



Polysulphate  
Trial

## Winter cabbage (*Brassica oleracea*)

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

<b>S</b>	48% SO <sub>3</sub> (19.2% S)
<b>K</b>	14% K <sub>2</sub> O (11.6% K)
<b>Mg</b>	6% MgO (3.6% Mg)
<b>Ca</b>	17% CaO (12.2% Ca)



## When

2009



## Where

Lincolnshire, UK  
and carried out by  
OAT (Oxford  
Agriculture Trials Ltd)



## Crop

Winter cabbage  
(*Brassica oleracea*)



## Soil type

Sandy loam soil



## Measurements

- Vigour
- Yield

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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Polysulphate is a registered trademark of ICL.

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<http://icl-growingsolutions.com/contact-office/> for your contact  
in your region.



## Objective

To investigate the effect of Polysulphate application on the yield of winter cabbage, with particular emphasis on response to the sulphur content.

## Treatments

- The field trial consisted of five replicates.
- The whole field, including the trial site, received the standard NPK dressing used by the grower. No sulphur was applied.
- Four rates of Polysulphate were spread as a top-dressing to supply sulphur at 30, 60, 90 and 120 kg SO<sub>3</sub>/ha (12, 24, 36 and 48 kg S/ha).
- The control plots and the three lower S-rate plots received a dressing of calcined magnesite and muriate of potash (KCl) to match the quantities of magnesium and potassium provided by the highest Polysulphate application rate. The trial site was adequately supplied with calcium.

## Results

- The average vigour score for the Polysulphate plots was 90% or more throughout the winter, whereas the control plot vigour had declined to 74% by mid-autumn, subsequently remaining at that level.
- All the Polysulphate treatments showed a significant yield improvement over the control. The average yield of the Polysulphate treatments was 40% greater than the control.
- The optimum sulphur application rate was 90 kg SO<sub>3</sub>/ha (36 kg S/ha). This rate was achieved when Polysulphate was applied at 190 kg/ha.

