Abstract

The early assessment of fruit quality requires new tools for size and colour measurement. Image analysis is appropriate for the estimation of fruit quality. In order to provide growers with early information on the quality assessmem at harvest time, this estimation should take place just before the fruit shipping bins are stored in cold storage.

The paper describes an image analysis tool dedicated to the detection of the fruits located on the top layer of a shipping bin. An active contour algorithm carries out this task. The geometrical model used is the circle and the active contours are computed on the gradient of luminance of a colour image. Our approach has been successfully applied to apples and we present a comparison between estimated fruit size and manual measurement.