

MP MANGANITE

11% Mn

LIQUID MANGANESE SOLUTION FOR HEALTHY TURF

MP Manganite is a liquid micronutrient solution formulated to combat abiotic and biotic stresses in turf. The unique feature of this product is its use of manganese, a key element in strengthening turf and reducing susceptibility to diseases, particularly in high pH or sandy soils.

UNIQUE FEATURES

- High manganese content supports the turf's natural defences against pathogens such as ERI, by strengthening root cell walls and supporting photosynthesis and antioxidant enzyme activity
- Copper and cobalt aid in enzyme synthesis and enhance stress tolerance
- Humic and fulvic acids optimise nutrient uptake and improve soil health and microbial activity

TECHNOLOGY

The product formulation utilises advanced organic acid chelation technology, ensuring that Mn, Cu, and Co remain available for plant uptake even in adverse soil conditions. Chelation with organic acids increases micronutrient mobility and absorption, maximising their effectiveness in the plant. Manganese is a key micronutrient in turf disease responsive mechanisms, acting as a cofactor in photosynthesis and being critical for lignin synthesis in cell wall strengthening. Manganese bioavailability is reduced under high soil pH, which also favours ERI infections. As a result, the turf defence system may be compromised and become more susceptible to pathogenic diseases such as ERI. Applying manganese under these conditions can therefore support turf recovery and strengthen its defence mechanisms against pathogens. Additionally, organic compounds fulvic, humic and amino acids enhance nutrient uptake, stimulate root development, and improve overall turf health by supporting soil structure and microbial activity. This integrated approach delivers a comprehensive solution for managing turf stress from diseases and promoting resilient, healthy turf.

USE PATTERNS

SITUATION	RATE
Greens, fairways, and all sports & amenity turf	10-20 L/ha

Can be applied monthly or as required. Apply irrigation after soil application.

ANALYSIS

Manganese (Mn)	10.5%
Cobalt (Co)	0.12%
Copper (Cu)	0.23%
Sulphur (S)	6.6%