



Defender K[®]

POTASSIUM DEFICIENCY CORRECTOR

Benefits of its use

En **DEFENDER K[®]** is a product developed to prevent and correct potassium deficiencies for all kind of crops. **DEFENDER K[®]** contains potassium element in form of salts complexed with organic acids, which ensure an efficient absorption and translocation throughout the plant. Its use favors calcium and magnesium absorption.

Potassium deficiency symptoms

Potassium deficiency can cause substantial growth reduction before specific symptoms develop. Chlorosis appears on the oldest leaves in marginal and interveinal zones. Brown necrotic lesions develop within the yellow parts eventually spread to cover the entire leaf blade. Purple spots may also appear on the leaf undersides. Often, potassium deficiency symptoms first appear on older lower leaves because potassium is a mobile nutrient, meaning that a plant can allocate potassium to younger leaves when it is potassium deficient.

Role of potassium in crops

This element together with nitrogen and phosphorus are essentials for the good development of crops. Potassium is concentrated in young tissues, where plays an important role regulating different plant functions. Plants require potassium for protein synthesis, stomata regulation, photosynthesis, activation of some enzymes and phloem solute transport of photoassimilates among other functions.

Effect on crops

Potassium is essential in nearly all processes needed to sustain plant growth and reproduction. Under severe potassium deficiency, photosynthetic processes decline concomitantly with growth and productivity. In addition, a potassium deficient crop is more susceptible to biological stresses, diseases or pests, and to climatic conditions such as drought or cold.



Potassium deficiency symptoms in tomatoes



Composition

	(%w/w)
Potassium (K ₂ O)	25,00
Organic acids ¹	40,00

¹Tricarboxylic acids

Possible causes of K deficiency Sandy soils.

- After heavy rains (lixiviation)
- Over irrigation
- In soils with a high content in CaCO₃



Lettuce with potassium deficiency



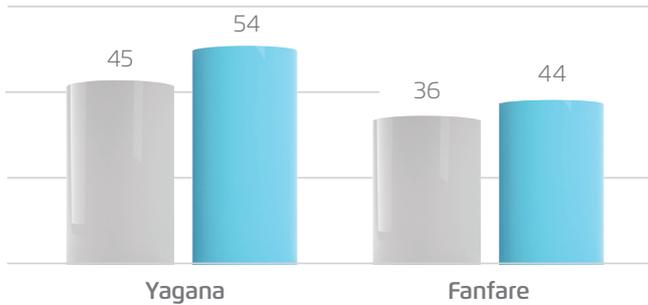
Lettuce without potassium deficiency



Efficacy trials

Fertilization on two varieties of potato
Baix Llobregat, Barcelona, Spain

Yield (Ton / Ha) ● Control ● Defender K



Crop yield on different cultivars of wheat
Lleida, Spain

Yield (Kg / Ha) ● Control ● Defender K



Application system

DEFENDER K® is applied by foliar spray or through irrigation. It is also suitable for hydroponic systems as nutritive solution. It is recommended to prevent and correct potassium deficiencies in any kind of crops for those moments when the requirement of this element is maximum, especially during fruit growth and development.

Stability and storage

DEFENDER K® is stable during at least 3 years from manufacturing date.

Keep in a fresh and ventilated place with temperatures below 50°C.

Do not store for prolonged periods under direct sunlight. Keep away from children.

Do not eat, drink or smoke while handling this product.

Dosage

CROP	DOSAGE		OBSERVATIONS
	L/Ha	cc / 100 L	
Grapevine	3 - 5	200 - 300	Apply during fruit growth and development
Stone fruit trees	3 - 5		Apply from seed hardening until one month before harvest
Pome fruit trees	3 - 5		
Citric	3 - 5		Apply during fruit growth and development
Banana	3 - 5		Apply 60, 40 and 20 days before harvest
Berries	2 - 3		Apply during fruit growth and development
Vegetables	2 - 3		
Melon	2 - 3		
Potato	2 - 3		Apply 2-3 times after 45 days before harvest

Compatibility

DEFENDER K® is compatible with most of plant protection products and nutritional correctors. It is recommended to perform a test in a small volume to assess compatibility. For any doubt, please contact your local distributor for technical advice.