

PRODUCTION RESULTS OF DAIRY COWS FED GRASS AND ALFALFA SILAGE WITH A DIFFERENT DEGREE OF WILTING

Cezary Purwin¹, Barbara Pysera¹, Monika Tokarczyk¹, Antanas Sederevičius², Saulius Savickis², Alva Traidaraitė²

¹*Department of Animal Nutrition and Fodder Science, University of Warmia and Mazury in Olsztyn, 10 – 718 Olsztyn, Oczapowskiego 5, Poland, purwin@uwm.edu.pl*

²*Department of Anatomy and Physiology, Lithuanian Veterinary Academy, Tilžės str. 18, LT-47181 Kaunas, Lithuania*

Summary. The objective of this study was to determine the effect of grass and alfalfa silage made with roll balers from wilted raw material on milk yield, milk composition and feed utilization in dairy cows fed high-concentrate diets. Experimental silage was produced from first-cut grass-alfalfa mixtures wilted for 6 or 24 h. One hundred thirty Holstein-Friesian cows were divided into two equal feeding groups: Group 1 – silage made from green fodder wilted for 6 h, Group 2 – silage made from green fodder wilted for 24 h. Experimental silage was offered *ad libitum* during 60-day period, together with corn silage (15 kg/d) and concentrated feed (above milk yield of 16 kg, in the amount of 0.5 kg/kg milk). The different degree of green forage wilting prior to ensilage had no effect on average milk yield, ECM yield, the protein content of milk, or the average daily yield of milk protein and milk fat per cow. Only the fat content of milk was statistically higher ($p<0.05$) in cows fed silage with a lower degree of wilting (Group 2) compared to Group 1. Milk from cows given silage with a higher moisture content (Group 1) had a higher concentration of urea ($p<0.01$). There were no differences between the two feeding groups with respect to the utilization of dry matter, energy and protein. Starting from day 200 of lactation, milk production was higher ($p<0.05$) in cows fed silage with a higher degree of wilting (Group 2). However, due to a lower fat content of milk ($p<0.05$) these differences were found to be statistically non-significant when converted to ECM.

Key words: wilting, silage bales, dairy cows.