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Comparison of Some Milk Quality Characteristics of Pırlak Sheep Milk Raised in the Districts of Manisa (Selendi) and Kütahya (Aslanapa)

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Abstract

Sheep milk, an important form of animal production, is a significant source of nutrition for both Turkey and the world. The quality of milk yield is influenced by factors such as the animal's breed, age, productivity direction, feeding habits, and environmental factors. In this study, the same ration was provided to family operated farms raising Pırlak sheep breed selected from Manisa (Selendi) and Kütahya (Aslanapa) in the Aegean region. Milk samples were collected three times, once a month, and the differences between them were investigated. The physicochemical properties such as fat, non fat dry matter (NFDM), density, protein, and lactose were determined in the collected milk samples. It was found that the fat content was higher during the late lactation period (8.08±1.19; 8.94±2.04), while other parameters, excluding fat, including protein, lactose, non fat dry matter, total dry matter, and pH were found to be significant for the farms. The timing of milk collection from the farms was also found to be important ($P<0.001$). Despite having the same ration, the differences in milk quality parameters are believed to stem from management practices and environmental factors. As a result of the research, it was determined that environmental conditions, management, and feeding practices directly affect the factors determining milk quality in sheep farming operations. The study emphasized the necessity of moving away from traditional feeding methods in sheep farming and implementing feeding rations suited to modern practices, designed by experts. Additionally, it was identified that there is a need for more widespread research on sheep milk. The study also aims to utilize the findings from the milk quality analysis for proper pricing, raise awareness among producers, and positively influence both yield and quality.

Keywords: *Pırlak Sheep, Milk Quality, Fat, Protein, Lactose, Environmental Factors*