




## CROP GUIDE - Beetroot

### Sampling Notes

KB Item: 3432v3

The nutritional status of this vegetable crop is monitored using soil tests and plant analysis. Monitoring regularly is important to help sustain optimum levels and avoid nutritional disorders. If disorders do occur, rapid diagnosis is necessary to assist correction.

Leaf	
<b>Sampling Time:</b>	When the root is 4 - 6 cm in diameter.
<b>Plant Part</b>	Youngest mature leaf (blade & petiole).
<b>Collect From:</b>	-
<b>Quantity per Sample:</b>	20 - 30 leaves.
<b>Recommended Tests:</b>	Basic Plant (BP), Molybdenum (Mo).
<b>Comments:</b>	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	
<b>Sampling Time:</b>	Prior to crop establishment.
<b>Core Depth</b>	15cm.
<b>Collect From:</b>	Randomly throughout the area to be planted.
<b>Quantity per Sample:</b>	12 - 20 cores.
<b>Recommended Tests:</b>	Basic Soil (BS), Sulphate S (SO <sub>4</sub> ), Available Nitrogen (AN).
<b>Comments:</b>	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

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Nitrogen deficiency will show as either purpling or yellowing of the older leaves, poor growth and small roots.

Beetroot are known to be susceptible to boron deficiency. This can cause a condition known as canker, which is scattered black lesions in the flesh of the root.

Deficiencies of zinc and manganese have also been recorded.

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

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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.

## Disclaimer

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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.