



**UMass Soil & Plant Nutrient Testing Laboratory**

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**USE THIS FORM FOR PLANT NUTRIENT SAMPLE SUBMISSION FOR VEGETABLE CROPS.** (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>  US Mail (Please include \$2 per order for postage & handling)  Email  <b>Send copies to:</b>
Name:	Name:	
Business Name:	Business Name:	
Street Address:	Street Address:	
City, State, Zip:	City, State, Zip:	
Phone:	Phone:	
Email Address:	Email Address:	

LAB# (Leave blank)	Sample ID (You create this)	Test Requested _____.
		Standard (\$45) or Standard w/o Nitrogen (\$30)

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

<p><b>Sample Information</b></p> <p><b>Crop, management, and soil information</b></p> <p>Date Sampled: _____</p> <p>Crop: _____ Variety: _____</p> <p>Growth Stage: _____</p> <p>Plant spacing or population: _____</p> <p>Lime: _____ tons/Acre applied on: _____ (date)</p> <p>Fertilizer rate(s) and date(s): _____</p> <p>_____</p> <p>_____</p> <p>Soil series (if known): _____</p>	<p><b>Complete this section for problem diagnosis</b></p> <p>If leaves are discolored, does color variation occur:        Along leaf margins    Interveneal    In spots    Over entire leaf</p> <p>Leaves first affected at shoot:    tip    base    over entire shoot</p> <p>Symptoms first seen: _____ (month &amp; growth stage)</p> <p>Describe additional symptoms: _____</p> <p>_____</p> <p>_____</p>
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Office Use Only	
Received	Due
Check#	PO#
Cash	Date

Please make check payable to the University of Massachusetts or "UMass"

### ***General Sampling Procedure:***

For a routine evaluation of plant status, we compare nutrient levels to data collected in scientific literature. It is extremely important to collect samples at the growth stage and from the plant part for which plant nutrient data is available.

Specific sampling instructions for the most common commercially grown vegetables in New England are provided here. This is not a complete list. **Contact the lab for crops not listed here to be sure plant nutrient data is available and for sampling instructions.**

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, and should be collected from several different plants within the block.

When you suspect a nutrient deficiency, always attempt to collect one 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, avoid diseased or dead plant material, tissue damaged by equipment or insects, and plant tissue stressed by excessive heat, cold, or moisture. Do not sample seed because it does not 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 air 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 check or money order payable to UMass to the address listed on the front of this form.

### **Plant Tissue Nutrient Test Descriptions & Fees**

#### **Standard Tissue Nutrient Test: \$45.00**

A determination of the Total Tissue P, K, Ca, Mg, 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 Total Nitrogen

### **Crop – Plant part collected – Growth Stage**

**Beans** – 10-15 uppermost recent fully-developed trifoliate leaves – Summer

**Beets** – 20-25 mature leaves from new growth – 4-6 weeks after seeding OR 8-10 weeks after seeding

**Broccoli or Cauliflower** – 12-15 mature leaves from new growth – At heading

**Brussels Sprouts** – 12-15 mature leaves from new growth– Maturity

**Cabbage** – 15-20 whole tops – 2-6 weeks old

**Cabbage** – 12-15 wrapper leaves – 2-3 months old **Cabbage** – 15-20 midribs from wrapper leaves – Mature plants

**Cantaloupe or Muskmelon** – 12 unfurled leaves (5<sup>th</sup> leaf from tip) – Flower start to small fruit OR Small fruit to harvest

**Carrots** – 15 mature leaves from new growth -Middle of growing season

**Carrots** – 15-20 oldest leaves – Mature plants **Celery, Field** – 12-15 petioles from most recent fully- developed leaves – 6 week old plants

**Celery, Field** – 12-15 mature leaves from new growth – Mature plants, non-flowering

**Celery, Greenhouse** – 12-15 mature leaves from new growth – 6 weeks after transplanting

**Collards or Kale** – 12-15 mature leaves from new growth – Middle of growing season

**Corn, Sweet** – 10-15 fully mature leaves from below the whorl – Prior to tasselling

**Corn, Sweet** – 10-15 entire leaves at the ear node – At tasselling

**Cucumber** – 12 leaf blades (5<sup>th</sup> leaf from tip) – Flower start to small fruit OR Small fruit to harvest

**Potato** – 25-30 most recent fully-developed leaves – Plants 30 cm tall OR Tubers ½ grown

**Pumpkin** – 15-20 mature leaves from new growth – Middle of growing season

**Radish** – 30-35 most recent fully developed leaves – Middle of growing season

**Spinach, Field** – 15-20 most recent fully developed leaves – 25-30 days old OR Mature plants

**Summer Squash** – 12 blades from most recent fully- developed leaves – Summer

**Tomato** – 15-20 compound leaves adjacent to top influor- escences - Mid-bloom

**Watermelon** – 10-12 unfurled leaves – Flower start to small fruit

**Watermelon** – 12-15 mature leaves from new growth – Mature plant, small fruit stage

**Watermelon** – 12-15 unfurled leaves (5<sup>th</sup> leaf from tip) – Older fruit to harvest

**Zucchini** – 12-15 mature leaves from new growth – Mature plants, non-fruiting