

fact file: turf and lawn

PRODUCT NITROSOL

Dilution

Mix with as much water as is practical, anywhere between 1:10 and 1:50 and if possible, apply before rain or with irrigation. If neither are available then use a dilution of 1:100 or greater. The dilution can be varied to suit vehicle speed, swath width and spray rate of the application equipment. To ensure adequate mixing, add Nitrosol to the tank whilst filling with water.

Application	Rates	Comments
Sports fields, parks, municipal grounds	10 - 20 litres per hectare per application	One application each in spring, summer and autumn
Golf greens and fairways	10 - 20 litres per hectare per application	In Oct/Nov and Mar/Apr plus as required for thatch removal
Bowling greens	2 litres per green	Spring 1 - 2 applications Summer 2 - 3 applications Autumn 2 - 3 applications
Decorative lawn	200 ml per 100 sq metres	1 - 2 applications each in spring, summer and autumn

Irrigation or fertigation systems

As a booster, add Nitrosol to the liquid feed concentrate tank at the rate of 1 litre of Nitrosol per 200 litres of soluble salts concentrate. It may also be used as the primary source of nutrients in liquid feed systems. Nitrosol diluted to 1:200 with water will yield a CF (conductivity factor) of approximately 20. Note: Nitrosol is a colloidal liquid suspension that has been screened through 60 mesh, and therefore it contains finely ground particles up to 250 microns, that could block fine drippers. It is recommended that filters be checked and cleaned regularly and fertigation lines be flushed with plenty of water, after using Nitrosol.

Lawnboy sprayers

Lawnboy sprayers combine a 10, 20 or 25 litre jerrycan, with a pump that operates when the unit is pushed around a lawn. They can be used to apply Nitrosol very effectively, with or without chemicals to control weeds or pests. Manufactured by Chainmakers (NZ) Ltd of New Plymouth (Tel/Fax 06-758-8585) and available through farm supply stores.

Specific trace element deficiencies

Where a specific deficiency is identified within a turf or lawn by observation or foliar analysis, the deficient element may be supplemented by the addition of small quantities of the relatively inexpensive sulphate form. For example, copper sulphate for a copper deficiency, Solubor™ or Timbor™ for a boron deficiency, zinc sulphate for zinc deficiency etc. In this situation, Nitrosol acts as the carrier to chelate and convey the deficient trace element effectively into the turf.

Important user information

- Nitrosol may settle in its containers over time. It is recommended that the contents be well shaken or agitated before using. For 200 litre drums, this is best accomplished by rolling the drums back and forth on a flat surface several times.
- To decant, place the 200 litre drum on its side with the bung at the 12 o'clock position. Open the bung and pour into a bucket or pail, moving the drum sideways as the level reduces.
- Nitrosol should be stored away from extremes of temperature as the material may expand with heat and cause leakage. Storage in very cold conditions may cause the formation of crystals. Where this is suspected to have occurred, be sure to strain the material as it is added into the spray tank.
- Do not store product that has been mixed with water, as it will not keep.
- Nitrosol is harmless to birds, bees and animals when used as directed

Distributed by:
Rainbow & Brown Ltd
68a Tallyho Street
Rotorua 3015
Ph: 0508-299 299
Email: mail@rainbowbrown.co.nz
www.RainbowBrown.co.nz

Telephone

NITROSOL LIQUID FERTILISERS AND PHLOLIME

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MARKETED BY RURAL RESEARCH LIMITED

Nitrosol
Original
Nitrosol
Oceanic
Nitrosol
Organic

about nitrosol

Nitrosol is a one step colloidal liquid suspension organic based fertiliser containing:

- A balanced NPK (8.3.6.) 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 organic activity in the soil.
- Two naturally occurring growth promotants to stimulate plants to take up and use all the available nutrients, trace elements and minerals.

nitrosol original

Made from ovine (sheep) 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.

nitrosol oceanic

Nitrosol Oceanic is made from organic material 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 same results as Nitrosol Original.

nitrosol organic

Nitrosol Organic, with an NPK of 3.3.6., has been certified by Bio-Gro for use in agriculture and horticulture by certified organic growers. With a higher organic content, Nitrosol Organic will help to produce healthy biologically active soil as well as highly nutritious and flavoursome fruit and vegetables. It will also help to produce healthy feed for grazing animals.

PHLOLIME™
about phlolime

PhloLime sprayable rapid action lime will help to raise the pH and sweeten the soil adding calcium, one of the most important minerals for healthy soil, plants, animals and humans. PhloLime contains 98% calcium carbonate on a dry matter basis. With an average particle size of only 5 microns, PhloLime will move into the soil profile rapidly where it can begin to raise the pH. It can be applied in conjunction with Nitrosol.

CONTINUED OVERLEAF



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PRODUCT NITROSOL

(continued)

Typical analysis (elemental w/w)

Nitrogen - N	8%	Manganese - Mn	193 ppm
Phosphorus - P	3%	Zinc - Zn	67 ppm
Potassium - K	6%	Copper - Cu	90 ppm
Sulphur - S	1.7%	Boron - B	192 ppm
Calcium - Ca	1.3%	Molybdenum - Mo	119 ppm
Magnesium - Mg	0.2%	Cobalt - Co	10 ppm
Sodium - Na	0.3%	Selenium - Se	60 ppm
Iron - Fe	883 ppm	Gibberellins	0.01 ppm

Plus Triacanol (Tria) growth promotant and organic material

Gibberellins - GA

GA is widely distributed in flowering plants and is shown as C₁₉H₂₂O₆. It is often used by horticulturists on its own, to assist with the development and improvement of specific aspects of growing, for example stimulation of flowering, and fruit quality improvements. As a contribution to the efficacy of Nitrosol, its broad action is to aid in the growth of cell size and to stimulate the plant to take up and use the available nutrients.

Triacanol - Tria

Tria is a 30 carbon straight-chain fatty alcohol and occurs in certain waxes and the foliage of some plants. It is shown as CH₃(CH₂)₂₈CH₂O. Its effects on stimulating plant growth and crop yields, by increasing the growth in the number of cells, have been studied extensively in China, India, Japan and the USA. Tria has been shown to have beneficial effects towards improving the quality of fruit and flowers, in fruiting and flowering plants as well as enhancing plant health, vigour and root development. It has been demonstrated to stimulate photosynthesis within seven minutes of application. Tria is known to promote development of carbohydrates (sugars and energy) in plants. It will help stress recovery after adverse weather conditions, transplanting or application of a selective herbicide.

What Nitrosol will achieve in turf and lawn

- Supplies turf and lawn with a balanced combination of nutrients at a rate appropriate to the need, feeding through the foliage and the roots.
- Helps to produce vibrant healthy turf and lawn plants with good strong colour. They become more resistant to attack from insect pests or disease often resulting in a reduced need for application of disease control materials.
- Provides rapid and effective biological control of thatch, the layer of dead stems, leaves and roots between the soil and the green vegetation, by increasing the organic activity. This results in the quicker decomposition of the dead plant material especially where heavy use of chemicals on recreational turf reduces normal biological activity.
- Application followed by rain or irrigation improves plant/soil uptake without any loss due to leaching or runoff, minimising loss of nutrients and contamination of waterways.
- Improve the organic activity in the soil, evidenced by increased earthworm numbers. This leads to improved soil structure and aeration, better drainage, more drought resistance and the release of locked up nutrients. All this results in a deeper root depth that will keep the grass greener for longer, during dry spells.
- Rapid recovery from stress events such as frost or a brief flooding.
- The two natural growth promotants will stimulate plants to take up and use all available nutrients.

Nitrosol[®]
Original
Nitrosol[®]
Oceanic
Nitrosol[®]
Organic

did you know

- Nitrosol has a specific gravity of about 1.24 so one litre weighs 1.24 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 foliage and roots meaning that it can be applied directly to plants and the surrounding soil with excellent results.
- The natural growth promotants in Nitrosol help plants to use the available nitrogen more efficiently with less waste.
- 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, North America, Australia and South Pacific Islands.

Telephone 0800 123 4567 for more information

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