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## Effect of Foliar Iron Applications at Different Growth Stages on Iron and Some Nutrient Concentrations in Strawberry Cultivars

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**Abstract:** This study was conducted to investigate the effect of foliar Fe applications on leaf Fe and some nutrient (P, Ca, Mg, K, Mn and Zn) concentrations in strawberry (Fragaria vesca L.) cultivars. For this purpose, 2 forms of Fe solutions ($FeSO_4$. 7 $H_2O$ and Fe-EDTA) containing 0.28% Fe were sprayed onto the strawberry leaves at 3 growth stages (before blooming, first blooming, full blooming). Depending on the Fe sources, Fe concentration increased after each application. Before blooming, leaf Fe concentration increased from 60 mg $kg^{-1}$ (control) to 127 and 105 mg $kg^{-1}$ with Fe-EDTA and $FeSO_4$. 7 $H_2O$, respectively. During the first blooming, leaf Fe concentration continued to increase to 139 mg $kg^{-1}$ with both Fe sources. While Fe concentration was 87 mg $kg^{-1}$ with the control treatment, it reached 184 mg $kg^{-1}$ with Fe-EDTA and 238 mg $kg^{-1}$ with $FeSO_4$. 7 $H_2O$ application after the full blooming. While the leaf Fe and Zn concentrations increased with foliar Fe applications, leaf P, Mg and K concentrations were not affected, but Ca and Mn concentrations decreased. This indicated that the leaf Fe concentration of strawberry increased continuously with repeated foliar Fe application from both sources. Regarding leaf Fe concentrations, it was seen that the effect of $FeSO_4$. 7 $H_2O$ on leaf Fe concentrations was higher than that of Fe-EDTA.

**Key Words:** Foliar fertilization, Fe, nutrient contents, strawberry, plant

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