

Microtechnology based on metal-oxide nanoparticles

ACTIVE PERFORMANCE



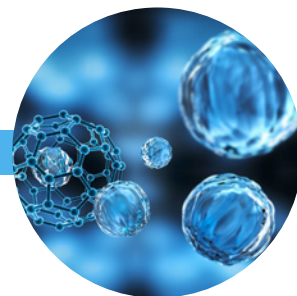
PROMOTES THE SYSTEMIC ACQUIRED RESISTANCE (SAR)

STRENGTHENS PLANT TISSUES, HELPING TO PREVENT BIOTIC STRESS

IMPROVES TOLERANCE TO ABIOTIC STRESS (DROUGHT, SALINITY)

INCREASES PLANT PROTECTION PRODUCTS EFFICACY

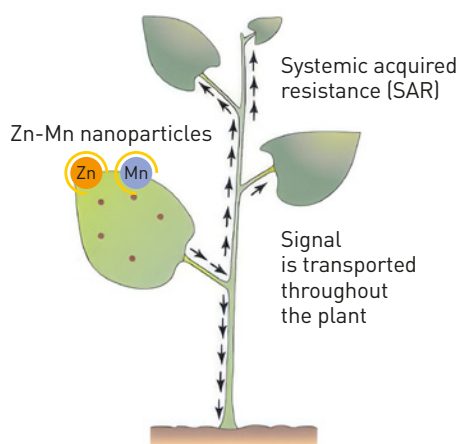
zinc and manganese nanoparticles (size: 1-100 nm)





NET WEIGHT
5.8 kg (5 L)

NET WEIGHT
1.16 kg (1 L)



COMPOSITION

Manganese (Mn) complexed by LS 1 %
Zinc (Zn) complexed by LS 1 %

Complexing agent:
lignosulfonic acid (LS)

PHYSICAL-CHEMICAL PARAMETERS

pH (Sol. 1% at 25 °C): 4.5 ± 0.5
Density (g/ml): 1.16 g/ml
Aspect: Liquid dark brown

COMPATIBILITY

The product can be used in mixture with other formulations. A small-scale test is generally advisable.

Store at a temperature between 4°C and 35°C in the original packaging, away from moisture and direct exposure to sunlight.

CHARACTERISTICS

UNIRESIST is an innovative product based on “nanoparticles” of zinc and manganese oxide complexed by lignosulfonic acid, suitable on all agricultural crops through either foliar or root application.

It strengthens vegetal tissues through different mechanisms:

- promoting the synthesis of phytoalexins, natural substances belonging to different categories (polyphenols, isoflavones, diterpenes, etc.) with antifungal and antibacterial action;
- inducing lignification by depositing lignin in cell wall making it thicker and more robust;
- fortifying the cell membrane, increasing its elasticity and tolerance to biotic stress;
- preventing environmental stresses by activation of antioxidant enzymes (superoxide dismutase, catalase, glutathione peroxidase, etc.).

Moreover UNIRESIST favors primary metabolism optimizing photosynthesis (“greening” effect), energy production and osmotic regulation, thereby promoting the maintenance of essential cellular functions under stress conditions.

The product used in combination with standard Plant Protection Product remarkably increases their efficacy.

DOSAGE BY CROP

CROP	PERIOD	DOSAGE/100 L*	
		FOLIAR*	FERTIGATION
Fruit trees, vine, citrus, olive, berries, kiwifruit	From vegetative reawakening, applications at 7-14 days apart	1 – 3 L/ha	3 – 5 L/ha
Cereals, industrial crops	Post-emergence, tillering, pre-flowering	1 – 3 L/ha	3 – 5 L/ha
Vegetables	After transplant or from first true leaves, applications at 7-14 days apart	1 – 3 L/ha	3 – 5 L/ha
Greenhouse crops		100 – 250 ml/100 L	300 – 500 ml/1000 m ²
Flowers, ornamental crops	After repot/transplant, applications at 7-14 days apart	100 – 250 ml/100 L	300 – 500 ml/1000 m ²

*Advisable to use a volume of water /ha enough to thoroughly wet the canopy to “run-off” point



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