



# Polysulphate<sup>®</sup>

## Trial

### Alfalfa (*Medicago sativa*) on a clayey soil

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

<b>S</b>	48% SO <sub>3</sub> (19.2% S)
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<b>K</b>	14% K <sub>2</sub> O (11.6% K)
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<b>Mg</b>	6% MgO (3.6% Mg)
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<b>Ca</b>	17% CaO (12.2% Ca)
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## When

- Application: 27 December 2019
- 4 cuts: 4 May, 12 June, 16 July and 26 August 2020



## Where

Ravenna, Italy



## Crop

Alfalfa  
(*Medicago sativa*)  
2<sup>nd</sup> year of cultivation



## Soil type

Clayey soil, pH 8



## Measurements

- Yield
- Dry matter (%)
- Proteins
- RFV (Relative Feed Value)

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

**Polysulphate**

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**www.polysulphate.com**

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 for your contact in your region.



## Objective

To evaluate the effect of Polysulphate on the yield and quality of alfalfa in Northern Italy.

## Treatments

The trial consisted of strip plots with 4 replicates. The 3 treatments were a control; Polysulphate applied at 150 kg/ha; and Polysulphate applied at 300 kg/ha. As per the farmer's usual practice, the alfalfa was grown in rotation with wheat.

## Results

- Polysulphate application generally increased the protein percentage and the Relative Feed Value (RFV). Protein content was significantly higher in the first cut with the application of 300 kg/ha of Polysulphate, and similar trends appeared in the other cuts, though not significant.
- Considering the mean value of the four cuts, Polysulphate application at 300 kg/ha enhanced the quality parameters of the alfalfa. The protein percentage was increased by 9.1% and the RFV increased by 9.6% as compared to the control.
- Drought in spring-summer limited the productivity of dry matter (16.2 tons/ha over the 4 cuts, on average). Dry matter production was similar across treatments, with no significant differences on the individual cuts nor in the cumulative production.

