Polysulphate®

Trial

Bean
(Phaseolus vulgaris var. Flor de Junio Leon) on a vertisol

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

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)

ICL

Fertilizerplus
Premium plant nutrition from ICL Fertilizers

When

- Planting: June 2019
- Harvest: October 2019

Where

Celaya, Guanajuato, Mexico

Crop

Bean *(Phaseolus vulgaris* var. *Flor de Junio Leon)*

Soil type

Vertisol, clay with neutral pH (7.5), low OM (1.5%) and high K, Ca, Mg, Na contents

Measurements

- Grain yield

Objective

To evaluate the residual effect of Polysulphate applied to a maize crop (as a complementary K and S source) on the yield of a subsequent bean crop.

Treatments

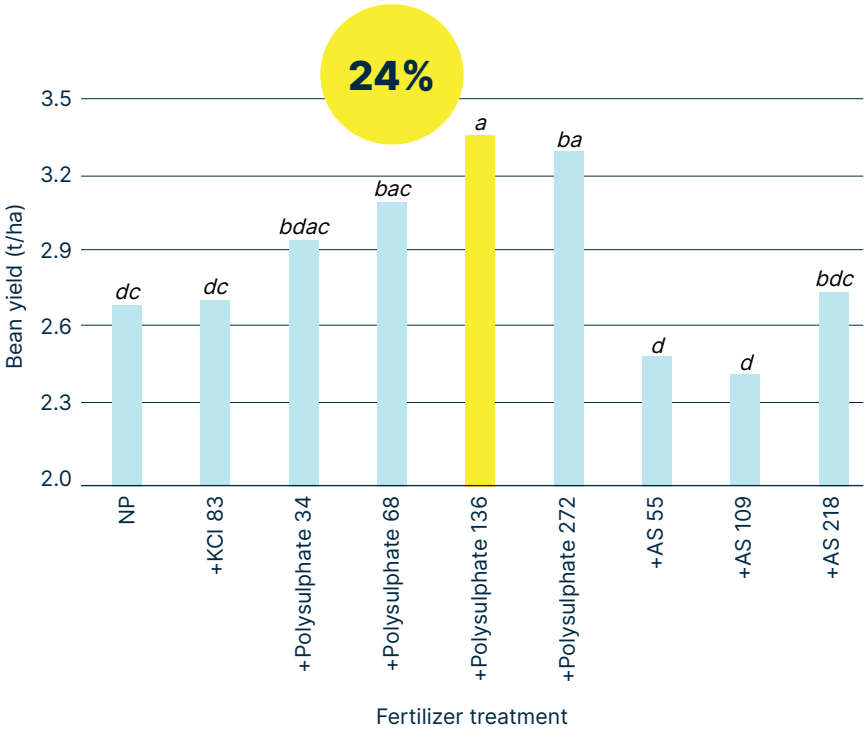
This randomized block trial consisted of thirty six plots with one control without K, one control with NPK, four Polysulphate rates (34, 68, 136, and 272 kg/ha) and three ammonium sulphate rates (55, 109 and 218 kg/ha). Fertilizers were all applied and incorporated at maize planting in the previous year. During the maize crop cycle, all treatments received a total NPK application of 300, 100 and 50 kg/ha from urea, DAP and KCl using Polysulphate as complementary K and S source.
The subsequent bean crop treatments all received 60 kg/ha of N from urea. The residual effect of the previous fertilization treatments on the bean crop yield was measured.

Results

- Plots that had received Polysulphate exhibited higher bean yields than treatments without Polysulphate corroborating the beneficial residual effect of Polysulphate on subsequent crops.

- Polysulphate rates of 136 and 272 kg/ha increased bean yield significantly, by more than 21%, compared to the NPK control and the ammonium sulphate treatments.

- A recommended rate of 150-200 kg/ha Polysulphate is suggested to improve bean yield in the Guanajuato State region, even if it is applied to a previous crop cycle.



Different letters indicate significant differences (P<0.05)

Mined in the UK, ICL is the first – and only – producer in the world to mine polyhalite, marketed as Polysulphate.

Polysulphate

fertilizers.sales@icl-group.com
Twitter.com/Polysulphate
YouTube.com/c/Polysulphate-fertilizer
Facebook.com/Polysulphate

www.polysulphate.com

For more information consult www.polysulphate.com/contact/ for your contact in your region.