

Title Determination of senescent spotting in banana (*Musa cavendish*) using fractal texture Fourier image

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Abstract

The analysis of fractal texture reflects a change in pixel intensity, and this might contain information about the structure of objects since a great change in intensity might usually indicate changes in the object. In the images of banana surfaces, the texture image can, to some extent, reflect changes and thus it can be used as an indicator of the last stage during the ripening process (over-ripening). In this experiment, bananas (*Musa cavendish*) were stored during 10 days at 20 °C. Images of banana surfaces were recorded using a computational vision system. The over-ripening process of bananas was represented by an increment in the fractal value derived from texture fractal Fourier analysis. The result shows that fractal texture derived from the spectral Fourier analysis increased monotonically and it can be used as an indicator of the senescence process also called “senescent spotting” of the banana peel.