

# UMass Extension

CENTER FOR AGRICULTURE

## Soil and Plant Nutrient Testing Laboratory

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USE THIS FORM FOR PLANT NUTRIENT SAMPLE SUBMISSION FOR TREE FRUIT. See page 2 for sampling instructions, fees, and description of services.

<b>Main contact:</b>	<b>Send copy to:</b>	<b>Method of receiving results</b>  <input type="checkbox"/> US Mail (please include \$2 for postage & handling)  <input type="checkbox"/> E-mail  Send copies to:
Name:	Name:	
Business Name:	Business Name:	
Street Address:	Street Address:	
City, State, and Zip	City, State, and Zip	
Phone:	Phone:	
E-mail address:	E-mail address:	

LAB # (Leave blank)	Sample ID (You create this)	Test requested	
		Standard (\$30)	or Standard w/o N (\$22)
		<input type="checkbox"/>	<input type="checkbox"/>

Order Total \$ \_\_\_\_\_

<p><b>Sample Information</b> <b>Crop, management, and soil information</b> Date Sampled: _____ Crop: _____ Variety: _____ Rootstock: _____ Age: _____ (years) Tree Spacing or population: _____ Tree vigor is: <input type="checkbox"/> poor <input type="checkbox"/> moderate <input type="checkbox"/> vigorous Lime: _____ tons/ac applied on: _____ (date) Fertilizer rate: _____ <input type="checkbox"/> lbs/tree <input type="checkbox"/> lbs/Acre Application date(s): _____ Were foliar nutrients applied this season? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, list rate(s) and date(s) _____ Soil Series (if known): _____</p>	<p><b>Complete this section for problem diagnosis</b>  If leaves are discolored, does color variation occur: <input type="checkbox"/> along leaf margins <input type="checkbox"/> interveinal <input type="checkbox"/> in spots <input type="checkbox"/> over entire leaf  Leaves first affected at shoot: <input type="checkbox"/> tip <input type="checkbox"/> base <input type="checkbox"/> over entire shoot  Symptoms first seen: _____ (month &amp; growth stage)  Describe additional symptoms: _____ _____ _____</p>
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**Sampling Instructions:**

For a routine evaluation of nutritional status, results will be compared with those from the scientific literature. It is extremely important that samples are collected at the growth stage and from the plant part for which plant nutritional data have been evaluated.

Leaf samples should be collected around 60 to 70 days after petal fall (between late July and early August for apples). Mid-shoot leaves should be collected from current season terminal shoots on the periphery of the tree.

Sampled trees should represent the general conditions of the orchard in terms of vigor, crop load, etc. For problem diagnosis, it is often helpful to collect and analyze separate samples from both affected and unaffected trees or areas. This allows a direct comparison of nutrient levels and may aid in diagnosing specific nutrient deficiencies.

When collecting tissue samples you should avoid diseased or dead plant tissue; tissue that has been damaged by equipment or insects; tissue that has been stressed by excessive heat, cold, or moisture

Each tissue sample should consist of about 50 leaves collected from several trees in the area being sampled. Do not mix leaves from different varieties, soil conditions, tree vigor, or fruit load.

Thoroughly rinse leaves to remove pesticides, foliar applied nutrients, and soil particles. Place sample on clean paper to dry. Place air-dried sample in a small paper bag labeled with your sample ID and complete the submission form. Hand deliver or mail sample, submission form, and a check or money order payable to UMass to the address listed at the top of this form.

**Plant Nutrient Test Descriptions & Fees**

**Standard Nutrient Test: \$30.00**

A determination of the Total Tissue P, K, Ca, Mg, Na, Zn, Cu, Mn, Fe, and B. Analysis by ICP Spectroscopy of acid wet digestion in Nitric Acid, Hydrochloric Acid, and Hydrogen Peroxide in a block digester. Total Nitrogen is determined by catalytic combustion.

**Standard Nutrient Test without Total Nitrogen: \$22.00**

Same as standard tissue test but without Total Nitrogen