

Nutri-Sol

Benefits of Use

- Suppression of crusts in pits.
- Locking up ammonia and sulphur compounds to enhance the slurry's fertilizer value. The lock up of ammonia by **Nutri-Sol**, changes the nitrogen source from a quick release to slow release form of nitrogen. This is better suited for the plants needs with less leaching of nitrogen into the ground water. The **SAVINGS IN NITROGEN ALONE** represents a return of **over £5.00** for every £1.00 spent on **Nutri-Sol**.
- Improved air quality in houses with underground tanks leading to less respiratory problems.
- Liquefying of solids makes for easier spreading, particularly for umbilical pumping systems. This results in **BIG SAVINGS IN TIME AND FUEL** due to less mixing.
- Improved soil structure due to less harmful compounds damaging worms and bacterial activity.
- Improved uniformity of nutrients to be spread.
- Better run off from the plant leaf resulting in less damage.

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Dosage Rate

Longer Storage (3 months plus)

250g of **Nutri-Sol** treats 250m³ (250,000 litres)

Medium Storage (2 months plus)

250g of **Nutri-Sol** treats 200m³ (200,000 litres)

Short Storage (1 months plus)

250g of **Nutri-Sol** treats 100m³ (100,000 litres)

Preparation

Dissolve the required quantity of **Nutri-Sol** in warm water (35°C approx) and leave for 20 minutes (250g sachet into 13 litres).

Further dilution of the concentrate is advisable particularly for underground tanks to aid distribution. Slurry pumped into lagoon's/tower's better to add **Nutri-Sol** into reception pit to ensure good mixing.

Also ensure there is a minimum height of slurry (0.5m) in tank/tower before adding **Nutri-Sol**.

Contact Britmilk representative or head office for more details.

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Nutri-Sol

MAKING
BETTER USE
OF SLURRY
AND
SAVING
TIME + FUEL

from

BRITMILK

Nutri-Sol

The increasing cost of bagged fertilizer is making slurry a much more valuable and cost effective way of providing nutrients for the growing plant.

Nutri-Sol is a combination of enzymes, anaerobic and aerobic bacteria, wetting agents, activators and nutrients.

Nutri-Sol's unique formulae works progressively breaking down organic matter and locking up nitrogen and sulphur compounds into a form that is available to the plant and soil bacteria, but also preventing losses during storage and spreading.

Calculating Tank Sizes

1 cubic metre = 1000 litres

Rectangular Tank

width (m) x length (m) x depth (m)
x 1000 = volume in litres

Circular Tank

Radius ($\frac{1}{2}$ diameter)

radius (m) x radius (m) x height (m)
x 3.14 x 1000
= volume in litres

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Mode of Action

- Nutri-sol utilises the carbon in the organic fraction of slurry and the ammonia in the liquid part to grow a microbial biomass in the slurry system.
- The solids in the slurry are broken down to feed the bacteria, giving a reduction in crusting and blockages.
- The Ammonia is tied up as microbial protein as the bacteria grow and multiply. This will prevent loss of ammonia during storage and spreading. This preserved microbial protein when applied to the land will feed soil bacteria enhancing soil structure and slow release of nitrogen for plant growth.

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Bacteria and Nitrogen

- In trials the number of bacteria in slurry increased by 3.8×10^9 (3,800,000,000/ml) after adding Nutri-sol compared to untreated
- Total weight of additional bacteria 0.0038g/ml (bacteria contains approx. 52% protein)
- Total weight of additional protein 0.002g/ml (protein contains 16% nitrogen)
- Total nitrogen $0.002\text{g/ml} \times 16\% = 0.00032\text{g/ml} = 0.32\text{g/litre} = 0.32\text{kg M}^3$

Value added to Slurry

(1 cubic metre = 1000 litres)

- The Nitrogen preserved in the extra bacteria is worth, AN approx £850/t (34% N). So each unit of N is costing £2.50 per kg.
- So the preserved Nitrogen, 0.32kg is worth £2.50 x 0.32 = 80.00p (per cubic metre of slurry)
- Treatment cost is only 16.0p per cubic metre
- Return is 5:1
- Application of 3000 gallons (13,500 litre) per acre is worth £10.80 in additional nitrogen value (12.7kg of 34%N fertiliser @£850.00 per tonne)