

Polysulphate 

**Trial**



**S**

48%  $\text{SO}_3$   
(19.2% S)

**K**

14%  $\text{K}_2\text{O}$   
(11.6% K)

**Mg**

6% MgO  
(3.6% Mg)

**Ca**

17% CaO  
(12.2% Ca)

## Coffee (*Coffea robusta*) on a reddish brown soil

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



## When

- First application: April 2015
- Harvested: December 2015



## Where

Bao Lam district, Lam Dong Province, Vietnam



## Crop

Coffee (*Coffea robusta*)



## Soil type

Reddish brown soil



## Measurements

- Yield
- Fruit weight
- A-size core

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](http://www.polysulphate.com/contact) for your contact in your region.

[www.polysulphate.com](http://www.polysulphate.com)

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**Polysulphate** 

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**Fertilizerplus**   
Premium plant nutrition from ICL Fertilizers

## Objective

To evaluate the efficacy of Polysulphate to increase coffee yield in Vietnam, and to evaluate the cost-effectiveness of applying fertilizers in split doses compared to the traditional practice of a single application of urea, KCl, and fused Ca, Mg, and P.

## Treatments

This completely randomized block trial comprised three replications, each with three treatments:

- 1) Traditional practice/control: single application of urea, KCl, and fused Ca, Mg, and P.
- 2) Commercially available compound fertilizers (with S but no Ca or Mg).
- 3) Same as (2) but supplemented with Polysulphate.

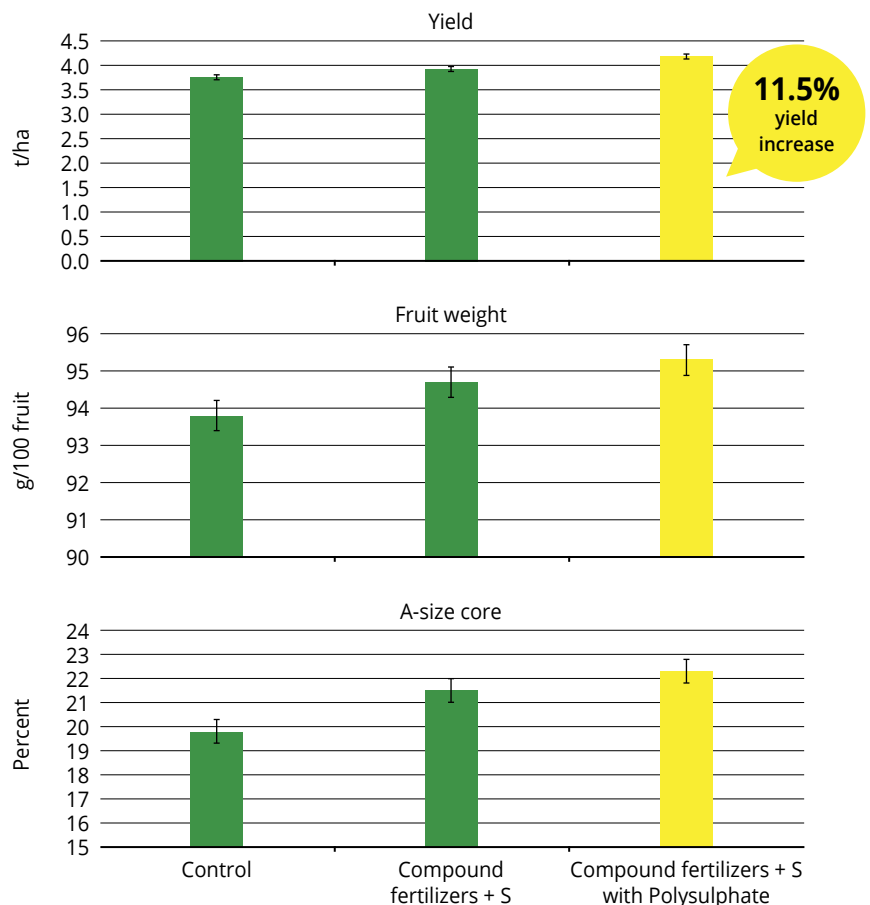
In the two treatments, the total fertilizer dose was split into four applications, one at the beginning of the dry season and the remaining three in early, mid, and late rainy season.

Treatment	Urea	Fused Ca Mg P	KCl	NPKS 16-16-8-13	NPK 15-15-15	NPKS 15-18-20-10	Polysulphate
Control	715	1193	545	-	-	-	-
Compound fertilizers + S	250	-	200	400	500	500	-
Compound fertilizers + S with Polysulphate	250	-	153	400	500	500	200

Application rate: kg/ha

## Results

- Supplementing NPK with Polysulphate resulted in an increase in yield of 11.5% and superior quality produce – more than 22% of the cores were of size A, or larger than 6.3 mm in diameter.
- Higher yield was due to faster growth, longer fruiting branches, less shedding of immature fruit, and larger and heavier cores.
- Polysulphate application also increased net profits by 14%.



Bars indicate LSD at 5%.

Source: Petrovietnam Fertilizer and Chemicals Corporation