



**Soil and Plant Nutrient Testing Laboratory**

203 Paige Laboratory  
 161 Holdsworth Way  
 University of Massachusetts  
 Amherst, MA 01003  
 Phone: (413) 545-2311  
 e-mail: soiltest@umass.edu  
 website: http://soiltest.umass.edu/

**USE THIS FORM FOR PLANT NUTRIENT SAMPLE SUBMISSION FOR FIELD CROPS FOR UMASS RECHARGE. See page 2 for sampling instructions, fees, and description of services. Complete Recharge information requested below.**

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

<b>LAB #</b> (Leave blank)	<b>Sample ID</b> (You create this)	<b>Test requested</b> Standard (\$45) or Standard w/o N(\$30)	
		<input type="checkbox"/>	<input type="checkbox"/>

**Sample Information:**  
**Crop management and soil information**  
 Date Sampled: \_\_\_\_\_  
 Crop: \_\_\_\_\_ Variety: \_\_\_\_\_  
 Growth Stage: \_\_\_\_\_  
 Plant spacing or population: \_\_\_\_\_  
 Lime: \_\_\_\_\_ tons/acre applied on: \_\_\_\_\_ (date)  
 Manure: \_\_\_\_\_  tons/ac  gals/ac applied on: \_\_\_\_\_ (date)  
 Was manure incorporated?  Yes  No  
 Fertilizer application rate(s) and date(s): \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Soil Series (if known): \_\_\_\_\_

**Complete this section for problem diagnosis**  
 If leaves are discolored, does color variation occur:  
 along leaf margins  interveinal  in spots  over entire leaf  
 Leaves first affected at shoot:  tip  base  over entire shoot  
 Symptoms first seen: \_\_\_\_\_ (month & growth stage)  
 Describe additional symptoms: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

GL Unit	Speed Type	Account Code	Fund Code	Amount	GL Unit	Speed Type	Account Code	Fund Code	Order #
A					A	104913	699900	51069	

<b>Dept. ID:</b>	<b>Project/Grant:</b>	<b>Signature:</b>
------------------	-----------------------	-------------------

## Sampling Instructions

### *General Sampling Procedure:*

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 most common commercially grown field crops in New England are provided here. This is not a complete list. Contact the lab for sampling instructions for crops not listed here.

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 tissue 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 Tissue Nutrient Test Descriptions & Fees**

#### Standard Tissue Test: \$45.00

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. Also included, Total Nitrogen by catalytic combustion.

Standard Tissue Test Without Total Nitrogen: \$30.00 Same as standard tissue test but without N

### *Crop specific sampling instructions:*

<b>Growth stage</b>	<b>Plant part collected</b>	<b>Number of plants sampled</b>
---------------------	-----------------------------	---------------------------------

#### **Field Corn**

Early vegetative, less than 12"	Entire shoot w/o roots	15 to 20
---------------------------------	------------------------	----------

Late vegetative, prior to tasselling	Youngest fully developed leaf	15 to 20
--------------------------------------	-------------------------------	----------

From tasselling to early silking	Entire ear leaf	15 to 20
----------------------------------	-----------------	----------

#### **Soybean**

Early vegetative, less than 12"	Entire shoot w/o roots	15 to 20
---------------------------------	------------------------	----------

During initial flowering	Youngest fully developed leaflet	20 to 25
--------------------------	----------------------------------	----------

#### **Small grain**

Jointing, Zadocks growth stage 30	Entire shoot w/o roots	30 to 40
-----------------------------------	------------------------	----------

#### **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
---------------------	--	----------

#### **Hay, pasture, and forage grasses**

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