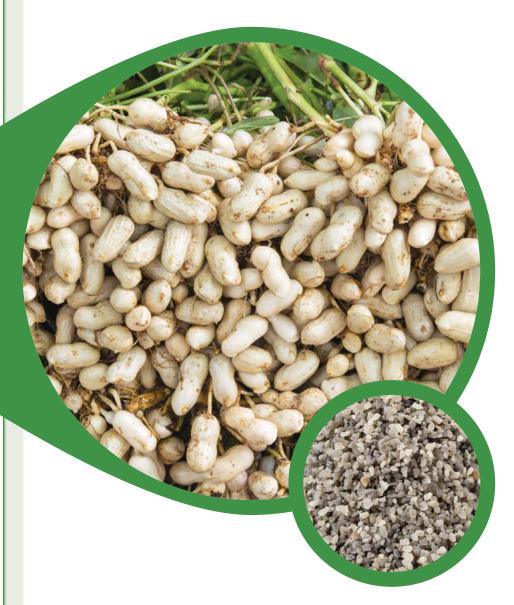






Mg 6% MgO (3.6% Mg)

(12.2% Ca)



# Peanut (Arachis hypogaea L.) on a sandy acidic soil

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







• Sowing: April 2016

• Harvest: September 2016



Where

Binh Dinh Province, Vietnam



Crop

Peanut (Arachis hypogaea L.)



Soil type

Sandy acidic soil



Measurements

- Yield
- Crop development
- Soil tests before sowing and after harvest

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.php for your contact in your region.

### www.polysulphate.com

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- info.polysulphate@icl-group.com
- Twitter.com/Polysulphate
- YouTube.com/c/Polysulphate-fertiliser
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# Objective

To evaluate the effects of potassium (K) and Polysulphate application rates on peanut agronomic and economic performances for the growing conditions in the Central Coast of Vietnam.

#### **Treatments**

The experiment was set according to a randomized complete block design (RCBD) with four replications. Six fertilization treatments were tested: Farmers' practice (FP) control, with N:P:K ratio of 95:40:100; NP- $K_0$ , with 45 kg N/ha, 90 kg  $P_2O_5$ /ha, and zero K; and NP- $K_{30}$ ; NP- $K_{30}$ - $S_1$ ; NP- $K_{60}$ - $S_2$ , and NP- $K_{90}$ - $S_3$ , all of which were applied with similar N and P rates, K rates increasing from 30 to 90 kg  $K_2$ O/ha, and Polysulphate at 107 ( $S_1$ , 25 kg S/ha), 214 ( $S_2$ , 50 kg S/ha), and 321 kg ha<sup>-1</sup> ( $S_3$ , 75 kg S/ha), respectively. Nitrogen was applied through urea and P through superphosphate. Potassium was applied through KCl and Polysulphate.

## Results

- FP and NP-K<sub>0</sub> displayed the poorest performance in most parameters tested and obtained low peanut yield and benefit.
- The optimum treatment was achieved with NP- $K_{60}$ - $S_2$  (214 kg Polysulphate/ha), which resulted in a yield of 2.86 t/ha of grains, 24% more than the farmers' practice, and in a 98% increase in the net benefit to the farmer.
- Soil tests before sowing and after harvest, indicated that while FP significantly reduced soil fertility, Polysulphate led to enhanced soil fertility.



<sup>\*</sup> From research funded by the International Potash Institute www.ipipotash.org.