Ruchi Singla et al., J Biotechnol Biomater 2017, 7:2 (Suppl)
http://dx.doi.org/10.4172/2155-952X.C1.073

A novel design of low cost mastitis level measurement based on electrical resistivity

Ruchi Singla[1], **Harpal Singh**[1], **Mandheer Kaur**[2] and **Gopal Sankhala**[3]
[1]Chandigarh Engineering College, India
[2]Chandigarh College of Technology, India
[3]National Dairy Research Institute, India

Mastitis is the major primeval disease of dairy cattle and it leads to inflammation of mammary gland and udder tissue. It is also considered as one of the costliest diseases of dairy animals. Pathogen invades the mammary glands usually caused by bacterial infection of udder tissues. It causes significant harm to the cattleman thereby decreasing the milk production and its quality, which is usually determined by the measurement of somatic cell counts per milliliter of milk. According to the Punjab Dairy Development Board (PDDB), Punjab, India, the average daily milk production in the state is 26.5 million liters a day. Sub clinical mastitis level usually varies from 10% to 50% in cows and 5% to 20% in buffaloes in Punjab region. To minimize the huge economic loss and to provide the cost effective solution for early/preliminary detection of mastitis, the presented work shows an exhaustive survey on cows and buffaloes of Bathlana, Badmajra and Mansa region of Punjab for early detection of mastitis along with a novel design of low cost mastitis detector based on electrical resistivity measurement technique. The presented results show that Buffalo immune system is stronger as compared to cow, due to anatomical structure of mammary glands.

Biography

Dr. Ruchi Singla is working as Professor and Head of Department in Chandigarh Engineering college, Mohali , India. She has 15 years of work experience and has done PhD in Wireless Communication from Thapar University, Patiala in 2013. She has to her credit around 30 research papers in journals of good repute and filed three patents. Her areas of interest are Antennas and Biosensors.

hod.ece@cgc.edu.in

Notes: