Sampling Chart: Field Crops

The key to tissue testing is to take a representative sample from the proper plant part, at the correct stage of growth, and provide enough plant material for the laboratory to properly analyze the sample. A "softball" size sample should be enough material. Include a soil sample to aid in the interpretation of the results and the diagnosis of the problem, if one exists.

The chart below lists the proper stage of growth, plant part, and number of plants to sample for some common field crops. If the tissue sample is collected at any other time in the growing season, it may not be possible to interpret the results properly.

Crop	Stage of Growth	Plant Part	No. of Plants to Sample
Alfalfa	Bud to first flower	Top 6 inches	35
Alfalfa, Hay	Harvest	Whole plant	25
Barley	Prior to heading	Newest fully developed leaf	50
Snap bean	Prior to or at initial flower	Newest fully developed leaf	25
Grasses	Prior to heading	Newest fully developed leaf	50
Corn, Field	12 inches tall	Whole plant	20
Corn, Field	Pre-tassel	Leaf below whorl	15
Corn, Field	Tassel to silk	Ear leaf	15
Corn, Silage	Ensiled or chopped	Whole plant	2 qt
Corn, Sweet	Tassel to silk	Ear leaf	15
Corn, Pop	Tassel to silk	Ear leaf	15
Mint	Flowering	Whole plant	25
Oats	Prior to heading	Whole plant	50
Pea, Canning	Prior to at initial flower	Newest fully developed leaf	25
Potato	Prior to or at initial flowering	4th petiole and leaflet(whole leaves)	40
Potato	Tuber bulking	4th petiole and leaflet(whole leaves)	40
Potato	Prior to or at initial flowering	4th petiole from top	50
Potato	Tuber bulking	4th petiole from top	50
Rye	Prior to heading	Newest fully developed leaf	50
Sorghum, Grain	Prior to heading	2nd fully developed leaf	20
Sorghum, Sudan	Prior to heading	Newest fully developed leaf	50
Soybean	Seedling stage	Entire above ground portion	20-30
Soybean	Prior to or at initial flowering	Newest fully developed leaf	25
Sugar Beet	Prior to or at initial flowering	Newest fully developed leaf	25
Sunflower	Florets about to emerge	Newest fully developed leaf	20

^{*}NOTE: For crops not listed, please contact AgSource Laboratories. For more information, visit http://www.soils.wisc.edu/extension/pubs/pa_sampling.pdf.

