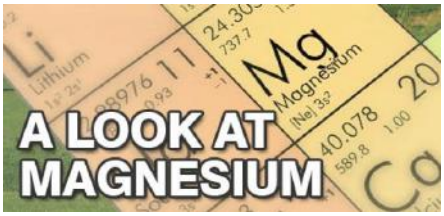
Magnesium

The importance of Magnesium

Magnesium is an essential element and is the central atom within the chlorophyll molecule making it an important element in the role of photosynthesis. Functions affected by Magnesium include:

- Photosynthesis, as Mg is the central element of the chlorophyll molecule
- Carbohydrate synthesis and translocation.
- Enzyme activator for chlorophyll synthesis plus many other reactions within turf grass plants.
- Mobiliser of phosphorus within the plant
- Nutrient uptake control
- Improves Iron effectiveness



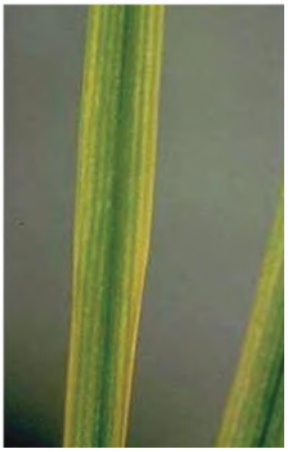
Availability of Magnesium

Turf-grass requirement for Magnesium will increase during the summer months, particularly where the clippings of new leaf tissue are removed. The amount of Magnesium available to the plant can be affected by various factors. Because Magnesium is a cation it will readily bind with negatively charged soil particles, however it can experience cation competition, particularly where there are high levels of potassium which will lead to less Magnesium being available to turf. Low soil pH will also negatively affect the availability of Magnesium. Factors affecting the availability of Magnesium include:

- Soil Mg Content, check with a soil analysis the levels of available Magnesium
- Soil Mg/Mn & Mg/Ca ratios, availability of Magnesium can be reduced if there is excessive manganese or calcium.
- Soil pH, acidic soils will impact Magnesium obtainable by turf grass.
- Cation competition, soils with high levels of potassium and or calcium will adversely affect Magnesium availability, this can be exacerbated with additional applications of fertilizers using these elements. Other nutrients that will compete for cation sites are, sodium, ammonium, and iron,

Identifying Magnesium Deficiency

Magnesium is very mobile within the plant, so if the plant experiences a deficiency it will translocate available Magnesium within itself to new foliage growth, this will give it the best return in terms of photosynthetic activity. Older leaves will therefore become chlorotic and start to yellow, progressing to a cherry colour. Prolonged deficiency will lead to leaf necrosis.
Magnesium deficiency is most likely to occur in acidic and sand root zones with a low CEC.



Magnesium

LIQUID FORMULATION | LEAF PENETRATION | LEAF HARDENER | AMINO ACIDS

Mag-Form

Mag-Form is our foliar applied magnesium supplement which also contains L-form amino acids and is used for the treatment of magnesium deficiency in amenity turf.

Benefits of Mag-Form

- Corrects magnesium deficiency in turf
- Formulation enables rapid leaf and root uptake of magnesium
- Corrects Magnesium/Calcium imbalance in the soil

HOW MAG-FORM WORKS

Magnesium is a macronutrient involved in important plant activities including Phosphorus translocation mechanisms, enzyme reactions and is a constituent of chlorophyll. Magnesium is important for the maintenance of the green colour and growth in the turf plant. It is quite mobile within the plant with re-distribution occurring more from the older to the younger tissues. Concentrations are usually higher in the leaves but it can also be found in the growing tips of roots and stems.
Deficiencies of Magnesium are more prone in sandy soils which have an acid pH. Symptoms include a cherry red discolouration along leaf margins usually occurring in the older, lower leaves first before spreading. Root growth is also severely restricted.

The Magnesium:Calcium ratios are important in relation to the availability of both elements, and the addition of Mag-Form can assist in maintaining a correct balance between the two elements.
Mag-Form is a complex which provides readily available Magnesium for fast uptake by the leaves and shoots.

Detail

Contains:	Magnesium complex (7.2% MgO) with L-Form Amino Acids
Pack size:	5 litres
Pack coverage:	5,000 sq.m
RT order code:	0113191/05

Tank mixing recommendations are shown on page 112

APPLICATION RATES			
Area of use	Mag-Form	Water Volume	Area
Amenity turf areas	10 litres	Minimum 300 litres	1 ha

RECOMMENDED PERIOD OF USE

J	F	M	A	M	J	J	A	S	O	N	D