



## **Effects of season and parity on milking performance of cattle × yak hybrids in the Himalaya Nepal**

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The cattle × yak hybrids (Dimjo Chauries) have similar high altitude tolerance and have the advantages of heterosis in comparison to purebred yaks. Effects of grazing by season, the parity on milk yield as it relates to the composition of Dimjo Chauries, are unknown in the Kanchenjunga Conservation Area (KCA) of Nepal. To do so, a common transhumant route was identified at 4100 m a.s.l which was grazed both during upward (summer-July) and downward (September-early winter) herd movement. Milking Dimjo Chauries of 2<sup>nd</sup>, 4<sup>th</sup> and 6<sup>th</sup> parities each having six lactating animals selected at similarity in daily milk yield, days of parturition within each group. Daily milk yield and milk composition were analyzed for 7 days by following a 7 days long adaptation period at both measuring periods. Daily milk yield, energy corrected milk yield and fat content were significantly affected ( $P < 0.05$ ) by season and parity and their interactions. Highest daily milk yield was obtained from 6<sup>th</sup> parity hybrids (5 kg/day) in July and the least was observed for 2<sup>nd</sup> parity groups in September (1.5 kg/day). Milk fat content was highest at September for 4<sup>th</sup> parity hybrids (about 8%). Milk protein and lactose content higher at July (3.32% protein vs. 4.67% lactose) than at September (3.22% protein and 4.54% lactose respectively) as expected due to advancing lactation and vegetation. Research results revealed that Dimjo Chauries above 4<sup>th</sup> parity could be promising for commercial herding as has been shown from their higher daily milk yield and daily outputs of milk constituents.

### **Biography**

Dr. Shanker Raj Barsila has completed his PhD at the age of 32 years from Swiss Federal Institute of Technology Zurich (ETH Zurich), Switzerland. He is currently the Assistant Professor of Animal Science at Agriculture and Forestry University (AFU), Rampur Chitwan Nepal. He has published many papers in reputed journals and has been serving also as a lead researcher in the field of rangelands management and grazing ecology at AFU, Nepal.