



YaraVita™ Mangzinc Twin

Manganese and zinc treatment for agricultural use via foliar application or seed dressing

Guaranteed Analysis:

manganese (Mn)	31.0 w/v	310 g/L
zinc (Zn)	26.0% w/v	260 g/L
nitrogen (N)	4.0% w/v	40 g/L

Benefits:

- Formulated for safe application at critical growth stages to satisfy crop requirements
- Widely tank mixable with other crop sprays. Visit www.tankmix.com/yara for details
- Proven, reliable performance. Trialled and tested on a wide range of crops around the world
- High quality, consistent product. Manufactured to ISO 9001 quality assurance standards
- Easy to use liquid formulation. Pours and disperses easily and quickly into the spray tank
- High nutrient content means lower application rates reducing handling time and waste packaging

Key Nutrients:

- Manganese - Is involved in the activation or function of many enzymes in the plant; e.g. detoxification and water splitting enzymes, which provide the oxygen to form carbohydrates for plant growth. Mn deficiency reduces chlorophyll content and Mn is required in lignin manufacture, a decrease in lignin may be why manganese deficient plants have lower resistance to root pathogens such as Take-all in cereals.
- Zinc - Is essential for root development and at crop emergence due to it's role in auxin (growth hormone) synthesis, auxins control the growth of plants by affecting cell and stem elongation. Zn also plays a specific role in flower fertilization and an inadequate supply during seed set could result in a reduction in seeds formed and smaller than normal fruit or grain.
- Nitrogen - Protein N is by far the largest fraction of N in the green plant; nitrogen plays a key role in nucleic acid formation, amino acid and protein synthesis. N also has a key role in chlorophyll and ATP synthesis.



Product Recommendations

Typical Crop Recommendations*

- **Alfalfa (Lucerne):** 1 L/ha applied at flower bud formation and again at 5 to 10 % flowering.
Water rate: 50 to 100 L/ha.
- **Almond:** 1 to 2 L/ha at bud break. Repeat 15 days later if necessary.
Water rate: 500 to 1000 L/ha.
- **Apricot:** 1 to 2 L/ha during fruit development. Repeat if necessary at 10 to 14 day intervals up to one month before harvest.
Water rate: 500 L/ha.
- **Beans:** 1 L/ha applied at 4 to 6 leaf stage. Repeat if necessary 10 to 14 days later. Water rate: 30 to 200 L/ha. Seed Dressing: 3 to 6 litres per tonne.
- **Cereals:** 1 L/ha applied at 2 leaf to first node detectable (Zadok's G.S. 12 to 31). Water rate: 50 to 100 L/ha. For severe deficiency, 2 L/ha applied in 100 to 200 L/ha water at the same timing, or repeat at the 1 L/ha rate after 10 to 14 days. Seed Dressing: 3 to 6 litres per tonne.
- **Cherry:** 1 to 2 L/ha during fruit development. Repeat if necessary at 10 to 14 day intervals up to one month before harvest.
Water rate: 500 L/ha.
- **Citrus:** 2 to 3 L/ha during spring and autumn flushes.
Water rate: 500 to 1000 L/ha.
- **Grapevines:** 1 L/ha at flower buds visible, flower buds separated and at fruit set.
Water rate: 200 to 1000 L/ha.
- **Nectarines:** 1 to 2 L/ha during fruit development. Repeat if necessary at 10 to 14 day intervals up to one month before harvest. Water rate: 500 L/ha.
- **Nuts (Deciduous):** 1 to 2 L/ha at bud break. Repeat 15 days later if necessary.
Water rate: 500 to 1000 L/ha.
- **Oilseed Rape:** 2 L/ha at the 4 to 9 leaf stage. Water rate: 200 L/ha.
Seed Dressing: Typical rate 10 litres per tonne. Also, up to 22 litres per tonne if necessary.
- **Onion:** 1 to 2 L/ha two weeks after transplanting, or in the case of direct sown crops, when the crop is 15 cm tall. One or two repeat applications at 10 to 14 day intervals, may be necessary for moderate or severe deficiency.
Water rate: 200 L/ha.
- **Peach:** 1 to 2 L/ha during fruit development. Repeat if necessary at 10 to 14 day intervals up to one month before harvest.
Water rate: 500 L/ha.
- **Peas:** 1 L/ha applied at 4 to 6 leaf stage. Repeat if necessary 10 to 14 days later.
Water rate: 30 to 200 L/ha. Seed Dressing: 3 to 6 litres per tonne.
- **Plum:** 1 to 2 L/ha during fruit development. Repeat if necessary at 10 to 14 day intervals up to one month before harvest. Water rate: 500 L/ha.
- **Potatoes:** 1 to 3 L/ha at one week after 100% emergence. For moderate to severe deficiency, repeat applications may be necessary at 10 to 14 day intervals. Also, 1 to 3 L/ha following petiole analysis during tuber bulking.
Water rate: 50 to 200 L/ha.
- **Tomato (Field Grown):** 1 to 2 L/ha at the 4 to 6 leaf stage and repeated at 10 to 14 day intervals if required.
Water rate: 30 to 1500 L/ha.
- **Walnuts:** 1 to 2 L/ha at bud break. Repeat 15 days later if necessary.
Water rate: 500 to 1000 L/ha.

*The information provided is accurate to the best of Yara's knowledge and belief. Any recommendations are meant as a guide and must be adapted to suit local conditions. Always read the label before use.



YARA AUSTRALIA PTY LTD
201 Miller Street, North Sydney, NSW 2060
Australia
Freecall: 1800 684 266
Tel.: 02 9959 4266 Fax 02 9959 4050
Websites: www.yara.com.au www.yaraphosyn.com

Phosyn Analytical (& MEGALAB)
Tel.: 07 5568 8700 Fax 07 5522 0720
Email phosynanalytical@phosyn.com

