Age-variability of living mass of single-humpback camels and their hybrids in the conditions of the Aral Sea

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Abstract
This article presents the results of a study on the age-related variability of living mass in the age dynamics of single-humpback camels, in the Aral Sea region, depending on the species and sex of the animals.

Keywords: Age, living mass, growth of camels, single-humpback camels, hybrids

Introduction
None of the species of farm animals so successfully combines such qualities as high working capacity, meatiness, and adaptability to the harsh conditions of deserts and semi-deserts, like a camel [1], therefore, to increase the production of cheap high-quality meat, they are cultivated in many countries of the world.

Camel meat has a high biological and nutritional value; it is characterized by marbling with fatty interlayers deposited in connective tissue.

Camel breeding is one of the main branches of livestock in the Republic of Karakalpakstan, it is important in the development of vast desert territories with a sharply continental climate, providing the local population with food (meat, milk) and industry with raw materials (wool, leather). The importance of camel breeding is especially strengthened due to intensive industrial development of the vast expanses of Kyzylkum in the northern part of the Republic of Karakalpakstan.

Many researchers have studied how [1, 2, 3, 4, 5] found that with proper maintenance and care camels in desert and semi-desert conditions grow well, develop and produce high-quality products at their low cost.

The production of camel meat is one of the factors of cheap meat production and meat products in the Aral Sea conditions.

However, a serious obstacle in the development of camel breeding and the production of meat and meat products of camel breeding is the neglect of selection and breeding work in the direction of meat production in all farms of the Republic of Karakalpakstan.

Selection - breeding work is one of the biggest factors in the matter of mass improvement of the state of affairs in camel breeding.

It has been proven in science that increasing the level of breeding work in the areas of meat productivity of camels by 60-65 percent depends on the feeding of animals, and on the breeding 25-30 percent, and the rest on zoohygienic factors.

It should be noted that in the Republic of Karakalpakstan there is not enough work to improve qualitatively the composition of camels. Therefore, it is necessary to carry out a complex zootechnical measures that would contribute not only to the numerical growth of single-humpback camels, but also to improving the breed qualities of it.

Material and methods of research
The research was started from the whole year in the farm "Nurtilek Karauzyak" in the Karauzyak region of the Republic of Karakalpakstan.

Livestock camels of the economy are represented mainly by single-humpback camels and their hybrids with two-humpback bacteria.

Animal farms are characterized by their typicality, high adaptability to local natural and fodder conditions, without any special exterior deficiencies.
Selection and formation of camels in groups were carried out according to the principle of analogs taking into account age (6-12 years), constitution (strong), live weight and body measurements (medium for the population). The initial selection of animals was carried out from the number of single-humpback in March 2018 from the number of newly-scarred dams. Selected camel-dam with camels were marked with special paint and experienced groups were formed.

The subject of the study: were purebred single-humpback camels of different ages, and their hybrids with two-humpback camels at different ages.

The subject of research: Variability of growth and development of camel in the age dynamics (at birth, 6 months, 12 months, 18 months).

Methods of research: In the studies, generally accepted zootechnical and statistical analytical methods are used. The reliability and reality of the obtained mathematical and statistical materials are analyzed with the help of a computer program.

The scientific novelty of the study: is that for the first time, the age variability of the live weight of single-humpback camels and their hybrids in the conditions of the Aral region has been revealed. The distinctive features of the camel are determined by the live weight of different sex-age groups.

### Table 1: Age variability of live weight of single-humpback camels and their crossbreeds (kg)

<table>
<thead>
<tr>
<th>Amount of measured animals (n)</th>
<th>Types of camels</th>
<th>At birth</th>
<th>6 months</th>
<th>12 months</th>
<th>18 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Single-humpback</td>
<td>32,1±0,61</td>
<td>96,7±0,76</td>
<td>134,2±1,11</td>
<td>191,±1,09</td>
</tr>
<tr>
<td>5</td>
<td>Single-humpback</td>
<td>34,2±0,68</td>
<td>111,3±1,11</td>
<td>149,1±1,10</td>
<td>229,1±1,19</td>
</tr>
<tr>
<td>11</td>
<td>Hybrids</td>
<td>36,4±0,71</td>
<td>104,3±0,82</td>
<td>149±1,15</td>
<td>238,4±1,42</td>
</tr>
<tr>
<td>7</td>
<td>Hybrids</td>
<td>39,1±0,69</td>
<td>121,2±1,14</td>
<td>171±1,21</td>
<td>271,3±1,64</td>
</tr>
</tbody>
</table>

Conclusions

The results of the experience we have obtained data and observations on the variability of the living mass of single-humpback camels and their hybrids in the Aral Sea region of the Karakalpak part of the Kyzylkum allow us to draw the following conclusions:

- The growth of camels is directly dependent on the species and breed, since in the eighteen-month-old age single-humpback camel males were 191.7 kg, which indicates that at this age camel hybrids are 271.3 kg, which is 40% by comparing peers of a single-humpback camel.
- In winter, additional feeding is necessary, 2.5-3.5 concentrates and 6-8 kg of fodder units should be fed to qualitative alfalfa hay.

References

1. Baymukanov AB. Actual questions of camel breeding (Bulletin of agricultural science of Kazakhstan, Almaty, 1982).