



Nano Manganese

Nanoparticles, nanodots or nanopowder are spherical or faceted high surface area metal nanostructure particles. Nanoscale Manganese particles are typically 20-100 nanometers (nm) with specific surface area (SSA) in the 30 - 50 m² /g range and also available in with an average particle size of 100 nm range with a specific surface area of approximately 7 m² /g.

Components	(%) w/w
Manganese as Mn	1.75
Organic Acids	20
Amino Acids	2.5
Preservatives	0.15
Emulsifiers	0.5

Dosage & Application

- Leaf development - until beginning of stem elongation: 500-1250 ml/Ha
- Beginning of inflorescence development: 625-1750 ml/Ha

Benefits

- Manganese (Mn) is an important micronutrient for plant growth and development and sustains metabolic roles within different plant cell compartments
- The metal is an essential cofactor for the oxygen-evolving complex (OEC) of the photosynthetic machinery, catalyzing the water-splitting reaction in photosystem II (PSII).
- Mn plays a role in diverse processes of a plant's life cycle such as photosynthesis, respiration, scavenging of reactive oxygen species (ROS), pathogen defense, and hormone signaling
- Causant of the water-splitting reaction in PSII, which is the first step of photosynthesis
- It is an important cofactor of enzymes involved in isoprenoid biosynthesis