



# Nutritional

## Deficiencies Symptoms



# CITRUS.



**Quimifol<sup>®</sup>**

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## Nutritional Deficiencies Symptoms Guide

Quimifol®



### nitrogen.

Decrease in growth; smaller and sparse leaves; uniform yellowing of the leaf blade with occasional discoloration of the ribs; greater intensity in the branches with fruits; smaller fruits; with thin skin and which mature early.



### phosphorus.

Leaves with dull green color and then tanned; defoliation during and after flowering; decrease in the trunk and branches growths; reduction in flowering; fruits with separate central rachis.



### potassium.

Reduction in the size of fruits; new leaves of smaller size; defoliation; drying of new branches; fruits cracking; thickening of the white portion of the shell and separation of mesocarp; greater fall of fruits.



### calcium.

Poorly developed root system; chlorosis on the borders of new leaves, moving from the edges to the center; premature leaf fall; small and deformed fruits.



### magnesium.

Yellowing between the ribs of older leaves that go from the center to the periphery, the basal part remains green until an advanced stage, which leads to formation of a typical green "V"; increase on the alternation of crops; smaller fruits.



### sulphur.

Uniform chlorosis of the younger leaves, sometimes with prominent ribs and the old leaves remain green.

### boron.

Growth declined, short internodes giving the plant a bushy appearance; the new budding has green color, is dull, thin, with some deformed leaves or bizarre forms; fruits can have very thick albedo and with gum pockets; excessive fall of dried fruits.



### zinc.

New leaves with chlorosis, smaller, sharp, narrow, with yellow bright internodal regions, contrasting with a green background; short internodes; downward death of the branches; small and pale fruits.



### manganese.

Young leaves with pale green grid over the entire leaf, the grid may have the appearance of a horseshoe, with the open side facing the main rib or can show veins with dark green, following the ribs, among which the color is pale green.



### iron.

New leaves with very thin rib grids against yellow or light green background, in severe cases, the leaves may be completely yellow, with smaller size and the external buds may die.



### molybdenum.

Old leaves with chlorotic spots which later develop into a uniform yellowing, similar to nitrogen deficiency; fall of flowers and fruits.



### copper.

New leaves usually large, flabby and dark green; long and flexible branches; death of new branches; the fruits can show gum in locules and brownish eruptions on the surface of the shell.



# Citrus Quimifol Program

## Recommendations

Perform leaf analysis and refer to Fênix Agro technical department to arrange for a recommendation based on nutritional balance: DRIS.

### Interpretation of the analysis results in citrus leaves

Element	Month					
	Jan/Feb	Mar/Apr	May/June	Jul/Aug	Sep/Oct	Nov/Dec
	g/kg (% x 10)					
N	24-26	24-26	24-26	22-24	20-25	23-26
P	1,2-1,6	1,2-1,7	1,1-1,5	1,1-1,5	1,2-1,5	1,3-1,6
K	11-11,5	10-14	10-14	10-14	10-12	13-16
Ca	30-40	35-45	45-55	30-40	30-45	40-45
Mg	2,5-3,0					
S	2,0-2,5					
	mg/kg (ppm)					
B	60-110	60-140	80-120	60-100	60-120	60-120
Cu	10-30					
Fe	150-300	130-300	250-400	150-300	200-300	150-300
Mn	25-50					
Mo	0,1-1,0					
Zn	25-50					

Adaptation: POTAFOS, Arquivo do Agrônomo nº 4, Malavolta e Prates.