Polysulphate

Trial

- **S** 48% SO_3 (19.2% S)
- **K** 14% K_2O (11.6% K)
- **Mg** 6% MgO (3.6% Mg)
- **Ca** 17% CaO (12.2% Ca)

Tomato *(Solanum lycopersicum)* on sandy loam soil

Polysulphate fertilizer is a soluble, easily-absorbed, cost effective answer to crop nutrition, containing four key plant nutrients: sulphur, potassium, magnesium and calcium

ICL Innovative Ag. Solutions

Polysulphate

When

- Planting date: September 2016
- Harvest: December 2016 to June 2017

Where

Beit-Ezra, Israel

Crop

Tomato *(Solanum lycopersicum)*

Soil type

Light to medium sandy loam soil

Measurements

- Marketable fruit yield
- Stem diameter

Mined in the UK, ICL is the first – and only – producer in the world to mine polyhalite, marketed as Polysulphate.

For more information consult www.polysulphate.com/contact for your contact in your region.

www.polysulphate.com

Polysulphate

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Premium plant nutrition from ICL Fertilizers

Objective

To evaluate Polysulphate applied as a pre-planting fertilizer to prevent typical Ca and Mg deficiencies and to ensure yield and quality in greenhouse tomatoes produced with desalinated irrigation water in Israel.

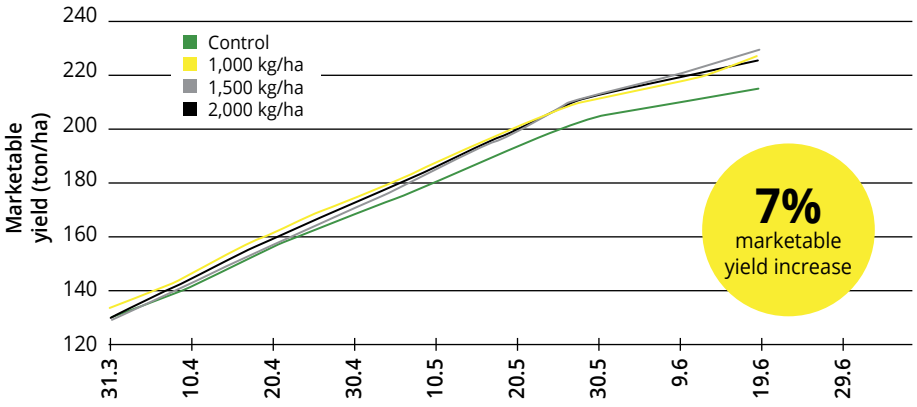
Treatments

The observation was carried out in a farmer's greenhouse and included four treatments: control (without Polysulphate application), 1,000, 1,500 and 2,000 kg Polysulphate/ha. Standard Polysulphate was spread and embedded along the planting rows before planting.

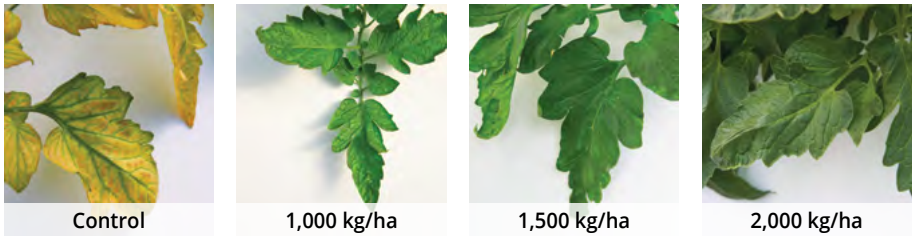
Chicken manure organic fertilizer was applied pre-planting. Desalinated water with a very low concentration of Mg was used for irrigation. Liquid fertilizer (N-P-K + micro-elements) was applied through fertigation throughout the crop cycle.

Results

- Symptoms of Mg deficiency (typical yellowing of lower leaves) occurred in the control plants as early as mid-November. Plants with Polysulphate application remained green, healthy, and productive.
- Stem diameter below the uppermost inflorescence was significantly thinner in the control plants than those of plants applied with Polysulphate.
- During the winter months, no yield differences between treatments were observed.
- From April to the end of the season, the marketable yields from the Polysulphate plots were consistently better than from the control plot where there was more fruit malformation and blossom end rot.
- Pre-planting application of Polysulphate can replace large amounts of costly liquid fertilizer, enabling the application of Ca and Mg at the pre-planting stage, with no need for additional application during the growing season.



Effects of pre-planting Polysulphate application on the accumulating marketable yield of Ikram greenhouse tomatoes during spring (from April to June 2017).



Magnesium deficiency symptoms in tomato leaves, as noticed on 11 Jan 2017.