United States Department of Agriculture
Agricultural Marketing Service
Science & Technology

Pesticide Data Program

Annual Summary Calendar Year 1998

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Acronyms

USDA	United States Department of Agriculture
AMS	Agricultural Marketing Service
PDP	Pesticide Data Program
EPA	Environmental Protection Agency
FQPA	Food Quality Protection Act
NASS	National Agricultural Statistics Service
FDA	Food and Drug Administration
APHIS	Animal and Plant Health Inspection Service
GIPSA	Grain Inspection, Packers & Stockyards Administration
ERS	Economic Research Service
FAS	Foreign Agricultural Service
ARS	Agricultural Research Service
LOD	Limit of Detection
SOP	Standard Operating Procedure
HFCS-55	High Fructose Corn Syrup - 55
MRM	Multiresidue Method
SRM	Selective Residue Method
QA/QC	Quality Assurance/Quality Control
CDFA	California Department of Food and Agriculture
AED	Atomic Emission Detector
GLP	Good Laboratory Practice
QAO	Quality Assurance Officer
QAU	Quality Assurance Unit
RDE	Remote Data Entry
NPRD	National Pesticide Residue Database
MRL	Maximum Residue Limit
EMRL	Extraneous Maximum Residue Limit
ADI	Acceptable Daily Intake

Preface

In 1991, the United States Department of Agriculture (USDA) was charged with implementing a program to collect data on pesticide residues in food. USDA's Agricultural Marketing Service (AMS) was appointed to undertake the creation and implementation of such a program, currently known as the Pesticide Data Program (PDP). PDP has been in operation since May 1991 and has published its findings for calendar years 1991 through 1997. This is the summary for calendar year 1998.

PDP's data on pesticides in selected commodities strengthen the Government's ability to respond to food safety and marketing concerns, to protect public health, and to provide the Environmental Protection Agency (EPA) with data needed to implement the Food Quality Protection Act (FQPA) enacted by the U.S. Congress in August 1996.

EPA evaluates the safety of pesticides that leave residues in food. In estimating the potential risks of pesticides in food, EPA uses a step-wise approach that assures pesticides are examined as closely as necessary to understand their risks, but minimizes the Agency's resource expenditures. As an initial assessment, EPA assumes that all acres of all crops are treated with all pesticides for which there is an approved use. EPA also assumes that residues in treated crops are present at the maximum allowed level. While such an assessment is easy and quick to generate, risk estimates based on these worst case assumptions may significantly exceed the actual risk from pesticide residues in the food supply. Therefore, if the initial "worst case" assessment indicates potential risks that would be of concern, EPA refines its assessment using available, reliable data. These 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 where PDP data can be pivotal. PDP's sampling procedures were designed to capture actual residues in the food supply as close as possible to the time of consumption. These data are considerably more realistic than the assumptions used in EPA's initial risk assessments.

USDA is planning to release the "Supplemental Children's Survey to the Continuing Survey of Food Intakes by Individuals" in late 1999. PDP will adjust sampling plans to include other children's foods if warranted by this survey's findings.

PDP continues to focus on the National Academy of Sciences' conclusions as shown in the 1993 report *"Pesticides in the Diets of Infants and Children."* In that report, the Academy recommends that pesticide residue monitoring programs target foods most consumed by children and that analytical testing methods used be standardized, validated, and subject to strict quality control and quality assurance programs. In 1998, PDP also addressed the National Academy of Sciences' recommendations regarding processed foods by including apple juice, grape juice, orange juice, and milk. Specifically, the Academy noted the limited data available to evaluate effects of processing on residue concentrations. The Academy indicated that: "The effect of processing is an important consideration in assessing the dietary exposures of infants and young children who consume large quantities of processed foods such as fruit juices, baby food, milk, and infant formula." The FQPA of 1996, Title III Sec. 301 (c) states: *"The Secretary of Agriculture shall ensure that the residue data collection activities conducted by the Department of Agriculture in cooperation with the Environmental Protection Agency and the Department of Health and Human Services, provide for the improved data collection of pesticide residues, including guidelines for the use of comparable analytical and standardized reporting methods and increased sampling of foods most likely consumed by infants and children."*

The States participating in PDP deserve special recognition for their contributions to the program. Sample collectors' vigilance and dedication allow AMS to adjust sampling protocols to respond to changing trends in commodity distribution. Laboratory staffs were helpful in formulating recommendations to increase productivity and improve methodologies. PDP thanks the Food and Drug Administration (FDA); AMS' Eastern

Laboratory; and USDA's National Agricultural Statistics Service (NASS), Animal and Plant Health Inspection Service (APHIS), and Grain Inspection, Packers and Stockyards Administration (GIPSA) for providing their support to the program. PDP also acknowledges the support of the EPA's Health Effects Division, Office of Pesticide Programs, particularly Ed Zager and Martha Lamont, for their contributions refining the 1998 Program Plan.

We welcome any comments on the Summary's presentation. A form for submitting comments is provided at the end of the Summary.

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Executive Summary

PDP was implemented by USDA in May 1991 to collect data on pesticide residues in foods. The data are used by the EPA, FDA, Economic Research Service (ERS), Foreign Agricultural Service (FAS), and various groups within the private sector. EPA uses PDP data to refine estimates of dietary exposure as part of the pesticide reregistration process under the FQPA. FDA uses PDP data to focus surveillance activities where most needed. ERS evaluates pesticide alternatives utilizing PDP data. PDP data are also used by the government and agricultural community to examine residue issues which may affect agricultural practices relating to integrated pest management objectives. FAS references PDP data in support of U.S. export commodities in a competitive global market. Multiple private sector groups use PDP data in addressing food safety issues.

PDP planning and policy are coordinated through consultation with representatives from USDA, EPA, and FDA. Interested agencies from USDA include: AMS, NASS, ERS, the Agricultural Research Service (ARS), and the Office of Pesticide Management Policy.

PDP operations are supported through cooperative agreements with ten states: California, Florida, Michigan, New York, Ohio, Texas, and Washington for collection and analysis of samples, and Colorado, Maryland, and Wisconsin for sample collection only (their samples are shipped to other State and Federal laboratories for analysis). Federal laboratories providing testing services include the GIPSA Laboratory, the AMS Eastern Laboratory, and the APHIS National Monitoring and Residue Analysis Laboratory. The AMS Science and Technology program is responsible for PDP's day-to-day administrative, sampling, technical, and database activities.

In 1998, PDP tested fresh and processed fruit and vegetables, whole milk, grains, and grain products for various pesticides including insecticides, herbicides, fungicides, and growth regulators. Pesticides and commodities were chosen for inclusion in the program based on EPA's data needs and USDA's food consumption surveys.

PDP is designed to provide information on pesticide residues in food in order to improve the quality of data that EPA uses to estimate dietary exposure to consumers. Without actual residue data, initial risk assessments are based on tolerance levels which do not accurately reflect actual residues likely to be found in fresh and processed foods. A theoretical risk assessment based on such assumptions may exceed the actual risk of pesticide residues in the food supply. Where needed, EPA conducts further refinements to the risk assessment by using additional information that includes residue monitoring data, if available and reliable. This is where PDP data are pivotal. The data are collected as close to the point of consumption as possible while retaining identity of product origin. Sampling is based on statistically reliable protocols, thereby upgrading their usefulness for risk assessment.

Except for grains and grain products, the number of samples to be collected is apportioned according to State population. Samples are randomly chosen without regard for commodity origin or variety and reflect what is typically available to the consumer throughout the year. PDP's sampling protocol takes into account the different volumes of produce distributed annually from each sampling site. Grain samples are chosen from GIPSA's file samples based on crop year and individual State production figures. Corn syrup samples were collected at major corn refineries representing approximately 95 percent of total U.S. production.

In 1998, PDP collected samples of the following fruit and vegetable commodities: apple juice, cantaloupe, grape juice, green beans (canned and frozen), orange juice, pears, spinach (canned), strawberries (fresh and frozen), sweet potatoes, tomatoes, and winter squash (fresh and frozen). PDP also collected samples of corn syrup, milk, and soybeans.

PDP collected and analyzed a total of 8,500 samples in 1998--7,017 fruit and vegetables, 595 whole milk,

590 soybean (1997 crop year), and 298 corn syrup samples. Samples originated from 40 States (includes States contributing grain samples) and 25 foreign countries (includes processed products of mixed national origin). Approximately 84 percent of all samples were domestic and 15 percent were imported (including samples of mixed national origin). Apple juice, orange juice, pears, tomatoes, and fresh winter squash accounted for most of the imports. All milk, soybean, and corn syrup samples were domestic. Overall, about 45 percent of all samples contained no detectable residues, 26 percent contained one residue, and 29 percent contained more than one residue. As expected, more residues were detected in fresh commodities than in processed products. Milk and soybeans had significantly fewer residues than fruit and vegetables. No residues were detected in any of the corn syrup samples.

PDP data reflect residues detected in 3- or 5-pound composite or blended samples and are used by EPA to estimate chronic (long-term) dietary exposures. However, to assess acute exposures, EPA needs residue measurements on single serving sized food items. To fill this data gap, in 1998 PDP conducted a special survey on single servings of pears comprising 344 pears. Overall, results of single servings parallel composite samples. No significantly high values ("hot pears") on single servings of pears were found.

Residues exceeding the tolerance were detected in 0.15 percent of all composite samples tested during 1998. Residues with no tolerance listed in the Code of Federal Regulations (CFR), Title 40, Part 180, were found in 3.7 percent of all samples. These residues were detected at low levels and may be due to spray drift or crop rotations. PDP reports these findings to FDA as soon as they are received. A tolerance is the maximum quantity of a pesticide residue allowable on a raw agricultural commodity. Violative residues are defined as residues exceeding the tolerance or residues at levels of regulatory significance for which no tolerance has been established for that particular crop.

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

PDP continuously strives to improve methodologies 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.

Pesticide Data Program (PDP)
Annual Summary, Calendar Year 1998

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 is the eighth annual summary of the USDA's PDP results. The previous summaries of PDP data for calendar years 1991-1997 are posted on PDP's web site at www.ams.usda.gov/science/pdp (1993-1997) or are available as hard copies (1991-1997) upon request.

PDP pools the expertise available in AMS, NASS, ERS, and ARS to achieve its goals and objectives. NASS provides statistically reliable data on chemical usage at the State level and collects economic input data that link chemical usage with economic characteristics. ERS analyzes AMS and NASS data to understand producer behavior and to determine the impact various production practices and policies might have on the Nation's agricultural production, food supply, and consumers. ARS conducts nationwide surveys of individual food intake and household use and is developing a Food Grouping System to translate data on foods as consumed into forms that can be linked with pesticide residue data. AMS, through its Science and Technology program, oversees PDP's policies, planning, and daily operations at the participating State and Federal facilities.

Figure 1, Overview of PDP Management and Operations, describes the program's three major components -- sample collection, laboratory analysis, and database management. In 1998, PDP sampling and/or analytical operations were performed by ten States (California, Colorado, Florida, Maryland, Michigan, New York, Ohio, Texas, Washington, and Wisconsin) through cooperative agreements with the respective State agencies.

Figure 2 shows the States participating in the program for collection of fresh and processed fruit and vegetable, and milk samples, which together represent about 50 percent of the Nation's population. Also shown are 12 other States (Alaska, Connecticut, Delaware, Hawaii, Idaho, Massachusetts, Nevada, New Jersey, New Mexico, Vermont, Virginia, and Wyoming) where a significant amount of produce is directly marketed from the participating States. Figure 3 shows the distribution of commodities by origin--domestic versus imported and/or mixed national origin. Figure 4 shows the distribution by State of soybean samples for crop year 1997.

AMS works closely with EPA to select the commodities and pesticides to be placed in PDP. Commodities chosen for inclusion are those most often consumed by the American public, with emphasis on those consumed by infants and children. Sixteen commodities (apple juice, cantaloupe, corn syrup, grape juice, canned/frozen green beans, whole milk, orange juice, pears, soybeans, canned spinach, fresh strawberries, frozen strawberries, sweet potatoes, tomatoes, fresh winter squash, and frozen winter squash) were sampled and analyzed during 1998. The pesticides EPA suggests for monitoring consist mainly of those whose toxicities and estimated dietary exposures indicate the need for more refined exposure estimates. The list is revised periodically to address EPA's data needs.

PDP is now an important component of the FQPA of 1996, which directs the Secretary of Agriculture to collect pesticide residue data in a uniform manner on commodities highly consumed by infants and children. EPA continues to be an important recipient of PDP data to implement the provisions of FQPA. Other government agencies (including FAS) and industry have used PDP data to promote the export of American commodities to international markets. Customized queries of USDA's PDP database were requested from various sources to support their risk assessment and pesticide information priorities.

Figure 1. Overview of PDP Management and Operations

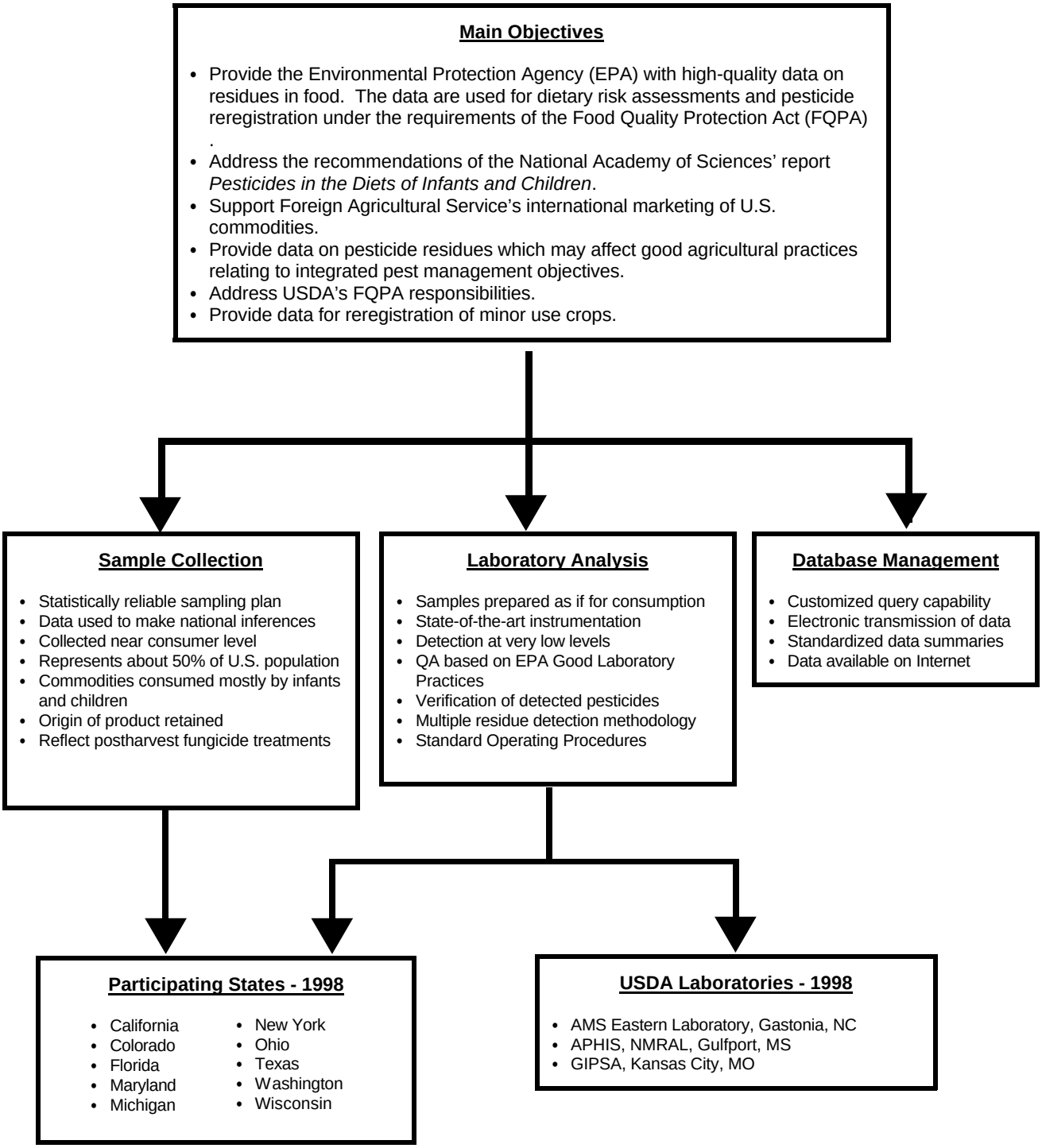
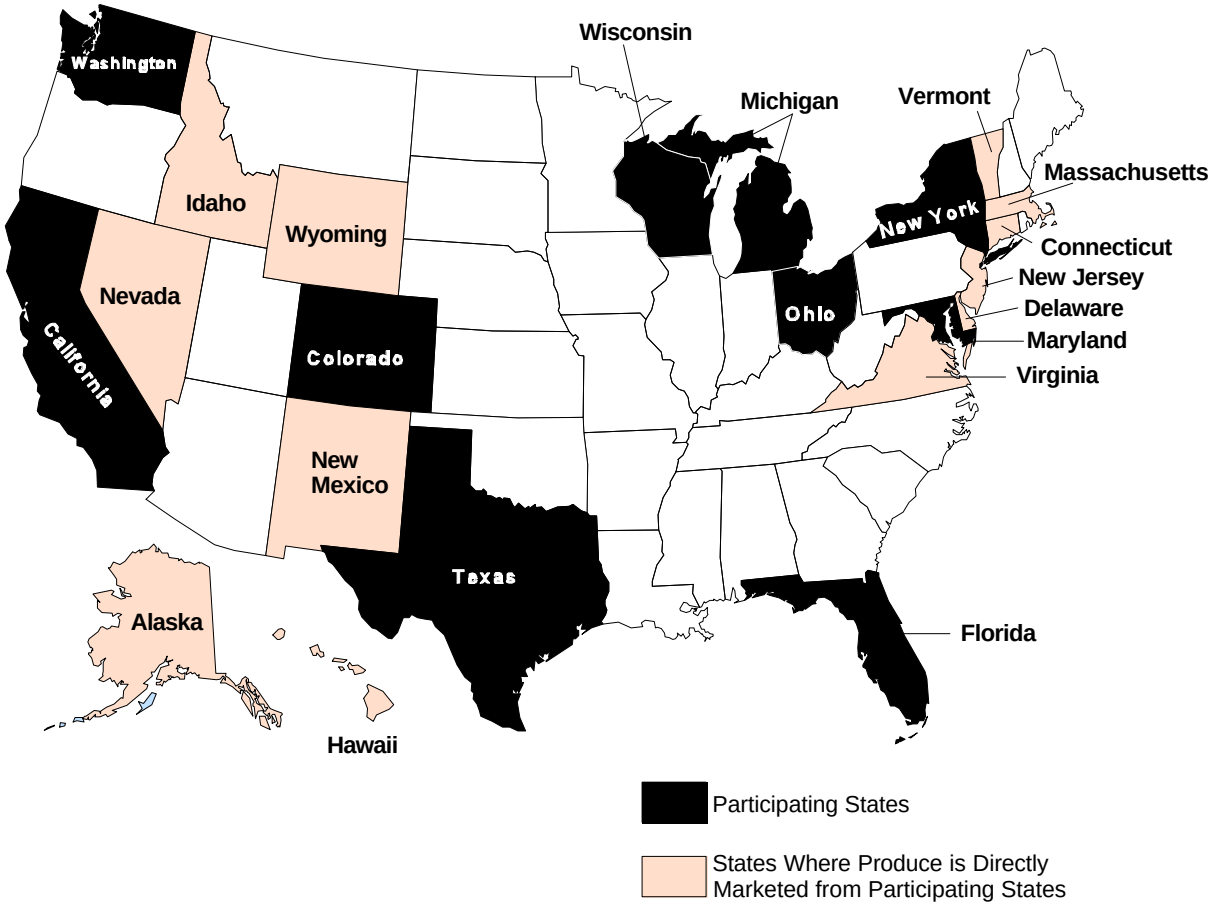


Figure 2. Participating States and Their Geographical Distribution Areas



PDP has also provided information to the Codex Alimentarius Commission and the World Health Organization, both of which operate under the auspices of the United Nations. The information provided was on extraneous residues in foods (environmental contami-nants such as DDT and metabolites), methods of analysis, and PDP's Proficiency Check Sample program.

Fruit and vegetable samples are collected at sites as close to the 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 (fungicides, growth regulators, etc.), and takes into account degradation of these chemicals 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 1998, there were about 850 sampling sites granting access and providing information to sample collectors. Their cooperation makes it possible to adjust sampling protocols in response to fluctuations in food distribution.

PDP differs markedly from regulatory monitoring programs (tolerance enforcement), which require quick turn-around times for analysis of enforcement samples. Under tolerance enforcement programs, the sampled commodity may be detained at the distribution facility while awaiting testing results. PDP places emphasis on searching for residues at the lowest detectable levels rather than on quick sample turnaround; therefore, analysis of PDP samples may take more than a month, and does not affect commodity distribution. Appendix A is a chronological history of the commodities in PDP from program inception through 1999.

II. Sampling Operations

■ Background

The goal of PDP's sampling program is to select random samples, using a statistically reliable protocol, that best represent pesticide residues in the food supply to allow for realistic estimates of exposure to these chemicals. To accomplish this goal, samples are collected as close to the point of consumption as possible at sites where sample identity is still available. Sampling at these locations takes into account pesticide degradation that occurs during transit and storage and also provides information on residues resulting from postharvest application of fungicides and growth regulators. The number of samples collected is determined by State population (fruit and vegetables) or commodity production figures (grains, milk, and corn syrup). Fruit, vegetable, and milk samples were collected by State inspectors; soybeans were collected by USDA's GIPSA inspectors; and corn syrup samples were collected by participating corn refineries. Due to commodity rotations, some commodities were sampled only part of the calendar year (cantaloupe collected July-December, canned/frozen green beans and sweet potatoes collected January-June, and milk collected January-October). Sample sizes for all fresh fruit and vegetables are 5-pounds; processed commodities (canned and frozen) are 3-pounds; milk, corn syrup, and juices are 1-quart (except for frozen concentrates where sample sizes are equivalent to 1-quart after dilution); and soybeans are 500 grams for each testing facility.

Standard Operating Procedures (SOPs) provide criteria for site selection and specific instructions for sample selection, shipping, and handling. These 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.

Chain-of-custody for PDP samples is documented on the Sample Information Form. The forms are used by sample collectors to record all available sample information, such as: (1) the State where the sample was collected; (2) the date of collection; (3) the four-digit code for the sampling site; (4) the commodity code; and (5) the testing laboratory code. These five pieces of information are combined to form a unique "sample identification number" for recording in the PDP database. Additional information includes: (1) whether the sample is domestic or imported and, if imported, the country of origin; (2) the name of the sampling site, grower, packer, or distributor; and (3) potential or known postharvest applications. The forms are also used to keep track of any samples that are not collected, lost in transit, or damaged and unable to be analyzed when received at the laboratory.

Support and oversight for all sampling operations is provided by USDA's NASS. Subsequent comparisons of PDP sample origin data with independent estimates of commodity production figures by State, as well as import data, indicate close correlation. Consequently, data collected under this sampling approach are considered representative of actual pesticide residues in the U.S. food supply.

In 1998, PDP States participated in transshipment pools whereby all samples of a commodity that were collected by the States in the pool were sent to a single laboratory for analysis. This arrangement created larger sample sets, increased productivity, and reduced quality control costs.

■ Fresh/Processed Fruit and Vegetables

Fruit and vegetables, including fresh and processed products, comprised more than 82 percent of all samples collected. Fresh commodities collected in 1998 included cantaloupe, pears, strawberries, sweet potatoes, tomatoes and winter squash. Processed commodities included apple juice, canned and frozen green beans, grape juice, orange juice, canned spinach, frozen strawberries, and frozen winter squash. Samples were collected at either terminal markets or large chain store distribution centers. Participating State agencies were responsible for compiling and maintaining lists of sampling sites. After establishing their site lists, States were required to provide AMS and NASS with annual volume information for each site (quantity of commodity distributed in 1 year). This information is used to "weight" the site to determine the probability for 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" may be given to a site that distributes 10,000 pounds of produce. The probability- proportionate-to-size method of site selection then results in the larger site (distributing 100,000 pounds) being 10 times more likely to be selected for sampling than the smaller site (distributing 10,000 pounds). Participating States are required to 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 from State to State.

Sampling plans that included sampling dates, sites (primary and alternate), targeted commodities, and testing laboratories were prepared by States on a quarterly basis (3-month period). Collection of commodities was randomly assigned to various weeks of the month, prior to selecting specific sampling dates within the week. Since sampling sites were selected for the entire quarter, States were allowed to assign the sites to particular months based on geographic location.

State population figures were used to assign the number of fruit and vegetable samples scheduled for collection each month. These numbers were: California-14, Colorado-2, Florida-7, Maryland-4, Michigan-6, New York-9, Ohio-6, Texas-8, Washington-4, and Wisconsin-2, for an annual target of 744 samples per commodity. In addition to basic collection targets, a new sample collection framework (weighted sampling scheme) was introduced in 1998 to compensate for the seasonality of selected commodities.

Under this weighted scheme, cantaloupe samples were collected at twice the basic target rate in July and August (peak months for product availability). Collection rates returned to normal in September and October and were reduced to one-half in November and December to reflect reduced availability. A similar approach was used for processed commodities where the ratio of fresh/frozen and juice concentrate/ready-to-serve samples was adjusted to reflect consumption figures. The resulting data are expected to more accurately mirror U.S. changes in consumption patterns based on commodity availability.

A total of 7,017 fruit and vegetable samples were collected during 1998 (see Table 1 for the number of samples collected per State). The number of samples collected is less than the targeted total due to the lack of availability at the sampling site or due to samples lost in shipping and handling. Figure 3 shows the total number of samples per commodity and the percentage of each that were either domestic, imported, mixed national, or of unknown origin. Appendix B provides a more detailed breakdown of sample origin by State or country. Fruit and vegetable samples originated from 36 States (plus the District of Columbia) and 25 foreign countries (including mixed national origin).

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

	Fresh F&V							Processed F&V								Dairy
State	CN	PE	PX	ST	SW	TO	WS	AJ	GB	GJ	OJ	SP	SZ	WZ	Total F&V	MK
California	91	158	76	130	72	157	131	139	77	115	148	136	3	--	1433	139
Colorado	14	24	12	23	12	24	17	24	11	24	24	24	--	4	237	16
Florida	47	85	42	67	42	83	84	84	42	84	84	84	16	--	844	50
Maryland	22	39	15	37	24	40	27	37	22	36	38	39	1	12	389	18
Michigan	42	69	33	68	36	72	35	70	36	70	69	71	--	29	700	60
New York	62	108	54	107	54	107	55	108	54	108	108	108	2	53	1088	99
Ohio	42	71	35	66	36	71	54	72	36	71	72	72	--	18	716	50
Texas	54	97	48	71	47	97	94	96	47	96	96	95	24	2	964	56
Washington	28	43	21	43	22	46	21	45	23	43	44	46	--	24	449	38
Wisconsin	12	20	8	19	12	20	12	19	12	18	17	20	1	7	197	69
TOTAL	414	714	344	631	357	717	530	694	360	665	700	695	47	149	7017	595

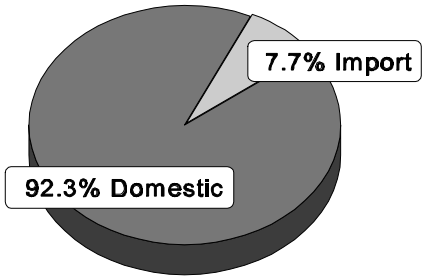
Commodities

AJ - Apple Juice, R/Co	OJ - Orange Juice, R/Co	SZ - Strawberries, Frozen
CN - Cantaloupe	PE - Pears	SW - Sweet Potatoes
GB - Green Beans, C/F	PX - Pear, SS	TO - Tomatoes
GJ - Grape Juice, R/Co	SP - Spinach, Canned	WS - Winter Squash, Fresh
MK - Whole Milk	ST - Strawberries, Fresh	WZ - Winter Squash, Frozen

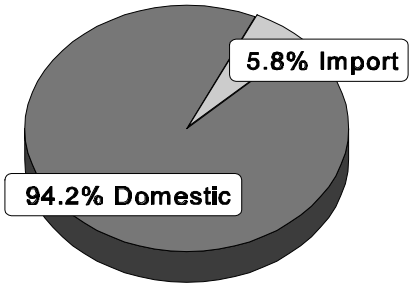
F&V = Fruit and Vegetables
R/Co = Ready-to-Serve/Concentrate
C/F = Canned/Frozen
SS = Single Serving

Figure 3. Commodity Origin (Percentage Domestic vs. Imported)

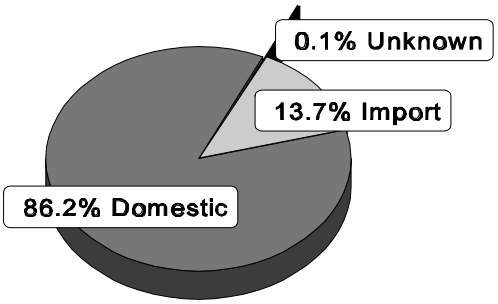
A. Fresh Commodities



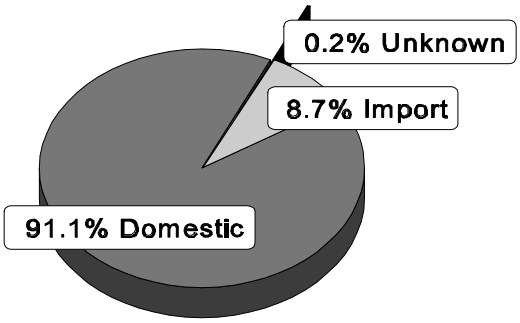
Cantaloupe
(414 Samples)



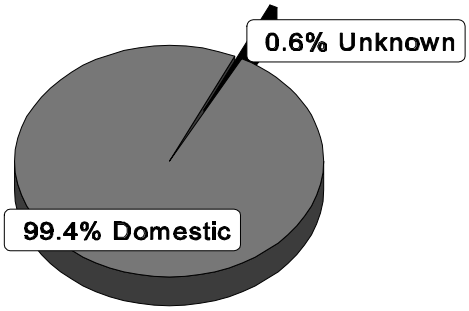
Pear, Single Serving
(344 Samples)



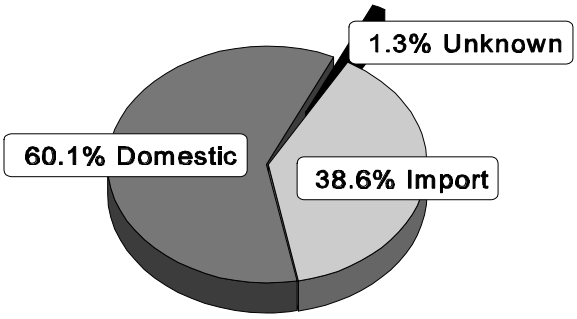
Pears
(714 Samples)



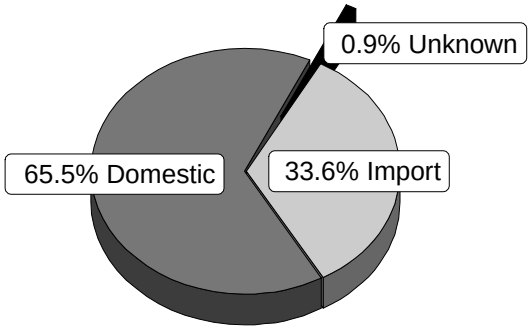
Strawberries, Fresh
(631 Samples)



Sweet Potatoes
(357 Samples)

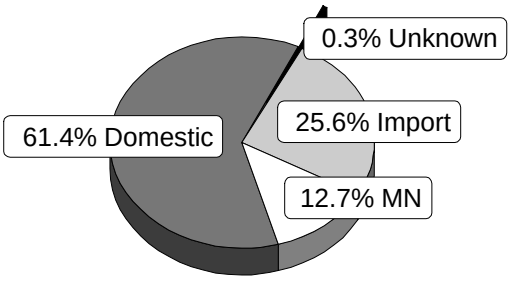


Tomatoes
(717 Samples)

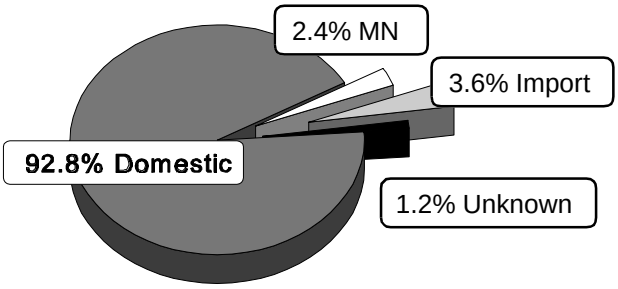


Winter Squash, Fresh
(530 Samples)

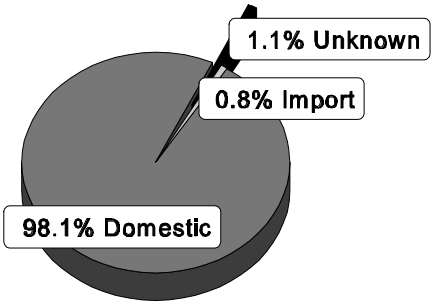
B. Processed Commodities*



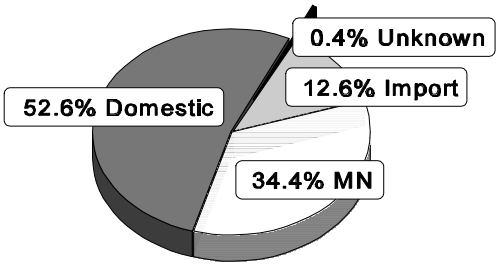
Apple Juice
(694 Samples)



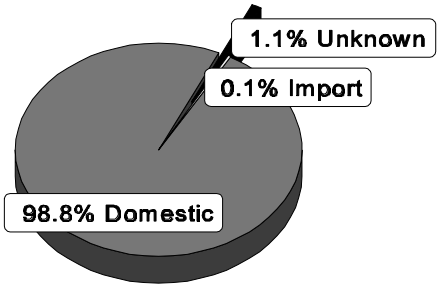
Grape Juice
(665 Samples)



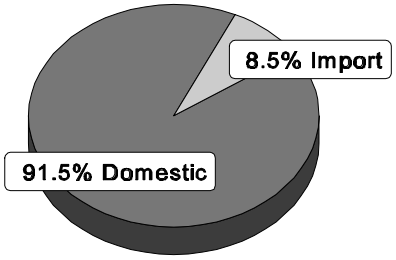
Green Beans, Canned/Frozen
(360 Samples)



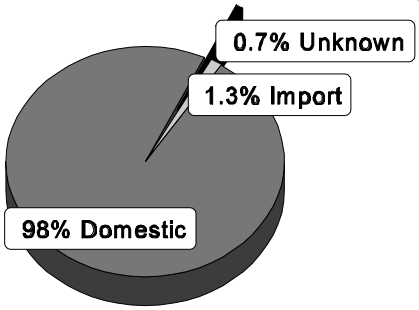
Orange Juice
(700 Samples)



Spinach, Canned
(695 Samples)



Strawberries, Frozen
(47 Samples)



Winter Squash, Frozen
(149 Samples)

MN = Mixed National

* For processed commodities, percentages were mainly derived from packer and/or distributor information.

■ Whole Milk

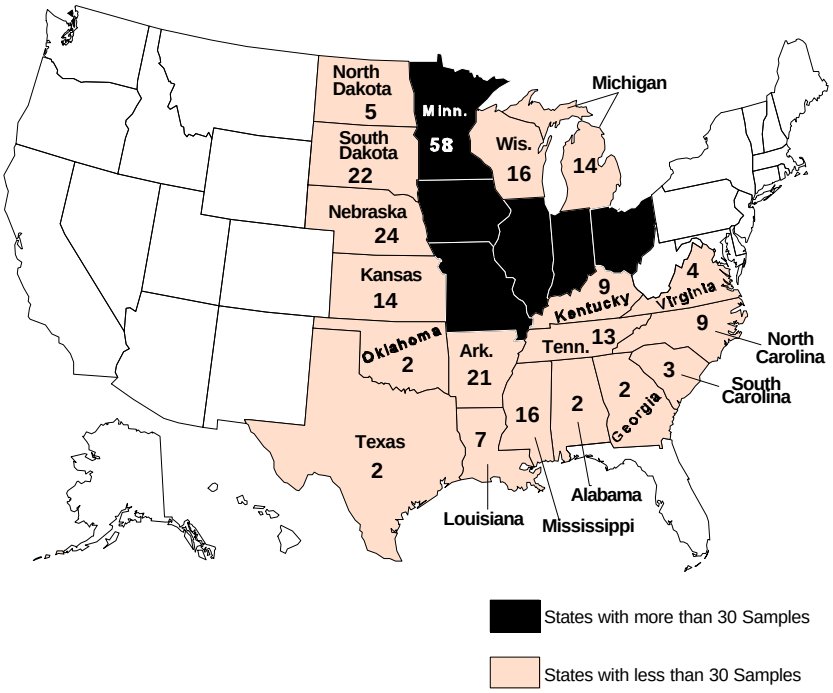
Milk has a relatively short production/distribution life, spanning about 2-3 weeks from production to consumer purchase. Consequently, the product is not warehoused, but is distributed directly to supermarkets. PDP sampling was therefore directed at the 200 fluid milk plants and at approved supermarket surrogates that marketed the plants' product directly. According to 1997 milk production data, approximately 56 percent of the U.S. whole milk supply was produced by the ten participating States. Using a target total of 62 samples per month and these States' relative share of the national production of fresh whole milk, monthly sampling quotas were established as follows: California-14, Colorado-2, Florida-5, Maryland-2, Michigan-6, New York-10, Ohio-5, Texas-6, Washington-4, and Wisconsin-8. Chain-of-custody procedures were the same as for fruit and vegetable samples. Analysis of milk samples was performed by the California, New York, and Florida State laboratories.

A total of 595 milk samples were collected from January through October 1998. Samples collected per State and origin of samples are given in Table 1 and Appendix B respectively.

■ Soybean Sample Collection

GIPSA collected 590 soybean samples representing the 1997 crop year. The number of samples collected by GIPSA's 13 regional offices was based on average State crop production data and proportioned according to harvest and sales data. Sample selection in GIPSA's 13 regional offices was done randomly based on State determined algorithms. Samples were drawn from domestic lots representing trucks, hopper cars, and barges (excluding samples segregated for export). Analysis was performed by GIPSA's Technical Services Division Laboratory located in Kansas City, Missouri. Chain-of-custody procedures were the same as for fruit and vegetable samples. Figure 4 displays the sampling distribution of soybeans collected for PDP by State of origin.

Figure 4. Distribution of Soybean Samples (590 Samples) - Crop Year 1997



■ Corn Syrup Survey

High fructose corn syrup (HFCS-55) is a corn product used as an ingredient in soft drinks, juice drinks, ice cream, and frozen desserts. The sampling survey was developed in cooperation with the Corn Refiners Association, whose membership represents virtually the entire U.S. corn syrup industry. Samples were collected at 17 plants representing over 95 percent of corn syrup production. An annual target of 320 samples was established with participating refineries sampled once, twice, or three times per month based on plant production capacities. One-quart size samples were drawn from storage containers at the plants and sent to the New York State Laboratory for analysis. A total of 298 samples of HFCS-55 were collected and analyzed.

■ Pears Single Serving Survey

PDP conducted a special survey on single servings of pears in response to an EPA emergency request for residue data. Single servings are defined as large unit food items such as apples, oranges, pears, etc. in which one unit may comprise a serving on a single eating occasion. The data, needed to estimate acute (short-term) risk for organophosphates, were collected from July through December 1998. The survey was conducted using the same sampling frame used for fruit and vegetables, with one pear randomly selected for analysis from each five-pound sample. The remaining sample was tested as a composite. A total of 344 single serving pear samples were analyzed for organophosphates only with results represented in Appendix E.

III. Laboratory Operations

■ Overview

Eleven laboratories (8 State and 3 Federal) performed analyses for PDP during 1998. 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.

■ Fruit and Vegetables (Fresh and Processed)

PDP participating laboratories analyzing fruit and vegetables monitored 53 pesticides plus 16 metabolites, degradates, and isomers using multiresidue methods (MRMs) and four (4) pesticides plus two (2) metabolites by single or selective residue methods (SRMs). Upon arrival at the testing facility, samples are visually examined for acceptability and discarded if determined to be inedible (decayed, extensively bruised, or spoiled). Accepted samples are then prepared emulating the practices of the average consumer to more closely represent actual exposure to residues. Fresh samples are prepared as follows: (1) cantaloupes are cut in half and seeds and rind removed; (2) pears are washed and cored; (3) strawberries are washed with stem and leaves removed; (4) sweet potatoes are washed; (5) tomatoes are washed with inedibles removed; and (6) winter squash is washed with stem and/or end pieces removed. Processed samples are prepared as follows: (1) fresh and reconstituted apple, grape, and orange juice are mixed until homogeneous; (2) apple, grape, and orange juice frozen concentrates are diluted according to label directions and mixed until homogeneous; and (3) canned and frozen fruit and vegetables are homogenized with their entire contents, including any liquid present.

Laboratories are permitted to refrigerate fresh incoming fruit and vegetable samples of the same commodity for up to 72 hours to allow for different sample arrival times from collection sites. Frozen and canned commodities can be held in storage (freezer or shelf) until the entire sample set is ready for analysis.

Samples (except apple, grape, and orange juice) 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 Luke I (Section 302 of PAM I) and Luke II (FDA's LIB 3896) extraction procedures developed by FDA are used by Michigan, New York, Ohio, and Texas. California, Florida, and Washington utilize modifications of the MRM developed by the California Department of Food and Agriculture (CDFA). The Luke and CDFA methods and their variations were determined, through method validation procedures, to produce equivalent data for PDP analytical purposes. Residues are extracted from samples using organic solvents followed by various cleanup procedures. SRMs, when employed for 2,4-D, benomyl, fenbutatin oxide, and formetanate, were 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, atomic emission detectors (AEDs), or by alternate detection systems, depending on the concentration reported. LODs for various selective detectors are lower than those achieved by mass spectrometry or AEDs. 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.

■ Milk

Selected PDP participating State laboratories monitored milk for 44 pesticides plus 25 metabolites, degradates, and isomers using MRMs and one pesticide by single or SRM. Upon arrival at the testing facility, samples are examined for acceptability and discarded if determined to be leaking, separated, discolored, or otherwise unsuitable for consumption. Laboratories are permitted to refrigerate milk samples up to 240 hours to allow for different sample arrival times from the collection sites. Accepted samples are mixed at time of analysis until homogeneous and separated into aliquots for analysis. If testing cannot be performed immediately, the entire analytical set is frozen at -20°C, or lower, according to PDP's QA/QC requirements.

For analysis of milk, the California and New York State laboratories developed multiresidue and phenoxy acid herbicide extraction procedures. The Florida State laboratory utilizes modifications of the procedures developed by California and New York. All methods were determined, through method validation procedures, to produce equivalent data for PDP analytical purposes. Residues are extracted from samples using organic solvents followed by solid phase cleanup procedures. For phenoxy acid herbicides, residues are extracted using organic solvents, followed by solid phase extraction and derivatization procedures.

Various types of chromatography are used for the initial identification and quantitation of pesticides in milk. Verification is accomplished by various forms of mass spectrometry or by alternate detection systems, depending on the concentration reported.

■ Grain

USDA's GIPSA laboratory monitored crop year 1997 soybeans for 35 pesticides plus nine (9) metabolites, degradates, and isomers. Upon arrival at the testing facility, samples are visually examined for acceptability and discarded if spoiled or otherwise inedible. Soybeans are refrigerated at 10°C, or lower, until homogenization, and then ground and analyzed. Surplus sample aliquots, not used for the initial testing, are retained refrigerated in the event that replication of analysis or verification testing is required. Extraction of soybean samples is accomplished using supercritical fluid extraction (a solventless system) coupled with mass spectrometry detection or post-column derivatization, high-performance liquid chromatography detection.

■ Processed Grain

The New York State laboratory monitored high fructose corn syrup (HFCS-55) for 83 pesticides and 26 metabolites, degradates, and isomers. Upon arrival at the testing facility, samples are visually examined for acceptability and discarded if leaking or otherwise inedible. Corn syrup samples are stored at room temperature until ready for analysis and then mixed until homogeneous. Surplus sample aliquots, not used for the initial testing, are retained frozen in the event that replication of analysis or verification testing is required. Extraction of corn syrup samples is

accomplished using a MRM developed by the New York State laboratory. Corn syrup samples are extracted with organic solvent and cleaned up using solid phase extraction procedures. Residues are analyzed utilizing tandem mass spectrometry technology or post-column derivalization, high-performance liquid chromatography detection system.

■ Special Projects

Selected PDP participating State laboratories analyzed single serving pear samples for 19 identified organophosphate pesticides plus 5 metabolites, degradates, and isomers, in addition to the corresponding composite samples undergoing multiresidue analysis. Upon receipt of composite pear samples for multiresidue analysis, an individual pear is randomly selected from each 5-pound sample, prepared, and analyzed according to PDP procedures. Single serving samples are extracted using established multiresidue procedures and analysis for selected organophosphates and their metabolites performed using selective detectors. Verification is accomplished by various forms of mass spectrometry or by alternate detection systems, depending on the concentration reported.

■ Quality Assurance Program

The main objectives of the 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's 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 check samples, QAU quarterly internal reviews, and on-site visits. Additional information on PDP's 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 the PDP Staff Office in Manassas, Virginia. 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 logical group or set of samples. Each calendar year survey is stored in a separate database structure, allowing for easier administration and reporting of data.

■ Electronic Data Life-Cycle

In 1994, PDP implemented the Remote Data Entry (RDE) system, which is a customized software application that provides participating State and Federal laboratories with the ability to enter the residue monitoring data using interactive data entry screens and then electronically transmit the data to the PDP Staff Office via modem and standard telephone lines. Prior to RDE implementation, all data collected from PDP laboratories arrived in paper format, requiring an exhausting data entry process at the PDP Staff Office.

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 (fields). 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 very 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 the PDP Staff Office, the data for those sets are written to separate files and those files are encrypted (scrambled). 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 the PDP Staff Office 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 the PDP Staff Office, 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 97 facilities in a Windows 95/NT operating environment. Access to the central PDP database is limited to PDP staff personnel only and is controlled through password protection and user access rights. System back-ups are 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 Internet web site at www.ams.usda.gov/science/pdp. The data files on the web site are ASCII, fixed-length 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 using any database management software package.

Each PDP calendar year database is submitted for inclusion in the National Pesticide Residue Database (NPRD), which is managed by EPA. NPRD holds residue data from various sources, including Federal and State agencies, colleges and universities, and private companies.

V. Sample Results and Discussion

■ Sample Results

In 1998, PDP conducted surveys on various foods which included fresh and processed fruit and vegetables, milk, soybeans, and corn syrup. Of the 8,500 samples collected and analyzed, 7,017 were fruit and vegetable commodities, 595 whole milk, 590 soybean, and 298 corn syrup. Approximately 61 percent of the fruit and vegetable samples (domestic and imports) had detectable pesticide residues. Pesticide residues were also detected in 15 percent of the milk samples and 51 percent of the soybean samples. No residues were found in any of the corn syrup samples tested. Approximately 84 percent of all samples were domestic and 15 percent were imports (less than 1% were of unknown origin). All imports were fruit and vegetable commodities. Appendix D provides a comparison of residues for selected commodities with a significant import component.

Appendix E shows residue findings for fruit and vegetables including tolerance violations, minimum and maximum concentrations detected, LODs, EPA tolerances, and, where applicable, Codex Alimentarius maximum residue limits (MRLs) and extraneous maximum residue limits (EMRLs). Appendices F and G depict similar information for milk and soybeans. 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 to 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, 45

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

As discussed in Section II, the PDP sampling frame incorporates population figures in participating States (representing approximately 50 percent of the Nation's population). There are little or no significant differences in residue estimates across these States and, we infer, across all States. More potentially critical are differences in the residue content of fresh commodities across months and differences across types of processed commodities (e.g., frozen vs. canned green beans). Data availability of food products (volumes of produce moving through wholesalers), when available, are used to compute nearly unbiased estimates of pesticide residues in PDP commodities at the National level.

Appendix I shows National estimates for selected pesticide/commodity pairs (including metabolites, degradates, and isomers of pesticides) with detectable residues in at least 10 percent of the samples tested. A range of values for the sample mean (average) residue concentration for each pair is provided. The lower value for the range was determined by treating a sample without detectable residues as if it had a residue concentration equal to zero. The upper value for the range was 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. These ratios show that, in most cases, the levels of detected residues are a small fraction of the tolerances for the listed pesticide/commodity pairs. Percent detections and percentiles for fresh pears, strawberries, sweet potatoes, and tomatoes were weighted to reflect 1998 marketing data. No weighting adjustments were made for canned spinach, frozen strawberries, soybeans, and winter squash because marketing data were not available. The residue detection percentiles for processed products (apple juice, grape juice, and green beans) were also weighted to reflect sales volume data for canned, liquid, and/or frozen processed products.

Appendix J displays the estimated distributions of eight representative pesticide/commodity pairs in graphical form showing the range of values, the median at the 50th percentile, and range in percentile representing the lower and upper bound for the sample mean. These pesticide/commodity pairs are: acephate/green beans, thiabendazole/pears, malathion/ soybeans, captan/strawberries (fresh), methomyl/ strawberries (fresh), dicloran/sweet potatoes, dieldrin/ winter squash (fresh), and dieldrin/winter squash (frozen). In some cases, there is convergence of the upper and lower bound into a single line, because using zero or the LOD for non-detected values becomes insignificant. These graphs visually demonstrate that the overwhelming majority of pesticide testing results and the respective means (average values) are at low concentrations.

■ Fresh vs. Processed

The 1998 data show that residue profiles for fresh products are significantly different than for processed products. Pesticides reported in previous years as frequently used (i.e., with high detection rates) in fresh apples, grapes, oranges, green beans, and spinach were either not detected or detected at significantly different rates than apple, grape, and orange juice, canned/frozen green beans, and canned spinach. Various factors may explain these differences in residue profiles. For example, raw agricultural commodities, if specifically grown for processing, are likely to receive different chemical treatments than fresh market products; only a minor component of fresh market products is used for processing; or residue concentration or reduction may be a direct result of processing effects (heat, time, product preparation, etc.). Table 3 provides a comparison of residues for fresh and processed products which illustrates these findings. Data used for this table are the most recent data collected by PDP for the fresh product and 1998 data for the corresponding processed product. For example, diphenylamine was detected in 86 percent of fresh apples in concentrations ranging from 0.014-4.7 parts per million (ppm), whereas only 7.1 percent of the apple juice samples were reported to contain this chemical in concentrations ranging from 0.013-0.066 ppm, much lower than the fresh product. Similarly, lower detection rates and concentration ranges were reported for thiabendazole in apple juice compared to fresh apples. For green beans, processed products

Table 2. Number of Samples and Residues Detected, by Commodity

	Total Samples Analyzed	Samples with Residues Detected	% of Samples with Residues Detected	Different Residues Detected	Total Residue Detections
Fresh Fruit and Vegetables:					
Cantaloupe	414	167	40	20	216
Pear - Single Serving (OPs)	344	233	68	6	306
Pears	714	671	94	39	1,654
Strawberries	631	572	91	37	1,698
Sweet Potatoes	357	212	59	14	262
Tomatoes	717	441	62	37	963
Winter Squash	530	221	42	37	329
TOTAL	3,707	2,517	68	82	5,428
Processed Fruit and Vegetables:					
Apple Juice	694	439	63	19	739
Grape Juice	665	259	39	10	275
Green Beans, C/F	360	217	60	18	450
Orange Juice	700	116	17	10	149
Spinach, Canned	695	589	85	16	1,167
Strawberries, Frozen	47	42	89	16	124
Winter Squash, Frozen	149	117	79	13	162
TOTAL	3,310	1,779	54	54	3,066
Fruit and Vegetables: Number of Samples Analyzed = 7,017; Number of Samples with Residues Detected = 4,296; Percent with Residue Detections = 61.2%; Total Number of Different Residues = 87; Total Number of Residue Detections = 8,494					
Dairy:					
Milk	595	89	15	5	90
Grain:					
Soybeans	590	298	51	11	370
Processed Grain Product:					
Corn Syrup	298	0	0	0	0
All Commodities: Number of Samples Analyzed = 8,500; Number of Samples with Residues Detected = 4,683; Percent with Residue Detections = 55.1%; Total Number of Different Residues = 93; Total Number of Residue Detections = 8,954					

OPs = Organophosphates
C/F = Canned/Frozen

had more residues of acephate, carbaryl, methamidophos, and vinclozolin compared to fresh products.

■ 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). According to USDA surveys (1996 NASS/ERS Agricultural Chemical Usage Report for Field Crops; 1996 NASS/ERS Agricultural Chemical Usage Report for Vegetables; and 1993 NASS/ERS Agricultural Chemical Usage Report for Fruits), use of fungicides comprised about 6 percent of total U.S. pesticide usage on PDP fruit and vegetable crops; however, 29 percent of PDP detections in fruit and vegetables (fresh and processed) were for residues of fungicides. The inconsistency between usage and residue data may be due largely to fungicides applied after harvest to preserve crops during long term storage. These postharvest applications may result in higher detection rates because environmental factors (rainfall, sunlight, temperature, wind, etc.) which promote residue dissipation of pesticides applied before harvest have no effect on crops that are in storage. 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 (sweet potatoes), diphenylamine (apple juice and pears), imazalil (orange juice), o-phenylphenol (apple and orange juice, cantaloupe, pears, and tomatoes), and thiabendazole (apple and orange juice, and pears).

■ Environmental Contaminants

DDT, DDD, and DDE

A total of 6,643 fruit and vegetables, 595 whole milk, 529 soybean, and 298 corn syrup 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 persistence of this chemical in the environment, residues of the DDE p,p' metabolite were detected in approximately 3 percent of the 8,065 samples tested. Residues of DDE p,p' were found primarily in 21.2 percent of canned spinach, 13.8 percent of milk, 4 percent of the frozen winter squash, and 1.9 percent of fresh winter squash samples. No residues of DDT or its metabolites were detected in any of the soybean and corn syrup samples tested. One fresh strawberry sample was found to contain residues of DDE p,p' where no action level was established by FDA and, therefore, reported as violative. No other samples had residues above the allowable FDA levels.

OTHER EXTRANEOUS PESTICIDES

All aldrin, dieldrin (also a metabolite of aldrin), heptachlor, and chlordane uses (except termiticide uses) were canceled in the United States in 1974, 1978, and 1986, respectively. However, residues of dieldrin and heptachlor epoxide (metabolite of heptachlor) were detected in winter squash samples.

Dieldrin was found in 77.0 percent of frozen winter squash, 10.3 percent of fresh winter squash, and 8.7 percent of cantaloupe samples. Heptachlor epoxide was detected in 23.1 percent of frozen winter squash samples. Chlordane cis was also detected in some winter squash samples (see Appendix E).

■ Single/Selective Residue Analyses

2,4-D

A total of 1,280 samples (694 pears, 494 fresh/frozen strawberries, and 92 whole milk) were tested for 2,4-D. Residues were detected in 0.3 percent of the pears and 3.1 percent of fresh strawberries. No residues were detected in any of the milk samples tested. All detections were at levels below the established tolerances.

BENOMYL

A total of 1,341 samples (411 cantaloupe, 298 canned/frozen green beans, and 632 fresh/frozen strawberries) were tested for benomyl, as the carbendazim metabolite. Carbendazim residues were detected in 28 percent of the strawberries, in 0.2 percent of cantaloupe, and 0.3 percent of the canned/frozen green beans. All detections were at levels below the established tolerances.

Table 3. Selected Residue Comparisons, Fresh vs. Processed

	APPLES (1996)			APPLE JUICE (1998)		
Pesticide	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Carbaryl	12.3	0.010	0.74	32.9	0.007	0.12
Dimethoate	2.8	0.003	0.20	16.9	0.003	0.070
Diphenylamine	86.3	0.014	4.7	7.1	0.013	0.066
Thiabendazole	70.2	0.045	5.4	28.0	0.015	0.80

	GREEN BEANS-Fresh (1995)			GREEN BEANS-Canned/Frozen (1998)		
Pesticide	% 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	20.4	0.005	2.2	47.7	0.003	0.54
Carbaryl	3.1	0.011	1.6	6.4	0.007	0.10
Methamidophos	19.1	0.004	0.40	48.5	0.002	0.21
Vinclozolin	3.2	0.036	0.26	14.2	0.010	0.13

	ORANGES (1996)			ORANGE JUICE (1998)		
Pesticide	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm
Ethion	0.8	0.002	0.038	10.0	0.002	0.003
Imazalil	58.1	0.015	1.1	4.7	0.017	0.25
Thiabendazole	44.0	0.050	1.1	3.7	0.050	0.35

	SPINACH-Fresh (1996)			SPINACH-Canned (1998)		
Pesticide	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm	% of Samples w/ Detections	Minimum Value Detected, ppm	Maximum Value Detected, ppm
DDE p,p'	58.2	0.004	0.088	21.2	0.005	0.030
Permethrins	60.2	0.008	13.0	78.8	0.13	8.5

FENBUTATIN OXIDE

A total of 544 pear samples were tested for fenbutatin oxide and its metabolites (SD-31723 and SD-33608). Fenbutatin oxide residues were detected in 6.3 percent of the samples tested, SD-31723 residues were detected in 2.2 percent of the samples, and SD-33608 residues in 0.7 percent of the samples. All detections were at levels well below the established tolerances.

FORMETANATE

Formetanate was tested in 542 composite pear samples. Residues of this compound were detected in 1.8 percent of the samples. All detections were at levels well below the established tolerance.

■ Multiple Residue Detections

The PDP database provides information that can be used by EPA in evaluating the incidence of multiple residue detections. Multiple residue detections may derive from various sources such as applications of more than one pesticide on a crop during a growing season, spray drift, transfer through crop rotation, or persistent environmental residues. The multiple residue information is particularly useful in responding to the 1993 National Academy of Sciences report, *Pesticides in the Diets of Infants and Children*, which recommended that coordinated recording of multiple residue scans would make possible more accurate evaluation of exposure distributions for multiple chemicals.

This information will be very useful in assessing the cumulative effects of pesticides with similar mechanisms of action such as cholinesterase inhibitors and endocrine disruptors. The distribution of multiple residues in PDP's database is given in Appendix K. These data indicate that more than one pesticide residue was detected in 33.9 percent of the fruit and vegetables, 0.2 percent of the milk, and 10.5 percent of the soybean samples tested. 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 U.S. consumer which include domestic and imported products. Most commodities are almost entirely of domestic origin with only a minor import component. Other crops, such as winter squash and tomatoes, are domestic during warm weather months and imported during winter months. Appendix D shows a comparison of selected residues detected in fresh winter squash and tomatoes grown in the U.S. and Mexico and residues detected in pears grown in the U.S., Argentina, and Chile. The data indicate that for fresh winter squash, the percent of samples with residues is approximately the same for domestic and import products, but the pesticide profile is different. Only 1 percent of the Mexican samples had dieldrin residues, compared to 18 percent of the U.S. samples. Conversely, 33 percent of the Mexican winter squash had residues of endosulfan sulfate, compared to 16 percent of the U.S. product.

For tomatoes, 78 percent of Mexican tomatoes had residues, compared to 58 percent of U.S. samples. The percent of Mexican tomatoes containing residues of chlorpyrifos, endosulfans, methamidophos, and permethrins was higher than those for tomatoes grown in the U.S.

For pears, domestic and imports showed approximately the same percent of samples with detections. Captan, diphenylamine, and phosmet were present in imports at a much higher detection rate than in domestic pears. On the other hand, o-phenylphenol and thiabendazole were present at higher rates in domestic pears than in imports.

■ 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. Tolerances are established by EPA for pesticides used on food crops and based on residues in food commodities as a result of field trials conducted by pesticide manufacturers. Pesticide tolerances are not based on specific health considerations, but were set to ensure compliance with good agricultural practices to assure crop protection. Health considerations are founded on an acceptable daily intake (ADI) for humans based on toxicity and long-term exposure. Under FQPA, the safety standards 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 and all other non-occupational exposures for which there is reliable information." Under FQPA, ADI changes will have a direct relationship in adjusting allowed food uses, hence, either eliminating or lowering presently established tolerances.

EPA is in the process of revising tolerances to ensure that they meet the new standards required by FQPA. A violation occurs when a residue is found which exceeds the tolerance level or when a residue is found for which there is no tolerance for that particular crop. With the exception of meat, poultry, and egg products, for which USDA is responsible, tolerances for all other foods (imported and domestic foods moved through interstate commerce) are enforced by FDA at the National level and by the States at the local level. When agencies with regulatory 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, sample analysis does not have to be completed quickly (emphasis is placed on searching for residues at the lowest detectable levels--not on quick turn-around time) and sample collection does not interfere with commodity distribution. Samples with residues exceeding the tolerance or samples with residues for which there was no tolerance listed under the Code of Federal Regulations (CFR), Title 40, Part 180 were reported to FDA regional and headquarters offices. This is done 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 on PDP samples generally is not a viable option due to the time lag from sample collection to data reporting.

Residues exceeding the established tolerance are noted as "x" in Appendices E, F, G, and H. Similarly, residues for which a tolerance could not be found in the 40 CFR, Part 180 are listed as "v". In both cases, these annotations are followed by a number indicating the number of samples reported to FDA.

Residues exceeding the tolerance were detected in 0.15 percent of all composite samples tested in 1998. Residues with no tolerance listed in 40 CFR, Part 180 were found in 3.7 percent of the samples (14 samples contained 2 residues without tolerances 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 L.

■ Synopsis

In 1998, a total of 7,017 fresh and processed fruit and vegetable samples, 595 whole milk samples, 590 soybean samples, and 298 corn syrup samples were analyzed for various pesticides including insecticides, herbicides, and fungicides. Samples were analyzed using MRMs capable of detecting various organochlorines, organophosphates, organosulfurs, organonitrogens, and N-methyl carbamates. SRMs were used on selected commodities only: formetanate in pears; 2,4-D in pears, strawberries and milk; and benomyl in cantaloupe, green beans, and strawberries. In addition, 344 single servings of pears were collected and analyzed for an acute dietary survey of organophosphates and metabolites.

Approximately 84 percent of all samples tested were domestic, 11 percent were imported, 4 percent were of mixed national origin (mainly orange juice), and 0.5 percent were of unknown origin.

Of all samples tested, 0.15 percent were reported as containing residues exceeding the tolerance and 3.7 percent as without tolerances listed in 40 CFR, Part 180.

About 45 percent of all samples had no detectable residues, 26 percent contained one residue, and 29 percent contained more than one residue. Most of the residues were detected in fruit and vegetable commodities. Data for single servings of pears werenot significantly different from composite data. Environmental contaminants were detected mainly in spinach, winter squash, and milk. Postharvest applications contributed significantly to the number of residues detected in apple juice, orange juice, pears, and sweet potatoes. Overall, levels of residues detected were below tolerances.

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Appendix A

Commodity History
(A Chronological Listing)

Appendix A shows a chronological listing of all commodities sampled since the inception of the program through 1999.

APPENDIX A. COMMODITY HISTORY

Fresh Commodities

Start Date	End Date	Months in Program	Commodity
May-91	Dec-96	65*	Grapes
May-91	Dec-94	44	Lettuce
May-91	Dec-95	56	Potatoes
Aug-91	Dec-93	29	Grapefruit
Aug-91	Dec-96	62*	Oranges
Sep-91	Dec-96	61*	Apples
Sep-91	Sep-95	49	Bananas
Feb-92	Mar-94	26	Celery
Feb-92	Dec-95	47	Green Beans
Feb-92	Sep-96	55*	Peaches
Oct-92	Dec-94	27	Broccoli
Oct-92	Sep-96	48*	Carrots
Jan-95	Sep-97	30*	Spinach
Feb-95	Jan-98	3@	Wheat
Jan-96	Oct-98	31*	Milk
Jan-96	Jun-98	27*	Sweet Potatoes
Jul-96	Jun-99	33*	Tomatoes
Dec-96	Feb-98	2@	Soybeans
Jan-97	Jun-99	30	Pears
Jan-97	Jun-99	30	Winter Squash
Jan-98			Strawberries**
Jul-98			Cantaloupe
Jan-99			Cucumbers
Jan-99			Sweet Peppers
Jul-99			Oats

Reintroduced Commodities

Oct-99			Lettuce
Jan-00			Green Beans
Jan-00			Grapes
Jan-00			Oranges

* Excludes sampling hiatus September (partial) - November 1996

** Frozen collected when fresh unavailable

@ Crop Years

Processed Commodities

Start Date	End Date	Months in Program	Commodity	Type
Apr-94	Mar-96	24	Sweet Corn	Canned/Frozen
Apr-94	Jun-96	27	Peas	Canned/Frozen
Jan-96	Jun-98	27*	Green Beans	Canned/Frozen
Jul-96	Dec-98	27*	Apple Juice	Processed
Dec-96	Dec-97	13	Peaches	Canned
Jan-97	Dec-98	24	Orange Juice	Processed
Apr-97	Jun-99	27	Winter Squash	Frozen
Oct-97	Dec-98	15	Spinach	Canned
Jan-98	Jun-99	17***	Corn Syrup	Processed
Jan-98	Dec-99	24	Grape Juice	Processed
Jan-98			Strawberries	Frozen**
Jan-99	Dec-99	12	Spinach	Frozen
Jul-99			Pears	Canned
Jul-99			Tomatoes	Canned
Jan-00			Peanut Butter	Processed

* Excludes sampling hiatus September - November 1996
** Frozen collected when fresh unavailable
*** Excludes sampling hiatus January 1999

Special Projects (Single Serving Surveys)

Start Date	End Date	Months in Program	Commodity	Analyte(s)
Dec-96	Dec-97	13	Potatoes	Aldicarb
Jul-98	Jun-99	12	Pears	Organophosphates
Jan-99	Dec-99	12	Apples	Organophosphates
Jan-99	May-99	5	Apples	Carbamates
Jan-00			Peaches	Carbamates, Organochlorines, Organophosphates, Organonitrogens & Sulfur compounds

Appendix B

Sample Origin by Grower, Packer, or Distributor

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

As shown in Appendix B, fruit and vegetable samples originated from 36 States, the District of Columbia, and 25 foreign countries (includes mixed national origin). Milk samples originated from 13 states, with most of the samples produced by participating states (99%). All milk samples were domestic.

APPENDIX B. SAMPLE ORIGIN BY GROWER, PACKER, OR DISTRIBUTOR (Number of Samples per State/Country)

Part 1. Domestic Samples

	Fresh F&V							Processed F&V							Dairy	No. of	% of
	CN	PE	PX	ST	SW	TO	WS	AJ	GB	GJ	OJ	SP	SZ	WZ	MK	Domestic	Total
States = 36																	
Alabama					1	1										2	<0.1
Arizona	27					8	60									95	1.2
Arkansas						2			4	1		134				141	1.9
California	239	107	104	461	113	121	95	54	109	35	35	298	20	16	143	1950	25.6
Colorado	2	3	3			17	6		2		1				13	47	0.6
Connecticut								50		1	10					61	0.8
Florida	44			96		177	11	13	8	10	107		2		50	518	6.8
Georgia						1	11	1	3	2		2		1		21	0.3
Idaho						1		3	10	2	2	12	2		2	34	0.4
Illinois						2	1	22	19	8	30	23	2	17		124	1.6
Indiana	3					1										4	0.1
Kansas								2			2					4	0.1
Kentucky						3										3	<0.1
Louisiana					77											77	1
Maine									2	2		8		3		15	0.2
Maryland						6	1	2	7	8	5	4		2	17	52	0.7
Massachusetts						1		8		385	12					406	5.3
Michigan	3	1	1		2	17	37	28	18	26	14	25		11	60	243	3.2
Minnesota	1			1			1		45	4	1	13		7		73	1.0
Mississippi					4											4	0.1
Missouri							1									1	<0.1
Nevada	33															33	0.4
New Jersey					4	5	22	1		4	2	2		1	1	42	0.6
New York	1	13	12	1	1	7	16	65	23	52	54	22		12	98	377	5
North Carolina	2				107	5	1	2		1	1					119	1.6
Ohio	1	2	2		1	4	21	17	4	14	12	13	3	2	51	147	1.9
Oklahoma							1	1	5		3	10	6			26	0.3
Oregon		140	54				2	9	9	7	3	11	3	9		247	3.2
Pennsylvania						7		19	14	4	5	20		3	1	73	1
South Carolina						1	1									2	<0.1
Tennessee						5	4		8			21				38	0.5
Texas	22			6	31	18	9	28	27	31	58	24	4	18	54	330	4.3
Utah								1	1			7				9	0.1
Virginia						8		13	2	2	1	2				28	0.4
Washington		343	143	2		2	8	72	7	3	1	15		5	36	637	8.4
Wisconsin				2	1		7	4	23	4	3	14	1	39	69	167	2.2
Washington D.C.						3										3	<0.1
Unknown State	4	6	5	6	13	8	31	11	3	11	6	7				111	1.5
No. of Domestics	382	615	324	575	355	431	347	426	353	617	368	687	43	146	595	6264	
% of Total (nearest %)	92	86	94	91	99	60	65	61	98	93	53	99	91	98	100		82.3

Part 2. Imported Samples

	Fresh F&V							Processed F&V								No. of	% of
	CN	PE	PX	ST	SW	TO	WS	AJ	GB	GJ	OJ	SP	SZ	WZ	MK	Imports	Total
Countries = 21																	
Argentina		42	5	1				75		21						144	1.9
Austria								2								2	<0.1
Belgium						1										1	<0.1
Brazil								2		2	69					73	1.0
Canada		1				23		1	2							27	0.4
Chile		38	11					11								60	0.8
China								11								11	0.1
Costa Rica											2					2	<0.1
Dominican Republic	1															1	<0.1
El Salvador						1										1	<0.1
Germany								19								19	0.2
Guatemala	5															5	0.1
Honduras							7									7	0.1
Hungary								37								37	0.5
Israel						1										1	<0.1
Italy								3								3	<0.1
Mexico	26	1		45		240	170	13		1	10		4	2		512	6.7
Netherlands						8										8	0.1
New Zealand		8	2	9				2								21	0.3
South Africa		8	2													10	0.1
Spain						1										1	<0.1
Unknown Country						2	1	2	1		7	1				14	0.2
No. of Imports	32	98	20	55	0	277	178	178	3	24	88	1	4	2	0	960	
% of Total (nearest %)	8	14	6	9	0	39	34	26	1	4	13	<0.1	9	1	0		12.6

Part 3. Mixed National Origin Samples

	Processed F&V								No. of	% of
	AJ	GB	GJ	OJ	SP	SZ	WZ	MK	Mixed	Total
Argentina/Austria/Chile/Germany	1								1	<0.1
Argentina/Austria/Germany/Hungary	3								3	<0.1
Argentina/Brazil			1						1	<0.1
Argentina/Brazil/Chile			1						1	<0.1
Argentina/Brazil/Spain/USA			7						7	0.1
Argentina/China/Germany/USA	1								1	<0.1
Argentina/Germany	4								4	0.1
Argentina/Germany/Hungary	1								1	<0.1
Argentina/Germany/Italy	1								1	<0.1
Argentina/Germany/Italy/Poland	1								1	<0.1
Argentina/Germany/USA	3								3	<0.1
Argentina/Hungary/Netherlands	1								1	<0.1
Argentina/Hungary/Netherlands/USA	1								1	<0.1
Argentina/Hungary	4								4	0.1
Argentina/Hungary/USA	2								2	<0.1
Argentina/New Zealand/USA	1								1	<0.1
Argentina/USA	9		2	1					12	0.2
Argentina/Chile/Hungary/Poland/USA	3								3	<0.1
Argentina/Germany/Italy/Poland/USA	2								2	<0.1

	Processed F&V								No. of	% of
	AJ	GB	GJ	OJ	SP	SZ	WZ	MK	Mixed	Total
Argentina/Austria/Brazil/Chile/Germany/Hungary/Italy/Turkey/USA	5								5	0.1
Argentina/Austria/Chile/Germany/Hungary	1								1	<0.1
Argentina/Austria/Chile/Germany/USA	10								10	0.1
Argentina/Brazil/Chile/Mexico/Spain/USA			1						1	<0.1
Argentina/Chile/China/Germany/Hungary/USA	2								2	<0.1
Austria/USA	2								2	<0.1
Belize/Brazil/Mexico				1					1	<0.1
Belize/Brazil/Mexico/USA				1					1	<0.1
Belize/Brazil/Dominican Republic/Mexico/USA				1					1	<0.1
Brazil/Chile/New Zealand	1								1	<0.1
Brazil/Chile/New Zealand/USA	3								3	<0.1
Brazil/Costa Rica/USA				2					2	<0.1
Brazil/Mexico				4					4	0.1
Brazil/Mexico/USA				36					36	0.5
Brazil/USA			2	150					152	2
Chile/Germany/Hungary/Mexico	7								7	0.1
Chile/USA	4								4	0.1
China/USA	4								4	0.1
Germany/Hungary	2								2	<0.1
Germany/Hungary/Moldova	1								1	<0.1
Honduras/Mexico				1					1	<0.1
Honduras/Mexico/USA				2					2	<0.1
Mexico/USA				9					9	0.1
New Zealand/USA	2								2	<0.1
Multi-Country Origin - Countries Unknown	6		2	33					41	0.5
No. of Mixed National Origin Samples	88		16	241					345	
% of Total (nearest %)	13		2	34						4.5

Part 4. Unknown Origin

	Fresh F&V							Processed F&V								No. of	% of
	CN	PE	PX	ST	SW	TO	WS	AJ	GB	GJ	OJ	SP	SZ	WZ	MK	Unkown	Total
Unknown Origin		1		1	2	9	5	2	4	8	3	7		1		43	
% of Total		0.1		0.1	0.6	1.2	0.9	0.3	1.1	1.2	0.4	1		0.7			0.6
GRAND TOTALS	**414**	**714**	**344**	**631**	**357**	**717**	**530**	**694**	**360**	**665**	**700**	**695**	**47**	**149**	**595**	**7612**	

COMMODITIES	
AJ = Apple Juice, R/Co	SP = Spinach, Canned
CN = Cantaloupe	ST = Strawberries, Fresh
GB = Green Beans, C/F	SZ = Strawberries, Frozen
GJ = Grape Juice, R/Co	SW = Sweet Potatoes
MK = Whole Milk	TO = Tomatoes
OJ = Orange Juice, R/Co	WS = Winter Squash, Fresh
PE = Pears	WZ = Winter Squash, Frozen
PX = Pear, SS	

R/Co = Ready-to-Serve / Concentrate
C/F = Canned / Frozen
SS = Single Serving

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 to 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. In 1998, 99.8 percent of the data reported to the database met QA guidelines. Less than one-quarter of 1 percent of reported results were associated with either fortification and/or process control data which did not meet QA criteria and were rejected. 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 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 1998, PDP laboratories received three proficiency sample sets consisting of nine fruit and vegetable samples for multiresidue screening, four sets consisting of 12 fruit and vegetable samples for single/selective residue screening, one soybean multiresidue set consisting of three samples, and one corn syrup multiresidue set consisting of three samples. For fruit and vegetable multiresidue screening, a total of 72 samples covering nine commodities were fortified with 35 compounds, with four repeated once and one repeated twice, at levels generally 1-10 times the overall limit of quantitation (LOQ). Results yield an overall mean percent coefficient of variation of 23%. Eleven incurred residues were present in these sets in five commodities, with one residue recurring once, at levels less than 1.0 ppm, with reported results having an overall mean coefficient of variation of 20%.

4. Quality Control Procedures - PDP operating procedures for quality control 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 quality control/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 vegetable, milk, and corn syrup products, 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. For grain analysis, performed by supercritical fluid extraction, an empty extraction cell is run through the analytical procedure to demonstrate 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 one 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, 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 several

spike mixtures (to avert coelution problems), which, in turn, resulted in lengthy run times. During 1998, PDP laboratories quantitated a total of 29,380 matrix spikes, with an overall mean recovery of 92% and overall standard deviation of 25%.

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 1998, PDP laboratories quantitated a total of 36,248 process controls on 8,500 samples, with an overall mean recovery of 94% and overall standard deviation of 18%. Of these process controls, 787 (2.2%) were rerun due to initial failure to meet PDP recovery criteria. These rerun values are not included in these statistics for illustrative purposes; however, reported data are those obtained from sample reanalysis.

5. Method Performance and Verification Procedures - Laboratories are required to determine and verify the limits of detection (LODs) and LOQs for each pesticide/commodity pair. LODs depend on matrix, analyte, and detector used, and range from 0.001 to 0.33 ppm. (*Information on specific LODs and LOQs is available upon request.*) Verification by mass spectrometry, atomic emission detection, 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 ½ 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 a minor import component. However, several commodities tested over the past several years were cyclical; part of the year domestic and part import.

Appendix D compares residue data reported for tomatoes and winter squash from the United States and Mexico for 1996-1998. Also reported are data for pears from the United States, Argentina, and Chile for 1997 and 1998. Only residues detected in more than 10 percent of the samples are included in this section of the appendix. 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.

1997-1998 Distribution of Residues for Fresh Winter Squash Samples
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	1997	258	90	35	173
	1998	347	146	42	208
	1997-1998	**605**	**236**	**39**	**381**
Mexico	1997	161	71	44	107
	1998	170	68	40	110
	1997-1998	**331**	**139**	**42**	**217**

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

1997-1998 Distribution of Residues for Fresh Winter Squash Samples
Originating in Mexico vs. United States
(Only Pesticides with Residue Detections in at least 10% of Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Dieldrin	Mexico	156	2	1
	United States	375	66	18
Endosulfan sulfate	Mexico	331	108	33
	United States	605	95	16

1996-1998 Distribution of Residues for Tomatoes
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	1996*	135	82	61	170
	1997	498	292	59	573
	1998	431	245	57	473
	1996-1998	**1,064**	**619**	**58**	**1,216**
Mexico	1996*	34	29	85	92
	1997	193	156	81	445
	1998	240	177	74	453
	1996-1998	**467**	**362**	**78**	**990**

** Samples collected for only 3 months in 1996 (July, August and December).*
NOTE: The Limits of Detection (LODs) for pesticide detections in tomatoes are listed in Appendix E.

1996-1998 Distribution of Residues for Tomato Samples
Originating in Mexico vs. United States
(Only Pesticides with Residue Detections in at least 10% of Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Chlorpyrifos	Mexico	462	158	34
	United States	1,048	44	4
Endosulfan I	Mexico	463	138	30
	United States	1,049	121	12
Endosulfan II	Mexico	463	178	38
	United States	1,062	152	14
Endosulfan sulfate	Mexico	463	137	30
	United States	1,062	140	13
Methamidophos	Mexico	462	174	38
	United States	1,051	285	27
Permethrins	Mexico	274	43	16
	United States	733	69	9

1997-1998 Distribution of Residues for Pears
United States Samples vs. Samples Originating in Argentina and Chile

Origin	Year	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections	# of Residues Detected
United States	1997	588	557	95	1,281
	1998	615	578	94	1,364
	1997-1998	**1,203**	**1,135**	**94**	**2,645**
Argentina	1997	34	31	91	102
	1998	42	40	95	143
	1997-1998	**76**	**71**	**93**	**245**
Chile	1997	66	64	97	247
	1998	38	37	97	118
	1997-1998	**104**	**101**	**97**	**365**

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

1997-1998 Distribution of Residues for Pear Samples
Originating in Argentina and Chile vs. United States
(Only Pesticides with Residue Detections in at least 10% of Samples)

Pesticide	Origin	# of Samples Analyzed	# of Samples w/ Detections	% of Samples w/ Detections
Azinphos methyl	United States	1,195	702	59
	Argentina	76	56	74
	Chile	104	63	61
Captan	United States	1,174	67	6
	Argentina	72	29	40
	Chile	102	56	55
Diphenylamine-DPA	United States	1,189	208	17
	Argentina	75	28	37
	Chile	102	40	39
o-Phenylphenol	United States	1,033	271	26
	Argentina	60	0	0
	Chile	92	3	3
Phosmet	United States	1,047	192	18
	Argentina	61	34	56
	Chile	92	52	57
Thiabendazole	United States	1,187	859	72
	Argentina	74	35	47
	Chile	100	53	53

Appendix E

Distribution of Residues by Pesticide in Fruit and Vegetables

In 1998, 7,017 fruit and vegetable samples were analyzed, of which 6,673 were composite samples and 344 were single serving samples (pears). 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.

Appendix E lists results by compound in alphabetical order. Sample results for canned and frozen green beans were combined. Similarly, results for ready-to-serve and concentrate juice types were also combined.

Compounds that were required to be reported by all participating laboratories are underlined. Compounds not underlined are not required and may not be reported by all laboratories. All reported compounds, required and non-required, must be validated through PDP method validation procedures. Non-required compounds are not subject to the same daily quality assurance/quality control requirements as required compounds.

PDP also 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” column to the right of the compound 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.

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

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
1	**1-Napthol (metabolite of Carbaryl)**							
	Apple Juice	139	0			0.034 ^	10	-
	Cantaloupe	84	0			0.034 ^	10	-
	Grape Juice	137	0			0.034 ^	10	-
	Green Beans, C&F	70	4	5.7	0.057 ^	0.034 ^	10	-
	Spinach, Canned	1	1		0.058 ^	0.006 ^	12	-
	Sweet Potatoes	70	0			0.034 ^	0.2	-
	Tomatoes	142	5	3.5	0.057 ^	0.034 ^	10	-
	W Squash, Fresh	73	0			0.034 ^	10	-
	W Squash, Frozen	57	0			0.034 ^	10	-
	Total	**773**	**10**					
2	**2,4-D (herbicide)**							
	Pears	694	2	0.3	0.010 ^	0.006 - 0.010	5	-
	Strawberries, Fresh	487	15	3.1	0.010 - 0.049	0.006 ^	0.05	-
	Strawberries, Frozen	7	0			0.006 ^	0.05	-
	Total	**1188**	**17**					
3	**3-Hydroxycarbofuran (metabolite of Carbofuran)**							
	Apple Juice	694	0			0.009 - 0.076	NT	-
	Cantaloupe	408	0			0.009 - 0.076	0.2	-
	Grape Juice	665	4	0.6	0.015 - 0.051	0.009 - 0.076	0.2	-
	Green Beans, C&F	359	0			0.009 - 0.076	NT	-
	Orange Juice	700	0			0.010 - 0.020	NT	-
	Pears	712	0			0.010 - 0.076	NT	0.1
	Spinach, Canned	695	0			0.010 - 0.020	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.020	0.2	0.1
	Strawberries, Frozen	47	0			0.010 - 0.020	0.2	0.1
	Sweet Potatoes	357	0			0.009 - 0.076	NT	-
	Tomatoes	717	0			0.009 - 0.020	NT	0.1
	W Squash, Fresh	530	1	0.2	0.073 ^	0.009 - 0.076	0.6	-
	W Squash, Frozen	149	0			0.009 - 0.076	0.6	-
	Total	**6643**	**5**					
4	**Acephate (insecticide)**							
	Apple Juice (V-2)	694	2	0.3	0.003 - 0.007	0.002 - 0.006	NT	-
	Cantaloupe (V-11)	408	11	2.7	0.003 - 0.020	0.002 - 0.006	NT	-
	Grape Juice	665	0			0.002 - 0.006	NT	-
	Green Beans, C&F	346	165	47.7	0.003 - 0.54	0.002 - 0.006	3	-
	Orange Juice	700	0			0.002 - 0.033	NT	-
	Pears, Single Serving	344	1	0.3	0.021 ^	0.002 - 0.012	(N)	-
	Pears (V-1)	712	1	0.1	0.010 ^	0.002 - 0.012	NT	-
	Spinach, Canned	695	0			0.002 - 0.012	NT	-
	Strawberries, Fresh	610	0			0.002 - 0.012	NT	-
	Strawberries, Frozen	47	0			0.002 - 0.010	NT	-
	Sweet Potatoes	357	0			0.002 - 0.006	NT	-
	Tomatoes (V-4)	717	4	0.6	0.008 - 0.033	0.002 - 0.010	NT	0.5
	W Squash, Fresh (V-5)	530	5	0.9	0.003 - 0.12	0.002 - 0.006	NT	-
	W Squash, Frozen	149	0			0.002 - 0.006	NT	-
	Total	**6974**	**189**					
5	**Aldicarb (insecticide)**							
	Apple Juice	544	0			0.004 - 0.021	NT	-
	Cantaloupe	310	0			0.004 - 0.021	NT	-
	Grape Juice	500	0			0.004 - 0.021	NT	0.2
	Green Beans, C&F	285	0			0.004 - 0.021	NT	-
	Orange Juice	700	0			0.008 - 0.021	0.3	0.2
	Pears	562	0			0.008 - 0.021	NT	-
	Spinach, Canned	695	0			0.008 - 0.021	NT	-
	Strawberries, Fresh	610	0			0.008 - 0.020	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Strawberries, Frozen	47	0			0.008 - 0.020	NT	-
	Sweet Potatoes	282	0			0.004 - 0.021	0.1	0.1
	Tomatoes	717	0			0.004 - 0.021	NT	-
	W Squash, Fresh	367	0			0.004 - 0.021	NT	-
	W Squash, Frozen	147	0			0.004 - 0.021	NT	-
	Total	**5766**	**0**					
6	**Aldicarb sulfone (metabolite of Aldicarb)**							
	Apple Juice	694	0			0.007 - 0.075	NT	-
	Cantaloupe	408	0			0.007 - 0.075	NT	-
	Grape Juice	650	0			0.007 - 0.075	NT	0.2
	Green Beans, C&F	359	0			0.007 - 0.075	NT	-
	Orange Juice	700	0			0.010 - 0.041	0.3	0.2
	Pears	682	0			0.010 - 0.075	NT	-
	Spinach, Canned	695	0			0.010 - 0.041	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.022	NT	-
	Strawberries, Frozen	47	0			0.010 - 0.021	NT	-
	Sweet Potatoes	357	0			0.007 - 0.075	0.1	0.1
	Tomatoes	717	0			0.007 - 0.041	NT	-
	W Squash, Fresh	530	0			0.007 - 0.075	NT	-
	W Squash, Frozen	149	0			0.007 - 0.075	NT	-
	Total	**6598**	**0**					
7	**Aldicarb sulfoxide (metabolite of Aldicarb)**							
	Apple Juice	694	0			0.007 - 0.076	NT	-
	Cantaloupe (V-1)	408	1	0.2	0.017 ^	0.007 - 0.076	NT	-
	Grape Juice	653	0			0.007 - 0.076	NT	0.2
	Green Beans, C&F	359	0			0.007 - 0.076	NT	-
	Orange Juice	700	0			0.010 - 0.036	0.3	0.2
	Pears	712	0			0.010 - 0.076	NT	-
	Spinach, Canned	695	0			0.010 - 0.036	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.027	NT	-
	Strawberries, Frozen	47	0			0.010 - 0.027	NT	-
	Sweet Potatoes	357	0			0.007 - 0.076	0.1	0.1
	Tomatoes	717	0			0.007 - 0.036	NT	-
	W Squash, Fresh	530	0			0.007 - 0.076	NT	-
	W Squash, Frozen	149	0			0.007 - 0.076	NT	-
	Total	**6631**	**1**					
8	**Aldrin (insecticide) (parent of Dieldrin)**							
	Apple Juice	108	0			0.002 ^	0.03 [AL]	0.05
	Cantaloupe	62	1	1.6	0.003 ^	0.002 ^	0.1 [AL]	-
	Grape Juice	108	0			0.002 ^	NT	-
	Green Beans, C&F	54	0			0.002 ^	0.05 [AL]	0.05
	Orange Juice	288	0			0.002 - 0.003	0.02 [AL]	0.05
	Pears	108	0			0.002 ^	0.03 [AL]	0.05
	Spinach, Canned	287	0			0.002 - 0.003	0.05 [AL]	0.05
	Strawberries, Fresh	313	0			0.002 - 0.003	NT	-
	Strawberries, Frozen	43	0			0.002 - 0.003	NT	-
	Sweet Potatoes	54	0			0.002 ^	0.1 [AL]	0.1
	Tomatoes	287	0			0.002 - 0.003	0.05 [AL]	0.1
	W Squash, Fresh	55	0			0.002 ^	0.1 [AL]	-
	W Squash, Frozen	53	0			0.002 ^	0.1 [AL]	-
	Total	**1820**	**1**					-
								-
9	**Anilazine (fungicide)**							-
	Orange Juice	212	0			0.018 - 0.083	NT	-
	Pears	136	0			0.018 ^	NT	-
	Spinach, Canned	215	0			0.018 - 0.083	NT	-
	Strawberries, Fresh	229	7	3.1	0.16 - 0.81	0.018 - 0.083	10	-
	Strawberries, Frozen	40	0			0.083 ^	10	-
	Tomatoes	76	0			0.083 ^	10	10
	Total	**908**	**7**					
10	**Atrazine (herbicide)**							

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Apple Juice	694	0			0.010 - 0.024	NT	-
	Cantaloupe	408	0			0.010 - 0.024	NT	-
	Grape Juice	665	0			0.010 - 0.024	NT	-
	Green Beans, C&F	359	0			0.010 - 0.024	NT	-
	Orange Juice	700	0			0.010 - 0.033	NT	-
	Pears	712	0			0.010 - 0.024	NT	-
	Spinach, Canned	695	0			0.010 - 0.033	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.030	NT	-
	Strawberries, Frozen	47	0			0.010 - 0.020	NT	-
	Sweet Potatoes	357	0			0.010 - 0.024	NT	-
	Tomatoes	717	0			0.010 - 0.033	NT	-
	W Squash, Fresh	530	0			0.010 - 0.024	NT	-
	W Squash, Frozen	149	0			0.010 - 0.024	NT	-
	Total	**6643**	**0**					
11	**Azinphos (insecticide)**							
	Apple Juice	176	0			0.006 ^	2.0	-
	Cantaloupe	110	0			0.006 ^	2.0	-
	Grape Juice	151	0			0.006 ^	5.0	-
	Green Beans, C&F	98	0			0.006 ^	2.0	-
	Orange Juice	186	0			0.006 ^	2.0	-
	Pears, Single Serving	91	0			0.006 ^	(N)	-
	Pears	197	0			0.006 ^	2.0	-
	Spinach, Canned	175	0			0.006 ^	2.0	-
	Strawberries, Fresh	163	0			0.006 ^	2.0	-
	Strawberries, Frozen	4	0			0.006 ^	2.0	-
	Sweet Potatoes	96	0			0.006 ^	NT	-
	Tomatoes	197	0			0.006 ^	2.0	-
	W Squash, Fresh	158	0			0.006 ^	NT	-
	W Squash, Frozen	12	0			0.006 ^	NT	-
	Total	**1814**	**0**					
12	**Azinphos methyl (insecticide)**							
	Apple Juice	694	29	4.2	0.010 - 0.071	0.006 - 0.024	2.0	2
	Cantaloupe	408	0			0.006 - 0.024	2.0	0.2
	Grape Juice	665	0			0.006 - 0.024	5.0	1
	Green Beans, C&F	359	1	0.3	0.029 ^	0.006 - 0.024	2.0	0.5
	Orange Juice	700	0			0.006 - 0.025	2.0	1
	Pears, Single Serving	344	123	35.8	0.010 - 0.65	0.006 - 0.024	(N)	(N)
	Pears	712	374	52.5	0.010 - 1.9	0.006 - 0.024	2.0	2
	Spinach, Canned	695	0			0.006 - 0.025	2.0	0.5
	Strawberries, Fresh	610	0			0.006 - 0.025	2.0	1
	Strawberries, Frozen	47	0			0.006 - 0.025	2.0	1
	Sweet Potatoes	357	0			0.006 - 0.024	NT	0.5
	Tomatoes	717	10	1.4	0.013 - 0.089	0.006 - 0.025	2.0	1
	W Squash, Fresh	530	0			0.006 - 0.024	NT	0.5
	W Squash, Frozen	149	0			0.006 - 0.024	NT	0.5
	Total	**6987**	**537**					
13	**Benomyl (fungicide) (analyzed as carbendazim)**							
	Cantaloupe	411	1	0.2	0.083 ^	0.050 ^	1.0	2
	Green Beans, C&F	298	1	0.3	0.083 ^	0.050 ^	2.0	2
	Strawberries, Fresh	585	165	28.2	0.083 - 4.0	0.050 ^	5.0	-
	Strawberries, Frozen	47	12	25.5	0.083 - 1.2	0.050 ^	5.0	-
	Total	**1341**	**179**					
14	**BHC alpha (insecticide)**							
	Apple Juice	108	0			0.003 ^	0.05 [illegible]	-
	Cantaloupe	62	0			0.003 ^	0.05 [illegible]	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	0.05 [illegible]	-
	Orange Juice	108	0			0.003 ^	0.05 [illegible]	-
	Pears	108	0			0.003 ^	0.05 [illegible]	-
	Spinach, Canned	108	0			0.003 ^	0.05 [illegible]	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	0.05 ^L	-
	Tomatoes	107	0			0.003 ^	0.05 ^L	-
	W Squash, Fresh	55	0			0.003 ^	0.05 ^L	-
	W Squash, Frozen	53	0			0.003 ^	0.05 ^L	-
	Total	**1109**	**0**					
15	**BHC beta**							
	Apple Juice	108	0			0.003 ^	0.05 ^L	-
	Cantaloupe	62	0			0.003 ^	0.05 ^L	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	0.05 ^L	-
	Orange Juice	108	0			0.003 ^	0.05 ^L	-
	Pears	108	0			0.003 ^	0.05 ^L	-
	Spinach, Canned	108	1	0.9	0.005 ^	0.003 ^	0.05 ^L	-
	Strawberries, Fresh (V-1)	181	1	0.6	0.005 ^	0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	0.05 ^L	-
	Tomatoes	107	0			0.003 ^	0.05 ^L	-
	W Squash, Fresh	55	0			0.003 ^	0.05 ^L	-
	W Squash, Frozen	53	0			0.003 ^	0.05 ^L	-
	Total	**1109**	**2**					
16	**BHC delta**							
	Apple Juice	108	0			0.003 ^	0.05 ^L	-
	Cantaloupe	62	0			0.003 ^	0.05 ^L	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	0.05 ^L	-
	Orange Juice	108	0			0.003 ^	0.05 ^L	-
	Pears	108	0			0.003 ^	0.05 ^L	-
	Spinach, Canned	108	0			0.003 ^	0.05 ^L	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	0.05 ^L	-
	Tomatoes	107	0			0.003 ^	0.05 ^L	-
	W Squash, Fresh	55	0			0.003 ^	0.05 ^L	-
	W Squash, Frozen	53	0			0.003 ^	0.05 ^L	-
	Total	**1109**	**0**					
17	**Bifenthrin (insecticide)**							
	Apple Juice	99	0			0.003 - 0.050	NT	-
	Cantaloupe	62	0			0.003 - 0.050	1.0 ^R	-
	Grape Juice	99	0			0.003 - 0.050	NT	-
	Green Beans, C&F	45	0			0.003 - 0.010	NT	-
	Orange Juice	219	0			0.003 - 0.050	NT	0.05
	Pears, Single Serving	9	0			0.050 ^	(N)	(N)
	Pears	99	0			0.003 - 0.050	NT	0.5
	Spinach, Canned	203	0			0.003 - 0.050	NT	-
	Strawberries, Fresh	217	24	11.1	0.017 - 0.23	0.003 - 0.050	3.00	1
	Strawberries, Frozen	37	2	5.4	0.042 ^	0.025 - 0.050	3.00	1
	Sweet Potatoes	45	0			0.003 - 0.010	NT	-
	Tomatoes	218	0			0.003 - 0.050	NT	-
	W Squash, Fresh	46	1	2.2	0.083 ^	0.003 - 0.050	0.1 ^R	-
	W Squash, Frozen	53	0			0.003 - 0.010	0.1 ^R	-
	Total	**1451**	**27**					
18	**Captafol (fungicide) (parent of THPI)**							
	Orange Juice	75	0			0.033 ^	0.5	-
	Spinach, Canned	74	0			0.033 ^	NT	-
	Tomatoes	76	0			0.033 ^	15	-
	Total	**225**	**0**					
19	**Captan (fungicide) (parent of THPI)**							
	Apple Juice	694	2	0.3	0.020 - 0.027	0.006 - 0.017	25	25
	Cantaloupe	401	0			0.006 - 0.017	25	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Grape Juice	665	2	0.3	0.010 - 0.073	0.006 - 0.017	50	-
	Green Beans, C&F	351	0			0.006 - 0.017	25	-
	Orange Juice	700	0			0.006 - 0.017	NT	-
	Pears	703	92	13.1	0.010 - 1.6	0.006 - 0.017	25	25
	Spinach, Canned	610	0			0.006 - 0.017	100	-
	Strawberries, Fresh	603	362	60	0.010 - 15	0.006 - 0.017	25	20
	Strawberries, Frozen	47	27	57.4	0.010 - 0.61	0.006 - 0.017	25	20
	Sweet Potatoes	357	0			0.006 - 0.017	NT	-
	Tomatoes	715	2	0.3	0.034 - 0.081	0.006 - 0.017	25	15
	W Squash, Fresh	530	4	0.8	0.020 - 0.13	0.006 - 0.017	25	-
	W Squash, Frozen	149	0			0.006 - 0.017	25	-
	Total	**6525**	**491**					
20	**Carbaryl (insecticide)**							
	Apple Juice	694	229	32.9	0.007 - 0.12	0.004 - 0.025	10.0	5
	Cantaloupe	408	2	0.5	0.010 ^	0.004 - 0.025	10	3
	Grape Juice	665	245	36.8	0.007 - 0.044	0.004 - 0.025	10	5
	Green Beans, C&F	359	23	6.4	0.007 - 0.10	0.004 - 0.025	10	5
	Orange Juice	700	6	0.9	0.010 - 0.017	0.006 - 0.021	10	7
	Pears	712	18	2.5	0.010 - 0.49	0.006 - 0.025	10.0	5
	Spinach, Canned	695	0			0.006 - 0.021	12	10
	Strawberries, Fresh	610	92	15.1	0.010 - 2.8	0.006 - 0.021	10	7
	Strawberries, Frozen	47	17	36.2	0.017 - 1.2	0.006 - 0.010	10	7
	Sweet Potatoes	357	0			0.004 - 0.025	0.2	-
	Tomatoes	717	2	0.3	0.007 - 0.017	0.004 - 0.010	10	5
	W Squash, Fresh	530	1	0.2	0.013 ^	0.004 - 0.025	10	3
	W Squash, Frozen	149	1	0.7	0.013 ^	0.004 - 0.025	10	3
	Total	**6643**	**636**					
21	**Carbofuran (insecticide) (parent of 3-Hydroxycarbofuran)**							
	Apple Juice (V-1)	694	1	0.1	0.010 ^	0.006 - 0.025	NT	-
	Cantaloupe	408	0			0.006 - 0.025	0.2	-
	Grape Juice	650	0			0.006 - 0.025	0.2	-
	Green Beans, C&F	359	0			0.006 - 0.025	NT	-
	Orange Juice	700	0			0.010 - 0.031	NT	-
	Pears	712	0			0.010 - 0.031	NT	0.1
	Spinach, Canned	695	0			0.010 - 0.031	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.031	0.2	0.1
	Strawberries, Frozen	47	0			0.010 - 0.017	0.2	0.1
	Sweet Potatoes	357	0			0.006 - 0.025	NT	-
	Tomatoes	717	0			0.006 - 0.017	NT	0.1
	W Squash, Fresh	530	1	0.2	0.025 ^	0.006 - 0.025	0.6	-
	W Squash, Frozen	149	0			0.006 - 0.025	0.6	-
	Total	**6628**	**2**					
22	**Carbophenothion (insecticide)**							
	Apple Juice	108	0			0.003 ^	NT	-
	Cantaloupe	62	0			0.003 ^	NT	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	NT	-
	Orange Juice	108	0			0.003 ^	NT	-
	Pears, Single Serving	54	0			0.003 ^	(N)	-
	Pears	108	0			0.003 ^	NT	-
	Spinach, Canned	108	0			0.003 ^	NT	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	-
	Tomatoes	107	0			0.003 ^	NT	-
	W Squash, Fresh	55	0			0.003 ^	NT	-
	W Squash, Frozen	53	0			0.003 ^	NT	-
	Total	**1163**	**0**					
23	**Chlordanes Total (insecticide)**							
	W Squash, Fresh	2	2		0.053 - 0.13	0.011 ^	0.1 PL	0.02
	Total	**2**	**2**					

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
24	**Chlordane cis**							
	Apple Juice	108	0			0.001 ^	0.1 [PL]	0.02
	Cantaloupe	62	0			0.001 ^	0.1 [PL]	0.02
	Grape Juice	108	0			0.001 ^	NT	0.02
	Green Beans, C&F	54	0			0.001 ^	0.1 [PL]	0.02
	Orange Juice	108	0			0.001 ^	0.1 [PL]	0.02
	Pears	108	0			0.001 ^	0.1 [PL]	0.02
	Spinach, Canned	108	0			0.001 ^	0.1 [PL]	0.02
	Strawberries, Fresh	181	0			0.001 ^	NT	0.02
	Strawberries, Frozen	3	0			0.001 ^	NT	0.02
	Sweet Potatoes	54	0			0.001 ^	0.1 [PL]	0.02
	Tomatoes	107	0			0.001 ^	0.1 [PL]	0.02
	W Squash, Fresh	55	1	1.8	0.009 ^	0.001 ^	0.1 [PL]	0.02
	W Squash, Frozen	53	4	7.5	0.002 - 0.007	0.001 ^	0.1 [PL]	0.02
	Total	**1109**	**5**					
25	**Chlordane trans**							
	Apple Juice	108	0			0.001 ^	0.1 [PL]	0.02
	Cantaloupe	62	0			0.001 ^	0.1 [PL]	0.02
	Grape Juice	108	0			0.001 ^	NT	0.02
	Green Beans, C&F	54	0			0.001 ^	0.1 [PL]	0.02
	Orange Juice	108	0			0.001 ^	0.1 [PL]	0.02
	Pears	108	0			0.001 ^	0.1 [PL]	0.02
	Spinach, Canned	108	0			0.001 ^	0.1 [PL]	0.02
	Strawberries, Fresh	181	0			0.001 ^	NT	0.02
	Strawberries, Frozen	3	0			0.001 ^	NT	0.02
	Sweet Potatoes	54	0			0.001 ^	0.1 [PL]	0.02
	Tomatoes	107	0			0.001 ^	0.1 [PL]	0.02
	W Squash, Fresh	55	1	1.8	0.006 ^	0.001 ^	0.1 [PL]	0.02
	W Squash, Frozen	53	1	1.9	0.002 ^	0.001 ^	0.1 [PL]	0.02
	Total	**1109**	**2**					
26	**Chlorfenvinphos alpha/beta (insecticide)**							
	Apple Juice	108	0			0.003 ^	NT	-
	Cantaloupe	62	0			0.003 ^	NT	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	NT	-
	Orange Juice	108	0			0.003 ^	NT	1
	Pears, Single Serving	54	0			0.003 ^	(N)	-
	Pears	108	0			0.003 ^	NT	-
	Spinach, Canned	108	0			0.003 ^	NT	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	0.05
	Tomatoes	107	0			0.003 ^	NT	0.1
	W Squash, Fresh	55	0			0.003 ^	NT	-
	W Squash, Frozen	53	0			0.003 ^	NT	-
	Total	**1163**	**0**					
27	**Chlorothalonil (fungicide)**							
	Apple Juice	587	0			0.005 - 0.030	NT	-
	Cantaloupe	364	0			0.005 - 0.030	5	2
	Grape Juice	579	0			0.005 - 0.030	NT	0.5
	Green Beans, C&F	359	0			0.005 - 0.030	5	5
	Orange Juice	664	0			0.004 - 0.008	NT	5
	Pears	667	0			0.004 - 0.008	NT	-
	Spinach, Canned	642	0			0.004 - 0.008	NT	-
	Strawberries, Fresh (V-1)	536	1	0.2	0.027 ^	0.004 - 0.006	NT	-
	Strawberries, Frozen	46	0			0.005 - 0.006	NT	-
	Sweet Potatoes	322	0			0.005 - 0.030	NT	-
	Tomatoes	672	63	9.4	0.008 - 0.57	0.005 - 0.030	5	5
	W Squash, Fresh	502	38	7.6	0.008 - 0.58	0.005 - 0.030	5	5
	W Squash, Frozen	121	0			0.005 - 0.030	5	5
	Total	**6061**	**102**					

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
28 Chlorpropham (herbicide, growth regulator)							
Apple Juice	694	0			0.010 - 0.020	NT	-
Cantaloupe	408	0			0.010 - 0.020	NT	-
Grape Juice	665	0			0.010 - 0.020	NT	-
Green Beans, C&F	359	0			0.010 - 0.020	0.3 '	-
Orange Juice	700	0			0.010 - 0.152	NT	-
Pears	712	0			0.010 - 0.023	NT	-
Spinach, Canned	695	0			0.010 - 0.152	0.3 '	-
Strawberries, Fresh	609	0			0.010 - 0.15	NT	-
Strawberries, Frozen	47	0			0.010 - 0.025	NT	-
Sweet Potatoes (V-1)	357	1	0.3	0.028 ^	0.010 - 0.020	NT	-
Tomatoes (X-1)	717	3	0.4	0.017 - 0.19	0.010 - 0.152	0.1 '	-
W Squash, Fresh (V-1)	530	1	0.2	0.056 ^	0.010 - 0.020	NT	-
W Squash, Frozen	149	0			0.010 - 0.020	NT	-
Total	**6642**	**5**					
29 Chlorpyrifos (insecticide)							
Apple Juice	694	0			0.003 - 0.011	1.5	1
Cantaloupe (V-9)	408	9	2.2	0.005 - 0.020	0.003 - 0.011	NT	-
Grape Juice	665	0			0.003 - 0.014	0.5 ᵏ	1
Green Beans, C&F	359	0			0.003 - 0.011	0.05	0.2
Orange Juice	700	1	0.1	0.007 ^	0.003 - 0.009	1.0	0.3
Pears, Single Serving	344	5	1.5	0.007 - 0.076	0.003 - 0.009	(N)	(N)
Pears	712	16	2.2	0.005 - 0.049	0.003 - 0.009	0.05	0.5
Spinach, Canned (V-4)	695	4	0.6	0.007 - 0.014	0.003 - 0.009	NT	-
Strawberries, Fresh	610	5	0.8	0.005 - 0.007	0.003 - 0.008	0.2	-
Strawberries, Frozen	47	0			0.003 - 0.008	0.2	-
Sweet Potatoes	357	34	9.5	0.005 - 0.023	0.003 - 0.011	0.05	-
Tomatoes	717	97	13.5	0.005 - 0.13	0.003 - 0.011	0.5	0.5
W Squash, Fresh (V-6)	530	6	1.1	0.005 - 0.022	0.003 - 0.011	NT	-
W Squash, Frozen	149	0			0.003 - 0.011	NT	-
Total	**6987**	**177**					
30 Chlorpyrifos methyl (insecticide)							
Apple Juice	108	0			0.003 ^	NT	0.5
Cantaloupe	62	0			0.003 ^	NT	-
Grape Juice	108	0			0.003 ^	NT	0.2
Green Beans, C&F	54	0			0.003 ^	NT	0.1
Orange Juice	108	0			0.003 ^	NT	0.5
Pears, Single Serving	54	0			0.003 ^	(N)	-
Pears	108	0			0.003 ^	NT	-
Spinach, Canned	108	0			0.003 ^	NT	-
Strawberries, Fresh	266	0			0.003 -0.008	NT	-
Strawberries, Frozen	7	0			0.003 -0.008	NT	-
Sweet Potatoes	54	0			0.003 ^	NT	-
Tomatoes	107	0			0.003 ^	NT	0.5
W Squash, Fresh	55	0			0.003 ^	NT	-
W Squash, Frozen	53	0			0.003 ^	NT	-
Total	**1252**	**0**					
31 Coumaphos (insecticide)							
Apple Juice	108	0			0.005 ^	NT	-
Cantaloupe	62	0			0.005 ^	NT	-
Grape Juice	108	0			0.005 ^	NT	-
Green Beans, C&F	54	0			0.005 ^	NT	-
Orange Juice	108	0			0.005 ^	NT	-
Pears, Single Serving	54	0			0.005 ^	(N)	-
Pears	108	0			0.005 ^	NT	-
Spinach, Canned	108	0			0.005 ^	NT	-
Strawberries, Fresh	181	0			0.005 ^	NT	-
Strawberries, Frozen	3	0			0.005 ^	NT	-
Sweet Potatoes	54	0			0.005 ^	NT	-
Tomatoes	107	0			0.005 ^	NT	-
W Squash, Fresh	55	0			0.005 ^	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Frozen	53	0			0.005 ^	NT	-
	Total	**1163**	**0**					
32	**Coumaphos oxygen analog (metabolite of Coumaphos)**							
	Apple Juice	108	0			0.008 ^	NT	-
	Cantaloupe	62	0			0.008 ^	NT	-
	Grape Juice	108	0			0.008 ^	NT	-
	Green Beans, C&F	54	0			0.008 ^	NT	-
	Orange Juice	108	0			0.008 ^	NT	-
	Pears, Single Serving	54	0			0.008 ^	(N)	-
	Pears	108	0			0.008 ^	NT	-
	Spinach, Canned	108	0			0.008 ^	NT	-
	Strawberries, Fresh	181	0			0.008 ^	NT	-
	Strawberries, Frozen	3	0			0.008 ^	NT	-
	Sweet Potatoes	54	0			0.008 ^	NT	-
	Tomatoes	107	0			0.008 ^	NT	-
	W Squash, Fresh	55	0			0.008 ^	NT	-
	W Squash, Frozen	53	0			0.008 ^	NT	-
	Total	**1163**	**0**					
33	**Cyfluthrin (insecticide)**							
	Apple Juice	108	0			0.050 ^	NT	0.5
	Cantaloupe	62	0			0.050 ^	NT	-
	Grape Juice	108	0			0.050 ^	NT	-
	Green Beans, C&F	54	0			0.050 ^	NT	-
	Orange Juice	108	0			0.050 ^	0.2	-
	Pears	108	0			0.050 ^	NT	-
	Spinach, Canned	108	0			0.050 ^	NT	-
	Strawberries, Fresh	181	0			0.050 ^	NT	-
	Strawberries, Frozen	3	0			0.050 ^	NT	-
	Sweet Potatoes	54	0			0.050 ^	NT	-
	Tomatoes	107	1	0.9	0.083 ^	0.050 ^	0.20	0.5
	W Squash, Fresh	55	0			0.050 ^	NT	-
	W Squash, Frozen	53	0			0.050 ^	NT	-
	Total	**1109**	**1**					
34	**Cypermethrin (insecticide)**							
	Apple Juice	108	0			0.025 ^	NT	2
	Cantaloupe	62	0			0.025 ^	NT	-
	Grape Juice	108	0			0.025 ^	NT	-
	Green Beans, C&F	54	0			0.025 ^	NT	0.5
	Orange Juice	425	0			0.025 - 0.050	NT	2
	Pears	244	0			0.025 - 0.043	NT	2
	Spinach, Canned	428	0			0.025 - 0.050	NT	2
	Strawberries, Fresh	447	0			0.025 - 0.050	NT	-
	Strawberries, Frozen	43	0			0.025 - 0.050	NT	-
	Sweet Potatoes	54	0			0.025 ^	NT	0.05
	Tomatoes	287	0			0.025 - 0.050	NT	0.5
	W Squash, Fresh	55	0			0.025 ^	NT	-
	W Squash, Frozen	53	0			0.025 ^	NT	-
	Total	**2368**	**0**					
35	**DCPA (herbicide)**							
	Apple Juice	694	0			0.003 - 0.007	NT	-
	Cantaloupe	408	0			0.003 - 0.007	1	-
	Grape Juice	665	0			0.003 - 0.008	NT	-
	Green Beans, C&F	359	0			0.003 - 0.007	2	-
	Orange Juice	700	0			0.003 - 0.006	NT	-
	Pears	712	0			0.003 - 0.007	NT	-
	Spinach, Canned (V-9)	695	9	1.3	0.005 - 0.008	0.003 - 0.006	NT	-
	Strawberries, Fresh	610	0			0.003 - 0.006	2	-
	Strawberries, Frozen	47	0			0.003 - 0.006	2	-
	Sweet Potatoes	357	0			0.003 - 0.007	2	-
	Tomatoes	717	1	0.1	0.005 ^	0.003 - 0.007	1	-
	W Squash, Fresh	530	0			0.003 - 0.007	1	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Frozen	149	0			0.003 - 0.007	1	-
	Total	**6643**	**10**					
36	**DDD o,p' (metabolite of DDT)**							
	Apple Juice	108	0			0.003 ^	0.1 ^PL	-
	Cantaloupe	62	0			0.003 ^	0.1 ^PL	-
	Grape Juice	108	0			0.003 ^	0.05 ^PL	-
	Green Beans, C&F	54	0			0.003 ^	0.2 ^PL	-
	Orange Juice	108	0			0.003 ^	0.1 ^PL	-
	Pears	108	0			0.003 ^	0.1 ^PL	-
	Spinach, Canned	108	0			0.003 ^	0.5 ^PL	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	1 ^PL	-
	Tomatoes	107	0			0.003 ^	0.05 ^PL	-
	W Squash, Fresh	55	0			0.003 ^	0.1 ^PL	-
	W Squash, Frozen	53	0			0.003 ^	0.1 ^PL	-
	Total	**1109**	**0**					
37	**DDD p,p' (metabolite of DDT)**							
	Apple Juice	284	0			0.003 - 0.008	0.1 ^PL	-
	Cantaloupe	172	0			0.003 - 0.008	0.1 ^PL	-
	Grape Juice	259	0			0.003 - 0.008	0.05 ^PL	-
	Green Beans, C&F	152	0			0.003 - 0.008	0.2 ^PL	-
	Orange Juice	611	0			0.003 - 0.013	0.1 ^PL	-
	Pears	441	0			0.003 - 0.013	0.1 ^PL	-
	Spinach, Canned	603	0			0.003 - 0.013	0.5 ^PL	-
	Strawberries, Fresh	610	0			0.003 - 0.013	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.010	NT	-
	Sweet Potatoes	150	0			0.003 - 0.008	1 ^PL	-
	Tomatoes	484	0			0.003 - 0.010	0.05 ^PL	-
	W Squash, Fresh	213	0			0.003 - 0.008	0.1 ^PL	-
	W Squash, Frozen	65	0			0.003 - 0.008	0.1 ^PL	-
	Total	**4091**	**0**					
38	**DDE o,p' (metabolite of DDT)**							
	Apple Juice	108	0			0.003 ^	0.1 ^PL	-
	Cantaloupe	62	0			0.003 ^	0.1 ^PL	-
	Grape Juice	108	0			0.003 ^	0.05 ^PL	-
	Green Beans, C&F	54	0			0.003 ^	0.2 ^PL	-
	Orange Juice	108	0			0.003 ^	0.1 ^PL	-
	Pears	108	0			0.003 ^	0.1 ^PL	-
	Spinach, Canned	108	0			0.003 ^	0.5 ^PL	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	1 ^PL	-
	Tomatoes	107	0			0.003 ^	0.05 ^PL	-
	W Squash, Fresh	55	1	1.8	0.005 ^	0.003 ^	0.1 ^PL	-
	W Squash, Frozen	53	0			0.003 ^	0.1 ^PL	-
	Total	**1109**	**1**					
39	**DDE p,p' (metabolite of DDT)**							
	Apple Juice	694	0			0.003 - 0.007	0.1 ^PL	-
	Cantaloupe	408	5	1.2	0.005 - 0.012	0.003 - 0.007	0.1 ^PL	-
	Grape Juice	665	0			0.003 - 0.008	0.05 ^PL	-
	Green Beans, C&F	359	0			0.003 - 0.007	0.2 ^PL	-
	Orange Juice	700	0			0.003 - 0.010	0.1 ^PL	-
	Pears	712	1	0.1	0.005 ^	0.003 - 0.007	0.1 ^PL	-
	Spinach, Canned	695	147	21.2	0.005 - 0.030	0.003 - 0.010	0.5 ^PL	-
	Strawberries, Fresh (V-1)	610	1	0.2	0.005 ^	0.003 - 0.010	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.010	NT	-
	Sweet Potatoes	357	0			0.003 - 0.007	1 ^PL	-
	Tomatoes	717	0			0.003 - 0.010	0.05 ^PL	-
	W Squash, Fresh	530	10	1.9	0.005 - 0.030	0.003 - 0.007	0.1 ^PL	-
	W Squash, Frozen	149	6	4.0	0.005 ^	0.003 - 0.007	0.1 ^PL	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Total	**6643**	**170**					
40	**DDT o,p' (insecticide)**							
	Apple Juice	108	0			0.003 ^	0.1 PL	-
	Cantaloupe	62	0			0.003 ^	0.1 PL	-
	Grape Juice	108	0			0.003 ^	0.05 PL	-
	Green Beans, C&F	54	0			0.003 ^	0.2 PL	-
	Orange Juice	245	0			0.001 - 0.003	0.1 PL	-
	Pears	244	0			0.001 - 0.003	0.1 PL	-
	Spinach, Canned	249	0			0.001 - 0.003	0.5 PL	-
	Strawberries, Fresh	315	0			0.001 - 0.003	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	1 PL	-
	Tomatoes	107	0			0.003 ^	0.05 PL	-
	W Squash, Fresh	55	1	1.8	0.005 ^	0.003 ^	0.1 PL	-
	W Squash, Frozen	53	0			0.003 ^	0.1 PL	-
	Total	**1657**	**1**					
41	**DDT p,p'**							
	Apple Juice	284	0			0.003 - 0.008	0.1 PL	-
	Cantaloupe	172	0			0.003 - 0.008	0.1 PL	-
	Grape Juice	259	0			0.003 - 0.008	0.05 PL	-
	Green Beans, C&F	152	0			0.003 - 0.008	0.2 PL	-
	Orange Juice	611	0			0.003 - 0.010	0.1 PL	-
	Pears	441	0			0.003 - 0.008	0.1 PL	-
	Spinach, Canned	603	0			0.003 - 0.010	0.5 PL	-
	Strawberries, Fresh	610	0			0.003 - 0.010	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.010	NT	-
	Sweet Potatoes	150	0			0.003 - 0.008	1 PL	-
	Tomatoes	484	0			0.003 - 0.010	0.05 PL	-
	W Squash, Fresh	213	1	0.5	0.005 ^	0.003 - 0.008	0.1 PL	-
	W Squash, Frozen	65	0			0.003 - 0.008	0.1 PL	-
	Total	**4091**	**1**					
42	**DEF-Tribufos (herbicide)**							
	Apple Juice	108	0			0.002 ^	NT	-
	Cantaloupe	62	0			0.002 ^	NT	-
	Grape Juice	108	0			0.002 ^	NT	-
	Green Beans, C&F	54	0			0.002 ^	NT	-
	Orange Juice	108	0			0.002 ^	NT	-
	Pears, Single Serving	54	0			0.002 ^	(N)	-
	Pears	108	0			0.002 ^	NT	-
	Spinach, Canned (V-1)	108	1	0.9	0.003 ^	0.002 ^	NT	-
	Strawberries, Fresh	181	0			0.002 ^	NT	-
	Strawberries, frozen	3	0			0.002 ^	NT	-
	Sweet Potatoes	54	0			0.002 ^	NT	-
	Tomatoes	107	0			0.002 ^	NT	-
	W Squash, Fresh	55	0			0.002 ^	NT	-
	W Squash, Frozen	53	0			0.002 ^	NT	-
	Total	**1163**	**1**					
43	**Demeton (insecticide)**							
	Orange Juice	137	0			0.010 ^	NT	-
	Pears, Single Serving	66	0			0.010 ^	(N)	-
	Pears	136	0			0.010 ^	NT	-
	Spinach, Canned	141	0			0.010 ^	NT	-
	Strawberries, Fresh	134	0			0.010 ^	NT	-
	Total	**614**	**0**					
44	**Demeton-S (insecticide)**							
	Orange Juice	137	0			0.019 ^	NT	-
	Pears, Single Serving	66	0			0.019 ^	(N)	-
	Pears	136	0			0.019 ^	NT	-
	Spinach, Canned	141	0			0.019 ^	NT	-
	Strawberries, Fresh	134	0			0.019 ^	NT	-
	Total	**614**	**0**					

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
45	**Demeton-S sulfone (metabolite of Demeton-S)**							
	Apple Juice	108	0			0.003 ^	NT	-
	Cantaloupe	62	0			0.003 ^	NT	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	NT	-
	Orange Juice	108	0			0.003 ^	NT	-
	Pears, Single Serving	54	0			0.003 ^	(N)	-
	Pears	108	0			0.003 ^	NT	-
	Spinach, Canned	108	0			0.003 ^	NT	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	-
	Tomatoes (V-1)	108	1	0.9	0.076 ^	0.003 - 0.005	NT	-
	W Squash, Fresh	55	0			0.003 ^	NT	-
	W Squash, Frozen	53	0			0.003 ^	NT	-
	Total	**1164**	**1**					
46	**Diazinon (insecticide)**							
	Apple Juice	694	0			0.002 - 0.011	0.5	2
	Cantaloupe	408	0			0.002 - 0.011	0.75	0.2
	Grape Juice	665	0			0.002 - 0.011	0.75	-
	Green Beans, C&F	359	0			0.002 - 0.011	0.5	0.2
	Orange Juice	700	0			0.002 - 0.014	0.7	-
	Pears, Single Serving	344	2	0.6	0.007 - 0.084	0.002 - 0.014	(N)	(N)
	Pears	712	13	1.8	0.003 - 0.091	0.002 - 0.014	0.5	2
	Spinach, Canned	695	0			0.002 - 0.014	0.7	0.5
	Strawberries, Fresh	610	9	1.5	0.003 - 0.030	0.002 - 0.014	0.5	0.1
	Strawberries, Frozen	47	0			0.002 - 0.010	0.5	0.1
	Sweet Potatoes	357	0			0.002 - 0.011	0.1	-
	Tomatoes	717	8	1.1	0.003 - 0.090	0.002 - 0.011	0.75	0.5
	W Squash, Fresh	530	1	0.2	0.007 ^	0.002 - 0.011	0.75	-
	W Squash, Frozen	149	1	0.7	0.007 ^	0.002 - 0.011	0.75	-
	Total	**6987**	**34**					
47	**Dichlorvos - DDVP (insecticide) (also a metabolite of Naled)**							
	Apple Juice	694	0			0.002 - 0.007	0.5	-
	Cantaloupe	408	0			0.002 - 0.007	0.5	-
	Grape Juice	665	0			0.002 - 0.007	0.5	-
	Green Beans, C&F	359	0			0.002 - 0.007	0.5	-
	Orange Juice	700	0			0.002 - 0.017	3	-
	Pears, Single Serving	344	0			0.002 - 0.010	(N)	-
	Pears	712	0			0.002 - 0.010	0.5	-
	Spinach, Canned	695	0			0.002 - 0.017	3	-
	Strawberries, Fresh	610	15	2.5	0.003 - 0.027	0.002 - 0.017	1	-
	Strawberries, Frozen	47	0			0.002 - 0.017	1	-
	Sweet Potatoes	357	0			0.002 - 0.007	0.5	-
	Tomatoes	717	0			0.002 - 0.017	0.5	-
	W Squash, Fresh	530	0			0.002 - 0.007	0.5	-
	W Squash, Frozen	149	0			0.002 - 0.007	0.5	-
	Total	**6987**	**15**					
48	**Dicloran (fungicide)**							
	Apple Juice	694	0			0.006 - 0.010	NT	-
	Cantaloupe	408	0			0.006 - 0.010	NT	-
	Grape Juice	665	0			0.006 - 0.012	10	10
	Green Beans, C&F	359	0			0.006 - 0.010	20	-
	Orange Juice	700	0			0.001 - 0.009	NT	-
	Pears (V-3)	712	3	0.4	0.010 - 0.047	0.001 - 0.010	NT	-
	Spinach, Canned	695	0			0.001 - 0.009	NT	-
	Strawberries, Fresh	610	0			0.001 - 0.008	NT	10
	Strawberries, Frozen	47	0			0.006 - 0.008	NT	10
	Sweet Potatoes	347	195	56.2	0.010 - 8.7	0.006 - 0.010	10	-
	Tomatoes	717	7	0.9	0.031 - 0.62	0.006 - 0.009	5	0.5
	W Squash, Fresh	530	0			0.006 - 0.010	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Frozen	149	0			0.006 - 0.010	NT	-
	Total	**6633**	**205**					
49	**Dicofol o,p' (insecticide)**							
	Apple Juice	108	0			0.006 ^	5	5
	Cantaloupe	62	0			0.006 ^	5	0.2
	Grape Juice	108	0			0.006 ^	5	5
	Green Beans, C&F	54	0			0.006 ^	5	2
	Orange Juice	108	0			0.006 ^	10	5
	Pears	108	2	1.9	0.010 - 0.034	0.006 ^	5	5
	Spinach, Canned	108	0			0.006 ^	NT	5
	Strawberries, Fresh	181	4	2.2	0.050 - 0.40	0.006 ^	5	5
	Strawberries, Frozen	3	0			0.006 ^	5	5
	Sweet Potatoes	54	0			0.006 ^	NT	5
	Tomatoes	107	0			0.006 ^	5	1
	W Squash, Fresh	55	0			0.006 ^	5	-
	W Squash, Frozen	53	0			0.006 ^	5	-
	Total	**1109**	**6**					
50	**Dicofol p,p'**							
	Apple Juice	694	0			0.006 - 0.018	5	5
	Cantaloupe	408	37	9.1	0.010 - 0.060	0.006 - 0.018	5	0.2
	Grape Juice	665	0			0.006 - 0.029	5	5
	Green Beans, C&F	359	1	0.3	0.049 ^	0.006 - 0.029	5	2
	Orange Juice	700	0			0.006 - 0.033	10	5
	Pears	712	8	1.1	0.010 - 1.0	0.006 - 0.029	5	5
	Spinach, Canned	695	0			0.006 - 0.033	NT	-
	Strawberries, Fresh	610	12	1.9	0.010 - 5.4	0.006 - 0.033	5	5
	Strawberries, Frozen	47	5	10.6	0.010 - 0.16	0.006 - 0.033	5	5
	Sweet Potatoes	357	0			0.006 - 0.029	NT	5
	Tomatoes	717	14	1.9	0.010 - 0.12	0.006 - 0.033	5	1
	W Squash, Fresh	530	3	0.6	0.010 - 0.017	0.006 - 0.029	5	-
	W Squash, Frozen	149	0			0.006 - 0.018	5	-
	Total	**6643**	**80**					
51	**Dieldrin (insecticide) (also a metabolite of Aldrin)**							
	Apple Juice	476	0			0.002 - 0.018	0.03 [illegible]	0.05
	Cantaloupe	378	33	8.7	0.003 - 0.095	0.002 - 0.018	0.1 [illegible]	-
	Grape Juice	500	0			0.002 - 0.018	NT	-
	Green Beans, C&F	219	0			0.002 - 0.018	0.05 [illegible]	0.05
	Orange Juice	499	0			0.002 - 0.005	0.02 [illegible]	0.05
	Pears	503	0			0.002 - 0.018	0.03 [illegible]	0.05
	Spinach, Canned	505	0			0.002 - 0.005	0.05 [illegible]	0.05
	Strawberries, Fresh	459	0			0.002 - 0.003	NT	-
	Strawberries, Frozen	43	0			0.002 - 0.003	NT	-
	Sweet Potatoes	221	2	0.9	0.004 - 0.036	0.002 - 0.018	0.1 [illegible]	0.1
	Tomatoes	525	0			0.002 - 0.008	0.05 [illegible]	0.1
	W Squash, Fresh (X-1)	464	48	10.3	0.004 - 0.55	0.002 - 0.018	0.1 [illegible]	-
	W Squash, Frozen	148	114	77.0	0.003 - 0.099	0.002 - 0.018	0.1 [illegible]	-
	Total	**4940**	**197**					
52	**Dimethoate (insecticide) (parent of Omethoate)**							
	Apple Juice	694	117	16.9	0.003 - 0.070	0.002 - 0.009	2	1
	Cantaloupe	408	0			0.002 - 0.009	1	-
	Grape Juice	665	4	0.6	0.003 - 0.005	0.002 - 0.009	1	1
	Green Beans, C&F	359	5	1.4	0.003 - 0.012	0.002 - 0.009	2	-
	Orange Juice	700	0			0.002 - 0.010	2	2
	Pears, Single Serving	344	0			0.002 - 0.009	(N)	(N)
	Pears	712	2	0.3	0.005 - 0.025	0.002 - 0.009	2	1
	Spinach, Canned	695	0			0.002 - 0.010	2	1
	Strawberries, Fresh	610	0			0.002 - 0.010	NT	1
	Strawberries, Frozen	47	0			0.002 - 0.010	NT	1
	Sweet Potatoes	357	0			0.002 - 0.009	NT	-
	Tomatoes	717	3	0.4	0.003 ^	0.002 - 0.010	2	1
	W Squash, Fresh	530	0			0.002 - 0.009	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Frozen	149	0			0.002 - 0.009	NT	-
	Total	**6987**	**131**					
53	**Dinocap (fungicide)**							
	Orange Juice	137	0			0.039 ^	NT	-
	Pears	136	0			0.039 ^	NT	-
	Spinach, Canned	141	0			0.039 ^	NT	-
	Strawberries, Fresh	134	0			0.039 ^	NT	-
	Total	**548**	**0**					
54	**Diphenamid (herbicide)**							
	Apple Juice	150	0			0.018 ^	0.1	-
	Cantaloupe	98	0			0.018 ^	NT	-
	Grape Juice	165	0			0.018 ^	NT	-
	Green Beans, C&F	59	0			0.018 ^	NT	-
	Orange Juice	165	0			0.17 ^	NT	-
	Pears	150	0			0.018 ^	NT	-
	Spinach, Canned	164	0			0.17 ^	NT	-
	Strawberries, Fresh	47	0			0.17 ^	1	-
	Strawberries, Frozen	36	0			0.17 ^	1	-
	Sweet Potatoes	60	0			0.018 ^	0.1	-
	Tomatoes	165	0			0.17 ^	0.1	-
	W Squash, Fresh	163	0			0.018 ^	NT	-
	W Squash, Frozen	2	0			0.018 ^	NT	-
	Total	**1424**	**0**					
55	**Diphenylamine (fungicide)**							
	Apple Juice	694	49	7.1	0.013 - 0.066	0.008 - 0.030	10	5
	Cantaloupe (V-8)	408	8	1.9	0.013 - 0.050	0.008 - 0.030	NT	-
	Grape Juice	664	0			0.008 - 0.030	NT	-
	Green Beans, C&F	359	0			0.008 - 0.030	NT	-
	Orange Juice (V-1)	700	1	0.1	0.050 ^	0.008 - 0.17	NT	-
	Pears (V-130)	712	130	18.3	0.013 - 3.0	0.008 - 0.030	NT	-
	Spinach, Canned	695	0			0.008 - 0.17	NT	-
	Strawberries, Fresh (V-1)	610	1	0.2	0.025 ^	0.008 - 0.17	NT	-
	Strawberries, Frozen	47	0			0.010 - 0.17	NT	-
	Sweet Potatoes (V-4)	357	4	1.1	0.017 - 0.025	0.008 - 0.030	NT	-
	Tomatoes	715	0			0.008 - 0.17	NT	-
	W Squash, Fresh (V-6)	530	6	1.1	0.013 - 0.050	0.008 - 0.030	NT	-
	W Squash, Frozen (V-1)	149	1	0.7	0.013 ^	0.008 - 0.030	NT	-
	Total	**6640**	**200**					
56	**Disulfoton (insecticide)**							
	Apple Juice	694	0			0.003 - 0.010	NT	-
	Cantaloupe	408	0			0.003 - 0.010	NT	-
	Grape Juice	665	0			0.003 - 0.010	NT	-
	Green Beans, C&F	359	0			0.003 - 0.010	0.75	0.5
	Orange Juice	700	0			0.003 - 0.010	NT	-
	Pears, Single Serving	344	0			0.003 - 0.010	(N)	-
	Pears	712	0			0.003 - 0.010	NT	-
	Spinach, Canned	695	0			0.003 - 0.010	0.75	0.5
	Strawberries, Fresh	610	0			0.003 - 0.010	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.008	NT	-
	Sweet Potatoes	357	0			0.003 - 0.010	NT	0.5
	Tomatoes	717	0			0.003 - 0.010	0.75	0.5
	W Squash, Fresh	530	0			0.003 - 0.010	NT	0.5
	W Squash, Frozen	149	0			0.003 - 0.010	NT	0.5
	Total	**6987**	**0**					
57	**Disulfoton sulfone (metabolite of Disulfoton)**							
	Apple Juice	686	0			0.004 - 0.010	NT	-
	Cantaloupe	408	0			0.004 - 0.010	NT	-
	Grape Juice	642	0			0.004 - 0.010	NT	-
	Green Beans, C&F	351	0			0.004 - 0.010	0.75	0.5
	Orange Juice	677	0			0.004 - 0.010	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Pears, Single Serving	344	0			0.004 - 0.010	(N)	-
	Pears	674	0			0.004 - 0.010	NT	-
	Spinach, Canned	671	0			0.004 - 0.010	0.75	0.5
	Strawberries, Fresh	610	0			0.004 - 0.015	NT	-
	Strawberries, Frozen	47	0			0.004 - 0.008	NT	-
	Sweet Potatoes	349	0			0.004 - 0.010	NT	0.5
	Tomatoes	694	1	0.1	0.016 ^	0.004 - 0.010	0.75	0.5
	W Squash, Fresh	522	0			0.004 - 0.010	NT	0.5
	W Squash, Frozen	149	0			0.004 - 0.010	NT	0.5
	Total	**6824**	**1**					
58	**Diuron (herbicide)**							
	Apple Juice	108	0			0.030 ^	1	-
	Cantaloupe	62	0			0.030 ^	NT	-
	Grape Juice	108	0			0.030 ^	1	-
	Green Beans, C&F	54	0			0.030 ^	NT	-
	Orange Juice	108	0			0.030 ^	1	-
	Pears	108	0			0.030 ^	1	-
	Spinach, Canned	108	0			0.030 ^	NT	-
	Strawberries, Fresh	181	0			0.030 ^	NT	-
	Strawberries, Frozen	3	0			0.030 ^	NT	-
	Sweet Potatoes	54	0			0.030 ^	NT	-
	Tomatoes	107	0			0.030 ^	NT	-
	W Squash, Fresh	55	0			0.030 ^	NT	-
	W Squash, Frozen	53	0			0.030 ^	NT	-
	Total	**1109**	**0**					
59	**Endosulfan I (insecticide)**							
	Apple Juice	694	0			0.002 - 0.007	2.0	1
	Cantaloupe	408	0			0.002 - 0.007	2.0	2
	Grape Juice	665	0			0.002 - 0.008	2.0	2
	Green Beans, C&F	359	0			0.002 - 0.007	2.0	0.5
	Orange Juice	700	0			0.002 - 0.005	NT	2
	Pears	712	4	0.6	0.003 - 0.022	0.002 - 0.007	2.0	1
	Spinach, Canned	695	0			0.002 - 0.005	2.0	2
	Strawberries, Fresh	610	25	4.1	0.003 - 0.19	0.002 - 0.005	2.0	2
	Strawberries, Frozen	47	3	6.4	0.008 ^	0.002 - 0.005	2.0	2
	Sweet Potatoes	357	2	0.6	0.003 - 0.007	0.002 - 0.007	0.2	0.2
	Tomatoes	717	121	16.9	0.003 - 0.41	0.002 - 0.006	2.0	2
	W Squash, Fresh	530	32	6.0	0.003 - 0.033	0.002 - 0.007	2.0	2
	W Squash, Frozen	149	3	2.0	0.008 - 0.020	0.002 - 0.007	2.0	2
	Total	**6643**	**190**					
60	**Endosulfan II**							
	Apple Juice	694	0			0.003 - 0.007	2.0	1
	Cantaloupe	408	0			0.003 - 0.007	2.0	2
	Grape Juice	665	0			0.003 - 0.011	2.0	2
	Green Beans, C&F	359	0			0.003 - 0.007	2.0	0.5
	Orange Juice	700	0			0.002 - 0.008	NT	2
	Pears	712	13	1.8	0.003 - 0.042	0.002 - 0.007	2.0	1
	Spinach, Canned	695	0			0.002 - 0.008	2.0	2
	Strawberries, Fresh	610	36	5.9	0.003 - 0.27	0.002 - 0.008	2.0	2
	Strawberries, Frozen	47	4	8.5	0.013 ^	0.003 - 0.008	2.0	2
	Sweet Potatoes	357	1	0.3	0.007 ^	0.003 - 0.007	0.2	0.2
	Tomatoes	717	148	20.6	0.005 - 0.38	0.003 - 0.008	2.0	2
	W Squash, Fresh	530	10	1.9	0.005 - 0.027	0.003 - 0.007	2.0	2
	W Squash, Frozen	149	0			0.003 - 0.007	2.0	2
	Total	**6643**	**212**					
61	**Endosulfan sulfate (metabolite of Endosulfan)**							
	Apple Juice	694	0			0.003 - 0.010	2.0	1
	Cantaloupe	408	40	9.8	0.005 - 0.047	0.003 - 0.010	2.0	2
	Grape Juice	665	0			0.003 - 0.015	2.0	2
	Green Beans, C&F	359	0			0.003 - 0.010	2.0	0.5
	Orange Juice	700	0			0.003 - 0.008	NT	2

Pesticide		Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Pears	712	17	2.4	0.005 - 0.076	0.003 - 0.007	2.0	1
	Spinach, Canned	695	6	0.9	0.012 - 0.022	0.003 - 0.008	2.0	2
	Strawberries, Fresh	610	45	7.4	0.005 - 0.088	0.003 - 0.008	2.0	2
	Strawberries, Frozen	47	3	6.4	0.013 - 0.045	0.003 - 0.008	2.0	2
	Sweet Potatoes	357	4	1.1	0.005 - 0.008	0.003 - 0.010	0.2	0.2
	Tomatoes	717	118	16.5	0.005 - 0.089	0.003 - 0.010	2.0	2
	W Squash, Fresh	530	110	20.8	0.005 - 0.048	0.003 - 0.010	2.0	2
	W Squash, Frozen	149	7	4.7	0.005 - 0.060	0.003 - 0.010	2.0	2
	Total	**6643**	**350**					
62	**Endrin (insecticide)**							
	Orange Juice	165	0			0.003 ^	NT	-
	Spinach, Canned	164	0			0.003 ^	NT	-
	Strawberries, Fresh	132	0			0.003 ^	NT	-
	Strawberries, Frozen	40	0			0.003 ^	NT	-
	Tomatoes	165	0			0.003 ^	NT	0.05
	Total	**666**	**0**					
63	**Esfenvalerate (insecticide) (isomer of Fenvalerate)**							
	Apple Juice	555	0			0.020 - 0.098	2.0	-
	Cantaloupe	324	0			0.020 - 0.098	1.0	-
	Grape Juice	528	0			0.020 - 0.098	NT	-
	Green Beans, C&F	289	0			0.020 - 0.098	2.0	-
	Orange Juice	383	0			0.020 - 0.098	NT	-
	Pears, Single Serving	9	0			0.09^	(N)	-
	Pears	576	2	0.3	0.033 - 0.050	0.020 - 0.098	2.0	-
	Spinach, Canned (V-1)	375	1	0.3	0.050 ^	0.020 - 0.098	NT	-
	Strawberries, Fresh (V-1)	344	1	0.3	0.033 ^	0.020 - 0.038	NT	-
	Strawberries, Frozen	7	0			0.020 - 0.038	NT	-
	Sweet Potatoes	287	0			0.020 - 0.098	NT	-
	Tomatoes	395	0			0.020 - 0.098	1.0	-
	W Squash, Fresh	457	1	0.2	0.035 ^	0.020 - 0.098	1.0	-
	W Squash, Frozen	92	0			0.020 - 0.098	1.0	-
	Total	**4621**	**5**					
64	**Ethalfluralin (herbicide)**							
	Apple Juice	108	0			0.050 ^	NT	-
	Cantaloupe	62	0			0.050 ^	0.05	-
	Grape Juice	108	0			0.050 ^	NT	-
	Green Beans, C&F	54	0			0.050 ^	NT	-
	Orange Juice	108	0			0.050 ^	NT	-
	Pears	108	0			0.050 ^	NT	-
	Spinach, Canned	108	0			0.050 ^	NT	-
	Strawberries, Fresh	181	0			0.050 ^	NT	-
	Strawberries, Frozen	3	0			0.050 ^	NT	-
	Sweet Potatoes	54	0			0.050 ^	NT	-
	Tomatoes	107	0			0.050 ^	NT	-
	W Squash, Fresh	55	0			0.050 ^	0.05	-
	W Squash, Frozen	53	0			0.050 ^	0.05	-
	Total	**1109**	**0**					

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
65	**Ethion (insecticide)**							
	Apple Juice	694	1	0.1	0.005 ^	0.001 - 0.006	2.0	-
	Cantaloupe	408	0			0.001 - 0.006	2.0	-
	Grape Juice	665	0			0.001 - 0.006	2.0	-
	Green Beans, C&F	359	0			0.001 - 0.006	2.0	5
	Orange Juice	700	70	10.0	0.002 - 0.003	0.001 - 0.010	2.0	-
	Pears, Single Serving	344	0			0.001 - 0.006	(N)	-
	Pears	712	0			0.001 - 0.006	2.0	-
	Spinach, Canned	695	0			0.001 - 0.010	NT	-
	Strawberries, Fresh	610	0			0.001 - 0.010	2.0	-
	Strawberries, Frozen	47	1	2.1	0.017 ^	0.001 - 0.010	2.0	-
	Sweet Potatoes (V-2)	357	2	0.6	0.005 ^	0.001 - 0.006	NT	-
	Tomatoes	717	3	0.4	0.005 - 0.012	0.001 - 0.010	2.0	-
	W Squash, Fresh (V-2)	530	2	0.4	0.005 ^	0.001 - 0.006	NT	-
	W Squash, Frozen (V-3)	149	3	2.0	0.005 - 0.014	0.001 - 0.006	NT	-
	Total	**6987**	**82**					
66	**Ethoprop (insecticide)**							
	Orange Juice	137	0			0.015 ^	NT	-
	Pears, Single Serving	66	0			0.015 ^	(N)	-
	Pears	136	0			0.015 ^	NT	-
	Spinach, Canned	141	0			0.015 ^	NT	-
	Strawberries, Fresh	134	0			0.015 ^	NT	0.02
	Total	**614**	**0**					
67	**Fenamiphos (insecticide)**							
	Apple Juice	694	0			0.002 - 0.009	0.25	-
	Cantaloupe	408	0			0.002 - 0.009	NT	0.05
	Grape Juice	665	0			0.002 - 0.009	0.10	0.1
	Green Beans, C&F	359	0			0.002 - 0.009	NT	-
	Orange Juice	700	0			0.002 - 0.012	0.60	0.5
	Pears, Single Serving	344	0			0.002 - 0.012	(N)	-
	Pears	712	0			0.002 - 0.012	NT	-
	Spinach, Canned	695	0			0.002 - 0.012	NT	-
	Strawberries, Fresh	610	0			0.002 - 0.012	0.6	-
	Strawberries, Frozen	47	0			0.002 - 0.008	0.6	-
	Sweet Potatoes	357	0			0.002 - 0.009	NT	0.1
	Tomatoes	717	0			0.002 - 0.009	NT	0.2
	W Squash, Fresh	530	0			0.002 - 0.009	NT	-
	W Squash, Frozen	149	0			0.002 - 0.009	NT	-
	Total	**6987**	**0**					
68	**Fenamiphos sulfone (metabolite of Fenamiphos)**							
	Apple Juice	694	0			0.005 - 0.036	0.25	-
	Cantaloupe	408	0			0.005 - 0.036	NT	0.05
	Grape Juice	650	0			0.005 - 0.036	0.10	0.1
	Green Beans, C&F	359	0			0.005 - 0.036	NT	-
	Orange Juice	700	0			0.005 - 0.020	0.60	0.5
	Pears, Single Serving	344	0			0.005 - 0.036	(N)	-
	Pears	682	0			0.005 - 0.036	NT	-
	Spinach, Canned	695	0			0.005 - 0.020	NT	-
	Strawberries, Fresh	610	0			0.005 - 0.020	0.6	-
	Strawberries, Frozen	47	0			0.005 - 0.020	0.6	-
	Sweet Potatoes	357	0			0.005 - 0.036	NT	0.1
	Tomatoes	717	0			0.005 - 0.020	NT	0.2
	W Squash, Fresh	530	0			0.005 - 0.036	NT	-
	W Squash, Frozen	149	0			0.005 - 0.036	NT	-
	Total	**6942**	**0**					
69	**Fenamiphos sulfoxide (metabolite of Fenamiphos)**							
	Apple Juice	368	0			0.005 - 0.036	0.25	-
	Cantaloupe	200	0			0.005 - 0.022	NT	0.05
	Grape Juice	349	0			0.005 - 0.036	0.10	0.1
	Green Beans, C&F	187	0			0.005 - 0.036	NT	-
	Orange Juice	334	0			0.005 - 0.022	0.60	0.5
	Pears, Single Serving	155	0			0.005 - 0.022	(N)	-

Pesticide		Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Pears	365	0			0.005 - 0.036	NT	-
	Spinach, Canned	341	0			0.005 - 0.022	NT	-
	Strawberries, Fresh	315	0			0.005 - 0.014	0.6	-
	Strawberries, Frozen	3	0			0.005 ^	0.6	-
	Sweet Potatoes	186	0			0.005 - 0.036	NT	0.1
	Tomatoes	340	0			0.005 - 0.022	NT	0.2
	W Squash, Fresh	209	0			0.005 - 0.036	NT	-
	W Squash, Frozen	135	0			0.005 - 0.022	NT	-
	Total	**3487**	**0**					
70	**Fenbutatin oxide (insecticide) (parent of SD-31723 & SD-33608)**							
	Pears	544	34	6.3	0.010 - 0.66	0.006 ^	15.0	5
	Total	**544**	**34**					
71	**Fenitrothion (insecticide)**							
	Apple Juice	108	0			0.001 ^	NT	0.5
	Cantaloupe	62	0			0.001 ^	NT	-
	Grape Juice	108	0			0.001 ^	NT	0.5
	Green Beans, C&F	54	0			0.001 ^	NT	-
	Orange Juice	108	0			0.001 ^	NT	2
	Pears, Single Serving	54	0			0.001 ^	(N)	(N)
	Pears	108	0			0.001 ^	NT	0.5
	Spinach, Canned	108	0			0.001 ^	NT	-
	Strawberries, Fresh	181	0			0.001 ^	NT	0.5
	Strawberries, Frozen	3	0			0.001 ^	NT	0.5
	Sweet Potatoes	54	0			0.001 ^	NT	-
	Tomatoes	107	0			0.001 ^	NT	0.5
	W Squash, Fresh	55	0			0.001 ^	NT	-
	W Squash, Frozen	53	0			0.001 ^	NT	-
	Total	**1163**	**0**					
72	**Fenitrothion oxygen analog (metabolite of Fenitrothion)**							
	Apple Juice	108	0			0.002 ^	NT	-
	Cantaloupe	62	0			0.002 ^	NT	-
	Grape Juice	108	0			0.002 ^	NT	-
	Green Beans, C&F	54	0			0.002 ^	NT	-
	Orange Juice	108	0			0.002 ^	NT	-
	Pears, Single Serving	54	0			0.001 ^	(N)	-
	Pears	108	0			0.002 ^	NT	-
	Spinach, Canned	108	0			0.002 ^	NT	-
	Strawberries, Fresh	181	0			0.002 ^	NT	-
	Strawberries, Frozen	3	0			0.002 ^	NT	-
	Sweet Potatoes	54	0			0.002 ^	NT	-
	Tomatoes	107	0			0.002 ^	NT	-
	W Squash, Fresh	55	0			0.002 ^	NT	-
	W Squash, Frozen	53	0			0.002 ^	NT	-
	Total	**1163**	**0**					
73	**Fenpropathrin (insecticide)**							
	Apple Juice	9	0			0.025 ^	NT	5
	Cantaloupe	4	0			0.025 ^	NT	-
	Grape Juice	19	0			0.025 ^	NT	5
	Orange Juice	9	0			0.025 ^	NT	-
	Pears	16	0			0.025 ^	NT	5
	Spinach, Canned	18	0			0.025 ^	NT	-
	Strawberries, Fresh (X-1)	102	31	30.4	0.012 - 2.1	0.007 - 0.026	2.0	-
	Strawberries, Frozen	37	5	13.5	0.042 - 0.53	0.025 ^	2.0	-
	Tomatoes	18	0			0.025 ^	0.6	1
	W Squash, Fresh	18	0			0.025 ^	NT	-
	Total	**250**	**36**					
74	**Fenthion (insecticide)**							
	Apple Juice	108	0			0.003 ^	NT	-
	Cantaloupe	62	0			0.003 ^	NT	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	NT	2

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Orange Juice	108	0			0.003 ^	NT	-
	Pears, Single Serving	54	0			0.003 ^	(N)	-
	Pears	108	0			0.003 ^	NT	-
	Spinach, Canned	108	0			0.003 ^	NT	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	-
	Tomatoes	107	0			0.003 ^	NT	-
	W Squash, Fresh	55	0			0.003 ^	NT	-
	W Squash, Frozen	53	0			0.003 ^	NT	-
	Total	**1163**	**0**					
75	**Fenvalerate (insecticide) (parent of Esfenvalerate)**							
	Apple Juice	694	0			0.030 - 0.33	2.0	2
	Cantaloupe	408	0			0.030 - 0.33	1.0	0.2
	Grape Juice	665	0			0.003 - 0.40	NT	-
	Green Beans, C&F	359	0			0.030 - 0.33	2.0	1
	Orange Juice	700	0			0.003 - 0.092	NT	2
	Pears, Single Serving	9	0			0.003 ^	(N)	(N)
	Pears	712	6	0.8	0.005 - 0.30	0.003 - 0.092	2.0	2
	Spinach, Canned (V-1)	695	1	0.1	0.10 ^	0.003 - 0.092	NT	-
	Strawberries, Fresh	610	0			0.003 - 0.076	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.076	NT	-
	Sweet Potatoes	357	0			0.030 - 0.33	NT	0.05
	Tomatoes	717	5	0.7	0.050 - 0.13	0.003 - 0.33	1.0	1
	W Squash, Fresh	530	0			0.003 - 0.33	1.0	0.5
	W Squash, Frozen	149	0			0.030 - 0.33	1.0	0.5
	Total	**6652**	**12**					
76	**Folpet (fungicide) (parent of THPI)**							
	Apple Juice	619	1	0.2	0.035 ^	0.010 - 0.12	25	-
	Cantaloupe	408	0			0.010 - 0.030	15	-
	Grape Juice	610	1	0.2	0.16 ^	0.010 - 0.12	25	2
	Green Beans, C&F	268	0			0.010 - 0.12	NT	-
	Orange Juice	653	0			0.009 - 0.12	NT	-
	Pears	648	0			0.009 - 0.12	NT	-
	Spinach, Canned	571	0			0.009 - 0.12	NT	-
	Strawberries, Fresh	581	6	1.0	0.050 - 0.33	0.009 - 0.12	25	20
	Strawberries, Frozen	45	0			0.019 - 0.033	25	20
	Sweet Potatoes	284	0			0.010 - 0.12	NT	-
	Tomatoes	655	0			0.010 - 0.12	25	-
	W Squash, Fresh	473	0			0.010 - 0.12	NT	-
	W Squash, Frozen	149	0			0.010 - 0.12	NT	-
	Total	**5964**	**8**					
77	**Fonofos (insecticide)**							
	Apple Juice	631	0			0.002 - 0.018	NT	-
	Cantaloupe	408	0			0.002 - 0.018	NT	-
	Grape Juice	622	0			0.002 - 0.018	NT	-
	Green Beans, C&F	296	0			0.002 - 0.018	0.1	-
	Orange Juice	641	0			0.002 - 0.015	NT	-
	Pears, Single Serving	335	0			0.002 - 0.018	(N)	-
	Pears	627	0			0.002 - 0.018	NT	-
	Spinach, Canned	636	0			0.002 - 0.015	0.1	-
	Strawberries, Fresh	570	0			0.002 - 0.015	0.1	-
	Strawberries, Frozen	45	0			0.002 - 0.010	0.1	-
	Sweet Potatoes	296	0			0.002 - 0.018	0.1	-
	Tomatoes	667	0			0.002 - 0.015	0.1	-
	W Squash, Fresh	484	0			0.002 - 0.018	NT	-
	W Squash, Frozen	149	0			0.002 - 0.018	NT	-
	Total	**6407**	**0**					

Pesticide		Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
78	**Fonofos oxygen analog (metabolite of Fonofos)**							
	Apple Juice	465	0			0.001 - 0.019	NT	-
	Cantaloupe	373	0			0.001 - 0.019	NT	-
	Grape Juice	482	0			0.001 - 0.019	NT	-
	Green Beans, C&F	148	0			0.002 - 0.019	0.1	-
	Orange Juice	425	0			0.001 - 0.019	NT	-
	Pears, Single Serving	335	0			0.001 - 0.019	(N)	-
	Pears	503	0			0.001 - 0.019	NT	-
	Spinach, Canned	441	0			0.001 - 0.019	0.1	-
	Strawberries, Fresh	359	0			0.001 - 0.010	0.1	-
	Strawberries, Frozen	39	0			0.001 - 0.010	0.1	-
	Sweet Potatoes	150	0			0.001 - 0.019	0.1	-
	Tomatoes	412	0			0.001 - 0.019	0.1	-
	W Squash, Fresh	352	0			0.001 - 0.019	NT	-
	W Squash, Frozen	124	0			0.001 - 0.019	NT	-
	Total	**4608**	**0**					
79	**Formetanate (insecticide)**							
	Pears	542	10	1.8	0.083 - 0.15	0.05 ^	3	-
	Total	**542**	**10**					
80	**Heptachlor (insecticide)**							
	Apple Juice	108	0			0.001 ^	0.01 ^L	-
	Cantaloupe	62	0			0.001 ^	0.01 ^L	-
	Grape Juice	108	0			0.001 ^	NT	-
	Green Beans, C&F	54	0			0.001 ^	0.01 ^L	-
	Orange Juice	300	0			0.001 - 0.003	0.01 ^L	0.01
	Pears	129	0			0.001 - 0.003	0.01 ^L	-
	Spinach, Canned	299	0			0.001 - 0.003	0.01 ^L	-
	Strawberries, Fresh	324	0			0.001 - 0.003	NT	-
	Strawberries, Frozen	43	0			0.001 - 0.002	NT	-
	Sweet Potatoes	54	0			0.001 ^	0.01 ^L	-
	Tomatoes	287	0			0.001 - 0.002	0.01 ^L	-
	W Squash, Fresh	55	0			0.001 ^	0.01 ^L	-
	W Squash, Frozen	53	0			0.001 ^	0.01 ^L	-
	Total	**1876**	**0**					
81	**Heptachlor epoxide (metabolite of Heptachlor)**							
	Apple Juice	199	0			0.001 - 0.003	0.01 ^L	-
	Cantaloupe	116	0			0.001 - 0.003	0.01 ^L	-
	Grape Juice	196	0			0.001 - 0.003	NT	-
	Green Beans, C&F	102	0			0.001 - 0.003	0.01 ^L	-
	Orange Juice	389	0			0.001 - 0.003	0.01 ^L	0.01
	Pears	220	0			0.001 - 0.003	0.01 ^L	-
	Spinach, Canned	391	0			0.001 - 0.003	0.01 ^L	-
	Strawberries, Fresh (V-1)	324	1	0.3	0.002 ^	0.001 - 0.003	NT	-
	Strawberries, Frozen	43	0			0.001 - 0.003	NT	-
	Sweet Potatoes	102	0			0.001 - 0.003	0.01 ^L	-
	Tomatoes	378	0			0.001 - 0.003	0.01 ^L	-
	W Squash, Fresh	121	2	1.7	0.002 - 0.005	0.001 - 0.003	0.01 ^L	-
	W Squash, Frozen	78	18	23.1	0.002 - 0.010	0.001 - 0.003	0.01 ^L	-
	Total	**2659**	**21**					
82	**Hexachlorobenzene - HCB (impurity of Quintozene)**							
	Apple Juice	694	0			0.002 - 0.004	NT	-
	Cantaloupe	408	0			0.002 - 0.004	NT	-
	Grape Juice	665	0			0.002 - 0.005	NT	-
	Green Beans, C&F	359	0			0.002 - 0.004	0.1	-
	Orange Juice	685	0			0.001 - 0.004	NT	-
	Pears	712	0			0.001 - 0.004	NT	-
	Spinach, Canned	695	0			0.001 - 0.004	NT	-
	Strawberries, Fresh	610	0			0.001 - 0.015	NT	-
	Strawberries, Frozen	47	0			0.002 - 0.003	NT	-
	Sweet Potatoes	357	0			0.002 - 0.004	NT	-
	Tomatoes	717	0			0.002 - 0.004	0.1	-
	W Squash, Fresh	530	0			0.002 - 0.004	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Frozen	149	0			0.002 - 0.004	NT	-
	Total	**6628**	**0**					
83	**Imazalil (fungicide)**							
	Apple Juice (V-2)	659	2	0.3	0.017 ^	0.010 - 0.070	NT	5
	Cantaloupe	408	0			0.010 - 0.070	NT	2
	Grape Juice	630	0			0.010 - 0.070	NT	-
	Green Beans, C&F	359	0			0.010 - 0.070	NT	-
	Orange Juice	700	33	4.7	0.017 - 0.25	0.010 - 0.57	10.0	5
	Pears	712	0			0.010 - 0.055	NT	5
	Spinach, Canned	695	0			0.010 - 0.17	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.60	NT	2
	Strawberries, Frozen	47	0			0.010 - 0.17	NT	2
	Sweet Potatoes	342	0			0.010 - 0.070	NT	-
	Tomatoes	717	0			0.010 - 0.17	NT	-
	W Squash, Fresh	515	0			0.010 - 0.070	NT	-
	W Squash, Frozen	149	0			0.010 - 0.070	NT	-
	Total	**6543**	**35**					
84	**Iprodione (fungicide)**							
	Apple Juice (V-2)	694	2	0.3	0.025 ^	0.008 - 0.031	NT	5
	Cantaloupe	408	0			0.008 - 0.031	NT	-
	Grape Juice	665	10	1.5	0.025 - 0.052	0.008 - 0.031	60.0	10
	Green Beans, C&F	359	4	1.1	0.013 - 0.16	0.008 - 0.031	2.0	2
	Orange Juice	700	0			0.015 - 0.050	NT	5
	Pears (V-8)	712	8	1.1	0.013 - 1.4	0.008 - 0.024	NT	5
	Spinach, Canned	695	0			0.015 - 0.050	NT	-
	Strawberries, Fresh	610	291	47.7	0.025 - 5.5	0.015 - 0.050	15.0	10
	Strawberries, Frozen	47	16	34.0	0.035 - 1.6	0.015 - 0.050	15.0	10
	Sweet Potatoes	357	0			0.008 - 0.031	NT	-
	Tomatoes (V-3)	717	3	0.4	0.025 - 0.13	0.015 - 0.050	NT	5
	W Squash, Fresh	530	0			0.008 - 0.031	NT	-
	W Squash, Frozen	149	0			0.008 - 0.031	NT	-
	Total	**6643**	**334**					
85	**Iprodione metobolite isomer (metabolite of Iprodione)**							
	Strawberries, Fresh	21	21		0.020 - 0.051	0.012 ^	15.0	-
	Total	**21**	**21**					
86	**Lindane - BHC gamma (insecticide)**							
	Apple Juice	694	0			0.002 - 0.006	1	0.5
	Cantaloupe	408	0			0.002 - 0.006	3	-
	Grape Juice	665	0			0.002 - 0.006	1	0.5
	Green Beans, C&F	359	0			0.002 - 0.006	0.5 PE	-
	Orange Juice	700	0			0.002 - 0.004	0.5 PE	-
	Pears	712	0			0.002 - 0.006	1	0.5
	Spinach, Canned	695	0			0.002 - 0.004	1	2
	Strawberries, Fresh	610	0			0.002 - 0.003	1	3
	Strawberries, Frozen	47	0			0.002 - 0.003	1	3
	Sweet Potatoes	357	0			0.002 - 0.006	0.5 PE	-
	Tomatoes	717	0			0.002 - 0.004	3	2
	W Squash, Fresh	530	0			0.002 - 0.006	3	-
	W Squash, Frozen	149	0			0.002 - 0.006	3	-
	Total	**6643**	**0**					
87	**Linuron (herbicide)**							
	Apple Juice	134	0			0.003 - 0.010	NT	-
	Cantaloupe	92	0			0.003 - 0.010	NT	-
	Grape Juice	120	0			0.003 - 0.010	NT	-
	Green Beans, C&F	54	0			0.003 ^	NT	-
	Orange Juice	247	0			0.003 - 0.042	NT	-
	Pears	138	0			0.003 - 0.010	NT	-
	Spinach, Canned	240	0			0.003 - 0.042	NT	-
	Strawberries, Fresh	249	0			0.003 - 0.042	NT	-
	Strawberries, Frozen	41	0			0.003 - 0.042	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	-

Pesticide		Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Tomatoes	256	0			0.003 - 0.042	NT	-
	W Squash, Fresh	78	0			0.003 - 0.010	NT	-
	W Squash, Frozen	55	0			0.003 - 0.010	NT	-
	Total	**1758**	**0**					
88	**Malathion (insecticide)**							
	Apple Juice	694	0			0.002 - 0.018	8	2
	Cantaloupe	408	0			0.002 - 0.018	8	-
	Grape Juice	665	0			0.002 - 0.018	8	8
	Green Beans, C&F	359	0			0.002 - 0.018	8	2
	Orange Juice	700	0			0.002 - 0.018	8	4
	Pears, Single Serving	344	0			0.002 - 0.018	(N)	(N)
	Pears	712	2	0.3	0.012 - 0.015	0.002 - 0.018	8	0.5
	Spinach, Canned	695	0			0.002 - 0.018	8	8
	Strawberries, Fresh	610	86	14.1	0.003 - 0.30	0.002 - 0.009	8	1
	Strawberries, Frozen	47	9	19.1	0.003 - 0.040	0.002 - 0.008	8	1
	Sweet Potatoes	357	0			0.002 - 0.018	1	0.5
	Tomatoes	717	0			0.002 - 0.018	8	3
	W Squash, Fresh	530	0			0.002 - 0.018	8	-
	W Squash, Frozen	149	0			0.002 - 0.018	8	-
	Total	**6987**	**97**					
89	**Malathion oxygen analog (metabolite of Malathion)**							
	Strawberries, Fresh	18	18		0.002 - 0.007	0.001 ^	8	-
	Total	**18**	**18**					
90	**Metalaxyl (fungicide)**							
	Apple Juice	379	0			0.003 - 0.20	0.2	1
	Cantaloupe	244	4	1.6	0.013 - 0.030	0.003 - 0.20	1.0	0.2
	Grape Juice	377	0			0.003 - 0.20	2.0	1
	Green Beans, C&F	165	1	0.6	0.054 ^	0.003 - 0.018	0.2	-
	Orange Juice	228	0			0.003 - 0.20	1.0	5
	Pears, Single Serving	9	0			0.20^	(N)	(N)
	Pears	288	0			0.003 - 0.20	NT	1
	Spinach, Canned	212	3	1.4	0.017 - 0.025	0.003 - 0.20	10.0	2
	Strawberries, Fresh	181	15	8.3	0.010 - 0.33	0.003 - 0.20	10.0	-
	Strawberries, Frozen	3	0			0.003 - 0.20	10.0	-
	Sweet Potatoes	166	0			0.003 - 0.018	0.5	-
	Tomatoes	323	1	0.3	0.005 ^	0.003 - 0.20	1.0	0.5
	W Squash, Fresh	269	10	3.7	0.013 - 0.077	0.003 - 0.20	1.0	0.2
	W Squash, Frozen	104	0			0.003 - 0.018	1.0	0.2
	Total	**2948**	**34**					
91	**Methamidophos (insecticide) (metabolite of Acephate)**							
	Apple Juice (V-24)	694	24	3.5	0.002 - 0.005	0.001 - 0.006	NT	-
	Cantaloupe	408	4	0.9	0.002 - 0.047	0.001 - 0.006	0.5	0.5
	Grape Juice	665	0			0.001 - 0.006	NT	-
	Green Beans, C&F (V-2)	340	165	48.5	0.002 - 0.21	0.001 - 0.006	NT [1]	-
	Orange Juice	700	0			0.001 - 0.017	NT	-
	Pears, Single Serving	344	0			0.001 - 0.010	(N)	-
	Pears	712	0			0.001 - 0.010	NT	-
	Spinach, Canned	695	0			0.001 - 0.017	NT	-
	Strawberries, Fresh (V-2)	610	2	0.3	0.005 - 0.073	0.001 - 0.015	NT	-
	Strawberries, Frozen	47	0			0.001 - 0.015	NT	-
	Sweet Potatoes	357	0			0.001 - 0.006	NT	-
	Tomatoes	717	185	25.8	0.002 - 0.27	0.001 - 0.017	1.0	0.01
	W Squash, Fresh (V-9)	530	9	1.7	0.002 - 0.030	0.001 - 0.006	NT	-
	W Squash, Frozen	149	0			0.001 - 0.006	NT	-
	Total	**6968**	**389**					
92	**Methidathion (insecticide)**							
	Apple Juice	694	0			0.003 - 0.010	0.05	0.5
	Cantaloupe	408	0			0.003 - 0.010	NT	-
	Grape Juice	665	0			0.003 - 0.010	NT	0.2
	Green Beans, C&F	359	0			0.003 - 0.010	NT	-
	Orange Juice	700	5	0.7	0.005 ^	0.003 - 0.008	2.0	2

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Pears, Single Serving	344	0			0.003 - 0.010	(N)	(N)
	Pears	712	3	0.4	0.007 - 0.013	0.003 - 0.010	0.05	0.5
	Spinach, Canned	695	0			0.003 - 0.008	NT	-
	Strawberries, Fresh	610	0			0.003 - 0.008	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.008	NT	-
	Sweet Potatoes	357	0			0.003 - 0.010	NT	-
	Tomatoes	717	0			0.003 - 0.008	NT	0.1
	W Squash, Fresh	530	0			0.003 - 0.010	NT	-
	W Squash, Frozen	149	0			0.003 - 0.010	NT	-
	Total	**6987**	**8**					
93	**Methiocarb (insecticide) (analyzed as sulfoxide)**							
	Apple Juice	176	0			0.016 ^	NT	-
	Cantaloupe	110	0			0.016 ^	NT	-
	Grape Juice	151	0			0.016 ^	NT	-
	Green Beans, C&F	98	0			0.016 ^	NT	-
	Orange Juice	503	0			0.015 - 0.043	0.02	0.05
	Pears	333	0			0.016 - 0.043	NT	-
	Spinach, Canned	495	0			0.015 - 0.043	NT	-
	Strawberries, Fresh	429	0			0.015 - 0.043	NT	-
	Strawberries, Frozen	44	0			0.016 - 0.017	NT	-
	Sweet Potatoes	96	0			0.016 ^	NT	-
	Tomatoes	377	0			0.015 - 0.017	NT	-
	W Squash, Fresh	158	0			0.016 ^	NT	-
	W Squash, Frozen	12	0			0.016 ^	NT	-
	Total	**2982**	**0**					
94	**Methomyl (insecticide)**							
	Apple Juice	694	1	0.1	0.012 ^	0.007 - 0.032	1	2
	Cantaloupe	408	27	6.6	0.012 - 0.12	0.007 - 0.032	0.2	0.2
	Grape Juice	665	0			0.007 - 0.032	5	5
	Green Beans, C&F	359	3	0.8	0.034 - 0.16	0.007 - 0.032	2	2
	Orange Juice	700	1	0.1	0.071 ^	0.008 - 0.032	2	1
	Pears	712	1	0.1	0.066 ^	0.008 - 0.032	4 '`	2
	Spinach, Canned	695	0			0.008 - 0.032	6	5
	Strawberries, Fresh (X-6)	610	164	26.9	0.013 - 4.4	0.008 - 0.017	2	-
	Strawberries, Frozen	47	5	10.6	0.028 - 1.0	0.008 - 0.017	2	-
	Sweet Potatoes	357	0			0.007 - 0.032	0.2	-
	Tomatoes	717	2	0.3	0.012 - 0.013	0.007 - 0.032	1	1
	W Squash, Fresh	530	0			0.007 - 0.032	0.2	-
	W Squash, Frozen	149	0			0.007 - 0.032	0.2	-
	Total	**6643**	**204**					
95	**Methoxychlor Total (insecticide)**							
	Apple Juice	284	0			0.006 - 0.020	14	-
	Cantaloupe	172	0			0.006 - 0.020	14	-
	Grape Juice	259	0			0.006 - 0.020	14	-
	Green Beans, C&F	152	0			0.006 - 0.020	14	-
	Orange Juice	611	0			0.005 - 0.020	NT	-
	Pears	441	2	0.5	0.010 - 0.14	0.006 - 0.020	14	-
	Spinach, Canned	603	0			0.005 - 0.020	14	-
	Strawberries, Fresh	610	0			0.005 - 0.020	14	-
	Strawberries, Frozen	47	0			0.006 - 0.020	14	-
	Sweet Potatoes	150	0			0.006 - 0.020	7	-
	Tomatoes	484	0			0.005 - 0.020	14	-
	W Squash, Fresh	213	0			0.006 - 0.020	14	-
	W Squash, Frozen	65	0			0.006 - 0.020	14	-
	Total	**4091**	**2**					
96	**Methoxychlor p,p'**							
	Apple Juice	410	0			0.009 - 0.026	14	-
	Cantaloupe	236	0			0.009 - 0.026	14	-
	Grape Juice	406	0			0.009 - 0.026	14	-
	Green Beans, C&F	207	0			0.009 - 0.026	14	-
	Orange Juice	89	0			0.023 ^	NT	-
	Pears	271	1	0.4	0.015 ^	0.009 - 0.023	14	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Spinach, Canned	92	0			0.023 ^	14	-
	Sweet Potatoes	207	0			0.009 - 0.026	7	-
	Tomatoes	233	0			0.023 - 0.026	14	-
	W Squash, Fresh	317	0			0.009 - 0.026	14	-
	W Squash, Frozen	84	0			0.009 - 0.026	14	-
	Total	**2552**	**1**					
97	**Mevinphos E/Z or Total (insecticide)**							
	Apple Juice	694	0			0.002 - 0.014	0.5	0.5
	Cantaloupe	408	0			0.002 - 0.014	0.5	0.05
	Grape Juice	665	0			0.002 - 0.014	0.5	0.5
	Green Beans, C&F	359	0			0.002 - 0.014	0.25	0.1
	Orange Juice	700	0			0.002 - 0.017	0.2	0.2
	Pears, Single Serving	344	0			0.002 - 0.014	(N)	(N)
	Pears	712	0			0.002 - 0.014	0.5	0.2
	Spinach, Canned	695	0			0.002 - 0.017	1.0	0.5
	Strawberries, Fresh	610	0			0.002 - 0.017	1.0	1
	Strawberries, Frozen	47	3	6.4	0.028 - 0.15	0.002 - 0.017	1.0	1
	Sweet Potatoes	357	0			0.002 - 0.014	NT	-
	Tomatoes	717	0			0.002 - 0.017	0.2	-
	W Squash, Fresh	530	0			0.002 - 0.014	NT	-
	W Squash, Frozen	149	0			0.002 - 0.014	NT	-
	Total	**6987**	**3**					
98	**Myclobutanil (fungicide)**							
	Apple Juice	658	0			0.008 - 0.045	0.5	0.5
	Cantaloupe	408	0			0.008 - 0.045	0.3 '`	-
	Grape Juice	630	0			0.008 - 0.045	1.0	1
	Green Beans, C&F	359	0			0.008 - 0.045	NT	-
	Orange Juice	700	0			0.015 - 0.083	NT	-
	Pears	712	0			0.008 - 0.057	NT	0.5
	Spinach, Canned	695	0			0.015 - 0.083	NT	-
	Strawberries,Fresh (X-1)	610	123	20.2	0.025 - 0.55	0.015 - 0.083	0.5 '`	-
	Strawberries, Frozen	47	7	14.9	0.025 - 0.14	0.015 - 0.083	0.5 '`	-
	Sweet Potatoes	357	0			0.008 - 0.045	NT	-
	Tomatoes	717	1	0.1	0.16 ^	0.015 - 0.083	0.3 '`[18]	-
	W Squash, Fresh	530	1	0.2	0.013 ^	0.008 - 0.045	0.3 '`	-
	W Squash, Frozen	149	0			0.008 - 0.045	0.3 '`	-
	Total	**6572**	**132**					
99	**Norflurazon (herbicide)**							
	Apple Juice	414	0			0.013 - 0.039	0.1	-
	Cantaloupe	357	0			0.013 - 0.039	NT	-
	Grape Juice	433	0			0.013 - 0.039	0.1	-
	Green Beans, C&F	96	0			0.013 - 0.039	NT	-
	Orange Juice	444	0			0.013 - 0.12	0.2	-
	Pears	441	0			0.013 - 0.12	0.1	-
	Spinach, Canned	454	0			0.013 - 0.12	NT	-
	Strawberries, Fresh	349	0			0.013 - 0.12	NT	-
	Strawberries, Frozen	43	0			0.013 - 0.042	NT	-
	Sweet Potatoes	98	0			0.013 - 0.039	NT	-
	Tomatoes	450	0			0.013 - 0.042	NT	-
	W Squash, Fresh	327	0			0.013 - 0.039	NT	-
	W Squash, Frozen	97	0			0.013 - 0.039	NT	-
	Total	**4003**	**0**					
100	**Norflurazon desmethyl (metabolite of Norflurazon)**							
	Apple Juice	414	0			0.015 - 0.043	0.1	-
	Cantaloupe	357	0			0.015 - 0.043	NT	-
	Grape Juice	433	0			0.015 - 0.043	0.1	-
	Green Beans, C&F	96	0			0.015 - 0.043	NT	-
	Orange Juice	444	0			0.015 - 0.18	0.2	-
	Pears	440	0			0.015 - 0.18	0.1	-
	Spinach, Canned	452	0			0.015 - 0.18	NT	-
	Strawberries, Fresh	349	0			0.013 - 0.18	NT	-
	Strawberries, Frozen	43	0			0.015 - 0.042	NT	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Sweet Potatoes	98	0			0.015 - 0.043	NT	-
	Tomatoes	450	0			0.015 - 0.043	NT	-
	W Squash, Fresh	327	0			0.015 - 0.043	NT	-
	W Squash, Frozen	97	0			0.015 - 0.043	NT	-
	Total	**4000**	**0**					
101	**Omethoate (metabolite of Dimethoate)**							
	Apple Juice	694	31	4.5	0.008 - 0.015	0.004- 0.018	2	1
	Cantaloupe	408	0			0.004- 0.018	1	-
	Grape Juice	665	1	0.2	0.015 ^	0.004- 0.018	1	1
	Green Beans, C&F	359	3	0.8	0.007 - 0.008	0.004- 0.018	2	-
	Orange Juice	700	0			0.004- 0.017	2	2
	Pears, Single Serving	344	0			0.004- 0.018	(N)	(N)
	Pears	712	2	0.3	0.008 - 0.028	0.004- 0.018	2	1
	Spinach, Canned	695	0			0.004- 0.017	2	1
	Strawberries, Fresh	610	0			0.004- 0.017	NT	1
	Strawberries, Frozen	47	0			0.004- 0.017	NT	1
	Sweet Potatoes	357	0			0.004- 0.018	NT	-
	Tomatoes	717	32	4.5	0.007 - 0.036	0.004- 0.017	2	1
	W Squash, Fresh	530	0			0.004- 0.018	NT	-
	W Squash, Frozen	149	0			0.004- 0.018	NT	-
	Total	**6987**	**69**					
102	**Ovex (insecticide)**							
	Orange Juice	137	0			0.006 ^	NT	-
	Pears	136	0			0.006 ^	NT	-
	Spinach, Canned	141	0			0.006 ^	NT	-
	Strawberries, Fresh	134	0			0.006 ^	NT	-
	Total	**548**	**0**					
103	**Oxadixyl (fungicide)**							
	Tomatoes	1	1		0.078 ^	0.002 ^	0.1	-
	Total	**1**	**1**					
104	**Oxamyl (insecticide)**							
	Apple Juice	694	0			0.009 - 0.035	2	2
	Cantaloupe	408	1	0.2	0.015 ^	0.009 - 0.035	2.0	2
	Grape Juice	653	0			0.009 - 0.035	NT	-
	Green Beans, C&F	359	0			0.009 - 0.035	NT	0.2
	Orange Juice	700	0			0.010 - 0.035	3	5
	Pears	712	8	1.1	0.030 - 0.15	0.010 - 0.035	2.0	-
	Spinach, Canned	695	0			0.010 - 0.035	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.020	NT	-
	Strawberries, Frozen	47	0			0.010 - 0.020	NT	-
	Sweet Potatoes	357	0			0.009 - 0.035	0.1	0.1
	Tomatoes	717	4	0.6	0.015 - 0.058	0.009 - 0.035	2	2
	W Squash, Fresh	530	1	0.2	0.90 ^	0.009 - 0.035	2.0	-
	W Squash, Frozen	149	0			0.009 - 0.035	2.0	-
	Total	**6631**	**14**					
105	**Oxychlordane (metabolite of Chlordane)**							
	Apple Juice	108	0			0.002 ^	0.1 [illegible]	0.02
	Cantaloupe	62	0			0.002 ^	0.1 [illegible]	0.02
	Grape Juice	108	0			0.002 ^	NT	0.02
	Green Beans, C&F	54	0			0.002 ^	0.1 [illegible]	0.02
	Orange Juice	108	0			0.002 ^	0.1 [illegible]	0.02
	Pears	108	0			0.002 ^	0.1 [illegible]	0.02
	Spinach, Canned	108	0			0.002 ^	0.1 [illegible]	0.02
	Strawberries, Fresh	181	0			0.002 ^	NT	0.02
	Strawberries, Frozen	3	0			0.002 ^	NT	0.02
	Sweet Potatoes	54	0			0.002 ^	0.1 [illegible]	0.02
	Tomatoes	107	0			0.002 ^	0.1 [illegible]	0.02
	W Squash, Fresh	55	0			0.002 ^	0.1 [illegible]	0.02
	W Squash, Frozen	53	0			0.002 ^	0.1 [illegible]	0.02
	Total	**1109**	**0**					

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
106	**Oxydemeton methyl sulfone (insecticide) (metabolite of Oxydemeton methyl)**							
	Apple Juice	500	0			0.003 - 0.091	1	-
	Cantaloupe	373	0			0.003 - 0.091	0.3	-
	Grape Juice	509	0			0.003 - 0.091	0.1	-
	Green Beans, C&F	175	0			0.003 - 0.091	0.5	-
	Orange Juice	563	0			0.003 - 0.056	1	-
	Pears, Single Serving	344	0			0.003 - 0.091	(N)	-
	Pears	551	0			0.003 - 0.091	0.3	-
	Spinach, Canned	522	0			0.003 - 0.056	NT	-
	Strawberries, Fresh	457	0			0.003 - 0.050	2	-
	Strawberries, Frozen	45	0			0.003 - 0.050	2	-
	Sweet Potatoes	177	0			0.003 - 0.091	NT	-
	Tomatoes	528	0			0.003 - 0.056	NT	-
	W Squash, Fresh	379	0			0.003 - 0.091	0.3	-
	W Squash, Frozen	133	0			0.003 - 0.091	0.3	-
	Total	**5256**	**0**					
107	**Oxyfluorfen (herbicide)**							
	Apple Juice	108	0			0.010 ^	0.05	-
	Cantaloupe	62	0			0.010 ^	NT	-
	Grape Juice	108	0			0.010 ^	0.05	-
	Green Beans, C&F	54	0			0.010 ^	NT	-
	Orange Juice	108	0			0.010 ^	NT	-
	Pears	108	0			0.010 ^	0.05	-
	Spinach, Canned	108	0			0.010 ^	NT	-
	Strawberries, Fresh	181	0			0.010 ^	0.05 ¤	-
	Strawberries, Frozen	3	0			0.010 ^	0.05 ¤	-
	Sweet Potatoes	54	0			0.010 ^	NT	-
	Tomatoes	107	0			0.010 ^	NT	-
	W Squash, Fresh	55	0			0.010 ^	NT	-
	W Squash, Frozen	53	0			0.010 ^	NT	-
	Total	**1109**	**0**					
108	**Parathion (insecticide)**							
	Apple Juice	603	0			0.002 - 0.006	1	-
	Cantaloupe	354	0			0.002 - 0.006	1	-
	Grape Juice	576	1	0.2	0.007 ^	0.002 - 0.006	1	-
	Green Beans, C&F	311	0			0.002 - 0.006	1	-
	Orange Juice	611	0			0.002 - 0.017	1	0.5
	Pears, Single Serving	301	0			0.002 - 0.010	(N)	-
	Pears	621	0			0.002 - 0.010	1	-
	Spinach, Canned (X-1)	603	8	1.3	0.003 - 1.6	0.002 - 0.017	1	-
	Strawberries, Fresh	610	0			0.002 - 0.017	1	-
	Strawberries, Frozen	47	0			0.002 - 0.017	1	-
	Sweet Potatoes	309	0			0.002 - 0.006	0.1	-
	Tomatoes	626	4	0.6	0.011 - 0.012	0.002 - 0.017	1	-
	W Squash, Fresh	464	5	1.1	0.007 ^	0.002 - 0.006	1	-
	W Squash, Frozen	124	2	1.6	0.007 ^	0.002 - 0.006	1	-
	Total	**6160**	**20**					
109	**Parathion methyl (insecticide)**							
	Apple Juice	694	1	0.1	0.005 ^	0.002 - 0.013	1	-
	Cantaloupe	408	0			0.002 - 0.013	1	-
	Grape Juice	665	0			0.002 - 0.013	1	-
	Green Beans, C&F	359	15	4.2	0.005 - 0.078	0.002 - 0.013	1	0.05
	Orange Juice	700	0			0.002 - 0.013	1	-
	Pears, Single Serving	344	58	16.9	0.003 - 0.080	0.002 - 0.013	(N)	-
	Pears	712	76	10.7	0.003 - 0.082	0.002 - 0.013	1	-
	Spinach, Canned	695	0			0.002 - 0.013	1	0.5
	Strawberries, Fresh	610	0			0.002 - 0.008	1	-
	Strawberries, Frozen	47	0			0.002 - 0.008	1	-
	Sweet Potatoes	357	1	0.3	0.010 ^	0.002 - 0.013	0.1	-
	Tomatoes	717	0			0.002 - 0.013	1	-
	W Squash, Fresh	530	0			0.002 - 0.013	1	-
	W Squash, Frozen	149	0			0.002 - 0.013	1	-
	Total	**6987**	**151**					

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
110	**Pentachloroaniline - PCA (metabolite of Quintozene)**							
	Orange Juice	137	0			0.001 ^	NT	-
	Pears	136	0			0.001 ^	NT	-
	Spinach, Canned	141	0			0.001 ^	NT	-
	Strawberries, Fresh	134	0			0.001 ^	NT	-
	Total	**548**	**0**					
111	**Pentachlorobenzene - PCB (metabolite of Quintozene)**							
	Apple Juice	694	0			0.002 - 0.004	NT	-
	Cantaloupe	408	0			0.002 - 0.004	NT	-
	Grape Juice	665	0			0.002 - 0.005	NT	-
	Green Beans, C&F	359	0			0.002 - 0.004	0.1	-
	Orange Juice	685	0			0.002 - 0.003	NT	-
	Pears	712	0			0.002 - 0.003	NT	-
	Spinach, Canned	695	0			0.002 - 0.003	NT	-
	Strawberries, Fresh	610	0			0.002 - 0.003	NT	-
	Strawberries, Frozen	47	0			0.002 - 0.003	NT	-
	Sweet Potatoes	357	0			0.002 - 0.004	NT	-
	Tomatoes	702	0			0.002 - 0.004	0.1	-
	W Squash, Fresh (V-1)	530	1	0.2	0.007 ^	0.002 - 0.004	NT	-
	W Squash, Frozen	149	0			0.002 - 0.004	NT	-
	Total	**6613**	**1**					
112	**Permethrin Total (insecticide)**							
	Orange Juice (V-1)	180	1	0.6	0.13 ^	0.076 ^	NT	0.5
	Spinach, Canned	179	141	78.8	0.13 - 8.5	0.076 ^	20.0	2
	Strawberries, Fresh	132	0			0.075 - 0.076	NT	1
	Strawberries, Frozen	40	0			0.076 ^	NT	1
	Tomatoes	180	14	7.8	0.13 - 0.30	0.076 ^	2	1
	Total	**711**	**156**					
113	**Permethrin cis**							
	Apple Juice	676	0			0.008 - 0.032	0.05	2
	Cantaloupe	408	1	0.2	0.026 ^	0.008 - 0.032	3.0	0.1
	Grape Juice	665	0			0.008 - 0.032	NT	2
	Green Beans, C&F (V-1)	359	1	0.3	0.013 ^	0.008 - 0.032	NT	1
	Orange Juice	520	0			0.008 - 0.030	NT	0.5
	Pears	712	5	0.7	0.013 - 0.12	0.008 - 0.030	3.0	2
	Spinach, Canned	516	417	80.8	0.013 - 4.4	0.008 - 0.030	20.0	2
	Strawberries, Fresh	478	0			0.008 - 0.030	NT	1
	Strawberries, Frozen	7	0			0.008 - 0.030	NT	1
	Sweet Potatoes	357	0			0.008 - 0.032	NT	-
	Tomatoes	537	25	4.7	0.013 - 0.053	0.008 - 0.032	2	1
	W Squash, Fresh	530	2	0.4	0.028 - 0.040	0.008 - 0.032	3.0	0.5
	W Squash, Frozen	149	0			0.008 - 0.032	3.0	0.5
	Total	**5914**	**451**					
114	**Permethrin trans**							
	Apple Juice	676	0			0.005 - 0.032	0.05	2
	Cantaloupe	408	1	0.2	0.017 ^	0.005 - 0.032	3.0	0.1
	Grape Juice	665	0			0.005 - 0.032	NT	2
	Green Beans, C&F (V-1)	359	1	0.3	0.008 ^	0.005 - 0.032	NT	1
	Orange Juice	520	0			0.005 - 0.029	NT	0.5
	Pears	712	7	0.9	0.008 - 0.11	0.005 - 0.029	3.0	2
	Spinach, Canned	516	426	82.6	0.008 - 4.8	0.005 - 0.029	20.0	2
	Strawberries, Fresh	478	0			0.005 - 0.011	NT	1
	Strawberries, Frozen	7	0			0.005 - 0.010	NT	1
	Sweet Potatoes	357	0			0.005 - 0.032	NT	-
	Tomatoes	537	38	7.1	0.008 - 0.13	0.005 - 0.032	2	1
	W Squash, Fresh	530	2	0.4	0.016 - 0.048	0.005 - 0.032	3.0	0.5
	W Squash, Frozen	149	0			0.005 - 0.032	3.0	0.5
	Total	**5914**	**475**					
115	**o-Phenylphenol (fungicide)**							
	Apple Juice	603	10	1.7	0.005 - 0.017	0.003 - 0.015	25	25

Pesticide		Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Cantaloupe	354	29	8.2	0.005 - 0.21	0.003 - 0.015	10	-
	Grape Juice (V-4)	576	4	0.7	0.005 ^	0.003 - 0.015	NT	-
	Green Beans, C&F (V-2)	311	2	0.6	0.005 - 0.017	0.003 - 0.015	NT	-
	Orange Juice	611	5	0.8	0.017 - 0.025	0.010 - 0.050	10	10
	Pears	604	120	19.9	0.013 - 7.0	0.008 - 0.015	25	25
	Spinach, Canned	603	0			0.010 - 0.050	NT	-
	Strawberries, Fresh	610	0			0.010 - 0.020	NT	-
	Strawberries, Frozen	47	0			0.010 - 0.020	NT	-
	Sweet Potatoes	309	1	0.3	0.018 ^	0.003 - 0.015	15	-
	Tomatoes	626	28	4.5	0.005 - 0.29	0.003 - 0.050	10	-
	W Squash, Fresh (V-3)	464	3	0.6	0.005 - 0.30	0.003 - 0.015	NT	-
	W Squash, Frozen	124	0			0.003 - 0.015	NT	-
	Total	**5842**	**202**					
116	**Phorate (insecticide)**							
	Apple Juice	694	0			0.004 - 0.030	NT	-
	Cantaloupe	408	0			0.004 - 0.030	NT	-
	Grape Juice	665	0			0.004 - 0.030	NT	-
	Green Beans, C&F	359	0			0.004 - 0.030	0.1	0.1
	Orange Juice	700	0			0.004 - 0.030	NT	-
	Pears, Single Serving	344	0			0.004 - 0.015	(N)	-
	Pears	712	0			0.004 - 0.030	NT	-
	Spinach, Canned	695	0			0.004 - 0.030	NT	-
	Strawberries, Fresh	610	0			0.004 - 0.030	NT	-
	Strawberries, Frozen	47	0			0.004 - 0.030	NT	-
	Sweet Potatoes	357	0			0.004 - 0.030	NT	-
	Tomatoes	717	0			0.004 - 0.030	0.1	0.1
	W Squash, Fresh	530	0			0.004 - 0.030	NT	-
	W Squash, Frozen	149	0			0.004 - 0.030	NT	-
	Total	**6987**	**0**					
117	**Phorate oxygen analog (metabolite of Phorate)**							
	Apple Juice	108	0			0.003 ^	NT	-
	Cantaloupe	62	0			0.003 ^	NT	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	0.1	0.1
	Orange Juice	108	0			0.003 ^	NT	-
	Pears, Single Serving	54	0			0.003 ^	(N)	-
	Pears	108	0			0.003 ^	NT	-
	Spinach, Canned	108	0			0.003 ^	NT	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	-
	Tomatoes	107	0			0.003 ^	0.1	0.1
	W Squash, Fresh	55	0			0.003 ^	NT	-
	W Squash, Frozen	53	0			0.003 ^	NT	-
	Total	**1163**	**0**					
118	**Phorate oxygen analog sulfone (metabolite of Phorate)**							
	Apple Juice	108	0			0.003 ^	NT	-
	Cantaloupe	62	0			0.003 ^	NT	-
	Grape Juice	108	0			0.003 ^	NT	-
	Green Beans, C&F	54	0			0.003 ^	0.1	0.1
	Orange Juice	108	0			0.003 ^	NT	-
	Pears, Single Serving	54	0			0.003 ^	(N)	-
	Pears	108	0			0.003 ^	NT	-
	Spinach, Canned	108	0			0.003 ^	NT	-
	Strawberries, Fresh	181	0			0.003 ^	NT	-
	Strawberries, Frozen	3	0			0.003 ^	NT	-
	Sweet Potatoes	54	0			0.003 ^	NT	-
	Tomatoes	107	0			0.003 ^	0.1	0.1
	W Squash, Fresh	55	0			0.003 ^	NT	-
	W Squash, Frozen	53	0			0.003 ^	NT	-
	Total	**1163**	**0**					
119	**Phorate sulfone (metabolite of Phorate)**							

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Apple Juice	694	0			0.003 - 0.024	NT	-
	Cantaloupe	408	0			0.003 - 0.024	NT	-
	Grape Juice	650	0			0.003 - 0.024	NT	-
	Green Beans, C&F	359	0			0.003 - 0.024	0.1	0.1
	Orange Juice	700	0			0.003 - 0.027	NT	-
	Pears, Single Serving	344	0			0.003 - 0.024	(N)	-
	Pears	682	0			0.003 - 0.024	NT	-
	Spinach, Canned	695	0			0.003 - 0.027	NT	-
	Strawberries, Fresh	610	0			0.003 - 0.027	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.027	NT	-
	Sweet Potatoes	357	0			0.003 - 0.024	NT	-
	Tomatoes	717	0			0.003 - 0.027	0.1	0.1
	W Squash, Fresh	530	0			0.003 - 0.024	NT	-
	W Squash, Frozen	149	0			0.003 - 0.024	NT	-
	Total	**6942**	**0**					
120	**Phorate sulfoxide (metabolite of Phorate)**							
	Apple Juice	223	0			0.004 - 0.076	NT	-
	Cantaloupe	116	0			0.004 - 0.030	NT	-
	Grape Juice	221	0			0.004 - 0.076	NT	-
	Green Beans, C&F	126	0			0.004 - 0.076	0.1	0.1
	Orange Juice	409	0			0.004 - 0.061	NT	-
	Pears, Single Serving	155	0			0.004 - 0.030	(N)	-
	Pears	335	0			0.004 - 0.030	NT	-
	Spinach, Canned	415	0			0.004 - 0.061	NT	-
	Strawberries, Fresh	315	0			0.004 - 0.010	NT	-
	Strawberries, Frozen	3	0			0.004 ^	NT	-
	Sweet Potatoes	126	0			0.004 - 0.076	NT	-
	Tomatoes	297	0			0.004 - 0.076	0.1	0.1
	W Squash, Fresh	144	0			0.004 - 0.076	NT	-
	W Squash, Frozen	78	0			0.004 - 0.030	NT	-
	Total	**2963**	**0**					
121	**Phosalone (insecticide)**							
	Apple Juice	284	0			0.006 ^	10.0	5
	Cantaloupe	172	0			0.006 ^	NT	-
	Grape Juice	259	0			0.006 ^	10.0	5
	Green Beans, C&F	152	0			0.006 ^	NT	-
	Orange Juice	611	0			0.006 - 0.033	3.0	1
	Pears, Single Serving	211	0			0.006 - 0.011	(N)	-
	Pears	441	0			0.006 - 0.011	10.0	-
	Spinach, Canned	603	0			0.006 - 0.033	NT	-
	Strawberries, Fresh	610	0			0.006 - 0.033	NT	-
	Strawberries, Frozen	47	0			0.006 - 0.033	NT	-
	Sweet Potatoes	150	0			0.006 ^	NT	-
	Tomatoes	484	0			0.006 - 0.033	NT	-
	W Squash, Fresh	213	0			0.006 ^	NT	-
	W Squash, Frozen	65	0			0.006 ^	NT	-
	Total	**4302**	**0**					
122	**Phosmet (insecticide)**							
	Apple Juice	603	4	0.7	0.008 - 0.025	0.005 - 0.024	10	10
	Cantaloupe	354	0			0.005 - 0.024	NT	-
	Grape Juice	576	0			0.005 - 0.024	10	10
	Green Beans, C&F	311	0			0.005 - 0.024	NT	-
	Orange Juice	611	0			0.005 - 0.017	5	5
	Pears, Single Serving	301	117	38.9	0.008 - 0.97	0.005 - 0.024	(N)	(N)
	Pears	621	165	26.6	0.008 - 1.8	0.005 - 0.024	10	10
	Spinach, Canned	603	0			0.005 - 0.017	NT	-
	Strawberries, Fresh	610	0			0.005 - 0.017	NT	-
	Strawberries, Frozen	47	0			0.005 - 0.017	NT	-
	Sweet Potatoes	309	9	2.9	0.025 - 0.16	0.005 - 0.024	10	10
	Tomatoes	626	1	0.2	0.008 ^	0.005 - 0.017	2.0	-
	W Squash, Fresh	464	0			0.005 - 0.024	NT	-
	W Squash, Frozen	124	0			0.005 - 0.024	NT	-
	Total	**6160**	**296**					

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
123 Phosphamidon (insecticide)							
Apple Juice	694	0			0.002 - 0.092	1	0.5
Cantaloupe	408	0			0.002 - 0.092	0.25	-
Grape Juice	665	0			0.002 - 0.23	NT	-
Green Beans, C&F	359	0			0.002 - 0.092	NT	0.2
Orange Juice	700	0			0.002 - 0.033	NT	0.4
Pears, Single Serving	344	0			0.002 - 0.029	(N)	(N)
Pears	712	0			0.002 - 0.030	NT	0.5
Spinach, Canned	695	0			0.002 - 0.033	NT	0.2
Strawberries, Fresh	610	0			0.002 - 0.033	NT	0.2
Strawberries, Frozen	47	0			0.002 - 0.033	NT	0.2
Sweet Potatoes	357	0			0.002 - 0.092	NT	0.05
Tomatoes	717	0			0.002 - 0.092	0.1	0.1
W Squash, Fresh	530	0			0.002 - 0.092	NT	-
W Squash, Frozen	149	0			0.002 - 0.092	NT	-
Total	**6987**	**0**					
124 Piperonyl butoxide (insecticide)							
Apple Juice	108	0			0.040 ^	8	-
Cantaloupe	62	0			0.040 ^	8	-
Grape Juice	108	0			0.040 ^	8	-
Green Beans, C&F	54	0			0.040 ^	8	-
Orange Juice	273	0			0.040 - 0.050	8	-
Pears	108	0			0.040 ^	8	-
Spinach, Canned (V-1)	272	1	0.4	0.099 ^	0.040 - 0.050	NT	-
Strawberries, Fresh (V-6)	228	6	2.6	0.067 - 0.24	0.040 - 0.050	NT	-
Strawberries, Frozen	39	0			0.040 - 0.050	NT	-
Sweet Potatoes	54	5	9.3	0.067 ^	0.040 ^	0.25	-
Tomatoes	272	3	1.1	0.11 - 1.6	0.040 - 0.050	8	-
W Squash, Fresh (V-1)	55	1	1.8	0.067 ^	0.040 ^	NT	-
W Squash, Frozen	53	0			0.040 ^	NT	-
Total	**1686**	**16**					
125 Pirimiphos methyl (insecticide)							
Apple Juice	247	0			0.001 - 0.005	NT	2
Cantaloupe	146	0			0.001 - 0.005	NT	-
Grape Juice	245	0			0.001 - 0.005	NT	-
Green Beans, C&F	124	0			0.001 - 0.005	NT	0.5
Orange Juice	273	0			0.001 - 0.008	NT	2
Pears, Single Serving	54	0			0.001 ^	(N)	(N)
Pears	108	0			0.001 ^	NT	2
Spinach, Canned	272	0			0.001 - 0.008	NT	5
Strawberries, Fresh	269	0			0.001 - 0.008	NT	1
Strawberries, Frozen	43	0			0.001 - 0.008	NT	1
Sweet Potatoes	124	0			0.001 - 0.005	NT	-
Tomatoes	414	0			0.001 - 0.008	NT	1
W Squash, Fresh	128	0			0.001 - 0.005	NT	-
W Squash, Frozen (V-1)	110	1	0.9	0.018 ^	0.001 - 0.005	NT	-
Total	**2557**	**1**					
126 Procymidone (fungicide)							
Orange Juice	75	0			0.010 ^	NT	-
Spinach, Canned	74	0			0.010 ^	NT	-
Strawberries, Fresh	47	0			0.010 ^	NT	10
Strawberries, Frozen	36	0			0.010 ^	NT	10
Tomatoes	76	0			0.010 ^	NT	5
Total	**308**	**0**					
127 Profenofos (insecticide)							
Apple Juice	108	0			0.001 ^	NT	-
Cantaloupe	62	0			0.001 ^	NT	-
Grape Juice	108	0			0.001 ^	NT	-
Green Beans, C&F	54	0			0.001 ^	NT	0.1
Orange Juice	273	0			0.001 - 0.025	NT	1
Pears, Single Serving	54	0			0.001 ^	(N)	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	Pears	108	0			0.001 ^	NT	-
	Spinach, Canned	272	0			0.001 - 0.025	NT	-
	Strawberries, Fresh	269	0			0.001 - 0.025	NT	-
	Strawberries, Frozen	43	0			0.001 - 0.025	NT	-
	Sweet Potatoes	54	0			0.001 ^	NT	-
	Tomatoes	272	0			0.001 - 0.025	NT	2
	W Squash, Fresh	55	0			0.001 ^	NT	-
	W Squash, Frozen	53	0			0.001 ^	NT	-
	Total	**1785**	**0**					
128	**Pronamide (herbicide)**							
	Apple Juice	619	0			0.007 - 0.018	0.1	-
	Cantaloupe	408	0			0.007 - 0.018	NT	-
	Grape Juice	610	0			0.007 - 0.018	0.1	-
	Green Beans, C&F	284	0			0.007 - 0.018	NT	-
	Orange Juice	653	0			0.006 - 0.017	NT	-
	Pears	648	0			0.006 - 0.018	0.1	-
	Spinach, Canned	648	0			0.006 - 0.017	NT	-
	Strawberries, Fresh	581	0			0.006 - 0.017	NT	-
	Strawberries, Frozen	45	0			0.007 - 0.017	NT	-
	Sweet Potatoes	284	0			0.007 - 0.018	NT	-
	Tomatoes	655	0			0.007 - 0.017	NT	-
	W Squash, Fresh	473	0			0.007 - 0.018	NT	-
	W Squash, Frozen	149	0			0.007 - 0.018	NT	-
	Total	**6057**	**0**					
129	**Propargite (insecticide)**							
	Apple Juice	694	0			0.008 - 0.045	3	5
	Cantaloupe	408	0			0.008 - 0.045	NT	-
	Grape Juice	665	0			0.008 - 0.045	10	10
	Green Beans, C&F	359	0			0.008 - 0.045	20	20
	Orange Juice	700	0			0.020 - 0.091	5	5
	Pears	712	4	0.6	0.033 - 0.26	0.008 - 0.045	3	5
	Spinach, Canned	695	0			0.020 - 0.091	NT	-
	Strawberries, Fresh	610	7	1.1	0.033 - 1.0	0.020 - 0.091	7	7
	Strawberries, Frozen	47	0			0.020 - 0.050	7	7
	Sweet Potatoes	357	0			0.008 - 0.045	NT	-
	Tomatoes	717	0			0.020 - 0.091	NT	2
	W Squash, Fresh	530	0			0.008 - 0.045	NT	-
	W Squash, Frozen	149	0			0.008 - 0.045	NT	-
	Total	**6643**	**11**					
130	**Propoxur (insecticide)**							
	Strawberries, Fresh	85	0			0.015 ^	NT	3
	Strawberries, Frozen	4	0			0.015 ^	NT	3
	Total	**89**	**0**					
131	**Quintozene - PCNB (fungicide) (parent of HCB, PCA, and PCB)**							
	Apple Juice	694	0			0.003 - 0.006	NT	-
	Cantaloupe	408	0			0.003 - 0.006	NT	-
	Grape Juice	665	0			0.003 - 0.006	NT	-
	Green Beans, C&F	359	0			0.003 - 0.006	0.1	0.01
	Orange Juice	685	0			0.001 - 0.006	NT	-
	Pears (V-1)	712	1	0.1	0.020 ^	0.001 - 0.006	NT	-
	Spinach, Canned	695	0			0.001 - 0.006	NT	-
	Strawberries, Fresh	610	0			0.001 - 0.003	NT	-
	Strawberries, Frozen	47	0			0.003 ^	NT	-
	Sweet Potatoes	356	0			0.003 - 0.006	NT	-
	Tomatoes	717	0			0.003 - 0.006	0.1	0.1
	W Squash, Fresh	530	0			0.003 - 0.006	NT	-
	W Squash, Frozen	149	0			0.003 - 0.006	NT	-
	Total	**6627**	**1**					
132	**SD-31723 (metabolite of Fenbutatin oxide)**							
	Pears	544	12	2.2	0.012 - 0.067	0.007 ^	15.0	-
	Total	**544**	**12**					

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
133 SD-33608 (metabolite of Fenbutatin oxide)							
Pears	544	4	0.7	0.010 - 0.039	0.006 ^	15.0	-
Total	**544**	**4**					
134 Simazine (herbicide)							
Apple Juice	628	0			0.012 - 0.031	0.25	-
Cantaloupe	408	0			0.012 - 0.031	NT	-
Grape Juice	619	0			0.012 - 0.031	0.25	-
Green Beans, C&F	293	0			0.012 - 0.031	NT	-
Orange Juice	639	0			0.012 - 0.030	0.25	-
Pears	656	0			0.012 - 0.030	0.25	-
Spinach, Canned	633	0			0.012 - 0.030	NT	-
Strawberries, Fresh	572	0			0.012 - 0.030	0.25	-
Strawberries, Frozen	47	0			0.012 - 0.025	0.25	-
Sweet Potatoes	279	0			0.012 - 0.031	NT	-
Tomatoes	664	0			0.012 - 0.031	NT	-
W Squash, Fresh	482	0			0.012 - 0.031	NT	-
W Squash, Frozen	149	0			0.012 - 0.031	NT	-
Total	**6069**	**0**					
135 Sulprofos (insecticide)							
Apple Juice	108	0			0.003 ^	NT	-
Cantaloupe	62	0			0.003 ^	NT	-
Grape Juice	108	0			0.003 ^	NT	-
Green Beans, C&F	54	0			0.003 ^	NT	-
Orange Juice	108	0			0.003 ^	NT	-
Pears, Single Serving	54	0			0.003 ^	(N)	-
Pears	108	0			0.003 ^	NT	-
Spinach, Canned	108	0			0.003 ^	NT	-
Strawberries, Fresh	181	0			0.003 ^	NT	-
Strawberries, Frozen	3	0			0.003 ^	NT	-
Sweet Potatoes	54	0			0.003 ^	NT	-
Tomatoes	107	0			0.003 ^	NT	-
W Squash, Fresh	55	0			0.003 ^	NT	-
W Squash, Frozen	53	0			0.003 ^	NT	-
Total	**1163**	**0**					
136 Tecnazene (fungicide)							
Apple Juice	108	0			0.006 ^	NT	-
Cantaloupe	62	0			0.006 ^	NT	-
Grape Juice	108	0			0.006 ^	NT	-
Green Beans, C&F	54	0			0.006 ^	NT	-
Orange Juice	108	0			0.006 ^	NT	-
Pears	108	0			0.006 ^	NT	-
Spinach, Canned	108	0			0.006 ^	NT	-
Strawberries, Fresh	181	0			0.006 ^	NT	-
Strawberries, Frozen	3	0			0.006 ^	NT	-
Sweet Potatoes	54	0			0.006 ^	NT	-
Tomatoes	107	0			0.006 ^	NT	-
W Squash, Fresh	55	0			0.006 ^	NT	-
W Squash, Frozen	53	0			0.006 ^	NT	-
Total	**1109**	**0**					
137 Terbacil (herbicide)							
Apple Juice	619	0			0.018 - 0.044	0.1	-
Cantaloupe	408	0			0.018 - 0.044	NT	-
Grape Juice	610	0			0.018 - 0.044	NT	-
Green Beans, C&F	284	0			0.018 - 0.044	NT	-
Orange Juice	653	0			0.014 - 0.056	0.1	-
Pears	648	0			0.014 - 0.056	0.1	-
Spinach, Canned	648	0			0.014 - 0.056	NT	-
Strawberries, Fresh	581	0			0.014 - 0.071	0.1	-
Strawberries, Frozen	45	0			0.020 - 0.033	0.1	-
Sweet Potatoes	284	0			0.018 - 0.044	NT	-
Tomatoes	655	0			0.018 - 0.044	NT	-

Pesticide		Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Fresh	473	0			0.018 - 0.044	NT	-
	W Squash, Frozen	149	0			0.018 - 0.044	NT	-
	Total	**6057**	**0**					
138	**Terbufos (insecticide)**							
	Apple Juice	694	0			0.002 - 0.025	NT	-
	Cantaloupe	408	0			0.002 - 0.025	NT	-
	Grape Juice	665	0			0.002 - 0.025	NT	-
	Green Beans, C&F	359	0			0.002 - 0.025	NT	-
	Orange Juice	700	0			0.002 - 0.025	NT	-
	Pears, Single Serving	344	0			0.002 - 0.015	(N)	-
	Pears	712	0			0.002 - 0.025	NT	-
	Spinach, Canned	695	0			0.002 - 0.025	NT	-
	Strawberries, Fresh	610	0			0.002 - 0.025	NT	-
	Strawberries, Frozen	47	0			0.002 - 0.025	NT	-
	Sweet Potatoes	357	0			0.002 - 0.025	NT	-
	Tomatoes	717	0			0.002 - 0.025	NT	-
	W Squash, Fresh	530	0			0.002 - 0.025	NT	-
	W Squash, Frozen	149	0			0.002 - 0.025	NT	-
	Total	**6987**	**0**					
139	**Terbufos sulfone (metabolite of Terbufos)**							
	Apple Juice	694	0			0.003 - 0.048	NT	-
	Cantaloupe	408	0			0.003 - 0.048	NT	-
	Grape Juice	650	0			0.003 - 0.048	NT	-
	Green Beans, C&F	359	0			0.003 - 0.048	NT	-
	Orange Juice	700	0			0.003 - 0.010	NT	-
	Pears, Single Serving	344	0			0.003 - 0.048	NT	-
	Pears	682	0			0.003 - 0.048	NT	-
	Spinach, Canned	695	0			0.003 - 0.010	NT	-
	Strawberries, Fresh	610	0			0.003 - 0.010	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.010	NT	-
	Sweet Potatoes (V-1)	357	1	0.3	0.005 ^	0.003 - 0.048	NT	-
	Tomatoes	717	0			0.003 - 0.010	NT	-
	W Squash, Fresh	530	0			0.003 - 0.048	NT	-
	W Squash, Frozen	149	0			0.003 - 0.048	NT	-
	Total	**6942**	**1**					
140	**Tetrachlorvinphos (insecticide)**							
	Apple Juice	694	0			0.003 - 0.016	10	-
	Cantaloupe	408	0			0.003 - 0.016	NT	-
	Grape Juice	650	0			0.003 - 0.016	NT	-
	Green Beans, C&F	359	0			0.003 - 0.016	NT	-
	Orange Juice	700	0			0.003 - 0.017	NT	-
	Pears, Single Serving	344	0			0.003 - 0.016	(N)	-
	Pears	682	0			0.003 - 0.016	10	-
	Spinach, Canned	695	0			0.003 - 0.17	NT	-
	Strawberries, Fresh	598	0			0.003 - 0.017	NT	-
	Strawberries, Frozen	47	0			0.003 - 0.017	NT	-
	Sweet Potatoes	357	0			0.003 - 0.016	NT	-
	Tomatoes	717	0			0.003 - 0.17	5	-

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
	W Squash, Fresh	530	0			0.003 - 0.016	NT	-
	W Squash, Frozen	149	0			0.003 - 0.016	NT	-
	Total	**6930**	**0**					
141	**Tetradifon (insecticide)**							
	Apple Juice	619	0			0.006 - 0.028	5	-
	Cantaloupe	408	0			0.006 - 0.028	1	-
	Grape Juice	610	0			0.006 - 0.028	5	-
	Green Beans, C&F	284	0			0.006 - 0.028	NT	-
	Orange Juice	653	0			0.006 - 0.019	2	-
	Pears	648	2	0.3	0.022 - 0.032	0.006 - 0.028	5	-
	Spinach, Canned	648	0			0.006 - 0.019	NT	-
	Strawberries, Fresh	581	0			0.005 - 0.019	5	-
	Strawberries, Frozen	45	0			0.006 - 0.011	5	-
	Sweet Potatoes	284	0			0.006 - 0.028	NT	-
	Tomatoes	655	0			0.006 - 0.011	1	-
	W Squash, Fresh	473	0			0.006 - 0.028	1	-
	W Squash, Frozen	149	0			0.006 - 0.028	1	-
	Total	**6057**	**2**					
142	**Tetrahydrophthalimide - THPI (metabolite of Captafol, Captan and Folpet)**							
	Apple Juice	46	41	89.1	0.017 - 0.36	0.010 - 0.030	25	-
	Cantaloupe	4	0			0.030 ^	25	-
	Grape Juice	19	0			0.030 ^	50	-
	Orange Juice	9	0			0.030 ^	NT	-
	Pears	9	0			0.030 ^	25	-
	Spinach, Canned	9	0			0.030 ^	100	-
	Strawberries, Fresh	17	0			0.030 ^	25	-
	Tomatoes	18	0			0.030 ^	25	-
	W Squash, Fresh	18	0			0.030 ^	25	-
	Total	**149**	**41**					
143	**Thiabendazole (fungicide)**							
	Apple Juice	685	192	28	0.015 - 0.80	0.009 - 0.045	10	10
	Cantaloupe	414	1	0.2	0.24 ^	0.009 - 0.045	15.0	-
	Grape Juice	665	3	0.5	0.034 - 0.075	0.009 - 0.045	10	-
	Green Beans, C&F	360	0			0.009 - 0.045	NT	-
	Orange Juice	700	26	3.7	0.050 - 0.35	0.030 - 0.28	10	10
	Pears	704	483	68.6	0.050 - 6.2	0.030 - 0.061	10	10
	Spinach, Canned	695	0			0.030 - 0.083	NT	-
	Strawberries, Fresh	630	2	0.3	0.042 - 0.16	0.025 - 0.30	5	3
	Strawberries, Frozen	47	0			0.030 - 0.083	5	3
	Sweet Potatoes	342	0			0.009 - 0.045	NT	-
	Tomatoes	717	0			0.009 - 0.083	NT	2
	W Squash, Fresh (V-4)	515	4	0.8	0.28 - 0.45	0.009 - 0.045	1 ''	-
	W Squash, Frozen	149	0			0.009 - 0.045	1 ''	-
	Total	**6623**	**711**					
144	**Triadimefon (fungicide)**							
	Apple Juice	619	0			0.012 - 0.043	1.0	0.5
	Cantaloupe	408	0			0.012 - 0.043	0.3	-
	Grape Juice	610	0			0.012 - 0.043	1.0	0.5
	Green Beans, C&F	284	0			0.012 - 0.043	NT	-
	Orange Juice	653	0			0.007 - 0.031	NT	-
	Pears	648	0			0.007 - 0.031	1.0	0.5
	Spinach, Canned	648	0			0.007 - 0.031	NT	-
	Strawberries, Fresh (V-1)	581	1	0.2	0.020 ^	0.007 - 0.031	NT	0.1
	Strawberries, Frozen	45	0			0.012 - 0.031	NT	0.1
	Sweet Potatoes	284	0			0.012 - 0.043	NT	-
	Tomatoes	655	0			0.012 - 0.043	NT	0.2
	W Squash, Fresh	473	0			0.012 - 0.043	0.3	-
	W Squash, Frozen	149	0			0.012 - 0.043	0.3	-
	Total	**6057**	**1**					

	Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
145	**Trifluralin (herbicide)**							
	Apple Juice	694	0			0.008 - 0.068	NT	-
	Cantaloupe	408	0			0.008 - 0.068	0.05	-
	Grape Juice	664	0			0.008 - 0.068	0.05	-
	Green Beans, C&F	359	0			0.008 - 0.068	0.05	-
	Orange Juice	700	0			0.002 - 0.033	0.05	-
	Pears	712	0			0.002 - 0.030	NT	-
	Spinach, Canned	636	0			0.002 - 0.033	0.05	-
	Strawberries, Fresh	610	0			0.002 - 0.033	NT	-
	Strawberries, Frozen	47	0			0.015 - 0.033	NT	-
	Sweet Potatoes	357	0			0.008 - 0.068	0.05	-
	Tomatoes	717	0			0.015 - 0.068	0.05	-
	W Squash, Fresh	530	0			0.008 - 0.068	0.05	-
	W Squash, Frozen	149	0			0.008 - 0.068	0.05	-
	Total	**6583**	**0**					
146	**Vinclozolin (fungicide)**							
	Apple Juice	694	0			0.006 - 0.014	NT	1
	Cantaloupe	408	0			0.006 - 0.014	NT	1
	Grape Juice	665	0			0.006 - 0.019	6.0	5
	Green Beans, C&F	359	51	14.2	0.010 - 0.13	0.006 - 0.014	2.0	2
	Orange Juice	700	0			0.002 - 0.010	NT	-
	Pears	712	0			0.002 - 0.014	NT	1
	Spinach, Canned	695	0			0.002 - 0.010	NT	-
	Strawberries, Fresh	610	97	15.9	0.003 - 5.2	0.002 - 0.010	10	10
	Strawberries, Frozen	47	5	10.6	0.025 - 0.28	0.006 - 0.010	10	10
	Sweet Potatoes	357	0			0.006 - 0.014	NT	-
	Tomatoes (V-4)	717	4	0.6	0.012 - 0.10	0.006 - 0.010	NT	3
	W Squash, Fresh	530	0			0.006 - 0.014	NT	-
	W Squash, Frozen	149	0			0.006 - 0.014	NT	-
	Total	**6643**	**157**					
147	**Vinclozolin metabolite E (metabolite of Vinclozolin)**							
	Green Beans, C&F	4	4		0.005 - 0.010	0.003 - 0.006	2.0	-
	Strawberries, Fresh	6	6		0.006 - 0.022	0.002 ^	10	-
	Total	**10**	**10**					

KEY

Underlined compounds are subject to the full quality assurance program requirements.

C&F Canned and Frozen

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

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

(N) See tolerance/MRL reference for composite pears.

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.

(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.

[illegible] All other residues of methamidophos were detected in combination with acephate, for which a tolerance exists.

[illegible] A regional tolerance exists, specific to an identified growing region.

[illegible] Interim tolerance exists with no known expiration date.

[illegible] Tolerance applies to Hubbard type squash only.

[illegible] A regional section 18 exists with a known expiration date.

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.

Appendix F

Distribution of Residues by Pesticide in Milk

Appendix F shows residue detections for all milk samples tested for pesticides, minimum and maximum concentrations reported, Limits of Detection (LODs), and whether a tolerance or Maximum Residue Limit/Extraneous Maximum Residue Limit (MRL/EMRL) is established for each pesticide in milk.

In 1998, PDP analyzed 595 domestic milk samples. A total of 89 samples (15%) were reported with residue detections. Milk samples were analyzed by methods developed by the California Department of Food and Agriculture and the New York Department of Agriculture and Markets which allow for detection of pesticide residues and environmental contaminants at very low levels. Six (6) samples were reported to FDA as containing diphenylamine (1) and o-phenylphenol (5) residues that do not have a tolerance listed in the Code of Federal Regulations (CFR),Title 40, Part 180. Most detections (92%) were for residues of DDE (a metabolite of DDT) in concentrations ranging from 0.002-0.013 ppm.

Most fluid milk is consumed in the State where it is produced. This was evident in the milk samples collected by the 10 participating States in 1998, where 591 of the 595 samples collected were produced and marketed in the 10 participating States, and only four samples originated from non-participating States.

Notice: 21 records for the compound MCPA were removed from the PDP database in February 2001 because they were submitted in error by one of the two reporting laboratories and were not identified during the data review process. MCPA was not validated by the laboratory in question, therefore the results should not have been reported.

APPENDIX F. DISTRIBUTION OF RESIDUES BY PESTICIDE IN MILK

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
2,4-D	92				0.005-0.010	0.1[T]	0.05
3-Hydroxycarbofuran	595				0.004^	0.02[T]	0.05
Acephate	595				0.001-0.002	0.1[W]	0.1
Aldicarb	595				0.003-0.005	0.002[W]	0.01
Aldicarb sulfone	595				0.004-0.009	0.002[W]	0.01
Aldicarb sulfoxide	595				0.004-0.012	0.002[W]	0.01
Aldrin	218				0.001^	0.3[AL]	0.006[F]
Atrazine	595				0.001-0.012	0.02[W]	---
Azinphos methyl	595				0.003-0.007	0.04[W]	---
BHC alpha	594				0.001^	0.3[AL F]	---
BHC beta	595				0.001^	0.3[AL F]	---
BHC delta	595				0.001^	0.3[AL F]	---
Captan	218				0.003^	NT	---
Carbaryl	595				0.002-0.003	0.3[W]	0.1
Carbofuran	595				0.004^	0.02[T]	0.05
Carbophenothion	595				0.001-0.002	NT	0.002[F]
Chlordane cis	595				0.001-0.002	NT	0.002[F]
Chlordane trans	595				0.001^	NT	0.002[F]
Chlorfenvinphos alpha	422				0.001-0.002	NT	0.008[F]
Chlorfenvinphos beta	391				0.001^	NT	0.008[F]
Chlorothalonil	158				0.003^	NT	---
Chlorpropham	594	1	0.2	0.002^	0.001-0.005	0.05[I]	---
Chlorpyrifos	593				0.001-0.002	0.25[F] 0.01[W]	0.01
Chlorpyrifos methyl	595				0.001-0.002	1.25[F] 0.05[W]	0.01
Coumaphos	595				0.002-0.054	0.5[F] N[W]	---
Coumaphos oxygen analog	218				0.003^	0.5[F] N[W]	---
Cyfluthrin	218				0.020^	15[F] 0.5[W]	0.02[F]

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
Cypermethrin	218				0.010^	0.05[I]	0.02[F]
DCPA	218				0.001^	NT	---
DDD o,p'	595				0.001-0.003	1.25[F] N[W]	0.02[F]
DDD p,p'	595				0.001-0.006	1.25[F] N[W]	0.02[F]
DDE o,p'	595				0.001^	1.25[F] N[W]	0.02[F]
DDE p,p' *	595	82	13.8	0.002-0.013	0.001-0.003	1.25[F] N[W]	0.02[F]
DDT o,p'	595				0.001-0.006	1.25[F] N[W]	0.02[F]
DDT p,p'	595				0.001^	1.25[F] N[W]	0.02[F]
DEF	593				0.001-0.007	0.002	---
Demeton-S sulfone	218				0.001^	NT	---
Diazinon	422				0.001-0.002	NT	0.02[F]
Dicamba (herbicide)	178				0.004-0.005	0.3	---
Dichlorvos-DDVP	595				0.001-0.002	0.02[W]	0.02
Dicloran	218				0.003^	NT	---
Dicofol o,p'	218				0.003^	NT	---
Dicofol p,p'	218				0.003^	NT	---
Dieldrin	595				0.001-0.003	0.3[F] 0.03[W]	0.006[F]
Dimethoate	595				0.001^	0.002	---
Diphenylamine (V-1)	595	1	0.2	0.017^	0.006-0.020	0[W]	---
Disulfoton	593				0.001^	NT	---
Disulfoton sulfone	595				0.001-0.002	NT	---
Diuron	218				0.012^	NT	---
Endosulfan I	595				0.001^	0.5[F] N[W]	0.004[F]
Endosulfan II	595				0.001-0.002	0.5[F] N[W]	0.004[F]

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
Endosulfan sulfate	595				0.001^	0.5[F] N[W]	0.004[F]
Esfenvalerate	595				0.008-0.013	7[F] 0.3[W]	---
Ethalfluralin	595				0.007-0.020	0.05	---
Ethion	595				0.001^	0.5[F] N[W]	---
Fenamiphos	593				0.001-0.002	0.01[W]	---
Fenamiphos sulfone	595				0.002-0.005	0.01[W]	---
Fenamiphos sulfoxide	337				0.002-0.005	0.01[W]	---
Fenitrothion	595				0.001-0.002	NT	0.002
Fenitrothion metabolite	218				0.008^	NT	---
Fenitrothion oxygen analog	595				0.001-0.002	NT	---
Fenthion	595				0.001^	0.01[W]	0.05[F]
Fenvalerate	583				0.012-0.021	7[F] 0.3[W]	0.01[F]
Heptachlor	595				0.001^	0.01[F]	0.006[F]
Heptachlor epoxide	595				0.001^	0.01[F]	0.006[F]
Hexachlorobenzene-HCB	218				0.001^	NT	---
Imazalil	218				0.004^	0.01[W]	---
Iprodione	576				0.004-0.006	0.5[W]	---
Lindane	594	1	0.2	0.002^	0.001-0.006	0.3[F]	0.01[F]
Linuron	218				0.001^	NT	---
Malathion	595				0.001-0.002	0.5[F]	---
Malathion oxygen analog	204				0.005^	0.5[F]	---
MCPA (herbicide)	157 *				0.008-0.015	0.01	---
	* Originally reported 178 samples screened form MCPA. See Notice at end of Appendix.						
Methamidophos	218				0.001^	NT	0.01
Methidathion	593				0.001-0.002	0.03	0.001
Methiocarb	377				0.004-0.005	NT	0.05
Methomyl	595				0.003-0.006	NT	0.02
Methoxychlor	422				0.002-0.003	1.25[F]	---
Mevinphos E	218				0.001^	NT	---
Mevinphos Z	216				0.001^	NT	---

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
Myclobutanil	218				0.006^	0.2[W]	0.01
Omethoate	595				0.001-0.002	0.002	---
Oxamyl	391				0.004-0.006	NT	---
Oxychlordane	595				0.001-0.002	NT	0.002[F]
Oxydemeton methyl sulfone	218				0.001^	0.01[W]	---
Oxyfluorfen	595				0.003-0.006	0.05	---
Parathion	420				0.001-0.002	NT	---
Parathion methyl	422				0.001^	NT	---
Pentachlorobenzene-PCB	218				0.001^	NT	---
Permethrin Total	377				0.002-0.032	6.25[F] 0.25[W]	0.1[F]
Permethrin cis	391				0.003-0.008	6.25[F] 0.25[W]	0.1[F]
Permethrin trans	391				0.002^	6.25[F] 0.25[W]	0.1[F]
o-Phenylphenol (V-5)	218	5	2.3	0.010^	0.006^	NT	---
Phorate	593				0.001-0.020	0.02[W]	0.05
Phorate oxygen analog	216				0.001^	0.02[W]	0.05
Phorate oxygen analog sulfone	218				0.001^	0.02[W]	0.05
Phorate sulfone	420				0.001-0.002	0.02[W]	0.05
Phorate sulfoxide	420				0.002-0.076	0.02[W]	0.05
Phosalone	218				0.003^	NT	---
Phosmet	218				0.003^	NT	0.02
Phosphamidon	216				0.001^	NT	---
Pirimiphos methyl	595				0.001-0.003	3.0[F] N[W]	0.05
Pirimiphos methyl degradate	218				0.008^	3.0[F] N[W]	---
Profenofos	593				0.001-0.004	0.01[W]	0.01
Propargite	595				0.018-0.075	2.0[F] 0.08[W]	0.1[F]
Quintozene-PCNB	595				0.001^	NT	---
Simazine	594				0.001-0.005	0.02[W]	---
Sulprofos	595				0.001-0.004	0.01[W]	---

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
Tecnazine	218				0.003^	NT	---
Terbufos	218				0.001^	NT	0.01
Terbufos sulfone	216				0.001^	NT	0.01
Tetrachlorvinphos	595				0.001-0.005	0.5^{F} N^{W}	---
Thiabendazole	218				0.012^	0.4	0.1
Trifluralin	216				0.006^	NT	---
Vinclozolin	218				0.003^	NT	0.05

Underlined compounds are subject to the full quality assurance program requirements.

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

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

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

N = Negligible

T = Temporary Tolerance - unknown expiration

W = Whole Milk Tolerance

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.

F = Tolerance on Fat Basis

I = Interim Tolerance - unknown expiration

*DDE detections are not violations since converted values to fat basis still fall below stated fat basis tolerance.

Notice: 21 records for the compound MCPA were removed from the PDP database in February 2001 because they were submitted in error by one of the the two reporting laboratories and were not identified during the data review process. MCPA was not validated by the laboratory in question, therefore the results should not have been reported.

Appendix G

Distribution of Residues by Pesticide in Soybeans
Crop Year 1997

Appendix G shows residue detections for all soybean samples tested for pesticides, minimum and maximum concentrations reported, Limits of Detection (LODs), and whether a tolerance or Maximum Residue Limit/Extraneous Maximum Residue Limit (MRL/EMRL) is established for each pesticide in soybeans. All pesticides analyzed in soybeans are included in the quality assurance program as required compounds.

In 1998, PDP analyzed 590 domestic soybean samples. A total of 298 samples (51%) were reported with residue detections. One sample containing fenamiphos sulfone was reported to FDA as a residue exceeding the established tolerance. One sample containing BHC betta was reported to FDA as a residue having no tolerance listed in 40 CFR, Title 40, Part 180.

APPENDIX G. DISTRIBUTION OF RESIDUES BY PESTICIDE IN SOYBEANS

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm	EPA Tolerance Level, ppm	Codex MRL/EMRL ppm
3-Hydroxycarbofuran	590				0.005-0.007	0.2	0.2
Alachlor (herbicide)	590				0.002^	0.2	---
Aldicarb	590				0.005^	0.02	0.02
Aldicarb sulfone	590				0.005-0.007	0.02	0.02
Azinphos methyl	589				0.005^	0.2	0.05
BHC alpha	549				0.004^	NT	---
BHC beta (V-1)	590	1	0.2	0.007^	0.004^	NT	---
BHC delta	590				0.002^	NT	---
Carbaryl	590				0.003^	5	1
Carbofuran	590				0.005-0.006	0.2	0.2
Chlorpyrifos	590	56	9.5	0.003-0.022	0.002^	0.3	---
DDD p,p'	526				0.001^	0.2[AL]	---
DDE p,p'	529				0.001^	0.2[AL]	---
DDT p,p'	585				0.003^	0.2[AL]	---
Diazinon	589	8	1.4	0.003-0.010	0.002^	0.1	---
Dicoflop methyl (herbicide)	590				0.005^	0.1	---
Dieldrin	590	44	7.5	0.003-0.011	0.002^	0.05[AL]	---
Dimethoate	590				0.005^	0.05	---
Disulfoton	590	1	0.2	0.005^	0.003^	0.1	---
Disulfoton sulfone	488				0.009^	0.1	---
Endrin	590				0.008^	NT	---
Esfenvalerate	490				0.012^	0.05	--
Fenamiphos	588				0.002^	0.05	0.05
Fenamiphos sulfone (X-1)	490	2	0.4	0.020-0.074	0.012^	0.05	0.05
Fenvalerate	590				0.012^	0.05	0.1
Fluazifop butyl (herbicide)	590				0.002^	1	---
Linuron	590				0.009-0.010	1	---
Malathion	590	242	41	0.003-0.191	0.002^	8	---

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
Methamidophos	490				0.006^	NT	0.05
Methiocarb	590				0.015-0.017	NT	---
Methomyl	590				0.005-0.006	0.2	0.2
Metolachlor (herbicide)	590	5	0.8	0.002^	0.001^	0.2	---
Metribuzin (herbicide)	590				0.003^	0.1	---
Norflurazon	490				0.009^	0.1	---
Norflurazon desmethyl	330	9	2.7	0.010^	0.006^	0.1	---
Oxamyl	590				0.005-0.006	0.2	0.1
Parathion	589				0.011^	0.1	0.05
Parathion methyl	589				0.004^	0.1	---
Pendimethalin (herbicide)	589	1	0.2	0.023^	0.005^	0.1	---
Permethrins	570				0.004^	0.05	0.05
Phorate	569				0.002^	0.1	0.05
Phorate sulfone	490				0.005^	0.1	0.05
Thiabendazole	545	1	0.2	0.012^	0.007^	0.1	---

(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.
^ = 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 H

Distribution of Residues by Pesticide in Corn Syrup

Appendix H shows residue detections for all corn syrup samples tested for pesticides, minimum and maximum concentrations reported, and Limits of Detection (LODs) for each pesticide in corn syrup. All pesticides analyzed in corn syrup are included in the quality assurance program as required compounds.

In 1998, PDP analyzed 298 high fructose corn syrup samples (HFCS-55). There were no reported residue detections. The Environmental Protection Agency and Codex Maximum Residue Limit/Extraneous Maximum Residue Limit tolerance levels are not listed since there were no findings. The data indicate that residues which may have been present in the raw agricultural commodity were either eliminated or reduced to non-detectable levels by the process employed in manufacturing corn syrup.

APPENDIX H. DISTRIBUTION OF RESIDUES BY PESTICIDE IN CORN SYRUP

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm
1-Napthol	83				0.002^
3-Hydroxycarbofuran	298				0.001-0.009
Acephate	49				0.025^
Acetochlor (herbicide)	298				0.001-0.003
Alachlor (herbicide)	298				0.002^
Aldicarb	298				0.007^
Aldicarb sulfone	298				0.009^
Aldicarb sulfoxide	298				0.009^
Ametryn (herbicide)	286				0.015^
Atrazine	298				0.002^
Azinphos methyl	298				0.040-0.133
BHC alpha	298				0.001^
BHC beta	298				0.001^
Bifenthrin	298				0.001-0.050
Captan	298				0.040-0.133
Carbaryl	298				0.006^
Carbofuran	298				0.001-0.009
Carbophenothion	286				0.048^
Chlordane cis	298				0.001^
Chlordane trans	298				0.001^
Chlorfenvinphos alpha	106				0.001^
Chlorfenvinphos beta	192				0.001^
Chlorpropham	298				0.002^
Chlorpyrifos	298				0.001^
Chlorpyrifos methyl	298				0.001^
Coumaphos	297				0.003^
Coumaphos oxygen analog	274				0.013^
Cyanazine (herbicide)	298				0.015^
Cyfluthrin	274				0.008^
DCPA	298				0.002^
DDD o,p'	298				0.005^
DDD p,p'	298				0.001^

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm
DDE o,p'	298				0.001^
DDE p,p'	298				0.002^
DDT o,p'	298				0.001^
DDT p,p'	298				0.001^
Demeton-S sulfone	274				0.002^
Diazinon	298				0.002^
Dichlorvos-DDVP	298				0.001^
Dicloran	298				0.004^
Dicofol o,p'	189				0.001^
Dicofol p,p'	298				0.001^
Dieldrin	298				0.002^
Dimethoate	274				0.001-0.003
Disulfoton	60				0.010^
Disulfoton sulfone	60				0.002^
Diuron	59				0.010^
Endosulfan I	286				0.001^
Endosulfan II	286				0.002^
Endosulfan sulfate	298				0.005^
Esfenvalerate	298				0.001^
Ethalfluralin	286				0.008^
Ethion	298				0.001^
Ethoprop	298				0.003^
Fenamiphos	298				0.005^
Fenamiphos sulfone	83				0.008^
Fenamiphos sulfoxide	298				0.008^
Fenitrothion	298				0.003^
Fenthion	298				0.001^
Fenvalerate	298				0.001-0.090
Fonofos	274				0.001^
Heptachlor	298				0.001^
Heptachlor epoxide	298				0.001^
Hexachlorobenzene-HCB	298				0.001^
Imazalil	298				0.004^
Iprodione	298				0.005^

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm
Lambda cyhalothrin (insecticide)	298				0.001^
Lambda cyhalothrin isomer	298				0.001^
Lindane	298				0.010^
Linuron	298				0.002^
Malathion	298				0.001^
Metalaxyl	298				0.001-0.20
Methamidophos	47				0.015^
Methidathion	298				0.002^
Methomyl	298				0.007^
Methoxychlor	298				0.002^
Methoxychlor olefin	298				0.001^
Metolachlor (herbicide)	298				0.002^
Metribuzin (herbicide)	298				0.003^
Mevinphos E	298				0.002^
Myclobutanil	298				0.005^
Omethoate	21				0.030^
Oxamyl	298				0.009^
Oxychlordane	298				0.003^
Oxyfluorfen	284				0.003^
Parathion	274				0.002^
Parathion methyl	298				0.008^
Pendimethalin (herbicide)	298				0.001^
Pentachlorobenzene-PCB	298				0.001^
Permethrin cis	298				0.001-0.003
Permethrin trans	298				0.001-0.003
Phorate	298				0.002^
Phorate sulfone	83				0.002^
Phosalone	297				0.004^
Phosmet	286				0.002-0.007
Phosphamidon	298				0.003^
Piperonyl butoxide	298				0.001^
Pirimiphos methyl	298				0.001^
Profenofos	297				0.008^
Prometryn (herbicide)	298				0.002^

Pesticide	Total Samples Screened	Samples with Detections	% of Samples w/ Detections	Range of Values Detected, ppm	LODs, ppm
Propachlor (herbicide)	286				0.004-0.013
Propargite	285				0.008^
Propiconazole (fungicide)	298				0.008^
Quintozene-PCNB	298				0.001-0.003
Simazine	298				0.004^
Sulprofos	298				0.002^
Tecnazine	284				0.002^
Terbufos	274				0.002^
Terbufos sulfone	298				0.002^
Tetrachlorvinphos	298				0.002^
Thiabendazole	298				0.010^
Triadimenol (fungicide)	298				0.015^
Trifluralin	298				0.001^
Vinclozolin	298				0.001^

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

Appendix I

National Estimates for Concentration Percentiles vs. Tolerance

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

Appendix I shows 46 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/pears pair, the 50th percentile, or median, is estimated to be 0.014 ppm. This means that PDP estimates that at least 50 percent of pears available to U.S. consumers had azinphos methyl residues of 0.014 ppm or less, while at least 50 percent had residues of 0.014 ppm or more. Similarly, the 75th percentile (or the upper quartile) for this pair is estimated to be 0.055 ppm, which means that at least 75 percent of pears had residues of 0.055 ppm or less, while at least 25 percent had residues of 0.055 ppm or more. Finally, the 90th percentile (or the last decile) is estimated to be 0.12 ppm, meaning that at least 90 percent of all pears had azinphos methyl residues of 0.12 ppm or less, while at least 10 percent had residues of 0.12 ppm or more.

Percent detections and percentiles for fresh pears, strawberries, sweet potatoes, and tomatoes were weighted to reflect 1998 Agricultural Marketing Service marketing data. There were no marketing data available for winter squash, frozen strawberries, and canned spinach.

For processed commodities--apple juice, grape juice, and green beans--the percentile concentrations were weighted to reflect sales volume data provided by the Food Institute and the Economic Research Service.

Commodity	Collected	Sales
AJ (Ready-to-serve:Concentrate)	2:1	6:1
GJ (Ready-to-serve:Concentrate)	1:1	3:1
GB (Canned:Frozen)	2:1	2:1

APPENDIX I. 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** Lower	Mean** Upper	Percentiles 50th	Percentiles 75th	Percentiles 90th	Ratio of 90th Percentile to Tolerance
1	**Apple Juice (W)**							
	Carbaryl	32.5	0.006	0.016	*	0.008	0.019	0.002
	Dimethoate	17.0	0.002	0.006	*	*	0.008	0.004
	Thiabendazole	25.9	0.058	0.081	*	0.035	0.240	0.024
2	**Grape Juice (W)**							
	Carbaryl	38.0	0.007	0.016	*	0.012	0.022	0.002
3	**Green Beans (C&F) (W)**							
	Acephate	47.8	0.031	0.033	*	0.026	0.098	0.033
	Methamidophos [(1)]	48.6	0.013	0.015	*	0.018	0.037	--
	Vinclozolin	15.2	0.005	0.014	*	*	0.019	0.001
4	**Milk**							
	DDE p,p'	13.8	0.001	0.002	*	*	0.002	0.002
5	**Pears (W)**							
	Azinphos methyl	54.0	0.052	0.058	0.014	0.055	0.120	0.060
	Captan	12.4	0.022	0.032	*	*	0.030	0.001
	Diphenylamine	17.8	0.015	0.026	*	*	0.027	NT
	o-Phenylphenol	22.7	0.216	0.224	*	*	0.120	0.005
	Phosmet	26.1	0.054	0.062	*	0.007	0.140	0.014
	Thiabendazole	70.5	0.448	0.459	0.230	0.620	1.100	0.110
6	**Soybean (Grain)**							
	Malathion	41.0	0.004	0.005	*	0.005	0.007	0.001
7	**Spinach (Canned)**							
	DDE p,p'	21.2	0.003	0.008	*	*	0.010	0.020
	Permethrin cis	80.8	0.626	0.631	*	0.890	1.600	0.080
	Permethrin trans	82.6	0.613	0.616	0.315	0.810	1.700	0.085
	Permethrin Total	78.8	1.775	1.791	1.100	3.100	4.600	0.230
8	**Strawberries (Fresh) (W)**							
	Benomyl	22.6	0.108	0.146	*	*	0.350	0.070
	Captan	54.0	0.465	0.470	0.028	0.460	1.500	0.075
	Carbaryl	17.9	0.045	0.054	*	*	0.041	0.004
	Iprodione	48.3	0.250	0.264	*	0.260	0.700	0.047
	Malathion	18.4	0.007	0.011	*	*	0.020	0.002
	Methomyl	23.5	0.101	0.110	*	*	0.210	0.105
	Myclobutanil	19.7	0.021	0.055	*	*	0.063	0.125
	Vinclozolin	17.7	0.088	0.094	*	*	0.160	0.016

	Commodity / Pesticide	% of Samples with Detections	Mean** Lower	Mean** Upper	Percentiles 50th	Percentiles 75th	Percentiles 90th	Ratio of 90th Percentile to Tolerance
9	**Strawberries (Frozen)**							
	Benomyl	25.5	0.055	0.092	*	0.091	0.125	0.025
	Captan	57.4	0.062	0.069	0.020	0.053	0.140	0.006
	Carbaryl	36.2	0.080	0.086	*	0.061	0.250	0.025
	Dicofol p,p'	10.6	0.010	0.037	*	*	0.011	0.002
	Iprodione	34.0	0.080	0.111	*	0.091	0.220	0.015
	Malathion	19.1	0.004	0.010	*	*	0.020	0.002
	Methomyl	10.6	0.025	0.040	*	*	0.020	0.010
	Myclobutanil	14.9	0.016	0.082	*	*	0.048	0.095
	Vinclozolin	10.6	0.012	0.019	*	*	0.025	0.003
10	**Sweet Potatoes (W)**							
	Dicloran	56.4	0.253	0.256	0.073	0.290	0.520	0.052
11	**Tomatoes (W)**							
	Chlorpyrifos	13.7	0.003	0.009	*	*	0.013	0.025
	Endosulfan I	16.6	0.003	0.007	*	*	0.009	0.004
	Endosulfan II	20.4	0.004	0.009	*	*	0.014	0.007
	Endosulfan sulfate	16.1	0.003	0.009	*	*	0.010	0.005
	Methamidophos	25.9	0.009	0.014	*	0.003	0.031	0.031
12	**Winter Squash (Fresh)**							
	Dieldrin	10.3	0.004	0.013	*	*	0.004	0.035
	Endosulfan sulfate	20.8	0.004	0.009	*	*	0.018	0.009
13	**Winter Squash (Frozen)**							
	Dieldrin	77.0	0.025	0.026	0.019	0.035	0.068	0.680
	Heptachlor epoxide	23.1	0.001	0.002	*	*	0.006	0.275

* 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.

(C&F) - Canned & Frozen Samples

NT - No Tolerance

(1) - See Acephate Tolerance

Appendix J

Cumulative Distributions of Residues for Selected Pesticide/Commodity Pairs

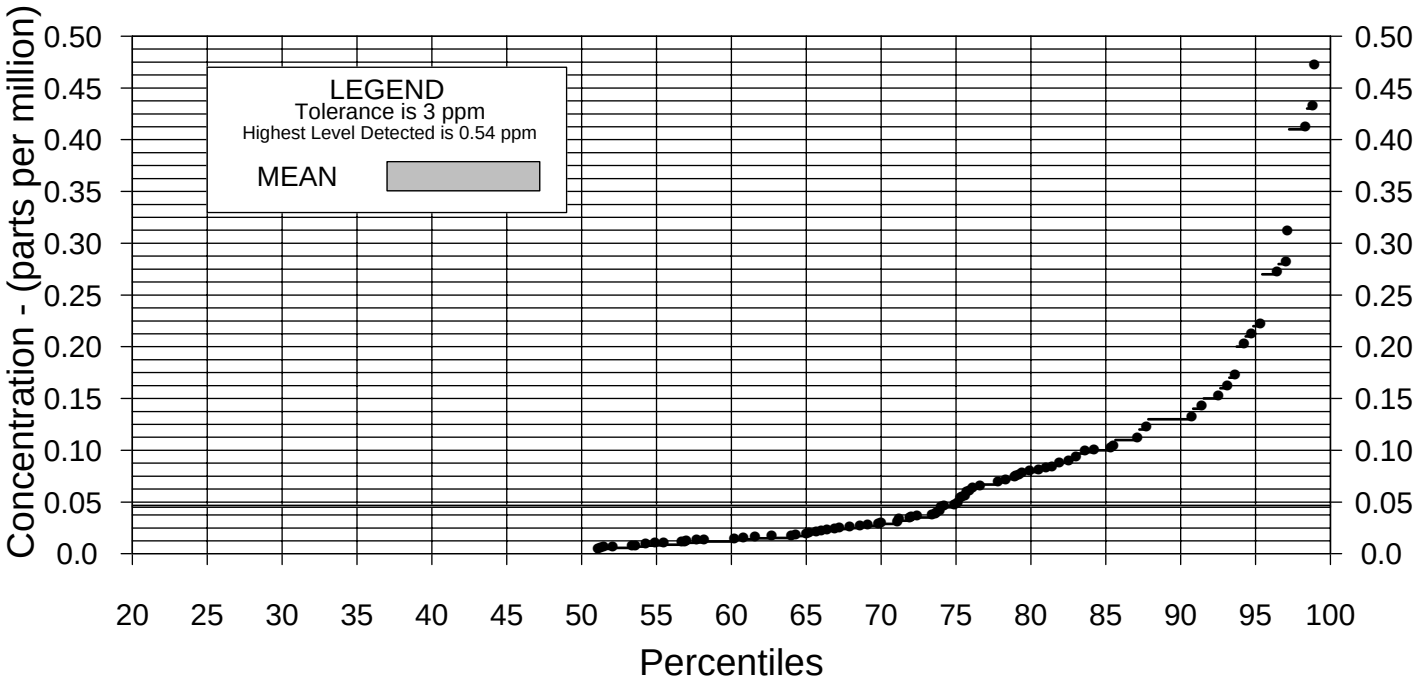
In Appendix J, the concentrations detected (in parts per million, except where otherwise noted) are plotted versus the calculated percentiles for the following eight pesticide/commodity pairs:

Acephate/Green Beans
Thiabendazole/Pears
Malathion/Soybeans
Captan/Strawberries (Fresh)
Methomyl/Strawberries (Fresh)
Dicloran/Sweet Potatoes
Dieldrin/Winter Squash (Fresh)
Dieldrin/Winter Squash (Frozen)

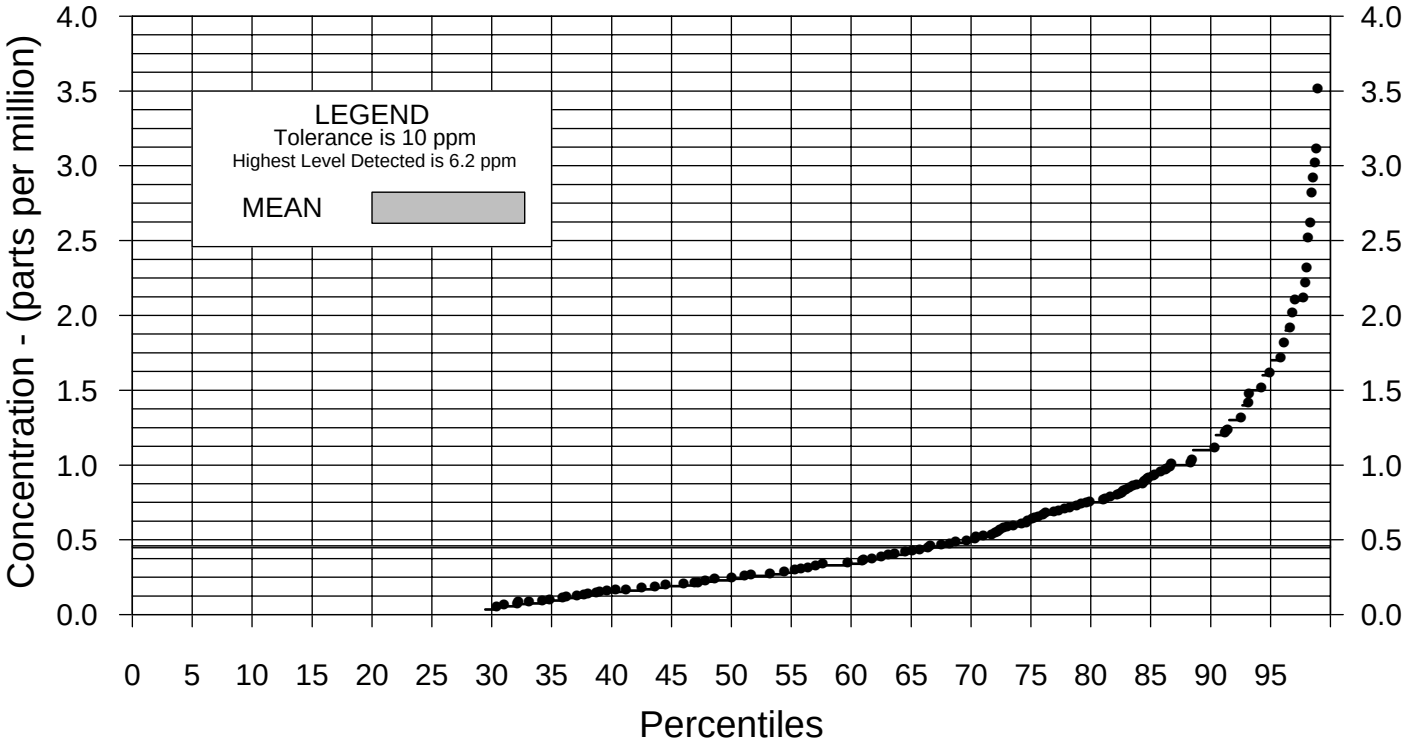
The distribution of residues for all of the PDP pesticide/commodity pairs has the same curved shape. The highest percentile graphed in the appendix is the 99th, which in each case is lower than the highest concentration detected in the sample (refer to the value shown in each graph's legend). Inclusion 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 pears available to U.S. consumers in 1998 had thiabendazole residue concentrations of 0.23 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 thiabendazole in pears, this is 30 percent. The shaded bar denotes the range of values estimated for the mean. For thiabendazole/pears the mean range is approximately 0.448-0.459 ppm, corresponding to the 67th percentile.

APPENDIX J. CUMULATIVE DISTRIBUTIONS OF RESIDUES FOR SELECTED PESTICIDE/COMMODITY PAIRS

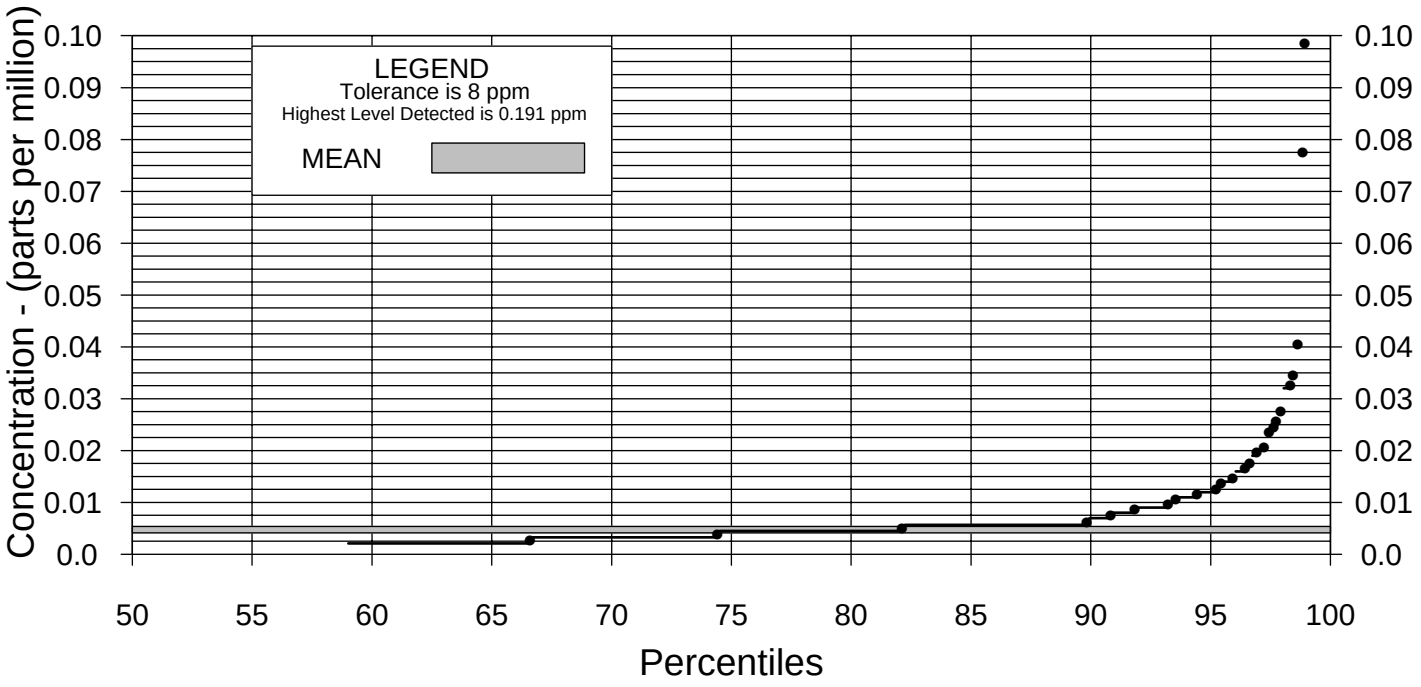
Acephate / Green Beans



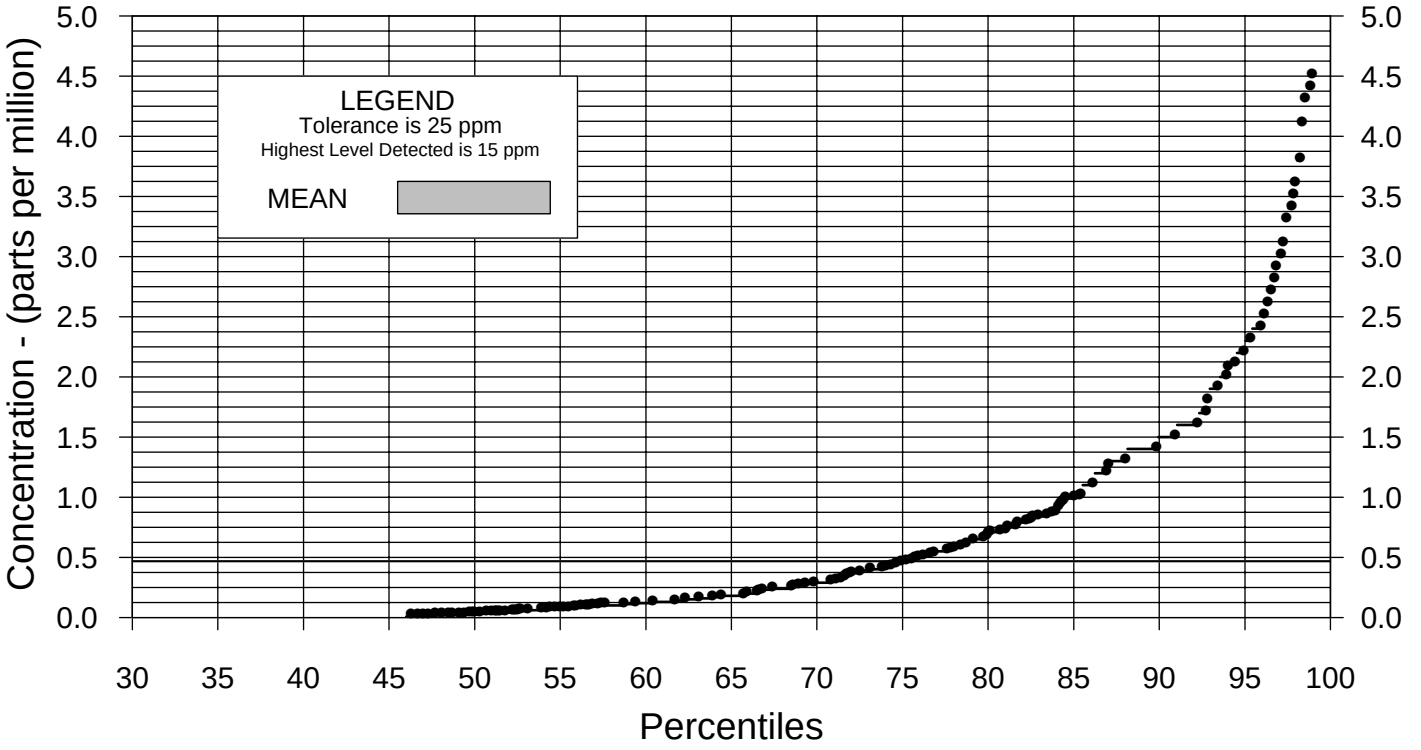
Thiabendazole / Pears



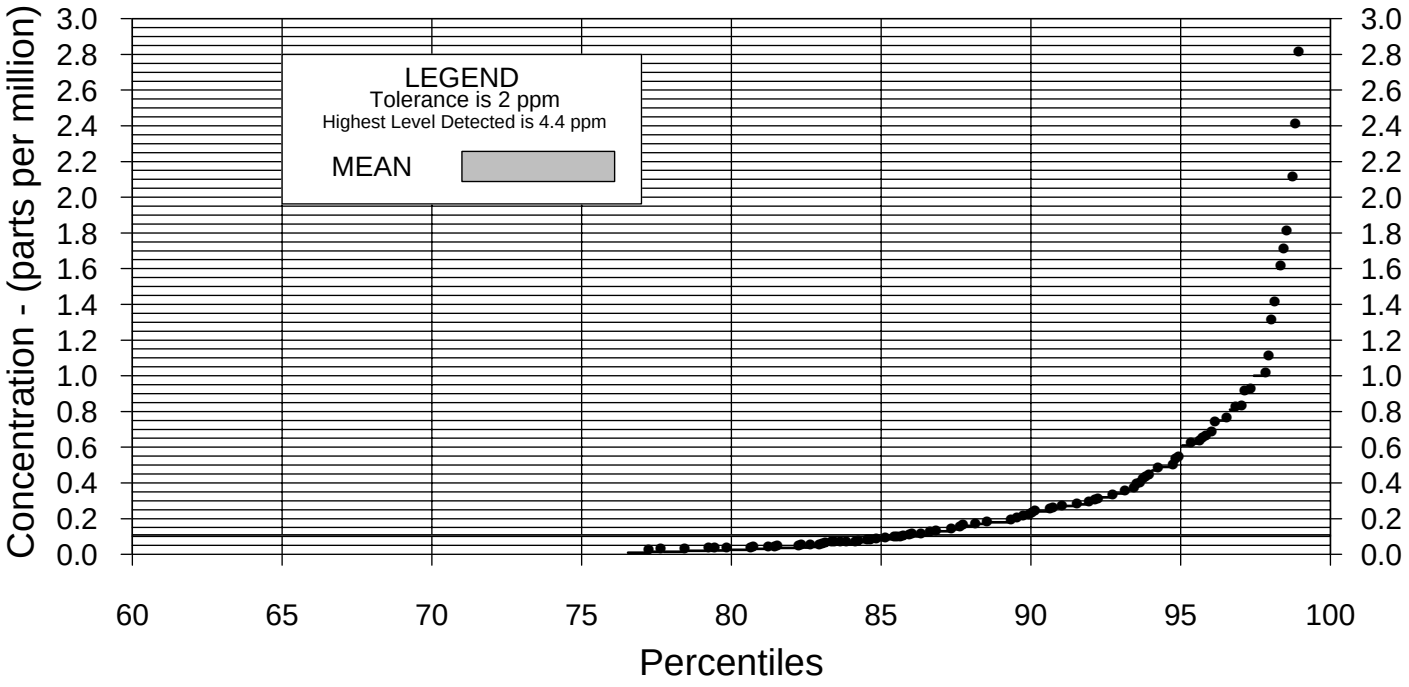
Malathion / Soybeans



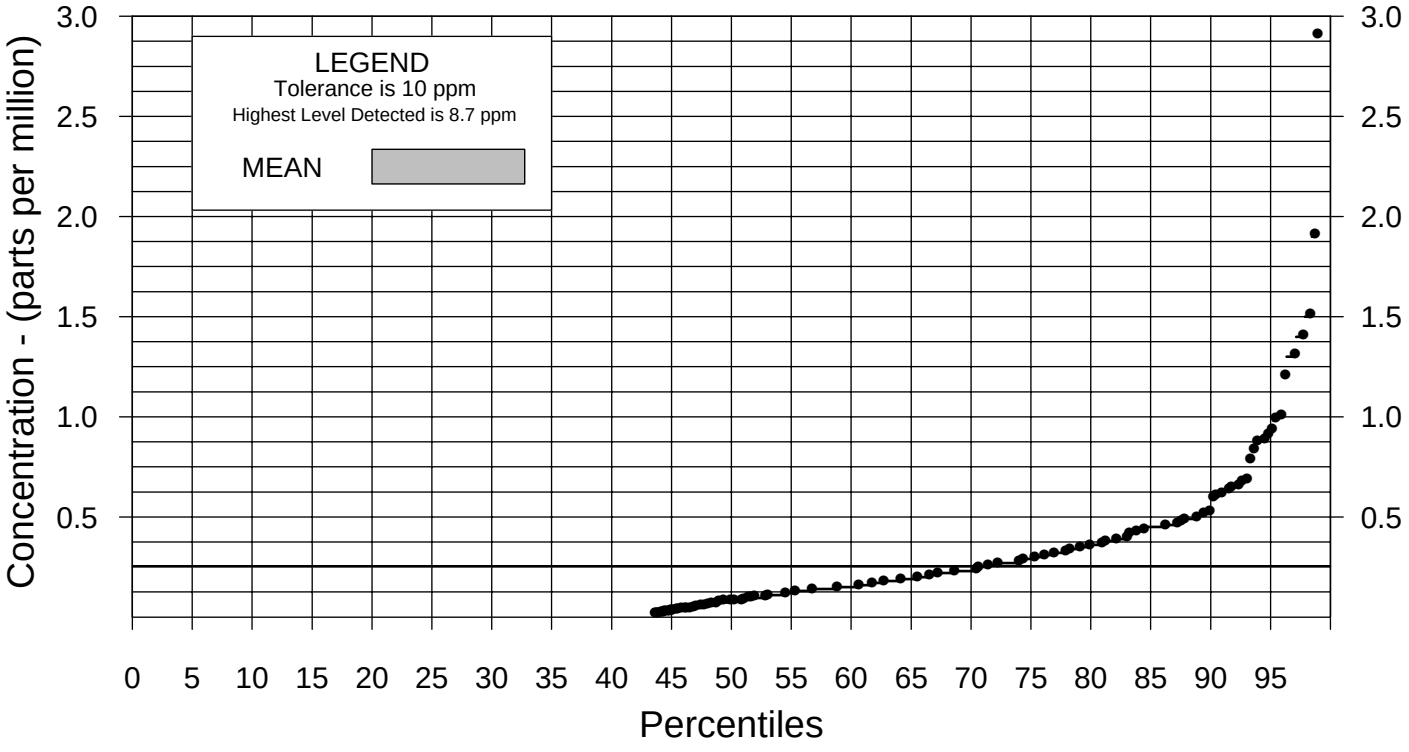
Captan / Strawberries (Fresh)

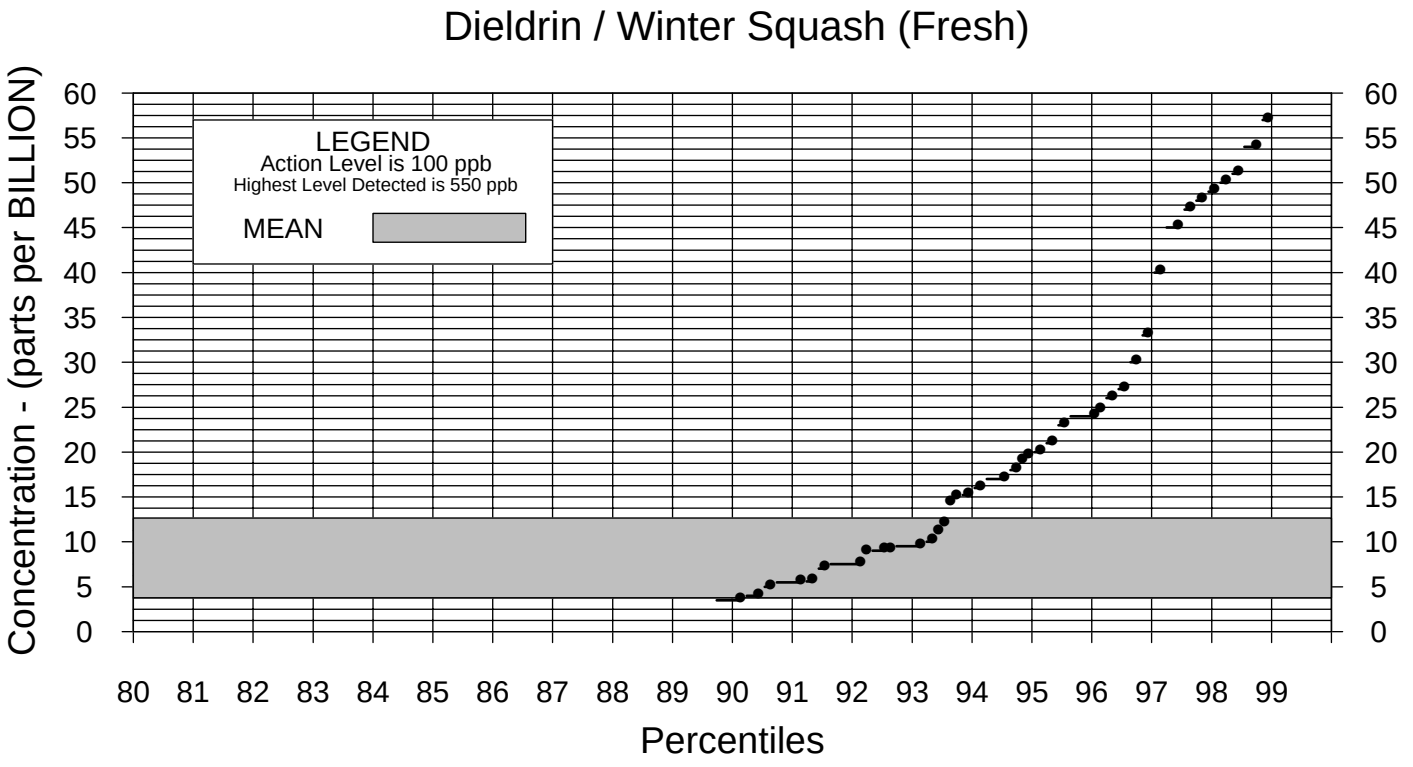


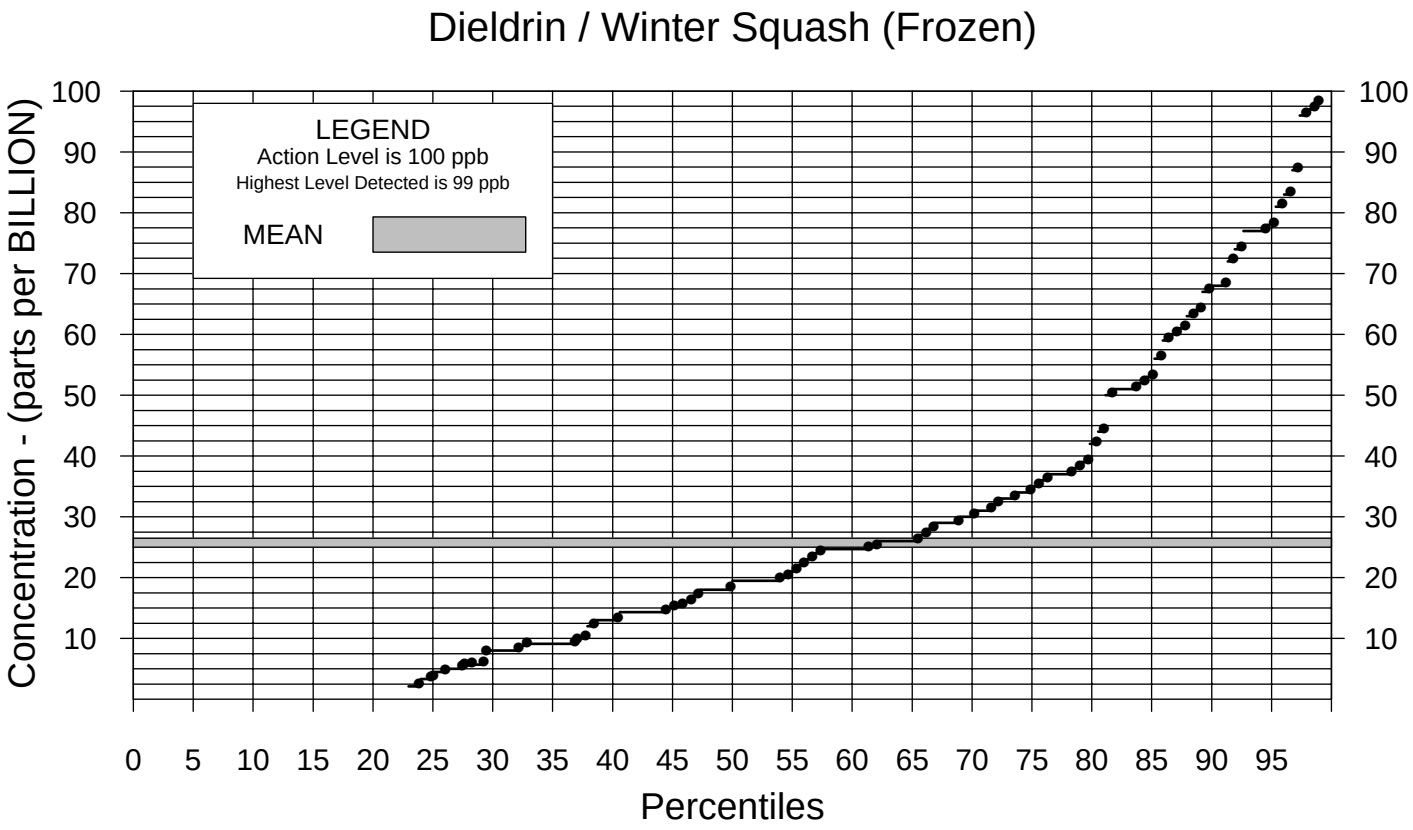
Methomyl / Strawberries (Fresh)



Dicloran / Sweet Potatoes




Dieldrin / Winter Squash (Fresh)
LEGEND
Action Level is 100 ppb
Highest Level Detected is 550 ppb
MEAN
Concentration - (parts per BILLION)
0 5 10 15 20 25 30 35 40 45 50 55 60
80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99
Percentiles


Dieldrin / Winter Squash (Frozen)
LEGEND
Action Level is 100 ppb
Highest Level Detected is 99 ppb
MEAN
Concentration - (parts per BILLION)
10 20 30 40 50 60 70 80 90 100
0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95
Percentiles

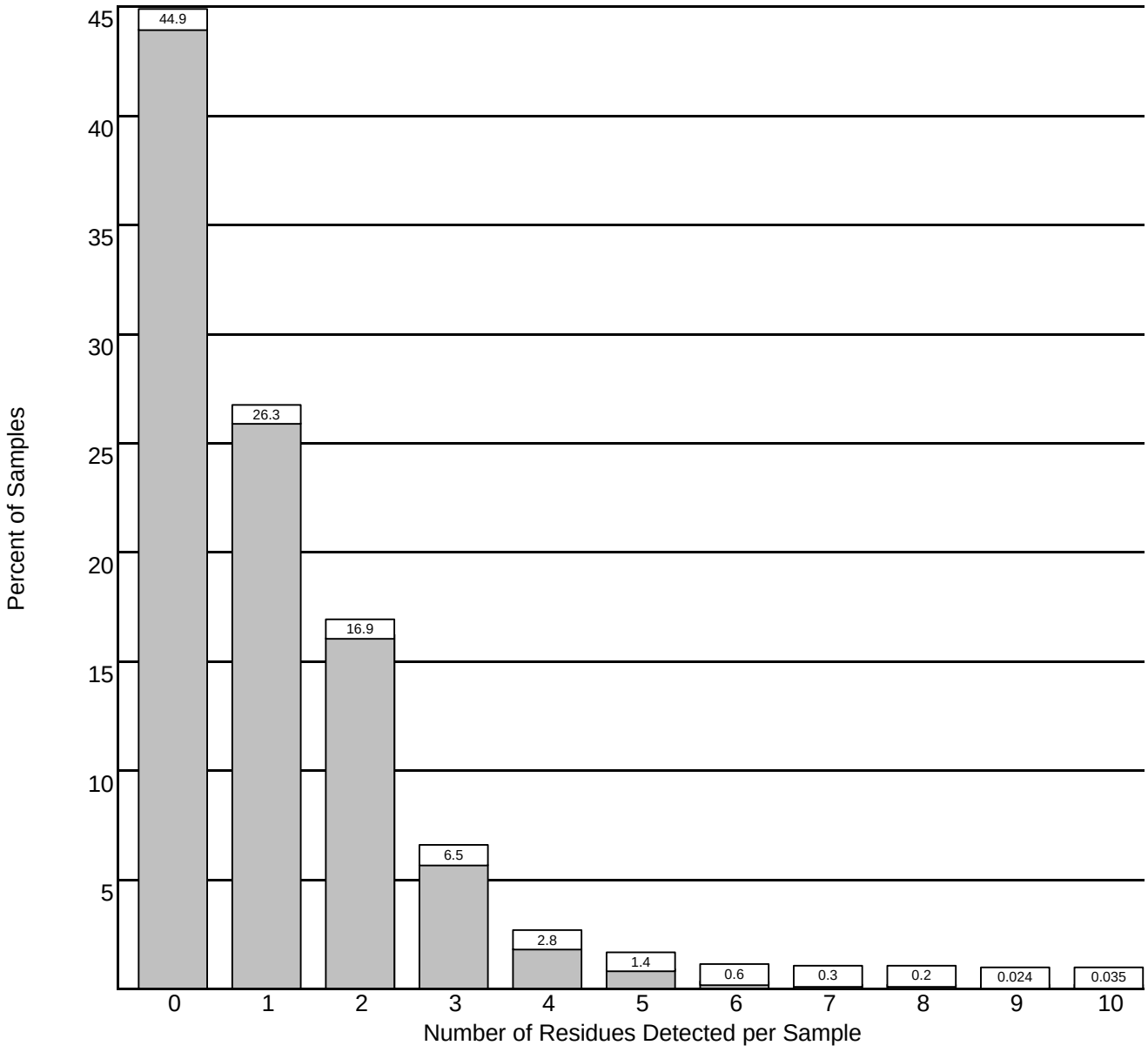
Appendix K

Number of Residues Detected per Sample

(Fresh and Processed Products)

Appendix K 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 8,500 samples tested, 44.9 percent of the samples had no detectable residues, 26.3 percent had one residue, and 28.8 percent of the samples had more than one residue.

APPENDIX K. 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
Number of Samples	3817	2238	1439	556	242	116	49	24	14	2	3
Percent of Total Samples	44.9	26.3	16.9	6.5	2.8	1.4	0.6	0.3	0.2	0.024	0.035

TOTAL NUMBER OF SAMPLES = 8,500

APPENDIX K. 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
Fresh Fruit and Vegetables:	Percent										
Cantaloupe (414)	59.7	30.4	8.2	1.4	0.2	--	--	--	--	--	--
Pear - Single Serving (344)	32.3	47.4	19.5	0.9	--	--	--	--	--	--	--
Pears (714)	6.0	21.7	36.4	18.1	10.1	4.9	1.8	0.7	0.3	--	--
Strawberries (631)	9.4	19.5	24.6	18.4	12.5	7.3	3.6	2.4	1.6	0.3	0.3
Sweet Potatoes (357)	40.6	46.2	12.3	0.8	--	--	--	--	--	--	--
Tomatoes (717)	38.5	27.9	13.5	9.3	5.7	2.8	1.4	0.6	0.3	--	--
Winter Squash (530)	58.3	26.6	10.9	3.4	0.4	0.4	--	--	--	--	--
Processed Fruit and Vegetables											
Apple Juice (694)	36.7	35.3	17.1	7.2	2.9	0.6	0.1	--	--	--	--
Grape Juice (665)	61.1	36.7	2.1	0.2	--	--	--	--	--	--	--
Green Beans, C/F (360)	39.7	10.8	39.4	6.1	2.8	0.8	0.3	--	--	--	--
Orange Juice (700)	83.4	12.4	3.6	0.6	--	--	--	--	--	--	--
Spinach, Canned (695)	15.3	19.4	48.8	15.4	1.0	0.1	--	--	--	--	--
Strawberries, Frozen (47)	10.6	14.9	21.3	21.3	19.1	10.6	2.1	--	--	--	--
Winter Squash, Frozen (149)	21.5	56.4	14.8	6.7	0.7	--	--	--	--	--	--
Number of Samples	2721	1914	1386	546	242	116	49	24	14	2	3
Percent of Total Samples	38.8	27.3	19.8	7.8	3.4	1.7	0.7	0.3	0.2	0.029	0.029
TOTAL NUMBER OF FRUIT & VEGETABLE SAMPLES = 7,017											
Dairy: Milk (595 Samples)											
Number of Samples	506	88	1	--	--	--	--	--	--	--	--
Percent	85.0	14.8	0.2	--	--	--	--	--	--	--	--
Grain: Soybeans (590 Samples)											
Number of Samples	292	236	52	10	--	--	--	--	--	--	--
Percent	49.5	40.0	8.8	1.7	--	--	--	--	--	--	--
Processed Grain Product: Corn Syrup (298 Samples)											
Number of Samples	298	--	--	--	--	--	--	--	--	--	--
Percent	100	--	--	--	--	--	--	--	--	--	--

Appendix L

Samples Reported to FDA as Exceeding the Tolerance or Without Established Tolerance

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

Appendix L shows residues reported to FDA as exceeding the tolerance or residues for which no established tolerance was listed under the Code of Federal Regulations (CFR), Title 40, Part 180. In 1998, 12 residues were found at levels exceeding the established tolerance, 8 of which were found in strawberries, and one each in soybeans, spinach, tomatoes, and winter squash. In addition, 317 residues were reported as without established tolerance including 14 samples containing 2 residues without tolerances each. Of these, diphenylamine residues were detected in 130 pear samples. A tolerance was eventually requested and approved by the Environmental Protection Agency for use of this fungicide on pears.

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

Residues Exceeding Established Tolerance

	Commodity / Pesticide	Limit of Detection, ppm	Concentration Detected, ppm	EPA Tolerance Level, ppm
1	Soybeans / Fenamiphos sulfone	0.012	0.074	0.05
2	Spinach / Parathion	0.017	1.6	1
3	Strawberries / Fenpropathrin	0.026	2.1	2.0
4	Strawberries / Methomyl	0.008	4.4	2
5	Strawberries / Methomyl	0.008	4.2	2
6	Strawberries / Methomyl	0.008	3.8	2
7	Strawberries / Methomyl	0.008	3.6	2
8	Strawberries / Methomyl	0.008	3.1	2
9	Strawberries / Methomyl	0.017	2.8	2
10	Strawberries / Myclobutanil	0.015	0.55	0.5 [R]
11	Tomatoes / Chlorpropham	0.020	0.19	0.1 [I]
12	Winter Squash / Dieldrin	0.006	0.55	0.1 [AL]

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

(Includes Samples of Unknown Origin - Regional Tolerances May or May Not Apply)

	Commodity / Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
1	**Apple Juice**						
	Acephate	694	2	0.3	0.003 - 0.007	0.002 - 0.006	NT
	Carbofuran	694	1	0.1	0.010 ^	0.006 - 0.025	NT
	Imazalil	659	2	0.3	0.017 ^	0.010 - 0.070	NT
	Iprodione	694	2	0.3	0.025 ^	0.008 - 0.031	NT
	Methamidophos	694	24	3.5	0.002 - 0.005	0.001 - 0.006	NT
2	**Cantaloupe**						
	Acephate	408	11	2.7	0.003 - 0.020	0.002 - 0.006	NT
	Aldicarb sulfoxide	408	1	0.2	0.017 ^	0.007 - 0.076	NT
	Chlorpyrifos	408	9	2.2	0.005 - 0.020	0.003 - 0.011	NT
	Diphenylamine	408	8	1.9	0.013 - 0.050	0.008 - 0.030	NT
3	**Grape Juice**						
	o-Phenylphenol	576	4	0.7	0.005 ^	0.003 - 0.015	NT

	Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
4	**Green Beans (C/F)**						
	Methamidophos	340	2	0.6	0.002 - 0.21	0.001 - 0.006	NT [1]
	Permethrins	359	1	0.3	0.013 ^	0.008 - 0.032	NT
	Permethrin trans	359	1	0.3	0.008 ^	0.005 - 0.032	NT
	o-Phenylphenol	311	2	0.6	0.005 - 0.017	0.003 - 0.015	NT
5	**Milk**						
	Diphenylamine	595	1	0.2	0.017 ^	0.006 - 0.020	NT
	o-Phenylphenol	218	5	2.3	0.010 ^	0.006 ^	NT
6	**Orange Juice**						
	Diphenylamine	700	1	0.1	0.050 ^	0.008 - 0.17	NT
	Permethrin Total	180	1	0.6	0.13 ^	0.076 ^	NT
7	**Pears**						
	Acephate	712	1	0.1	0.010 ^	0.002 - 0.012	NT
	Dicloran	712	3	0.4	0.010 - 0.047	0.001 - 0.010	NT
	Diphenylamine	712	130	18.3	0.013 - 3.0	0.008 - 0.030	NT
	Iprodione	712	8	1.1	0.013 - 1.4	0.008 - 0.024	NT
	Quintozene	712	1	0.1	0.020 ^	0.001 - 0.006	NT
8	**Soybeans**						
	BHC beta	590	1	0.2	0.007 ^	0.004 ^	NT
9	**Spinach, Canned**						
	Chlorpyrifos	695	4	0.6	0.007 - 0.014	0.003 - 0.009	NT
	DCPA (Dacthal)	695	9	1.3	0.005 - 0.008	0.003 - 0.006	NT
	DEF	108	1	0.9	0.003 ^	0.002 ^	NT
	Esfenvalerate	375	1	0.3	0.050 ^	0.020 - 0.098	NT
	Fenvalerate	695	1	0.1	0.10 ^	0.003 - 0.092	NT
	Piperonyl butoxide	272	1	0.4	0.099 ^	0.040 - 0.050	NT
10	**Strawberries, Fresh**						
	BHC beta	181	1	0.6	0.005 ^	0.003^	NT
	Chlorothalonil	536	1	0.2	0.027 ^	0.004 - 0.006	NT
	DDE p,p'	610	1	0.2	0.005 ^	0.003 - 0.010	NT
	Diphenylamine	610	1	0.2	0.025 ^	0.008 - 0.17	NT
	Esfenvalerate	344	1	0.3	0.033 ^	0.020 - 0.038	NT
	Heptachlor epoxide	324	1	0.3	0.002 ^	0.001 - 0.003	NT
	Methamidophos	610	2	0.3	0.005 - 0.073	0.001 - 0.015	NT
	Piperonyl butoxide	228	6	2.6	0.067 - 0.24	0.040 - 0.050	NT
	Triadimefon	581	1	0.2	0.020 ^	0.007 - 0.031	NT
11	**Sweet Potatoes**						
	Chlorpropham	357	1	0.3	0.028 ^	0.010 - 0.020	NT
	Diphenylamine	357	4	1.1	0.017 - 0.025	0.008 - 0.030	NT
	Ethion	357	2	0.6	0.005 ^	0.001 - 0.006	NT
	Terbufos sulfone	357	1	0.3	0.005 ^	0.003 - 0.048	NT

	Pesticide	Samples Screened	Samples Reported	% of Samples	Range of Values Detected, ppm	Range of LODs, ppm	EPA Tolerance Level, ppm
12	**Tomatoes**						
	Acephate	717	4	0.6	0.008 - 0.033	0.002 - 0.010	NT
	Demeton-S sulfone	108	1	0.9	0.076 ^	0.003 - 0.005	NT
	Iprodione	717	3	0.4	0.025 - 0.13	0.015 - 0.050	NT
	Vinclozolin	717	4	0.6	0.012 - 0.10	0.006 - 0.010	NT
13	**Winter Squash, Fresh**						
	Acephate	530	5	0.9	0.003 - 0.12	0.002 - 0.006	NT
	Chlorpropham	530	1	0.2	0.056 ^	0.010 - 0.020	NT
	Chlorpyrifos	530	6	1.1	0.005 - 0.022	0.003 - 0.011	NT
	Diphenylamine	530	6	1.1	0.013 - 0.050	0.008 - 0.030	NT
	Ethion	530	2	0.4	0.005 ^	0.001 - 0.006	NT
	Methamidophos	530	9	1.7	0.002 - 0.030	0.001 - 0.006	NT
	o-Phenylphenol	464	3	0.6	0.005 - 0.30	0.003 - 0.015	NT
	Pentachlorobenzene	530	1	0.2	0.007 ^	0.002 - 0.004	NT
	Piperonyl butoxide	55	1	1.8	0.067 ^	0.040 ^	NT
	Thiabendazole	515	4	0.8	0.28 - 0.45	0.009 - 0.045	1 [H]
14	**Winter Squash, Frozen**						
	Diphenylamine	149	1	0.7	0.013 ^	0.008 - 0.030	NT
	Ethion	149	3	2.0	0.005 - 0.014	0.001 - 0.006	NT
	Pirimiphos methyl	110	1	0.9	0.018 ^	0.001 - 0.005	NT

KEY

C/F Canned and Frozen

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

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

1 All other residues were detected in combination with acephate, for which a tolerance exists.

[I] Interim tolerance exists with no known expiration date.

[R] A regional tolerance exists with no known expiration date.

[AL] Numbers shown are Action Levels established by FDA. Under FQPA, responsibility for establishing tolerances in lieu of action levels has been transferred to EPA. In the interim, action levels are used.

[H] Tolerance applies to Hubbard type squash only.

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 1998

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