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## **Comparison of physical properties of water retted and non retted flax stems of Modran Variety**

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**ABSTRACT** Flax stems of Modran variety was subjected to water retting under laboratory conditions to compare its physical properties including tenacity, linear density, weighted average length and impurities with non-retted flax fibres. Scanning Electron microscope was used to compare the structural variations between retted and non-retted fibres. Measurement of impurities, weighted average length measurement, measurement of linear density, tenacity, elongation and structural properties were conducted and the results were analyzed. After the analysis of physical qualities of retted and non- retted flax fibres, it was concluded that retting is the most important step in the processing of flax fibre in terms of its quality like strength, fineness, homogeneity etc. The fibres from retted flax straw can be used for high-end application like in textile and auto industries whereas the fibres from non- retted flax fibres are mostly used for lower quality products like yarn, door mat etc.

**Keywords:** Flax fibres; tenacity; retted fibres, non-retted fibres

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