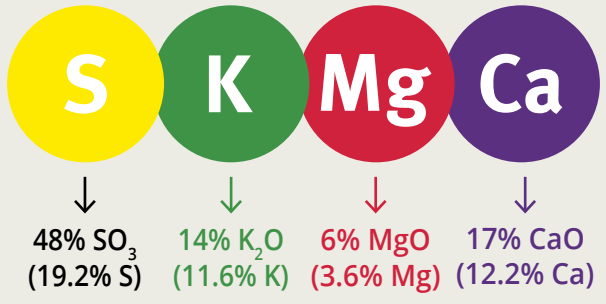


**New
fertilizer**



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

Poly  **™**
sulphate

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The above are general rates, for specific recommendations or more information ask your local ICL representative in your country or area. Consult www.polysulphate.com/contact.php for your contact in the region.

**Wheat fertilization
with Polysulphate™**

ICL  Fertilizers
Where needs take us

Poly  **™**
sulphate



Main features

- Multi-nutrient fertilizer: sulphur, potassium, magnesium and calcium in sulphate form
- Natural mineral (polyhalite) with single crystal structure
- Fully soluble, with all nutrients available for plant uptake
- Low chloride, neutral pH, very low salinity index
- Good and uniform spreadability in the field, up to at least 36 m
- Completely natural, low carbon footprint, approved for organic agriculture

Functions of S, K, Mg and Ca in wheat crop

- **Sulphur is an essential constituent of proteins:** S is required for the synthesis of three of the necessary amino acids
- **Potassium secures yield and quality:** transport of sugars, stomata control, cofactor of many enzymes, reduces susceptibility to plant diseases
- **Magnesium for high photosynthesis:** central part of chlorophyll molecule
- **Calcium for strong and healthy crop:** a major building block in cell walls, and reduces susceptibility to diseases

Sulphur guide recommendations based on N application rates

Nitrogen rate kg N/ha	Sulphur recommendation guide	
	kg SO ₃ /ha	kg S/ha
100	25	10
150	38	15
200	50	20
250	63	25

Nutrient offtake (removal) by wheat crop

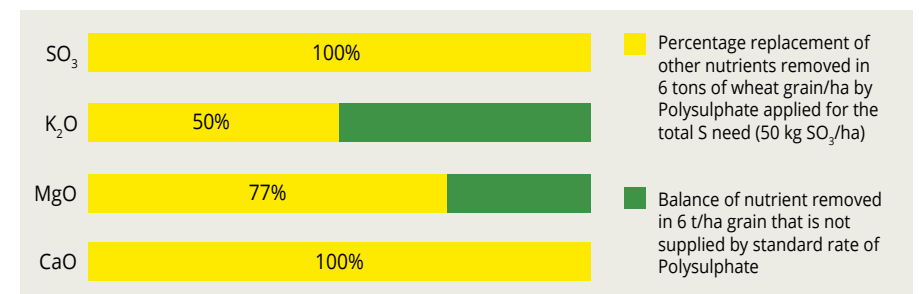
Nutrient	Offtake (kg/t)			Offtake (kg/ha)					
	Grain	Straw	Total	Grain		Straw		Total	
				5 t/ha	2.5 t/ha	8 t/ha	4 t/ha	8 t/ha	4 t/ha
K ₂ O	5.0	12.5	17.5	25	30	55	40	50	90
K	4.1	10.3	14.4	21	21	42	33	41	74
SO ₃	3.4	1.3	4.7	17	3	20	27	5	32
S	1.4	0.5	1.9	7	1	8	11	2	13
MgO	1.3	0.8	2.1	6	2	8	10	3	13
Mg	0.8	0.5	1.3	4	1	5	6	2	8
CaO	0.6	1.9	2.5	3	5	8	5	7	12
Ca	0.4	1.3	1.7	2	3	5	4	5	9

Source: UNIFA

Practical guideline for wheat fertilization with Polysulphate

- One Polysulphate application will supply all the sulphate needed by the wheat crop
- Sulphur is needed to balance the nitrogen applied so that complete proteins can be produced. Protein content is an important aspect of wheat grain quality
- 100 kg Polysulphate is generally a suitable dressing for wheat, supplying all of the sulphur and calcium needed, and 50% or more of the potash and magnesium removed in the grain
- Ensure sufficient potash is applied when straw is removed from the field
- Apply Polysulphate in early spring, as growth starts in winter wheat – usually at the early tillering stage
- For spring wheat apply Polysulphate in the seedbed at sowing

Nutrients supplied by Polysulphate at the recommended dose (100 kg/ha) to wheat crop at 6 t/ha grain yield



Expected benefits

- Higher yield
- Better quality of grain proteins
- Improved baking quality
- Increased nitrogen use efficiency