



PRODUCT KNOWLEDGE · POTASH

SOP

Sulphate of Potash · K_2O 50% · S 17.5% w/w

Chloride-free potassium with sulfur — the potash for crops and soils that cannot take chloride, and for growers who want two nutrients from one salt.

Chloride-free

25 kg

Soil & fertigation

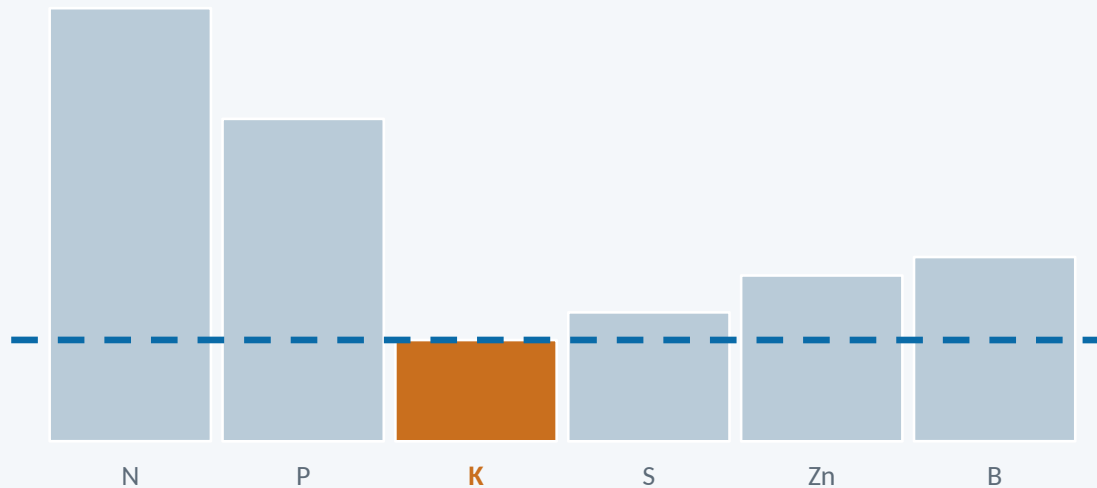


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Two staves, one salt.

Carl Sprengel set the law out in 1840; Justus von Liebig made it famous. SOP is unusual in raising two short staves at once.



— the water line — what the crop actually yields

K and S together

Pakistan is short of potassium and short of sulfur, and both shortages are hidden behind a nitrogen programme that looks generous. One salt that carries fifty units of potash and seventeen and a half of sulfur raises both of them in a single operation.

The staves show the shape of the national problem, not measured soil values. A soil test is what tells you your own — VAN Lab publishes its prices.

SOP and MOP are not interchangeable.

Muriate of potash is the cheaper potassium per unit. That is the only respect in which it is the easier choice.

MOP — muriate of potash

Potassium chloride. The commodity potash, K_2O 50%, and roughly 46% chloride by weight.

- Cheapest potassium per unit — genuinely, and it matters
- The chloride is a passenger: no crop needs it in that quantity
- Raises the salt index of the soil solution
- A problem on saline or sodic ground, and on chloride-sensitive crops

SOP — sulphate of potash

Potassium sulphate. The same K_2O 50%, with sulfur instead of chloride.

- No chloride at all
- Carries S 17.5% — a second nutrient rather than a passenger
- Lower salt index, so it is safer in fertigation and on saline ground
- The standard choice for high-value and chloride-sensitive crops

Chloride-sensitive crops include potato, tobacco, most fruit, and much of horticulture. On saline or sodic ground the argument applies to any crop.

THE PACK

What is actually in the bag.

One grade, two nutrients, no chloride.



SOP — 25 kg

POTASH

K₂O 50% w/w

SULFUR

S 17.5% w/w

CHLORIDE

None — that is the reason to buy it

SOLUBILITY

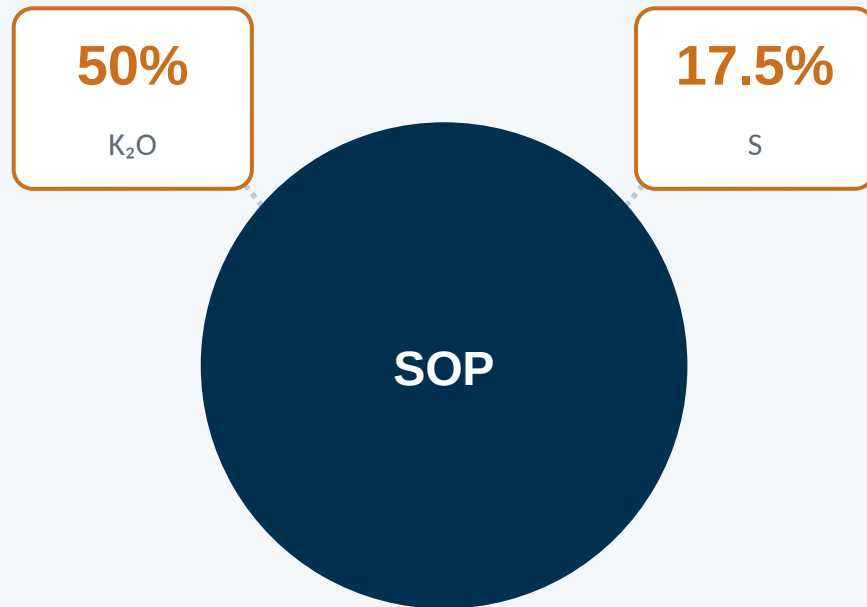
High — suits soil application and fertigation

NO VAN LICENCE, AND THAT IS THE POINT

SOP is a traded commodity VAN does not manufacture under its own name. What VAN holds is the CAPACITY: a vendor can have it made here under their own PSQCA licence. VAN, 20 Aug 2026.

What the label declares.

As published on van.com.pk.



CHLORIDE

None

the defining property, and the reason for the price difference

SALT INDEX

Low

safer in fertigation and on saline or sodic ground

ROUTE

Soil & fertigation

⚠ not a drone or ultra-low-volume grade

What the two nutrients are doing.

Potassium runs the plant's logistics. Sulfur finishes what nitrogen starts.

1 K — water

Governs how much water the plant holds and how it moves it

2 K — sugar transport

Moves sugars from leaf to grain, tuber, boll and fruit

3 K — standing

Cell-wall stability and turgor; the crop resists lodging

4 K — quality

Firmness, colour, sugar and shelf life — what a buyer actually pays for

5 S — amino acids

Cysteine and methionine are sulfur amino acids; without them the protein nitrogen started is never finished

6 S — oil and protein

Raises oil content in seed and protein quality in grain and forage

Why chloride is not neutral.

Established interactions between soil nutrients — after Mulder. These describe how nutrients behave with one another, not how SOP performs.



Works with

Sulfur and nitrogen improve each other's use efficiency — both are needed for protein

Balanced potassium improves iron and manganese uptake

Balanced sulfur improves manganese uptake in return

A low salt index means less competition in the soil solution for every other cation



Competes with

Excess potassium suppresses calcium, magnesium and boron — true of any potash, including this one

Excess sulfur reduces calcium, copper and molybdenum uptake

Chloride raises the salt index of the soil solution, which reduces water uptake on ground that is already saline

Excess calcium suppresses potassium and sulfur together

If you push potash hard, watch calcium and magnesium. VAN makes Cala-Mag V for exactly that consequence.

Right source, right rate, right time, right place.

Published doses. VAN publishes a rate and a stage, not a yield promise.

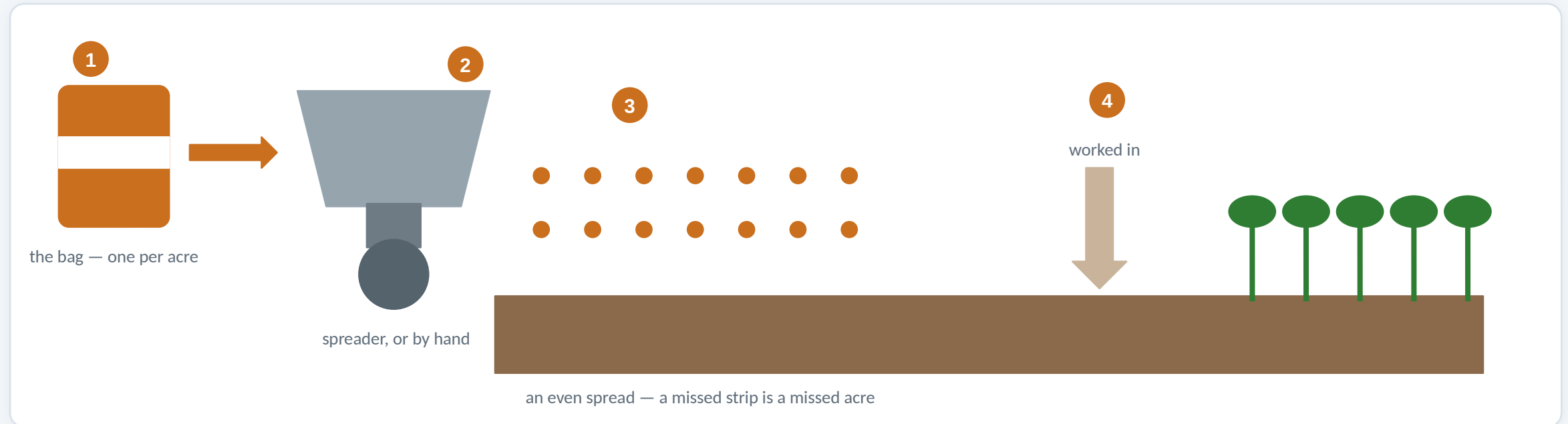


⚠ Soil application and fertigation only. SOP is not a drone or ultra-low-volume grade and must not be presented as one.

HOW IT IS APPLIED

An even spread, then worked in.

Chloride-free potash for the crops that will not tolerate chloride.



1 Measure it

Half a bag to one bag per acre by crop.

2 Spread evenly

Spreader or by hand. A missed strip is a missed acre and it shows at harvest, not on the day.

3 Work it in

Incorporate into the root zone. Material left on the surface is not where the roots are.

4 At the right stage

Through the potassium window — soil-applied or fertigated.

Doses are per acre, from VAN agronomy. Incorporation is not optional — it is the difference between feeding the crop and feeding the surface.

Four things that decide whether it works.

1

Buy it for the chloride, not the potash

Unit for unit, MOP is cheaper potassium. The reason to buy SOP is what it does not contain.

2

It is a sulfur product too

17.5% sulfur is not a rounding error — count it in the programme rather than applying sulfur separately on top.

3

Saline ground changes the maths

On saline or sodic soil the low salt index stops being a preference and becomes the requirement.

4



Not for the drone

This is a soil and fertigation product. Whatever else is flown, this is not.

SOURCES

Where every figure in this deck came from.

Analysis	van.com.pk — SOP, K ₂ O 50% w/w, S 17.5% w/w, 25 kg
Family	Part of the Fusion Potash family per the label subtitle
Doses	VAN guidance, 23 July 2026 — wheat and rice ½ bag early; sugarcane, citrus, potato and other crops 1 bag per acre
 Not a drone grade	VAN, 23 July 2026
Nutrient interactions	After Mulder's chart — established relationships
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