



# American Agricultural Laboratory, Inc.

700 West D St. / PO Box 370 / McCook, Nebraska 69001

Office: 308-345-3670 / FAX: 308-345-7880

[www.amaglab.com](http://www.amaglab.com)

## DIRECTIONS FOR TAKING LEAF AND PETIOLE SAMPLES

1. Use the following table as a guide for taking samples:

<b>Crop</b>	<b>Stage of Growth</b>	<b>Plant Part</b>
<b><u>FIELD CROPS</u></b>		
Alfalfa, clover	1/10 bloom stage	Mature leaf blades from upper 1/3 of plant
Beans (soybeans, field beans)	Seedling (up to 12" tall) Prior to or at flowering	All above ground portion of plant Most recent fully matured trifoliolate leaves
Corn	Seedling (up to 12" tall) Prior to tasseling Tassel or early silk	All above ground portion of plant Most fully developed leaf below whorl Ear leaf
Cotton	Prior to appearance of first squares	Petiole from fully expanded leaf on main stem, usually 3 <sup>rd</sup> or 4 <sup>th</sup> leaf from terminal
Grass	At optimum stage for quality forage or prior to heading	Four uppermost leaves
Small grain – wheat, barley, oats, rye, triticale	Seedling prior to jointing Prior to heading	All above ground portion of plant Four uppermost leaves
Sorghum/milo	Seedling (up to 12" tall) Prior to heading Soft Dough	Whole plant Fully Expanded Leaf Third Leaf Below Head
Sugar beets	Mid-season During growing season	Most recent mature leaf without petiole Petiole from most recent mature leaf

<b>Crop</b>	<b>Stage of Growth</b>	<b>Plant Part</b>
<b><u>FRUIT AND NUT CROPS</u></b>		
Apple, cherry, peach, pear	Mid-season	Leaves near base of current year's growth or from spurs
Grapes	End of bloom period	Petioles from leaves adjacent to fruit clusters
Lemon, lime	Mid-season	Mature leaves from last flush or growth on non-fruiting terminals
Orange	Mid-season	Spring cycle leaves, 4 to 7 months old from non-bearing terminals
Pecan	6 to 8 weeks after bloom	Middle pair of leaflets from mid-portion of terminal growth
Pistachio	6 to 8 weeks after bloom	Leaflet from mid-portion of non-bearing branches
<b><u>VEGETABLE CROPS</u></b>		
Cantaloupe	During growing season	Petiole of 6 <sup>th</sup> leaf from growing tip
Cucumber	Early fruit set	Petiole of 6 <sup>th</sup> leaf from tip
Muskmelon	During growing season	Petiole of 6 <sup>th</sup> leaf from growing tip
Onion	During growing season	Tallest leaf
Pepper - chili	During growing season During growing season	Petiole of young, mature leaf Blade of young, mature leaf
Pepper - sweet	During growing season During growing season	Petiole of young, mature leaf Blade of young, mature leaf
Potato	During growing season	Petiole of 4 <sup>th</sup> leaf from growing tip
Pumpkin	Early fruit set	Petiole of 6 <sup>th</sup> leaf from growing tip
Spinach	Midgrowth	Petiole of young, mature leaf
Tomato	During growing season During growing season	Petiole of 4 <sup>th</sup> leaf from growing tip Blade of 4 <sup>th</sup> leaf from growing tip
Watermelon	Early fruit set	Petiole of 6 <sup>th</sup> leaf from growing tip
<b><u>ORNAMENTALS</u></b>		
Ornamental trees, shrubs	Current year's growth	Fully developed leaves
Turf	During normal growing	Leaf blades

2. A leaf or blade sample should consist of 15 or more sub-samples taken at random throughout the area being sampled. A petiole sample should consist of 25 or more sub-samples taken at random. For potatoes, submit a minimum of 40 petioles per sample.
3. If a sample is taken from a problem area, obtain a comparison sample from a good area. Soil samples from the problem and good areas are helpful to identify the problem.
4. Avoid sampling along dusty roads.
5. Note samples that have received foliar fertilizer applications so the samples can be rinsed before analysis.
6. Place sample in paper bag and ship to the laboratory with a leaf or petiole sample submittal form. Do not mail samples in plastic bags or other air-tight containers.