

## **EFFECT OF MASTITIS ON RAW MILK COMPOSITION AND DAIRY PRODUCTS QUALITY**

S. Karimi<sup>\*</sup>, B. Mercanoğlu Taban

Ankara University, Faculty of Agriculture,  
Dept of Dairy Technology, Ankara, Turkey

This paper reviews the impact of mastitis, especially subclinical mastitis, on the chemical properties of raw milk and quality of milk products. Mastitis, especially subclinical type, is considered to be one of the most important dairy cow disease and results in great economic losses in dairy industry. Subclinical mastitis is characterized by having no visible signs, but negatively affects the chemical and microbiological characteristics of raw milk. Mastitis makes changes in quality, quantity and processing properties of milk. The Somatic Cell Count (SCC) is a useful predictor of subclinical mastitis. Mastitis significantly increased SCC in raw milk and raw milk quality is lower in milks with high SCC than in milks with low SCC. Increased SCC in raw milk is associated with changes in protein quality, fatty acid composition, lactose, ion, mineral fraction and enzymatic activity of raw milk. These changes in milk components also lead to quality problems in final dairy products such as pasteurized milk, yogurt and cheese. The results of some research studies indicate that subclinical mastitis has negative impact on sensory quality and shelf life of these products. A change such as off-flavor has also been observed in pasteurized milk and yogurt. Besides, the high SCC make some changes in renneting behavior of milk and negatively affect coagulation, starter activity, clotting time and curd firmness of cheese with resulting in poor yield in cheese.

Keywords: Mastitis, SCC, dairy, raw milk

---

\*Corresponding author: karimisahar2012@yahoo.com