

Avocado Leaf Analysis Guide

Through research and experience gained thus far in leaf analysis, the ranges of elements in avocado leaves have been tentatively established.

These are useful as a guide to fertilization and orchard management but should not be taken as absolute values for all varieties under all conditions. In most cases, deficiencies of the micronutrients (zinc, iron) may be determined by visual symptoms.

The following list is based on the analysis of the most recently expanded and matured, healthy, terminal leaves sampled during the mid-August to mid-October period. These will normally be leaves from the spring growth cycle and will be 5 to 7 months old. The values are expressed on a dry-matter basis.

Tentative Guide for Avocado Trees					
Ranges					
Element		Unit	Deficient Less than	Adequate	Excess More than
Nitrogen	(N)	%	1.6	1.8-2.4	2.8
Phosphorus	(P)	%	0.05	0.08-0.25	0.3
Potassium	(K)	%	0.35	0.75-.02	3.0
Calcium	(Ca)	%	0.5	1.0-3.0	4.0
Magnesium	(Mg)	%	0.15	0.25-0.80	1.0
Sulfur	(S)	%	0.5	0.20-0.60	1.0
Boron	(B)	ppm	10-20	20-100	100-250
Iron	(Fe)	ppm	20-40	50-200	?
Manganese	(Mn)	ppm	10-15	30-500	1000
Zinc	(Zn)	ppm	1-20	30-150	300
Cooper	(Cu)	ppm	2-3	5-15	25
Molybdenum	(Mo)	ppm	0.01	0.05-1.0	?
Chloride	(Cl)	%	?	?	0.25-0.50
Sodium	(Na)	%	--	--	0.25-0.50
Lithium	(Li)	ppm	--	--	50-75

ppm = parts per

To avoid confusion of trying to remember when you fertilized last, get into the habit of applying fertilizer during the first irrigation of each month. This way you know the job is done and you don't need to be concerned until the first irrigation of the next month. The solubility of the dry materials is about 7 pounds per gallon, so a 30-gallon injector tank could dissolve up to 210 pounds of dry material. When fertilizing through drip irrigation, it is well to fill the system and irrigate for a quarter of the total time, then inject the nitrogen. The nitrogen will be run through the system with adequate time for flushing the lines before the end of the irrigation cycle.