

## Effect of Feed Supplement Optipartum C+ 200 (Alfa- Amylase and Beta-Glucanase) in In-Line Rumination Parameters

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**Abstract :** This study was conducted during 2021.05.01 - 2021.08.31 at the Lithuanian University of health sciences and one Lithuanian dairy farm with 500 dairy cows (55.911381565736, 21.881321760608195). Average calving - 50 cows per month. Cows (n=20) in the treatment group (TG) were fed with feed supplement Optipartum C+ 200 (Enzymes: Alfa- Amylase 57 Units; Beta-Glucanase 107 Units) from 21 days before calving till 30 days after calving with feeding rate 200g/cow/day. Cows in the control group (CG) were fed a feed ration without feed supplement. Measurements started from 6 days before calving and continued till 21 days after calving. The following indicators were registered: with the RumiWatch System: Rumination time; Eating time; Drinking time; Rumination chews; Eating chews; Drinking gulps; Bolus; Chews per minute; Chews per bolus. With SmaXtec system - the temperature, pH of the contents of cows' reticulorumens and cows' activity. According to our results, we found that feeding of cows, from 21 days before calving to 30 days after calving, with a feed supplement with alfa- amylase and beta-glucanase (Optipartum C+ 200) (with dose 200g/cow/day) can produce an increase in: 9% rumination time and eating time, 19% drinking time, 11% rumination chews, 16% eating chews, 13% number of boluses per rumination, 5% chews per minute and 16% chews per bolus. We found 1.28 % lower reticulorumen pH and 0.64% lower reticulorumen temperature in cows fed with the supplement compared with control group cows. Also, cows feeding with enzymes were 8.80% more active.

**Keywords :** Alfa-Amylase, Beta-Glucanase, cows, in-line, sensors

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