

Characterization of the Physical Properties of Sheep Wool Fiber in Amhara National Regional State

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Abstract : Ethiopian's sheep population, estimated to be 25.5 million heads, is found widely distributed across the diverse agro-ecological zones of the country. In the past, there were many projects that done to improve production of meat, milk and productivity of sheep breed. However, no significance research has been done so far on production of wool fiber in Ethiopia which could be taken as a potential fiber next to cotton. The measurement of the sheep wool fiber physical properties is critically important, technical, commercial and certification point of view. A total of 24 sheep from different breeds (Menz, Tikur, Farta and Washera) were used in this study. Samples of fiber were analyzed using standard measurements for wool fiber length (WFL), mean fiber diameter (MFD), coefficient of variation of wool fiber diameter (FDCV), breaking strength, elongation, crimp, cleanness and moisture content. Based on the result all parameters shows that there is a great potential of getting of wool fiber from the skin of sheep and according to the standards of its property and grading system based on wool fiber fineness is medium to course. These types of fibers can be making carpets, blankets, rugs, coverings and other products.

Keywords : Fiber, Fineness, Carpet, Fleece, Raw Wool

Conference Title : ICTMFS 2020 : International Conference on Textile Materials and Fiber Science

Conference Location : Copenhagen, Denmark

Conference Dates : June 11-12, 2020