



International Agrophysics

publisher: Institute of Agrophysics
Polish Academy of Sciences
Lublin, Poland

ISSN: 0236-8722

vol. 22, nr. 3 (2008)

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Effects of different shelf storage conditions of chicory on the colour change using digital image processing

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vol. 10 (1996), nr. 1, pp. 69-76

abstract The study established a method of evaluating the colour change of chicory under different shelf storage conditions. The RGB system was used for digitising the colour images. The experiments under four storage temperatures and three humidities were made. In the experiments, a comprehensive index, Scy was presented and used for estimating the unfavorable colour change (turning to brown and red). The index is based on comprehensive consideration of the coloured area and degree of the colour change. Other phenomena of overall colour change, such as growth of yellow leaves, greening of leaves under illumination have been analysed. The effects of changing temperature on Scy are discussed.

keywords chicory, colour change, digital image processing, shelf storage conditions