

SAMPLE COLLECTION & PREPARATION FOR PERENNIAL FRUIT CROPS

Tissue samples for perennial fruit crops are typically taken when nutrient levels in leaves are relatively stable. All leaves for a sample should be collected from the same cultivar. The sampling procedure should be as random as possible. It is best NOT to take multiple leaves from the same bush or tree but rather collect from a wide selection of plants throughout the block you are sampling. Refer to NM-5 “Nutrient Management for Tree Fruits and Small Fruits” for more information on tissue sampling.

Consult Table 1 to determine the appropriate time to sample, number of samples/plant part, and the location on the plant for each fruit crop. Figure 1 has additional information on the proper sampling location.

Table 1. Sample collection summary

Crop	Time to Sample	Number of Samples/Plant Part	Location on Plant
Blueberries	1st week of harvest	40 leaves (detach petioles)	Current season’s growth
Brambles	Aug 1st – Aug 20th	60 leaves (detach petioles)	Select the most recent fully expanded leaf blade of each primocane.
Fruit Trees	Jul 15th – Sept 1st	50 leaves and petioles	Select shoots at eye level from around outside of the tree. Select shoots that make a vertical angle of 45-60 degrees to the ground. Remove 1 or 2 leaves from the mid-portion of the current season's growth (Figure 1).

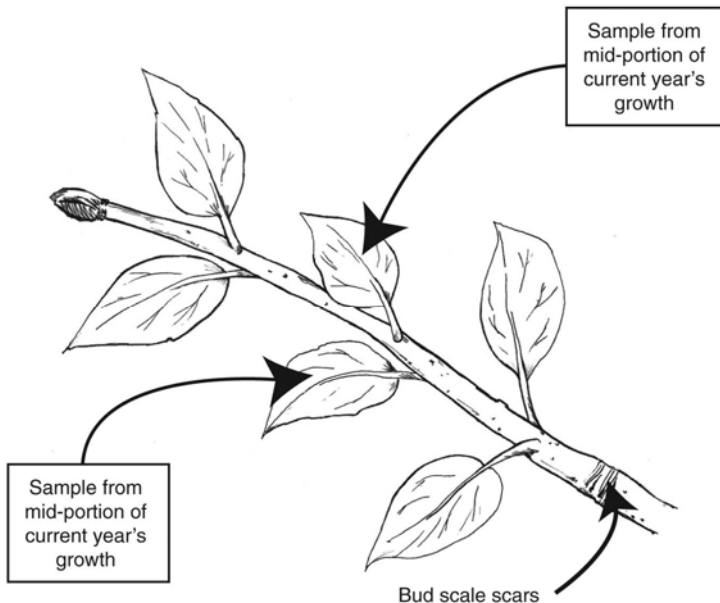


Figure 1. Proper sampling locations for fruit trees

(Drawn by Pete Mazzochi, Senior Graphic Designer, College of AGNR)

SAMPLING INSTRUCTIONS

Place samples in a labeled paper bag, such as a paper lunch bag. Unless using Agri Analysis' lab, set the bag in a dry location for 1-2 days to air-dry samples before closing the bag for shipment. (Agri Analysis prefers to receive fresh tissue. Ship samples as soon as possible after sampling.)

TISSUE ANALYSIS

Plant tissue can typically be analyzed by the same labs that analyze soil or manure samples. Table 2 provides a comparison of several labs that can analyze tissue samples. The cost of analysis varies from lab to lab.

Table 2. Comparison of tissue testing labs

Lab¹	Analysis Options
Agri Analysis, Inc. www.agrianalysis.com	PLT – N, P, K, Ca, Mg, Cu, Fe, Mn, Zn, B, Al, Na, S PMO – PLT plus Mo
Pennsylvania Agricultural Analytical Services www.aasl.psu.edu	Standard – N, P, K, Ca, Mg, Mn, Fe, Cu, B, Zn S is not included as part of the standard analysis (\$15.00 extra)
A & L Eastern Agricultural Lab www.al-labs-eastern.com	PT2 – N, P, K, Mg, Ca, Na, Fe, Al, Mg, B, Cu, Zn Individual analysis also available.
Spectrum Analytic, Inc. www.spectrumanalytic.com	P2 – N, P, K, Ca, Mg, S, B, Cu, Fe, Mn, Na, Zn
Waters Agricultural Laboratories, Inc. www.watersag.com	Basic Test – N, P, K, Mg, Ca, S, B, Zn, Mn, Fe, Cu Individual analysis also available.

¹ All labs have tissue submission forms on their web site.

Updated February 2009

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