Calcium Nitrate

Nitrogen 15.5%
Calcium 19.0%

High Quality Fertilizer

Hydro Calcium Nitrate is a free-flowing, white, granular fertilizer. Its unique combination of nitrate nitrogen and fully water soluble calcium offers many benefits to growers.

Yara Specialities
Growing Your Potential

Three Grades of Calcium Nitrate

Calcinit (Solution Grade)

- Fully soluble
- Highly refined
- Suited to fertigation
- Suited to hydroponic solutions
- Suited to foliar sprays
- Bag size 25 kg

Tropi-Cote (Field Grade)

- Coated for ease of spreading
- Spreads evenly
- Soluble when spread
- Not suited to fertigation or hydroponic solutions
- Bag size 50 kg

Nitrabor

- Field grade calcium nitrate
- Includes 0.3 Boron in each granule
- Boron improves calcium efficiency in plant
- Not suited to fertigation or hydroponic solutions
- Bag size 50 kg
- Yellow in colour

Grades	Nitrate N %	Ammonium N %	Total N %	Water Soluble Ca %	Water soluble B %
Calcinit (Solution Grade)	14.4	1.1	15.5	19.0	
Tropi-Cote (Field Grade)	14.4	1.1	15.5	19.0	
Nitrabor (Field Grade)	14.4	1.1	15.5	18.5	0.3

Benefits of Yara Calcium Nitrate

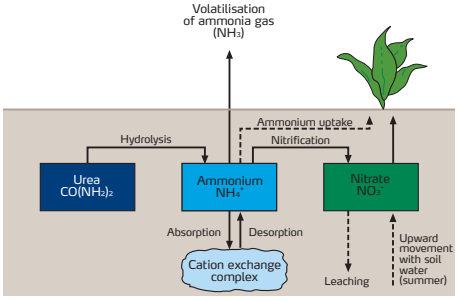
Highly efficient fertilizer

High solubility:

Yara Calcinit is highly soluble, leaving no residue when it dissolves. In warm water (25°C) one kg will dissolve in one litre of water. More water is required if the temperature is lower.

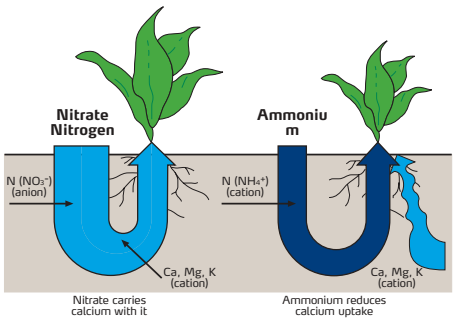
Quick and predictable response:

Nitrate nitrogen, as supplied by Calcium Nitrate, is immediately available for plants to use. By timing Calcium Nitrate applications to match the crops growth rate, nitrogen efficiencies can be maximised and the risk of nitrate leaching will be minimised.



Increased uptake of calcium with nitrate:

Nitrate nitrogen increases the plant uptake of nutrients such as calcium, magnesium, potassium and the trace elements. Ammonium nitrogen depresses their uptake.



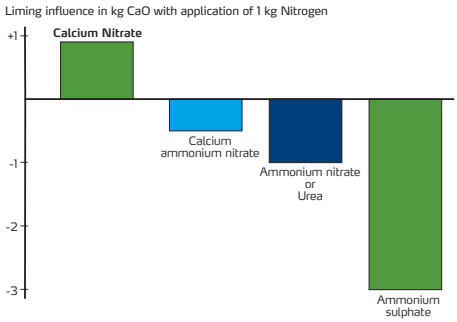
Environmentally friendly fertilizer

Non acidifying fertilizer:

In the soil calcium nitrate is alkaline in reaction. It will not contribute to soil acidity. This is particularly important when applying nitrogen fertilizers through drip systems. Fertilizers such as Urea and ammonium nitrate will contribute to sub soil acidity.

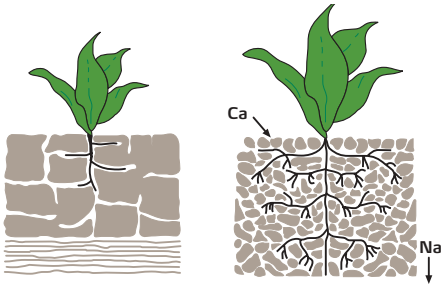
Non volatile:

Calcium nitrate does not lose nitrogen to the atmosphere when spread on the ground. (as with any fertilizer it should be 'watered in' to be effective)



Improved soil structure:

The calcium in Calcium Nitrate displaces sodium in the soil profile, which improves water and oxygen infiltration in sodic soils.



Improved plant growth in saline conditions:

The use of Calcium Nitrate in saline soils, maintains high calcium levels which will reduce the plants uptake of sodium resulting in improved plant growth.

Improves crop quality

Improved storage:

Plants store for longer periods with less rots occurring when there are high levels of calcium in the fruit, tuber, bulb or leaf.

Examples: less Bitter pit in apples, Erwinia soft rot in potatoes and bulb rot in onions; longer shelf life of table grapes, stone fruit, fresh flowers.

Bitter pit in apples

Improved skin presentation:

Research in potatoes shows skin blemishes (black scurf, powdery scab, silver scurf) are significantly lower when the calcium levels in the tuber peel are greater than 0.2%.

Silver scurf

Black scurf

Other skin blemishes related to insufficient calcium are; Blossom end rot in tomatoes and capsicums, nose end rot in melons, Albedo breakdown in citrus. Calcium Nitrate will help prevent these disorders.

Nose end rot in melons

Improved disease tolerance:

Calcium strengthens the plants cells. Low calcium cells are weak with lower resistance to disease invasion and a tendency to leak nutrient from the cell providing a ready source of nutrient for disease to develop.

Whilst not preventing disease invasion the impact of the disease is often reduced by 50% or more in plants with high calcium levels.

Examples are; Botrytis in roses, lettuces, stone fruit and clubroot in brassicas.

Improved tolerance of stress:

Plants with higher levels of calcium show less stress during heat, cold or windy conditions. Examples are tip burn in lettuces, cabbages and cauliflowers.

Tip burn in cauliflowers

Increasing yields - Improving quality

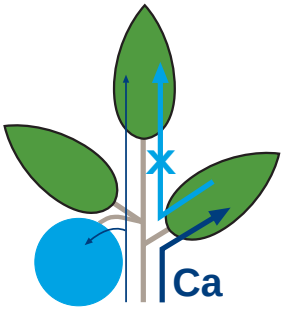
Calcium in the plant

For balanced nutrition:

Calcium is a vital nutrient for producing quality horticultural products. Nitrogen, phosphorus and potassium are regularly applied to horticultural crops and these nutrients provide the basis of the crops yield. The application of calcium as Calcium Nitrate and magnesium provides balance to the higher rates of N, P & K used in horticulture and improves the quality aspects of most produce.

Immobile in the plant:

Calcium is immobile in the plant. It accumulates in the older leaves and will not move out to the new leaves, or developing fruits, tubers or roots. To move calcium into these plant parts a number of calcium nitrate applications are needed. If only the leaves are sprayed then the fruit or vegetable may still be short of calcium, as it will not translocate. In potatoes the effective way to move calcium into the developing tuber is to soil apply Calcium Nitrate at tuber development.



Calcium is not redistributed from older to younger leaves or from leaves to fruits or seeds

Calcium uptake follows the water uptake and distribution in the plant

Vital to plant cells:

Calcium will not translocate once it is incorporated into plant cells. Therefore, it is critical to supply calcium when new cells are forming. If there is insufficient calcium available during the initial phases, the visual symptoms of calcium deficiency will show when the cells collapse. Therefore it is essential to apply Calcium Nitrate early in fruit or vegetable development.

General guide to Yara Calcium Nitrate application rates:

Ground application:

125 to 250 kg/ha. Up to 3 applications per season depending on crop.

Foliar application:

500 to 800 grams per 100 litres. Up to 10 applications per season depending on crop.

Hydroponic solutions:

Run at 1 gram per litre of water flowing through the system.

Further Information:

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Available from

Yara Specialties
Growing Your Potential