

STUDY OF SOME PRODUCTIVE AND REPRODUCTIVE FEATURES ON BLACK AND WHITE ROMANIAN COWS FROM ROMANIA NORTH-EAST AREA

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Abstract

The study of Black and White Romanian cows was conducted on 605 cows from North East of country. In study was followed some parameters of milk production and reproduction like days of lactation, milk quantity, fat and protein content for normal and total lactation, age at first calving, calving interval, dry period and service period. The results of study shows that BWR cows has a good milk production with an average of 7364 kg comparable with cows from Fresian group reared in Europe. Was cows with a milk production over 10000 kg. Reproduction parameters show also a good attention in reproduction management with a calving interval of 374 days.

Key words: BWR cows, productive performance, reproduction

INTRODUCTION

Study of productive and reproductive features for Black and White Romanian (BWR) cows with genetic and economical implication in dairy cattle breeding is an inexhaustible topic for literature [5], [6]. BWR cow is a race efficient for intensive system breeding for dairy production in Romania and North East of Romania. [1],[2], [3],[4].

Hence appears the necessity of studies for productive and reproductive performances to BWR dairy cattle.

MATERIAL AND METHOD

Study was conducted on 605 BWR cow reared in 6 farms from Iasi and Vaslui County. In the study following parameters where estimating:

- days of lactation
- milk quantity, fat and protein content for lactation period
- reproduction indicators like calving interval (CI), age at first calving, service period.

Data collected was processed after classical methodology and related in systematic tables.

RESULTS AND DISCUSSION

In table 1 is presented statistical results for milk production features.

We can observe that lactation length has value between 205 and 551 days with an average of 322 days. The lactation extends after 305 days is caused by a long service period and a high production with a negative influence on the breeding activity, maintenance costs and performances in next lactations.

Average milk production was 7963 Kg for total days in milk with limits between 1196 Kg and 19851 kg, in correlation with lactation length.

Milk production for normal lactation has an average of 7364 Kg with limits between 1196Kg and 17798 Kg and a coefficient of variation $v=32.112$ which shows a high genetic potential of BWR cows take in study.

We notice that was cows with production over 10000 Kg milk in 305 days showing the genetic value of BWR cows from North East area and possibility of genetic improving using variability

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Milk quality is shown by fat content with an average of 4.32% with limits between 3.10% and 6.8% and proteins content with an average of 3.45%. Those parameters are in correlation with quantitative milk production.

Table 1 Average values and variability estimates for milk production on BWR cows taken in study

Features	n	\bar{x}	$\mp s\bar{x}$	s	V%	Min	Max
Days of total lactation	605	322,47	1.256	85.461	25.42	205	551
Milk Kg T	605	7963,43	44.325	1732.203	36.88	1196.98	19851.32
Fat % T	605	4,32	0.019	1.568	35.326	3.10	6.80
Fat Kg T	605	343,96	1.78	121.155	44.766	39.5	879.23
Proteins % T	605	3,45	0.013	0.905	31.215	1.9	5.68
Proteins Kg T	605	277,18	1.564	107.899	45.988	24.15	839.98
Days of normal lactation	605	281,89	0.439	30.798	11.21	205	305
Milk Kg N	605	7364,80	31.598	1598.265	32.112	1196.98	17798
Fat % N	605	4,32	0.019	1.15	32.66	3.10	6.80
Fat Kg N	605	309,63	1.614	106.567	45.386	39.5	879.11
Proteins % N	605	3,45	0.011	0.809	27.353	1.9	5.63
Proteins Kg N	605	247,45	1.23	89.797	44.596	24.15	773.62
Age at first calving, month, days	605	30.06	0.134	7.101	23.025	22	58
Service period	605	73.80	0.60	16.983	35.86	20	181
Dry period	605	63.22	1.101	28.071	51.953	16	94
Calving interval	602	374.73	1.136	31.807	23.368	258	573

Age at first calving was in average 30.06 months, the studied cows having an average productive precocity.

Calving interval of studied cows was an average of 374 days that shows good pregnancy rhythmicity and obtaining a calf for each cow annually.

Service period has an average of 73.80 days that means a good attention for heat detection on cows after calving.

Was respected a dry period an average of 63 days to cow being prepared for next productivity cycle.

This data shows a good reproduction management with a good attention for all reproduction activity which reflected in production performance and genetic value of cows.

CONCLUSION

From study results is obvious that BWR cows from North East of country has an average milk production for normal lactation of 7364 Kg with a average protein content of 3.45% and an average fat content of 4.32.

The lactation length was 322 days with 17 days more than a normal lactation that

shows a long service period caused by a big milk production on cows and small problems in conception at first insemination after calving.

Age at first calving was in average of 30.06 month, calving period has a value of 374 days which shows that reproduction management is well done.

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