

BIOLOGICAL FERTILISER FOR ENHANCING SOILS

Biologically active soils have the ability to retain moisture and release nutrients ensuring greater production, faster rotation and more rapid recovery from stress. To build a healthy biological soil we need products that can feed living organisms.

Increasing public awareness of the environmental impact of using chemical-based fertiliser has created a demand for a safe, natural and environmentally friendly fertiliser.

Biological fertilisers increase nutrient availability and feed important soil organisms, and microorganisms (fungi and bacteria) – all essential for plant and soil health.

Soil health and soil fertility requires much more than NPK fertiliser. Without the right biology, plants and animals cannot reach their full potential. Biology is essential for the recycling of nutrients and the fixing of atmospheric nitrogen.

MANUFACTURING PROCESS

The process used to manufacture **BIO MARINUS™** is an enzymatic hydrolysis of fish offal at low temperature. This retains the proteins, amino acids, naturally occurring vitamins, 7% to 10% fish oil (including Omega 3), and 7% to 10% hydrolysed fish bone. The addition of both seaweed and a carbon extract of humic/fulvic acid to this blend increases beneficial bacterial and fungal activity and plant nutrient availability of both calcium and magnesium.

We believe **BIO MARINUS™** is one of the most complex and complete fertilisers produced in New Zealand.



SCIENTIFIC TRIALS

Based on scientific trials conducted by Peter Carey of Land Research Services Ltd into “The Effect of **BIO MARINUS™ Liquid Fish Fertiliser** on Pasture Growth in Canterbury”.

*“Overall, the Dry Matter increases were significant and results showed the levels of Calcium and Magnesium content were 10% higher due to **BIO MARINUS™**”*



BENEFITS OF BIO MARINUS™

BIO MARINUS™ can be used as both ground and foliar application and it benefits plants during all growth stages. It can be used as a stand alone application or in conjunction with other compatible products.

Naturally occurring proteins, oils, trace elements, amino acids, minerals and vitamins provide the nutrients required for healthy plant growth.

BIO MARINUS™ is Mother Nature’s fertiliser, blending multiple nutrients and trace elements from the sea that even Democritus, the Greek father of chemistry, would have been proud to create.

BIO MARINUS™ is produced from a Sustainable Fishing Resource, harvested according to the New Zealand Quota Management System. Our enzymatic hydrolysis manufacturing method utilises the offal from our fish processing plant.

APPLICATION INFORMATION

MIX WELL PRIOR TO USE

BIO MARINUS™ is suitable for all crops.

SHEEP & BEEF PASTURE

We **recommend** a **minimum** of 60 litres per hectare per year, applied as either:

- › 3 applications per year of 15-20 litres per hectare per application, or
- › 2 applications of 25-30 litres per hectare per year, in early Spring and late Summer.

DAIRY PASTURE

We **recommend** a **minimum** of 60 litres per hectare per year, applied in accordance with your farming plan.

CROPPING

GROUND APPLICATION*

We **recommend** a **minimum** of 20 litres per hectare prior to planting.

FOLIAR

We **recommend** a **minimum** of 4-5 litres per hectare, diluted as a foliar spray 3-4 times per crop or as required.

VITICULTURE

GROUND APPLICATION*

Soil drench at 10-15 litres per hectare over prunings, during spring flush and post harvest.

FERTIGATION

4 litres per hectare every 10-14 days. **Minimum** 4 applications during season.

FOLIAR

Dilute 1:100 as a canopy application for disease control and nutrition. Apply every 10-15 days or as required.

STUBBLE BREAKING

We **recommend** 15-20 litres per hectare mixed with 2 litres of molasses or 2kg industrial sugar.

** Suggestion: During Ground Application we **recommend** the addition of 2kg of industrial sugar or 2 litres of molasses per hectare, as it may help speed up biological response.*

COMPATIBILITY

Compatible with most fungicides, insecticides, fertilisers and nutritional products. Test mix prior to application.

When mixed with herbicides the fish oil in this product serves as a natural surfactant when foliar spraying.

FOLIAR SPRAY

Spray early morning, late evening or on an overcast day.

DO NOT spray during the heat of the day.

DO NOT STORE THIS PRODUCT IN ITS DILUTED FORM

**ENZYMATICALLY
HYDROLYSED LIQUID
FISH FERTILISER**

TYPICAL ANALYSIS

MACRO ELEMENTS (w/v)

Nitrogen	2.20%
Phosphorus.....	1.55%
Potassium	0.28%
Calcium	0.37%
Sulphur.....	0.18%
Magnesium.....	0.09%

TYPICAL ANALYSIS

TRACE MINERALS

Manganese.....	165.26 ppm
Iron	123.40 ppm
Zinc.....	72.44 ppm
Molybdenum	8.50 ppm
Copper.....	6.00 ppm
Boron.....	3.93 ppm
Cobalt.....	1.82 ppm
Selenium.....	1.20 ppm

BIO MARINUS™ contains:

- 7 to 10% hydrolysed fish bone
- 7 to 10% natural fish oil including Omega 3

Levels can vary slightly with this natural product



PRODUCT RANGE

BIO MARINUS™ is available as:



Hydrolysed Fish Fertiliser



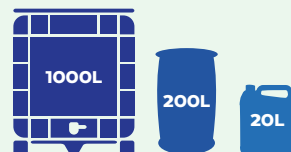
Organic Liquid Fish Fertiliser



Biological Liquid Fish Fertiliser



Volumes available:



Also available on request:

Organic JAS Approved

JAS APPROVED

**FOR FURTHER
INFORMATION CONTACT
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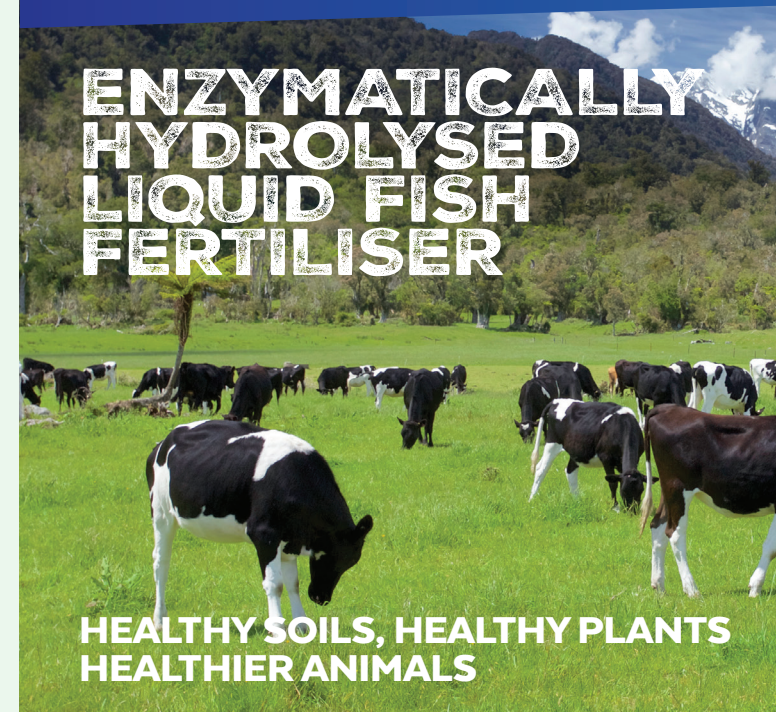
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**ENZYMATICALLY
HYDROLYSED
LIQUID FISH
FERTILISER**



**HEALTHY SOILS, HEALTHY PLANTS
HEALTHIER ANIMALS**

**NUTRIENTS FROM THE SEA
TO FEED YOUR SOIL BIOLOGY**

- ✓ Unique enzymatic production process
- ✓ Soil biology enhancing compounds
- ✓ A complete range of Major and Trace Minerals
- ✓ Improves plant productivity and condition
- ✓ Improves the health of animals
- ✓ Non toxic. Nil withholding period

Chemical fertiliser usage could be considerably reduced over time by combining them with natural composts or biological fertilisers, eg. **BIO MARINUS™** Enzymatically Hydrolysed Liquid Fish Fertiliser.



DAIRY



SHEEP & BEEF



CROPPING



VITICULTURE