
Propiconazole I (isomer of Propiconazole)							
Bananas	189	0			0.015 ^	0.2	0.1
Broccoli	208	0			0.015 ^	NT	-
Carrots	215	0			0.015 ^	NT	-
Celery	213	20	9.4	0.025 - 0.11	0.015 ^	5.0	-
Cherries	79	6	7.6	0.025 ^	0.015 ^	1.0	1
Green Beans	202	0			0.015 ^	NT	-
Lettuce	159	0			0.015 ^	NT	-
Mushrooms	53	0			0.015 ^	0.1	-
Nectarines	100	0			0.015 ^	1.0	1
Oranges	214	0			0.015 ^	NT	-
Pineapples	213	0			0.015 ^	0.1	-
Potatoes	210	0			0.015 ^	NT	-
Sweet Corn, Canned	54	0			0.015 ^	0.1	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.015 ^	NT	-
TOTAL	2,163	26					
Propiconazole II (isomer of Propiconazole)							
Bananas	189	0			0.020 ^	0.2	0.1
Broccoli	208	0			0.020 ^	NT	-
Carrots	215	0			0.020 ^	NT	-
Celery	213	21	9.9	0.033 - 0.16	0.020 ^	5.0	-
Cherries	79	16	20.3	0.033 - 0.15	0.020 ^	1.0	1
Green Beans	202	0			0.020 ^	NT	-
Lettuce	159	0			0.020 ^	NT	-
Mushrooms	53	0			0.020 ^	0.1	-
Nectarines	100	0			0.020 ^	1.0	1
Oranges	214	0			0.020 ^	NT	-
Pineapples	213	0			0.020 ^	0.1	-
Potatoes	210	0			0.020 ^	NT	-
Sweet Corn, Canned	54	0			0.020 ^	0.1	-
Sweet Peas, Canned	<u>54</u>	<u>0</u>			0.020 ^	NT	-
TOTAL	2,163	37					
Pyridaben (insecticide)							
Apples	<u>736</u>	<u>1</u>	0.1	0.042 ^	0.025 ^	0.5	-
TOTAL	736	1					
Pyriproxyfen (insecticide, growth regulator)							
Apples	736	0			0.025 ^	0.2	-
Bananas	513	0			0.025 ^	0.10	-
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.015 ^	0.10	-
TOTAL	1,380	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Quintozene-PCNB (fungicide) (parent of HCB, PCA and PCB)							
Apples	736	0			0.001 ^	NT	-
Bananas	702	0			0.001 - 0.003	NT	-
Broccoli	720	0			0.001 - 0.003	0.1	0.02
Carrots (V-4)	739	4	0.5	0.005 ^	0.0029 - 0.003	NT	-
Celery (V-1)	736	1	0.1	0.005 ^	0.003 - 0.005	NT	-
Cherries	286	0			0.0029 - 0.020	NT	-
Green Beans	707	10	1.4	0.005 - 0.020	0.003 - 0.005	0.1	0.01
Lettuce	554	0			0.003 - 0.004	NT	3
Mushrooms	184	0			0.0029 - 0.003	NT	-
Nectarines	100	0			0.003 ^	NT	-
Oranges	214	0			0.003 ^	NT	-
Peaches	517	0			0.0029 - 0.003	NT	-
Pineapples	213	0			0.003 ^	NT	-
Potatoes	733	10	1.4	0.005 - 0.050	0.003 - 0.004	0.1	0.2
Sweet Corn, Canned	54	0			0.003 ^	NT	-
Sweet Peas, Canned	185	0			0.0015 - 0.003	NT	-
Tomato Paste, Canned	369	0			0.003 ^	0.1	-
TOTAL	7,749	25					
Resmethrin (insecticide)							
Bananas	513	0			0.025 ^	3.0	-
Carrots	509	0			0.0067 - 0.0224	3.0	-
Cherries	207	0			0.0067 ^	3.0	-
Mushrooms	184	0			0.0067 - 0.010	3.0	-
Peaches	518	0			0.0067 - 0.007	3.0	-
Sweet Corn, Canned	181	0			0.010 - 0.032	3.0	-
Sweet Peas, Canned	185	0			0.010 - 0.015	3.0	-
Tomato Paste, Canned	369	0			0.060 ^	3.0	-
TOTAL	2,666	0					
Simazine (herbicide)							
Apples	736	0			0.025 ^	0.25	-
Bananas	702	0			0.010 - 0.025	0.2	-
Broccoli	155	0			0.010 ^	NT	-
Carrots	739	0			0.0019 - 0.010	NT	-
Celery	197	0			0.010 - 0.020	NT	-
Cherries	286	0			0.0019 - 0.010	0.25	-
Grapes	705	0			0.022 ^	0.25	-
Green Beans	202	0			0.010 ^	NT	-
Lettuce	554	0			0.010 - 0.018	NT	-
Mushrooms	184	0			0.0019 - 0.010	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	745	0			0.010 ^	0.25	-
Peaches	529	0			0.0019 - 0.002	0.25	-
Pineapples	177	0			0.010 ^	NT	-
Potatoes	733	0			0.010 - 0.018	NT	-
Sweet Corn, Canned	181	0			0.010 - 0.018	0.25	-
Sweet Peas, Canned	185	0			0.010 - 0.0113	NT	-
TOTAL	7,110	0					
Spinosad A (insecticide) (isomer of Spinosad)							
Nectarines	259	35	13.5	0.006 - 0.029	0.006 ^	0.2	-
Oranges	509	0			0.006 ^	0.3	-
Tomato Paste, Canned	369	0			0.015 ^	0.4	-
Nectarines	259	1	0.4	0.006 ^	0.006 ^	0.2	-
Oranges	509	0			0.006 ^	0.3	-
Tomato Paste, Canned	369	0			0.015 ^	0.4	-
TOTAL	2,274	36					
Sulprofos (insecticide)							
Carrots	524	0			0.0015 - 0.002	NT	-
Cherries	207	0			0.002 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Mushrooms	131	0			0.0015 ^	NT	-
Peaches	<u>529</u>	<u>0</u>			0.0015 - 0.002	NT	-
TOTAL	1,391	0					
Tebuconazole (fungicide)							
Bananas	702	0			0.020 - 0.025	0.05	0.05
Broccoli	208	0			0.020 ^	NT	-
Carrots	739	0			0.019 - 0.020	NT	-
Celery	177	0			0.020 ^	NT	-
Cherries	286	73	25.5	0.032 - 0.61	0.0192 - 0.020	4.0	-
Grapes	705	41	5.8	0.038 - 0.34	0.023 ^	5.0	-
Green Beans	202	0			0.020 ^	NT	-
Lettuce	159	0			0.020 ^	NT	-
Mushrooms	184	0			0.0192 - 0.020	NT	-
Nectarines	359	40	11.1	0.013 - 0.072	0.008 - 0.020	1.0	-
Oranges	214	0			0.020 ^	NT	-
Peaches	529	20	3.8	0.032 - 0.15	0.019 - 0.0192	1.0	1
Pineapples	213	0			0.020 ^	NT	-
Potatoes	210	0			0.020 ^	NT	-
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.020 - 0.023	NT	-
TOTAL	5,126	174					
Tebufenozide (insecticide)							
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.010 ^	2.0	-
TOTAL	131	0					
Tecnazene (fungicide)							
Carrots	524	0			0.0048 - 0.005	NT	-
Cherries	190	0			0.0048 ^	NT	-
Mushrooms	131	0			0.0048 ^	NT	-
Peaches	447	0			0.0048 - 0.005	NT	-
Sweet Peas, Canned	<u>131</u>	<u>0</u>			0.0011 - 0.0012	NT	-
TOTAL	1,423	0					
Tefluthrin (insecticide)							
Sweet Corn, Canned	<u>54</u>	<u>0</u>			0.010 ^	0.06	-
TOTAL	54	0					
TEPP (insecticide)							
Carrots	524	0			0.003 ^	NT	-
Cherries	207	0			0.003 ^	NT	-
Peaches	<u>517</u>	<u>0</u>			0.003 ^	NT	-
TOTAL	1,248	0					
Terbacil (herbicide)							
Apples	736	0			0.025 ^	0.1	-
Bananas	657	0			0.020 - 0.025	NT	-
Broccoli	208	0			0.020 ^	NT	-
Carrots	739	0			0.006 - 0.020	NT	-
Celery	195	0			0.020 ^	NT	-
Cherries	286	0			0.006 - 0.020	NT	-
Green Beans	202	0			0.020 ^	NT	-
Lettuce	554	0			0.018 - 0.020	NT	-
Mushrooms	184	0			0.006 - 0.020	NT	-
Nectarines	100	0			0.020 ^	NT	-
Oranges	214	0			0.020 ^	NT	-
Peaches	529	0			0.006 ^	0.1	-
Pineapples	195	0			0.020 ^	NT	-
Potatoes	733	0			0.018 - 0.020	NT	-
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.015 - 0.020	NT	-
TOTAL	5,771	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Terbufos (insecticide)							
Apples	736	0			0.014 ^	NT	-
Bananas	702	0			0.006 - 0.014	0.025	0.05
Broccoli	208	0			0.006 ^	NT	0.05
Carrots	739	0			0.001 - 0.006	NT	-
Celery	736	0			0.001 - 0.006	NT	-
Cherries	286	0			0.001 - 0.006	NT	-
Green Beans	707	0			0.001 - 0.006	NT	-
Lettuce	554	0			0.006 - 0.015	NT	-
Mushrooms	184	0			0.001 - 0.006	NT	-
Nectarines	100	0			0.006 ^	NT	-
Oranges	214	0			0.006 ^	NT	-
Peaches	529	0			0.001 ^	NT	-
Pineapples	213	0			0.006 ^	NT	-
Potatoes	733	0			0.006 - 0.015	NT	-
Sweet Corn, Canned	181	0			0.006 - 0.015	0.05	0.01
Sweet Peas, Canned	185	0			0.0045 - 0.006	NT	-
TOTAL	7,007	0					
Terbufos sulfone (metabolite of Terbufos)							
Apples	736	0			0.007 ^	NT	-
Bananas	702	0			0.004 - 0.007	0.025	0.05
Broccoli	208	0			0.004 ^	NT	0.05
Carrots (V-4)	739	4	0.5	0.002 - 0.004	0.001 - 0.004	NT	-
Celery	736	0			0.002 - 0.004	NT	-
Cherries	286	0			0.001 - 0.004	NT	-
Green Beans	707	0			0.002 - 0.004	NT	-
Lettuce	554	0			0.004 - 0.048	NT	-
Mushrooms	184	0			0.0012 - 0.004	NT	-
Nectarines	100	0			0.004 ^	NT	-
Oranges	214	0			0.004 ^	NT	-
Peaches	529	0			0.001 - 0.0012	NT	-
Pineapples	213	0			0.004 ^	NT	-
Potatoes	733	0			0.004 - 0.048	NT	-
Sweet Corn, Canned	181	0			0.004 - 0.018	0.05	0.01
Sweet Peas, Canned	185	0			0.004 - 0.0045	NT	-
TOTAL	7,007	4					
Tetrachlorvinphos (insecticide)							
Apples	736	0			0.010 ^	NT	-
Bananas	702	0			0.004 - 0.010	NT	-
Broccoli	208	0			0.004 ^	NT	-
Carrots (V-1)	739	1	0.1	0.026 ^	0.0015 - 0.004	NT	-
Celery	736	0			0.002 - 0.004	NT	-
Cherries	286	0			0.002 - 0.004	NT	-
Green Beans	707	0			0.002 - 0.004	NT	-
Lettuce	554	0			0.004 - 0.008	NT	-
Mushrooms	184	0			0.0015 - 0.004	NT	-
Nectarines	100	0			0.004 ^	NT	-
Oranges	214	0			0.004 ^	NT	-
Peaches	529	0			0.0015 - 0.002	NT	-
Pineapples	213	0			0.004 ^	NT	-
Potatoes	733	0			0.004 - 0.008	NT	-
Sweet Corn, Canned	54	0			0.004 ^	NT	-
Sweet Peas, Canned	98	0			0.0038 - 0.026	NT	-
TOTAL	6,793	1					
Tetradifon (insecticide)							
Apples	736	0			0.005 ^	5	-
Bananas	702	0			0.005 - 0.011	NT	-
Broccoli	208	0			0.011 ^	NT	-
Carrots	739	0			0.0096 - 0.011	NT	-
Celery	213	0			0.011 ^	NT	-

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Cherries	254	0			0.0096 - 0.011	5	-
Grapes	705	0			0.008 ^	5	-
Green Beans	202	0			0.011 ^	NT	-
Lettuce	554	0			0.011 - 0.029	NT	-
Mushrooms	184	0			0.0096 - 0.011	NT	-
Nectarines	359	0			0.001 - 0.011	5	-
Oranges	745	0			0.001 - 0.011	2	-
Peaches	488	0			0.0096 - 0.064	5	-
Pineapples	213	0			0.011 ^	NT	-
Potatoes	733	0			0.011 - 0.029	NT	-
Sweet Corn, Canned	54	0			0.011 ^	NT	-
Sweet Peas, Canned	185	0			0.0038 - 0.011	NT	-
Tomato Paste, Canned	369	0			0.0045 ^	1.0	-
TOTAL	7,643	0					
Tetrahydrophthalimide-THPI (metabolite of Captafol and Captan)							
Sweet Peas, Canned	131	0			0.015 ^	2.0	-
TOTAL	131	0					
Tetramethrin (insecticide)							
Sweet Peas, Canned	131	0			0.015 ^	-	-
TOTAL	131	0					
Thiabendazole (fungicide)							
Apples	736	475	64.5	0.049 - 5.3	0.030 ^	10.0	10
Bananas	702	275	39.2	0.050 - 0.36	0.030 ^	3.0	5
Broccoli	208	0			0.030 ^	NT	-
Carrots	739	0			0.0168 - 0.030	10	-
Celery	177	0			0.030 ^	NT	-
Cherries	286	0			0.0168 - 0.030	NT	-
Grapes	705	0			0.030 ^	NT	-
Green Beans (V-1)	202	1	0.5	0.33 ^	0.030 ^	NT	-
Lettuce	554	0			0.030 - 0.045	NT	-
Mushrooms	184	53	28.8	0.028 - 2.0	0.0168 - 0.030	40.0	-
Nectarines	100	0			0.030 ^	NT	-
Oranges	745	280	37.6	0.010 - 0.78	0.010 - 0.050	10	10
Peaches (V-18)	529	18	3.4	0.028 - 2.3	0.0168 - 0.017	NT	-
Pineapples	213	0			0.030 ^	NT	-
Potatoes	733	30	4.1	0.050 - 1.3	0.030 - 0.045	10.0	15
Sweet Corn, Canned	54	0			0.030 ^	NT	-
Sweet Peas, Canned	54	0			0.030 ^	NT	-
TOTAL	6,921	1,132					
Thiobencarb (herbicide)							
Bananas	154	0			0.010 - 0.020	NT	-
Broccoli	190	0			0.010 - 0.020	NT	-
Carrots	161	0			0.020 ^	NT	-
Celery	736	0			0.015 - 0.020	0.2	-
Cherries	67	0			0.010 ^	NT	-
Green Beans	184	0			0.010 - 0.020	NT	-
Lettuce	70	0			0.010 ^	0.2	-
Mushrooms	53	0			0.010 - 0.020	NT	-
Nectarines	100	0			0.010 ^	NT	-
Oranges	143	0			0.010 ^	NT	-
Pineapples	159	0			0.010 ^	NT	-
Potatoes	120	0			0.020 ^	NT	-
Sweet Corn, Canned	54	0			0.020 ^	NT	-
Sweet Peas, Canned	54	0			0.010 ^	NT	-
TOTAL	2,245	0					
Talomethrin (insecticide)							
Sweet Peas, Canned	65	0			0.015 ^	0.02	-
TOTAL	65	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Tri-Allate (herbicide)							
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	185	0			0.010 - 0.015	0.05	-
TOTAL	239	0					
Triadimefon (fungicide)							
Apples	736	0			0.006 ^	1.0	-
Bananas	702	0			0.006 - 0.025	NT	-
Broccoli	208	0			0.025 ^	NT	-
Carrots	739	0			0.003 - 0.025	NT	-
Celery	213	0			0.025 ^	NT	-
Cherries	286	0			0.003 - 0.025	NT	-
Grapes	705	0			0.007 - 0.010	1.0	0.5
Green Beans	202	0			0.025 ^	NT	-
Lettuce	554	0			0.023 - 0.025	NT	-
Mushrooms	184	0			0.003 - 0.025	NT	-
Nectarines	359	0			0.006 - 0.025	4.0	-
Oranges	214	0			0.025 ^	NT	-
Peaches	529	0			0.003 ^	NT	-
Pineapples	730	32	4.4	0.012 - 0.017	0.007 - 0.025	3.0	2
Potatoes	733	0			0.023 - 0.025	NT	-
Sweet Corn, Canned	54	0			0.025 ^	NT	0.01
Sweet Peas, Canned	185	0			0.011 - 0.025	NT	0.05
Sweet Corn, Canned	54	0			0.015 ^	0.05	2
TOTAL	7,387	32					
Trifluralin (herbicide)							
Apples	736	0			0.006 ^	NT	-
Bananas	702	0			0.006 - 0.017	NT	-
Broccoli	720	0			0.004 - 0.017	NT	-
Carrots	739	458	62	0.001 - 0.24	0.001 - 0.017	1.0	-
Celery	736	0			0.017 - 0.068	0.05	-
Cherries	286	0			0.001 - 0.017	0.05	-
Grapes	705	0			0.030 ^	0.05	-
Green Beans	202	0			0.017 ^	0.05	-
Lettuce	554	0			0.008 - 0.017	0.05	-
Mushrooms	184	0			0.001 - 0.017	NT	-
Nectarines	359	0			0.010 - 0.017	0.05	-
Oranges	745	0			0.005 - 0.017	0.05	-
Peaches	529	0			0.001 ^	0.05	-
Pineapples	195	0			0.017 ^	NT	-
Potatoes	733	0			0.008 - 0.017	0.05	-
Sweet Corn, Canned	54	0			0.017 ^	NT	-
Sweet Peas, Canned	185	0			0.015 - 0.017	0.05	-
Tomato Paste, Canned	369	0			0.020 ^	0.05	-
TOTAL	8,733	458					
Vernolate (herbicide)							
Bananas	137	0			0.050 ^	NT	-
Broccoli	137	0			0.050 ^	NT	-
Carrots	143	0			0.050 ^	NT	-
Celery	177	0			0.050 ^	NT	-
Cherries	67	0			0.050 ^	NT	-
Green Beans	133	0			0.050 ^	NT	-
Lettuce	70	0			0.050 ^	NT	-
Mushrooms	53	0			0.050 ^	NT	-
Nectarines	100	0			0.050 ^	NT	-
Oranges	108	0			0.050 ^	NT	-
Pineapples	108	0			0.050 ^	NT	-
Potatoes	733	0			0.016 - 0.050	0.1	-
Sweet Corn, Canned	181	0			0.016 - 0.050	0.1	-
Sweet Peas, Canned	54	0			0.050 ^	NT	-
TOTAL	2,201	0					

Pesticide / Commodity	Total Samples Screened	Samples with Detection	% of Samples with Detections	Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL, ppm
Vinclozolin (fungicide)							
Apples	736	0			0.002 ^	NT	1
Bananas	702	0			0.002 - 0.010	NT	-
Broccoli	208	0			0.010 ^	NT	-
Carrots	725	0			0.0036 - 0.010	NT	-
Celery (V-3)	736	3	0.4	0.012 - 0.034	0.007 - 0.010	NT	-
Cherries	286	0			0.0036 - 0.010	25.0	5
Grapes (V-2)	705	2	0.3	0.015 ^	0.009 ^	NT	5
Green Beans	707	38	5.4	0.012 - 0.57	0.007 - 0.010	2.0	2
Lettuce	554	5	0.9	0.023 - 0.049	0.010 - 0.014	10.0	5
Mushrooms	184	0			0.0036 - 0.010	NT	-
Nectarines	359	0			0.002 - 0.010	25.0	-
Oranges	214	0			0.010 ^	NT	-
Peaches	529	0			0.0036 - 0.004	25.0	5
Pineapples	213	0			0.010 ^	NT	-
Potatoes	733	0			0.010 - 0.014	NT	0.1
Sweet Corn, Canned	54	0			0.010 ^	NT	-
Sweet Peas, Canned	<u>185</u>	<u>0</u>			0.003 - 0.010	NT	-
TOTAL	7,830	48					

^ 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.

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 2001, PDP analyzed 689 rice samples. A total of 214 samples (31percent) were reported with residue detections. All residue detections were much lower than the established tolerances.

Codex MRLs represent toxicological pesticide residue levels, based on Acceptable Daily Intakes (ADIs) permitted by the Joint (Food and Agriculture/World Health Organization-FAO/WHO) Meeting on Pesticide Residues (JMPR). The JMPR is an independently appointed panel of expert scientists. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs used in this appendix are values of pesticides and their metabolites, for the commodities either individually or part of a commodity group as they appear in the second addition of Volume B of the Codex Alimentarius Publication.

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
Aldicarb	689				0.009 ^	NT	-
Aldicarb sulfone	689				0.011 ^	NT	-
Aldicarb sulfoxide	689				0.011 ^	NT	-
Carbaryl	436	11	2.5	0.010 - 0.038	0.006 ^	5.0	5
Carbofuran	689				0.012 ^	0.2	-
Carboxin	651				0.008 ^	0.2	-
Chlorpyrifos methyl	689	3	0.4	0.003 ^	0.002 ^	6.0	0.1
Clomazone	689				0.003 ^	0.02	-
DDE p,p'	689				0.004 ^	0.5	0.1
Dieldrin	689				0.008 ^	0.02	-
Dimethomorph	689				0.007 ^	0.05	-
Disulfoton	669				0.004 ^	0.75	0.5
Disulfoton sulfone	669				0.013 ^	0.75	0.5
Fenvalerate	689				0.008 - 0.012	0.05	2
Fludioxonil	669				0.006 ^	0.02	-
Fluridone	633				0.004 ^	0.1	-
Flutolanil (fungicide)	669	1	0.1	0.003 ^	0.002 ^	7.0	-
Heptachlor epoxide	689				0.004 ^	0.01	0.02
3-Hydroxycarbofuran	689				0.013 ^	0.2	-
Iprodione	689				0.010 ^	10.0	-
Lambda cyhalothrin	610				0.006 ^	1.0	-
Lindane-BHC gamma	669				0.008 ^	0.1	-
Malathion	689	76	11	0.008 - 0.037	0.005 ^	8.0	8
Malathion oxygen analog	669				0.006 ^	NT	-
Metalaxyl	689				0.025 ^	0.1	5
Methomyl	669				0.009 ^	NT	-
Methoxychlor p,p'	689	19	2.8	0.017 ^	0.010 ^	2.0	-
Metolachlor	669				0.003 ^	0.1	-
Molinate	198				0.008 ^	0.1	-
Oxadixyl	689	3	0.4	0.033 ^	0.020 ^	0.1	-
Oxamyl	689				0.018 ^	NT	-
Parathion ethyl	689				0.036 ^	1	-

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
Parathion oxygen analog	689				0.040 ^	NT	-
Pendimethalin	689				0.009 ^	0.1	-
Piperonyl butoxide	689	122	17.7	0.033 - 0.080	0.020 ^	20	-
Propanil	689				0.002 - 0.004	2	-
Propetamphos	649				0.004 ^	0.1	-
Propiconazole	669	2	0.3	0.028 ^	0.017 ^	0.1	-
Propoxur	649				0.004 ^	-	-
TCMTB (fungicide)	572				0.010 ^	0.1	-
Thiobencarb	689				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.

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 G

Distribution of Residues by Pesticide in Poultry

Appendix G shows residue detections for all poultry 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 2001, poultry tissue samples were analyzed which included 155 adipose samples, 155 liver samples, and 154 muscle samples. No residues were detected in any of the poultry sample analyzed.

Codex MRLs represent toxicological pesticide residue levels, based on Acceptable Daily Intakes (ADIs) permitted by the Joint (Food and Agriculture/World Health Organization-FAO/WHO) Meeting on Pesticide Residues (JMPR). The JMPR is an independently appointed panel of expert scientists. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs used in this appendix are values of pesticides and their metabolites, for the commodities either individually or part of a commodity group as they appear in the second addition of Volume B of the Codex Alimentarius Publication.

APPENDIX G. DISTRIBUTION OF RESIDUES BY PESTICIDE IN POULTRY

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
Acephate							
Poultry, Adipose	155				6.9 ^	100	100
Poultry, Liver	155				6.9 ^	NT	-
Poultry, Muscle	154				6.9 ^	100	100
Aldicarb							
Poultry, Liver	155				3.6 ^	NT	-
Aldicarb sulfone							
Poultry, Liver	155				2.2 ^	NT	-
Aldicarb sulfoxide							
Poultry, Liver	155				3.5 ^	NT	-
Atrazine							
Poultry, Adipose	155				6.8 ^	20	-
Poultry, Muscle	154				6.8 ^	20	-
Azinphos methyl							
Poultry, Adipose	155				9.8 ^	NT	-
Poultry, Liver	155				9.8 ^	NT	-
Poultry, Muscle	154				9.8 ^	NT	-
Azinphos methyl oxygen analog (metabolite of Azinphos methyl)							
Poultry, Adipose	155				29.5 ^	NT	-
Poultry, Liver	155				29.5 ^	NT	-
Poultry, Muscle	154				30 ^	NT	-
BHC alpha							
Poultry, Adipose	155				2.5 ^	300	-
BHC beta							
Poultry, Adipose	155				4.8 ^	300	-
Bifenthrin							
Poultry, Muscle	154				0.6 ^	50	50
Captan							
Poultry, Adipose	155				30.7 ^	NT	-
Carbaryl							
Poultry, Liver	155				3.5 ^	NT	-
Carbofuran							
Poultry, Liver	155				6.1 ^	NT	-
Carbophenothion							
Poultry, Adipose	155				8.1 ^	NT	-

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
Chlordane cis							
Poultry, Adipose	155				2.6 ^	300 ^{AL}	500
Chlordane trans							
Poultry, Adipose	155				2.3 ^	300 ^{AL}	500
Chlorfenvinphos alpha							
Poultry, Adipose	155				11.9 ^	5	-
Chlorpropham							
Poultry, Adipose	155				10.3 ^	NT	---
Poultry, Muscle	154				10 ^	NT	---
Chlorpyrifos							
Poultry, Adipose	155				9.8 ^	100	100
Poultry, Liver	155				9.8 ^	NT	-
Poultry, Muscle	154				9.8 ^	100	100
Chlorpyrifos methyl							
Poultry, Adipose	155				7.0 ^	500	50
Poultry, Liver	155				7.0 ^	NT	-
Poultry, Muscle	154				7.0 ^	500	50
Chlorpyrifos methyl oxygen analog (metabolite of Chlorpyrifos methyl)							
Poultry, Adipose	155				18.1 ^	500	-
Poultry, Liver	155				18.1 ^	NT	-
Coumaphos							
Poultry, Adipose	155				8.8 ^	NT	-
Poultry, Liver	155				8.8 ^	NT	-
Poultry, Muscle	154				8.8 ^	NT	-
Coumaphos oxygen analog							
Poultry, Adipose	155				13.9 ^	NT	-
Poultry, Liver	155				13.9 ^	NT	-
Poultry, Muscle	154				14 ^	NT	-
Cyfluthrin							
Poultry, Muscle	154				3.0 ^	10	-
DDD p,p'							
Poultry, Adipose	155				3.5 ^	5000 ^{AL}	-
DDE p,p'							
Poultry, Adipose	155				2.4 ^	5000 ^{AL}	-
DDT p,p'							
Poultry, Adipose	155				6.9 ^	5000 ^{AL}	-

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
Diazinon							
Poultry, Adipose	155				9.4 ^	NT	-
Poultry, Liver	155				9.4 ^	NT	-
Poultry, Muscle	154				9.4 ^	NT	20
Diazinon oxygen analog							
Poultry, Adipose	155				10.4 ^	NT	-
Poultry, Liver	155				10.4 ^	NT	-
Poultry, Muscle	154				10 ^	NT	-
Dichlorvos-DDVP							
Poultry, Adipose	155				6.3 ^	50	-
Poultry, Liver	155				6.3 ^	NT	-
Poultry, Muscle	154				6.3 ^	50	50
Dicofol p,p'							
Poultry, Adipose	155				19.1 ^	NT	-
Poultry, Muscle	154				1.6 ^	NT	100
Dieldrin							
Poultry, Adipose	155				2.9 ^	300 ^{AL}	200
Difenoconazole (fungicide)							
Poultry, Muscle	154				3.0 ^	50	-
Dimethoate							
Poultry, Adipose	155				7.6 ^	20	-
Poultry, Liver	155				7.7 ^	NT	-
Poultry, Muscle	154				7.6 ^	20	-
Endosulfan I							
Poultry, Adipose	155				2.7 ^	NT	-
Endosulfan II							
Poultry, Adipose	155				3.0 ^	NT	-
Endosulfan sulfate							
Poultry, Adipose	155				3.7 ^	NT	-
Endrin							
Poultry, Adipose	155				3.8 ^	NT	100
Esfenvalerate							
Poultry, Muscle	154				3.0 ^	30	-
Ethalfuralin							
Poultry, Adipose	155				3.0 ^	NT	-
Poultry, Muscle	154				1.2 ^	NT	-

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
Ethion							
Poultry, Adipose	155				4.7 ^	NT	-
Poultry, Liver	155				4.7 ^	NT	-
Poultry, Muscle	154				4.7 ^	NT	-
Ethion di oxon							
Poultry, Adipose	155				8.3 ^	NT	-
Poultry, Liver	155				8.3 ^	NT	-
Poultry, Muscle	154				8.3 ^	NT	-
Ethion mono oxon							
Poultry, Adipose	155				5.4 ^	NT	-
Poultry, Liver	155				5.4 ^	NT	-
Poultry, Muscle	154				5.4 ^	NT	-
Etridiazole (fungicide)							
Poultry, Adipose	155				5.2 ^	100	-
Poultry, Muscle	154				2.7 ^	100	-
Fenitrothion							
Poultry, Adipose	155				10.3 ^	NT	-
Poultry, Liver	155				10.3 ^	NT	-
Fenpropathrin							
Poultry, Muscle	154				0.7 ^	50	20
Fenthion							
Poultry, Adipose	155				10.2 ^	100	-
Poultry, Liver	155				10.2 ^	NT	-
Poultry, Muscle	154				10 ^	100	-
Fenthion sulfone (metabolite of Fenthion)							
Poultry, Adipose	155				8.6 ^	100	-
Poultry, Liver	155				8.6 ^	NT	-
Poultry, Muscle	154				8.6 ^	100	-
Fenvalerate							
Poultry, Muscle	154				1.0 ^	NT	-
Fluvalinate (insecticide)							
Poultry, Muscle	154				2.3 ^	10	-
Heptachlor							
Poultry, Adipose	155				2.8 ^	200 ^{AL}	200
Heptachlor epoxide							
Poultry, Adipose	155				2.7 ^	200 ^{AL}	200
Hexachlorobenzene-HCB							
Poultry, Adipose	155				1.3 ^	NT	-

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
3-Hydroxycarbofuran							
Poultry, Liver	155				4.8 ^	NT	-
Iprodione							
Poultry, Adipose	155				41.6 ^	3500	-
Poultry, Liver	155				41.6 ^	5000	-
Poultry, Muscle	154				2.7 ^	1000	-
Isofenphos (insecticide)							
Poultry, Adipose	155				11.6 ^	NT	-
Poultry, Liver	155				11.6 ^	NT	-
Poultry, Muscle	154				12 ^	NT	-
Lindane-BHC gamma							
Poultry, Adipose	155				2.0 ^	4000	700
Linuron							
Poultry, Adipose	155				33.4 ^	NT	-
Malathion							
Poultry, Adipose	155				12.1 ^	4000	-
Poultry, Liver	155				12.1 ^	NT	-
Poultry, Muscle	154				12 ^	4000	-
Malathion oxygen analog							
Poultry, Adipose	155				12.9 ^	NT	-
Poultry, Liver	155				12.9 ^	NT	-
Poultry, Muscle	154				13 ^	NT	-
Methamidophos							
Poultry, Adipose	155				8.7 ^	100	-
Poultry, Liver	155				8.7 ^	NT	-
Poultry, Muscle	154				8.7 ^	100	-
Methidathion							
Poultry, Adipose	155				10.4 ^	50	20
Poultry, Liver	155				10.4 ^	NT	-
Poultry, Muscle	154				10 ^	50	20
Methiocarb							
Poultry, Liver	155				3.8 ^	NT	-
Methomyl							
Poultry, Liver	155				2.9 ^	NT	-
Methoxychlor p,p'							
Poultry, Adipose	155				12.9 ^	NT	-

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
Metribuzin							
Poultry, Adipose	155				2.6 ^	700	-
Poultry, Liver	155				2.6 ^	NT	-
Poultry, Muscle	154				1.5 ^	700	-
Myclobutanil							
Poultry, Adipose	155				29.9 ^	20	-
Poultry, Liver	155				29.9 ^	NT	-
Poultry, Muscle	154				1.6 ^	20	10
Nonachlor cis (insecticide)							
Poultry, Adipose	155				2.7 ^	300	-
Nonachlor trans							
Poultry, Adipose	155				2.9 ^	300	-
Omethoate							
Poultry, Adipose	155				13.5 ^	20	-
Poultry, Liver	155				13.5 ^	NT	-
Poultry, Muscle	154				14 ^	20	-
Oxychlordan							
Poultry, Adipose	155				2.7 ^	300 ^{AL}	500
Oxyfluorfen							
Poultry, Adipose	155				3.3 ^	50	-
Poultry, Muscle	154				0.7 ^	50	-
Parathion							
Poultry, Adipose	155				10.4 ^	NT	-
Poultry, Liver	155				10.4 ^	NT	-
Poultry, Muscle	154				10 ^	NT	-
Parathion methyl							
Poultry, Adipose	155				9.4 ^	NT	-
Poultry, Liver	155				9.4 ^	NT	-
Poultry, Muscle	154				9.4 ^	NT	-
Parathion methyl oxygen analog							
Poultry, Adipose	155				4.0 ^	NT	-
Poultry, Liver	155				4.0 ^	NT	-
Poultry, Muscle	154				4.0 ^	NT	-
Parathion oxygen analog							
Poultry, Adipose	155				10.9 ^	NT	-
Poultry, Liver	155				10.9 ^	NT	-
Poultry, Muscle	154				11 ^	NT	-

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 cis							
Poultry, Adipose	155				30.2 ^	150	-
Poultry, Muscle	154				2.0 ^	50	100
Permethrin trans							
Poultry, Adipose	155				10.3 ^	150	-
Poultry, Muscle	154				30 ^	50	100
Phorate							
Poultry, Adipose	155				7.0 ^	50	-
Poultry, Liver	155				7.0 ^	NT	-
Poultry, Muscle	154				7.0 ^	50	-
Phorate oxygen analog							
Poultry, Adipose	155				6.3 ^	50	-
Poultry, Liver	155				6.3 ^	NT	-
Poultry, Muscle	154				6.3 ^	50	-
Phorate sulfone							
Poultry, Adipose	155				8.6 ^	50	-
Poultry, Liver	155				8.6 ^	NT	-
Poultry, Muscle	154				8.6 ^	50	-
Phorate sulfoxide							
Poultry, Adipose	155				16.7 ^	50	-
Poultry, Liver	155				16.7 ^	NT	-
Poultry, Muscle	154				17 ^	50	-
Phosalone							
Poultry, Adipose	155				8.8 ^	NT	-
Poultry, Liver	155				8.8 ^	NT	-
Phosmet							
Poultry, Adipose	155				9.0 ^	NT	-
Poultry, Liver	155				9.0 ^	NT	-
Poultry, Muscle	154				9.0 ^	NT	-
Pirimiphos methyl							
Poultry, Adipose	155				9.6 ^	200	-
Poultry, Liver	155				9.6 ^	NT	-
Poultry, Muscle	154				9.6 ^	2000	-
Profenofos							
Poultry, Adipose	155				9.3 - 10.7	50	-
Poultry, Liver	155				9.3 ^	NT	-
Poultry, Muscle	154				9.3 ^	50	-
Pronamide							
Poultry, Adipose	155				5.7 ^	20	-
Poultry, Liver	155				5.7 ^	200	-
Poultry, Muscle	154				1.4 ^	20	-

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
Propargite							
Poultry, Adipose	155				33 ^	100	100
Poultry, Liver	155				33 ^	NT	-
Poultry, Muscle	154				33 ^	100	100
Propham (herbicide)							
Poultry, Liver	155				5.6 ^	NT	-
Poultry, Muscle	154				5.6 ^	NT	-
Propiconazole							
Poultry, Adipose	155				5.7 ^	100	-
Poultry, Liver	155				15.4 ^	200	-
Poultry, Muscle	154				1.0 ^	100	50
Simazine							
Poultry, Adipose	155				13.4 ^	20	-
Poultry, Muscle	154				13 ^	20	-
Sulprofos							
Poultry, Muscle	154				15 ^	NT	-
Tetrachlorvinphos							
Poultry, Adipose	155				8.6 ^	750	-
Poultry, Liver	155				8.6 ^	NT	-
Poultry, Muscle	154				8.6 ^	NT	-
Thiobencarb							
Poultry, Liver	155				6.4 ^	NT	-
Poultry, Muscle	154				6.4 ^	200	-
Triadimefon							
Poultry, Adipose	155				5.2 ^	40	-
Poultry, Muscle	154				0.4 ^	40	50
Triadimenol (fungicide)							
Poultry, Adipose	155				14.4 ^	10	-
Poultry, Muscle	154				14 ^	10	50
Triflumizole (fungicide)							
Poultry, Adipose	155				10.8 ^	50	-
Poultry, Muscle	154				1.0 ^	50	-

^ = Only one distinct 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 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 2001, beef tissue samples were analyzed which included 291 adipose samples, 311 liver samples, and 309 muscle samples. Of the 291 adipose samples analyzed, a total of 173 samples (59 percent) were reported with residue detections. No residues were detected in the 311 liver samples analyzed. Of the 309 muscle sample analyzed, only 1 sample was reported with a residue detection. All of the residue detections in beef samples were below the established EPA tolerance levels.

Codex MRLs represent toxicological pesticide residue levels, based on Acceptable Daily Intakes (ADIs) permitted by the Joint (Food and Agriculture/World Health Organization-FAO/WHO) Meeting on Pesticide Residues (JMPR). The JMPR is an independently appointed panel of expert scientists. Similarly, EMRLs represent acceptable levels of persistent pesticides in the environment which are no longer registered for use in agriculture.

MRLs/EMRLs used in this appendix are values of pesticides and their metabolites, for the commodities either individually or part of a commodity group as they appear in the second addition of Volume B of the Codex Alimentarius Publication.

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
Acephate							
Beef, Adipose	291				1.8 ^	100	100
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	100	100
Aldicarb							
Beef, Adipose	270				18 ^	10	-
Beef, Liver	311				4.5 ^	NT	-
Beef, Muscle	285				4.5 ^	10	10
Aldicarb sulfone							
Beef, Adipose	270				18 ^	10	-
Beef, Liver	311				4.5 ^	NT	-
Beef, Muscle	285				4.5 ^	10	10
Aldicarb sulfoxide							
Beef, Adipose	270				18 ^	10	-
Beef, Liver	311				4.5 ^	NT	-
Beef, Muscle	285				4.5 ^	10	10
Amitraz (insecticide)							
Beef, Muscle	309				1.5 ^	50	50
Atrazine							
Beef, Muscle	309				1.1 ^	20	-
Azinphos methyl							
Beef, Adipose	291				3.2 ^	NT	-
Beef, Liver	311				3.2 ^	NT	-
Beef, Muscle	309				3.2 ^	NT	-
Azinphos methyl oxygen analog (metabolite of Azinphos methyl)							
Beef, Adipose	291				24 ^	NT	-
Beef, Liver	311				24 ^	NT	-
Beef, Muscle	309				24 ^	NT	-
BHC alpha							
Beef, Adipose	291				3.3 ^	300 ^{AL}	-
BHC beta							
Beef, Adipose	291				0.7 ^	300 ^{AL}	-
Bifenthrin							
Beef, Adipose	291				0.9 ^	1000	500
Beef, Muscle	309				0.4 ^	500	500
Captan							
Beef, Adipose	291				5.0 ^	50	-
Carbaryl							
Beef, Adipose	270				14 ^	100	-
Beef, Liver	311				3.6 ^	1000	-
Beef, Muscle	285				3.6 ^	100	200

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
Carbofuran							
Beef, Adipose	270				24 ^	20	50
Beef, Liver	311				6.0 ^	NT	-
Beef, Muscle	285				6.0 ^	20	50
Carbophenothion							
Beef, Adipose	291				1.8 ^	NT	-
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	NT	-
Chlordane cis							
Beef, Adipose	291	1	0.3	0.7 ^	0.4 ^	300 ^{AL}	50
Chlordane trans							
Beef, Adipose	291	1	0.3	2.5 ^	1.5 ^	300 ^{AL}	50
Chlorfenvinphos alpha							
Beef, Adipose	291				3.2 ^	200 ^{AL}	-
Beef, Liver	311				3.2 ^	NT	-
Beef, Muscle	309				3.2 ^	NT	-
Chlorpropham							
Beef, Adipose	291				2.4 ^	50	-
Beef, Muscle	309				2.4 ^	50	-
Chlorpyrifos							
Beef, Adipose	291				2.8 ^	300	2000
Beef, Liver	311				2.8 ^	NT	-
Beef, Muscle	309				2.8 ^	50	2000
Chlorpyrifos methyl							
Beef, Adipose	291				1.8 ^	500	50
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	500	50
Chlorpyrifos methyl oxygen analog (metabolite of Chlorpyrifos methyl)							
Beef, Adipose	291				7.6 ^	500	-
Beef, Liver	311				7.6 ^	NT	-
Beef, Muscle	309				7.6 ^	500	-
Coumaphos							
Beef, Adipose	291				3.0 ^	1000	-
Beef, Liver	311				3.0 ^	NT	-
Beef, Muscle	309				3.0 ^	1000	-
Coumaphos oxygen analog							
Beef, Adipose	291				12 ^	1000	-
Beef, Liver	311				12 ^	NT	-
Beef, Muscle	309				12 ^	1000	-
Cyfluthrin							
Beef, Adipose	291				2.5 ^	1000	-
Beef, Muscle	309				6.2 ^	400	-

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
Cypermethrin							
Beef, Adipose	291				3.9 ^	50	200
Beef, Muscle	309				2.2 ^	50	200
DDD p,p'							
Beef, Adipose	291				0.8 ^	5000 ^{AL}	5000
DDE p,p'							
Beef, Adipose	291	147	50.5	4.5 - 129	2.7 ^	5000 ^{AL}	5000
DDT p,p'							
Beef, Adipose	291	1	0.3	4.3 ^	1.1 ^	5000 ^{AL}	5000
DEF-Tribufos							
Beef, Adipose	291				2.0 ^	20	-
Beef, Liver	311				2.0 ^	NT	-
Beef, Muscle	309				2.0 ^	20	-
Diazinon							
Beef, Adipose	291	1	0.3	11.3 ^	1.8 ^	700	700
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309	1	0.3	3.0 ^	1.8 ^	700	700
Diazinon oxygen analog							
Beef, Adipose	291				2.4 ^	NT	-
Beef, Liver	311				2.4 ^	NT	-
Beef, Muscle	309				2.4 ^	NT	-
Dichlorvos-DDVP							
Beef, Adipose	291				1.0 ^	20	-
Beef, Liver	311				1.0 ^	NT	-
Beef, Muscle	309				1.0 ^	20	50
Dicofol p,p'							
Beef, Adipose	291				1.8 ^	NT	3000
Beef, Muscle	309				2.5 ^	NT	3000
Dieldrin							
Beef, Adipose	291	50	17.1	2.2 - 11.4	1.3 ^	300 ^{AL}	200
Difenoconazole (fungicide)							
Beef, Adipose	291				5.4 ^	50	-
Beef, Muscle	309				2.1 ^	50	-
Dimethoate							
Beef, Adipose	291				1.8 ^	20	-
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	20	-
Endosulfan I							
Beef, Adipose	291				0.4 ^	200	100
Endosulfan II							
Beef, Adipose	291				0.5 ^	200	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
Endosulfan sulfate							
Beef, Adipose	291	6	2.1	3.2 - 7.7	0.3 ^	200	100
Endrin							
Beef, Adipose	291				0.9 ^	NT	-
Esfenvalerate							
Beef, Adipose	291				3.8 ^	NT	-
Beef, Muscle	309				8.0 ^	NT	-
Ethalfuralin							
Beef, Adipose	291				5.2 ^	NT	-
Beef, Muscle	309				1.8 ^	NT	-
Ethion							
Beef, Adipose	291				1.2 ^	2500	-
Beef, Liver	311				1.2 ^	NT	-
Beef, Muscle	309				1.2 ^	2500	-
Ethion di oxon							
Beef, Adipose	291				5.8 ^	2500	-
Beef, Liver	311				5.8 ^	NT	-
Beef, Muscle	309				5.8 ^	2500	-
Ethion mono oxon							
Beef, Adipose	291				1.8 ^	2500	-
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	2500	-
Etridiazole							
Beef, Adipose	291				4.1 ^	100	-
Beef, Muscle	309				3.2 ^	100	-
Fenamiphos							
Beef, Adipose	291				3.8 ^	50	-
Beef, Liver	311				3.8 ^	NT	-
Beef, Muscle	309				3.8 ^	50	-
Fenamiphos sulfone							
Beef, Adipose	291				12 ^	50	-
Beef, Liver	311				12 ^	NT	-
Beef, Muscle	309				12 ^	50	-
Fenamiphos sulfoxide							
Beef, Adipose	291				24 ^	50	-
Beef, Liver	311				24 ^	NT	-
Beef, Muscle	309				24 ^	50	-
Fenitrothion							
Beef, Adipose	291				2.0 ^	NT	50
Beef, Liver	311				2.0 ^	NT	-
Beef, Muscle	309				2.0 ^	NT	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
Fenpropathrin							
Beef, Adipose	291				2.4 ^	1000	500
Beef, Muscle	309				5.0 ^	100	500
Fenthion							
Beef, Adipose	291				2.0 ^	100	2000
Beef, Liver	311				2.0 ^	NT	-
Beef, Muscle	309				2.0 ^	100	2000
Fenthion sulfone (metabolite of Fenthion)							
Beef, Adipose	291				2.0 ^	100	2000
Beef, Liver	311				2.0 ^	NT	-
Beef, Muscle	309				2.0 ^	100	2000
Fenvalerate							
Beef, Adipose	291				1.1 ^	1500	1000
Beef, Muscle	309				0.7 ^	1500	1000
Fluvalinate (insecticide)							
Beef, Adipose	291				10 ^	10	-
Beef, Muscle	309				1.7 ^	10	-
Heptachlor							
Beef, Adipose	291				0.6 ^	200 ^{AL}	200
Heptachlor epoxide							
Beef, Adipose	291	8	2.7	1.3 - 7.6	0.8 ^	200 ^{AL}	200
Hexachlorobenzene-HCB							
Beef, Adipose	291				1.0 ^	NT	-
3-Hydroxycarbofuran							
Beef, Adipose	270				24 ^	20	50
Beef, Liver	311				6.0 ^	NT	-
Beef, Muscle	285				6.0 ^	20	50
Iprodione							
Beef, Adipose	291				2.6 ^	500	-
Beef, Liver	311				7.7 ^	3000	-
Beef, Muscle	309				2.2 ^	500	-
Isofenphos							
Beef, Adipose	291				2.2 ^	NT	-
Beef, Liver	311				2.2 ^	NT	-
Beef, Muscle	309				2.2 ^	NT	-
Lindane-BHC gamma							
Beef, Adipose	291	2	0.7	3.3 ^	2.0 ^	7000	2000
Linuron							
Beef, Adipose	291				14 ^	1000	-
Malathion							
Beef, Adipose	291				3.2 ^	4000	-
Beef, Liver	311				3.2 ^	NT	-
Beef, Muscle	309				3.2 ^	4000	-

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
Malathion oxygen analog							
Beef, Adipose	291				6.0 ^	NT	-
Beef, Liver	311				6.0 ^	NT	-
Beef, Muscle	309				6.0 ^	NT	-
Methamidophos							
Beef, Adipose	291				1.2 ^	100	10
Beef, Liver	311				1.2 ^	NT	-
Beef, Muscle	309				1.2 ^	100	10
Methidathion							
Beef, Adipose	291				2.6 ^	50	20
Beef, Liver	311				2.6 ^	NT	-
Beef, Muscle	309				2.6 ^	50	-
Methiocarb							
Beef, Adipose	270				34 ^	NT	-
Beef, Liver	311				8.4 ^	NT	-
Beef, Muscle	285				8.4 ^	NT	50
Methomyl							
Beef, Adipose	270				13 ^	NT	-
Beef, Liver	311				3.3 ^	NT	-
Beef, Muscle	285				3.3 ^	NT	20
Methoxychlor p,p'							
Beef, Adipose	291				2.2 ^	3000	-
Metribuzin							
Beef, Adipose	291				1.3 ^	700	-
Beef, Liver	311				4.5 ^	NT	-
Beef, Muscle	309				0.6 ^	700	-
Myclobutanil							
Beef, Adipose	291				3.4 ^	50	-
Beef, Liver	311				10 ^	1000	-
Beef, Muscle	309				1.4 ^	100	10
Nonachlor cis							
Beef, Adipose	291				0.6 ^	300 ^{AL}	-
Nonachlor trans							
Beef, Adipose	291				5.3 ^	300 ^{AL}	-
Omethoate							
Beef, Adipose	291				2.6 ^	20	-
Beef, Liver	311				2.6 ^	NT	-
Beef, Muscle	309				2.6 ^	20	-
Oxadiazon (herbicide)							
Beef, Adipose	291				0.8 ^	10	-
Beef, Liver	311				2.6 ^	NT	-
Beef, Muscle	309				0.4 ^	10	-
Oxychlordan							
Beef, Adipose	291	1	0.3	3.8 ^	0.5 ^	300 ^{AL}	-

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
Oxydemeton methyl sulfone							
Beef, Adipose	291				7.6 ^	10	-
Beef, Liver	311				7.6 ^	NT	-
Beef, Muscle	309				7.6 ^	10	-
Oxyfluorfen							
Beef, Adipose	291				0.6 ^	50	-
Beef, Muscle	309				0.2 ^	50	-
Parathion							
Beef, Adipose	291				2.2 ^	NT	-
Beef, Liver	311				2.2 ^	NT	-
Beef, Muscle	309				2.2 ^	NT	-
Parathion methyl							
Beef, Adipose	291				1.8 ^	NT	-
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	NT	-
Parathion methyl oxygen analog							
Beef, Adipose	291				2.8 ^	NT	-
Beef, Liver	311				2.8 ^	NT	-
Beef, Muscle	309				2.8 ^	NT	-
Parathion oxygen analog							
Beef, Adipose	291				2.4 ^	NT	-
Beef, Liver	311				2.4 ^	NT	-
Beef, Muscle	309				2.4 ^	NT	-
Permethrin cis							
Beef, Adipose	291				12 ^	3000	1000
Beef, Muscle	309				2.1 ^	250	1000
Permethrin trans							
Beef, Adipose	291				12 ^	3000	1000
Phorate							
Beef, Adipose	291				1.4 ^	50	-
Beef, Liver	311				1.4 ^	NT	-
Beef, Muscle	309				1.4 ^	50	50
Phorate oxygen analog							
Beef, Adipose	291				1.6 ^	50	-
Beef, Liver	311				1.6 ^	NT	-
Beef, Muscle	309				1.6 ^	50	50
Phorate sulfone							
Beef, Adipose	291				1.6 ^	50	-
Beef, Liver	311				1.6 ^	NT	-
Beef, Muscle	309				1.6 ^	50	50
Phorate sulfoxide							
Beef, Adipose	291				20 ^	50	-
Beef, Liver	311				20 ^	NT	-
Beef, Muscle	309				20 ^	50	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
Phosalone							
Beef, Adipose	291				2.2 ^	NT	-
Beef, Liver	311				2.2 ^	NT	-
Beef, Muscle	309				2.2 ^	NT	-
Phosmet							
Beef, Adipose	291				2.4 ^	200	1000
Beef, Liver	311				2.4 ^	NT	-
Beef, Muscle	309				2.4 ^	200	1000
Pirimiphos methyl							
Beef, Adipose	291				2.0 ^	200	-
Beef, Liver	311				2.0 ^	2000	-
Beef, Muscle	309				2.0 ^	200	50
Profenofos							
Beef, Adipose	291				2.4 ^	50	-
Beef, Liver	311				2.4 ^	NT	-
Beef, Muscle	309				2.4 ^	50	50
Pronamide							
Beef, Adipose	291				1.2 ^	20	-
Beef, Liver	311				12 ^	400	-
Beef, Muscle	309				1.2 ^	20	-
Propargite							
Beef, Adipose	291				24 ^	100	100
Beef, Liver	311				9.6 ^	NT	-
Beef, Muscle	309				8.6 ^	100	100
Propham							
Beef, Liver	311				1.7 ^	NT	-
Beef, Muscle	309				1.4 ^	NT	-
Propiconazole							
Beef, Adipose	291				3.5 ^	100	-
Beef, Liver	311				1.3 ^	2000	-
Beef, Muscle	309				0.7 ^	100	50
Simazine							
Beef, Muscle	309				1.5 ^	20	-
Sulprofos							
Beef, Adipose	291				1.8 ^	NT	-
Beef, Liver	311				1.8 ^	NT	-
Beef, Muscle	309				1.8 ^	NT	-
Tetrachlorvinphos							
Beef, Adipose	291				3.0 ^	1500	-
Beef, Liver	311				3.0 ^	NT	-
Beef, Muscle	309				3.0 ^	NT	-
Thiobencarb							
Beef, Liver	311				7.3 ^	NT	-
Beef, Muscle	309				5.5 ^	200	-

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
Triadimefon							
Beef, Adipose	291				3.2 ^	1000	-
Beef, Muscle	309				1.0 ^	1000	50
Triadimenol							
Beef, Adipose	291				13 ^	100	-
Beef, Muscle	309				3.7 ^	100	50
Triflumizole							
Beef, Adipose	291				1.3 ^	500	-
Beef, Muscle	309				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) and Health Advisory (HA) values are also shown. Units for LODs, MCLs, and HAs 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. Health Advisories are not legally enforceable Federal standards, but serve as technical guidance to assist Federal, State, and local officials. 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.

In 2001, PDP analyzed 297 drinking water samples. A total of 145 samples (49 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	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA ^a , ppt
2 4 5 T	163				45 ^b		70,000
Acetochlor	154				49.5 ^b		
Acetochlor ethanesulfonic acid (ESA)	77				300 ^b		
Acetochlor oxanilic acid (OA)	137				300 ^b		
Alachlor	288				5.0 - 25	2000	
Alachlor ethanesulfonic acid (ESA)	79	3	3.8	499.5 ^b	300 ^b		
Alachlor oxanilic acid (OA)	137	1	0.7	499.5 ^b	300 ^b		
Aldicarb sulfone	134				60 ^b	7000 ^c	7000 ^d
Aldicarb sulfoxide	134				20 ^b	7000 ^c	7000 ^d
Atrazine	203	121	59.6	12.5 - 140	5.0 - 7.5	3000	200,000
Azinphos ethyl	85				16 ^b		
Azinphos methyl	283				12 - 21		
Bendiocarb	288				18.8 - 20		
Benfluralin	134				13 - 25		
Benomyl	92				11.3 ^b		
Bentazon	100	1	1	18.8 ^b	11.3 - 37.5		200,000
Bifenthrin	134				13 - 25		
Bromacil	100				97.5 ^b		90,000
Bromoxynil	163				11.3 ^b		
Butachlor	162				5.3 ^b		
Captan	134				100 ^b		
Carbaryl	296				15 - 20		700,000
Carbofuran	296				20 - 22.5	40,000	
Carbophenothion	283				5.3 - 10		
Chlordane cis	288				2.3 - 50	2000	
Chlordane trans	288				2.3 - 50	2000	
Chlorfenvinphos beta	149				4.1 ^b		
Chlorfenvinphos total	134				10 ^b		
Chlorpyrifos	283				6.0 - 11		20,000
Chlorpyrifos methyl	283				10 - 11.3		
Chlorpyrifos oxygen analog	134				20 ^b		
Clopyralid	163				97.5 ^b		
Coumaphos	283				3.8 - 26		
Coumaphos oxygen analog	134				25 ^b		
Cyanazine	154				24.8 ^b		1000
Cyfluthrin	134				100 - 200		
Cypermethrin	134				100 - 200		

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA ^a , ppt
DCPA-Dacthal	288				2.3 - 25		70,000
DCPA monoacid	70				450 ^b		
DDD o,p'	154				3.8 ^b		
DDD p,p'	154				3.8 ^b		
DDE p,p'	288				7.5 - 50		
DDT o,p'	154				3.8 ^b		
DDT p,p'	154				3.8 ^b		
DEF-Tribufos	283				3.8 - 14		
Desethyl atrazine	154	75	48.7	41.3 - 220	24.8 ^b		
Desisopropyl atrazine	154	64	41.6	16.3 - 73	9.8 - 32.5		
Diazinon	283	1	0.4	10 ^b	6.0 - 7.5		600
Diazinon oxygen analog	283	1	0.4	40 ^b	6.0 - 9.0		
Dichlobenil	154				45 ^b		
Dichlorprop	92				5.3 ^b		
Dichlorvos-DDVP	214				4.0 - 6.0		
Dicloran	154				7.5 ^b		
Dicofol p,p'	288				11.3 - 50		
Dicrotophos	134				10 ^b		
Dieldrin	288				10 - 50		2000
Dimethoate	283				5.3 - 6.0		
Diphenamid	154				24 ^b		
Disulfoton	283				6.0 - 7.0		
Disulfoton sulfone	283				3.8 - 11		
Endosulfan I	288				20 - 100		
Endosulfan II	288				18.8 - 100		
Endosulfan sulfate	288				10 - 50		
Endrin	288				50 - 100	2000	2000
Esfenvalerate	134				20 - 100		
Ethalfuralin	269				10 - 60		
Ethion	283				2.3 - 6.0		
Ethion mono oxon	283				3.8 - 7.0		
Ethoprop	283				3.0 - 7.0		
Fenamiphos	283				3.8 - 12		2000
Fenamiphos sulfone	134				22 ^b		
Fenarimol	154				37.5 ^b		
Fenitrothion	283				3.8 - 8.0		
Fenitrothion oxygen analog	134				10 ^b		
Fenthion	283				6.0 - 8.0		
Fenthion-O analog	283				7.5 - 10		

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA ^a , ppt
Fenuron	100				22.5 ^b		
Fenvalerate	134				20 - 100		
Fludioxonil	154				37.5 ^b		
Fonofos	283				3.8 - 5.0		10,000
Fonofos oxygen analog	149				2.3 ^b		
Heptachlor epoxide	288				13 - 25	200	
3-Hydroxycarbofuran	296				20 - 97.5		
Imazamox	92				22.5 ^b		
Imazapic	100				22.5 - 75		
Imazapyr	154				22.5 ^b		
Imidacloprid	100				22.5 ^b		
Iprodione	154				30 ^b		
Isofenphos	283				4.5 - 12		
3-Ketocarbofuran	134				20 ^b		
Lindane-BHC gamma	154				11.3 ^b	200	
Linuron	154				112.5 ^b		
Malathion	283				6.0 - 11		10,000
Malathion oxygen analog	203	1	0.5	15 ^b	6.0 - 9.0		
MCPA	163				225 ^b		
Metalaxyl	154				22.5 ^b		
Methidathion	283				5.3 - 10		
Methidathion oxygen analog	283				25 - 45		
Methiocarb	134				20 ^b		
Methomyl	134				20 ^b		
Methoxychlor Total	154				7.5 ^b	40,000 ^d	
Methoxychlor olefin	154				3.8 ^b	40,000 ^d	
Methoxychlor p,p'	134				10 - 50	40,000 ^d	
Metolachlor	203	102	50.2	10 - 79	5.0 - 6.0		100,000
Metolachlor ethanesulfonic acid (ESA)	83	19	22.9	499.5 - 2210	300 ^b		
Metolachlor oxanilic acid (OA)	138	14	10.1	499.5 - 4420	300 ^b		
Metribuzin	288	1	0.3	41.6 ^b	25 - 50		200,000
Mevinphos E	149				3.4 ^b		
Mevinphos Total	134				10 ^b		
Molinate	154				9.8 ^b		
Monuron	100				97.5 ^b		
Myclobutanil	288				11.3 - 100		
Napropamide	288				24 - 100		
Nicosulfuron	70				7.5 ^b		
Norflurazon	154				18.8 ^b		

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA ^a , ppt
Norflurazon desmethyl	154				37.5 ^b		
Oxadiazon	154				15 ^b		
Oxadixyl	154				48.8 ^b		
Oxamyl	134				20 ^b	200,000	200,000
Oxychlordane	288				7.5 - 100		
Oxydemeton methyl sulfone	134				30 ^b		
Oxyfluorfen	288				11.3 - 100		
Parathion ethyl	283				7.0 - 7.5		
Parathion methyl	283				4.5 - 6.0		
Parathion methyl oxygen analog	283				9.0 - 9.8		
Parathion oxygen analog	213				6.0 - 7.0		
Pendimethalin	281				4.5 - 100		
Permethrin trans	134				25 - 50		
Phenthoate	154				15 ^b		
Phorate	283				7.5 - 11		
Phorate oxygen analog	292				3.0 - 5.3		
Phorate sulfone	283				6.0 - 7.0		
Phorate sulfoxide	149				15 ^b		
Phosalone	283				4.5 - 16		
Phosalone oxygen analog	134				20 ^b		
Phosmet	134				15 ^b		
Phosphamidon	283				10.5 - 12		
Picloram	152				45 ^b	500,000	500,000
Piperonyl butoxide	154				18.8 ^b		
Pirimicarb	154				37.5 ^b		
Pirimiphos methyl	283				5.3 - 10		
Profenofos	283				2.3 - 12		
Prometon	288				10 - 50		100,000
Prometryn	134				10 - 50		
Pronamide	288				13 - 25		50,000
Propachlor	288				5.3 - 25		90,000
Propanil	288	3	1	83.2 ^b	24.8 - 50		
Propargite	288				90 - 200		
Propetamphos	258				3.0 - 4.0		
Propham	162				11.3 ^b		100,000
Propiconazole	154				37.5 ^b		
Propiconazole I	134				50 - 100		
Propiconazole II	134				50 - 100		
Propoxur	288				13 - 25		

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppt	Range of LODs, ppt	EPA MCL, ppt	EPA HA ^a , ppt
Quintozene-PCNB	135	1	0.7	39 ^b	11.3 ^b		
Siduron	81				15 ^b		
Simazine	288	44	15.3	12.5 - 93	7.5 - 50	4000	90,000
Sulfotep	282				1.5 - 4.0		
Sulprofos	283				6.0 - 14		
Sulprofos oxygen analog	134				15 - 150		
Tebuconazole	154				60 ^b		
Tebupirimfos	283				3.8 - 7.0		
Tebupirimfos oxygen analog	283				4.5 - 10		
Tebuthiuron	154	3	1.9	16.3 ^b	9.8 - 65		500,000
Terbacil	154				22.5 ^b		90,000
Terbufos	134				12 ^b		900
Terbufos sulfone	283				4.5 - 7.0		
Terbufos-O analog	283				3.0 - 4.0		
Tetrachlorvinphos	283				6.0 - 17		
Tetradifon	288				10 - 50		
Thiobencarb	288				10 - 50		
Tri Allate	154				24.8 ^b		
Triadimefon	288				22.5 - 100		
Triclopyr	163				30 ^b		
Vinclozolin	134				5.0 - 25		

^a = Values shown are for lifetime exposure.

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

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

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

Appendix J

National Estimates for Concentration Percentiles vs. Tolerance

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

Appendix J shows 70 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 azinphos methyl/cherries, the 50th percentile, or median, is estimated to be 0.014 ppm. This means that PDP estimates that at least 50 percent of cherries available to U.S. consumers had azinphos methyl residues of 0.010 ppm or less, while at least 50 percent had residues of 0.010 ppm or more. Similarly, the 75th percentile (or the upper quartile) for this pair is estimated to be 0.030 ppm, which means that at least 75 percent of cherries had residues of 0.030 ppm or less, while at least 25 percent had residues of 0.030 ppm or more. Finally, the 90th percentile (or the last decile) is estimated to be 0.059 ppm, meaning that at least 90 percent of all cherries had azinphos methyl residues of 0.059 ppm or less, while at least 10 percent had residues of 0.059 ppm or more.

Percent detections and percentiles for apples, bananas, carrots, celery, cherries, grapes, green beans, lettuce, mushrooms, nectarines, oranges, peaches, and potatoes were weighted based on marketing data.

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

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) **		Percentiles			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
1 Apples (W)							
Azinphos methyl	36.7	0.016	0.023	*	0.027	0.048	0.032
Captan	14.0	0.026	0.036	*	*	0.038	0.002
Diphenylamine (DPA)	65.7	0.394	0.402	0.23	0.66	1.100	0.110
Phosmet	11.6	0.007	0.019	*	*	0.015	0.002
Thiabendazole	63.1	0.548	0.560	0.25	0.630	1.600	0.160
2 Bananas (W)							
Thiabendazole	38.8	0.032	0.050	*	0.055	0.095	0.032
3 Beef, adipose (W) (July through December only ¹)			(ppb)		(ppb)		
DDE p,p'	47.2	4.619	6.046	*	6.744	8.542	0.002
Dieldrin	16.0	0.679	1.771	*	*	3.248	0.011
4 Broccoli (W)							
DCPA	21.8	0.002	0.005	*	*	0.006	0.001
5 Carrots (W)							
DDE p,p'	35.1	0.005	0.008	*	0.005	0.016	0.005
Iprodione	26.7	0.010	0.020	*	0.010	0.039	0.008
Linuron	13.8	0.011	0.036	*	*	0.046	0.046
Trifluralin	61.9	0.015	0.018	0.003	0.020	0.045	0.045
6 Celery (W)							
Acephate	50.7	0.045	0.046	0.002	0.028	0.110	5.500
Chlorothalonil	49.2	0.089	0.091	*	0.061	0.240	0.016
Dicloran	51.4	0.176	0.180	0.014	0.180	0.590	0.039
Malathion	20.4	0.017	0.019	*	*	0.051	0.006
Methamidiphos	28.4	0.002	0.003	*	0.002	0.006	0.006
Methomyl	12.9	0.004	0.009	*	*	0.005	0.002
Oxamyl	34.9	0.017	0.023	*	0.020	0.057	0.019
Permethrin cis	26.3	0.014	0.027	*	0.023	0.051	0.010
Permethrin trans	22.7	0.011	0.025	*	*	0.050	0.010
Propiconazole	10.0	0.006	0.026	*	*	0.026	0.005
7 Cherries (W) (May through August only ¹)							
Azinphos methyl	58.6	0.021	0.023	0.010	0.030	0.059	0.030
Carbaryl	60.6	0.056	0.057	0.011	0.065	0.170	0.017
Fenarimol	17.5	0.010	0.019	*	*	0.035	0.035
Iprodione	14.8	0.057	0.066	*	*	0.077	0.004
Malathion	12.6	0.001	0.003	*	*	0.003	0.001
Myclobutanil	59.5	0.027	0.031	0.010	0.037	0.083	0.017
Propiconazole	27.6	0.016	0.026	*	0.017	0.056	0.056

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) **		Percentiles			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
Tebuconazole	25.3	0.030	0.044	*	0.022	0.120	0.030
8 Grapes (W)							
Captan	23.9	0.030	0.036	*	*	0.110	0.002
Iprodione	17.0	0.030	0.040	*	*	0.041	0.001
Myclobutanil	27.6	0.015	0.026	*	0.018	0.050	0.050
9 Green Beans (W)							
Acephate	26.3	0.067	0.068	*	0.006	0.230	0.077
Endosulfan I	14.3	0.005	0.010	*	*	0.015	0.008
Endosulfan II	10.4	0.003	0.008	*	*	0.007	0.004
Endosulfan sulfate	22.5	0.016	0.023	*	*	0.045	0.023
Methamidiphos	27.1	0.021	0.022	*	0.005	0.074	3.700
10 Lettuce (W) (January through September only)							
DCPA	11.0	0.002	0.008	*	*	0.008	0.004
Permethrin Total	15.0	0.077	0.101	*	*	0.130	0.007
Permethrin cis	28.1	0.057	0.068	*	0.028	0.190	0.010
Permethrin trans	27.4	0.063	0.074	*	0.028	0.110	0.006
11 Mushrooms (W) (October through December only)							
Diazinon	23.9	0.006	0.007	*	*	0.023	0.031
O-phenylphenol	34.3	0.007	0.010	*	0.008	0.022	NT
Thiabendazole	28.8	0.087	0.102	*	0.075	0.320	0.008
12 Nectarines (W) (July through September only ²)							
Dicloran	19.0	0.013	0.016	*	*	0.008	0.001
Fenbuconazole	20.9	0.009	0.025	*	*	0.041	0.020
Fludioxonil	48.7	0.116	0.123	*	0.190	0.400	0.080
Formetanate hydrochloride	16.5	0.036	0.077	*	*	0.158	0.039
Iprodione	57.2	0.228	0.232	0.015	0.230	0.810	0.041
Phosmet	74.9	0.067	0.068	0.035	0.097	0.180	0.036
Propargite	47.9	0.144	0.150	*	0.260	0.460	0.115
Spinosad A	14.0	0.002	0.007	*	*	0.009	0.045
Tebuconazole	10.6	0.003	0.013	*	*	0.009	0.009
13 Oranges (W)							
Imazalil	63.5	0.038	0.043	0.015	0.035	0.110	0.011
Thiabendazole	39.4	0.033	0.043	*	0.024	0.110	0.011

Commodity / Pesticide	% of Samples with Detections	Mean (ppm) **		Percentiles			Ratio of 90th Percentile to Tolerance
		Lower	Upper	50th	75th	90th	
14 Peaches (W) (January through September only ³)							
Azinphos methyl	24.9	0.009	0.011	*	*	0.021	0.011
Carbaryl	19.7	0.025	0.026	*	*	0.039	0.004
Chlorpyrifos	18.3	0.001	0.002	*	*	0.003	0.030
Dicloran	19.3	0.023	0.025	*	*	0.008	*
Fludioxonil	34.7	0.114	0.122	*	0.130	0.380	0.076
Iprodione	42.3	0.235	0.239	*	0.074	0.780	0.039
Iprodione metabolite isomer	24.6	0.091	0.143	*	*	0.320	0.016
Phosmet	80.7	0.092	0.092	0.019	0.100	0.230	0.023
15 Potatoes (W)							
Chlopropham	75.1	1.742	1.746	0.160	2.900	5.500	0.110
16 Rice							
Malathion	11.0	0.001	0.006	*	*	0.006	0.001
Piperonyl butoxide	17.7	0.008	0.024	*	*	0.036	0.002
17 Tomato Paste							
Endosulfan I	10.3	0.001	0.004	*	*	0.004	NT
Endosulfan II	20.3	0.002	0.006	*	*	0.008	NT

¹ Weighs the contribution from each month equally.

² Captures over 98 percent of the annual arrivals.

³ Captures over 65 percent of the annual arrivals.

* 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

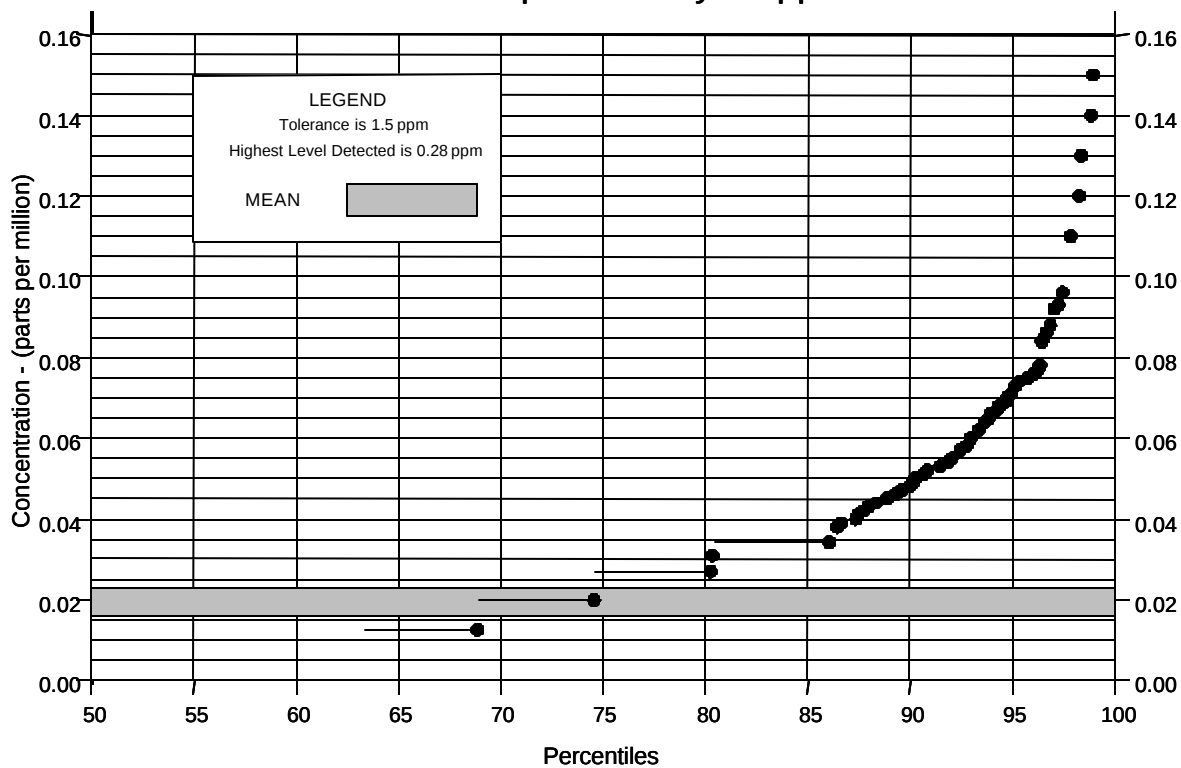
In Appendix K, the concentrations detected (in parts per million, except where otherwise noted) are plotted versus the calculated percentiles for the following twelve pesticide/commodity pairs:

Azinphos methyl / Apples
DDE p,p' / Beef adipose
Acephate / Celery
Methamidophos / Celery
Trifluralin / Carrots
Tebuconazole / Cherries
Acephate / Green Beans
Methamidophos / Green Beans
Captan / Grapes
Phosmet / Nectarines
Chlorpropham / Potatoes
Atrazine / Drinking Water

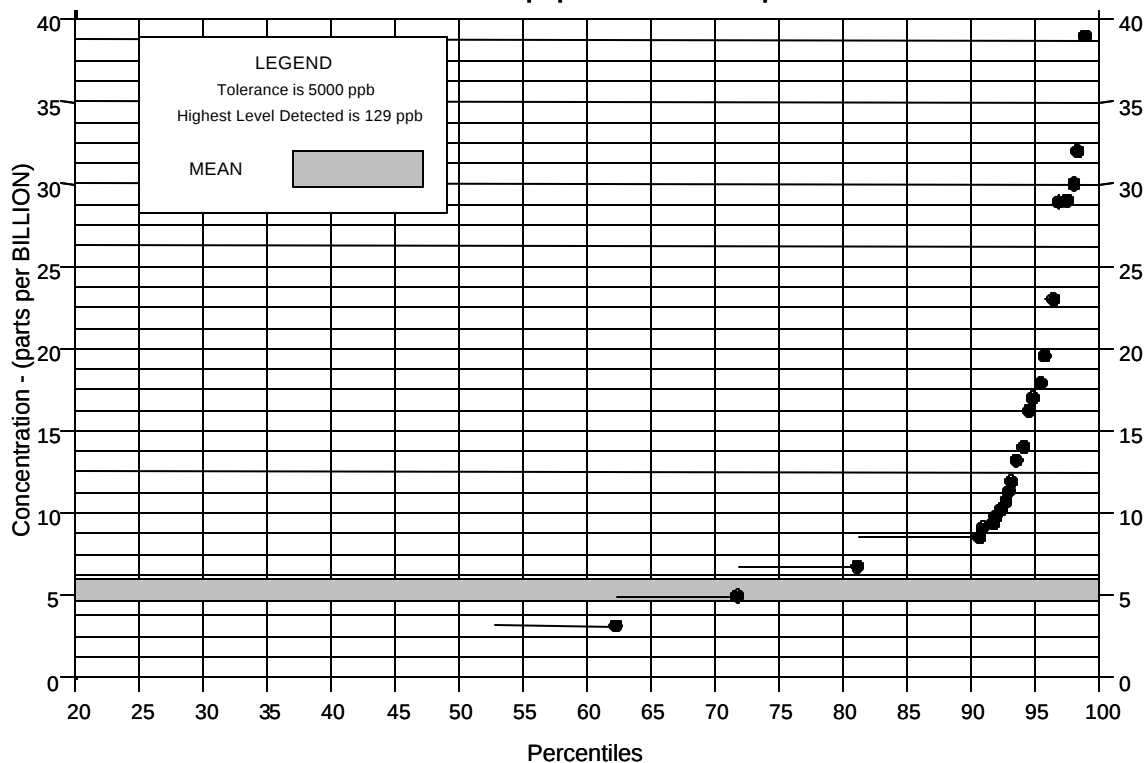
The distribution of residues for all of the PDP pesticide/commodity pairs has the same curved shape. The highest percentile graphed in the appendix is the 99th, which in each case is lower than the highest concentration detected in the sample (refer to the value shown in each graph's legend). Inclusion 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 carrots available to U.S. consumers in 2001 had trifluralin residue concentrations of 0.003 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 trifluralin in carrots, this is 38 percent. The shaded bar denotes the range of values estimated for the mean. For trifluralin/carrots, the mean range is approximately 0.015-0.018 ppm, corresponding to the 70th percentile.

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

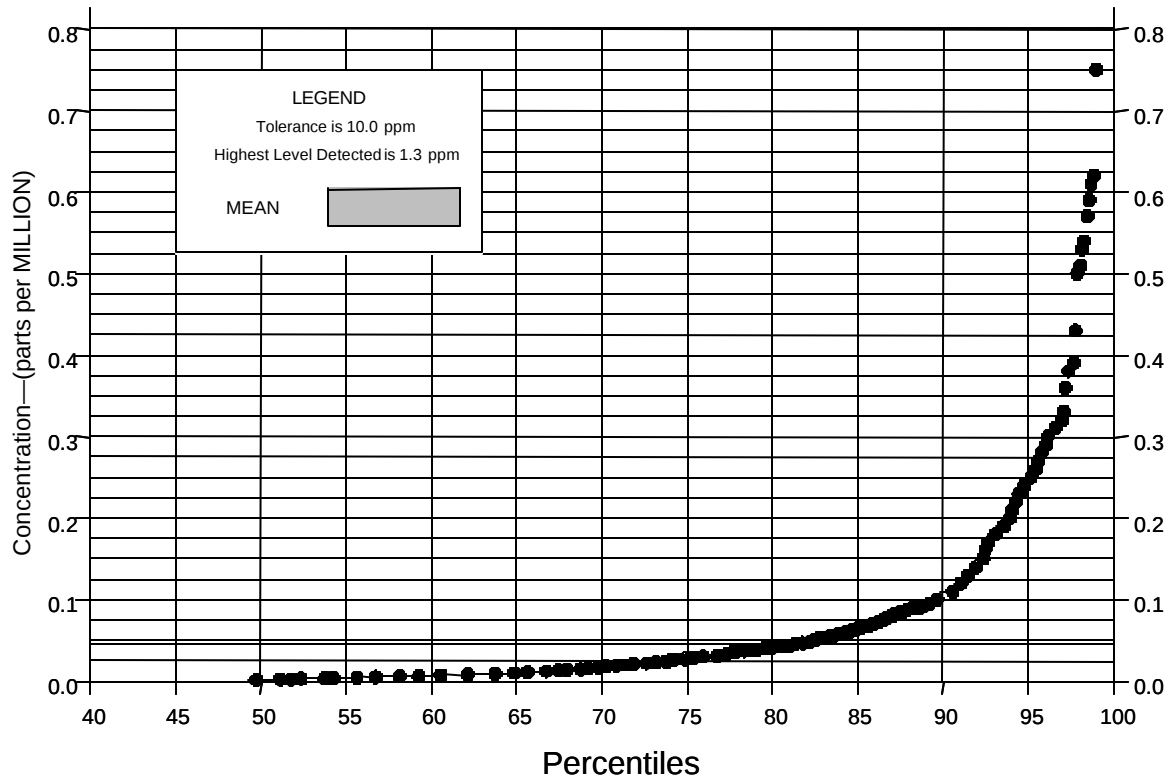
Azinphos methyl / Apples



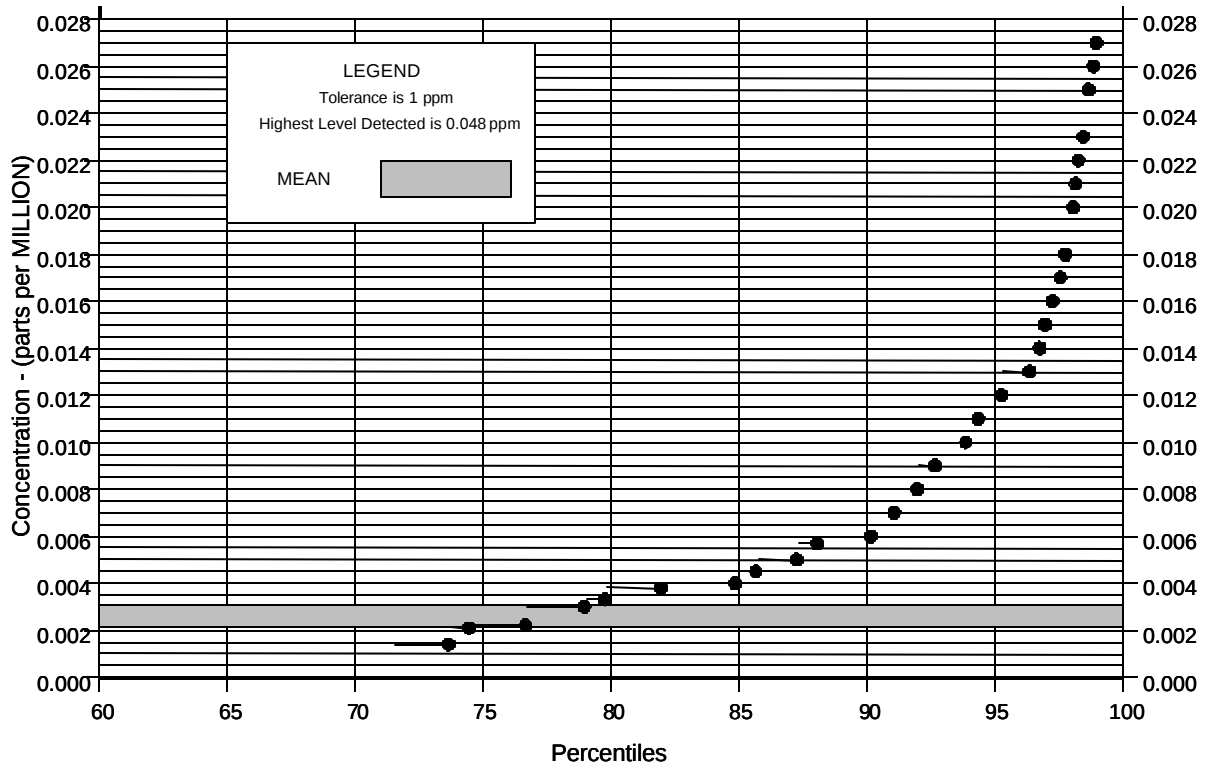
DDE p,p' / Beef, adipose



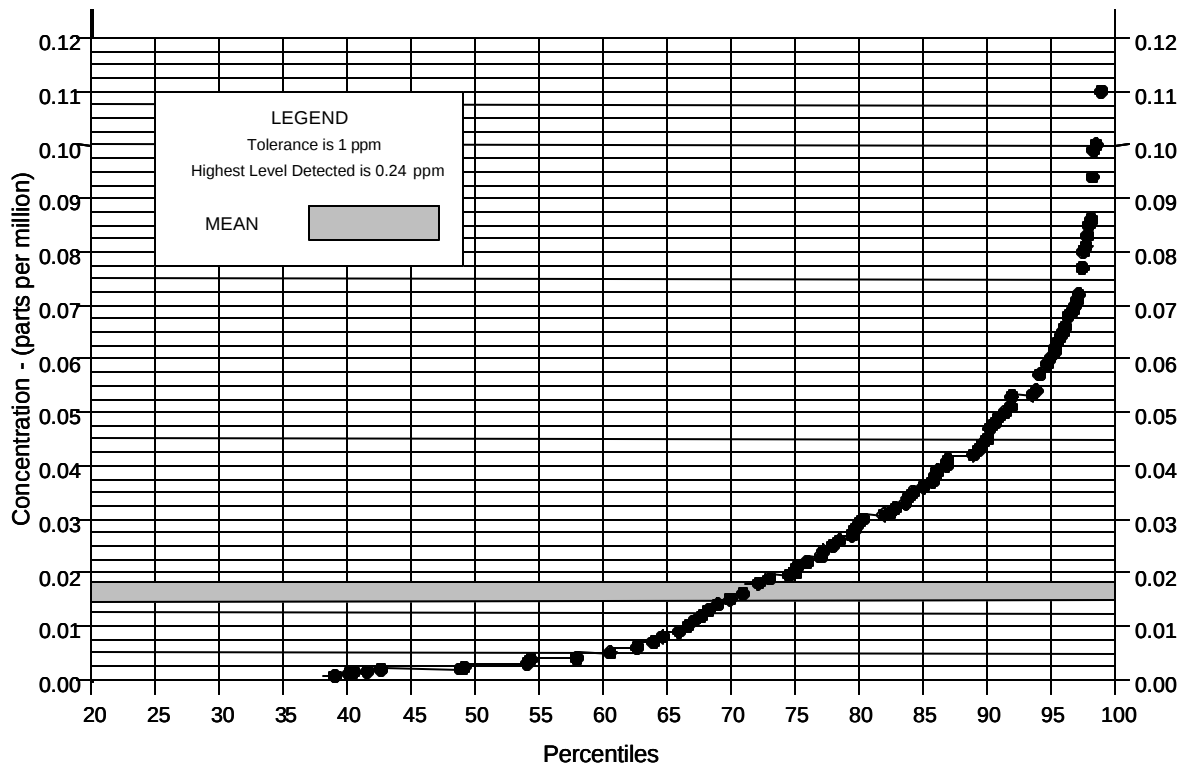
Acephate / Celery



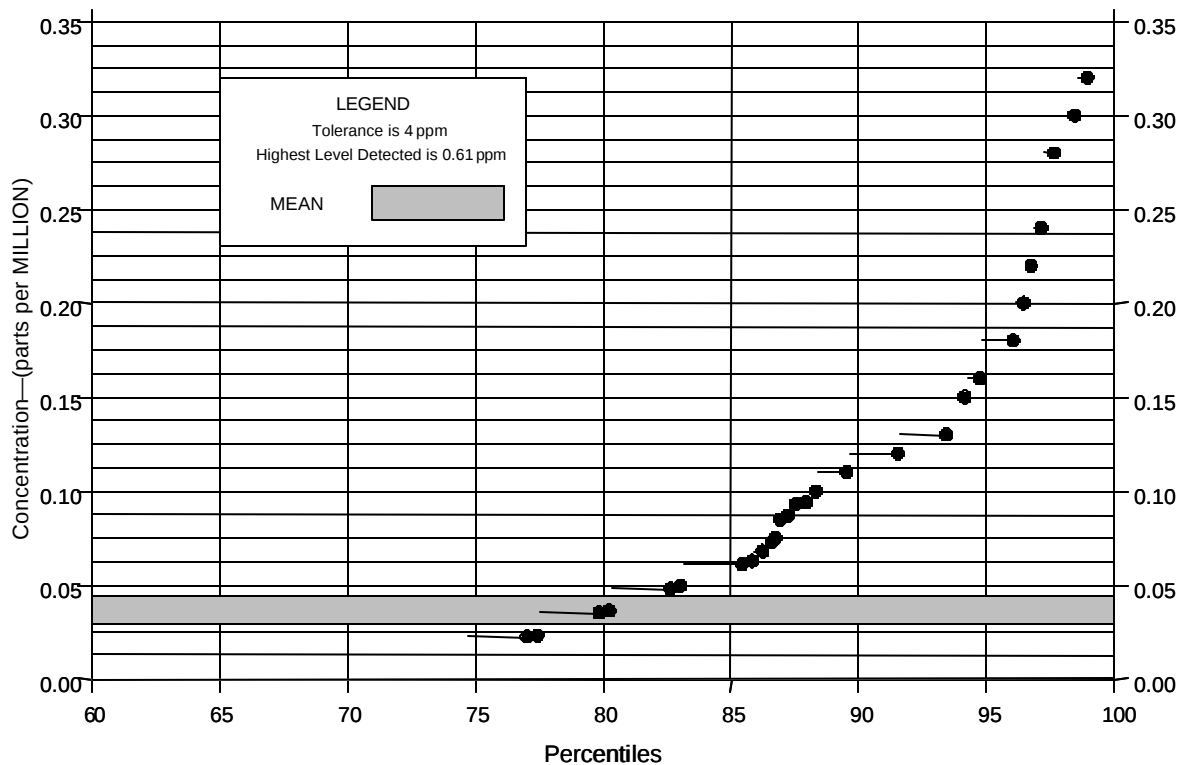
Methamidophos / Celery



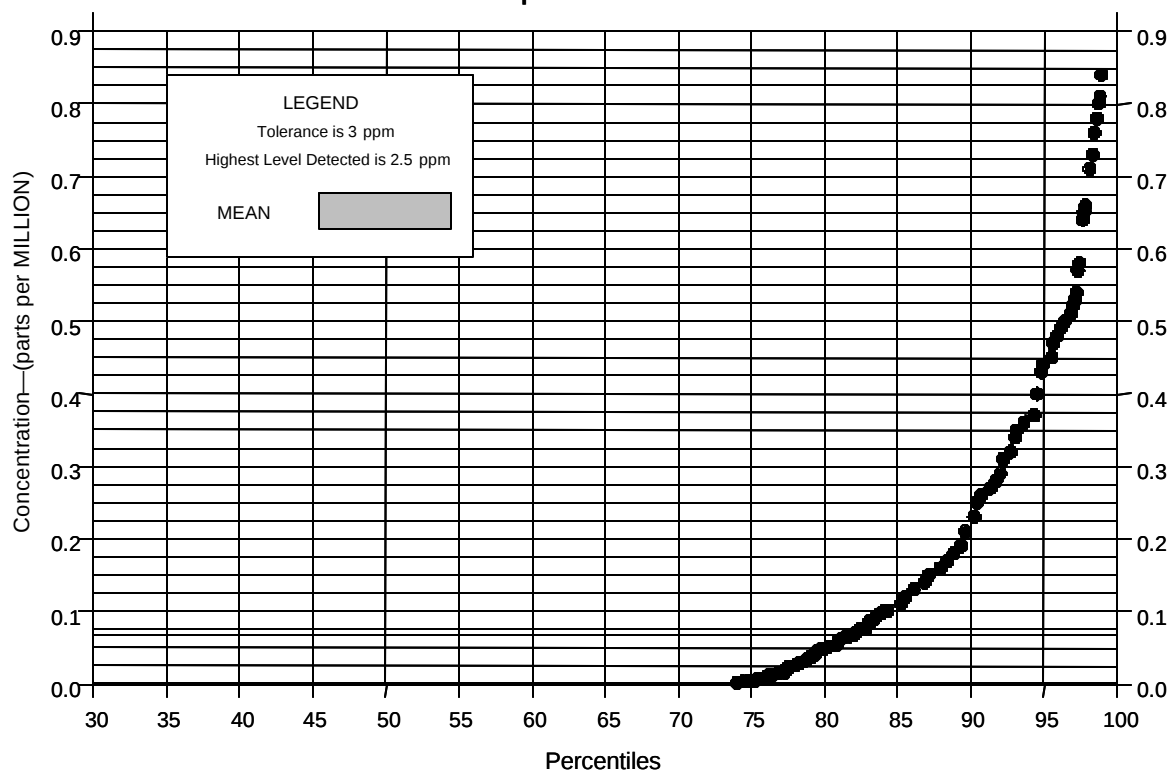
Trifluralin / Carrots



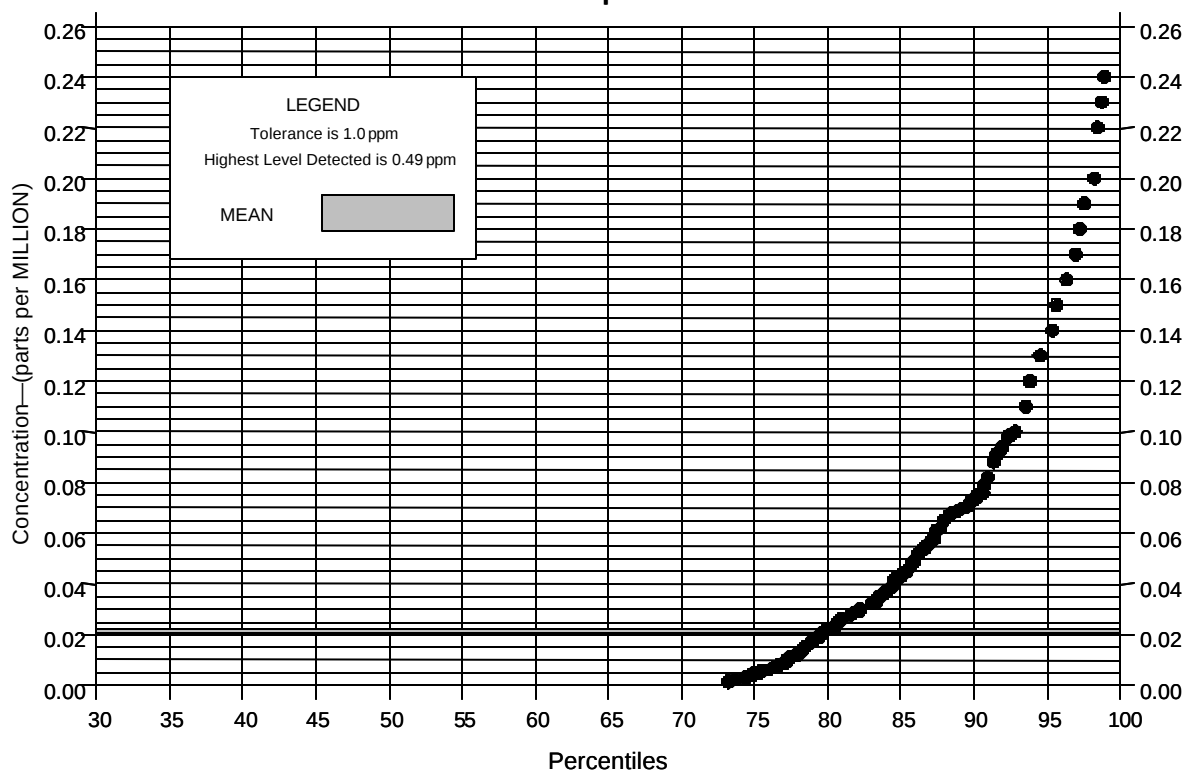
Tebuconazole / Cherries



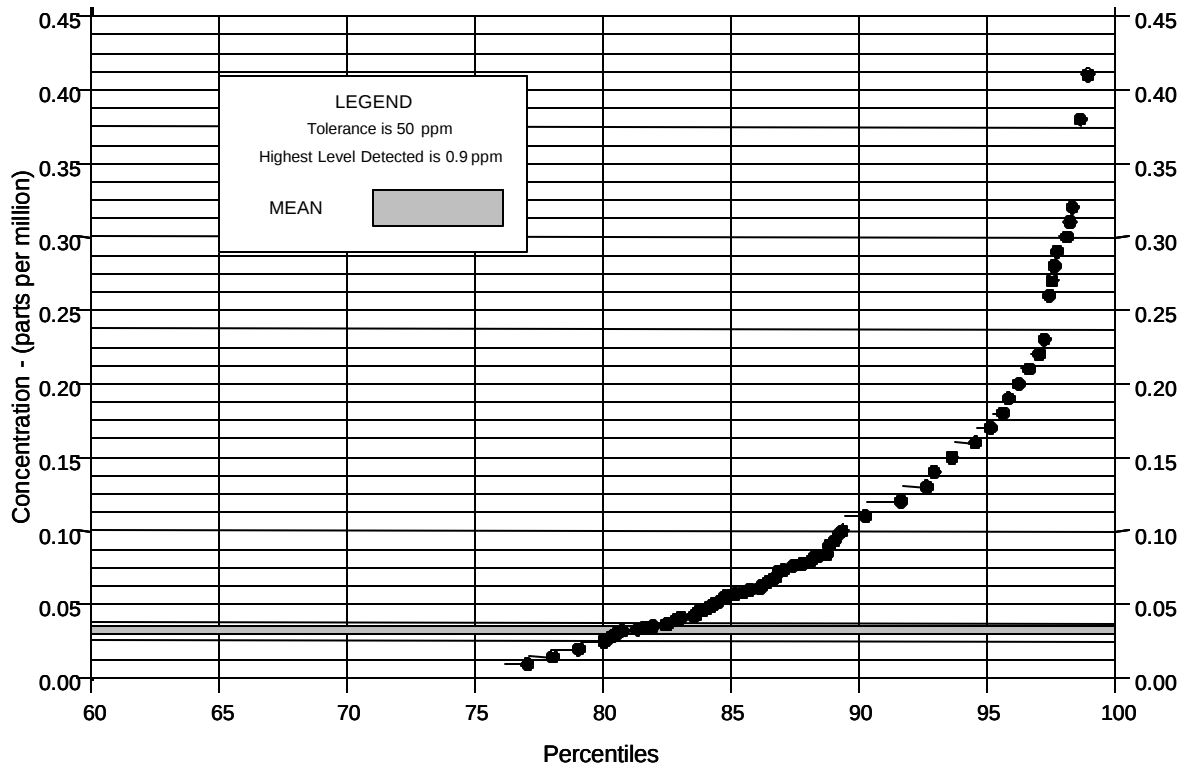
Acephate / Green Beans



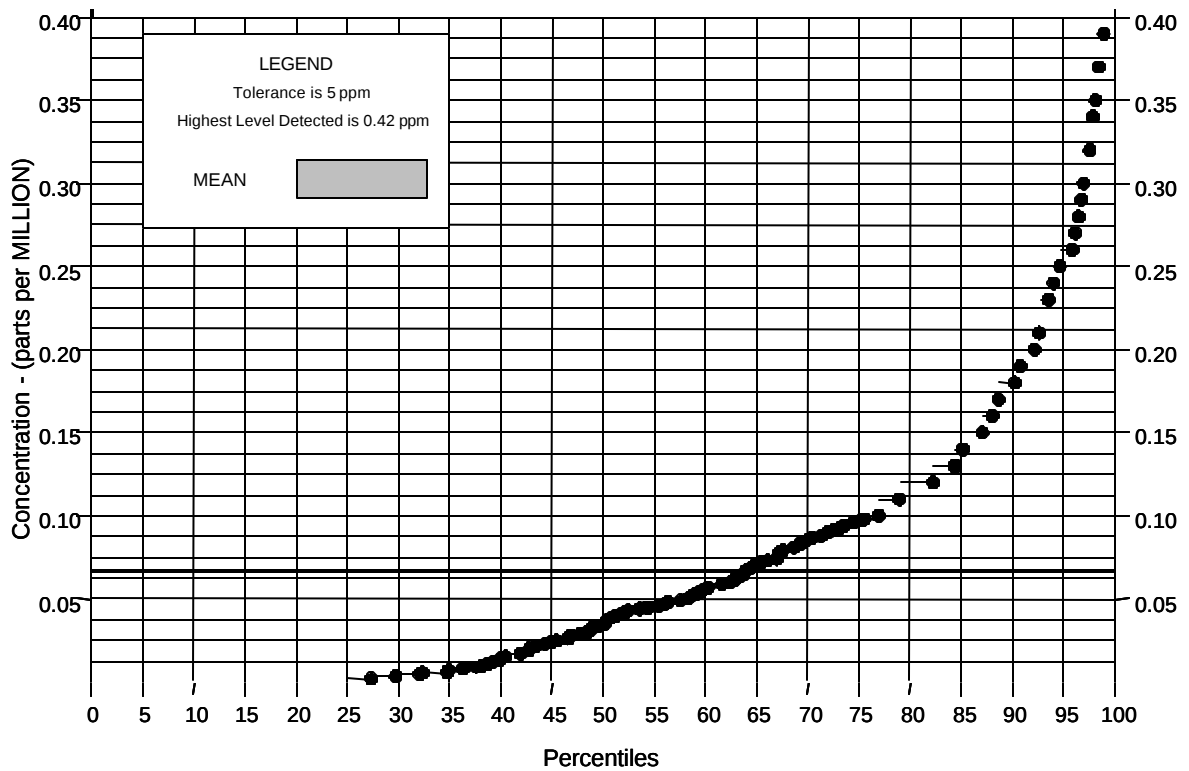
Methamidophos / Green Beans



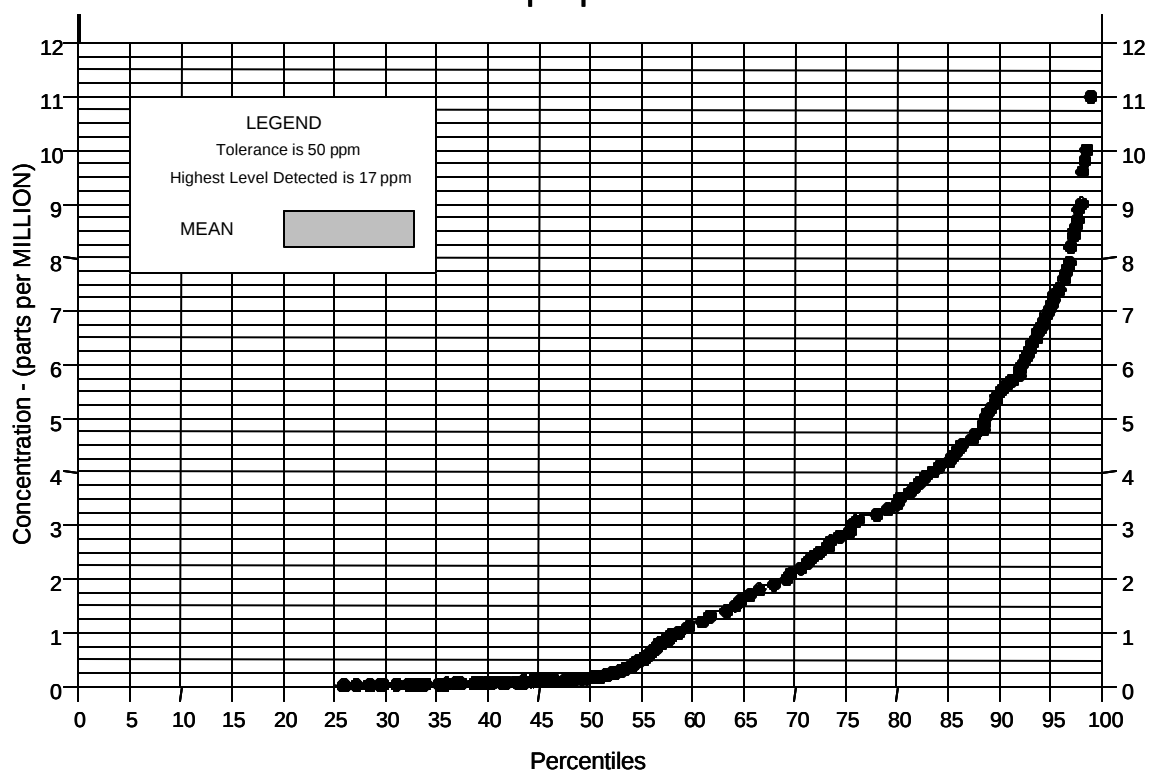
Captan / Grapes



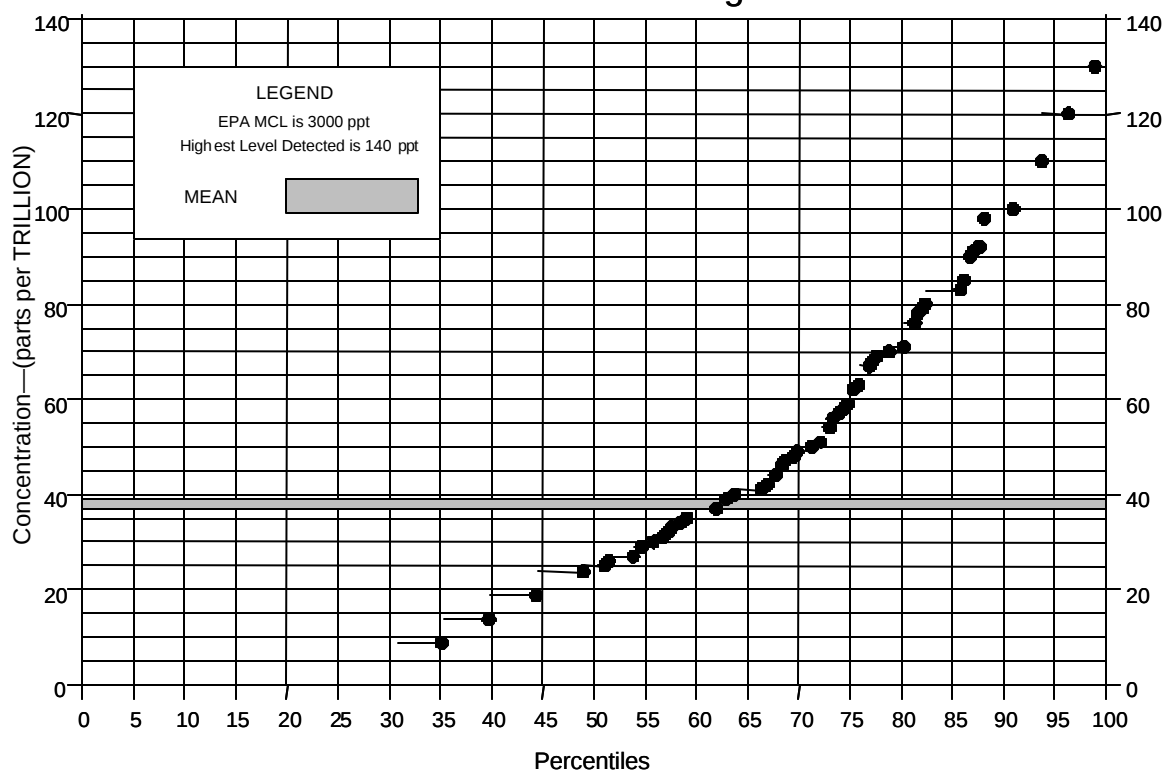
Phosmet / Nectarines



Chlorpropham / Potatoes



Atrazine / Drinking Water



Appendix L

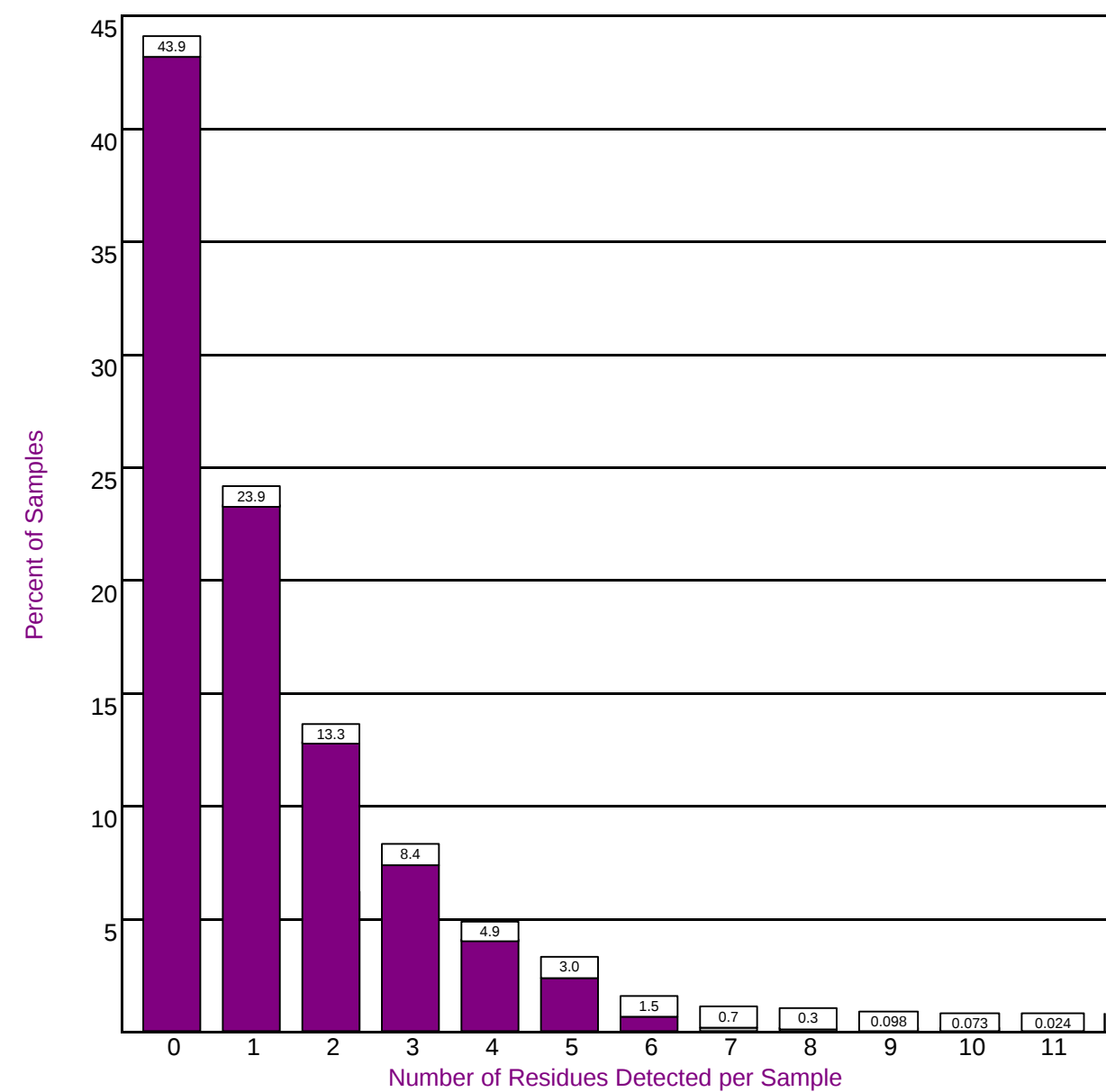
Number of Residues Detected per Sample

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 12,264 samples tested, 43.9 percent of the samples had no detectable residues, 23.9 percent had 1 residue, and 32.2 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	5382	2934	1635	1026	598	365	178	83	39	12	9	3
Percent of Total Samples	43.9	23.9	13.3	8.4	4.9	3.0	1.5	0.7	0.3	0.098	0.073	0.024

TOTAL NUMBER OF SAMPLES = 12,264

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

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 (736)	8.8	16.3	38.3	26.4	8.0	1.9	0.3	--	--	--	--	--
Bananas (702)	54.8	42.7	2.4	--	--	--	--	--	--	--	--	--
Broccoli (720)	71.0	23.6	3.5	1.5	0.4	--	--	--	--	--	--	--
Carrots (739)	18.8	32.3	25.4	13.1	5.4	3.1	0.8	0.5	0.3	0.1	--	--
Celery (736)	5.8	12.6	20.2	20.5	20.7	9.2	6.4	3.0	1.1	0.1	0.3	--
Cherries (286)	11.2	14.7	14.3	24.5	16.8	10.8	4.9	1.0	1.0	0.7	--	--
Grapes (705)	27.0	39.1	20.4	7.9	3.8	1.3	0.4	--	--	--	--	--
Green Beans (707)	37.8	16.1	18.0	15.1	6.1	3.0	2.5	0.7	0.6	0.1	--	--
Lettuce (554)	50.9	21.5	14.6	7.2	2.3	2.2	0.4	0.5	0.4	--	--	--
Mushrooms (184)	34.2	37.0	19.6	8.7	0.5	--	--	--	--	--	--	--
Nectarines (362)	3.0	10.2	21.3	23.5	18.5	16.3	5.8	1.1	0.3	--	--	--
Oranges (745)	17.4	55.7	24.2	2.4	0.3	--	--	--	--	--	--	--
Peaches (529)	1.3	4.3	10.4	19.8	19.5	18.9	11.3	7.6	3.6	1.3	1.3	0.6
Pineapples (730)	92.6	7.0	0.4	--	--	--	--	--	--	--	--	--
Potatoes (733)	18.0	61.0	16.1	4.4	0.5	--	--	--	--	--	--	--
Processed Fruit and Vegetables:												
Sweet Corn (181)	98.9	1.1	--	--	--	--	--	--	--	--	--	--
Sweet Peas (185)	100	--	--	--	--	--	--	--	--	--	--	--
Tomato Paste (369)	69.6	15.4	9.2	4.9	0.8	--	--	--	--	--	--	--
Number of Samples	3554	2573	1557	1000	565	337	173	81	39	12	9	3
Percent of Total Samples	35.9	26.0	15.7	10.1	5.7	3.4	1.7	0.8	0.4	0.121	0.091	0.030
TOTAL NUMBER OF FRUIT & VEGETABLE SAMPLES = 9,903												
Processed Grain Product:												
Rice (689)	68.9	28.4	2.2	0.1	0.3	--	--	--	--	--	--	--
Number of Samples	475	196	15	1	2	--	--	--	--	--	--	--
Beef Product:												
Beef Adipose (291)	40.5	48.5	8.2	2.1	--	0.3	0.3	--	--	--	--	--
Beef Liver (311)	100	--	--	--	--	--	--	--	--	--	--	--
Beef Muscle (309)	99.7	0.3	--	--	--	--	--	--	--	--	--	--
Number of Samples	737	142	24	6	--	1	1	--	--	--	--	--
Percent of Total Samples	80.9	15.6	2.6	0.7	--	0.1	0.1	--	--	--	--	--
Poultry Product:												
Adipose (155)	100	--	--	--	--	--	--	--	--	--	--	--
Liver (155)	100	--	--	--	--	--	--	--	--	--	--	--
Muscle (154)	100	--	--	--	--	--	--	--	--	--	--	--
Number of Samples	464	--	--	--	--	--	--	--	--	--	--	--
Percent of Total Samples	100	--	--	--	--	--	--	--	--	--	--	--
Water Product:												
Drinking Water (297)	51.2	7.7	13.1	6.4	10.4	9.1	1.3	0.7	--	--	--	--
Number of Samples	152	23	39	19	31	27	4	2	--	--	--	--

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 2001, a total of 228 samples with 253 residues were reported to the FDA as Presumptive Tolerance Violations.

A total of 14 fruit and vegetable samples were found to have residues at levels exceeding the established tolerance. Samples containing a residue exceeding an established tolerance included nine peach samples, three green bean samples, one carrot sample, and one lettuce sample.

In addition, 217 fruit and vegetable samples were found to have residues for which no tolerance was established.

- 197 samples contained 1 residue for which no tolerance was established.
- 18 samples contained 2 residues for which no tolerance was established.
- 2 samples contained 3 residues for which no tolerance was established.

Three of the 217 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 Carrots / Methamidophos	0.002	0.18	0.020
2 Green Beans / Esfenvalerate	0.038	0.063	0.050
3 Green Beans / Esfenvalerate	0.038	0.063	0.050
4 Green Beans / Esfenvalerate	0.019	0.085	0.050
5 Lettuce / Dimethoate	0.002	5.0	2.0
6 Peaches / Chlorpyrifos	0.001	0.15	0.050
7 Peaches / Chlorpyrifos	0.001	0.12	0.050
8 Peaches / Chlorpyrifos	0.001	0.060	0.050
9 Peaches / Methamidophos	0.001	0.034	0.020
10 Peaches / Methamidophos	0.001	0.041	0.020
11 Peaches / Methamidophos	0.001	0.040	0.020
12 Peaches / Methamidophos	0.001	0.045	0.020
13 Peaches / Methamidophos	0.001	0.035	0.020
14 Peaches / Methamidophos	0.001	0.052	0.020

**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						
Iprodione	736	1	0.1	0.040 ^	0.024 ^	NT
Propargite	736	1	0.1	0.15 ^	0.025 ^	NT
2 Broccoli						
DDE p,p'	720	3	0.4	0.007 ^	0.004 - 0.007	NT
Dicloran	136	1	0.7	0.013 ^	0.008 ^	NT
3 Carrots						
Azinphos methyl	739	1	0.1	0.005 ^	0.003 - 0.008	NT
DCPA	739	1	0.1	0.001 ^	0.001 - 0.006	NT
Dicofol o,p'	524	1	0.2	0.009 ^	0.003 ^	NT
Dicofol p,p'	739	1	0.1	0.005 ^	0.003 - 0.010	NT
Metolachlor	739	3	0.4	0.002 ^	0.001 - 0.010	NT
Permethrin cis	739	1	0.1	0.001 ^	0.001 - 0.015	NT
Phorate sulfone	739	1	0.1	0.007 ^	0.002 - 0.004	NT
Phosmet	739	9	1.2	0.002 - 0.009	0.001 - 0.005	NT
Quintozene (PCNB)	739	4	0.5	0.005 ^	0.003 ^	NT
Terbufos sulfone	739	4	0.5	0.002 - 0.004	0.001 - 0.004	NT
Tetrachlorvinphos	739	1	0.1	0.026 ^	0.002 - 0.004	NT

Commodity / Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
4 Celery						
Disulfoton sulfone	718	1	0.1	0.007 ^	0.004 ^	NT
Methidathion	736	1	0.1	0.002 ^	0.001 - 0.004	NT
Oxydemeton methyl sulfone	718	1	0.1	0.007 ^	0.004 - 0.015	NT
Phosmet	736	1	0.1	0.020 ^	0.005 ^	NT
Quintozene (PCNB)	736	1	0.1	0.005 ^	0.003 - 0.005	NT
Vinclozolin	736	3	0.4	0.012 - 0.034	0.007 - 0.010	NT
5 Cherries						
Acephate	286	1	0.3	0.21 ^	0.002 ^	NT
DCPA	286	2	0.7	0.004 ^	0.001 - 0.006	NT
Fenpropathrin	270	1	0.4	0.026 ^	0.016 - 0.020	NT
Methiocarb	207	1	0.5	0.046 ^	0.002 - 0.008	NT
Methoxychlor olefin	207	3	1.4	0.002 - 0.007	0.001 ^	NT
6 Grapes						
Aldicarb sulfoxide	310	1	0.3	0.025 ^	0.015 ^	NT
O-Phenylphenol	9	9	100	0.017 ^	0.010 ^	NT
Vinclozolin	705	2	0.3	0.015 ^	0.009 ^	NT
7 Green Beans						
Oxamyl	707	2	0.3	0.008 - 0.031	0.005 - 0.018	NT
Permethrin cis	707	2	0.3	0.025 ^	0.015 - 0.026	NT
Permethrin trans	707	2	0.3	0.025 ^	0.015 - 0.026	NT
Pronamide	202	1	0.5	0.012 ^	0.007 ^	NT
Thiabendazole	202	1	0.5	0.33 ^	0.030 ^	NT
8 Lettuce						
Atrazine	554	1	0.2	0.017 ^	0.010 - 0.024	NT
Chlorothalonil	554	1	0.2	0.022 ^	0.005 - 0.007	NT
9 Mushrooms						
Dimethoate	184	4	2.2	0.002 - 0.007	0.001 - 0.002	NT
Omethoate ¹	184	1	0.5	0.004 ^	0.002 - 0.004	NT
O-Phenylphenol ²	184	63	34.2	0.005 - 0.18	0.003 - 0.010	NT
10 Peaches, Composite						
Chlorpropham	1	1	100	0.010 ^	0.006 ^	NT
Dimethoate	529	17	3.2	0.002 - 0.007	0.001 ^	NT
Omethoate ¹	529	1	0.2	0.017 ^	0.002 - 0.003	NT
Diphenylamine (DPA)	529	28	5.3	0.005 - 0.12	0.003 ^	NT
Imazalil	529	5	0.9	0.016 - 0.036	0.010 ^	NT
Pirimicarb	529	2	0.4	0.017 - 0.041	0.010 ^	NT
Propargite	529	17	3.2	0.041 - 0.85	0.024 - 0.025	NT
Thiabendazole	529	18	3.4	0.028 - 2.3	0.017 ^	NT
11 Pineapples						
Fenpropathrin	159	1	0.6	0.13 ^	0.020 ^	NT

Commodity / Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
12 Potatoes						
O-Phenylphenol	733	8	1.1	0.013 - 0.099	0.008 - 0.010	NT
13 Sweet Corn, Canned						
O-Phenylphenol	181	2	1.1	0.013 - 0.07	0.008 - 0.010	NT

KEY

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

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

¹ One detection within the same sample as Dimethoate.

² O-Phenylphenol is approved for use as a disinfectant in food handling establishments, including mushroom production facilities. Good agricultural practices for mushroom production were updated in 2002, and results from the 2002 PDP testing show minimal detections.

Note:

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

PESTICIDE DATA PROGRAM

Annual Summary Calendar Year 2001

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