



**SQM**

# *Prilled potassium nitrate with a difference*

## ***A robust and larger prill that contains more potassium***



**Qrop<sup>®</sup>**  
**K plus**

Qrop<sup>®</sup> K plus is a potassium source that provides rapidly absorbed nitrate-nitrogen, the plant's preferred nitrogen source. This makes Qrop<sup>®</sup> K plus the product of choice to achieve the best yields.

Qrop<sup>®</sup> K plus prills have a superior sturdiness. They perform better during abrasion and impact tests, which results in less product loss during handling and logistics. With a size guide number of 270-290 this prill is ideal for blending with other fertilizers.

Qrop<sup>®</sup> K plus is changing the game in the market of bulk blending, because it is a low in chloride source of potassium and a safe to handle nitrate-nitrogen source.



No IMO 5.1 classification when packaged



12% nitrogen as 100% nitrate



Robust prill with superior stability



Bulk blend proof



Fast and reliable nutrient release



Superior source of potassium due to nitrate association



Ease of application



## Agronomic benefits of nitrate and potassium

### Qrop® K pluS application is highly effective in supplying nitrate and potassium

Nitrate promotes the uptake of potassium, calcium, magnesium, copper, iron, manganese and zinc. Nitrate is also effective in inhibiting chloride uptake. Nitrate nitrogen is a fast acting and readily soluble source of nitrogen for the plant. Nitrate nitrogen is directly available for uptake by the roots, independent on the activity of nitrifying bacteria. Therefore, nitrate is the preferred nitrogen source for spring applications when the soil temperature is still low, because in cold soils, urea and ammonium conversion to nitrate is limited.



Potassium sufficiency in crops is essential for optimal performance, potassium being a key nutrient ensuring yield and quality. Potassium increases the sugar content as well as the shelf-life of fruits and vegetables. The synergistic uptake of potassium with nitrate improves yield and quality of all cultivated crops.

## Benefits of Qrop® K pluS

### Ease of application

Qrop® K pluS is easy to apply in base, side and top dressings in outdoor grown crops, such as field, fruit and nut crops.

### Fast dissolution rate

Qrop® K pluS quickly dissolves when exposed to soil moisture, making the nutrients readily available for plant uptake.

### Safe for chloride-sensitive crops

Qrop® K pluS is virtually free of chloride, which makes it the preferred source for chloride-sensitive crops, like tobacco, potato, onion, coffee, and most berry, nut, fruit and flower crops. Crop yield and quality can be negatively affected by excess application of chloride via chloride-containing fertilizers. Qrop® K pluS contains all nitrogen as nitrate (NO<sub>3</sub><sup>-</sup>). Nitrate acts antagonistically to chloride, present in fertilizers, soil and irrigation water, which limits the uptake of chloride by the plant.

### Beneficial under saline growth conditions

Qrop® K pluS combats soil salinity and relieves salinity stress in crops, due to the unique combination of nitrate and potassium in a single product. Nitrate counteracts the uptake of chloride, and potassium counteracts the uptake of sodium.

### Does not acidify the soil

Because Qrop® K pluS does not contain nitrogen in the form of amide or ammonium, the reactions that release protons and acidify the soil do not take place. Moreover, while the plant absorbs nitrate ions, it releases OH<sup>-</sup> anions in the rooting zone, counteracting the effect of other acidifying fertilizers.

### Qrop® K pluS bags are not IMO 5.1 classified

Safer, easier and more cost-efficient transport, handling and storage due to relaxed regulations.

## Three key differences compared to Qrop® K



Differences	Remarks
Higher potassium content	K <sub>2</sub> O content in Qrop® K pluS is 1% higher than in Qrop® K.
Larger prills	Qrop® K pluS has a size guide number of 270-290, compared to Qrop® K with a SGN of 250-270. Larger-sized prills show better bulk blending properties and field distribution.
Increased impact resistance	Qrop® K has an excellent impact resistance which is surpassed by Qrop® K pluS, a more robust prill with superior stability. The prills have a strong resistance to crumbling and show excellent performance during abrasion and impact tests.

Nutrient	Symbol	Typical analysis (%)	Characteristics	
Total nitrogen / nitric nitrogen	N / N-NO <sub>3</sub>	12,8 / 12,8	Physical appearance	prill
Potassium oxide / Potassium	K <sub>2</sub> O / K	46,3 / 38,6	Size guide number (SGN)	270-290
Sulphur trioxide / Sulphur	SO <sub>3</sub> / S	1,7 / 0,7	Colour	White
Chloride	Cl	<2		

Contact your regional SQM office or local distributor for more information.

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