Introduction: Defining Terms Before Getting Started

Definitions:

Lot: Identifiable quantity that presumably has uniform characteristics

Elemental Sample: A sample taken from the lot at one source-point

Final Sample: Entire sample (all of product collected)

*In some cases, when product is too much to ship, a Final Sample can be reduced in size through subsampling

Laboratory Sample: The Sample to be sent to the laboratory for analysis; representative of the lot

Notes:

- The aim of this document is to encourage pragmatism, representatively, and avoid sample contamination

Step 1: Take small samples (elemental samples) at various source-points within the Lot

Minimum Sampling Requirements

<table>
<thead>
<tr>
<th>Product Size</th>
<th>Quantity Requirements (each elemental sample)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small products</td>
<td>1 kg or 2lbs</td>
</tr>
<tr>
<td>(weight &lt; 25g/unit)</td>
<td>(minimum 30-40 units)</td>
</tr>
<tr>
<td>Medium products</td>
<td>1 kg or 2lbs</td>
</tr>
<tr>
<td>(weight 25-250g/unit)</td>
<td>(minimum 10 units)</td>
</tr>
<tr>
<td>Large products</td>
<td>5kg or 4lbs</td>
</tr>
<tr>
<td>(weight &gt; 250 g/unit)</td>
<td>(minimum 5 units)</td>
</tr>
</tbody>
</table>

Notes:

- Number of minimum samples taken per lot is dependent on the size of the Lot, see table below
- 25g or 1oz
- 250g or 9oz or 0.5lbs

Lot Size

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Quantity Requirements (each lot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Lot (total lot &lt; 50kg)</td>
<td>3 Elemental Samples</td>
</tr>
<tr>
<td>Medium Lot (total lot 50-500kg)</td>
<td>5 Elemental Samples</td>
</tr>
<tr>
<td>Large Lot (total lot &gt;500kg)</td>
<td>10 Elemental Samples</td>
</tr>
</tbody>
</table>

Notes:

- 50kg or 100lbs
- 500kg or 1,000lbs

Minimum Number of Samples Per Lot (Frozen Products)

<table>
<thead>
<tr>
<th>Lot Size</th>
<th>Quantity Requirements (each lot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small Lot (total lot &lt; 25 packages or units)</td>
<td>1 package or 1 unit</td>
</tr>
<tr>
<td>Medium Lot (total lot 25-100 packages or units)</td>
<td>5 packages or 5 units</td>
</tr>
<tr>
<td>Large Lot (total lot &gt; 100 packages or units)</td>
<td>10 packages or 10 units</td>
</tr>
</tbody>
</table>

Step 2: Preparing the Final Sample

Composite the Elemental Samples

- Mix the various elemental samples to create one, larger, Final Sample.

Subsampling to meet shipping guidelines

If the final sample is too large for shipping (according to guidelines), a subsample should be taken by randomly picking product from the final sample in a representative fashion. Nevertheless, this subsampling should never involve the cutting, chopping, or opening of the product.

Shipping Guidelines

Guidelines: Shipping Instructions (California, Arizona, and Nevada)

Packaging

- Place tracking label (GSO Airbill) inside plastic sleeve
- Priority Pak must be completely sealed to ensure no damage will occur during ordinary handling
- Delicate fresh produce such as berries can be kept inside their clamshells
- Call AGQ to schedule a pickup with GSO

Calling AGQ: (805) 981-2972

- When calling AGQ, please have the following information ready:
  - How many packages will need to be picked up
  - The weight of each package
  - Packages less than 10lbs are preferable.
  - Please call as soon as possible. Samples are scheduled most efficiently during the morning.

Other Hours of Operation and Holidays

Hours of Operation: Golden State Overnight (GSO)

- Pickup service is available Monday through Friday
- Deliveries are made Monday through Friday, 08:00 to 17:00 (8am-5pm) PST
- Pickup service is not available Saturday - Sunday

Service Holidays

- Pickup or Delivery will not be available by GSO on the following Holidays:
  - New Years Day (Jan 1, 2013) Tuesday
  - Memorial Day (May 27, 2013) Monday
  - Independence Day (July 4,2013) Thursday
  - Labor Day (Sep 2, 2013) Monday
  - Thanksgiving Day (Nov 28, 2013) Thursday
  - Christmas Day (Dec 25, 2013) Wednesday
Methodology: Field Sampling

Preparation
- Care should be taken to avoid any alteration of the product that might affect the levels of pesticide residue for which the product is being tested.
- Use of latex gloves is required. Avoid contaminating the sample.
- Product sampled should be in good condition, clean, and not in contact with chemical products.
- Please assure the use of proper sampling materials (gloves, sterile or appropriate sampling bags).
- Very deteriorated product should be avoided during sampling.
- Samples should be traceable to one plot of less than 50 acres.
- Plots physically divided by a road or a river, even if smaller than 50 acres, shall be treated as two distinct plots.

Procedure
- Walk through the field in a manner that ensures each portion is equally represented. Depending on the field, this may be
- At each sampling point, product should be collected from all parts of the tree/bush (exterior, interior, upper, lower).

Example Patterns

Notes
- Laboratory Samples should not weight less than 500g or 1lb. This sample is understood to be a composite of at least 4-5 subsamples from different points in the plot.
- Sampling should be done for plots with homogenous treatments. Do not sample from various plots, especially if plots have different treatment programs.
- In general, take point samples from various points avoiding the edges of the plot, sampling the edges of the crop only in the event that the analysis is used to ascertain any cross-contamination from a neighboring plot or to investigate undeclared applications (in general, the edges of the plot are treated more heavily).
- In tree crops, bushes, or crops with heavy vegetation (e.g. citrus trees), not is the location of sampling important but the height as well (take from various heights).

Please refer to "Sampling Guidelines" for
- Minimum number of units per elemental samples
- Minimum number elemental samples per plot

Please refer to "Shipping Guidelines" for
- Maximum weight per sample to be sent
- Instructions for packaging
- Instructions for shipping

Methodology: Packing House, Container, or Warehouse Sampling

Preparation
- Use of latex gloves is required.
- Collect samples prior to shipment.
- Samples should be traceable to lots of origin.

Procedure
- Collect the following "elemental samples" to make one final sample.
- Collect a sample from at least 5 feet away from the front and to the other corner (opposite that above).
- Collect a sample from at least 5 feet away from the back and to one corner (left or right).
- Collect a sample from the extremities and opposite corners.
- In the case where subsample collection according to the above guidelines is physically impossible, subsamples should be taken from accessible parts of the lot using more or less the same principle.

Notes
- Take samples with traceable origin if possible (traceability).
- Depending on reason for analysis, sampling may be done before or after washing, and before or after post-harvest treatment. Please indicate in sample description any relevant details to aid in better interpretation of results.
- In general, samples should be collected only from unopened cases of product.