

Evaluation on Zard and Roghani Olive Cultivars Responses in Different Regions of Kermanshah

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Received: 5 September, 2010

Accepted: 18 May, 2011

Abstract

In order to evaluate the adaptation ability of two main cultivated olive cultivars, Zard and Roghani, in Kermanshah olive orchards an experiment was conducted in four regions Gilane Gharb, Ghasre Shirin, Javanmiri and Dalaho olive research stations. An orchard with 15 olive trees of each cultivar was selected in three replications. The experiment was based on complete randomized design. The analysis of the data showed that two cultivars had a significant difference in phenological and fruit traits. Inflorescence emergence, flower opening and full bloom were different based on regions. Cultivars had significant differences in flower number per inflorescence, complete flower percent, fruit set, fruit and seed weight, pulp fresh and dry weight, and pulp/pit ratio in different regions. Oil content of cultivars was different based on fruit dry and fresh weight in different regions, so that two cultivars had the highest oil content in Javanmiri and the lowest oil content in Ghasre Shirin region. Fruit olive yield was different in regions so that Zard with 4077 kg/h had the highest yield in Javanmiri and Roghani with 1546 kg/h had the lowest yield in Ghasre Shirin. We conclude that Javanmiri with an altitude higher than 1000m was the best region for olive tree growth and Ghasre Shirin with an altitude less than 300m was not suitable for olive growth. We recommend Zard olive cultivar to be planted in regions with an altitude high above 1000m.

Keywords: *Olive (Olea europea L.); Zard and Roghani Cultivar; Adaptation; Kermanshah.*