SLAUGHTER INDEXES OF BULL-CALVES OF VARIOUS GENOTYPES

Sh.Kurbonova

Samargand agricultural institute

Abstract- in this article such slaughter indexes as live mass before killing of 18 and 21 months bull-calves of various genotypes, weight of undressed carcass, weight of inner fat, carcass weight by carrying out of control slaughter were studied. In both slaughter ages calves of all groups have high degree of stoutness. So, calves of the II group of Schwitz breed possessing by combined productivity and calves of the III group-hybrids of the first generation.

Keywords-productivity, heredity, hybrid generation, crossbreeding, genus, thoroughbred, carcass weight, slaughter waste.

I. INTRODUCTION

In the Republic of Uzbekistan in various types of farms specialized on beef production of dairy (black-motley, red steppe) and combined productive breeds (Schwitz) and hybrid generations of various genotypes obtaining as a result of their intercrossing were the main object. At present 98% of the whole producing beef meat made above-mentioned cattle.

Comparative research of growth, development, fattening and meat productivity properties of black-motley and Schwitz breeds and hybrid generations of various genotypes obtained as a result of intercrossing for blood infusion of black-motley pure-bred cows with Holstein bulls in the conditions of mountain and foothill areas of Uzbekistan was defined as the main aim of the given dissertation work. The theme of this dissertation is actual and topical.

II. MATERIALS AND METHODS

Experimental part of the scientific-research work was carried out in the conditions of farm “Juraniyoz Toshpulatov” specialized on cattle breeding, situated in Sherobod district of Surkhandarya region.

III. THE RESULTS AND THEIR ANALYSIS

It is known, that on total quantity of consumed meat in the world beef meat occupies place after pork and poultry.

In our republic beef meat made 70% out of total amount of consumed meat. Beef meat mainly consists of dairy direction and hybrid generations of various genotypes obtained as a result of crossbreeding.

First of all, it is necessary to take into account cattle slaughter index in estimation of beef meat productivity, as in all kinds of animals. Slaughter index, received as a result of our research works, were given in the following table-1.

Data analysis, adduced in the table, showed that the bull-calves well- nourishment in all experimental groups in both slaughter ages was high. So Schwitz breed calves of the II experimental group, possessing by combined productivity and hybrids of the first generation of the III group were dominated.
Live mass before slaughter in calves of the II and III experimental groups in 18 months control slaughter made 419.7 and 408.0 kg and they advanced their herd mates of the I group for 24.6 kg (P<0.05) or 6.2% and 12.9 kg (P<0.05) or 3.3% on this index. In 21 months control slaughter this difference was equal to 34.1 kg (P<0.01) or 6.7% and 27.2 kg or 5.8% respectively.

Table-1 Slaughter indexes of experimental bull - calves.

| Index                                | Age, at months | Groups   |
|--------------------------------------|----------------|----------|
|                                      |                | I        | II       | III       | IV        |
| Live mass before slaughter, kg       | At 18 months   | 395.1±4.11 | 419.7±5.2 | 408.0±3.6 | 400.0±4.9 |
|                                      | At 21 months   | 470.2±3.71 | 501.6±4.1 | 497.4±4.1 | 478.0±5.1 |
| Weight of carcass meat, kg           | At 18 months   | 211.4±3.7 | 224.1±3.51 | 217.1±4.17 | 212.3±5.17 |
|                                      | At 21 months   | 256.7±4.80 | 273.9±5.11 | 273.6±5.06 | 261.0±4.91 |
| Waste of carcass meat, %             | At 18 months   | 53.5       | 53.4       | 53.2       | 53.0       |
|                                      | At 21 months   | 54.6       | 54.6       | 55.0       | 54.6       |
| Weight of inner fat, kg              | At 18 months   | 16.6±0.03  | 18.0±0.03  | 15.5±0.03  | 14.4±0.05  |
|                                      | At 21 months   | 22.1±0.87  | 24.1±0.04  | 20.4±0.06  | 19.6±0.08  |
| Waste of inner fat, %                | At 18 months   | 4.2        | 4.3        | 3.8        | 3.6        |
|                                      | At 21 months   | 4.7        | 4.8        | 4.1        | 4.1        |
| Slaughter weight, kg                 | At 18 months   | 228.0±4.80 | 242.1±4.10 | 232.6±4.11 | 226.7       |
|                                      | At 21 months   | 278.8±3.93 | 298.0±4.56 | 294.0±5.16 | 280.6       |
| Slaughter waste, %                   | At 18 months   | 58.1       | 57.7       | 57.0       | 56.6       |
|                                      | At 21 months   | 59.3       | 59.4       | 59.1       | 58.3       |
| Body length, cm                      | At 18 months   | 144.0      | 140.1      | 142.8      | 143.6      |
|                                      | At 21 months   | 145.9      | 141.9      | 144.3      | 145.7      |
| Thigh length, cm                     | At 18 months   | 88.0       | 84.9       | 86.1       | 85.8       |
|                                      | At 21 months   | 88.4       | 85.6       | 86.9       | 87.1       |
| Thigh circumference, cm              | At 18 months   | 96.0       | 97.8       | 96.0       | 97.0       |
|                                      | At 21 months   | 97.7       | 102.1      | 98.0       | 91.9       |
| Area of muscular ocellus, cm         | At 18 months   | 75.0       | 78.0       | 74.8       | 74.5       |
|                                      | At 21 months   | 76.4       | 79.9       | 78.3       | 77.9       |
| Carcass length, cm                   | At 18 months   | 210.0      | 211.5      | 210.9      | 211.8      |
|                                      | At 21 months   | 219.6      | 215.1      | 216.0      | 216.5      |

Index of just have slaughtered carcass meat is the index, characterizing meat productivity. This index in 18 months control slaughter in the II group made 224.1 kg and in the III group 217.1 kg. Thus, there was reached index higher than in coevals of the I and IV groups for: 12.7 kg (P<0.01) or 6.0% and 11.8 kg (P<0.05) or 5.4%, 11.8 kg (P<0.05) or 5.6%, 4.8 kg (P<0.05) or 2.3% accordingly.

On carcass meat weight above-mentioned difference in 21 months control slaughter was equal to: 17.2 kg (P<0.005) or 6.7% and 16.9 kg (P<0.01) or 6.6%, 12.9 kg (P<0.05) or 4.9% and 12.6 kg (P<0.05) or 4.8% respectively. The results like these [1; p-28-31] and [4; p-33-34] also were obtained in the researches.

On inner fat weight their difference in the 18 months control slaughter was equal to: 1.4 kg (P<0.01) or 8.4% and 3.6 kg (P<0.01) or 2.5% respectively. In 21 months control slaughter this difference made: 2.0 kg (P<0.01) or 9.1% and 4.5 kg (P<0.01) or 23.0% respectively. Inner fat weight in bull-calves of the I group in 21 months control slaughter on the contrary was high for 1.7 kg (P<0.05) or 8.3%.

It is necessary to stress the following, from 18 to 21 months in animals of all groups muscular tissue grew intensively. The weight of carcass meat of calves of experimental groups can be added...
for this confirmation. For example, in this period increase of muscular tissue in groups was equal to: 45.3; 49.8; 56.5 and 48.7 kg respectively.

Slaughter weight was also high in bulls of the II and III groups and made in 18 months 242.1; 232.6 kg and in 21 months made 298.0; 294.0 kg respectively. On this index they were surpassed their coeval bull-calves of the I group for 14.1 kg (P<0.05) or 6.2% and 19.2 kg (P<0.01) or 6.5%, also 9.5 kg (P,0.05) or 4.1%, 13.4 kg (P<0.05) or 4.8% accordingly.

Slaughter waste expressed by relative index of meat productivity was high in both control slaughters in our research. In particular, at 18 months this index was from 56.6% (IV group) to 58.1% (I group). At 21 months from 58.3% (IV group) to 59.4% (II group). If we take into account that average percentage of cattle slaughter waste made 55-56%, then we can say without any doubt that the results of our research were high.

Difference between groups on such indexes as carcass, corpus, length and circumference of thigh characterizing by meat accumulation on corpus was estimated in a reliable degree. So, body length index in calves of the I and IV experimental groups was high but on thigh circumference index it was high in calves of the II and IV experimental groups. The differences on these indexes and on age of control slaughter were defined.

Thus, slaughter indexes at the rate of absolute and relative indexes in calves of the II and III groups were high in comparison with bulls of the same age of the I and IV experimental groups.

The results, obtained by our researchers [2; p-408.], [3; p-383.] were distinguished by conformity with data.

IV. CONCLUSIONS

Slaughter index in experimental animals was high in both control slaughters. For example, meat productivity exactly and fully characterizing body weight in 18 months control slaughter made in groups: 211.4; 224.1; 217.1; 212.3 kg respectively. This index in 21 months was equal to: 256.7; 273.9; 273.6; 261.0 kg accordingly. The difference between groups on anatomic parts of meat was also observed on a reliable degree.

BIBLIOGRAPHY

[1] Kaharov A., et al Characteristics of formation of veal productivity.// Zooveterinary. 2013. №10. p. 28-31.
[2] Levantin D. L. Theory and practice of meat productivity rising in cattle breeding. M. “Колос”, 1966. p. 408.
[3] Nosirov U. N. Cattle breeding. Tashkent. 2001. p. 383.
[4] Hamroqulov B., et al. The influence of holstenization on beef meat production // “Zooveterinary”. 2017. №1, p. 33-34.