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Sampling

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.

Leaf

Sampling Time: February and March.

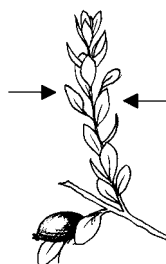
Plant Part: Youngest mature leaf (blade & petiole).

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

Quantity per Sample: 40-60 leaves from trees selected at random from throughout the block.

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 early winter is recommended.

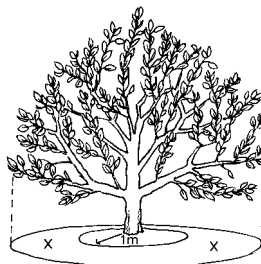
Core Depth: 15 cm.

Collect From: From the drip zone of the trees.

Quantity per Sample: 12 - 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 root zone of the trees. Where fertiliser has been banded, samples should only be taken from areas under the vines 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.

Interpretation

Interpretation of the laboratory's results is possible by comparison with normal levels expected for the crop in question. The interpretation given here are based on the best information available and relate specifically to the sampling instructions given.

Leaf			Soil		
<i>Element</i>	<i>Unit</i>	<i>Normal Range</i>	<i>Element</i>	<i>Unit</i>	<i>Normal Range</i>
Nitrogen	(%)	1.3 - 1.5	pH	-	5.8 - 6.8
Phosphorus	(%)	0.06 - 0.08	Olsen P	(ug/ml)	30 - 50
Potassium	(%)	0.6 - 1.0	Potassium	(me/100g)	0.50 - 1.00
Sulphur	(%)	0.12 - 0.16	Calcium	(me/100g)	6.0 - 12.0
Calcium	(%)	1.50 - 2.00	Magnesium	(me/100g)	1.00 - 3.00
Magnesium	(%)	0.20 - 0.25	Sodium	(me/100g)	0.00 - 0.50
Sodium	(%)	0.03 - 0.05	CEC	(me/100g)	12.0 - 25.0
Iron	(ug/g)	70 - 100	Volume Weight	(g/ml)	0.60 - 1.00
Manganese	(ug/g)	400 - 600			
Zinc	(ug/g)	15 - 20			
Copper	(ug/g)	2 - 5			
Boron	(ug/g)	40 - 60			

Comments:

The feijoa is a native of South America. In New Zealand it appears to be a hardy crop, tolerating a range of climates and soil conditions. They can thrive in soils that are naturally low in plant nutrients.

Water logged or alkaline soils should be avoided with this crop.

Foliar nutrient applications have been reported to adversely affect the keeping quality of the feijoa fruit.

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.

Disclaimer:

Normal Range levels quotes relate specifically to the sampling procedure given. The Normal Range levels and Comments provided are the most up to date levels 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.