



# Polysulphate Trial

## Potatoes (*Solanum tuberosum*) in a clayey soil

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

**S** 48% SO<sub>3</sub>  
(19.2% S)

**K** 14% K<sub>2</sub>O  
(11.6% K)

**Mg** 6% MgO  
(3.6% Mg)

**Ca** 17% CaO  
(12.2% Ca)



### When

Planting: May 2016  
Harvest: October 2016



### Where

Lelystad, The Netherlands



### Crop

Potato (*Solanum tuberosum*)



### Soil type

Clayey



### Measurements

Tuber yield



## Objective

Prove that the use of Polysulphate results in higher tuber yield and quality compared to current grower standard practices.

## Treatments





- The use of Polysulphate was compared with kieserite to supply magnesium, the current standard practice.
- 47 kg/ha of Mg as magnesium oxide (MgO), was supplied by both sources.
- The rate of 791 kg/ha of Polysulphate, supplied additional potassium and calcium that were compared with the control with kieserite.

## Results

- The use of Polysulphate resulted in a significantly higher potato yield when used as Mg source instead of kieserite.
- Increased total bulb yield by 3.3 t/ha.
- Higher yield was found in every class grade yield, as well as in number of tubers, increasing by 5%.
- No significant effect on tuber density, as indicator of industrial quality.

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

**Polysulphate** 

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