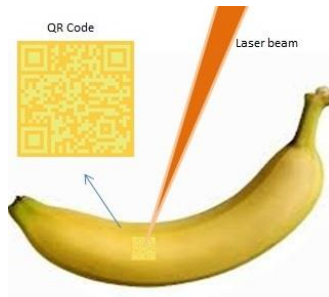




Project: Laser Marking on Horticultural Products

Time: Jul. 2013 – Jun. 2016



Contents and Objectives:

Due to globalization in food trade, consumers are looking for trust marks on agricultural products. Recently, researchers have shown an increased interest in laser marking of fruits, flowers, plants, eggshell, chicken beak, wood and vegetables. This new indelible marking technology provides an alternative to removable adhesive paper stickers which avoids the risks of losing. However, direct mark applications on horticultural products are challenging because it can promote particularly physical damage which leads to a decrease in product quality.

Therefore the objective of this research is to investigate laser marking methods of 2D barcodes (i.e. data matrix codes) on Cavendish bananas by determining the optimal laser power, the optimum marking speed, the optimum marking code size and specific laser parameters. To optimize the marking process, the lasering process has to be selfadapted, that means that it uses only the specific parameters (colour, spots etc.) of the product. After lasering, the barcode quality will be evaluated by computer based image analyses throughout storage periods.

Partners:

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