

RELATIONSHIP OF NEWBORN LAMBS' PHYSIQUE WITH THEIR MEAT - GREASY PRODUCTIVITY

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Abstract: *The article examines the physique and the conjugation relationship of the newborn lambs' metacarpus girth with their meat - greasy productivity in adulthood.*

Keywords: *Karakul sheep, absolute and average daily weight gain, early maturity, physique types, metacarpus girth*

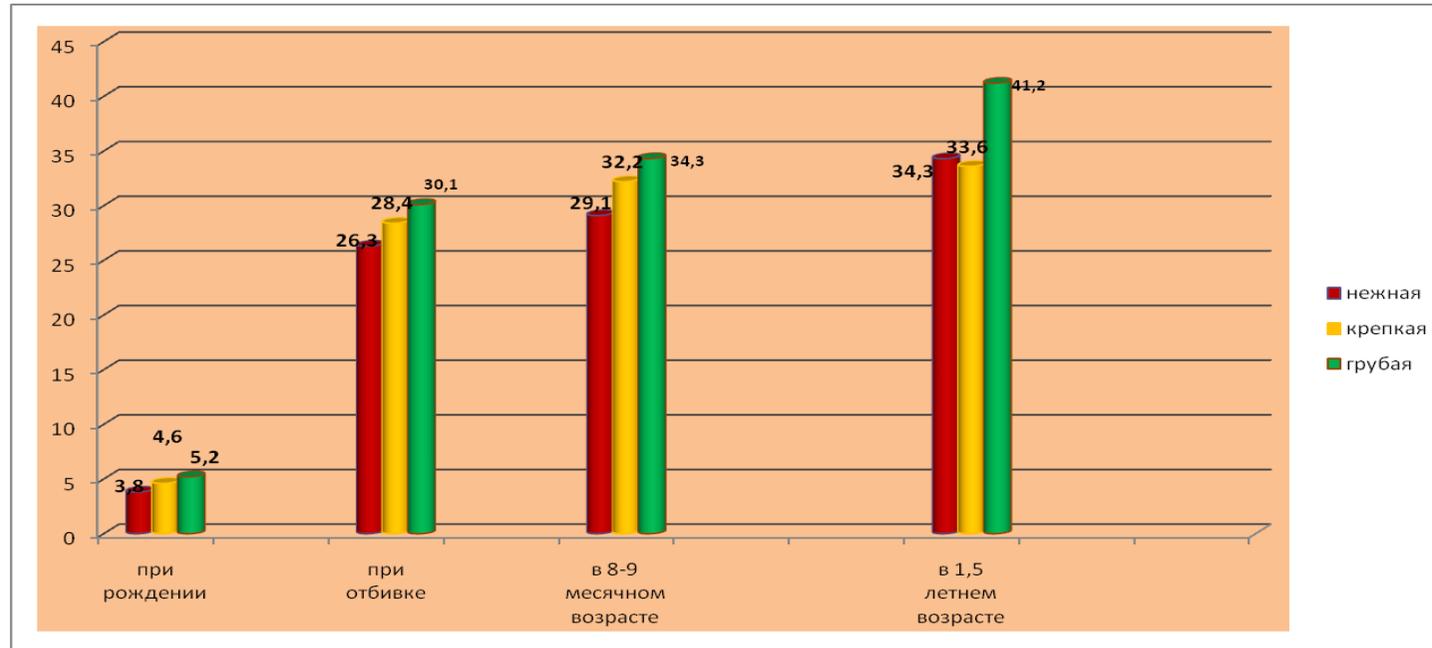
INTRODUCTION. In the harsh detention conditions, it has developed ecological and constitutional types of karakul sheep, their relationship with the environment. The pasture and forage conditions instability led to such physique types' formation, which are in the best harmony with environmental factors, showing high adaptability and productivity.

At birth, Karakul lambs are clearly divided into three constitutional types - gentle, strong and rough, these types can be defined both by their external exterior forms and more accurately by the **POK** method developed by Professor S. Yusupov by the guard hair core presence and thickness.

METHOD AND MATERIALS. To clarify the relationship between the newborn lambs' physique and their meat - greasy productivity in adulthood, we noted three groups of lambs with dams of different physique types, which were subsequently kept under the same feeding and keeping conditions. Subsequently, in order to clarify their meat - greasy productivity formation, their individual weighing was carried out when beating them from mothers, at 8-9 months and 1.5 ages.

RESULTS. The findings are summarized in Figure 1.

Age dynamics of lambs' live weight of different physique types, kg



1. at birth. 2. at beating. 3. at 8-9 months of age. 4. at 1.5 ages tender strong rough

Figure 1

Figure 1 analysis shows that lambs of different physique types already at birth differed in live weight. Thus, lambs of tender physique were the smallest and weighed 0.8 and 1.3 kg (12.1-13.4%), respectively, less than lambs of the strong and coarse types. The difference in live weight between strong and coarse physique types was 0.5 kg (11.1%) in favor of coarse physique lambs.

By the end of the lactation period of growth, the difference in lambs' live weight of different physique types decreased slightly and amounted to 2.1 between tender and strong lambs, between gentle and rough -3.8 and between strong and coarse lambs 1.7 kg, which is 6.1; 11.4 and 10.6%.

By the end of the grazing period of the first growth year, the lambs maintained the difference in growth. Thus, tender physique lambs were inferior in live weight to lambs of strong and coarse physique by 11.0 and 11.8%. Lambs of coarse physique, as before, had the highest body weight - 34.3 kg.

At the age of one and a half, a similar difference persisted and, accordingly, amounted to 11.5; 12.0 and 10.4%. The analysis shows that there is a direct relationship between the physique types of lambs with their body weight in all studied age periods. These two indicators are positively correlated and the correlation coefficient between them is from 0.64 to 0.85. This means that by selecting animals with a strong and coarse physique, we can facilitate the larger animals' selection, with a better expression of meat - greasy production.

Unfortunately, the live weight does not always reflect their meat - greasy productivity. This is due to body shapes.

It has been established that lambs with rounded chest shapes, elongated and wide backs filled with thighs, wide loins, straight rump, elongated neck, protruding dewlap, and the presence of subcutaneous fat are the best in meat and greasy productivity. Usually, according to these signs severity, their fatness degree is determined in lifetime. After slaughter, mutton is usually divided into three categories based on fatness.

In an animal body, bone tissue plays an important role - it performs support-trophic and hematopoietic functions, is a powerful depot of mineral salts necessary for the body.

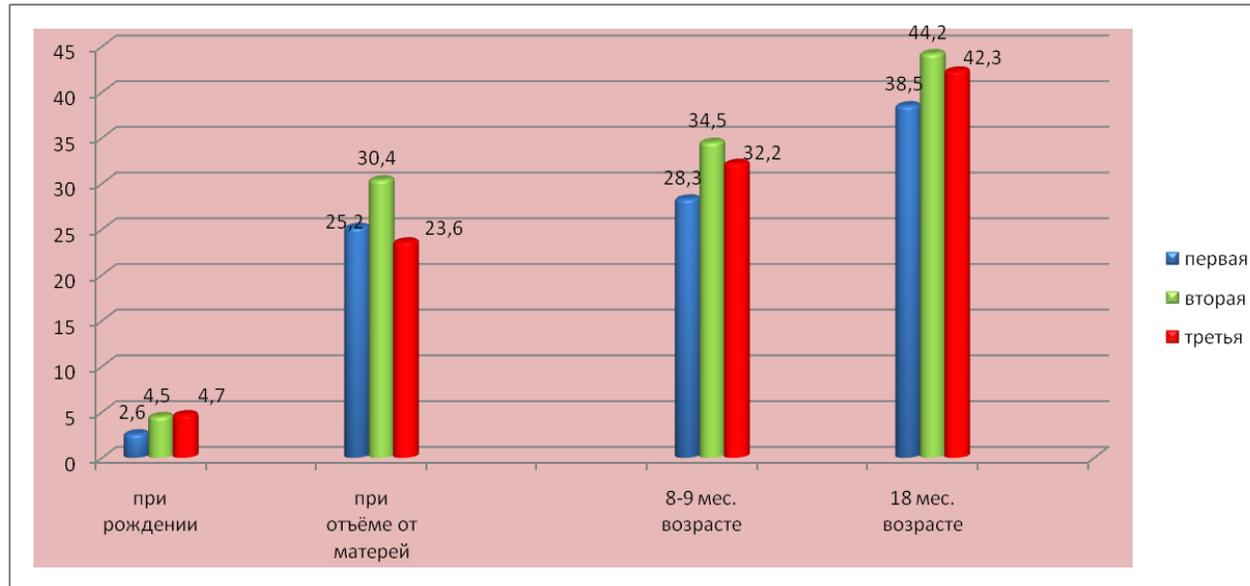
The metacarpal bone is one of the indicators characterizing the skeletal system development and the animals physique strength, with which the productivity viability, level and nature are to some extent associated (A.I. Erokhin etc. 2015).

Some scientists consider the skeleton and especially the metacarpal bone as one of the potential indicators for meat production.

Improved beef sheep have shorter bones and relatively thicker bones than unimproved or woolly sheep. Short-legged lambs have a deeper muscle layer.

According to A.I. Erokhin (1915) and others, a relatively short metacarpal bone is associated with early maturity and good carcass quality, while a long metacarpal bone indicates late development and low carcass quality.

Age dynamics of lambs live weight with different metacarpal bones thicknesses, kg



1. at birth. 2. at beating from mother. 3. at 8-9 months of age. 4. at 18 months of age

first

second

third

Figure 2

The girth conjugation of the newborn rams metacarpus with the meat - greasy qualities formation was studied through three groups formation: the first included lambs with a metacarpal bone thickness up to 5.5 cm, in the second - from 5.5 to 6.5 cm and in the third, lambs with a metacarpus circumference more than 6.5 cm were identified. At birth, 4.5 months, 8-9 months and 18 months age, they were weighed. The data obtained are shown in Figure 2.

Analysis of the shown data in Figure 2 shows that lambs with different metacarpal bones thicknesses, in all studied age periods, did not have the same live weight. So, at birth, the third group lambs had the largest live weight and they exceeded the 1 and 2 groups' lambs' indicators, respectively, by 1.1 and 0.2 kg.

When discouraged from mothers, the picture has changed somewhat. Higher indicators of live weight were inherent in the second group lambs - 30.4 kg and they exceeded the first and third groups' lambs, respectively, by 5.3 and 0.8 kg. At 8-9 and 18.0 months age, a similar difference persisted.

CONCLUSION. Thus, conducted studies results allow us to state that the lambs' magnitude or live weight indicator at birth, the metacarpus girth and the physique type positively correlates with the live weight indicators in adulthood. This means that by selecting animals with a larger magnitude at birth, with an average metacarpals thickness, with a strong and coarse physique, we can help to increase the meat-greasy products production and contribute to the economic efficiency of the industry.

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