

NutriZMC Flo

3% N, 25% Zn, 30% Mn, 10% Cu

High analysis zinc, manganese and copper suspension product designed for both sustained and rapid

Benefits of NutriZMC Flo

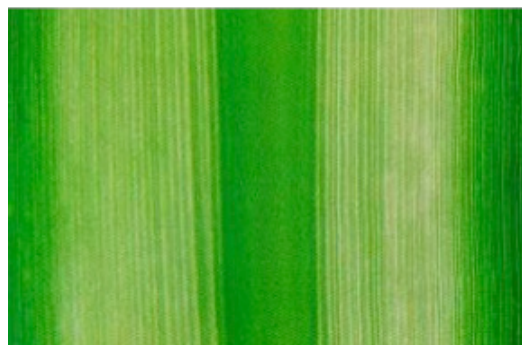
- Accelerates early vegetative growth
- Promotes healthy and vigorous root systems which can access essential nutrients from the soil
- Slow release formulation ensures continued fertilisation of young crop
- Product suitable for seed dressing, foliar or soil application
- Extremely safe for application at all stages of plant growth due to nutrient forms
- Compatible with many other chemicals, seed and foliar treatments
- Has micro-fine particles ensuring even coverage and effective plant uptake
- Pre-mixed in carefully controlled ratios so the crop receives the essential nutrients specific to its growth stage
- High concentration reduces quantity of product needed and saves on packaging and freight costs

THE ROLE OF ZINC, MANGANESE AND COPPER

Zinc forms part of an enzyme which produces carbon dioxide, and maintains its level for photosynthesis. Zinc is also essential for auxin (hormone) production, which help with growth regulation and stem elongation. It is used in the formation of chlorophyll and some carbohydrates, conversion of starches to sugars and its presence in plant tissue helps the plant to withstand extreme temperatures. Poor mobility of zinc can amplify deficiencies. Copper is crucial to several enzyme systems and cannot be replaced by any other metal ion. It is involved in cell wall formation, electron transport and oxidation reactions. Copper also affects the formation and chemical composition of cell walls which in turn affects lignification and cell wall strength. Copper plays a key role in Vitamin A production. Manganese is an enzyme activator which helps with nitrate assimilation. It is primarily involved with photosynthesis and chlorophyll production.

DEFICIENCY SYMPTOMS OF ZINC

- Zinc has poor mobility in plants
- Chlorosis
- Stunting
- Dieback
- Rosetting
- Small irregular leaves
- Reduced yield
- Short thin stems
- Hollow stem
- Yellow stripes beside midrib



Zinc Deficiency

NOTE: The suggested rates of application are designed for typical Australian conditions and such should be used as a guide only. Each farmer's climatic conditions, water quality, soil types, application processes and practices may differ and therefore necessitate corrections to ensure optimum results. Good agricultural practice requires that application be avoided under extreme weather conditions such as temperatures over 28°C, high humidity, frost, rain etc. It is recommended that when applying to a crop or area for the first time, or in combination with other chemicals, a small test area should be sprayed and observed prior to the total spray. Where possible, it is recommended that regular leaf (sap) tests are conducted to determine actual plant nutrient availability during each growth cycle. Soil tests at least once per year are essential.

Product Characteristics

pH: 8.5 -10.5 Specific Gravity: 1.89 - 1.91

Analysis	Australia (w/v%)	International (w/w%)
Zinc (Zn) as oxide	25.0	13.2
Manganese (Mn) as carbonate	30.0	15.8
Copper (Cu) as oxide	10.0	5.3
Nitrogen (N) as urea	3.0	1.6

APPLICATION

CROP	FOLIAR RATE L/ha	FERTIGATION RATE L/ha	COMMENTS
BROADACRE: Such as Barley, Canola, Cotton, Grain legumes, Maize, Oats, Rice, Sorghum, Triticale, Wheat & Pasture crops	0.3 – 1.5 in a minimum of 15 - 60 L final spray volume.*	0.5 - 1	Best applied at 3 – 4 true leaf, may be used at other growth stages. For maintenance, use the higher rate. Best applied at late cabbage stage, may be used at other stages in Canola. For Cotton, apply to boost growth early in season & post waterlogging events. *Aerial application: use maximum practicable water rates. For cotton and pastures, increase dilution rates to 1:60.
DECIDUOUS TREE CROPS: Such as Apple, Almond, Cherry, Nectarine, Peach, Pear, Pistachio and Walnut	1 – 3 in a minimum of 100 - 300L final spray volume.	2 - 3	Spray at early bud, post petal fall. Apply post harvest at higher rates of 3L/Ha. Note: Avoid applications during flowering. For Stone Fruit: Dormancy spray only. Do not apply to foliage or fruit.
EVERGREEN TREE CROPS: Such as Avocado, Citrus, Macadamia, Lychee	1 – 3 in a minimum of 100 - 300L final spray volume.	2 - 3	Apply to recently hardened spring flush or during active growing period & post harvest.
FRUITING VEGETABLES: Such as Capsicum, Cucurbits, Eggplant, Tomatoes, Watermelons, Pumpkins	1 – 3 in a minimum of 100 - 300L final spray volume.	2 - 3	Apply at regular intervals from 5th leaf until 21 days pre harvest. Best applied pre flowering. Apply with compatible crop protection sprays.
LEAFY VEGETABLES: Such as Endive, Fennel Lettuce, Broccoli, Cabbage, Cauliflower, Kale and Herbs	1 – 3 in a minimum of 100 - 300L final spray volume.	2 - 3	Best applied at 3 – 4 true leaf, may be used at other growth stages. For maintenance, use the higher rate. Apply with compatible crop protection sprays.
ROOT VEGETABLES: Such as Beetroot, Carrot, Leek, Onion, Potato, Radish, Sweet Potato	1 – 3 in a minimum of 25 - 300L final spray volume.	2 - 3	Apply regularly, may substitute for urea or sulphate of ammonia. Can be used in organic production to supply N. Apply with compatible crop protection sprays
VINE and BERRY CROPS: Such as Blueberry, Strawberry, Raspberry, Wine and Table Grapes	2 – 4 in a minimum of 500 - 1000L final spray volume.	2 - 3	Apply 1 -2 applications prior to flowering. Do not exceed 2x concentration or 2x the per hectare rate. Use the higher fertigation rate post harvest. Note: foliar spray, do not use at concentrations less than 1:50.

Fertigation rates are dependent on seasonal nutrient demand. Agitate contents well prior to application

SEED DRESSING

Crop	Rate L/Tonne	Min Dilution	Comments
BROADACRE Barley, Cotton, Oats, Triticale, Wheat	4 – 6	Mix sufficient water to ensure adequate coating of seed	If using lower rates follow up tissue tests may be required to determine the need for foliar applications post emergence. If applied without dilution uneven seed coverage may occur. Apply 1 – 3 L water tonne seed, depending on seed moisture content & ambient air temperature. Some of the water may be substituted with Kelpak (a plant growth promoter) at 1 – 2 L / tonne of seed, with the upper rate being applied to small seeds such as Canola. Kelpak assists the germination process & encourages root development. Nutri ZMC Flo is not combatable with rhizobia inoculant products.
CANOLA	20		
GRAIN LEGUMES	4 - 6		
MAIZE, RICE	5 – 8		
POTATO SEED PIECE	30	1:66	Apply in minimum of 200L water/ ha with compatible plant protection products and seed piece spray.

 Minimum Dilution: A dilution of 1 : 100 means 1 part product : 100 parts water.

In hot weather, use the higher dilution rate where applicable. AERIAL APPLICATION: Use maximum practical water rates