



# Dairy One

Forage Laboratory

## Collecting a Leaf Sample: Small Fruits & Fruit Trees

### Small Fruits

*Strawberries:* Sample the first fully expanded leaves after renovation or within the first 6 weeks after harvest.

*Raspberries:* Sample healthy leaves on non-fruiting canes between August 1st and 20th.

*Blueberries:* Sample healthy leaves between July 1st and August 30th.

Sample healthy leaves that are well exposed to light. These should represent the average condition of the planting and should not be damaged by: disease; insects; weather or mechanical injury.

Avoid mixing leaves from different cultivars or from plants of different ages.

A minimum of 50 grams (~ 2 oz) fresh weight from a minimum of 30 leaves are needed per sample. If possible, each leaf should be taken from a different plant within the sampled area. Since an accurate recommendation is dependent upon a pH reading, we strongly suggest that you test the pH at this time and record it on the appropriate line of the information sheet.

Plants sampled should represent the average condition within the planting unless samples are being taken to determine cause(s) of a distinct problem or condition.

Soil conditions, past fertilizer practices and spray program should be uniform (similar) over the entire sample area. If any of these conditions differ in different parts of the planting, it will be necessary to sample these areas separately.

Detach leaves and remove the petioles. Place leaves in a dry paper bag or perforated plastic bag and immediately label the bag so that you will know the area this sample represents.

### Tree Fruits

A sample consists of a minimum of 30 leaves and should be collected between 60 & 70 days after average petal fall date.

Select at least 60-100 leaves from the middle of the current season terminal shoots. If sampling is done later than 60 to 70 days after petal fall, select the first full-sized mature leaf behind the shoot tip. Select 1-2 leaves per shoot from several shoots on each of trees located throughout the area being sampled. A minimum of 50 grams (~ 2 oz) fresh weight is needed. Select shoots that are well exposed to light and are of average vigor (length and diameter) from the trees in the planting

For large trees, sample 5 to 7 feet above ground level. For small trees (young, trellised or slender spindle planting, sample: 3 to 6 feet above ground level. Trees sampled should represent the average condition within the orchard unless special samples are being taken to determine cause(s) of a distinct problem.

Remove leaves by pulling downward so the petiole remains attached to the leaf. Place leaves in a dry paper bag or perforated plastic bag and immediately label the bag for identification.

Avoid excessively strong shoots (near pruning cuts) and extremely week shoots. Do not include spur leaves or leaves that are damaged by diseases, insects, weather or mechanical injury. Do not mix leaves from trees of different varieties or ages.

Soil conditions, past fertilizer and spray programs should be uniform over the entire sample area. If any of these conditions differ in different parts of the orchard it will be necessary to sample these areas separately.

### Washing Leaf Samples

Wash the leaves before they wilt to remove spray residues and dirt. Gently rub the leaves together in a mild detergent solution (dish washing detergent in tap water). Shake to remove excess water and immediately rinse the sample in clean distilled water. Change the distilled water if it becomes dirty or after every 10 samples, whichever comes first. A sample is defined as 30 leaves. Shake again to remove excess water.

If a large number of samples need to be prepared, the leaves may be stored overnight in a refrigerator or ice chest to prevent them from drying out.

Spread out sample on clean paper towels until leaf surfaces are dry. Transfer sample to paper bag, with top open and dry at room temperature until the leaves are brittle. Boron free stamped paper bags are available upon request.

**NOTE:** DO NOT let leaves to stand in water – complete the washing and rinsing process in one minute or less.

### Submission Form

Fill out the submission form completely and keep a copy for your own records to aid in interpretation at a later date. Be sure that the leaf sample bag and the information sheet are marked with the same ID#.