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## PLANT TISSUE Sampling Guidelines

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### COLE CROPS

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**BROCCOLI**  
**BRUSSEL SPROUT**  
**CABBAGE**  
**CAULIFLOWER**  
**CHINESE CABBAGE**  
**LETTUCE**

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#### Recommended timing

Plant tissue samples may be taken any time after the plant has become established and is actively growing. In direct-seeded crops, the first samples may be taken when 4-6 true leaves are present. In transplant crops, our recommendation is to wait 2-4 weeks after transplanting before taking plant samples. This allows the transplant to become established in its new environment, and will provide a better indication of plant nutrient status. Plant tissue samples should be taken at additional key growth stages unique to the crop. For example, in broccoli, other key growth stages include development of first bud and heading. In brussel sprouts, development of the first harvestable buds is a key growth stage. In cabbage and lettuce, folding of inner leaves and soft head development are key growth stages. Folding of inner leaves and development of button head are key growth stages in cauliflower.

#### Sampling

For all samples, after selecting the appropriate leaf, separate the midstem from the leafy portion. Analyze the midstems for soluble  $\text{NO}_3\text{-N}$ ,  $\text{PO}_4\text{-P}$  and K. Use the leafy portion for total N and P (if desired) and for all other nutrients. Depending on size of the plant at time of sampling, 30-100 petiole/leaves will provide an adequate sample.

##### **Broccoli**

##### **Brussel sprout**

##### **Cauliflower**

All stages ..... Select the youngest, fully mature leaf.

##### **Cabbage**

##### **Chinese cabbage**

##### **Lettuce**

Seedling to folding ..... Select the youngest, fully mature leaf.

Folding to maturity ..... Sample the wrapper leaf or outermost leaf on the head.

#### Preferred analyses

All stages – Test codes 1155 or 1156.

If total N and P desired – Test code 1254.

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#### Seedling to Folding Stage

*Diagram not available*

Select youngest, fully mature leaf.

#### Folding Stage to Harvest

Select wrapper leaf

Separate midstem for  
 $\text{NO}_3\text{-N}$ ,  $\text{PO}_4\text{-P}$ , and K

Use leafy portion for total N,  
P, K and micronutrients