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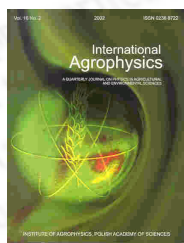
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Study of apple fruit quality based on the analysis of laser scattering image

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abstract A 670 nm, 3 mW solid-state laser diode module was used as light source to monitor the changes of apple quality (c.v. Jonagold) under room storage conditions. Laser beam scattering images were captured and the number of total pixels in the image was taken as an indicator of fruit quality. The total number of pixels (image size) increased during storage. The fruit firmness measured by the non-destructive acoustic impulse response technique showed a negative correlation ($R = -0.85$ to -0.87) with the result of laser image analysis. The correlation between the total number of pixels and mechanical properties of apple flesh measured by means of a universal testing machine are discussed.

keywords apple, laser scattering image, firmness measurement

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