CROP GUIDE - Brassica

Sampling Notes

KB Item: 3437v3

This is a general guide that applies to brassica crops, including cabbage, broccoli, brussel sprouts, cauliflower and choumoellier.

Leaf

Sampling Time:	Mid-growth, or when the plant is starting to head.
Plant Part	For cabbages and cauliflower beginning to head sample the wrapper leaf. For all others, sample recently matured leaves.
Collect From:	-
Quantity per Sample:	20 - 30 leaves.
Recommended Tests:	Basic Plant (BP), Molybdenum (Mo).
Comments:	To help diagnose an obvious problem, leaves showing the first signs of the distinctive symptoms should be collected as soon as abnormalities appear. If sampling outside the normal sampling time it is useful to take a second sample of similar, healthy leaves from nearby unaffected plants for analysis as a comparative standard.

Soil

Sampling Time:	Prior to crop establishment.
Core Depth	15cm.
Collect From:	Randomly throughout the area to be planted.
Quantity per Sample:	12 - 20 cores.
Recommended Tests:	Basic Soil (BS), Sulphate S (SO4), Available Nitrogen (AN).
Comments:	If a problem is suspected during the growing season, then a sample should be taken from the rooting zone immediately adjacent to the plant. Collecting a second sample from an unaffected area may help identify the cause of the problem.

Comments

Brassica are noted for their deficiencies of boron (club roots, hollow stem) and molybdenum (whiptail in cauliflower). Other deficiencies that occasionally occur are of nitrogen, sulphur and zinc.

Nitrogen deficiency will appear as a purple pink coloration in the foliage. This symptom can also be induced by other factors such as cold weather, root damage from nematodes, drought stress and water logging.

Results for copper, zinc and manganese in leaves sprayed with fungicides will not be reliable due to adhering spray residues on the leaves.

Iron deficiency symptoms may exist even when leaf levels appear satisfactory. This may be due to the presence of physiologically inactive forms of iron within the tissue. Also, soil contamination of leaves growing near the ground may elevate total iron results.

References

Fertiliser recommendation for horticultural crops. HortResearch HortNET, 1997.
Blackmore, L.C; Searle, P.L and Daly, B.K. 1987. Methods for chemical analysis of soils. NZ Soil Bureau Scientific Report 80. NZ Soil Bureau, DSIR.
Weir, R.G. and Cresswell, G.C. 1995. Plant nutrient disorders 3. Vegetable crops. Inkata Press.
Scaife, A. and Turner, M. 1983. Diagnosis of mineral disorders in plants. Volume 2, Vegetables. MAFF/ARC London.

Disclaimer

Normal Range levels shown as histograms in test reports relate specifically to the sampling procedure provided in this crop guide. The Normal Range levels in test reports and Comments provided in this Crop Guide are the most up to date available, but may be altered without notification. Such alterations are implemented immediately in the laboratory histogram reports. It is recommended that a consultant or crop specialist be involved with interpretations and recommendations.