



Manganese 27

Granular Manganese 27%

*Agrium
Advanced
Technologies
(AAT)
Manganese 27
is a
low-analysis,
highly
water-soluble,
uniformly
granulated
manganese
fertilizer,
specifically
designed to
assist in
plant growth,
and
maximizing
yield.*

Manganese functions in plant

- Essential for chlorophyll formation
- Can accelerate germination and maturity
- Has a key role in nitrogen assimilation/reduction
- Primarily responsible for enzyme activation
- Essential in protein synthesis
- Can increase availability of phosphates and calcium

Manganese can be deficient in

- High organic matter soils, compacted soils
- Sandier textured soils
- High soil pH
- Excessive phosphorus, calcium, zinc, copper or iron levels

Symptoms

- Low mobility, newer leaves can be affected first
- Interveinal chlorosis on broadleaf crops
- Leaves and leaf tips show gray to white specks
- Stunted, wilted leaves on grasses

Critical levels in plant and soil tests

- Plant Tissue: parts per million (ppm)

Critical levels at about 15-150 ppm

Corn:	20-150 ppm
Beans:	20-150 ppm
Wheat:	30-150 ppm

- Soil Test: parts per million (ppm), 0-6", Mehlich III extraction

Deficient:	<1.0 ppm
Marginal:	1.0-4.0 ppm
Sufficient:	>4.0 ppm





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Guaranteed Analysis Ultra Yield Manganese 27

Manganese	27.0%
Nitrogen	1.0%
Sulfur	12.0%
Water Soluble Mn	40.0%
SGN	245
Uniformity Index	50.0%
Color:	Dark Gray

AAT Ultra Yield products are treated with a superior dust coating and are uniform in size for excellent blending properties. We combine the agronomic water-solubility of sulfates with the economics of oxide materials. Agrium uses the latest technology in product manufacture. Bags are color coded for easy identification. Available in bulk, one-ton super sacks or 50# bags. Bagged product comes on non-returnable pallets with protective cardboard inserts and shrink-wrap. All Ultra Yield micronutrients have been environmentally screened for safe use.

Use **Ultra Yield Manganese 27** for fall and pre-plant manganese deficiency prevention. **Ultra Yield Manganese 27** is the product of choice for broadcast and band applications in a wide range of conditions.

- Water-soluble manganese at 40%. **Manganese 27** exceeds industry water-solubility standards.
- Crop essential sulfur at 12%. All the sulfur in **Manganese 27** is in the immediately available form of sulfate sulfur.
- Nitrogen content of 1% provides added dollar value to **Manganese 27** and it is in the ammonium form, which means it won't volatilize.
- **Ultra Yield Manganese 27** offers an analysis balance between Agrium **Ultra Yield BroadMan 20** and Agrium **Ultra Yield Manganese 40** to deliver both granule distribution and economies of freight.

Comparison

Product	Analysis	Product Rate per Acre	Actual Nutrient per Acre			Water-Solubility
			Manganese	Sulfur	Nitrogen	
Manganese 27	27.0% Mn	19#	5.0#	2.3#	0.4#	>40.0%
Other	40.0% Mn	13#	5.0#	0.8#	0.1#	<5.0%

For more information on Manganese 27 please contact:

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