

# Plant Tissue Sampling



## Fruit and Vegetable 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.

These charts for fruit and vegetable tissue sampling list the proper stage of growth, plant part, and number of plants to sample for some common vegetable crops. If the tissue sample is collected any other time in the growing season, it may not be possible to interpret the results properly.

### FRUIT

Crop	Stage of Growth	When to Sample	Plant Part	Sample Size
Apple	Current season's shoots	July 1-15	Fully developed leaves at midpoint of new shoots	4 leaves or more
Blackberry	New plantings	Aug 15-Sept 1	6th leaf and 12th leaf (with petioles) from tip	2-3 leaves from 10 canes
	Established plantings	Sample after fruit harvest		
Blueberry	New summer growth	July 15-Aug 15	Fully developed leaves	35 shoots
Cherry (sour)	Current season's shoots	July 1-15	Fully developed leaves at midpoint of new shoots	4 leaves or more
Cranberry	Current season's shoots	Aug 15-Sept 15	Growth above berries	200 uprights
Grape	Full bloom but before harvest	From bloom to harvest	Newest fully developed petiole (no leaves needed)	5 petioles each from 10 vines
Pear	Current season's shoots	July 1-15	Fully developed leaves at midpoint of new shoots	4 leaves or more
Raspberry	New plantings	Aug 10-Sept 4	6th and 12th leaves and petiole from tip	2-3 leaves from 10 canes
	Established plantings	Sample after fruit harvest		
Strawberry	New plantings	Aug 15-Sept 15	Fully developed leaflets and petioles	40 leaflets and petioles
	Established plantings	From bloom to harvest		
Christmas Trees	Current season's growth	Aug 15-Mar 15 or anytime there is no active growth	Fully developed tips	4 or more stems

For more information, visit [http://www.soils.wisc.edu/extension/pubs/pa\\_sampling.pdf](http://www.soils.wisc.edu/extension/pubs/pa_sampling.pdf).

## VEGETABLE

Crop	Stage of Growth	When to Sample	Plant Part	Sample Size
Asparagus	Mature fern	Depends on growing degree days	Fern 17-35 inches up	20
Beet (red)	Midseason		Youngest mature leaves	20
Broccoli	Heading		Youngest mature leaves	20
Brussels Sprout	Heading		Youngest mature leaves	20
Cabbage	Midseason		Wrapper leaves	20
Carrot	Midseason		Youngest mature leaves	20
Cauliflower	Midseason		Youngest mature leaves	20
Celery	Midseason		Youngest mature leaves	20
Cucumber	Prior to or at early fruit development		Youngest mature leaves	20
Ginseng	Midseason		Youngest mature leaves	35
Lettuce	Midseason		Wrapper leaves	20
Melon	Prior to or at early fruit development		Newest fully developed leaves	25
Muskmelon	Prior to or at early fruit development		Newest fully developed leaves	25
Onion	Midseason		Tops, no white portion	20
Pepper	Prior to or at early fruit development		Petiole and leaflets	40
Pumpkin	Prior to or at early fruit development		Newest fully developed leaves	25
Spinach	Midseason		Newest fully developed leaves	25
Squash	Prior to or at early fruit development		Newest fully developed leaves	25
Tomato	Midseason		Newest fully developed leaves	40
Watermelon	Prior to or at early fruit development		Newest fully developed leaves	25

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