Non-invasive quality assessment of agricultural products

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Written for presentation at the
CSBE/SCGAB 2013 Annual Conference
University of Saskatchewan, Saskatoon, Saskatchewan
7-10 July 2013

ABSTRACT Pervasive deceases crisis due to pernicious agricultural products make scientists to introduce and develop the modern methods of controlling the quality of food, feed, fiber, and environment that are impressed by agricultural practices and influenced the quality of mankind life. Site-specific management of agricultural inputs, as in-farm stage of quality control, contributes in providing a sustainable and environmental friendly method of production, while post-harvest treatments are the final gates of controlling the supply of the products to the markets and, consequently, consumers. There are a lot of methods that have been innovated to assess the quality of agricultural products which are categorized typically into destructive and non-destructive methods. In this paper, non-invasive methods, as special non-destructive methods of product assessment, are described in details. Methods which are based on application of spectrometry, acoustic and ultrasonic methods are detailed here as non-invasive assessment of agricultural materials.

Keywords: quality assessment, acoustic, agricultural materials, spectrometry, ultrasonic