

# Nitrosol MagSulphate

## What is Nitrosol MagSulphate

Magnesium is an important plant nutrient that is often found to be deficient in New Zealand crops. This product is recommended when the soil test and/or herbage test show a deficiency in magnesium or sulphur. As a soluble solution it easily combines with Nitrosol Oceanic/Original application. The soluble magnesium is rapidly absorbed by plants to address any deficiency.

### Pasture

Magnesium is one of the four key Cations for pasture growth. The correct base saturation of Magnesium and Calcium is required to maintain good soil structure. Magnesium is essential for pasture photosynthesis and a carrier for Phosphorus, it supports a steady flow of phosphorus to the plant and increases nitrogen fixation in legumes. The combination of carbohydrates with magnesium sulphate strengthens the colonies of microbiological organisms in the soil. These micro-organisms help to break down soil minerals into a form that can be easily utilised by plants.

Magnesium deficiency will appear as a yellowing of older leaves between the veins and around the leaf margin. Severe deficiencies will also affect younger plants and result in the formation of lesions. Magnesium is crucial for the formation of chlorophyll that makes the plant green and converts sunlight into energy. Magnesium also helps plants absorb nitrogen, phosphorus and other nutrients which contribute to plant growth, flowering and disease resistance. High levels of calcium and potassium can limit magnesium uptake.

ANALYSIS				
N%	P%	K%	Mg%	S%
0	0.1	0	3.4	4.4

## Nitrosol MagSulphate is recommended

### For Pasture and the following crops:

Almonds, Avocados, Apples, Barley, Beans, Broccoli, Cabbage, Cauliflower, Carrots, Celery, Citrus, Corn, Grapes, Lettuce, Lucerne, Melons, Nectarines, Rice, Pears, Peaches, Pecans, Peppers, Plums, Prunes, Potatoes, Peanuts, Sorghum, Soybeans, Sugar beets, Sweet corn, Strawberries, Tomatoes, Turnips, Walnuts, Watermelons, Wheat and most other crops.

## What Nitrosol MagSulphate will achieve

- Nitrosol MagSulphate provides both magnesium and sulphur, in a form that is highly available for both soil and foliar applications.
- Magnesium enriches your pasture by helping plants to produce chlorophyll. This is essential for photosynthesis, a process critical for the plant to capture solar energy and improve its ability to synthesise food.
- Magnesium also helps plants absorb nitrogen, phosphorus and other nutrients which contribute to plant growth, flowering and disease resistance.
- Foliar feeding is additionally advantageous where high levels of potassium in the soil would restrict absorption of magnesium in the roots.
- Assists the ripening process of certain fruits and vegetables.

## Nitrosol®

Biological Fertilisers

### about Nitrosol

Nitrosol is a colloidal liquid suspension organic based fertiliser containing:

- A balanced NPK 11.5.7. to feed through both foliage and roots.
- A balanced formulation of trace elements and minerals to address deficiencies and imbalances.
- Organic matter including protein, amino acids, albumin, globulin and cholesterol to feed and nurture the biological activity in the soil.
- A naturally occurring growth promotant stimulates plants to take up and use all the available nutrients, trace elements and minerals.

### Nitrosol Original

Made from blood and bone, Nitrosol Original has been widely used since 1971. It has gained an enviable reputation for producing strong, healthy, disease resistance plants as well as top quality flowers, fruit and vegetables.

**NPK 11.5.7**

### Nitrosol Oceanic

Nitrosol Oceanic is made from organic matter sourced from deep-sea fishing operations. It is ideal for use on pastoral grazing land with no stock withholding period, and in horticulture. Nitrosol Oceanic has the same typical analysis and will produce the similar results to Nitrosol Original.

**NPK 11.5.7**

### Nitrosol Organic

Nitrosol Organic has been certified by BioGro Ltd for permitted use in agriculture and horticulture by certified organic growers. With a higher organic content, it will help to produce healthy biologically active soil as well as highly nutritious and flavoursome fruit, vegetables and healthy nutritious feed for grazing animals.

**NPK 6.1.3**

Telephone 0800 80 30 60 for more information

CONTINUED OVERLEAF 

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## Application

Nitrosol MagSulphate is designed for application through irrigation systems (fertigation), directed soil spray, soil injection and foliar applications. Nitrosol MagSulphate can also be mixed with other fertilisers as part of your regular programme.

**MIXING:** Shake, stir, or swirl contents before using. Always add this product to the spray tank before adding pesticides. Follow this mixing sequence:

- Water
- Nitrosol MagSulphate
- Pesticide

**NOTE:** Ideal application rates will vary according to climate, productivity, soil type and crop type. Soil testing and fertiliser programmes are available to ensure you use the right product at the correct rate.

Spray early in the morning or late afternoon. Mid-day sprays may not be effective because of excessive moisture evaporation. Nitrosol MagSulphate Solution is compatible with most insecticides, fungicides, foliar nutrients and herbicides. It can be applied in existing spray programs and can be applied with most herbicides.

## Foliar application

4 – 6 litres of Nitrosol MagSulphate/200 litres of water. Spray when magnesium levels are low or deficiency symptoms occur.

Applications should be separated by a minimum of 7 – 14 days.

AVOID foliar applications of this product when plants are under moisture stress.

AVOID foliar applications to deciduous tree crops during bloom.

**NOTE:** Foliar feeding is additionally advantageous where high levels of potassium in the soil restrict absorption of magnesium in the roots.

## Soil application

5 – 15 Litres /Ha with 100 Litres/Ha of water as soil application. If applied direct to soil prior to cultivation, fertigation and irrigation systems, higher rates than above can be used.

Soil Fertility Maintenance Application	5 litres per Ha
Moderate deficiency	10 litres per Ha
Heavy micronutrient deficiency	15 litres per Ha

## Fertigation application

Typical fertigation application rates (including fairways): apply at 4 – 6 L/Ha with 200 to 400 L/Ha water toward the end of irrigation, shift to flush the irrigation system out.

Field Crops: Apply recommended rates when plants are young. This is the time when most severe deficiencies occur.

### did you know?

Nitrosol has a specific gravity of about 1.26 so one litre weighs 1.26 kgs.

Because Nitrosol is a colloidal suspension containing organic material, it will not leach or wash away even under heavy rain or irrigation.

Nitrosol feeds via both the foliage and roots meaning that it can be applied directly to plants and the surrounding soil with excellent results.

The natural growth promotant in Nitrosol help plants to use the available nitrogen more efficiently with less waste.

The growth promotant encourages cell division and stimulates production of plant sugars.

Nitrosol acts as an effective sticker and spreader and may help to improve the effectiveness of plant protection materials when they are applied together.

Nitrosol is widely accepted as an important part of integrated fertiliser programmes to improve soil sustainability.

Nitrosol is exported from New Zealand to Europe, Asia, Bangladesh, Canada, USA, South Africa, Australia and several South Pacific Islands.

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