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The Effects of Different Amino Acid Chelate Foliar Fertilizers on Yield, Fruit Quality, Shoot Growth and Fe, Zn, Cu, Mn Content of Leaves in Williams Pear Cultivar (Pyrus communis L.)

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Abstract: In this study, utility opportunities of three different amino acid chelate foliar fertilizers in Williams pear trees (Pyrus communis L.) on seedling for reduction in yield, fruit quality and growth resulted from direct irregularities such as yellowing, browning and falling of leaves in early season were investigated. By this aim, the effects of fertilizers applied three times at 15 days of intervals on total yield, yield per trunk cross section unit area, fruits size, firmness, total soluble solids and titretable acidity, shoot length and Fe, Zn, Cu, Mn content of leaves were determined. Especially amino acid chelated-Fe increased total yield by 64% for the third year and 47% as mean, yield per trunk cross section unit area by 64% for the third year and 45%, extra fruit ratio by 75% for the third year and 11%, shoot length by 70% for the third year and 30%, Fe content of leaves by 112% for the third year and 120%, Zn content by 11% for the third year, Cu content by 22% as mean, but decreased Cu content by 4% for the third year, Mn content by 20% for the third year and 22% as mean when compared with control. Thus it was seemed that this fertilizer prevented yellowing, browning and falling of leaves. In the consideration means of three years, the highest Fe (325.5 ppm), Zn (82.9 ppm), Cu (28.4 ppm) and Mn (66.5 ppm) content of leaves was reached by amino acid chelated-Fe, Zn and multi mineral and control, respectively.

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