



MORE Effective Intensive









Although iron is a very abundant nutrient element in soils in total, chlorosis is very common as a result of its deficiency in plants. Absolute deficiency of iron in the soil is rarely seen as the cause of iron chlorosis in plants. This type of Fe chlorosis is found especially in sandy soils and peat soils.

The factors that cause iron deficiency in plants are mostly factors that prevent the absorption of available iron from the soil through the root, its transport and metabolism in the plant. These are high pH of the soil, calcium carbonate, excessive.

The concentration of Ca++ and HCO3- ions and the interaction of iron with other elements. The role of soluble Ca++, HCO3-, CO2 and P in the occurrence of iron chlorosis in plants has long been recognised.

Since iron cannot be transported from old leaves to young leaves, green plants continuously absorb iron from the soil during the growth period. Iron is absorbed by plant roots mainly in the form of Fe+2, Fe-chelate and to a lesser extent Fe+3. The availability of inorganic iron to plant roots depends on the ability of the roots to lower the pH of the root environment and reduce Fe+3 to Fe+2.

Iron has a metabolic importance in plants due to its many physiological effects. Iron is an element of the active groups of various enzymes. Its best known function is its involvement in the prostatic groups of hemin enzymes. It plays a role as an electron carrier in energy metabolism, especially in the oxidation and respiration chain. By catalysing the catalase reaction of these enzymes, it prevents the harmful metabolic effect of peroxide in plants.

The degree of efficiency of contact exchange, mass flow and diffusion in the uptake of nutrients by plant roots.

| Approximate degree of efficiency, % | | | |
|-------------------------------------|----------------|-----------|-----------|
| Nutrient Element | Contact Change | Mass Flow | Diffusion |
| Nitrogen (N) | 2 | 98 | - |
| Phosphorus (P) | 3 | 6 | 91 |
| Potassium (K) | 2 | 20 | 78 |
| Calcium (Ca) | 28 | 72 | - |
| Magnesium (Mg) | 13 | 87 | - |
| Sulphur (S) | 5 | 95 | - |
| Iron (Fe) | 50 | 10 | 40 |
| Iron (Fe) | 15 | 5 | 80 |
| Boron (B) | 3 | 65 | 32 |
| Zinc (Zn) | 30 | 30 | 40 |
| Copper (Cu) | 70 | 20 | 10 |
| Molibden (Mo) | 5 | 95 | - |
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APPLICATION WITH DRIP IRRIGATION SYSTEM

| PRODUCT | REACH | APPLICATION TIME |
|---|------------------------|--|
| Vegetables | 400-500 ml/ha of soil | 1-Applied at the beginning of flowering 2-After flowering 3-Applied at fruit set |
| Fruits | 1-1.5 Lt /da from soil | 1-at the beginning of flowering 2-after flowering 3-at the beginning of summer shoots 4-after harvest |
| Citrus | 1-1.5 Lt /da from soil | 1-Applied at the beginning of flowering 2-After flowering 3-Applied at fruit set |
| Ornamental Plants | 400-500 ml/ha of soil | Applied once a week |
| Beetroot, Corn, Cotton, Sunflower, Potato etc. | 400-500 ml/ha of soil | 1-After the first hoe 2- Applied at fifteen day intervalst |
| Hububat | 400-500 ml/ha of soil | Applied after twinning |

