

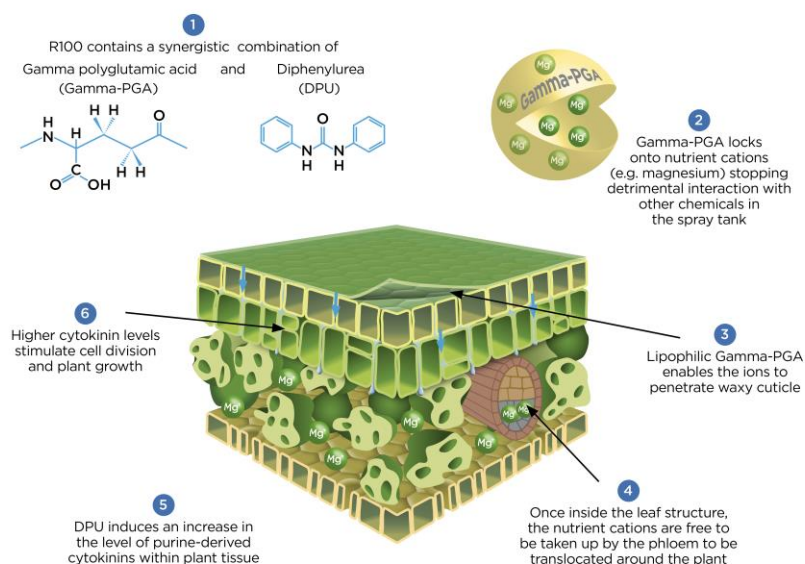


Magistrate R100®

Magistrate R100 is a unique formulation that contains R100 biostimulant technology alongside magnesium, sulphur and molybdenum.

R100 contains a patented combination of two disubstituted urea compounds (DPU) and Gamma Polyglutamic acid (Gamma-PGA).

DPU boosts cytokinin levels in tissues with resulting increased cell division and growth while Gamma-PGA binds to foliar applied cations like Magnesium to improve uptake.



Magnesium is essential for plant growth as a key component of the chlorophyll molecule at the heart of photosynthesis.

It is important for the metabolism of phosphate and nitrogen as well as being crucial for a large number of enzymes necessary for plant growth and protein synthesis. Magnesium along with potassium regulates water uptake by the plant and adequate magnesium levels are important for the establishment of a crop.

Molybdenum is important for nitrogen fixation; therefore, legumes have a particularly high requirement. However, it is also a component of the Nitrate Reductase enzyme which is used by all crops to assimilate nitrates into proteins. Sulphur is vital in protein synthesis as a component of some amino acids and is also important for the correct function of several enzymes.

Magistrate R100 analysis			
Nutrient	Form	%w/w	g/l
Magnesium	MgO	6.1	73.81
Molybdenum	Mo	0.5	6.05
Sulphur	SO ₃	12.1	146.41

Key crops	Cereals, OSR, Beans		
Application rate	Cereals	2.5—3.5 l/ha as bittersaltz alternative	
	OSR	1.0 l/ha Proleaf Boron + 2.0 l/ha Magistrate R100 to provide	
	B, Mo, Mg & S		
	Beans	2.5-5.0 l/ha	
Pack Size	10 Litres		
Specific gravity	1.22		





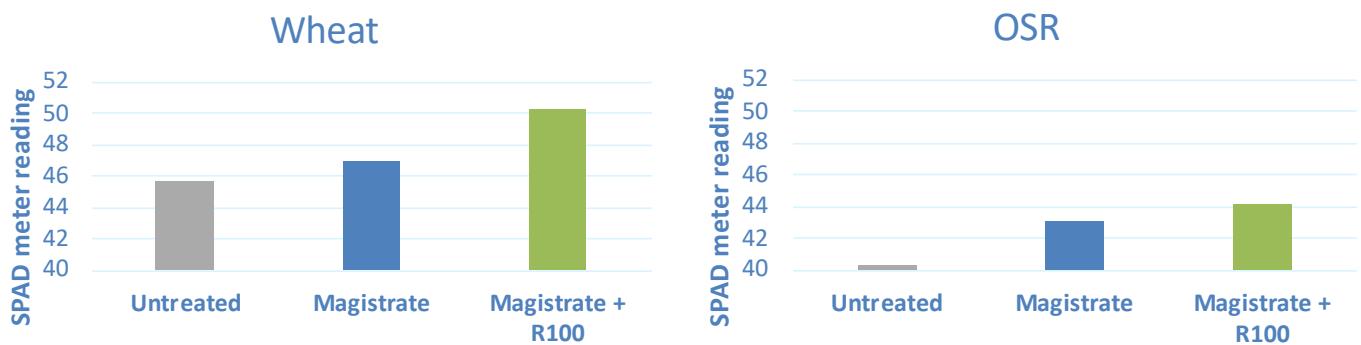
Magistrate R100®

Magistrate R100 significantly boosts nutrient uptake:



- Magnesium levels are significantly raised after application of Magistrate.
- The addition of R100 biostimulant improves the nutrient uptake even further, over the standard product because the Gamma-PGA component acts like a chelate and allows the magnesium ions in the formulation to be better absorbed into the leaf.
- This chelation effect also helps Magistrate R100 to mix readily in the spray tank.

Magistrate R100 significantly increases leaf chlorophyll levels:



- SPAD meters use light absorption through the leaf to determine the chlorophyll content which is expressed as SPAD units.
- Magnesium is in the centre of the chlorophyll molecule and so it is usual to see that the increases in nutrient uptake caused by Magistrate R100 lead to more chlorophyll production in the leaves.
- Raised chlorophyll levels will enhance the amount of photosynthesis in the crop that will positively affect growth and development and often feed through to increased yield.

