

Technical Data Sheet

Performance Additives
Agriculture

AgriBent Copper EC fertilizer based on microelements for foliar application

PRODUCT: EC fertilizer based on microelements

COMPOSITION: EDTA Chelated Copper 25%
EDTA Chelated Manganese 10%
Bentonite q.s.

PHYSICAL FORM: Powder

PACKAGING: Supplied in 1, 5 or 10 kg bags or 1000 kg big bags

General information of the Bentonite

Bentonite is a clay material, of Smectite's family, mainly built of Montomorillonite.

This clay contains Aluminium and Silicon oxides, with many nutrient elements.

This Bentonite can be used in agriculture with Copper and Manganese, and thanks to her water retention and the action of copper ions, is able to protect fruits and leaves from mycotic and bacterial attacks, like *Botrytis cinerea* and Downy Mildew.

For his lamellar structure, the copper and manganese ions are released slowly avoiding the washout.

Also restrict *Bactrocera oleae* attack.

Thanks to the light color, it reduces sunburn.

Table 1: AgriBent Copper: physical-chemical properties.

Physical-chemical characteristics (typical values):		
Moisture	[%]	8-12
pH 5% suspension		8-9
Swelling	[ml/2g]	<15
Wet residue on 75 micron	[%]	max 0,3
Chemical analysis of Bentonite (typical)		[%]
Na ₂ O		3,3
MgO		4,2
Al ₂ O ₃		19,3
SiO ₂		56,8
P ₂ O ₅		0,2
K ₂ O		0,7
CaO		2,8
TiO ₂		0,8
MnO		0,1
Fe ₂ O ₃		4,8
Calcination Loss		6,9

Specific advantages

- Controlled bioavailability of Copper and Manganese ions. They are very available but controlled by bentonite's action.
- Less washable.
- Low doses and High efficiency, important for European Standards.
- Easy to use and high quality, allows to use less Copper and Manganese over a year.
- Admitted in Organic Agriculture.
- Rapid assimilation of the microelements contained.
- Prevents and treats copper and manganese deficiencies.
- Invigorating action of the aerial apparatus.
- It intervenes in the formation of proteins.
- Strengthens the natural defenses of the plant.
- It improves the effectiveness of phosphatic, potassium and nitrogen chemical fertilizers and promotes uniformity of spreading.

Why Copper matter?

Copper is a constituent of many enzymes, involved in respiration (cytochrome-oxidase), in lignification and in processes related to germination. Copper is also essential for the stability of chlorophyll and other pigments, for the reduction of nitrates and for nitrogen fixing by the rhizobia.

The mobility of this cation within the plant is quite low as it slowly transfers from the roots to the aerial part and is poorly redistributed within the plant, which is why targeted fertilization at the foliar level is necessary.

A right amount of Copper:

- Improves the formation of flowers and seeds.
- Stimulates the metabolism of Carbohydrates and Nitrogen.
- Stimulates the reproductive and photosynthesis processes.
- Increases the sugar content, color and aroma in fruits and vegetables.
- Activates enzymes;
- It plays an indirect role in the production of chlorophyll.
- Influences lignification and xylem formation.

Why Manganese Matter?

Component of the chlorophyll molecule, involved in enzymatic activation processes.

It stimulates the growth of secondary roots. Important for the immobilization of free radicals.

It also raises the concentration of citric acid and vitamin C, improving the nutritional quality of the crop.

Instruction for use

The product needs to be blended with water in special tanks and the suspension needs to be mixed all the time during the application.

Avoid the application in the hottest hours.

Recommended dose: 3-5 kg/ha.

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