

STRAWBERRY QUALITY: EFFECT OF CULTIVARS, HARVEST DATE AND STORAGE

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Abstract:

The aim of this research was to determine the differences in fruit quality of strawberry cultivars in Portugal and to determine their shelf-life during cold storage, regarding consumption in the fresh, out of season market. Cultivars ('Álbion', 'Candongá', 'Gariguette' and 'Galéxia') grown in two different cultivation systems (soil and substrate) were used, samples were harvested weekly during five weeks. For cold storage trials were used 'Álbion', 'Candongá' and 'Galéxia', collected on the fifth harvest. The materials were analysed for the following quality parameters: biometrical measures; physical and chemical; colour ($L^*a^*b^*$); rheological parameters; sensorial tests; microbiological - mesophiles, yeasts, moulds, coliforms and *Enterobacteriaceae*. Data were submitted to Principal Component Analysis using the "Statistical" v.6.0 program. Clear differences were detected between cultivars. 'Gariguette' presented the smallest, less firm and intense coloured fruits. 'Álbion', 'Candongá' and 'Galéxia' presented a commercial fruit quality that ranged from good to very good. On the 16th day of cool-storage, weight loss varied from 2.5 to 3.0% respectively for 'Álbion' in substrate and 'Candongá' in soil. The 'Candongá' and 'Álbion' kept a good (4) commercial quality until the 14th day of storage and Galéxia in substrate until the 10th day. For all cultivars a low microbiologic contamination (low initial counts) were found and the numbers remained low throughout the cold storage period.