

STUDY ON ADULTERATION AND COMPOSITION OF MILK SOLD AT BADIN

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ABSTRACT

Present study was carried out with the aim to investigate various adulterations and its impact on chemical characteristics of market milk sold at Badin during the year 2013. Twenty milk samples (n = 20) from each of milk producer (MP), milk collector (MC), milk vendor (MV), and dairy shops (DS) were examined for different adulterants (water, urea, starch, detergents, cane sugar, formalin and skimmed milk powder) at the Department of Animal Products Technology, Faculty of Animal Husbandry and Veterinary Sciences, Sindh Agriculture University Tandojam. Among these adulterants only water was found in majority of milk samples. Freezing point of 80% milk samples of MP, 75% of MC, 95% of MV and 100% of DS milk samples appeared towards 0°C rather than that of control milk (-0.55°C) and assumed to be adulterated with extraneous water.

The mean significant influence of extraneous water appeared on chemical characteristics of milk. Moisture content of milk from different intermediaries found considerably high contrast to that of control milk except MC milk. The fat content of milk sold by different intermediaries was not comparable to control milk samples, and among them milk from MP was markedly high in fat content followed by milk of MC, MV and DS. Average protein content of MC milk found remarkably high than that of MP, MV and DS milk, and all of these milk samples were not comparable in protein content of control milk. Regardless the average lactose content of milk from MP, MC found lower than that of control milk, it did not show any significant impact of extraneous water, while lactose content of DS milk markedly affected. Milk from MP appeared relatively similar in ash content to that of control milk, while ash content of MC, MV and DS was significantly affected. In general, extraneous water concluded to be only adulterants found in market milk at Badin that has markedly affected the chemical characteristics of milk.

KEYWORDS: Adulteration, Milk Samples, Properties of Milk