

# THE USE OF UV-VIS SPECTROPHOTOMETRY FOR DETERMINING THE MALONDIALDEHYDE AS A QUALITY MARKER IN PORK TRACEABILITY

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## Abstract

The aim of the paper is to define the biochemical approach in assessing the quality of pork traceability using the UV-VIS spectrophotometric method to determine the concentration of malondialdehyde. The mechanism of the proposed chemical reaction consists in the formation of the red chromogen, where  $\lambda=532$  nm, between the thiobarbituric acid and malondialdehyde in the glacial acetic acid medium. The proposed concept is related to food safety, consists in using the biochemical method of evaluating the activity of peroxidase in the agri-food products, and represents the basis of the medical-veterinary approach of the accuracy in evaluating the substances that result in the process of pork alteration. The near-infrared spectroscopy (NIR) and the techniques of pH measurement served as methodological support in quality assessment. The result of the experimental evaluation confirms that the concentration of red chromogen is a genuine marker of the pork quality.

**Key words:** pork, peroxidase, thiobarbituric acid, malondialdehyde, near-infrared spectroscopy

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