



MAGNESIUM CHELATE

3% Mg ORGANIC GLUCOHEPTONATE

GUARANTEED ANALYSIS:

Magnesium (Mg)3%
3% Chelated Magnesium (Mg)
Derived From: Magnesium Glucoheptonate. Chelating Agent:
Glucoheptonate.
Weight per gallon9.61 lbs.

FEATURES & BENEFITS:

- Liquid for easy application
- Natural organic chelating agent
- Excellent for calcareous and high pH soil conditions
- Excellent for foliar and root applications
- Compatible with technical materials
- Can be used through irrigation systems

PRODUCT DESCRIPTION:

3% Magnesium is formulated in a convenient easy to use liquid form that will not clog or corrode spray equipment. It is recommended for soil or foliar application to those crops where magnesium sprays have been proven effective. 3% Magnesium is a 100% natural organic sugar acid chelate. This true solution provides Mg in a soluble form, readily available for plant uptake. 3% Magnesium is ideal for alkaline soil conditions since it retains a negative charge and is not attracted to negatively charged soil particles. 3% Magnesium can correct minor deficiencies or can be used through out the growing season in a regular maintenance program where soils are known to be deficient in magnesium. This chelate is compatible with most technical materials and non-phosphate fertilizers. It is very important that Magnesium deficiencies be treated before visual symptoms appear to ensure proper yield. Rates of application will vary depending on the severity of the deficiency, climate and soil conditions and methods of application. Consult your Local State Agricultural Experiment Station or Extension Specialist for advice in selecting treatments from this label to best-fit local conditions.

COMPATIBILITY:

3% Magnesium is ideal for mixing with acid sensitive techni-

cal materials. This chelate is not compatible with phosphate fertilizers and must be mixed and applied separately. 3% Magnesium is compatible with other products from the Growth Products Micronutrient line.

DEFICIENCY SYMPTOMS:

Deficiencies occur mostly in sandy soils or in soils of extremely high pH. High calcium and potassium levels tend to reduce magnesium uptake. Symptoms include a general loss of green color starting at the older bottom leaves and later moving up the stalk. It appears first as a light yellowish faded discoloration with leaf veins remaining green. Stalks are weakened and roots appear large and bunched. In crops such as cotton, leaves turn purplish-red between the green veins. In grass crops, such as corn, the leaves appear striped, light yellow or white between parallel green veins.

FUNCTIONS OF MAGNESIUM IN THE PLANT:

Magnesium, a secondary nutrient, is essential for plant growth because it is part of the make-up of chlorophyll molecules. Magnesium is relatively immobile in the soil but is mobile within the plant and will be translocated from older plant parts to younger terminal tissue. Magnesium regulates the uptake of other plant nutrients and is necessary for sugar formation. In addition, magnesium can act as a carrier of phosphorus in the plant. Other functions include the translocation of starches and the formation of oils and fats. Excessive magnesium can limit proper uptake of potassium, create poor water relationships in plants and cause tie-up of other nutrients such as phosphorus.

SUGGESTED APPLICATIONS:

Fruit and Nut Crops: Almonds, Apples, and Pears:

Soil: In early spring, apply 1-1.5 gallons per acre with pesticide, irrigation water or nitrogen fertilizer. Multiple applications may be used. Product may be applied as a broadcast spray or as a sidedress application.

Foliar: Shortly after trees have leafed out, apply 2-3 quarts per acre with sufficient water to ensure adequate coverage. Multiple treatments may be used. Apply as a thorough cover

spray, dormant or delayed dormant spray with oil or pesticides. Repeat at petal fall at 1-2 quarts per acre. Do not apply during bloom. Apply when trees are growing vigorously and not under stress. Product may be applied to within 1 week of harvest. To ensure even distribution on leaf surface and increase effectiveness of foliar application, a small amount of wetting agent or detergent may be added. Caution: If label instructions are not followed for foliar application, phytotoxicity may occur.

Apricots, Nectarines, Peaches, Plums, Prunes, Cherries:

Soil: In early spring, apply 1-2 gallons per acre with pesticide, irrigation water or nitrogen fertilizer. Multiple applications may be used. Product may be applied as a broadcast spray or as a sidedress application.

Foliar: Shortly after trees have leafed out, apply 2 quarts per acre with sufficient water to ensure adequate coverage. Multiple applications may be used. Apply as a thorough cover spray, dormant or delayed dormant spray with oil or pesticides. Repeat at petal fall at 1 quart per acre. Do not apply during bloom. Apply when trees are growing vigorously and not under stress. Product may be applied to within 1 week of harvest. Do not apply more than 2 quarts per acre to sensitive varieties of peaches, plums or cherries. To ensure even distribution on the leaf surface and increase the effectiveness of foliar application, a small amount of wetting agent or detergent may be added. Caution: If label instructions are not followed for foliar application, phytotoxicity may occur.

Citrus Crops:

Soil: In early spring, after new growth flush, apply 1-1.5 gallons per acre with pesticide, irrigation water or nitrogen fertilizer as a sidedress or broadcast application.

Foliar: Apply 1-2 quarts per acre with sufficient water during spring and fall flush growth. Repeat during the growth season a 1-quart per acre with pesticide cover sprays. Do not apply during bloom.

Grapes:

Apply 2 quarts per acre before bloom as a foliar or soil application. Add 1 pint per acre to each pesticide spray. For best results, apply 1 quart per acre at bud swell and repeat when shoots are 4-6 inches tall. Product can be applied until 1 month from harvest.

Other Fruit, Nut and Berry Crops:

Soil: In early spring, apply 1-1.5 gallons per acre with pesticide, irrigation water or nitrogen fertilizer as a sidedress or broadcast application.

Foliar: Apply 1-2 quarts per acre with sufficient water as a thorough cover spray, dormant or delayed dormant. Product may be mixed with oil or pesticide. Repeat same rate at petal fall and as needed until 1 week from harvest. Do not apply during bloom.

Legumes:

Soil: Apply 0.5-1 gallon per acre with irrigation water, pesticides or nitrogen fertilizer as a sidedress or broadcast application before the 5th trifoliate stage.

Foliar: Apply 1-2 quarts per acre to foliage with sufficient water when plants are between the 2nd and 4th trifoliate stage. Apply 1-2 pints per acre as needed until 2 weeks of harvest. Do not apply during bloom.

Corn, Cotton, Sorghum and other Field and Vegetable Crops:

Soil: Apply 0.5-1 gallon per acre with pesticides, irrigation water or nitrogen fertilizer as a broadcast or banded application at or immediately after planting.

Foliar: Apply 1-2 pints per acre with each pesticide application prior to bloom. Continue the same rate after bloom every 21 days until 2 weeks prior to harvest.

Potatoes:

Soil: Apply 2-3 quarts per acre with irrigation water, pesticides or nitrogen fertilizer as a banded or broadcast application at or near planting.

Foliar: In early spring, apply 0.5-1 quart per acre with sufficient water to give complete coverage. Repeat application every 2-4 weeks, especially where deficiency is known to occur. Do not apply during bloom.

Small Grains including Rice:

Soil: Apply 0.5-1 gallon per acre with pesticides, irrigation water or nitrogen fertilizer as a broadcast, banded or sidedress application at planting or within 2 weeks after emergence.

Foliar: Apply 1-2 pints per acre with sufficient water for thorough coverage 30 days after planting and before flowering. Do not apply during bloom. Repeat same rate every 21 days until 2 weeks before harvest. Split applications are preferred over a single application.

*** Applications should be made in the early morning when humidity is high. For foliar applications, plants should be actively growing and not under stress. Delay cutting or pruning as long as practical after application to permit maximum leaf uptake and translocation of nutrients.

SUGGESTED DILUTION RATES:

Air: 10-20 gallons of water per acre

Ground: 50-100 gallons of water per acre

Tree Crops: Dilute sprays-100-300 gallons of water per acre

STORAGE & HANDLING::

Mixing: 3% Magnesium must first be diluted with water prior to mixing with other materials.

3% Magnesium should not be added as a concentrated to highly alkaline materials. Do not contaminate water, food or feed by storage or disposal. Triple rinse container; empty rinse water into spray tank. Dispose of empty container according to approved local practices; contact county agricultural commissioner for disposal information.

CONDITION OF SALE:

Follow directions carefully. Timing and methods of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given herewith.

Manufactured Exclusively by:
Growth Products, Ltd.
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PRECAUTIONARY STATEMENTS: Caution: Keep Out Of Reach Of Children. Avoid contact with eye. Harmful if swallowed. Avoid skin contact. Causes eye and skin irritations. In case of contact, wash the affected areas with water immediately and continue washing for 15 minutes. Seek medical attention if irritation persists.