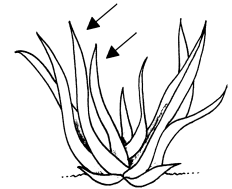




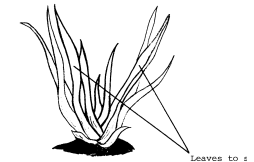
Sampling Notes

Also known as Orchid. The nutritional status of this flower 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	
Sampling Time:	Not specified.
Plant Part	Recently matured 5th or 6th leaves, cut at the base of the leaves.
Collect From:	-
Quantity per Sample:	20-30 leaves.
Recommended Tests:	Basic Plant (BP).
Comments:	Remove any white, hard tissue from the very base of the leaves. The sample should consist of green tissue only.



Media	
Sampling Time:	Prior to crop establishment.
Plant Part	2-20cm.
Collect From:	From the root zone of the plants.
Quantity per Sample:	0.5-1 litre.
Recommended Tests:	Basic Media (BM).
Comments:	Orchids are usually grown in coarse, relatively inert potting media, and are therefore grown essentially by hydroponics. 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.



Soil	
Sampling Time:	Prior to crop establishment.
Core Depth	15cm.
Collect From:	From the root zone of the plants.
Quantity per Sample:	12 - 20 cores.
Recommended Tests:	Basic Soil (BS).
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.

Interpretation

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

Leaf			Media			Soil		
Analyte	Unit	Range	Analyte	Unit	Range	Analyte	Unit	Range
Nitrogen	%	1.3 - 2.1	pH	pH	5.2 - 6.5	pH	pH	5.7 - 6.4
Phosphorus	%	0.15 - 0.24	Electrical Conductivity	mS/cm	0.50 - 1.2	Olsen Phosphorus	mg/L	25 - 50
Potassium	%	1.3 - 2.5	Nitrate-N	mg/L	20 - 50	Potassium	me/100	0.50 - 0.80
Sulphur	%	0.12 - 0.27	Ammonium-N	mg/L	1.0 - 15	Calcium	me/100	6.0 - 12
Calcium	%	0.41 - 1.5	Phosphorus	mg/L	5.0 - 15	Magnesium	me/100	1.0 - 3.0
Magnesium	%	0.12 - 0.22	Potassium	mg/L	20 - 50	Sodium	me/100	0.0 - 0.50
Sodium	%	0.0 - 0.40	Calcium	mg/L	15 - 40	Volume Weight	g/mL	0.60 - 1.0
Iron	mg/kg	41 - 120	Magnesium	mg/L	6.0 - 15	CEC	me/100	12 - 25
Manganese	mg/kg	40 - 300	Sodium	mg/L	5.0 - 30			
Zinc	mg/kg	18 - 22						
Copper	mg/kg	4.0 - 15						
Boron	mg/kg	20 - 120						

Comments

Most orchids are grown in soil-less media, usually with good drainage characteristics.

The normal range leaf levels are based on samples analysed by MAF during 1979 and 1980, with slight modifications based on data obtained through this laboratory.

References

Dorofaeff, F.D. 1980. Orchids cymbidiums: Nutrient testing of leaves. Horticultural Produce & Practice 193. MAF (NZ).

Disclaimer

Normal Range levels quoted 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.