## عنوان مقاله:

Effects of Soil Texture, Irrigation Intervals, and Cultivar on some Nut Qualities and Different Types of Fruit Blankness in Pistachio (Pistacia vera L.)

## محل انتشار:

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## خلاصه مقاله:

Fruit blankness is an important problem of pistachio cultivation, which results from many reasons. The aim of this study was to determine the effects of soil texture, irrigation interval, and cultivar on nut quality and blankness of pistachio. The treatments included soil texture (light and heavy), irrigation intervals (۲۴ and ۴۸ days), cultivar (Kaleghoochi and Ahmadaghaei), and their interactions were studied. Measured traits were flower and small fruit abscission rate, nut weight, blank and semi-blank fruit percentage, splitting percentage, and ounce. Symptoms of fruit blankness were determined by anatomical study of blank fruits. Results showed that a ۴۸-day irrigation interval produced nuts with higher quality, lower blankness percentage, higher weight and size, and higher number of split ones than the other treatments. It is assumed that plants produce more fruits by sufficient water supply, thus the competition for photosynthetic products results in smaller, lower-weight seeds. Light soil was more suitable regarding nut qualities, but flower and small fruit abscission rates were higher in light soil probably because of temperature fluctuations in this soil. Anatomical studies showed that blankness could result from a lack of fertilization (parthenocarpy) or embryo abortion (stenospermocarpy). Parthenocarpy mostly occurred in the more sensitive cultivar, Kaleghoochi, while the more tolerant cultivar, Ahmadaghaei, mostly had stenospermocarpic blank fruits. It was also determined that embryo abortion could occur at different stages of development.

## کلمات کلیدی:

Anatomy, Embryo abortion, Irrigation, parthenocarpy, Soil Texture