Effects of Different Iron Compounds on Alleviating Leaf Chlorosis in Apple Trees

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Leaf Chlorosis in field crops and trees is caused by iron deficiency . This phenomena is due to lack of absorption or deactivation of iron in plant . In Calcareous soils of Iran due to high PH, high level of lime, and high level of bicarbonate in the irrigation water; Iron absorption is low . Therefore, foliar application of mineral iron compounds may be more effective and economical than application of expensive Iron Chelate .

A field study was conducted in Semirom Area to study the effect of foliar and soil application of different iron compounds for alleviation of leaf chlorosis and yield enhancement of apple trees using a complete randomized block design with four replicats. The treatments were foliar application of *Iron Sulphate, Baharan Iron Chelate, Gonobgan* Iron Fertilizer , Fresh water (control) and soil application of Sequestrin 138 .

The leaf chlorosis was visually scored and yield were measured. The result showed that soil application of Sequestrin 138 resulted in the highest increase of greening of Chlorosis leaves. Foliar application of Iron sulphate was superior to other compounds due to faster and quicker greening of the leaf However, none of the Iron compounds increased yield during the first year.