

# Optima Leaf-Mn+

*Optima Leaf-Mn+ is a liquid foliar-fertiliser based on manganese that has been 100% complexed with hepta gluconic acid (HGA). Manganese deficiency is often common at high pH levels in the soil. Treating the soil with manganese is not effective in this case. There is often sufficient manganese, but its uptake is impossible. In this case, the only effective treatment is foliar treatment. Manganese is an important trace element that is essential for the formation of chloroplasts.*

## OPTIMA LEAF+- RANGE

Optima Leaf-Mn+ is part of the Optima Leaf+ range, a line of foliar fertilisers that are efficiently absorbed by the crop. The '+' stands for the presence of supplement trace elements. These prevent one-sided fertilisation and demonstrably increase the effectiveness of the product.

## BENEFITS

- Delivers manganese in an organically complexed form.
- Ensures efficient uptake and translocation of manganese.
- Product approved for organic agriculture and horticulture in compliance with regulations EC 2018-848 & EC 2021-1165.

## FUNCTIONS OF MANGANESE

- As a catalyst, ensures that all kinds of plant processes proceed faster and better.
- Necessary for chlorophyll production and therefore important for photosynthesis.
- Required for optimal seed formation in all crops.

## POSSIBLE CAUSES OF MANGANESE DEFICIENCY IN PLANTS

- High soil pH.
- Low manganese levels in the soil.
- High calcium, copper and iron levels can inhibit the uptake of manganese.
- Soils that have been frequently tilled/worked (open structure).



## COMPOSITION

Manganese (Mn)*	46 g/kg
Boron (B)*	0,3 g/kg
Copper (Cu)*	0,13 g/kg
Iron (Fe)*	3 g/kg
Molybdenum (Mo)*	0,1 g/kg
Zinc (Zn)*	0,25 g/kg
Complexed Cu, Fe, Mn, Zn	100 %
Stability range pH	3,0-12,0
Specific gravity	1,27 kg/l
pH product	5,0-7,0
Appearance	Brown liquid

\*=soluble in water

## EC FERTILISER

## PACKAGING

Available in 17½, 300 and 1000 litres containers.

## APPLICATION RATES

### Foliar application

(maximum concentration 1:100, unless stated otherwise)

- **Arable crops:** 1.5 litre per hectare.  
2-5 Times per year; During leaf development.
- **Tree nursery, vineyards and (small) fruits:** 1.5 litre per hectare.  
4-6 Times per year; During leaf development.
- **Lawn and pasture:** 1.5 litre per hectare.  
1-2 Times per year; During leaf development.
- **Forestry and plant nursery:** 1.5 litre per hectare.  
4-6 Times per year; During leaf development.
- **Ornamental crops:** 1.5 litre per hectare.  
4-6 Times per year; During leaf development.
- **Vegetables and strawberries:** 1.5 litre per hectare.  
2-6 Times per year; During leaf development.

### Fertigation application

- **All crops:** 2.0 litres per hectare.  
Every 2 weeks; As required.

## INSTRUCTIONS FOR USE

- **Shake or stir well before use.**
- Store in a cool dry place away from direct sunlight.
- This product has been tested and can be stored safely at temperatures from 5°C to 25°C. Crystallisation and/or sedimentation may occur below 5°C
- Do not treat if the temperature is >25°C or if it might rise to >25°C in the hours after application. Preferably perform the treatment at the end of the day. Do not apply product close to harvesting
- The miscibility and/or performance cannot be guaranteed if combined with another agent. Before mixing, performing a preliminary test is recommended.
- Not compatible with products that contain phosphate.
- Do not mix with other products in pure, undiluted form. Product is stable at a pH of 3.0 - 12.0.
- The best before date on the upper side is guaranteed if the product is stored according to these guidelines in the unopened original packaging. Do not pre-mix and/or store in a diluted form. Only store in the original packaging and close the cap immediately after use.

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**Warning:** These recommendations are provided for guidance only. As Soiltech cannot exercise control over storage, handling, application or use, or weather, plant or soil conditions before, during or after application (all of which may affect the performance of our programme), no responsibility or liability for any failure in performance, losses, damages or injuries (consequential or otherwise) arising from such storage, application or use will be accepted under any circumstances. The buyer assumes all responsibility for the use of Soiltech products. Soiltech recommends consulting an agronomist prior to product application. Should these recommendations differ from any fertilising advice received, Soiltech recommends following that advice. If in doubt, Soiltech suggests you contact your consultant. The general terms and conditions of delivery apply to all our deliveries. These can be found on [www.soiltech.nl](http://www.soiltech.nl).