



# THE BENEFITS OF 100% NATURAL GYPSUM

Gypsum application is a standard practice worldwide for addressing the build up of sodium in soils, including soils receiving waste waters.

Gypsum is one of those rare materials that performs in all categories of soil treatment: an amendment, conditioner and fertiliser.

It is useful in the transition period in dairy cows 2 – 4 weeks pre & post calving, and can be used as an anionic salt to counteract the effects that high potassium & sodium concentrations have on increasing hypocalcemia.

Gypsum, a readily available form of calcium, is 100 times more soluble than lime and is more suitable for the digestive system during this period.

## Gypsum in fertilising

Soil tests throughout New Zealand shows sulphur deficiency is wide spread. Although often overlooked, sulphur is needed in at least equal quantities to phosphorus. Many responses in crops are sulphur due to the sulphate radical (SO<sub>4</sub><sup>--</sup>).

- Readily dissociates into free calcium ions (Ca<sup>++</sup>) and sulphate ions (SO<sub>4</sub><sup>--</sup>), major elements in plant nutrition
- Has an approximately neutral pH and can be used in heavy applications without causing undue alkalinity in soils

## Gypsum in water savings

- Promotes water infiltration, retention and conservation
- Allows water to penetrate the soil without forming puddles or water logging
- Conserves water by stretching intervals between irrigations
- Tests show that farmland treated with gypsum requires up to 33% less water than soils without recent gypsum application

## How Does Gypsum Work?

Gypsum is hydrated calcium sulphate. Calcium from gypsum replaces sodium in the soil. The sulphate allows the sodium to be effectively leached out of the soil. The soil then has more ability to flocculate and form stable aggregates to improve drainage and soil quality.



## Gypsum in soil conditioning

- Breaks up soils compacted by sodium and clay, and compounded by farm animals and machinery
- Reduces cracking and compaction following irrigation and retards soil crusting
- Allows soil to dry more quickly after rain or irrigation so that it may be worked sooner
- Decreases energy requirements for tillage
- Binds organic matter to soil and checks soil erosion
- Enhances friendly bacterial action and discourages plant diseases related to poor soil aeration
- Conditioned soil allows for deeper, healthier root development and water penetration

## Gypsum in amendment

- Displaces sodium binding clay soils
- Reduces high soil aluminium levels
- Suppresses the soil acidification effects of growing crops and the prolonged use of acidifying fertilisers

For more about Natural Gypsum and soil stabilisation visit [gypsum.co.nz](http://gypsum.co.nz)