Effect of foliar application of nickel sulfate and urea on reproductive growth and quantitative and qualitative characteristics of strawberry fruit (*Fragaria ananassa* Duch. cv. Pajaro)

R. Ranjbar, S. Eshghi* and M. Rostami[1]

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Abstract

In this study, effect of spraying nickel sulfate and urea on reproductive growth, yield and some qualitative characteristics of strawberry fruit were investigated. Rooted daughter plants of strawberry, cv. Pajaro, were grown in 3 L pots in greenhouse of College of Agriculture, Shiraz University. The established plants were sprayed, at 4-5-leaf stage, with nickel sulfate at concentrations of 0, 150, 300 and 450 mg/L and urea at concentrations of 0 and 2 g/L. Some traits such as yield, weight of primary, secondary and tertiary fruits, length: diameter ratio, inflorescence number and number of flowers in each inflorescence, vitamin C, total soluble solids and total acid were recorded. Results showed that 300 mg/L nickel sulfate without urea increased significantly the yield, primary and secondary fruits' weight and inflorescence number as compared to control. Also, the 300 mg/L nickel sulfate treatment with 2 g/L urea had the highest rate of total acid (0.75%). In general, spraying 300 mg/L nickel sulfate with 2 g/L urea is recommended for increasing the strawberry yield.

Keywords: Nickel, Urea, Strawberry, Yield.

1. Former MSc. Student, Assist. Prof. and Former MSc. Student, Respectively, Dept. of Hort. Sci., College of Agric., Shiraz Univ., Shiraz, Iran.
*: Corresponding Author, Email: eshghi@shirazu.ac.ir