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RESEARCH CONCERNING MORPHO CHARACTERISTICS OF ROMANIAN BLACK SPOTTED BREEDED IN CONDITION OF S.C. BIOTERA FARM, ALBA COUNTY

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Abstract.

Researches regarding morpho characteristics of Romanian Black Spotted breed were performed on 56 cows bull daughters in testing and candidate as bull's mother, raised and exploited in SC Biotera SRL farm from Alba county and has as database, records of evaluation for reliability cows between 2004 -2009 from UARZ – Alba county. Analyzing the results we can see that for Romanian Black Spotted breed, size increases from the average of 142.92 cm in first lactation to 145.64 in the third lactation. Similar happens with the height at rump wich from 143.54 cm in first lactation reach to 146.86 in the third lactation.

Key words*: animal exterior, conformation, constitution, morphological characteristics*

INTRODUCTION

In our country, if until about decades ago, the selection was made exclusively or very largely on the exterior [1], in the present appreciation and selection of animals is based on a set of criteria and indicators (ascendant, production, ancestry, constitution and exterior) that are taken into account differently depending on the breed and purpose. The indications provided by the exterior are extremely valuable both in selection work [2] and for the detection of deficiencies in technology growth and exploitation of animals. The importance of characters taken into account, in what concern the body format, is given by the fact that the linear description of exterior characters of the Romanian Black Spotted breed - Holstein Friesian type, they account for 20% [3] of the total score for the exterior.

MATERIALS AND METHODS

Analysis of morphological characteristics of Romanian Black Spotted breed has as database records of evaluation for reliability cows between 2004 -2009 from UARZ - Alba. So, were gathered 56 sheets of evaluation from daughter bull cows in testing and cadidate as bull's mother cows, raised and exploited in SC Biotera SRL farm conditions from Alba county. So from evaluation sheets, beside the conformation-constitution traits, expressed through udder and total points, were extracted and processed values for the following body measurements: height at withers (HW), height at rump (HR), chest area, chest depth and weight body.

RESULTS AND DISCUSSIONS

At first seen we can notice that the height at withers raises from 142.92 cm in first lactation to 145.64 cm in third lactation, and the height at rump shows an increase between the first and third lactation of 3.32 cm. The averages values of body measurements followed for the entire farm shows a number of animals of medium to big size (HW=145.64cm; HR=146.86 cm) with an average body weight of 678 kg wich suits the weight wanted limits desired for this breed (600-700 kg).

Table 1. Average values and variability of conformation constitution – characteristics, on Romanian Black Spotted exploited in S.C. Biotera S.R.L Farm

Sample statistics	Total Points			Udder Points		
	First Lactation	Second Lactation	Third Lactation	First Lactation	Second Lactation	Third Lactation
n	28	15	13	28	15	13
$\overline{X}$	84,92	84,91	85,42	34,49	34,2	34,38
$\pm S\overline{X}$	0,42	0,35	0,32	0,20	0,18	0,2
s	1,52	1,36	1,70	0,74	0,69	1,04
V %	1,79	1,60	1,99	2,14	2,00	3,01
Min.	82	83	82	33	33	32
Max.	87	88	89	36	35	36

Table 2. Average values and variability of body format characters, on Romanian Black Spotted exploited in S.C. BioteraS.R.L Farm

Lactation	Conformation constitution – characteristics	Sample statistics						
		n	$\overline{X}$	$\pm S\overline{X}$	*s*	*V %*	*Min.*	*Max.*
First Lactation	Size (cm)	28	142,92	2,10	6,29	4,40	132	154
	Rump height (cm)	28	143,54	1,26	6,68	4,65	133	152
	thorax perimeter (cm)	28	208,23	1,04	5,48	2,63	196	216
	Chest depth (cm)	28	77,92	0,47	2,47	3,16	74	83
	Weight (kg.)	28	633,92	10,58	55,97	8,83	560	751
Second Lactation	Size (cm)	15	143,80	1,20	4,63	3,22	133	152
	Rump height (cm)	15	145,13	1,40	5,41	3,73	136	155
	thorax perimeter (cm)	15	202,47	3,60	13,95	6,89	180	220
	Chest depth (cm)	15	82,54	1,09	4,23	5,12	75	93
	Weight (kg.)	15	659,40	27,56	106,75	16,19	475	800
Third Lactation	Size (cm)	13	145,64	0,82	2,97	2,04	139	151
	Rump height (cm)	13	146,86	0,82	2,95	2,01	140	153
	thorax perimeter (cm)	13	204,71	2,74	9,89	4,83	185	220
	Chest depth (cm)	13	83,07	1,32	4,76	5,73	75	95
	Weight (kg.)	13	678,93	26,51	95,58	14,08	512	830

Given the good average values of body dimensions showned by the exploited herds in this farm, also the maximum of the individual values reached at these animals of 151 cm for HW, 153 cm for HR, 95 cm for the chast depth, 220 for TP and 830 kg for body weight we can say that through a proper selection and a appropiate exploiting technology in short time can be reached and even exceed the established objectives for this breed, regarding the body development. Regarding the scores obtained by creditworthiness cows, we can see that the animals meet in terms of body conformation to the breed to which they belong, yielding total scores in average of 84.92 ± 0.42 in first lactation. Regarding points awarded for udder conformation is seen that they vary between 34.2 and 34.49 udder points. The coefficient of variation for scores is quite small between 2% and 3.01% which shows actual homogeneous cows on body conformation.

CONCLUSIONS

From the analysis of the morphological characteristics, we can conclude that the number of studied taurines have a good corporal development, even very good, that offers a biological platform favorable for a productive life. Concerning the score obtained from the examined cows, we can observe that the animals correspond from the point of view of the corporal conformation with the breed they come from.

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