

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)

Sweet potato (*Ipomoea batatas*) on a sandy loam soil

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

ICL  Fertilizers

Polysulphate 



When

- Sowing: May 2019
- Harvest: September 2019



Where

Kenly, North Carolina, USA



Crop

Sweet potato (*Ipomoea batatas*)



Soil type

Sandy loam soil



Measurements

Yield



Objective

To compare the effect on sweet potato yield of replacing the farmers' practice fertilizer blend with a blend which contains Polysulphate, in North Carolina, USA.

Treatments

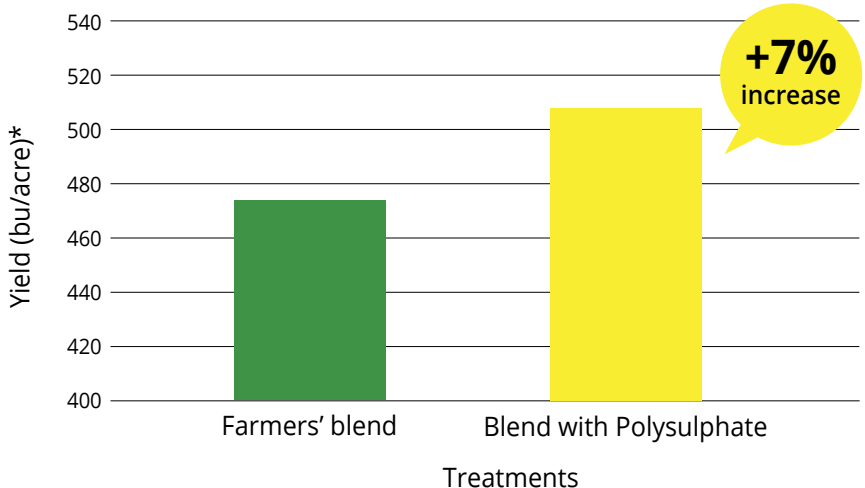
Farmers' practice consisted of a blend of DAP, MOP and potassium-magnesium sulfate, giving a dose of 21 lbs. N, 55 lbs. P₂O₅, 200 lbs. K₂O, 15 lbs. S and 7 lbs. Mg per acre.

The Polysulphate treatment consisted of a blend of DAP, MOP and Polysulphate, giving a dose of 23 lbs. N, 58 lbs. P₂O₅, 200 lbs. K₂O, 51 lbs. S, 9 lbs. Mg and 33 lbs. of Ca per acre.

These blends we applied two weeks after setting. Both treatments had liquid UAN (urea ammonium nitrate) side-dressed at mid-season.

Results

- Compared with farmers' fertilization practice, using a blend with Polysulphate increased sweet potato yield by 7% and increased #1s by 30 bushels/acre.
- The results showed that with equal amounts of N, P, and K there is a benefit from Polysulphate due to the higher rate of plant-available sulfur and calcium. Also, the prolonged availability of the nutrients in Polysulphate may contribute to the enhanced yields.



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 for your contact in your region.

www.polysulphate.com

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Polysulphate

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