

Abstract

Despite there is long experience in the design and use of trunk shaker still it is necessary to improve the efficacy in their performance in order to reduce harvesting costs and to minimize tree damage. Excessively-prolonged shaking of each tree is one factor giving rise to damage to the holding area of the trunk, as well as to strain no both shaker and tractor. The present study sought to establish a shaking time which would maximize fruit removal while minimizing cost and damage. To this end, olive fall was recorded with a digital video-camera, in field tests using Picual and Hojiblanca olive varieties. Accumulated fruit removal percentage was determined as a function of shaking time and harvest date. A shaking time of roughly twelve seconds was found to be sufficient to remove 90% of olives; harvest date affected both optimal shaking time and accumulated fruit removal percentage.