

## EFFECT OF FEEDING DIRECT-FED MICROBIALS PLUS EXOGENOUS FEED ENZYMES ON MILK YIELD AND MILK COMPOSITION OF HOLSTEIN FRIESIAN COWS

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**Abstract.** The study was carried out to evaluate the effect of feeding direct-fed microbials (DFM) plus exogenous feed enzymes on milk yield and milk composition of primiparous and multiparous Holstein Friesian cows. Nineteen lactating cows were subjected to two dietary treatments (control and DFM plus enzyme groups) during 305 days. Evening (PM) and total daily milk productions of the cows were 12.7% and 11.5% higher than these of animals in the control group. Morning (AM), PM and total daily milk yields were significantly ( $P<0.01$ ) affected by parity. Multiparous cows produced 16.8%, 15.4% and 16.1% higher AM, PM and total daily milk than primiparous cows. Total daily milk productions expressed as 4% FCM and SCM yields were also significantly affected by diet ( $P<0.05$ ) and parity ( $P<0.01$ ). Although Holstein cows fed diet supplemented with DFM plus enzymes resulted in 163.9 kg and 2.7 kg greater 305-days milk and milk fat productions respectively than cows in control group, the difference was not significant. Feeding of diet with DFM plus enzymes did not have significant influence on the percentages of the milk fat, protein, lactose, ash, dry matter, solids-non-fat as well as density and pH of the milk. Body condition score was significantly affected by parity ( $P<0.01$ ) but not by feeding of DFM plus enzyme supplement. DFM plus enzymes had no apparent effect on count of fecal *Escherichia coli* flora.

**Keywords:** Holstein Friesian, Direct-fed microbials, feed enzymes, milk yield, milk composition.