

# MAGNESIUM RECOMMENDATIONS

The optimum magnesium (Mg) level varies with the crop. The optimum Mg is given on the crop sheet for each crop in this handbook. Look in the left hand column and find the soil test Mg level in ppm as reported on the bar chart in the middle of the soil test report then go across to the appropriate "Optimum Mg" column for that crop to determine the amount of Mg recommended.

Because of potential animal health problems due to an imbalance between potassium (K) and Mg, a higher Mg recommendation is made for some crops when the soil K level is greater than 200 ppm. The need for this adjustment is noted on the appropriate crop sheets in this manual. For crops where this adjustment applies, when the K soil test level as reported on the bar chart in the middle of the soil test report is above 200 ppm, then use the far right hand column in this table to determine the Mg recommendation.

Since the most common source of Mg is magnesium containing limestone, the Mg recommendation is also given on the soil test report as the percent Mg required in the recommended limestone to meet the Mg requirement. To calculate this percentage divide the Mg recommendation determined from this table by the limestone recommendation determined from table 1 and multiply by 100.

Recommendations are given as elemental Mg because limestone is required by PA law to be labeled with the elemental Mg analysis. You can convert the the Mg recommendation to MgO by multiplying the Mg recommendation times 1.6.

**Table 2. Magnesium Recommendation (lb Mg/A)**

Soil Test Mg Level (ppm)	Optimum Mg Level (ppm)				Mg Recommendation for grasses when soil test K is greater than 200 ppm
	50	60	100	120	
0	100	125	200	250	500
5	95	110	190	240	490
10	90	105	180	230	480
15	85	95	170	220	470
20	80	80	155	205	460
25	75	75	150	200	450
30	70	60	140	190	440
35	60	50	125	175	430
40	60	45	120	170	425
45	50	30	105	155	420
50	0	20	95	140	405
55	0	15	90	140	400
60	0	0	75	125	390
65	0	0	65	105	380
70	0	0	55	105	370
75	0	0	45	95	360
80	0	0	30	80	350
85	0	0	25	75	340
90	0	0	15	60	330

**Table 2. Magnesium Recommendation (lb Mg/A)**

Soil Test Mg Level (ppm)	Optimum Mg Level (ppm)				Mg Recommendation for grasses when soil test K is greater than 200 ppm
	50	60	100	120	
95	0	0	0	50	320
100	0	0	0	45	315
105	0	0	0	30	300
110	0	0	0	20	295
115	0	0	0	15	285
120	0	0	0	0	275
125	0	0	0	0	265
130	0	0	0	0	255
135	0	0	0	0	245
140	0	0	0	0	240
145	0	0	0	0	230
150	0	0	0	0	220
155	0	0	0	0	210
160	0	0	0	0	200
165	0	0	0	0	190
170	0	0	0	0	180
175	0	0	0	0	170
180	0	0	0	0	160
185	0	0	0	0	155
190	0	0	0	0	145
195	0	0	0	0	135
200	0	0	0	0	125
205	0	0	0	0	115
210	0	0	0	0	105
215	0	0	0	0	95
220	0	0	0	0	90
225	0	0	0	0	80
230	0	0	0	0	70
235	0	0	0	0	60
240	0	0	0	0	50
245	0	0	0	0	40
250	0	0	0	0	30
255	0	0	0	0	20
260	0	0	0	0	15
265	0	0	0	0	5
270	0	0	0	0	0