



Response of parsley plant to foliar application of ferrous sulfate combined with amino acid

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Abstract : Pots experiments were conducted to fulfill the effects of application of Fe with and without amino acids on the parsley plants. Data observed that application of Fe alone stimulate the fresh and dry material of parsley plant, results also revealed that increasing rate of Fe addition increasing the fresh and dry weight of plant particularly in the first cut. Maximum increases noticed at rate of 75ppm, similar trends were observed in the second cut. Foliar application of Fe at a rate of 100ppm gradually increase (NPK) uptake particularly in the first cut as compared with the second one. Application of amino acids alone has a positive effect on the nutrients uptake. Results observed that the combination of ferrous sulfate with amino acids gradually increased of the nutrients uptake of NPK by the tested plants, maximum of increase obtained at rate of (Fe75ppm+1cm/l) dose were 87, 84, 95, 94, 95, 95 % for first and second cut respectively. Data observed that ferrous sulfate at different doses on the chl. a, band carotene were gradually, increase by increasing rate of FeSO₄. Amino acids added by spraying stimulate the chlorophyll a, b, and carotene. Data revealed that combination of Fe with amino acid together gradually increase the chlorophyll content as compared with FeSO₄ alone. Maximum results of chlorophyll content particularly at rate of 75 ppm combined with amino acid. The effect of amino acids on the uptake of iron nutrient by parsley plants reflect the ability of amino acid to act as nature organic chelators which may enhanced the absorption through the efficient carriers theory of Fe into plant.

Key words: foliar application, ferrous sulfate, amino acids, parsley plant, agronomy parameter.

El Sayed S.A.A. *et al* /International Journal of PharmTech Research, 2016,9(12): 24-32.
