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)

Lettuce (*Lactuca sativa*) on perlite

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: June 2019
- Harvest: July 2019

Where

Northern R&D Farm, Israel

Crop

Romaine lettuce

Soil type

Perlite

Measurements

- Yield (fresh weight)
- Dry weight
- Nutrients concentration in leaves

Objective

To evaluate Polysulphate as calcium source for lettuce, using a greenhouse soilless production system.

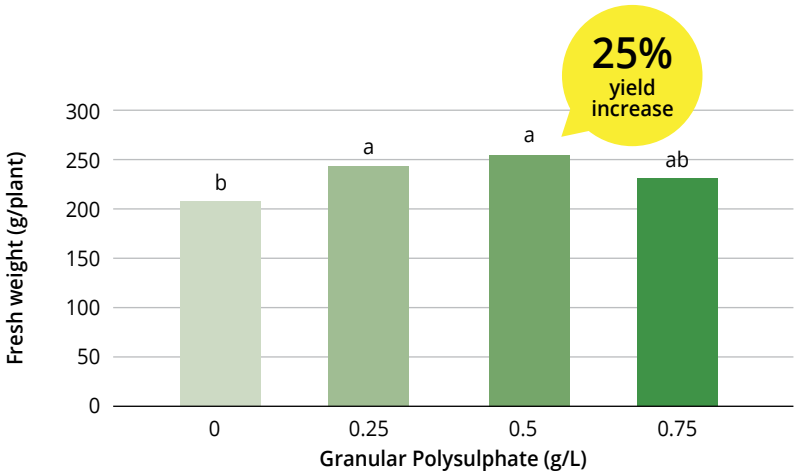
Treatments

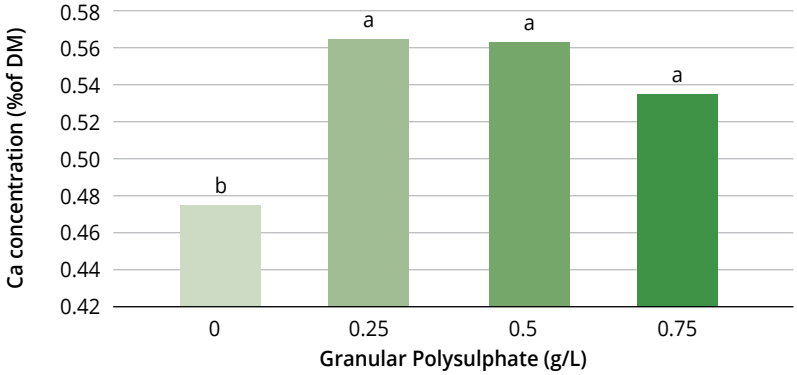
The experiment was designed in complete random blocks, with six replicates consisting of five pots each. Plants were grown under controlled greenhouse conditions in 4 L pots filled with perlite. Treatments included four rates of granular Polysulphate: 0 (control), 0.25, 0.50, and 0.75 g/L that were thoroughly mixed with the perlite before planting.

Water used for irrigation was desalinated using reverse osmosis to a level of 0.6 mEq Ca/L. Plants in all treatments were fertigated throughout the experiment with NPK 5:3:8 + $MgSO_4$. Irrigation was scheduled three times a day for 10 minutes per irrigation (approx. 1 L/day).

Results

- Polysulphate application significantly increased lettuce fresh and dry biomass, adding up to 25% to the fresh weight of the plants.
- Ca and S concentrations in the leaves were significantly higher with Polysulphate application, but no response was observed to the nutrient dose.
- Polysulphate application can ensure enough available Ca to satisfy lettuce requirements and guarantee high produce quality.





Similar letters indicate no significant differences between treatments at p <0.05.

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

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