



ADOB® Fe HBED – 3%

Characteristics



ADOB® Fe HBED – 3% is a specialty fertiliser specifically designed to supply highly available iron cations to plants in high pH conditions (above 7.5) and in calcareous soils. Owing to a patented production process, ADOB® Fe HBED – 3% is characterised by several unique properties. The entire concentration of iron in the product (3% w/w) is 100% chelated by HBED, which makes the product one of the most concentrated liquid iron chelates recommended for high pH conditions. Additionally, since the product contains no optical isomers, the total iron concentration is completely effective and fully available to plants.

The fertiliser is formulated as a stable emulsion without any impurities, which makes it very convenient for growers to produce working solutions with. Unlike other chelated-Fe fertilisers, ADOB® Fe HBED – 3%, with its stability constant at $K=10^{-39}$, proves efficient in highly alkaline conditions (up to a pH of 12). The efficacy of the product is not affected by the presence of copper in soils or in other products applied in combination with it. As the HBED chelating agent is also used in medicine to treat patients suffering from various iron disorders, it is not only safe for humans, but also for the environment.

This product serves as an effective source of iron under high pH conditions, when applied directly to the soil and when applied through fertigation or hydroponics. It is recommended for preventive and corrective fertilisation in all agricultural and horticultural crops.

Iron is crucial in the redox reactions of various cytochromes during respiration and photosynthesis. It is also involved in the functioning of oxidative enzymes, such as catalase and peroxidase, as well as in chlorophyll biosynthesis. It is highly involved in various stages of nitrate reduction within the plant. Iron's most prevalent deficiency symptom, leaf chlorosis, is generally caused by its unavailability to plant roots when it is in an oxidation state of Fe^{3+} and when its solubility is extremely low ($<10^{-15}M$). This is directly linked to its tendency to form Fe hydroxides, oxyhydroxides and oxides in aerated alkaline soils.

ADOB® Fe HBED – 3% can successfully counteract iron deficiency, quickly treating the associated physiological disorders.

-  CE fertiliser
-  emulsion formulation
-  HBED chelated
-  100% chelated Fe
-  effective at high pH
-  modern technology
-  enhanced photosynthesis
-  increased yields and improved yield quality



Composition

Composition – ADOB® Fe HBED – 3%

Packaging:
20, 1000 l

Nutrients	Symbol	Content [% w/w]	Content [% w/v]	Content [g/l]	Form
Iron	Fe	3.0	4.2	42.0	chelated by HBED

Stability of the chelated fraction guaranteed at pH range 4-11

