

STUDY OF THE MORPHOPRODUCTIVE FEATURES OF THE ROMANIAN BLACK AND WHITE CATTLE (BNR), BRED IN HOUSEHOLDS OF THE TRUȘEȘTI COMMUNE, BOTOȘANI COUNTY

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Abstract

The researches were done in a population of 75 cows of Romanian Black and White breed (BNR) from private exploitation in the area of Trușești commune, Botoșani county. There were analyzed the following aspects: the productive performance to the first lactation, the main reproduction indexes, body weight and the most important of body size. The average production was 4030 kg milk with a content of 3.80% fat and 3.20% protein. The age at first calving and the calving interval was over 37 months and 420 days respectively.

Key words: cattle, Romanian Black and White, production and reproduction indices

INTRODUCTION

The cattle population of Romanian Black and White breed (BNR), exploited in the private farms of Trușești commune, Botoșani county, is quite heterogeneous [3, 5], with productive and reproductive abilities insufficiently studied. Milk production performance differs greatly by the exploiting technology applied [3]. Also, body development and breeding activity are influenced largely by the conditions provided in each farm [1, 2, 4]. Based on these considerations we propose, in this paper, to do an analysis of race NBR breed in the Trușești area, in terms of morphological and productive traits and reproduction.

MATERIAL AND METHOD

The research was conducted on a population of 75 cows of Romanian Black and White breed (BNR) operated in the households of the Trușești commune, Botosani county.

Were analyzed a series of indicators namely productive performance in first

lactation, the main indices of breeding, body development, the technology practiced in each households. Raw data were extracted from the records of the County Animal Breeding and Reproduction Office in Botosani (OARZ – Trușești center), which were statistically processed and interpreted.

RESULTS

In the first normal lactation (Table 1), the population considered achieved an average production of 4030 kg milk with 3.80% fat and 3.25% protein with a high variability (between 2560 kg and 5250 kg milk).

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Table 1 The average values and the variability of milk, fat, and protein productions at normal lactation

Specification	n	$\bar{X} \pm s_{\bar{x}}$	V%	Min.	Max.
The amount of milk (kg)	75	4030±115.66	16.15	2560	5250
Milk fat content (%)	75	3.80±0.06	5.42	3.10	4.40
The amount of fat (kg)	75	153.14±6.57	15.60	79.36	231.00
Milk protein content (%)	47	3.20±0.04	4.70	3.05	3.48
The amount of protein (kg)	75	128.96±5.55	15.25	78.08	182.70

Analyzing the main indices of breeding (Table 2) observed that age at first calving was 1100.30 ± 14.25 days (over 37 months), which highlights a poor precocity in herd studied. Dry period was 70.50 ± 3.65 days,

and the interval between calving was 415.20 ± 9.05 days. It is also observed that the variability is high for total lactation and dry period respectively.

Table 2 The mean and variability of reproduction indices at first lactation

Specification	n	$\bar{X} \pm s_{\bar{x}}$	V%	Min.	Max.
The age of first calving (days)	75	1100.30±14.25	9.05	760	1280
The long of total lactation(days)	75	340.20±11.20	14.20	275	520
Dry period (days)	75	70.50±3.86	20.30	35	110
The interval between calving (I-II) (days)	75	415.20±9.05	9.75	320	460

Body development cows was studied in the second lactation and the data are presented in table 3.

Table 3 The mean and variability of body development at the second lactation

Specification	n	$\bar{X} \pm s_{\bar{x}}$	V%
<i>Body weight (kg)</i>	75	580.32±8.25	6.35
Height of withers (cm)	75	132.26±2.01	2.74
Height at rump (cm)	75	134.42±1.90	2.90
Thorax perimeter (cm)	75	209.15±1.87	4.69
Whistle perimeter (cm)	75	24.78±0.61	10.75
<i>Width of rump at ischia (cm)</i>	75	36.40±0.69	8.12
Width of rump at hips (cm)	75	55.80±0.80	5.75
Length of rump (cm)	75	59.40±0.52	4.38
The height of the base of the tail (cm)	75	137.60±0.94	3.80
Depth of chest (cm)	75	74.25±0.72	5.69
Oblique length of the trunk (cm)	45	148.25±0.77	3.52

Analyzing body weight and body size is observed that the main herd studied has a satisfactory body development with average size of 132.26 cm for height of withers to 209.15 cm for thorax perimeter, respectively 148.25 cm for oblique length of the trunk and a body weight of 580.32 kg.

CONCLUSIONS

1. The Romanian Black and White cattle, exploited in the households of Trușești commune, Botoșani county, achieved an average production of 4030 kg milk with a content of 3.80% fat and 3.20% protein.

2. The age at first calving was over 37 months, which highlights a poor precocity of the cattle analyzed.

3. The calving interval was 420 days which entail improper operation cows throughout life.

4. The weight and the main body dimensions are satisfactory, falling within the limits set for this race.

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