

Seerin-Calcium nitrate is a fully water soluble fertilizer, a high efficient source of Calcium and Nitrate. for plants Calcium is a “quality nutrient” that enhances yield quality and prolongs shelf life. As the mobility of calcium in the plant is limited, it has to be supplied throughout the growth season to keep adequate levels in the plant tissues and to ensure proper development. Serin-calcium nitrate is products contain nitrogen in the form of nitrate (NO<sub>3</sub>-), which enriches plant nutrition and improves the efficiency of calcium uptake.

### The advantage of seerin- Calcium Nitrate

- Fully water soluble
- Consist of 100% plant nutrients
- Safe for plants and humans: has a moderately low pH and low salt index
- Suitable for fertigation, foliar application and production of fertilizer blend and nutrient solutions

### Product Analysis

Specification	Grade
Total N % by weight minimum	15.50
-Nitrate nitrogen as N % minimum	14.40
-Ammoniacal Nitrogen % maximum	1.10
Water soluble Calcium % minimum	18.80
Matter insoluble in water % maximum	1.50



### Water Solubility

Water temperature (°C)	5	10	20	25	30	40
Solubility Gram/Litre	60	77	100	190	280	350

### pH and EC

Calcium Nitrate has moderately low pH that remains almost at different concentration.

Concentration %	0.5	1	5	10
pH	6.0	6.7	6.1	6.4

The EC increase substantially when high concentration of Calcium Nitrate are used .

Concentration %	0.5	1	5	10
EC (mS/cm)	5.72	8.48	38.39	66.61

## Application recommendation

### Nutrigation

Seerin- Calcium Nitrate is a highly source of calcium and Nitrogen it is commonly used in liquid fertilizer recipes to deliver both of these essential nutrients to growing plants. When nutrient deficiencies are noticed, apply calcium nitrate in complete fertilizer recipes or as a nutrient spray

### Compatibility

Seerin-Calcium Nitrate. is compatible with most water-soluble fertilizers, except for fertilizer contain (  $\text{Ca}^{++}$ ) or magnesium ( $\text{Mg}^{++}$ ). To apply seerin- Calcium Nitrate. in combination with Potassium nitrate or potassium chloride.

### Quantitative Nutrigation

Each kilogram of Seerin-**Calcium Nitrate** in the tank provide 150 gram of Nitrogen as nitrate and ammoniacal form. and 180 gram of Calcium.

### Proportional Nutrigation

Calcium and Nitrogen concentration in the irrigation water depend on the quantity of seerin-Calcium nitrate in the tank mix. and on the injection ratio. use on the following table to calculate the quantity of seerin-Calcium Nitrate and the injection ratio needed to reach a given concentration in the irrigation water.

Seerin-Nitra™ G/1000Ltr Water	Nutrient Concentration (PPM Mg/1000Ltr.)	
	Ca	N
100	18	15
130	23	19
149	26	22
185	33	27
370	72	55

### Application of Calcium Nitrate

Calcium is essential for the building of cell walls. Poor calcium supply interferes with this important function, resulting in distorted growth and deformation of root tips, young leaves, and shoot tips. In addition weaker cells are more susceptible to biotic attacks. Calcium is also involved in enzymatic reactions and in the coordination of inter-cellular processes. Cell wall and general structure (particularly high levels in the middle lamella). Cell membrane functions in nutrient transport. Nutrient uptake. Protection from aluminium and manganese toxicity. Plant defence responses. Improved photosynthesis. Root growth, elongation, mycorrhizal fungal promotion, root mucilage production (increasing root contact with soil). Regulating enzyme systems. Water regulation and nutrient balance in plant tissue. Legume nodule structure and nitrogen fixation.