
THE DEPENDENCE OF WOOL PRODUCTIVITY OF CAMELUS DROMEDARIUS ON PASTURE AREAS IN THE USTYURT PLATEAU

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Abstract

This article investigates the relationship between the wool productivity of dromedary (single-humped) camels and their pasture areas in the conditions of the Ustyurt Plateau. It presents the observed variations in wool productivity and provides conclusions based on the findings.

Keywords. Dromedary camels, pasture areas, wool productivity, variation.

Introduction

Today, the world's leading countries in camel husbandry include Australia, Argentina, Namibia, the Republic of South Africa (RSA), and Mongolia. According to the FAO (2023), there are approximately 42.4 million one-humped and two-humped camels globally, which comprise 50 breed types of *Camelus dromedarius* and 7 breed types of *Camelus bactrianus*. In these countries, extensive scientific research has been conducted to improve the productivity of *Camelus dromedarius* and *Camelus bactrianus* through enhanced selection methods and genetic traits. [6]

Today, camel breeding is of particular importance in the development of our Republic's livestock sectors. Specifically, the *Camelus dromedarius*, which inhabits arid and semi-desert regions, is distinguished by its high adaptability. This animal is an important source not only of meat and dairy products but also of wool.

In Uzbekistan, camel husbandry is primarily practiced on the Ustyurt Plateau and in the northern Kyzylkum regions of the Republic of Karakalpakstan. Currently, the total number of camels across all farm categories in the Republic of Karakalpakstan is 3,491. Since independence, numerous scientific studies have been conducted in Uzbekistan to increase milk, meat, and wool productivity in the camel husbandry sector. The rational use of Ustyurt Plateau pastures is considered crucial for increasing the wool productivity of camels. Camel wool is valued for its excellent heat retention, durability, and ecological purity. Wool productivity, in turn, is directly dependent on pasture conditions.[69: 97b]

Research Objective. The objective is to determine the correlation between the wool productivity of *Camelus dromedarius* camels and their pasture areas.

The objects of the research include *Camelus dromedarius* camels of various ages, pasture types, and wool productivity indicators.

The subject of the research is wool productivity, camels of different ages, and pasture areas.

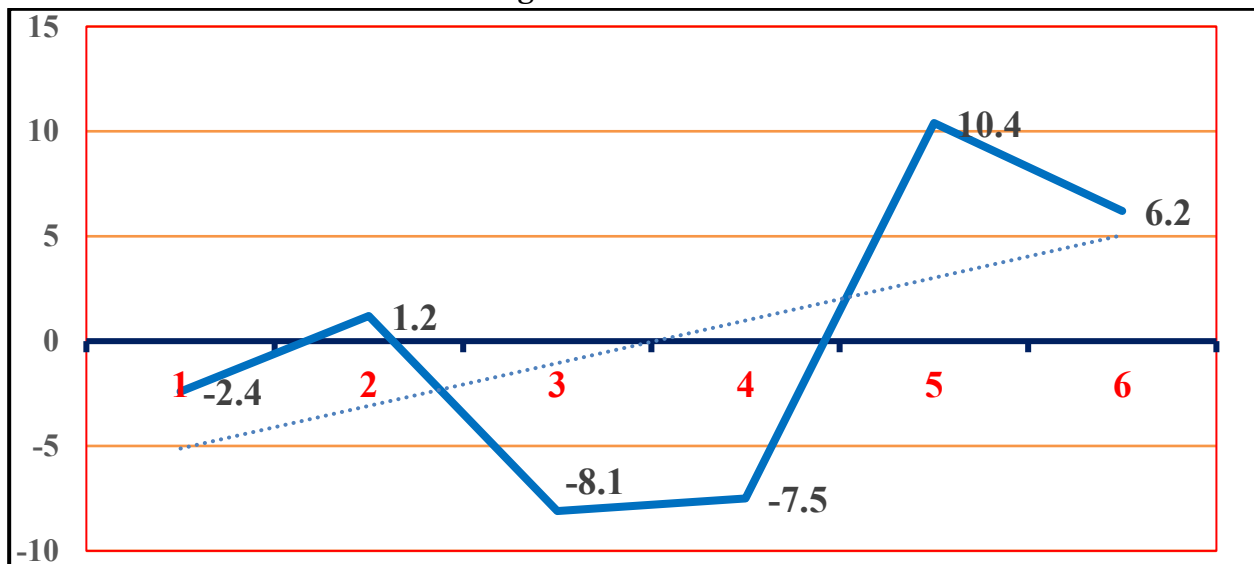
Research Results

Camel wool is in high demand and is highly valued in the textile industry. In both foreign and domestic markets, camel wool is considered more valuable compared to wool from other animals. This is because, due to its physical properties, camel wool possesses excellent heat retention and a high degree of moisture resistance. It is precisely for these characteristics that specialized clothing made from camel wool is produced for swimmers, pilots, naval personnel, and expedition members working in long-term, harsh climatic conditions. [2].

The wool productivity of camels depends on many factors, with feed provision being the primary one. The availability of good pastures affects the quality of the wool; when pasture productivity is low, the wool can become dry in its morphological characteristics, leading to an increase in the amount of coarse hair.

Another important feature of camel wool is its well-known use in medicine since ancient times for the treatment and prevention of many diseases. It should be noted that the quality of camel wool also depends on the animal's age, with high-quality wool products being obtained from young camels.[4]

Based on the data obtained, we identified variations in wool productivity across different pasture areas compared to the average for the Ustyurt rangeland conditions, and these variations are shown in Figure 1 below.



1-Dau-Ata region, 2-deep plain region of the northern Ustyurt, 3-Aral Sea coastal region, 4-central region of the Ustyurt plateau, 5-Koshbulak region, 6-central Ustyurt depression region.

Figure 1. Deviation in pasture areas from the average, %

When comparing regional wool productivity against the average for the Ustyurt region, lower yields were recorded in the Dawt-ata pasture area (-2.4%), the Aral Sea coastal area (-8.1%), and the central Ustyurt plateau area (-7.5%). Conversely, yields exceeded the average in the deep plain pasture area of northern Ustyurt (+1.2%), the Koshbulak area (+10.4%), and the central-middle Ustyurt depression area (+6.2%).

In conclusion, wool productivity, which is dependent on pasture areas, surpassed the average in the Qoshbuloq region (by 10.4%) and in the central Ustyurt depression (by 6.2%).

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