# FARM ESSENTIALS

# MANGANESE ORGANIC\* LIQUID MANGANESE

## 10.9% MANGANESE WITH NATURAL Chelating agents including fulvic acid & amino acids for enhanced uptake

Essential for the photosynthesis reaction

Increase plant structural resistance & Improve crop stress tolerance

Includes natural plant growth & microbial promotants

Manganese plays an essential role in photosynthesis and adequate levels are critical for optimum plant production. This key element is also critical for improving crop resilience. Manganese deficiencies are widespread particularly in light, sandy soils. Typical deficiency symptoms include interveinal chlorosis and, ultimately, reduced yield and increased disease susceptibility. Now you can address your manganese requirements with an ACO Registered Farm Input.

Manganese Essentials<sup>™</sup> contains 10.9% manganese organically chelated with fulvic acid and amino acids. This revolutionary mix of biological chelating agents improves plant uptake and assimilation of manganese.

## **TYPICAL ANALYSIS**

Manganese (Mn) 10.96%
Total Nitrogen (N) (as organic*) 0.12%
Total Potassium (K) (as organic*) 0.13%
Sulfur (S) 6.52%
Calcium (Ca) 247 mg/L
Magnesium (Mg) 352 mg/L
SG 1.2
pH 2.5 - 3.5
Conductivity
AppearanceBrown Liquid

**PRODUCT SIZE:** 1 L, 5 L, 20 L, 200 L, 1000 L **PRODUCT CODE:** MANGESS







**RESTRICTION:** This product contains manganese. Use is allowed only for a documented or observed need with a plan to avoid manganese imbalances. Use outside this context may not be compliant with the Organic Standards.

# The FARM ESSENTIALS range is ideal for CERTIFIED ORGANIC GROWERS who are looking to efficiently address nutrient shortages, including specific trace elements.

CROP	FOLIAR SPRAY RATE	FERTIGATION RATE	FREQUENCY
VEGETABLES	0.5 L per 100 L water up to 2.5 L/ha equivalent	3 – 7 L/ha	Twice prior to flowering or as required
ORCHARDS & VINEYARDS	0.5 L per 100 L water up to 5 L/ha equivalent	5 - 10 L/ha	Twice prior to flowering or as required
ORNAMENTALS	0.5 L per 100 L water up to 3 L/ha equivalent	3 – 7 L/ha	Twice prior to flowering or as required
TURF	0.5 L per 100 L water up to 3 L/ha equivalent	3 – 5 L/ha	Every 4 weeks or as required
BROADACRE CROPS	1 – 2 L/ha in 80 – 100 L water, depending on canopy closure	N/A	Just prior to flowering or as required
PASTURE	1 – 2 L/ha in 80 – 100 L water	N/A	As required
SPOT-SPRAYING	25 mL per 10 L water	N/A	As required
SEED TREATMENT	2 L/tonne of seed mixed with sufficient water to just coat the seed		

#### INSTRUCTIONS

Stir well before use. Rates and frequencies should be adjusted according to crop monitoring. Where higher water rates are required for good foliar coverage, do not exceed maximum product rate per hectare. Sensitive foliage or plants should be test sprayed prior to full scale application.

Ensure suitable spray conditions (e.g. temperature, humidity, windspeed), prior to foliar application. Compatibility and/or performance cannot be guaranteed when combined with other products. Jar test for compatibility and spray test on small area before wide-spread use.

#### **STORAGE & HANDLING**

#### Read safety directions before use.

Store in a cool dry area out of direct sunlight. This product has been tested to store safely down to 5°C. Crystallisation or sedimentation may occur below 5°C. Do not pre-mix or store in diluted form. Seal lid/cap immediately after use.

#### **IMPORTANT**

# NOT COMPATIBLE WITH SOLUBLE CALCIUM OR PHOSPHATE BASED INPUTS.

Avoid spraying close to harvest if produce is susceptible to staining.

NOTE: Product in 1000 L tanks may weigh over 1 tonne. Forklift with 2 tonne lifting capacity is recommended.

#### **SAFETY DIRECTIONS**

#### CONTAINS MANGANESE SULFATE 10 - 30%.

**WARNING:** May cause damage to organs through prolonged and repeated exposure. Do not breathe spray mist. Get medical advice if you feel unwell. Do not discard into streams and waterways. Dispose of contents and container in accordance with local and national regulations. Additional information is listed in the Safety Data Sheet.

\* This product is allowable for use on farms (or in facilities) certified to the Australian Certified Organic Standard.

\*Disclaimer: Any recommendations provided by Nutri-Tech Solutions Pty Ltd (NTS) or its Distributors are advice only. As no control can be exercised over storage, handling, mixing, application or use, or weather, plant or soil conditions before, during or after application (all of which may affect the performance of our program), no responsibility for, or liability for any failure in performance, losses, damages, or injuries (consequential or otherwise), arising from such storage, mixing, application, or use will be accepted under any circumstances whatsoever. NTS recommend you contact an Agronomist prior to product application. The Buyer assumes all responsibility for the use of any NTS products.

### YOUR LOCAL NTS DISTRIBUTOR

MANUFACTURED & DISTRIBUTED BY: NUTRI-TECH SOLUTIONS P/L | P +617 5472 9900 7 Harvest Road, Yandina, Old 4561, Australia | WWW.Nutri-Tech.com.au

