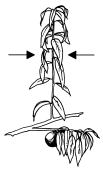
Crop Guide KB Item 3483v4

Peach

Sampling Notes

To ensure maximum yields of quality peaches, plant nutrients must be maintained at optimum levels. The nutritional status of peaches is monitored using soil tests and plant analysis. Annual monitoring or crop logging is important to help sustain optimum levels and avoid nutritional disorders. If disorders do occur, rapid diagnosis is necessary to assist correction.

Leaf



Sampling Time: January and February.

Plant Part Youngest mature leaf (blade & petiole).

Collect From: Mid portion of the current season's non-fruiting laterals (extension growth), taken at shoulder height.

Quantity per Sample: 4 representative leaves from the periphery of each of 25 trees.

Recommended Tests: Basic Plant (BP).

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 trees for analysis as a comparative standard.

Soil

Sampling Time: Prior to crop establishment and annually at any time of the year, although autumn to winter is recommended.

Core Depth 15cm.

Collect From: From the drip zone of the trees.

Quantity per Sample: 12 - 20 cores from under trees selected at random from throughout the block.

Recommended Tests: Basic Soil (BS).

Comments: Separate samples should be taken from blocks that differ in age, cultivar types, tree performance, soil types, topography and fertiliser history.

Where fertiliser has been broadcast, sample from the drip zone of the trees. Where fertiliser has been banded, samples should only be taken from areas under the drip zone which have previously received fertiliser.

If the orchard has herbicide treated strips, then it is best if these are sampled separately from the grassed areas between rows. Quite different nutrient levels may exist between these two areas.

When sampling prior to orchard establishment, a 15 - 40 cm depth sample should also be taken, primarily to check the sub-soil pH.

Comments

Fruit quality may be improved if nitrogen is kept at the lower end of the normal range.

Boron deficiency for most stonefruit is more obvious in fruit than foliage, with peaches being less susceptible than most other stonefruit. Symptoms include small and abnormal fruit with internal necrotic patches.

Conversely, peaches are more sensitive to boron toxicity than other stonefruit. Except for old and non-fruiting trees, this crop has the ability to translocate boron from the leaves to the fruit and bark, so that leaf boron levels remain normal and the classic boron toxicity symptoms of marginally yellowed or burned leaves are consequently not observed. In extreme cases there is thickening of leaves, corkiness along the midribs and petioles, enlarged nodes, bark necrosis and death of the shoot tips. Boron toxicity problems can arise in newly planted areas that were previously in apples and where boron had been applied.

Stonefruit will grow best within a soil pH range of 6.0 - 6.7. At lower pH, root growth and tree health are adversely affected by aluminium and manganese toxicity. At higher pH, trace element deficiencies can be induced.

It has been suggested that the soil potassium level should be 3-4% of the CEC. Calcium should occupy 70-80% of the CEC sites and magnesium, 10-15%.

Like all stonefruit, peaches prefer well draining soils.

References

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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.

Reuter, D. J. and Robinson, J. B. (Eds) 1997. Plant analysis. An interpretation manual. Second edition.

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.