

INFLUENCE OF *PRE-PARTUM* FEEDING ON *POST-PARTUM* INTAKE, PRODUCTION AND ENERGY BALANCE IN ESTONIAN HOLSTEIN COWS

Hanno Jaakson*, Katri Ling, Helgi Kaldmäe, Jaak Samarütel, Tanel Kaart, Olav Kärt
Institute of Veterinary Medicine and Animal Sciences, Estonian University of Life Sciences, 46 Kreutzwaldi St, 51006 Tartu, Estonia

* *Corresponding author, tel. +372 7 31 3474; fax. +372 7 31 3477; e-mail: hanno.jaakson@emu.ee*

Summary. The aim of the study was to examine effects of *pre-partum* feeding on *post-partum* intake, production and energy balance in cows. Two weeks *pre-partum* (w-2, w-1) different amounts of one concentrate was fed to group Low (L) and High (H) while the same amount of another concentrate was fed during the first four weeks *post-partum* (w1, w2, w3, w4). Silage was available *ad-libitum* during the experimental period. Dry matter intake was higher in group H ($P \leq 0.05$) except for w1. Energy corrected milk (ECM) yield did not differ between groups; however, in contrast to group L there was a clear increase in ECM yield from w1 to w4 in group H ($P < 0.0001$). Milk fat yield tended to be higher in group H on w3 ($P = 0.06$) and was higher on w4 ($P = 0.05$), milk lactose yield was higher in group H on w4 ($P = 0.04$); protein yield did not differ between the groups. Energy balance was more positive in group H *pre-partum* ($P < 0.0001$) and did not differ *post-partum*. Obtained results indicate that increasing feeding level *pre-partum* could improve *post-partum* intake and production performance at the same time having little influence on energy balance.

Key words: dry matter intake, energy corrected milk, milk fat yield, milk lactose yield, milk protein yield.