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ANALYSIS OF THE GROWTH AND DEVELOPMENT OF YOUNG CAMELS IN CONDITIONS OF LLP «KHAN'S HORDE»

Abstract

The farm's head of live – stock represents by animals of strong constitution. They are characterized by exceptional adapt to that pasture – climatic conditions in which they are maintained during many generations. In whole mass the camels of this farm are remarkable for good – developed backbone, expressed muscles, strong frame and mass, attach them the special characteristic type. Middle alive mass of young camels by the birth have 45.1 kg. or 8.0 % from the weigh of mother. In the first year of life intensiveness of their height is very high and to 6-months age their alive mass rose in 3.7 and composed in middle 166 kg. The best indexes of feeding differed young animals at the age of 3.5 years, spent on 1 kg. of increase 10.5 feed unit and 850.5 digest protein. Responsible for growing camel colts is the first year of life and within this period, the first six months. The live weight of camel of kazakh bacterian at birth averaged 186,7 kg. The offspring of the kazakh bacteriano is characterized by relatively high maturity.

Keywords: camel, bonitation, kazakh bacterian, productivity, progeny.

Introduction. On the basis of the results of the bonitation in LLP «Khan's Horde» was formed a group of young animals with a known origin and conducted research on the study of growth and development.

Materials and methods of research. To grow well-developed animals, it is necessary to give the camels a good milk diet and provide them with constant natural exercise in the pasture with the uterus. Therefore, young growth should be kept under the uterus up to 16-18 months of age [1-3]. In terms of the economy was carried out the weighing and the removal of measurements, sampling from 15 days to 2.5 years.

Research results. Table 1 shows data characterizing the development of young Kazakh Bactrians in a significant Padoa mothers in the suckling period.

Table 1 - Dynamics of body weight, kg ($M \pm m$)

Age	Quantity in group, heads	Males	Females
Atbirth	15	41.5 $\pm$ 0.68	37.8 $\pm$ 0.42
15 days	15	86.4 $\pm$ 0.92	84.3 $\pm$ 0.71
1 month	15	109.6 $\pm$ 1.14	107.6 $\pm$ 1.23
3 month	15	148.4 $\pm$ 1.06	146.7 $\pm$ 0.74
6 month	15	186.7 $\pm$ 2.14	1 82.4 $\pm$ 1.43
Growthratio		1.27	1.31

The table shows that the live weight at birth of young animals was 41.5 kg, and after 15 days- 86.4 kg. Intensive growth and development of young animals occur in the first 15 days before the age of one year - 186.7 kg. there. Is only a slight difference between females and males.

In the future, there is a rapid increase in live weight of young animals for all livestock indicators, for example, at the age of 1,5 years had 327,7 -328,5 kg and the live weight at the age of 2.5 years amounted to 424,2 – 458,4 kg. In the process of growth in the figure of the babies showed themselves undergo significant changes: increases relative to the housing, there is accelerated growth of muscle.

At the age of 12 months, the live weight of young animals averaged 264.1 kg in males and 270.6 kg in females. the Period from 6 to 12 months of age coincides with the winter content of animals, so the intensity of growth is insignificant. Slight delays in growth and development in winter are compensated in the subsequent period from 12 to 18 months of age, i.e. from spring to autumn.

Live weight of males at 18 months of age averaged 328.5 kg, females – 327.7 kg, which is 0.8 kg higher. It is established that in the conditions of economy males are born larger than females, which is a consequence of sexual dimorphism. It is known that a well-expressed sexual dimorphism is considered a positive property (table 2).

Table 2 - Live weight and camel measurements, (M $\pm$ m)

Age, months	P	Live weight, kg	Measurements, cm			
			height between humps	body length	chest girth	circumference of the metacarpus
Males						
12 months	ten	264.1 ± 1.14	149.8 ± 1.04	115.6 ± 0.40	174.5 ± 0.32	16.4 ± 0.18
15 months	ten	319.8 ± 1.42	154.6 ± 0.93	121.8 ± 0.32	186.2 ± 0.44	17.1 ± 0.13
1.5 years	ten	328.5 ± 2.67	157.7 ± 0.76	121.6 ± 0.82	182.6 ± 1.04	16.4 ± 0.61
2.0 years	ten	376.5 ± 3.12	161.4 ± 0.48	127.8 ± 0.80	194.5 ± 0.90	16.8 ± 0.15
2.5 years	ten	424.2 ± 4.17	166.3 ± 0.64	126.5 ± 0.78	201.2 ± 1.16	17.2 ± 0.09
Females						
12 months	ten	270.6 ± 1.14	152.4 ± 0.72	118.4 ± 0.56	174.8 ± 0.42	17.0 ± 0.15
15 months	ten	304.5 ± 1.02	155.7 ± 0.47	124.7 ± 0.12	186.4 ± 0.36	17.8 ± 0.13
1.5 years	ten	327.7 ± 9.48	161.3 ± 1.23	124.3 ± 1.57	189.8 ± 1.27	17.8 ± 0.15
2.0 years	ten	424.2 ± 5.23	164.6 ± 1.05	129.5 ± 1.10	196.0 ± 1.38	19.6 ± 0.18
2.5 years	ten	458.4 ± 8.48	168.3 ± 1.08	138.6 ± 1.16	213.6 ± 1.42	22.3 ± 0.25

An important biological difference of Kazakh Bactrians is their precocity, which determines the intensive growth and development, increased efficiency of transformation of feed into products and the possibility of earlier economic use [4].

According to our observation (table 2), live weight and measurements of young animals at the age of one year are equal: males are lower than females by 6.4 kg (270.6-264.1 kg), height between humps – 2.6 cm, body length – 2.8 cm, chest girth – 0.3 cm, heel girth – 0.6 cm, and at the age of 15 months respectively: 4.2 kg, and height measurements between humps 1.1 cm, body length – 2.9 cm, chest girth – 0.2 cm, the girth of the heel – 0.7 cm, and at the age of 1.5 years-4.4 kg (4.3 cm, 2.7 cm, 1.9 cm, 0.9 cm). The average daily growth of youngsters of one-year age in the period of adaptation to new living conditions is small and ranges from 715 g (males) to 735 g (females), and at the age of 15 months increases and reaches from 875 g (males) to 890 g (females).

The performance measurements have calves at that age in equal limits, significant difference have not.

The measurements taken from the camels at birth, indicate a sufficiently proportional to their development in the embryonic period. It is established that the most intensively animals of all compared groups grow up to 12 months (table 3).

Table 3 - Change of the main measurements, $M \pm m$

Age, months	Live weight, kg	Measurements, cm			
		height between humps	body length	chest girth	circumference of the metacarpus
Males					
At birth	41.5 ± 0.68	111.4 ± 1.22	68.1 ± 1.07	78.8 ± 0.56	10.6 ± 0.07
6 months	186.7 ± 2.14	140.0 ± 0.77	100.9 ± 0.57	143.0 ± 0.55	13.9 ± 0.12
12 months	264.1 ± 1.14	159.6 ± 1.21	113.7 ± 0.71	164.9 ± 0.77	15.6 ± 0.25
Females					
At birth	110.1 ± 1.05	67.3 ± 0.75	81.8 ± 1.22	10.2 ± 0.11	17.0 ± 0.15
6 months	140.8 ± 1.07	97.2 ± 0.51	144.6 ± 1.33	13.7 ± 0.51	17.8 ± 0.13
12 months	159.5 ± 1.21	114.7 ± 0.77	167.7 ± 1.05	15.5 ± 0.27	17.8 ± 0.15

In this case, due to the more intense growth of the bones of the axial skeleton, the greatest growth energy is noted in the measurements of the chest and trunk (figure 1).



Figure 1 - A camel at the age of 2.5 months, weight of body 127.1 kg

From birth to 12 months of age experimental camels mostly grew in length and width. In comparative terms, their absolute and relative growth during this period was large.

Conclusion. Analysis of the results of growth and development of young animals shows that the progeny of Kazakh Bactrians are characterized by rather high precocity. Such a growth rate of camels is of great economic importance, since they consume less nutrients for the increase in live weight and reach economic maturity faster.

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ТҮЙІН

Шаруашылықтағы барлық мал басы мықты конституциялы малдар болып келеді. Олар, бірнеше ұрпақтарынан бері сол жердің жайылымдылық – климаттық жағдайларына ерекше бейімделген. Жалпы салмағы бойынша бұл шаруашылықтың түйелері сүйек қаңқасының жақсы жетілгендігімен, қаңқа еттерінің сомдалғандығымен, мықты дене бітімімен және тұрғылықтылығымен ерекшеленеді, осы типке тән ерекшеліктерін білдіреді. Боталардың туған кездегі орташа тірілей салмағы 45,1 кг, немесе анасының салмағының 8,0% -ін құрайды. Өмірінің бірінші жылындағы боталардың өсу қарқыны өте жоғары. Осылайша, 6 айлық жасында, олардың тірілей салмағы 3,7 есе артып, орта есеппен 166 кг – ға жеткен. Азық төлемінің ең жоғарғы көрсеткіші, 1 кг тірілей салмақ қосу үшін 10,5 азық өлшемі мен 850,5 г қорытылатын протеин жұмсалған, 3,5 жылдық жас малдарда анықталды. Түйе өсірудегі жауапты кезең өмірінің алғашқы жылы, ал осы мерзім шегінде алғашқы 6 ай болып табылады. Қазақ бактриандарының тірілей салмағы орта есеппен 41,5 кг құрады, алтыншы айға қарай қазақ бактриандарының тірілей салмағы орта есеппен 186,7 кг құрады. Қазақ бактриандарының ұрпағы өте жоғары жылдамдығымен сипатталады.

РЕЗЮМЕ

Все поголовье хозяйства представлено животными крепкой конституции. Они характеризовались исключительной приспособленностью к тем пастбищно-климатическим условиям, в которых они содержатся в течение многих поколений. В общей массе верблюды этого хозяйства отличаются хорошо развитым костяком, выраженной мускулатурой, крепким телосложением и массивностью, что придает им особый характерный тип. Средняя живая масса верблюжат при рождении составила 45,1 кг, или 8,0 % от веса матерей. В первый год жизни интенсивность роста верблюжат очень высокая, так к шестимесячному возрасту, их живая масса увеличилась 3,7 раза и составила в среднем 166 кг. Лучшими показателями оплаты корма отличался молодняк в возрасте 3,5 лет, затративший на 1 кг прироста 10,5 корм, ед. и 850,5 г переваримого протеина. Ответственным периодом в выращивании верблюжат является первый год жизни, а в пределах этого срока первые 6 месяцев. Живая масса верблюжат казахских бактрианов при рождении в среднем составила 41,5 кг, к шести месяцам живая масса верблюжат казахских бактрианов в среднем составила 186,7 кг. Потомство казахских бактрианов характеризуется довольно высокой скороспелостью.