

ABSTRACT

EFFECTS OF DIFFERENT NITROGEN RATES ON YIELD AND FRUIT QUALITY OF FORTUNA AND RUBYGEM STRAWBERRY CULTIVARS

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Master Thesis, Department of Soil Science and Plant Nutrition

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2014, 94 pages

This study has been carried out to examine effects of different nitrogen rates (0, 7, 14, 21, 28 and 35 kg N/da) on yield and fruit quality of Fortuna (*Fragaria x ananassa* Duch. Fortuna) and Rubygem (*Fargaria x ananassa* Duch. Rubygem) strawberry cultivars in 2013-2014 growing season in Aydın province, Sultanhisar. Nitrogen doses were applied $\frac{1}{4}$ at planting, $\frac{1}{4}$ during fall and $\frac{2}{4}$ during the spring.

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Results revealed that the leaf N, P, K contents of Fortuna and Rubygem strawberry cultivars were sufficient quantities in the all of the treatments. First blooming date, number of buds, number of blossoming, number of stolon, and yield of Fortuna and Rubygem cultivars were positively affected by the nitrogen applications. Fruit dimensions were decreased during the harvesting period while nitrogen rates were not effective on that. Fortuna strawberry cultivar had higher mean values of fruit yield, number of bud, number of blossoming and total soluble solids compound compared to Rubygem. The highest fruit yield were held in 14 kg N/da rate in the first weeks. In the following weeks that yield was relatively, better results were taken from 28 kg N/da and 35 kg N/da rates.

In general, nitrogen rates were not effective on fruit quality. In terms of protecting product quality, our results suggest that strawberry fruit should be stored in cooler conditions without delaying

Keywords : Nitrogen, Strawberry, Cultivar, Yield, Quality