

Pasture King

the flexible alternative
to SSP

Wengfu Pasture King is a balanced compound fertiliser containing 15.7% phosphorus (P), 4.6% sulphur (as sulphate = SO₄), and 14% calcium (Ca) in every granule.

90% of the product is sized between 1–5mm for spreading efficiency.

Wengfu Pasture King is manufactured by reacting phosphate rock with a mixture of phosphoric acid and sulphuric acid to produce a higher phosphate content than SSP. SSP is manufactured by reacting sulphuric acid with phosphate rock.

Wengfu SuStain is a fine ground elemental sulphur embedded in a matrix designed to break down quickly and release the sulphur particles from the matrix. This makes sulphur available for microbial oxidation and release to the plant.

FLEXIBILITY OF APPLICATION

In situations where both phosphorus and sulphur are important Wengfu Pasture King offers the flexibility of applying sulphate sulphur to give an immediate boost to the pasture, or blending with the required amount of Wengfu SuStain to give a mix of immediately available sulphate S plus sustained release elemental S in a matrix which is designed to break down quickly and expose the sulphur to the oxidation process.

Flexibility of applying sulphate sulphur for immediate use by the plant, or a mixture of sulphate with sustained release elemental sulphur, depending on your specific needs.

Where soil tests show that additional sulphur is required, or where pasture topdressing does not occur every year, Wengfu Pasture King + Wengfu SuStain blends allow farmers to order the ideal P : S ratio for their own situation and to apply a combination of sulphate sulphur for immediate response and elemental sulphur for sustained release over time.

FEATURES	BENEFITS
15.7% P; 4.6% S in the sulphate form	Wengfu Pasture King contains P and SO ₄ in every granule ensuring an even delivery of nutrients across the paddock, promoting even growth of pastures. Wengfu Pasture King blended with Wengfu SuStain is ideal for building soil sulphur levels and maintaining a ratio of plant-available nutrients over time to better match the requirements of the growing pasture.
15.7% Phosphorus content	The high P content of Wengfu Pasture King means that transport costs and spreading costs per hectare are lower;
P is the key nutrient for most pastures	Storage requirements are significantly reduced.
Ability to increase sulphur content by blending with Wengfu SuStain	Fine (<150 micron) elemental sulphur can become available to the plant within days given the right temperature and moisture conditions ⁵ . SuStain contains a range of particle sizes to make some available quickly, and the remainder over a longer period of time.

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WENGFU AUSTRALIA
a new force in fertiliser

VALUE FOR MONEY

Nutrient content:	N	P	K	S	Ca
WENGFU PASTURE KING	0.0	15.7	0.0	4.6	14.0
SSP	0.0	8.8	0.0	11.0	19.0

When you are only chasing phosphorus, then Wengfu Pasture King will give you the lowest cost of P.

To calculate the cost of P in Wengfu Pasture King and compare it with SSP, use the following formulae:

Wengfu Pasture King -

- Cost per unit of P = Cost per tonne (\$) / P content per tonne
- Phosphorus content of Wengfu Pasture King per tonne = 15.7%, which is equivalent to 157kg/ t
- Cost to you of 1 tonne of Wengfu Pasture King = X
- Cost to you per unit of P in Wengfu Pasture King = X / 157

SSP (Single Superphosphate) -

- Cost per unit of P = Cost per tonne (\$) / P content per tonne
- Phosphorus content of SSP per tonne = 8.8%, which is equivalent to 88kg/ t
- Cost to you of 1 tonne of SSP = Y
- Cost to you per unit of P in SSP = Y / 88

Having Wengfu Pasture King and Wengfu SuStain available allows you to match sulphur application rates to requirements at an economical price compared to SSP:

Sulphur is an essential element for plant growth, particularly for protein and chlorophyll formation.

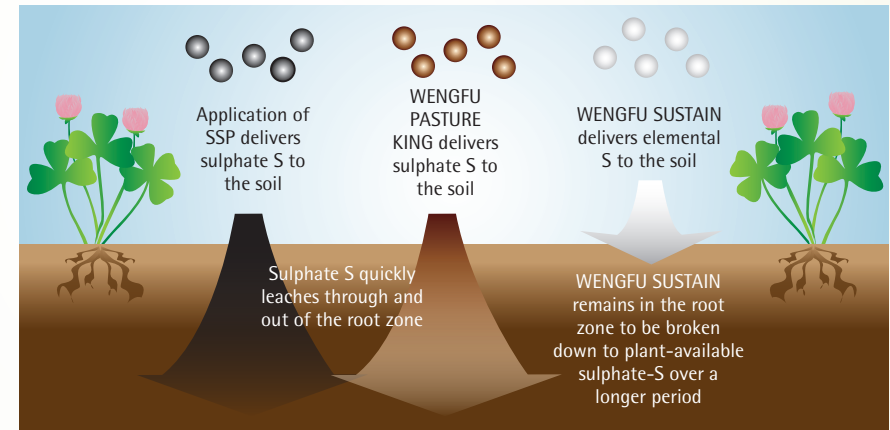
There are known sulphur deficient soils throughout the pasture belt of eastern Australia.

Sulphur is present in soil in two main forms: sulphate (inorganic) and elemental (organic). Sulphur in the sulphate form is immediately available for uptake by plants; elemental sulphur needs to be converted into the sulphate form before it can be taken up by plants, and the main conversion mechanism is by the activity of soil micro-organisms. The rate of conversion is largely dependent on soil temperature, moisture and particle size of the sulphur product.

It has been clearly demonstrated¹ that sulphate sulphur is quickly leached out of the plant root zone by rainfall, becoming unavailable for uptake by the plant, whereas elemental sulphur such as that in Wengfu SuStain stays in the root zone and becomes available to the plant over an extended period of time through oxidation to sulphate sulphur². For this reason a blend of Wengfu Pasture King and Wengfu SuStain provides the best sulphur availability profile for newly sown or established pastures.

It is important to build up and retain a soil reserve of elemental sulphur which can be converted over time to plant-available sulphur, particularly in lighter soils which are prone to leaching of mobile nutrients such as sulphate sulphur and potassium, and in higher rainfall zones.

In the majority of pasture situations the P requirement of plants exceeds the S requirement, so Wengfu Pasture King (with a P : S ratio of 3.4) is more suitable than SSP (with a P : S ratio of 0.8) because the SSP ratio is too narrow for optimal plant nutrition³. It is suggested that a ratio of 2:1 would meet most nutrition requirements in pasture situations⁴. However in light soils with high rainfall P : S ratio of 1:1 may be required especially when soil sulphur levels are low as a result of either low sulphur inputs or only sulphate S being applied.



LOGISTICS COST BENEFITS

Freight and storage costs are not getting any cheaper – the transition to high analysis fertiliser makes sense. Because of the higher phosphorus and sulphur analysis of Wengfu Pasture King you transport, store and spread less product.

56t Wengfu Pasture King contains the same amount of phosphate as 100t SSP.

[56t Wengfu Pasture King contains [56 x (15.7/ 100)] = 8.8t phosphorus; 100t SSP contains [100 x (8.8/100)] = 8.8t phosphorus].

The key blends are:

Wengfu Pasture King SS9:	0.0 : 14.9 : 0.0 : 8.9	P:S ratio = 1.7:1
Wengfu Pasture King SS13:	0.0 : 14.1 : 0.0 : 13.1	P:S ratio = 1:1
Wengfu Pasture King SS17:	0.0 : 13.4 : 0.0 : 17.0	P:S ratio = 0.8:1

Wengfu Pasture King and Wengfu Pasture King : Wengfu SuStain blends offer the flexibility of high nutrient content with the capacity to blend, and also freight and storage savings due to its high phosphorus content. There is also a range of Wengfu Pasture King : potash mixes available.