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Growth and Development of Daughters of Holstein Cows of Danish Selection

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Abstract: The article presents an analysis of the results of scientific research on the growth and development of Holstein cows of Danish selection.

Keywords: Holstein cows of Danish selection, 1st generation daughters, female calves, live weight, growth, development, indicators.

Introduction:

In later years in order to improve the productivity of the cattle herd in the dairy farms of our republic, pedigree cattle of various breeds with high genetic potential are being imported from abroad. As a result, the weight of pedigree cattle in these farms has increased, and the milk yield from each cow is significantly increasing. In particular, farms with a solid feed base and qualified specialists are achieving 8-9 thousand kg of milk per year from each cow and 80-90 healthy calves from every 100 heads of mother cattle.

Scientists conclude that the formation of milk productivity of young cattle replenishing the herd can be achieved primarily through full-value feeding [4]. Researchers note that Holstein heifers imported from abroad have demonstrated high adaptability and growth performance in the conditions of the Samarkand region, their live weight exceeds the standard indicators established for the breed, which will ensure that milk productivity will be at the required level in the future [1].

Relevance. The growth and development of Holstein cows of the first generation, milk productivity, and the extent to which they can transmit the high selection traits of their parents to the first generation daughters have not been studied. Therefore, this topic is relevant.

In order to study the growth and development of the daughters of the first-generation Holstein cows, first imported to Uzbekistan from Denmark, as well as the degree to which they can transfer the high selection traits of their parents to the daughters of the first generation, studies were conducted on the daughters of cows of Danish selection at the “Sultan” farm in the Syrdarya district of the Syrdarya region. In order to bring the live weight of the calves to 360-380 kg at 14-15 months and artificial insemination, they were raised using intensive technology. First, the calves in the experiment were fed specially developed rations for the summer and winter periods, balanced in terms of nutrients. This, in turn, ensured the rapid growth and development of the calves according to the intensive growth plan.

The ultimate goal was to replenish the herd with young and productive cattle at the expense of daughters of highly productive cows imported from abroad. Those calves this promising It was maintained with a purpose in mind.

METHODS

In conducting scientific-research, generally accepted methods in zootechnics were used to determine live weight indicators. Initially, the growth and development of female calves were studied. The increase in live weight of cattle them every three per month one times on the scales pull to go It was passed through.

RESULTS AND DISCUSSION

In zootechnical science and practice, the change in live weight of a young, growing organism is an important biological process, and one of the research

tasks is to study these processes in comparison with the daughters of cows of different lines. One of the main tasks is to study and analyze the dynamics of live weight of female calves in the experiment. Because the analysis of live weight gain is of great importance for the rapid growth of female cattle, their early calving weight reaching 360-380 kg at 14-15 months of age, their effective artificial insemination, and the early replenishment of the herd with young productive cows.

Table 1. The live weight of calves in the experiment increased driving dynamics, kg (n=15)

Age, month	Experience groups					
	I		II		III	
	$\bar{X}\pm S\bar{x}$	C_v, %	$\bar{X}\pm S\bar{x}$	C_v,%	$\bar{X}\pm S\bar{x}$	C_v, %
Average live weight at birth	38.2± 1.56	6.03	38.9± 1.7	6.57	40.1±1.10	4.25
3	105.5±1.64	6.34	104.2±1.9	7.35	103.6±1.58	6.11
6	182.1±2.73	10.5	178.2±2.38	9.21	175.6±2.1	8.12
9	254.1±2.2	8.51	248.1±3.34	12.9	243.1±2.75	10.64
12	321.6±3.58	14.0	313.1±3.5	13.5	306.4±2.8	10.83
15	384.7±3.1	12.0	373.5±3.45	13.4	364.2±3.3	12.8

(P >0.99)(P>0.999)

From the data in Table 1, it can be seen that, as a result of intensive technology, carcasses of various lines of Danish selection reached a live weight of 364-385 kg at the age of 15 months. If we analyze by growth period, although the live weight at birth was slightly lower, during the experiment, the bodies belonging to the Oman Justi line in group I, compared to their peers in other lines, at the age of 6 months, the average weight of the bodies in the II-experimental group was 3.89 kg or 2.14% (P>0.99) higher than the bodies in the III-experimental group, by 6.49 kg or 3.56% (P>0.99), by the age of 12 months, the bodies in the II-experimental group were 8.55 kg or 2.7% (P>0.999) higher than the bodies in the III-experimental group, by 15.25 kg or 5.0% (P>0.999), at the age of 15 months, the bodies in the II-experimental group were 11.22 kg or 3.0% (P>0.999) higher than the bodies in the III-experimental group, by 15 months, the bodies in the II-experimental group were 11.22 kg or 3.0% (P>0.999) higher than the bodies in the III-experimental group, by 15 months, the bodies in the III-experimental group were 11.22 kg or 3.0% (P>0.999) higher than the bodies in the II It gained 20.52 kg or 5.6% (P>0.999) more live weight.

CONCLUSION

It should be noted that Danish Holstein dairy cattle and their 1st generation daughters can adapt well to the hot summer and cold winter climatic conditions of Uzbekistan and, when intensively bred, demonstrate high daily growth rates in all growth periods. At the age of calving, i.e. 14-15 months, the cows will have a live weight of 365-385 kg and can be effectively artificially inseminated.

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