**Rumination time as an indicator of stress in the first thirty days after calving**

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**Summary.** The objectives behind this were to describe the possibility of using the rumination time (RT) as a form of stress indicator in the first thirty days after calving, and to determine the relationship between rumination time, blood cortisol, and lactate concentration in dairy cows during the first thirty days after calving.

Ninety cows were selected for between 1-30 days of milk (DIM) being diverted to the following groups: the first group (1) involved 1-7dpp (n=30); the second group (2) involved 8-14dpp (n=30); and the third group (3) involved 15-30dpp (n=30) after calving. The cows were milked with Lely Astronaut® A3 milking robots with free traffic. The blood samples were tested with a Tosh Corporation AIA-360 using the fluorescence enzyme immunoassay method for cortisol analysis. Lactate concentrations were tested with a Lactate Pro2®.

The RT increased during all of the exploratory periods (between 1.12-4.90%). This investigation has shown that in the 8-14dpp decrease in lactate levels (by 1.10 times) and cortisol (by 1.98 times, \( P<0.05 \)), when compared to an average of 1-7dpp in the previous study period (15-30dpp), lactate concentrations increased (by 1.84 times, \( P<0.05 \)) and cortisol too (by 2.09 times, \( P<0.01 \)) when compared to a figure of between 8-14dpp on average. Based on our results we can conclude that, during the first thirty days after calving, the RT showed a negative statistically significant correlation with blood cortisol concentration levels. In this opinion we can state that RT can serve as a stress indicator for cows in the first thirty days after calving.