





Potato *(Solanum tuberosum)* on a clay soil

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









Objective

This trial in Northern Greece compared the yield of potatoes grown with an improved ICL fertilizer package, which included Polysulphate, to potatoes grown using the standard local farmers' practice.

Treatments

The farmers' practice consisted of a basal application of 1,100 kg/ha of compound fertilizer 14-14-14+26SO₃+ 2MgO; a top dressing of 300 kg/ha of potassium-magnesium sulphate (0-0-30+42SO₃+10MgO) and 200 kg/ha of 40-0-0+14SO₃; 80 kg/ha of 20-19-19 and 80 kg/ha of 12-6-36+TE applied through fertigation; and 2.5 kg/ha of 3-27-18+seaweed applied as a foliar sprayed. In total 259.6 kg N/ha, 174 kg P₂O₅/ha, 288 kg K₂O/ha, 440 kg SO₃/ha and 52 kg MgO/ha were applied to the crop.

The improved ICL practice included the same basal fertilization; a top dressing of 500 kg/ha of Polysulphate and 200 kg/ha of $40-0-0+14SO_3$; and 100 kg/ha of ICL "Solinure" 11-35-11+2MgO+TE and 250 kg/ha of ICL "NovaNPK" 10-10-40+TE applied through fertigation. In total 270 kg N/ha, 214 kg P₂O₅/ha, 335 kg K₂O/ha, 554 kg SO₃/ha, 54 kg MgO/ha and 85 kg CaO/ha were applied to the crop.

Results

- The improved Polysulphate practice increased potato yield by 16%.
- Net income for the potato grower using the improved practice increased by 15% when compared to the standard practice.

