

عنوان مقاله:

Study of Biochemical Traits and Mineral Elements in Date Palm Fruits under Preharvest Foliar Application of Organic Fertilizers and Micronutrients

محل انتشار:

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خلاصه مقاله:

Due to the calcareous nature of most soils in areas under date cultivation, this study was conducted to improve the quality and quantity of date fruits in Zahidi cultivar using the foliar applications of organic matters and micronutrients at two stages of date growth. For this purpose, an experiment was conducted to evaluate the effects of foliar applications of organic matters and micronutrients on contents and properties of biochemical compounds and minerals in Zahidi date fruit. The study was performed as a randomized complete block design with 11 treatments in three replications on 33 date palms for two consecutive years. The treatments were applied in two stages (at the beginning and end of the Kimri stage) on fruits and upper leaves. Treatments included amino acids, Aminabon 50 (0.5 and 1.0 g L⁻¹), seaweed (0.25 and 0.5 g L⁻¹), micronutrients (0.1 and 1.5 g L⁻¹), and four combined treatments obtained from different concentrations of amino acids, seaweed, and micronutrients. Spraying with distilled water served as the control treatment. The results showed that the treatments had a significant effect on all studied traits. The highest content of copper was observed in response to amino acid + micronutrients (1.63 mg kg⁻¹). The effects of amino acid + seaweed + micronutrients on the other traits were observed in the highest statistical class. In general, the latter combined treatment was the most efficient with the lowest content of soluble tannin (26.46 mg g⁻¹) compared to the control (32.12 mg g⁻¹) and to the other treatments.

کلمات کلیدی:

Amino acid, seaweed, Iron, Zinc, manganese, Foliar application time

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