

# **PROMOTING SUSTENABILITY IN FAMILY-SIZED DAIRY FARMS FROM NORTH-EAST OF ROMANIA - USE OF THERMOGRAPHY FOR MONITORING UDDER HEALTH AND IMPROVEMENT OF MILK QUALITY (PRELIMINARY STUDY)**

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## **Abstract**

Romania is a country with a lot of potential for high-quality food production. However, despite rising demand for milk and dairy production, the production has been declining in recent years and Romanian milk farmers face growing competition from other farms on a national and international basis in terms of production and milk quality. The aim of the present study was to assess the potential use of a phone-connected infrared camera, as a potential non-invasive tool for the monitoring of udder health and control of bovine subclinical mastitis in family-size farms. The somatic cell count (SCC) ( $r=0.79$ ) was positively correlated with the udder skin surface temperature (USST), a difference of 1.4 °C being observed between healthy and mastitis affected quarters. Infrared thermal imaging using phone-connected camera could be used as a potential noninvasive, quick cow-side diagnostic method for monitoring udder health and improvement of milk quality in family-sized farms.

**Key words:** bovine mastitis; milk quality; thermovision camera; somatic cell count;

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