EFFECTS OF LIVE YEAST ON PARTICLE SIZE DISTRIBUTION OF FECES AND PERFORMANCE PARAMETERS IN DAIRY COWS FED ON STARCH-RICH DIETS

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Abstract. Live yeast is known to positively influence rumen fermentation resulting in stabilized performance and reduced risk of metabolic disorders in dairy cows. To investigate the effect of live yeast in dairy cows a field trial was conducted. 160 multiparous cows were assigned into two homogeneous groups. Treatment group received 3 g live yeast per head and day on-top of the energy-concentrated TMR (7.2 MJ NEL/kg, 30% starch in DM). The effects of live yeast supplementation on rumen function were measured by manure-sieving (NASCO Digestion Analyzer). The observed performance parameters were milk yield, energy-corrected milk yield (ECM), milk components per animal and feed intake per group. Live yeast supplementation improved particle size distribution of feces in treatment group compared to control. The smaller particles in treatment group can be interpreted as an indicator for improved digestibility of fiber and/or organic matter. Feed intake increased in treatment group by 4% compared to control. Fat content of milk increased significantly (3.65% vs. 3.82%, P=0.077) resulting in a numerically improved ECM (42.3kg vs. 44.0kg, P=0.208).

Keywords: live yeast, dairy cow, starch-rich diets, feces analysis, Nasco Digestion Analyzer