

An approach to estimate moisture content of paddy rice via thermal imaging

ABSTRACT

Machine visions are being increasingly applied as an automated, non-destructive and cost effective technique to investigate the quality inspection of agricultural products. This study focuses on the use of thermal imager to evaluate the moisture content of paddy rice. In this paper, the mean intensity of gray level image is considered as the index for predicting moisture content. This new technique enables us to increase the accuracy level of detecting moisture content and analysing information gathered from the image. A suitable nonlinear model for predicting moisture content through mean intensity of gray level image is also proposed in this study. The findings indicate that the approach is promising and yielding the promising result.

Keyword: Paddy rice; Thermal imaging; Moisture content; Image processing technique; Nonlinear model