

Veterinary

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Effect of feeding enzyme mixture with fibrolytic activity in dry and solubilized forms on the performance of lambs

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In tropical countries like India, ruminant production systems are based on crop residues and more of agricultural byproducts rich in fibrous material which is important for salivation, rumen buffering and efficient production of rumen end products. A maximum of 65% fibrous material in the feed stuffs are efficiently digested and the remaining portion needs to be digested with products like fibrolytic enzymes. The objective of this study was to evaluate the effect of feeding the fibrolytic enzyme mixture in dry and solubilized forms on the performance of growing lambs. One hundred lambs (11.8 ± 0.56 kg) divided at random into 4 groups G1, G2, G3 and G4 were supplemented with exogenous fibrolytic enzyme mixture in concentrates after 6 hours outside grazing. G1 and G2 were given 200 and 400 g of EFE per 50 kg feed in dry form; G3 and G4 were given EFE in solubilized form at 20 and 40 g per liter of water respectively. The initial and final weights (kg) were non-significant among treatments. Total weight gain (kg) was higher ($P < 0.05$) for G4 and G2. Average daily gain (g) was highest ($P < 0.05$) for G4 followed by G2, G1 and G3. Total weight gain (%) is 15, 7.6 and 16.5 lower ($P < 0.05$) for G1, G2 and G3 as compared to G4. Lowest ($P < 0.05$) FCR was observed for G4 and is in the order of $G4 < G2 < G1 < G3$. The cost of the feed per kg gain was lower ($P < 0.05$) by 21%, 26% and 13% for G4 as compared to G1, G2 and G3. It can be concluded that addition of EFE in solubilized form was found better as this facilitates the rumen bacterial attachment earlier for rapid action due to an increase in rumen bacteria.

Biography

Mocherla V A N Suryanarayana has graduated in 1989 from SVVU, Tirupati and specialized in Animal Nutrition during PhD studies. He has more than 33 research papers (national & international) and handled a DBT sponsored research project for 3 years as Principal Investigator in collaboration with NIANP, Bangalore. His visit to Thailand during 2012 was a breakthrough and he has received a total of 9 awards (6 district awards; 1 state award; 2 national awards). He has more than 140 popular articles published and his PhD thesis was published by Lambert Academic Publishing Company, Germany.

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