Title Effects of rootstocks on fruit yield and quality of apple cv. “Golab Kohanz”

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Abstract

Apple cv. "Golab Kohanz" is a land rack tree fruit which cultivated from long times ago in central Iran (Isfahan province). Generally, apple cv. "Golab Kohanz" is an early crop with very tasteful and juicy but it has very low yield. Therefore, more research works is needed to solve this problem. Yield performance and fruit quality were assessed for 9 years in Agricultural Research Station in Semi rom (31°25' Nand 51°34' E, Iran) according to the six apple rootstocks, namely: M9, 89, M26, MM106, MM111 and Kohanz (commercial rootstock for Kohanz cultivar). For the 6 years studied, cumulative yields per tree and yield per trunk cross-section area were the highest on MM111, M26, MM106 and 89 respectively, whereas trees on M9 and Kohanz were the least productive. The results showed that individual fruit weight, size were significantly higher on MM111 and Kohanz rootstock, compared with the other rootstocks. Fruits on the B9 and MM106 rootstock had the lowest weight and fruit diameter. The rootstock type also affected the fruit juice amount and soluble solid content. Fruit from plant which were grafted on 89 rootstock had total soluble solid of 13.6 %, whereas on M9 and MM106 rootstock they had 12.7% of total soluble solid.