Effects of Foliar Application of Potassium and Zinc on Pistachio (Pistacia vera L.) Fruit Yield

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The objective of this study was to investigate the effects of foliar applications of potassium and zinc on the fruit yield and quality as well as leaf nutrient concentrations of pistachio cv. ‘Chrokeh’. The experiment was conducted based on a completely randomized block design with nine treatments and three replications per treatment. Treatments were three levels of K$_2$SO$_4$ (0, 1 and 2%) and three levels of ZnSO$_4$ (0, 0.5 and 1%). The nutrition solutions were sprayed on trees at two times (bud swell stage and green tip stage) in 2017-2018. Based on the obtained results, nutrient treatments especially 1% K$_2$SO$_4$+1% ZnSO$_4$ and 3% K$_2$SO$_4$+1% ZnSO$_4$ caused a significant increase in chlorophyll a, chlorophyll b, total chlorophyll and carotenoid contents. Application of K$_2$SO$_4$ and ZnSO$_4$ significantly affected concentrations of P, K, Mg, Zn, Mn and Fe in the leaves of ‘Chrokeh’ pistachio, whereas nutrient treatments had no significant effect on leaf concentration of N. Nutrient treatments especially 3% K$_2$SO$_4$+1% ZnSO$_4$ led to significant increases in the fresh (up to 56%) and dry (up to 76%) yield when compared with the control trees. Moreover, nutrient applications had a significant effect on the percentage of splitting (an 11% increase) and blankness (a 44% decrease). It can be concluded that foliar application of K and Zn fertilizers is necessary for obtaining better fruit yield and quality in pistachio.

Blankness, Nutrition, Pistachio, Splitting, Yield

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این صفحه به معنای تاییدیه نمایه سازی مقاله در پایگاه استنادی سپیلیکا می‌باشد. در هر لحظه به منظور تایید اشالت این گواهی می‌توانید وضعیت ثبت مقاله را از طریق لینک فوق به صورت آنلاین کنترل نمایید.