



# Fertility Characteristics of Daughter Cows of Different Selections of the Holstian Breed

**Sirliboev Jamshid Muzaffar  
ugli**

**Doctoral student of Tashkent State Agrarian University (PhD),  
Tashkent, Uzbekistan**

## ABSTRACT

In the article, the parameters such as duration of estrus duration and coefficient of variation of the daughters of Holstein cows imported from abroad, obtained from cows of different selections, in the warm climate conditions, and the offsprings obtained from cows belonging to the selection of the USA, Austria and Germany, such as changes in physiological norms indicators are given.

## Keywords:

## Introduction

It is known that cattle breeding occupies a special place in providing the population with livestock products in any period of the world. "In the USA, Germany, the Netherlands, Canada, Japan, Israel and the European Union countries, where this field is developed, as well as in the Russian state, there is a wide use of high-breed bulls with high genetic potential in terms of productivity, fertility, technological characteristics of cattle, and productivity in artificial breeding, goods are full of value. great attention is being paid to providing nutrition, maintaining selection-breeding works, improving conditions and breeding productive breeds. As a result, the number of dairy herds of high-yielding cows and the level of milk productivity of cows are increasing, as well as the improvement of their adaptability to modern milking equipment"<sup>1</sup>.

## Research Method And Materials

The appearance, milk yield, quality of milk, fertility, technological parameters of the udder and other selection characteristics of the Holstein cows of different selections imported from European countries are considered.

Zootechnical (milk quantity, lactation coefficient, externality, lactation curve, coverage of feeds with milk), biological (clinical indicators, heat resistance index), biometrics (arithmetic mean and error, variability) coefficient, selection-genetic indicators) study methods were used, statistics based on generally accepted methods in zootechnics and veterinary medicine: arithmetic mean and its error, reliability level of intergroup difference (Merkureva E.K, 1970); and economic (total costs, cost of 1 product, purchase price, net profit, level of efficiency) methods were used.

For the first time in the conditions of our republic, daughters obtained from Holstein cows of various selections brought from abroad were studied and evaluated for the main selection characteristics, and the scientific bases and practical methods of breed improvement were developed.

In the researches, the characteristics of milk productivity in different lactations of the offspring of Holstein cows of different selections of the world gene pool of different selections were studied and evaluated in the conditions of purebred breeding in breeding farms;

The morphofunctional characteristics of the exterior and udder of Holstein cows of different selections were determined;

The level of productivity of the offspring obtained from Holstein cows of different selections was revealed depending on the live weight, duration of the service period, seasons and other factors;

It was studied and determined in the conditions of care of the daughters obtained from Holstein cows of different selections;

In the research, it was found that the use of the offspring of Holstein cows of different selections in dairy herds is effective.

**Research Results And Their Discussion**

Studying the fertility characteristics of cows is of great practical importance in evaluating the efficiency of their use and the level of adaptation to certain conditions. Also, these characteristics of cows are closely related to the duration of their use on the farm, which indicates that the presence of these characteristics at the standard level is an important factor in increasing the efficiency of the industry. Therefore, in the research, the correlation between the milk yield of daughters of Holstein cows of different selections and the natural endurance of the fertility characteristics of cows is presented in Table 1.

Table 1

**Fertility indicators of daughters of cows of different selections**

Indicators	Holstein cows of various selections		
	Austria	USA	German
	$\bar{X} \pm S\bar{x}$	$\bar{X} \pm S\bar{x}$	$\bar{X} \pm S\bar{x}$
Duration of the strait, days	282,7±0,19	282,77±0,19	281,8±0,22
Service period, days	78,6±2,6	80,5±1,9	79,3±4,3
Time from weaning to birth, days	64,7±0,95	63,8±0,81	62.8±0.78

Length of intercalving period, days	347,7±1,83	346,57±1,29	344.6±1.75
Live weight, kg	559,7±40,7	603±24,7	578,5±37,1
Fertility in run I, %	73,4	72,5	75.7
Evasion index	1,07	1,11	1,26

According to the data of Table 1, the fertility characteristics of Holstein cows of different selections were sufficiently good in the offspring obtained from cows of all selection types. There was no significant difference in the duration of estrus duration in the daughters of Holstein cows of different selections, and the coefficient of variation for this trait was low, indicating that imported Holstein breeds from the USA, Austria, and Germany It indicates that the offspring obtained from selected cows are close to each other and have indicators at the level of physiological norm requirements.

The duration of the service period of the daughters of the cows of Austrian selection was 78.6±2.6 days on average compared to the daughters of cows of the USA selection by 1.9 days or 2.36%, but the reliability of the difference between the selection groups was not observed. The fact that the coefficient of variation for this sign is at a slightly higher level indicates the wide range of options for choosing cows belonging to this selection type. These are our data from M. I. Ashirov et al. 2011, Ashirov M.E. 2017, N.R. Ruziboev 2016. Nosirov U.N., I. Maksudova, Dosmukhamedova M.Kh. 2011. consistent with the results of research. The authors conclude that cows with a service period of 60-90 days are more productive than cows with a service period of other periods and emphasize that their use in dairy herds is higher.

Observations during our experiment show that there was no significant difference in the duration of the period before weaning and the duration of the intercalving period between the progeny of cows of all different selections,

and these indicators were at an acceptable level, and this Holstein breed is a different selection. showed the possibility of obtaining an average of one calf from each cow per year.

**Conclusion.** The results of our research showed that the offspring of Holstein cows of different selections, regardless of which selection, were obtained from cows belonging to all types of selection, had a good level of fertility characteristics. This indicates that they are well adapted to our hot climate.

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