



# Defender **Mz**<sup>®</sup>

## MANGANESE AND ZINC DEFICIENCY CORRECTOR

### Benefits of its use

**DEFENDER Mz** is a product developed to prevent and correct manganese (Mn) and zinc (Zn) deficiencies for all kind of crops. Manganese and zinc are two essential micronutrients for plant growth as they have an important role in different metabolic and physiological processes such as photosynthesis, protein synthesis, co-factor of hormones synthesis, cell division and expansion.

When growing crops know to be sensitive to manganese or zinc, producers should be aware of deficiency symptoms. Manganese and zinc interact with each other and this interaction can result in impacts on crop yields. Deficiencies related to both elements result in yellowish foliage, reducing photosynthetic rate and, therefore, directly affecting to crop growth and development. Soils with pH of 7.0 or higher are more vulnerable to manganese and zinc deficiency.

The nutritional balance between these micronutrients is important for the properly regulation of the functions mentioned above. Furthermore, **DEFENDER Mz** maximizes the assimilation of these micronutrients and helps to mobilize within the plant.



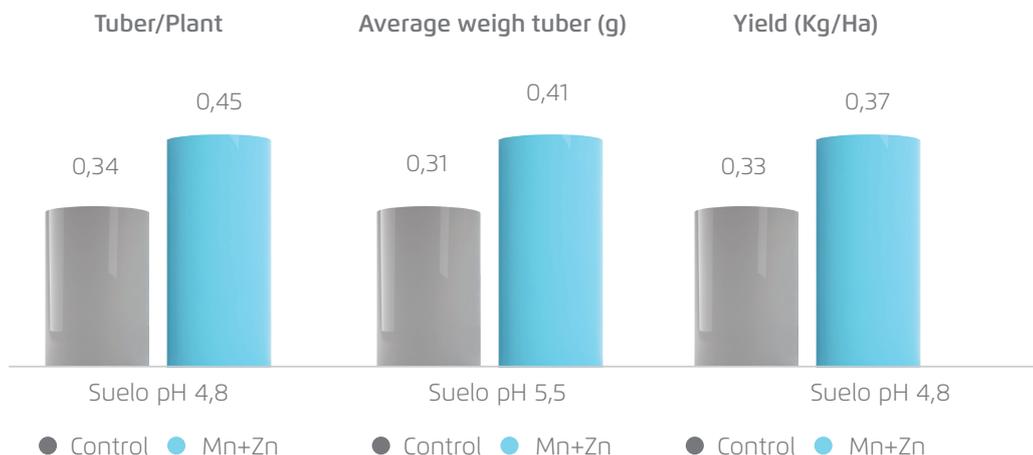
### Composition

(%w/w)

Manganese (Mn) soluble in water	5,0
Zinc (Zn) soluble in water	3,0

### Efficacy trials

*Effects of the application of manganese and zinc on the yield and quality of potato*  
Adapted from Mousavi et al, 2007





## Application system

**DEFENDER Mz** is applied by foliar spray or through irrigation. It is highly recommended for those crops that manifest manganese and zinc nutritional deficiencies or for those that are especially sensitive to these deficiencies.

## Storage and stability

**DEFENDER Mz** 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 long periods under direct sunlight.

Keep away from children.

Do not eat, drink, or smoke while manipulating the product.

## Dosage

CROP	DOSAGE		APPLICATION
	Soil, L/Ha	Foliar, Cc/100L	
Citrus, avocado	2-4	200-300	When Mn and Zn deficiencies symptoms are observed or at moments of maximum necessity of this microelement.
Stone and pome fruit trees	2-4	200-300	
Horticultural crops	2-4	200-300	
Strawberries and berries	1-2	100-200	
Melon, watermelon, cucumber	2-3	200-300	
Potato	2-4	200-300	

## Compatibility

**DEFENDER Mz** is compatible with most of plant protection products and nutritional correctors. However, 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.