



PRODUCT INFO
& DATASHEET

SICO CALCIUM FORMULATIONS

HYDRO-CAL®

100% soluble source of Calcium

Removes undesirable salts from your fields & irrigation water

THE HYDRO-CAL® ADVANTAGE

Hydro-Cal® is a specifically formulated solution that offers immediate sodium removal, improved water penetration, and increased soil flocculation all in one.

Hydro-Cal® is a 100% soluble source of calcium that is immediately available to remove undesirable salts from your fields while increasing flocculation and water penetration in the soil.

CHEMICAL @ PHYSICAL DATA

Data	Value	Units
Ca	12.1	% w/w
CaO	17.5	% w/w
Na	< 100	ppm
Available Cl	< 10	ppm
Density	1.32-1.35	kg/l
pH	5.9	
Crystallisation temp.	< 0 dgr. C	
Colour	brown solution	
Lignosulphonate	1.1	% w/w

THE ROLE OF CALCIUM AS A SOIL AMENDMENT

Calcium has always been an important soil amendment. Besides being the strongest cation available to replace sodium, it also flocculates soil particles for improved soil tilth and structure.

Hydro-Cal®'s calcium electrolyte solution helps loosen up compacted layers by flocculating the particles, allowing water to move through the soil more easily

Advantages of using calcium:

- replaces sodium on cation exchange sites
- decreases root zone salinity
- improves soil tilth
- improves soil percolation rates.

HAVING PROBLEMS WITH HIGH SODIUM LEVELS?

Historically, gypsum has been used to fight soil sodium. However, due to its low solubility, it has been extremely slow acting. **Hydro-Cal®** provides 120,000 ppm of exchangeable calcium for rapid displacement of sodium.

HYDRO-CAL® VS. GYPSUM

Hydro-Cal® is 350 times more soluble than gypsum. Solubility is the KEY to managing sodium or salinity problems. When trying to remediate sodium affected soils you must "overwhelm" sodium. This is called the "Law of Mass Action". Simple "You must get as much soluble calcium into solution in one time, as you possibly can". Now for the first time, you have a tool to accomplish this difficult task.

Hydro-Cal® is a blend of 100% soluble calcium and ammonium. This combination, for the first time, gives growers a way to get calcium concentrations in irrigation water high enough to effect sodium. Remember, even though Gypsum is a source of calcium, it is (Text Book Definition) "relatively insoluble".

Any information in this publication is believed to be accurate and is given in good faith, but is for the customer to satisfy himself of the suitability for his own particular purpose. No representation, warranty or guarantee is made to its accuracy, reliability or completeness.

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SICO FERTILISERS
EVERY TIME THE *right* SOLUTION



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Hydro-Cal[®] is a revolutionary Liquid calcium product that works. Order of effectiveness for water intake:

- 1) Hydro - Cal
- 2) 25% Hydro - Cal + 75% Gypsum
- 3) Gypsum

WATER QUALITY

Hydro-Cal[®] is especially useful as an amendment for waters that are low in total dissolved solids (TDS) resulting in poor penetration, puddling and excessive runoff.

Hydro-Cal[®] is designed to be used to increase irrigation water use efficiency.

WHY USE HYDRO-CAL[®]?

- Enhances calcium nutrition.
- Increases nitrogen efficiency for improved crop quality and yield.
- Strengthens cell wall structure.
- Increases uptake of phosphate, potash, and minor elements.
- Cost effective.
- Easy to use - no bag handling, no expensive equipment.
- Reduces soil crusting, which can increase marketable yield.
- Can be mixed with other nitrogen fertilisers to more diversify your fertility programme.

ROLE OF CALCIUM

- Strengthens membrane integrity and cell wall structure.
- Increases the movement of carbohydrates throughout the plant.
- Improves fruiting activity.
- Significant to seedling development.
- Increases salt tolerance.

RECOMMENDATIONS FOR USE

For best results, soil testing should be done for site specific recommendations.

- Sprayed: apply 100 - 250 ltrs **Hydro-Cal[®]** per hectare.
- Trickle: apply 50 - 100 ltrs **Hydro-Cal[®]** per hectare with 3 meter plant spacing.
- For use on turfgrass: apply 1 litre per 1000 m² every month in 100 litres of water. This will help the CEC of the ground and improve aerobic activity.
- Can be:
 - o Water run.
 - o Applied through sprinklers.
 - o Applied through drip systems.
 - o Surface applied and incorporated by rainfall.

PRECAUTIONS

Donot mix with sulphates or phosphates.

PACKING

- 5 litre bottles, 4 x 5 litre cartons, approx. 14,400 litres per 20' fcl.
- 10 litre bottles, 90 x 10 litre cartons = 900 ltrs. per pallet