

Manufacture Of High Value Products From Yak Fibre

Background:

The yak plays an important role in the life and living of Indian tribes found in the difficult terrains of Himalayas. Yak animal offers meat, milk, hair (fibre) and leather. Two types of fibres, namely the coarser and fine fibres are harvested once in a year by manual shearing and cutting process. Subsequently, fibres are separated out manually. A yak can produce 500 – 1500 g of coarser and 250- 750 g of finer fibres per year. Coarser fibre of length 9 - 21 cm is mainly used in rope and tent making. The yak fibres are available with natural colours, mainly black and brown. Coarser black colour yak fibre presently does not utilized for value added end applications including textile, except its usage in the form of rope and tents. This is possibly due to its higher stiffness, slippery surface and difficulty in dyeing. Jute/yak fibres blended yarn of count 275 tex was produced from the untreated black colour coarser yak hair and jute fibres with jute to yak fibres blend ratio of 75:25 and 50:50 in jute spinning system. Beyond 50%, it was not possible to introduce yak fibre in blended yarn.:

Technology Details:

It was observed that in the blended yarn, containing more than 50% untreated yak fibre, was not possible to spin. It was due to instability and slippage of the jute/yak fibres blended sliver due to low co-efficient of friction (0.28) of untreated yak fibre. On the other hand, after fibre surface modification 75% yak fibre was possible to blend with 25% jute fibre to produce 25/75 jute/yak fibres blended yarn. All the jute/yak fibres blended yarns with blend ratio of 75:25, 50:50, 25:75 can be used for fabric and products making. Similarly, plain weave jute/fine yak fibres blended textile (weft: yak/jute/viscose (75/10/15), warp: polyester yarn)) were also developed. Fine yak fibre could be blended with jute and regenerated viscose fibres. From the coarser fibre products like Jacket, Blazer, Long coat, and file & folder were developed. Similarly, fine fibre was used to make suiting fabric and shawl.