

Title Morphological, chemical and sensory characterization of Tunisian fig (*Ficus carica* L.) cultivars based on dried fruits

Authors F. Aljane, A. Ferchichi

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Abstract

Fig tree (*Ficus carica* L.), belongs to the Moraceae and is well adapted to southern Tunisian conditions; where its cultivation is common and traditional. This region is characterized by a high genetic diversity and many fig cultivars: 'Bayoudhi', 'Bither', 'Jemâaoui', 'Magouli', 'Rogabi', 'Romani', 'Safouri', 'Tayouri', 'Wedlani' and 'Zidi' are cultivated. An important part of the production is usually processed to obtain dried fruit, jam and alcoholic beverage production. The fig fruits undergoes various drying stages: First the fruits are left to dry on the tree, then they are dried in the sun (from 6-15 days) with a yield from fresh dried of 30- 40 %. Morphological and chemical analysis of fruits were carried out (fruit weight, fruits vs. weight unit (kg), skin (external) colour, fruit firmness, pH, Titrable acidity, °Brix sugar, drop at the eye, fruit flavour, fruit cavity graininess and seed number). The results showed a very high quality of dried fruits from 'Jemaâoui', 'Magouli', 'Rogabi', 'Wedlani' and 'Zidi' cultivars, in particular for the fruit weight and high sugar content. The sensory analysis, carried out by qualitative descriptors including, drop at the eye, fruit flavour, fruit cavity graininess and seed number of fruits confirmed, the high quality of dried figs. This survey suggested high fig diversity, the cluster dendrogram permits to differentiate three groups of cultivar.