

Magnesium Sulphate

(MgSO₄ 7H₂O) HEPTAHYDRATE

**Soluble fertilizer containing
magnesium and Sulphur**



Introduction:-

Magnesium Sulphate Heptahydrate (Epsom Salt) is a source of elemental magnesium and Sulphur in a water-soluble form. Natural remedy for natural activity, helps plants to absorb phosphorus and nitrogen

Sulfur is a component of amino acids and proteins. It is important in the assimilation of the plant and the activity of resorption. Sulfur-containing compounds help regulate the transport of ions across biofilms and are important in plants for salt, drought, and temperature tolerance. Helps remove the effects of poisoning. It also prevents Sulphur deficiency in protein and reduces the chlorophyll content in the leaves.



Why Magnesium Sulphate Heptahydrate :-

Magnesium sulfate heptahydrate is an important nutritional composition for plants, starting from the growth stage until production, as it is available in a soluble form for easy absorption by the roots and complete dissolution in the fertilizer tank. It is also characterized by its high magnesium content in the form of magnesium oxide 16% and in the form of magnesium sulfate 48.5%. It also contains sulfur in the form of sulfur trioxide by 32%.



Magnesium Role In Plants:-

- 1) Magnesium is a mobile element within the plant, so it moves from the lower leaves to the developing tops and newly developed leaves, and is absorbed in the form of ions.
- 2) necessary for energy production.
- 3) It plays an important role in building chlorophyll molecules
- 4) Helps move phosphorous and carbohydrates into the plant.
- 5) It is considered an active ingredient for a number of essential enzymes in the plant, which play a major role in the representation of nucleic acids.
- 6) Stimulates the formation of plant hormones.
- 7) It has an important role in the process of building proteins in the plant.

Symptoms of magnesium deficiency on the plant:

Symptoms of deficiency often appear in light, sandy and dry lands. Where the edges of the middle and lower old leaves begin to yellow, so the leaves of the plant become mottled with brown dots, and usually a triangular part remains close to the neck of the leaf with a green color

The phalanges are dry and thin. Then it spreads between the veins inside the leaf blade, and the veins remain green in color, and yellowing begins to spread from the base to the apex

Yellow spots that turn into brown may form between the veins in the yellowed leaves, and the growth of the plant and the size of the leaf is normal at the beginning, and the petioles are not curved.

In the case of severe infection, the leaves fall off and the plants become almost naked. There is a great similarity between the symptoms of magnesium deficiency and manganese, except that magnesium appears on the lower leaves, while manganese appears on the upper leaves.

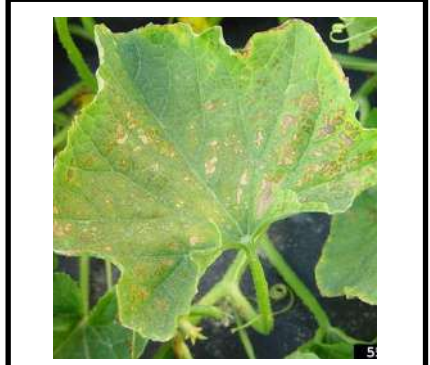
Symptoms of magnesium deficiency in different crops



Citrus



Tomato



Cucumber

Symptoms of magnesium deficiency in different crops



Onion



Potato



Wheat



Strawberry



Composition:-

Magnesium Oxide	Magnesium Sulphate	PH
% MgO	% MgSO ₄	PH
16	48.5	6.85

How to use and usage :-

Crop	معدل الاستخدام	Notes
Cereal	1 - 1.5 Kg / Hectare / 1000 L	From the beginning of filling the grain
Alfalfa		After two weeks after each harvest
Potato	0.5 - 1 Kg / Hectare / 1000 L	Beginning of flowering
Tomato-Cucumber-Pepper-Onion		Every 2 weeks after flowering stage
Lettuce-Cabbage		Treatment after two weeks of transplanting and then repeat the treatment before the formation of heads
Fruit Trees	1.5 - 2 Kg / Hectare / 1000 L	During fruit-set stage

Usage Recommendations:-

- It can be mixed with most soluble fertilizers and pesticides. It is preferable to try a mini-test before generalization.
- Store in a dry place away from sunlight and high humidity.

Packing:-

Available in bags 25 Kg