

Studies on the Spinnability of Milkweed Fibre Blends and Its Influence on Ring, Compact and Rotor Yarn Characteristics.

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The present investigation encompasses studies conducted on the effect of chemical treatment of milkweed fibres, its blend proportion and spinning systems on quality of cotton/milkweed blended yarns. The cotton fibres were blended with raw, alkali treated and dyed milkweed fibres respectively at three different blend proportions such as 80/20, 60/40 and 40/60 to analyze the spinnability and quality of the yarns in ring, compact and rotor spinning systems. The optimization of process parameters in ring and rotor spinning was done using factorial and Box-Behnken design systems. The yarn structural studies such as fibre migration, yarn packing density and migration index were done for cotton/milkweed blends to correlate the yarn structure and yarn characteristics. The comparison of 100% cotton and cotton/milkweed 60/40 bended rotor yarn fabrics were done to rationalize the application of cotton/milkweed blended fabrics.