

# 4

Treatment Manual

## Residue Monitoring

### *Instructions for Collecting, Packaging, and Shipping Residue Monitoring Samples*

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Currently, Plant Protection and Quarantine (PPQ) is *not* taking samples of commodities for residue monitoring. However, if residue monitoring becomes necessary, this section provides guidelines for taking samples that will be used for monitoring fumigant residues.

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#### Safety

Pretreatment samples will be shipped with dry ice. Be sure to store dry ice in well-ventilated areas and to transport dry ice and samples packed in dry ice in well-ventilated containers. Wear gloves when handling dry ice. For detailed information, see [Hazard Communication and Material Safety Data Sheets](#) on page 7-4-1.

The Department of Transportation (DOT) considers dry ice a hazardous material and requires that aircraft record the amount of dry ice carried in the cargo hold. Amounts of 5 pounds or less are not stringently regulated; however, include the weight of dry ice on the shipping label. In addition, some overnight delivery companies have restrictions on shipping dry ice. Equip shipping containers with loose-fitting lids to prevent an explosive release of sublimating carbon dioxide. Identify dry ice as ORM-A on the shipping label. Also indicate on the label that the package contains diagnostic specimens.

## Collecting the Sample

You must take a sample prior to treatment (pretreatment) and after aeration is completed (post-treatment). To avoid contaminating the sample, handle it as little as possible. Take pretreatment and post-treatment samples from the same general location within a given lot (i.e., the same bags, boxes, or other containers).

Some ports receive commodities several times a month. For example, the port of Ft. Lauderdale received 20 shipments of chayote in October 1992. These shipments need not be sampled each time. For frequently received commodities, ports should develop a routine sample collection plan, such as one sample collected per week. However, when a new commodity is received or a commodity is received infrequently (once a week or less), collect a sample each time the commodity is treated.

### Pretreatment Sample

1. Collect a minimum of 450g (approximately 1 lb.) except for herbs of which you need to collect 150 grams (approximately one-third pound). If you are collecting fruits or vegetables that are heavy (for example grapefruit or yams), be sure to collect at least two pieces of produce that weigh 450g.
2. Place these samples in containers with dry ice.
3. Ship the pretreatment samples separately from post-treatment samples.

### Post-Treatment Samples

1. Collect a minimum of 450g (approximately 1 lb.) except for herbs of which you need to collect 150g (approximately one-third pound). If you are collecting fruits or vegetables that are heavy (for example grapefruit or yams), be sure to collect at least two pieces of produce that weigh 450g.
2. Ship the post-treatment samples separately from the pretreatment samples and in accordance with standard shipping practices. If the samples require refrigeration, then ship the samples with wet ice or ice packs. If the samples are normally shipped at ambient temperature (e.g., yams), ship them without ice.

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## Labeling the Sample

Label each sample container with the State, county, date, and name of contents and whether the sample is “pre” or “post” treatment. For this label, use waterproof ink on a strip of masking tape or other label

material. Be sure to attach the label before leaving the sampling site. Securely fasten a plastic envelope containing the yellow copy of the APHIS Form 2061 to the side of the sampling container. Label this envelope with the same information that you placed on the sample container (State, county, date, and name of contents and whether sample was “pre” or “post” treatment).

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## Storing the Sample

Immediately place the samples in a freezer or refrigerator until ready to package the samples for shipping.

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## Shipping Samples

### Quarantine Requirements

Contact the State Plant Health Director to determine where to ship the samples. Ship all samples in leakproof, double sealed containers. Ensure the pretreatment sample is secure since it does not meet entry requirements for the United States.

Ship samples in coolers with dry ice packed above the samples. The lid of the cooler should be loose fitting to allow gasses to escape. Ship the samples using the contract overnight delivery service or the U.S. Postal Service Overnight Delivery.

