

Coffee



Nutritional Deficiencies Symptoms



Quimifol[®]
FOLIAR NUTRITION



Nitrogen

Yellowing of older leaves, especially during fruit growth, with sparse vegetation; in large harvests there is drying of the branches, from the tip to the base; decreased flowering.



Phosphorus

Older opaque green leaves; yellowing with brown or purplish spots on the tip and in the middle; decrease in flowering and fruit set; premature falling leaves; poorly developed roots.



Potassium

Yellowing of the tips and borders on older leaves, which can dry out; death of branches with fruits, from the tip to the base; increase in the percentage of void fruits decrease in grain size.



Calcium

New leaves showing yellowing along the edges and moving between the ribs, toward the center; decrease in the flowering fruit set; poorly developed roots.



Magnesium

Yellow old leaves, evolving into brownish between the ribs, with premature fall.



Sulphur

Symptom resembling nitrogen deficiency, but occurring in new leaves; shortening of internodes.



Boron

Small new leaves, with bizarre shapes; death of terminal buds; drying of branches; overbudding; internode shortening; decline in flowering fruit set; poorly developed root system.



Zinc

Shortening of the internodes from branch base to the tip; narrow and yellow new leaves, increasingly close; death of pointers and overgrowth; decline in the flowering fruit set; smaller fruits.



Manganese

Whitish marks in new leaves, which then come together gaining a yellowish color, almost egg yolk.



Iron

Yellowing of new leaves with the ribs remaining green with the possibility to develop to yellow (fine reticulate).



Molybdenum

Yellowish spots on older leaves and then brown between the ribs; winding down of the leaves along the midrib, causing the contact of the opposing edges.



Copper

Newer leaves with prominent secondary veins (ribs); deformation of limbo; bending down of leaves from the base (common in new plants).

Recommendations for the Coffee tree

Pre-flowering

Quimifol Florada = 2.0 to 4.0 L/ha
 Quimifol P30W = 2.0 to 4.0 L/ha
 Niphokam 10-08-08 = 1.0 to 1.5 L/ha

Post-flowering

Quimifol Florada = 2.0 to 4.0 L/ha
 Quimifol P30W = 2.0 to 4.0 L/ha
 Quimifol Café = 2.0 L/ha

Vegetative period

Quimifol Café = 2.0 L/ha
 Quimifol P30W = 2.0 to 4.0 L/ha

Perform leaf analysis and consult Fênix Agro technical department for using one of the nutritional options of Quimifol line.

Annual variation of the leaf content in the coffee tree

Element	Month					
	Jan/Feb	Mar/Apr	May/June	Jul/Aug	Sep/Oct	Nov/Dec
	g/kg (% x 10)					
N	28-31	26-31	28-31	26-29	28-32	28-32
P	2,0-2,1	2,0-2,1	2,0-2,1	2,0-2,1	2,0-2,1	2,0-2,1
K	22-25	19-24	20-24	15-19	22-25	24-31
Ca	10-13	15-18	12-14	11-16	13-19	12-15
Mg	2,7-3,5	3,6-4,0	3,4-4,0	2,8-3,6	3,2-4,0	3,1-3,8
S	1,8-2,3	2,1-2,4	1,8-2,1	1,5-2,1	1,9-2,4	1,6-2,3
	mg/kg (ppm)					
B	50-90	60-80	50-70	40-70	50-60	50-80
Cu	10-20					
Fe	120-200	110-300	200-400	250-300	250-350	120-250
Mn	100-150	100-200	110-180	110-250	170-240	70-200
Mo	0,15-0,20					
Zn	20-25	20-22	15-20	12-18	20-25	20-25

Adaptation: Malavolta, 1992, ABC da Análise de Solos e Folhas; Guimarães e Mendes, 1998, Nutrição Mineral do Cafeeiro, UFLA/FAEPE.

Quimifol products	N%	P ₂ O ₅ %	K%	Ca%	Mg%	S%	Zn%	B%	Mn%	Fe%	Cu%	Mo%
Niphokam 10-08-08	10,0	8,0	8,0	1,0	0,5		1,0	0,5	0,5		0,2	
Quimifol P30W	1,0	30,0			1,5							
Quimifol Florada				9,0				1,0				
Quimifol Cálcio e Boro				10,0				0,5				
Quimifol Cálcio e Boro II				8,0				2,0				
Quimifol Café	10,0				2,0		6,0	1,0				
Quimifol Café Cerrado L	10,0						6,0	1,0	4,0		0,5	
Quimifol Ferro						2,3	1,0			4,0		
Quimifol Mn 11									11,0			
Quimifol Mg-8					8,0							
Quimifol K40	10,0		40,0									
Quimifol Molibdênio 15												15,0
Quimifol Boro L								10,0				