

Title A survey of quality factors in highbush and rabbiteye blueberry cultivars in Portugal
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Abstract

In order to evaluate the behaviour of American blueberry cultivars cultivated in Portugal, fruits of highbush blueberries (*Vaccinium corymbosum* L.) cvs Bluecrop, Georgiagem and Sharpblue and rabbiteye blueberries (*Vaccinium ashei* Reade) cvs Premier and Bonita Blue were studied. The influence of the harvest date on the fruit quality of five cultivars of blueberries was evaluated along the harvest season between May and August. Fruits of the same cultivars were characterized in two consecutive years. Samples were analysed for: respiration rate, biometrical and chemical-physical parameters and sensory analysis. The results of the effect of harvest date on quality parameters showed that blueberries could be picked over one month without significantly changes. However, highbush and rabbiteye cultivars have different harvest seasons, allowing a large harvest period. This is an important commercial fact, from the farmer's point of view, in order to respond to market needs. Fruit quality was dependent on cultivars and crop year. Principal component analysis showed differences between two distinct groups: the rabbiteye group of 1999 (influenced by mechanical resistance and SS/acidity rate) and, another group established by the remaining cultivars – rabbiteye 2000 and highbush 1999 and 2000. However, the panellists preferred berries with higher values of juiciness, sweetness and firmness what correspond to the fruits of all cultivars in year 2000. Fruits of the rabbiteye group are small to medium size, good firmness, dark blue colour, flavour full and small dry scars, which contribute to a good shelf life, although the fruits had some small stones cells. Fruits of the highbush group, namely Bluecrop were categorized as having medium to large fruit, with good sweet, succulent, low-acid flavour and medium blue colour, although they were among the least firm cultivars.