

MicroZyme

SLURRY TREATMENT

Product

MicroZyme is a biological product for use in solids reduction, odour control and nitrogen retention in stored liquid animal manure.

Ingredients

Microbial cultures, microbial enzymes, microbial stimulants, oxygenating compounds, sodium bicarbonate, chicory, barley, sodium aluminosilicate, calcium carbonate, vegetable oil.

Directions

Initially add 2 x 400g units of **MicroZyme** to the lagoon. Thereafter add 1 x 400g unit of **MicroZyme** per week to lagoons containing less than 500,000 litres of slurry and 2 x 400g units per week to lagoons containing more than 500,000 litres.

Alternatively add 1 x 400g unit to the lagoon per 100 cows per week of storage.

For all applications, mix the total amount of **MicroZyme** in a minimum of 10 litres of water and then add via slats, passage scrapings or pump directly into the lagoon and agitate as necessary to achieve complete mixing.

Do not apply **MicroZyme** to lagoons that are nearly full unless long term storage and stabilisation is intended. Treatment should start as soon as possible as the lagoon begins to fill and should be continued on a regular basis.

Storage

Store in original sealed packaging in a cool, dry place.

For more information on **MicroZyme** and all other **Micron** products and programs please visit our comprehensive site at www.micronbio-systems.co.uk



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The storage and management of liquid manure is an important part of the farming operation not just for environmental and legislation reasons. This material is a good source of fertiliser due to its high content of nitrogen, phosphorous and potassium and this valuable resource must be protected.

There are three major considerations for storage of manure:

Crust formation – undigested plant fibre material is made up of light particles which float to the surface where they dry out and compact to form a crust. This prevents oxygen and light entering the lagoon resulting in low microbial activity to breakdown the manure solids.

Odour production – Fresh manure has a less offensive odour than stored manure because of the subsequent anaerobic fermentation in the lower layers of the lagoon that produce ammonia and hydrogen sulphide. This is made worse by any crust layer that may form.

Nutrient Losses – Significant amounts of nitrogen can be lost from manure before it can be applied as a source of fertiliser. Lagoon storage losses can be as much as 80% of the total nitrogen excreted by a dairy cow.

How MicroZyme Works

MicroZyme contains a mixture of specifically screened and selected strains of bacteria selected for their capability to break down fibre, starch, pectins, fats and protein residues over a wide range of temperatures.

Their action reduces odour levels and preserves fertilizer value by converting odiferous components into bacterial protein or suppressing the activities of indigenous odour producing bacteria.

A cocktail of concentrated degradative enzymes is included to ensure that **MicroZyme** begins working the moment it is added.

MicroZyme is formulated with micronutrients and growth stimulants to ensure rapid activation once the product is added to liquid manure.

Benefits of MicroZyme

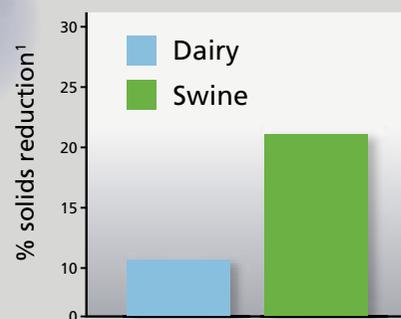
- Reduces odour (H₂S and NH₃) in animal manure
- Liquefies slurry, thereby minimising sediment and crusting
- Retains and preserves nitrogen and fertiliser value of slurry
- Improves animal comfort in slatted housing
- Easier to comply with authorities and neighbours.

IMPROVE THE NITROGEN VALUE OF YOUR SLURRY WITH MicroZyme

- A dairy cow produces approximately 10T of manure during a 180 day housing period. This 10T of manure contains about 50 kg of Nitrogen when freshly produced by the cow.
- Losses of Nitrogen during storage, especially in a lagoon, can be up to 80% depending upon the type of lagoon and degree of aeration.
- On a 100 cow herd, even a 60% loss represents a potential loss of nitrogen equivalent to almost 9 tonnes of 34% ammonium nitrate fertiliser. At £350 per tonne this is worth over £3000 to replace with bought in supplies.
- Research shows that using MicroZyme as part of a manure management program can cut these N losses in half.
- To treat the manure from a 100 cow herd will cost about £500 to achieve an estimated fertiliser savings of approximately £1500.

THIS IS A RETURN OF 3:1

Effect of **MicroZyme** on Sludge Solids Reduction



¹ compared with untreated control

Effect of **MicroZyme** on Slurry Nitrogen Retention



Treatment