



Since 1966



Leaders in specialty plant nutrition



Innovative solutions



Global presence

Haifa Group is a multinational corporation, a global leading manufacturer and supplier of potassium nitrate for agriculture and industry, specialty plant nutrients and food phosphates. Renowned for its pioneering spirit and innovative solutions for over five decades, Haifa leverages natural resources of potash and phosphate rocks. Haifa owns four production facilities in Israel, France, and the US. With 16 subsidiaries, Haifa Group's global operations span across 5 continents in over 100 countries.



**Headquarters:** Haifa, Israel

**Europe:** North West Europe | France | Iberia | Italy | Southeast Europe | Turkey | CIS

**Africa & Middle East:** South Africa | Israel | Central Africa & Middle East

**Asia & Australia:** China | East Asia | Australia | Asia

**America:** North America | México | Colombia | South America

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# Haifa Cal™

Calcium Nitrate for Healthy Crops



Pure plant nutrition



Free of sodium and chloride



Wide range of products



Assured quality

## Haifa Cal™ for healthy crops

Strong cell walls shield your crops, ensuring healthier growth and longer shelf life. The Haifa Cal™ range let you pick the precise calcium nitrate grade and formula to maximize your crop's strength.

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.

Haifa Cal™ well-established range of calcium nitrate products offers ideal source of plant-available calcium for all crops and growing methods. Haifa Cal™ products contain nitrogen in the form of nitrate (NO<sub>3</sub>-), which enriches plant nutrition and improves the efficiency of calcium uptake.

Haifa Cal™ products are suitable for highly-efficient applications by Nutrigation™ (fertigation) and foliar sprays, as well as soil applications.



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### Calcium in the plant

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.

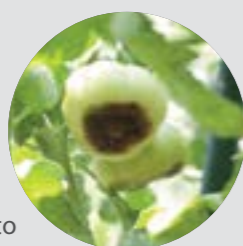
Possessing very limited mobility in the plant, the calcium carried mainly by the water flux. Thus, conditions that slow down transpiration, such as high humidity or low temperature, may induce calcium deficiency in the plant.



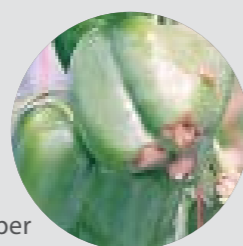
#### Calcium deficiency

Calcium deficiency is usually shown as localized rot of tissues, and a consequent growth inhibition. Typical symptoms include leaf deformation, leaf tip burn and root tip burn. Calcium deficiency also reduces quality of the harvest, and shortens shelf life.

**Blossom End Rot (BER)** is a common physiological disorder in tomato and pepper, causing significant yield loss. Eggplant and watermelon are susceptible to a lesser extent. As the name implies, the disorder is expressed by a dark, sunken area on the lower (blossom) end of the fruit. BER is associated to calcium deficiency, and can be controlled by careful management of water and calcium supply.



damaged tomato



damaged pepper

## Haifa Cal™ product range



**Haifa Cal™ Prime** Concentrated calcium nitrate, virtually free of ammonium

- Ideal for soilless grown crops and hydroponics
- Recommended for zones of high sun irradiation
- Offers extra convenience in handling



**Haifa Cal™ GG** Greenhouse-grade product, For Nutrigation™ of all crops; suitable for preparation of fertilizer blends and liquid fertilizers



**Haifa Cal™ NG** for Nutrigation™ of open-field grown crops, and for fruit trees



**Haifa Cal™ AG** granular fertilizer for direct soil application, suitable for base and side dressing of field crops and fruit trees

	Haifa Cal™ Prime	Haifa Cal™ GG	Haifa Cal™ NG	Haifa Cal™ AG
<b>Best for</b>				
Soilless and hydroponics	3	3		
Soil greenhouse	3	3		
Outdoors vegetables			3	3
Open field crops			3	3
Fruit trees			3	3
<b>Composition</b>				
N Total	17.0%	15.5%	15.5%	15.0%
N-NO <sub>3</sub>	16.7%	14.4%	14.4%	14.4%
N-NH <sub>4</sub>	0.3%	1.1%	1.1%	1.1%
CaO	33.0%	26.5%	26.5%	26%
Ca	23.5%	19.0%	18.9%	18.6%
Insoluble Matter	300 ppm	300 ppm	2000 ppm	n/a



**Haifa Duo™** a range of perfectly balanced formulae based on potassium nitrate and calcium nitrate. Haifa Duo™ is designed for soil application and Nutrigation™ of fruit trees and vegetables throughout their growth season

#### Available formulae

14-0-9+20CaO+ME\* | 14-0-14+18CaO+ME\* | 14-0-16+16CaO+ME\* | 14-0-28+10CaO

(\* ME - optional)



**Haifa Cal™ Plus** a range of calcium nitrate formulae, enriched with micronutrients