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)

Banana *(Musa acuminata)* on an ultisol soil

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

ICL Fertilizers

Polysulphate

When

- Fertilizer application: November 2016
- Harvest: August 2017

Where

Juquia, Sao Paulo state, Brazil

Crop

Banana *(Musa acuminata)*, Cavendish Subgroup

Soil type

Ultisol, high clay content (430 g kg^{-1} of clay)

Measurements

- Yield
- Vigor of bunches
- Diameter of stems

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

Polysulphate

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Fertilizerplus
Premium plant nutrition from ICL Fertilizers

Objective

To evaluate the effect substituting KCl fertilizer with Polysulphate as a source of K has on the yield and quality of banana.

Treatments

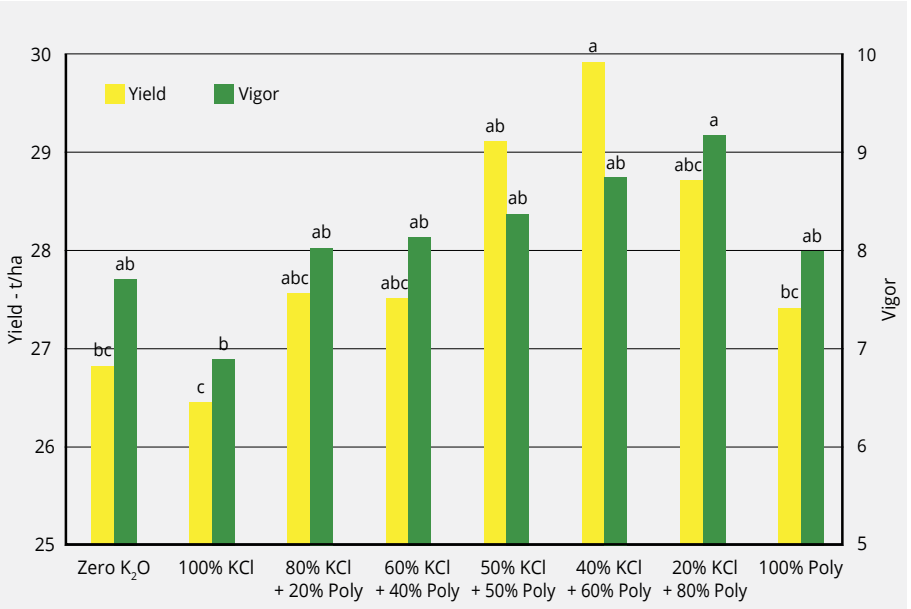
This randomized block trial consisted of four replicates with eight treatments. Different blends of KCl and Polysulphate were tested to supply 360 kg K_2O ha^{-1}:

1) Control, without K application
2) 100% KCl
3) 80% KCl + 20% Polysulphate
4) 60% KCl + 40% Polysulphate
5) 50% KCl + 50% Polysulphate
6) 40% KCl + 60% Polysulphate
7) 20% KCl + 80% Polysulphate
8) 100% Polysulphate

The fertilizers were applied onto the soil surface at two times: first in November 2016; second in January 2017. 100 kg P_2O_5 ha^{-1} as MAP and 250 kg N ha^{-1} as ammonium nitrate were applied at the same time in all treatments.

Results

- Polysulphate increased the vigor of bunches and slightly increased the diameter of stems.
- Partial replacement of KCl by Polysulphate increased crop productivity.
- The KCl: Polysulphate blends with 50% to 60% Polysulphate led to the greatest increases, even in high fertility soils.



Different letters above bars indicate significant differences among treatments (P <0.05)

* *From research funded by the International Potash Institute www.ipipotash.org.*