

Persimmon

Sampling Notes

For maximum yields of quality fruit, plant nutrients must be maintained at optimum levels. 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.

The standard leaf sampling period is February/March. Data is also available for sampling in December if this should be necessary.

Leaf

Sampling Time: February and March.

Plant Part Youngest mature leaf (blade & petiole).

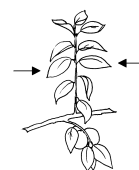
Collect From: Mid portion of the current season's non-fruiting laterals (extension growth), taken at shoulder height.

Quantity per Sample: 4 representative leaves from the periphery of each of 15 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.

In young blocks, not yet producing fruit, collect young mature leaves from the most recent vegetative growth. The most recently matured leaves produced during the summer months are generally a lighter green colour than the older leaves produced in the spring.



Soil

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

Core Depth 15cm.

Collect From: From the drip zone of the trees.

Quantity per Sample: 15 - 20 cores.

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 20 - 40 cm depth sample should also be taken, primarily to check the sub-soil pH.

Comments

The disorder "Green Blotch" can appear in persimmon fruit and is associated with a high manganese/low calcium imbalance. Even though the leaf manganese levels can be very high, there are usually no symptoms apparent in the leaf, only in the fruit. Corrective action in the form of increased liming have not been entirely satisfactory.

Magnesium and manganese are the prevalent deficiencies reported in New Zealand orchards.

Magnesium deficiency symptoms appear as interveinal necrotic tissue in young summer growth in March.

Calcium and iron deficiencies have been observed in seedlings. Symptoms include puckered and crinkled leaves, especially near their apex.

The Normal Range levels above are for fruiting trees. Non-fruiting trees tend to have lower nitrogen and calcium levels.

Persimmon grow on a wide range of soil types, but prefer deep, fertile, well drained soils.

The soil pH is particularly important, and it is recommended that it be maintained at close to 6.5. This is important, both in the surface soil and in the zone 20 - 40 cm deep.

Manganese deficiency tends to be induced by soil pH levels exceeding 7.

References

Clark, C.J. 1986. National survey of fruiting persimmon orchards (RH331), July.

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.

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.
