

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/	LOCATION ON PLANT
Blueberries	1 st week of harvest	40 leaves (detach petioles)	Current season's growth
Brambles	August 1 st – August 20 th	60 leaves (detach petioles)	Select the most recent fully expanded leaf blade of each
Grapes	Full bloom; or 70-100 days post-bloom	Small = about 75 petioles Large = about 50 petioles	Bloom: opposite 1 st blossom cluster 75-100: across from last fully
Fruit Trees	July 15 th – Sept. 1 st	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.)
Strawberries	Late July or early August; after renovation	At least 50 leaves (not petioles)	Newly expanded leaves after renovation

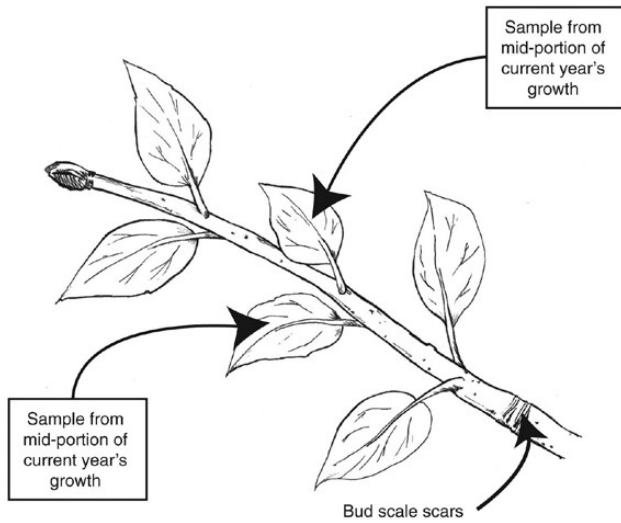


FIGURE 1. Proper sampling locations for fruit trees

(Drawn by Pete Mazzochi, Former 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 list of labs that can analyze tissue samples. The cost of analysis varies from lab to lab.

TABLE 2. List of tissue testing labs

<p>A & L EASTERN LAB, INC. 7621 Whitepine Rd., Richmond, VA 23237 Phone: (804) 743-9401 Fax: (804) 271-6446 www.al-labs-eastern.com</p>
<p>AGRI ANALYSIS, INC. A DIVISION OF PIONEER WATER TESTING LABORATORY, INC. 280 Newport Road, PO Box 483, Leola, PA 17540 Phone: (717) 656-9326 or 1 (800)-464-6019 www.agrianalysis.com</p>
<p>AGROLAB, INC. 101 Cluckey Dr., Harrington, DE 19952 Phone: (302) 566-6094 Fax 888/412-0873 www.agrolab.us</p>
<p>BROOKSIDE LABORATORIES, INC. 308 South Main Street, New Knoxville, OH 45871 Phone: (419) 753-2448 www.blinc.com</p>
<p>PENNSYLVANIA AGRICULTURAL ANALYTICAL SERVICES Penn State University, University Park, PA 16802 Phone: (814) 863-0841 www.aasl.psu.edu</p>
<p>SPECTRUM ANALYTIC, INC. PO Box 639, 1087 Jamison Road NW Washington Court House, OH 43160 Phone: (800) 321-1562 www.spectrumanalytic.com</p>
<p>WATERS AGRICULTURAL LABORATORIES, INC. 2101 Calhoun Rd, Highway 81, Owensboro, KY 42301 Phone: (270) 685-4039 www.watersag.com</p>

All labs have tissue submission forms on their websites.

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