

Chapter 15

Camel Hair Structure, Properties, and Commercial Products

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ABSTRACT

The camel coat can be divided into upper and lower layers based on the external shape. The upper layer is sparse and upright coarse wool; the lower layer is thick wool, which is mainly composed of camel cashmere mixed with small amount of coarse hair. This chapter introduces the basic characteristics of camel hair, such as morphological structure, microstructure, fiber type, and density. Then it introduces the process characteristics of camel wool, the net wool rate, camel hair grades, the photometric and thermodynamic properties of camel cashmere. Finally it gives some camel cashmere and hair products. All contents try to give detailed experimental data and images and insist on giving a more comprehensive and scientific explanation for camel hair.

INTRODUCTION

Camel hair is an animal fiber collected from the camel. The Bactrian camel gives more hair (wool) than the dromedary and is of higher quality, used for making padded cloth, quilts and mattresses, rope, clothes, tents, carpets, robes, saddle girths and blankets (Barat & Morteza, 2015). Therefore, the properties and applications of the Bactrian camel hair are mainly discussed in present chapter. Bactrian camel is a species with a history of several thousand years and closely related to human clothing, food, shelter, travel,

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and special commercial use. According to incomplete statistics the total number of Bactrian camels in the world would be around 2.8 million (Bright, Jing, Heller, Sirigu & Mutu, 2017) although official number in FAO database is less than one million (Faye & Bonnet, 2012). However, distribution of Bactrian camel is very limited, and mainly distributed in Mongolia, China, Kazakhstan and Kyrgyzstan, adapted to specific weather conditions of desert and semi-desert regions (Galindar & Chagan, 2012; Feng, 2007). Bactrian camels are tall and strong, covered with hair coat with different lengths and thicknesses (Figure 1). The history, population and distribution of camels worldwide were discussed in Chapter 1.

Figure 1. The hair coat of a bactrian camel

Photo courtesy of Mr. Zhang Wenbin, Bactrian Camel Institute of Alasha, Inner Mongolia (2019)



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