

UMass Extension

CENTER FOR AGRICULTURE

Soil and Plant Nutrient Testing Laboratory

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

Main contact:	Send copy to:	Method of receiving results <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>Sample Information Crop, management, and soil information Date Sampled: _____ Crop: _____ Variety: _____ Growth Stage: _____ Plant Spacing or population: _____ Lime: _____ tons/ac applied on: _____ (date) Manure: _____ <input type="checkbox"/> tons/ac <input type="checkbox"/> gals/ac applied on: _____ (date) Was manure incorporated? <input type="checkbox"/> Yes <input type="checkbox"/> No Fertilizer application rate(s) and date(s): _____ _____ _____ Soil Series (if known): _____</p>	<p>Complete this section for problem diagnosis 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 & growth stage) Describe additional symptoms: _____ _____ _____ _____</p>
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Check#	PO#
Cash	

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(s) and from the plant part for which plant nutritional data have been evaluated.

Specific sampling instructions for the most common commercially grown vegetables in New England are provided here. For those not listed, it is generally best to sample the most recently developed leaves from the upper portion of the plant.

Samples should reflect areas with uniform management and soil type. Where differences occur within a block, sampling should be refined to represent these changes. Samples should represent only one cultivar, but should be collected from several different plants within the block.

When a nutrient deficiency is suspected, always attempt to collect a sample from plants in the affected area and a second sample from plants of the same variety in an area showing normal growth. This will allow for direct comparison of nutrient levels and may aid in diagnosing specific nutrient deficiencies.

When collecting tissues samples you should avoid diseased or dead plant material; tissue that has been damaged by equipment or insects; plant tissue that has been stressed by excessive heat, cold, or moisture. Seed should not be sampled because it does not generally reflect the nutrient status of the whole plant.

After collecting your composite sample, it is a good idea to rinse the tissue with clean water to remove pesticides, foliar applied nutrients, and soil particles. Place wet samples on a clean paper towel to dry. Once dry, carefully place sample in a small paper bag labeled with your sample ID and complete the submission form. Hand deliver or mail the 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

Crop specific sampling instructions:

Growth stage	Plant part collected	Number of plants sampled
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Field Corn

Early vegetative, less than 12"	Entire shoot w/o roots	15 to 20
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Late vegetative, prior to tasselling	Youngest fully developed leaf	15 to 20
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From tasselling to early silking	Entire ear leaf	15 to 20
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Soybean

Early vegetative, less than 12"	Entire shoot w/o roots	15 to 20
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During initial flowering	Youngest fully developed leaflet	20 to 25
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Small grain

Jointing, Zadocks growth stage 30	Entire shoot w/o roots	30 to 40
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Alfalfa, clover, and other forage legumes

Just prior to bloom	Entire leaflet collected about 1/3 of the way down the plant	30 to 40
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Hay, pasture, and forage grasses

Prior to head emergence, or at optimum growth stage for harvest