

## EFFECTS OF A COMBINED PRE- AND PROBIOTICS PRODUCT ON DIARRHOEA PATTERNS AND PERFORMANCE OF EARLY WEANED CALVES

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**Summary.** The interest in probiotics, prebiotics and other biological additives has greatly increased following the banning of antibiotic growth promoters by the European Union and consumer awareness of „safe and functional foods”. This experiment was designed to provide experimental data on the effects of feeding combined pre- and probiotics product to early weaned dairy calves.

Twenty four Lithuanian Black-and-White calves were weaned at 6 days of age and were randomly assigned to two treatments (12 experimental calves and 12 control calves). The calves were fed either a diet supplemented with a combined pre- and probiotics product (*Enterococcus faecium* M74 with a non-digestible oligosaccharide (NDO) or a control diet for 9 weeks.

During the entire trial each calf was fed milk replacer twice a day presented in plastic buckets and the pre- and probiotics supplement for experimental calves was administered daily from experimental day 1 to 63 (from 6 to 68 days of age). Starting the first week of the experiment, calf starter (compound feed), hay and fresh water were supplied *ad libitum*.

Combined pre- and probiotics product supplementation markedly lowered occurrence of post weaning diarrhoea and severity of the diarrhoea. In calves on pre-and probiotics diet the percentage of calves with diarrhoea reduced from 65 % to 25 %. Calves given the combined pre-and probiotics product had the forage and total DM intakes that were higher than those fed control diet, without any additive. During the 63 days experimental period, average daily gain and feed conversion rate were improved by 15.3 % ( $P<0.05$ ) and by 12.8 % ( $P<0.05$ ) respectively in the pre- and probiotics treated group.

**Key words:** calves, pre- and probiotics product, feed intake, growth rate, diarrhoea.