

**United States Department of Agriculture  
Agricultural Marketing Service, Science & Technology  
Pesticide Data Program**

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Title: Sampling Procedures on Site		
Revision: 6	Replaces: 4/24/06	Effective: 4/18/07

**1. Purpose:**

To standardize the sampling procedures for all States participating in the USDA/AMS Pesticide Data Program (PDP).

**2. Scope:**

This Standard Operating Procedure (SOP) shall be followed by the sample collectors during the sample collection process as required by PDP.

**3. Outline of Procedure:**

- 5.1 Assignment of Sample Collectors
- 5.2 Sample Designation and Amount
- 5.3 Sampling Procedures for Commodities
  - Fresh
  - Processed
- 5.4 Purchasing Samples

**4. References:**

- Sampling Managers' Conference Call, March 19, 2007
- PDP/MDP Technical Meeting, Richmond, VA, March 27-31, 2006
- Sampling Managers' Conference Call, March 13, 2006
- PDP/MDP Federal/State Meeting, Denver, CO, September 27-29, 2005
- Sampling Managers' Conference Call, November 18, 2004
- Sampling Managers Meeting, Manassas, Virginia, June 18-19, 2002
- Semi-Annual Program Plan, June-December 2002
- Federal-State Meeting, Seattle, Washington, October 30-November 1, 2002
- Sampling Managers Meeting, Alexandria, Virginia, April 18-19, 2000

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- SAMP PROC-5, “Collection, Packaging, and Shipping of Delicate Fresh Fruits and Vegetables,” February 3, 2000
- Memo; “Sample Sizes,” January 21, 2000
- Federal/State Meeting, Alexandria, VA, October 26-28, 1999

**5. Specific Procedures:**

5.1 Assignment of Sample Collectors

- a. Each State shall designate individuals to serve as their sample collectors and maintain a list of such personnel (refer to PDP SAMP PROC-01, Section 5.3). Changes to this list shall be provided to the MPO Sampling Manager, or designee, as they occur.
- b. Sample collectors shall have the necessary training and information provided to them prior to collecting any samples. State Sampling Managers shall keep on file a record of the training each sample collector receives. (Refer to SAMP ADMIN-02).
- c. States shall designate the number of commodity samples, with corresponding dates and sites, to be collected by each sample collector per month.
- d. If a sample(s) will not be collected due to personal emergency, plant closure, weather conditions, etc., the sample collector shall report it to the State Sampling Manager for reassignment to a different collector, alternate site, or sampling date.
- e. If it is found that a sample collector cannot sample a product on the scheduled day, he/she shall immediately notify the State Sampling Manager of such scheduled change. The State Sampling Manager (or designee) shall in turn notify MPO and contact the receiving laboratory to arrange for a resampling date.
- f. It is permissible to collect a sample on the month following the scheduled sample collection date **only** under one of the following circumstances: (1) carrier delays

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result in the sample(s) not arriving in acceptable condition on their scheduled date near the end of a month and it is not possible to resample before the month's end, (2) the sample(s) has arrived at the laboratory in unacceptable condition and it is not possible to resample before the month's end, or (3) special circumstances arise where consultation is made between the State and MPO and it is determined that resampling the following month is deemed necessary. In any of these instances, MPO *and* the receiving laboratory must be notified for approval to "make up" the lost sample(s) on a specified day the following month. Frequent make-ups are strongly discouraged. Over time, these actions may introduce undesirable bias in the PDP results. Make-up sampling may not occur at the end of a calendar year because the results would represent sampling efforts from two different years.

5.2 Sample Designation and Amount

- a. Samples collected by State sample collectors from a specific collection site will be termed a "site-sample."
- b. MPO provides "Fact Sheets" to State Sampling Managers that include collection information for each commodity. Fact Sheets contain statements regarding the size, variety, list of acceptable and unacceptable products for collection, and special packing/shipping instructions. Fact Sheets are not comprehensive, but are provided as a reference to be used in conjunction with PDP SOPs. It is advisable that sample collectors carry applicable Fact Sheets with them in the field for reference when making sample collections.
- c. The amount per sample, as designated by MPO, shall be collected for each commodity. Information regarding the amount of each sample collected will be provided in the Shipping Assignment Chart by the MPO Sampling Manager, or designee, prior to the beginning of each new quarter [refer to PDP SAMP PROC 01, Section 5.7]. The minimum sample amount will also be noted on each commodity's Fact Sheet.
- d. Although a minimum amount of samples is designated on each quarterly Shipping Assignment Chart and current Fact Sheet, sample collectors should be

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careful to collect as close to the minimum weight as possible. The use of a simple scale is encouraged. Acceptable weights for 5-lb samples must be within the range of 4-6 lbs and acceptable weights for 3-lb samples must be within the range of 2.5-3.5 lbs. Samples that weigh less or are smaller in size than the lowest end of these ranges are not acceptable; in these cases, the sample collector may be asked to re-sample the commodity. The MPO Sampling Manager will provide, via commodity Fact Sheets, additional requirements concerning sample weights on a commodity-by-commodity basis.

- e. For fresh produce, dry goods, and grain products, if the size or weight of the available sample is at least twice the required amount designated by the PDP Shipping Assignment Chart or Fact Sheet, the sample collector may open the container or package and remove the required amount. If packages are opened, the collector shall take necessary precautions not to contaminate the sample.
- f. States may be required to collect larger amounts per sample for Quality Assurance programs, or to split samples within the collection State. Sample collectors shall receive specific instructions from the State Sampling Manager regarding these exceptions.
- g. If a sample will be analyzed by more than one laboratory location, it may be necessary for the collector to pick-up duplicate amounts of the sample for shipment to each appropriate laboratory. When applicable, references will be made in PDP Shipping Assignment Charts for instructions on sample duplication and shipping destination

### 5.3 Sampling Procedures for Commodities

#### Fresh Commodities

Fresh commodities refer to raw, whole produce (i.e., whole carrots, heads of lettuce, stalks of celery, etc.). This does NOT include "prepared" produce, such as salad mixtures, sliced carrots or chopped celery, unless otherwise stated in writing by MPO. Items that are merely washed, brushed, or bagged are acceptable (i.e. leaf spinach, apples). Delicate commodities refer to fresh produce (i.e., strawberries,

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cherries, etc.) that are highly susceptible to bruising, crushing and/or deterioration during the sampling, packaging, and shipping process.

- a. Procedures for the Collection of Fresh Commodity Samples at Collection Sites
  1. Samples shall be collected at sites that include chain store distribution centers, warehouses, brokers, and terminal markets where each vendor is assigned an individual site code. Clustered vendors are located at a centralized facility where all vendors in a terminal market have the same site code; collection at these sites are described in Section 5.4 (b)..
  2. When selecting a pallet/group to be sampled at a vendor site, the sample collector shall use an appropriate means of random selection that is outlined in the State's internal Sampling Standard Operating Procedures (SOPs). These SOPs shall be kept on file by the State Sampling Manager. The random selection process used by the sample collectors must be acceptable to both the NASS statistician and the State Sampling Manager.
  3. Personnel at collection sites may randomly select a box or crate of product and have it available for the sample collector to pick-up. The sample collector should request that the product remain in a refrigerated area of the collection site until sample pick-up if that commodity would normally require refrigeration. If site personnel select the box or crate for the sample collector, this fact must be noted on the Sample Information Form (SIF). Collection site personnel may not collect the site-samples.
  4. Once a pallet/group has been randomly chosen, boxes/crates with origin identification may be sampled. It is permissible to collect the entire sample from one box/crate or from a variety of boxes/crates, provided that all boxes/crates are from *the same lot number*.

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5. Sample collectors shall be careful to select individual fruit or vegetables that are in good condition without any noticeable bruises, fungus, or other exterior damage. Additional information regarding sampling of various fresh fruit and vegetables is provided in commodity Fact Sheets.
  6. For the collection of delicate commodities, refer to PDP SAMP PROC-05, Collection, Packaging and Shipping of Delicate Fresh Fruit and Vegetables.
  7. Sample collectors shall take note if any expirations dates are recorded on the commodity that is being sampled. *If the date is expired on the selected sample, that sample shall not be collected.*
  8. Whenever possible, commodities should be collected and bagged in the warehouse facility to avoid exposure to inclement weather, high or sub-freezing temperatures, and external contamination possibilities. If necessary, however, an entire case of product may be taken to a more convenient location before removing the sample portion, provided that sufficient precautions are taken to ensure the sample remains in optimum condition and is not contaminated by external factors.
  9. Additional information regarding the sampling of specific fresh fruit and vegetables will be provided in writing to State Sampling Managers by the MPO Sampling Manager.
- b. Procedures for the Collection of Fresh Commodity Samples at Clustered Vendors:
1. Clustered vendors are all vendors located within a terminal market that have been assigned one site code.
  2. Upon arrival at a site that has clustered vendors, the sample collector should randomly select one vendor from which to sample. The vendor should be selected completely at random in accordance with internal State SOPs, with no subjective judgment by the sample collector.

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3. The vendor chosen at a clustered site is referred to as the primary site.
  4. If the commodity is not available at the primary site within the clustered vendor, the collector shall randomly select an alternate vendor. If the commodity is not available at the alternate vendor, it is permissible to select another alternate vendor or a proxy site, if necessary. If the sample must be collected the following day, the sample collector shall immediately notify his/her State Sampling Manager, who shall in turn notify the receiving laboratory.
  5. For each primary (or alternate) site, the sample collector shall go through the same process of randomly selecting a pallet and container as described in Section 5.3(a)(2) above.
  6. For the collection of delicate commodities, refer to PDP SAMP PROC-05: Collection, Packaging and Shipping of Delicate Fresh Fruit and Vegetables.
- c. Special Sampling Techniques for the Collection of PDP Samples
1. When collecting and packaging more than one commodity at the same site (or even on the same day), the sample collector shall incorporate a means of preventing cross-contamination between samples. This process may be accomplished by a number of methods such as utilizing disposable gloves, sterile hand wipes, or the washing of hands with soap and water between commodity types. If gloves are used (preferred method), they must be worn throughout the process of collecting the entire sample, properly discarded afterwards, and replaced by fresh gloves prior to collecting the next sample.
  2. All supplies used for the collection and storage of samples must be free of any contaminants that may affect the analytical results.

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3. Samples shall be placed in a plastic bag. Paper bags may be used only with certain commodities with written permission from the MPO Sampling Manager (paper bags may contain compounds that will affect analytical results).
4. The plastic bag shall be sealed in a manner that any attempt to tamper with the contents would easily be noticed. PDP will supply details to all States regarding the use of a uniform custody/tamperproofing seal. The tamperproofing seal shall be dated and initialed by the sample collector. Once the sample has been sealed, it may not be transferred to a different bag at a later time. A detailed description of the tamper-proofing method used by each State shall be included as part of the State's internal SOPs for sampling. These SOPs must be kept on file by the State Sampling Manager.
5. Each official bag shall be labeled to identify the sample with the sample identification number (refer to paragraph number 6 below), the code number of the primary site if an alternate site is sampled, a "P" for proxy site in the Source ID box if a proxy site is sampled, and the sample collector's name. All information may be pre-entered on the label except for the site number, date, and whether an alternate and/or proxy site was sampled. MPO will supply details to all States regarding use of a uniform identification label that will be affixed to every sample bag.
6. The sample identification number is a 17-digit number that uniquely identifies each sample. The identification number must include: 2-digit State of collection, 6-digit date (yy/mm/dd), 4-digit site code number, 2-digit commodity code, and 3-digit receiving laboratory code. An example sample identification number is: CO-050819-0046-OG-WA1 (Colorado collected on August 19, 2005 at site 0046 a sample of fresh oranges that will be analyzed at the Olympia, Washington laboratory).
7. It is permissible to place a number of tiny, pin-sized holes in plastic bags for ventilation.

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8. If only the exact sample amount(s) will be taken from the sampling site, the correct portion may be placed in the official sample container (bag) and sealed by the sample collector prior to exiting the facility. The entire case of product may, in agreement with the warehouse management, be taken to a more convenient location within the facility before removing the sample portion (e.g., area of the warehouse maintained at normal room temperature).
9. If the entire case of product will be taken from the sampling site, it is permissible for the sample collector to exit the facility prior to removing the sample portion (e.g., taking the case of product to the collector's vehicle).
10. Delicate fresh fruit and vegetables should be collected in accordance with SAMP PROC-05.

Processed Commodities

- a. Sampling procedures for processed commodities (canned, frozen, concentrates) will be the same as those for fresh commodities wherever possible. If deviations from these SOPs are required, they shall be approved in writing by the MPO Sampling Manager.
- b. Sample collectors should attempt to collect products as close to the amount designated by the PDP Shipping Assignment Chart and Fact Sheet as possible. Sample collectors may not open any processed product and remove product to obtain the appropriate size or weight unless previously approved in writing by MPO.
- c. Additional information regarding sampling criteria for processed products will be provided in writing to State Sampling Managers by the MPO Sampling Manager.
- d. Collectors shall be careful to select products that are free from any noticeable dents, leakage, or other noticeable exterior damage.

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- e. Processed commodities shall consist of only the commodity to be sampled. For example, creamed corn, vegetable mixes, Italian style tomatoes, juice blends or cocktail juices, etc. are not acceptable.
- f. In some instances, frozen or canned commodities may be substituted for fresh commodities. However, any substitution information will be provided on commodity Fact Sheets or otherwise in writing by the MPO Sampling Manager.
- g. Occasionally, the collection of concentrated commodities will be alternated with ready-to-serve products, or a frozen commodity will be alternated with a liquid form based on the ratio of U.S. consumption or national sales. Additional information regarding sampling criteria for concentrated commodities will be provided in writing to the State Sampling Managers by the MPO Sampling Manager unless otherwise stated in the Shipping Assignment Chart and commodity Fact Sheet.

5.4 Purchasing Samples

- a. The sample collector shall make payment to the appropriate site/vendor(s) as necessary.
- b. Exact method of payment (e.g., cash or State voucher) is determined by the individual States.
- c. A receipt must be provided by the vendor and retained by the State for all sample payments for a two year period. After two years, State Sampling Managers shall contact MPO for further instructions concerning the disposition or transfer of records.
- d. The sample collector may purchase either the required sample amount or the entire case of product as required by the vendor.
- e. If an entire case is purchased, records must be kept and retained for two years by the States as to the disposal (donated, left with vendor, etc.) of the unused

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product. After two years, State Sampling Managers shall contact MPO for further instructions concerning the disposition or transfer of records.

- f. Payment for samples should approximate the local retail price, but an additional amount may be added, as appropriate, for the vendor's time and trouble.
- g. Specific procedures/requirements regarding the purchase of PDP samples shall be explained as part of the State's internal SOPs for sampling.

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*Jo Dyer*

*4/18/07*

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Prepared by: Jo Dyer  
Sampling Manager, Pesticide Data Program  
8609 Sudley Road; Suite 206  
Manassas, VA 20110  
(703) 330-2300

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Date

*Diana Haynes*

*4/18/07*

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Approved By: Diana Haynes  
Technical Director, Pesticide Data Program  
8609 Sudley Road, Suite 206  
Manassas, VA 20110  
(703) 330-2300

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Date

*Martha Lamont*

*4/17/07*

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Approved By: Martha Lamont  
Program Administrative Director, Pesticide Data Program  
8609 Sudley Road, Suite 206  
Manassas, VA 20110  
(703) 330-2300

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Date

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Revision 6

April 2007

- Updated References
- Updated Effective date.
- Added new paragraph in Section 5.3 (a) (7) on product expiration dates
- Added wording in Section 5.3 (c) (5): "...(refer to paragraph number 6 below)."