



MAGNESIUM



Magnesium can be deficient in:

- Soils inherently low in or high in Magnesium containing minerals
- Low soil pH decreases Magnesium availability and high soil pH increases availability
- **Soil Mg:Mn ratio** - high available Manganese can reduce Magnesium uptake
- **Soil CEC** - low CEC soils have less Magnesium
- **Cation competition** - soils with high Potash or Calcium will typically provide less Magnesium to the crop
- **High cation applications** - high application rates of other cations, especially Potash, can reduce Magnesium uptake
- Low soil temperatures

Common symptoms of Magnesium deficiency are:

- Yellow or white stripes between the veins of lower leaves
- As deficiency progresses, the striping may turn into dead, round spots appearing as beaded streaks
- Chlorosis appears on the tips of leaves first and moves inward
- Leaves droop, and premature fruit drop may occur



Magnesium's function in the plant:

- Photosynthesis - Magnesium is the central element of the chlorophyll molecule
- Carrier of Phosphate in the plant
- Both an enzyme activator and constituent of many enzymes
- Sugar synthesis
- Starch translocation
- Plant oil and fat formation
- Nutrient uptake control
- Increase Iron utilization
- Aid Nitrogen fixation in legume nodules

Research has shown that if the ratio of K:Mg is above 1.5:1, plant Magnesium levels are reduced. This research doesn't claim that there is an ideal ratio, but that it showed Magnesium problems were more frequent or severe when the soil K:Mg ratio exceeded 1.5.

Always soil test before any recommendations are finalized.

If soil tests require adding Magnesium, Rainbow Plant Food from Nutrien has several Rainbow, Super Rainbow, and International grades that contain Magnesium to offer to your customers. We can also formulate an analysis including Magnesium for your specific crops needs. Every granule will include Magnesium for better distribution and ability for crop uptake.

Visit your Local Rainbow Dealer to Learn How Super Rainbow can Help your Crops Grow Better

www.RainbowPlantFoodProducts.com • Customer Service: 1-800-763-0334 • 1-800-476-2122

Precision Feeding • Balanced Nutrition • Complete Micronutrient Delivery
• Increased Yield • Improved Crop Quality



Americus Grades & Analysis

GRADE			TOTAL	WS								WS	MAX.	NITRATE
N	P	K	Mg	Mg	Ca	S	B	Cu	Fe	Mn	Mn	Zn	Cl	N
Super Rainbow™														
16	4	8	1.00	1.00		12.00	.030		3.00	.30	.001	.10	6.00	1.00
10	10	10	2.00	2.00	3.00	12.00	.070			.25	.001	.10	6.00	.50
5	20	20	2.00	2.00		4.00	.130			1.00	.001	.30	15.00	
6	6	18	4.00	4.00	4.00	10.00	.050		.50	.30	.001	.10	3.00	3.00
5	22	6	3.00	3.00	5.00	8.00	.500		1.00	2.00	.001	.60	3.00	
5	12	12	3.00	3.00	6.00	7.00	.150		.20	.40	.001	.30	2.00	2.00
4	8	12	4.00	4.00	6.00	8.00	.030			.20	.001	.10	1.50	2.00
3	9	18	2.00	2.00	6.00	8.00	.130			1.00	.001		14.00	
Rainbow™														
14	4	14	1.00	1.00		12.00	.100		1.00	.25	.001	.10	12.00	.50
10	5	25	1.00	1.00		6.00				1.50	.001	.25	22.00	1.25
6	12	18			5.00	10.00	.050		.25			.05	2.50	
5	15	30	1.00	1.00		4.00	.100			.50	.001	.15	26.00	
5	10	15	1.00	1.00	7.00	3.00	.100			.25	.001	.10	12.00	
International														
13	13	13				10.00			.10				12.00	.50
10	10	10				8.00			.20				9.00	.50
5	10	30				3.00	.030		.20	1.00	.001	.10	26.00	
5	10	15			8.00	6.00							13.00	.50

Carolina Grades & Analysis

GRADE			TOTAL	WS								WS	MAX.	NITRATE
N	P	K	Mg	Mg	Ca	S	B	Cu	Fe	Mn	Mn	Zn	Cl	N
Super Rainbow™ Tobacco														
13	0	14	3.00	3.00		14.00	.033			.10	.001	.10	2.00	2.60
6	12	18	3.00	3.00	2.00	8.00	.033		.10	.10	.001	.10	3.00	3.00
6	6	18	4.00	4.00	4.00	10.00	.050		.50	.30	.001	.10	3.00	3.00
6	3	18	4.00	4.00	4.00	10.00	.033		.10	.10	.001	.10	3.00	3.00
Super Rainbow™ Sweet Potato														
6	3	18	2.00	2.00	5.00	9.00	.200		.10	1.00	.001	.20	13.00	
Super Rainbow™														
3	7	28	3.00	.001		8.00	.250			1.50	.001	.50	21.00	
Rainbow™ Tobacco														
8	16	24	1.50	1.50		6.00	.033			.10	.001	.10	4.00	4.00
8	8	24	2.00	2.00	1.00	7.00	.033		.10	.10	.001	.10	4.00	4.00
Rainbow™ Sweet Potato														
8	4	24	1.00	1.00		6.00	.150		.25	.12	.001	.08	20.00	
Rainbow™														
14	4	14	1.00	1.00		12.00	.100		1.00	.25	.001	.10	12.00	.50
International														
5	10	30				3.00	.30		.20	1.00	.001	.10	26.00	

Florence Grades & Analysis

GRADE			TOTAL	WS								WS	MAX.	NITRATE
N	P	K	Mg	Mg	Ca	S	B	Cu	Fe	Mn	Mn	Zn	Cl	N
Super Rainbow™														
13	13	13	2.00	2.00		9.00	.100		.10	.40	.001	.20	9.00	.70
Rainbow™														
15	5	10	1.00	1.00		15.00	.100		1.00			.10	8.00	.70
13	13	13	1.00	1.00		9.00	.050		.10	.20	.001	.10	10.00	.70
6	12	18			5.00	10.00	.050		.25			.05	2.50	
5	15	30	1.00	1.00		4.00	.100			.50	.001	.15	26.00	
5	8	21	1.00	1.00		10.00	.350		.10			1.40	18.00	
International														
13	13	13				10.00			.10				12.00	.50
9	10	30				3.00	.030		.20	1.00	.001	.10	26.00	

Note: Some of these grades may be seasonal. Please contact your sales representative for availability.