

SUSTAINABILITY ASPECTS IN ESTONIAN CATTLE BREEDING

Elli Pärna, Heli Kiiman, Olev Saveli

*Department of Animal Genetics and Breeding, Institute of Veterinary Medicine and Animal Science,
Estonian University of Life Sciences, Kreutzwaldi 46, Tartu, 51006 Estonia; phone +372 7 313419;
e-mail: elli.parna@emu.ee*

Abstract. The main goal of investigation was connected with genetic improvement of farm livestock within sustainable dairy farming where further mathematical modelling may improve farm efficiency. Dairy farming system was simulated on the basis of the genetic and economical input parameters and structure of dairy population provided by the participating stock companies, Animal Breeders' Association of Estonia and Animal Recording Centre. Models were aimed at underpinning sustainable dairy genetic improvement programmes. Introduction of longevity as a breeding goal trait into Estonian Holstein breeding programme improved the efficiency of dairy system within sustainable dairy farming on 16.9%. Described methodology by including longevity into breeding goal of cattle enables the breeders to achieve greater genetic progress and profitability.

Keywords: sustainable dairy production, longevity, economic weights.