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**EFFECT OF STORAGE ON QUALITY FEATURES OF LOCAL ONION LANDRACE
“VATIKIOTIKO”**

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Abstract

“Vatikiotiko” is a Greek landrace of *Allium cepa* L. of the Alliaceae family, cultivated only in the region of Vatika, in Lakonia prefecture as a short day onion. The dry bulbs are a quality product highly sought after in Greek market, since this is the earliest onion that comes out during spring. However, so far the production is limited and the potential of this landrace is not fully developed. In the present study we examined the effect of storage at two temperatures (25 ± 1 and 5 ± 1 °C and 60-70% RH) on marketability and quality features of dry bulbs of “Vatikiotiko” landrace and “Sivan F1” which is also cultivated in the specific region. The experiments were carried out at the University of Thessaly, Greece during the period 2014-2015. The quality features that were recorded during storage included fresh and dry weight of bulbs, fresh weight loss, color of tunic and flesh, nutritional value and mineral composition. The measurements were taken at regular intervals and the storage was completed when either bulbs had not marketable quality or sprouting occurred. So far the results have shown that “Vatikiotiko” onion can be stored for at least five months at 25 ± 1 °C, whereas at 5 ± 1 °C storage could be prolonged for almost 8 months without significant marketability and quality loss, whereas for “Sivan F1” sprouting occurred after 5 and 6 months at 25 ± 1 and 5 ± 1 °C respectively. Therefore, the fact that “Vatikiotiko” landrace is a “storage” onion allows for further exploitation in order to increase total production and yield, since the stored product could cover the market needs that arise throughout the year, whereas breeding is needed in order to minimize the genetic variability of the landrace and increase uniformity of the final product.

Keywords: *Allium cepa*, landrace, onion, storage