Scientific Papers Series Management , Economic Engineering in Agriculture and Rural Development
Vol. 13 , Issue 1, 2013
PRINT ISSN 2284-7995 , E-ISSN 2285-3952

STUDY OF ROMANIAN BLACK AND WHITE BREED PRODUCTIVE PERFORMANCES FROM BISTRIŢA-NĂSĂUD COUNTY

Gheorghe MURESAN[1], Eugen JURCO[1], Stefan CĂRCU[2], Cecilia POP[3]

[1]University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, 3-5 Calea Manastur, Cluj County, Romania, Phone: +40 0264/596384, Email: gmuresan2005@yahoo.com
[2]Agency for Payment and Intervention in Agriculture (APIA), Nasaud, 2, Grivitei, Phone: +40 0263/361340, Bistrita-Nasaud County, Romania
[3] University of Agricultural Sciences and Veterinary Medicine, Iasi, Email:cicip@yahoo.com

Corresponding author: gmuresan2005@yahoo.com

Abstract

This research aims to highlight the main cattle productive features of Romanian Black Spotted breed, raised for milk production in Bistrita-Năsăud county. A number of 386 milk cows were taken into research which produced a total of 1194 lactations. Production and reproduction data were obtained through the official control of milk production, the existing databases at UARZ units (origin, reproduction and production) from the named county and there were taken, processed and statistically interpreted. In Bistrita-Năsăud Romanian Black Spotted cows achieved performances between 1047 kg of milk and 17196 kg of milk, with an average production on normal lactation of 4212 kg of milk, and 4846 kg of milk on total lactation.

Key words*: milk production, productive potential, Romanian black and white, , quality of milk*

INTRODUCTION

Raising genetic potential and actual cattle breeds productivity of populations, optimizing management and proper economic management are important ways to increase milk production along with increasing number of staff and their qualitative improvement [1]. Regarding the improvement of obtained milk quality, the efforts and achievements were quite poor [2], in line of increasing the cows herds, their genetic improvement, the total production growth and per head of cow were and are undertaken several actions.

MATERIALS AND METHODS

The research took place between 2008 and 2012 and focused over the biological material of Romanian Black Spotted breed. Related to the purpose, the conducting plan of research work, especially depending on the current investigation possibilities and the existing records, we highlighted the productive performances gave by the Romanian Black Spotted milk cows bred and exploited in Bistrita-Năsăud. For productive performances analysis was tracked a number of 1194 successive lactations. Production and reproduction data were obtained through the official control of milk production, the existing databases at UARZ units (origin, reproduction and production) from the named county and there were taken, processed and statistically interpreted.

RESULTS AND DISCUSSIONS

In Bistrita-Năsăud county the Romanian Black Spotted cows realized performances between 1047 kg and 17196 kg of milk, with an average production on normal lactation of 4212 kg of milk and 4846 kg of milk on total lactation. The dynamic of milk quantitative production has a descending trend, from the first lactation when records an average production of 4665 kg to the fifth lactation when is recording a production of 3849 kg. The average production of fat and protein, on normal lactation on the studied livestock is 166.29 kg fat (3,93%), 162,46 kg protein (3.39%) and raises to 198.92 kg fat and 188.17 kg protein on total lactation. The average age of first calving at the studied herd for 1061 days (34 months) is set to the maximum limit and needs to be improved.

Dry period lenght in lactations dynamic had averages between 76 and 90 days. Although the variability of this indicator is very strong, we can say that almost all the breeders are tracking the weaning of the cows within an optimum term respecting the dry period necessary to resume production activity.

Analysing the average parameters of production and reproduction at Romanian Spotted breed from this county the following essential aspects are distinguish:

- the age of first calving, 1061 ± 11.60 days, of almost 35 months, marks actually a higher age than the desired one for this breed with 10 months, something which in turn is reflected with implications on subsequent costs and on production achieved;
- milk yield on normal lactation is 4212 ± 50.89 kg milk;
- milk yield on total lactation is 4846 ± 67.77 kg milk;
- birth rate stands at values of 84.33%;
- milk yield on economic life is 14538 kg milk;
- period of development is 3 lactations;
- productive life is 6 years.

Table 1. Dynamics of main milk production indices at Romanian Black and White breed from Bistrita-Nasaud County

Indices	UM	Lactation					
		1	2	3	4	5	Average
Number	head	386	242	216	162	132	1194
Lenght of total lactation	Days	388.42	360.90	342.21	339.45	334.78	354.27
Quantity of milk	Kg	5648.17	5266.75	4498.55	4428.59	4293.72	4846.94
Quantity of fat	Kg	225.68	208.99	177.97	176.24	170.59	192.98
Fat content	%	3.97	3.94	3.95	3.94	3.95	3.96
Quantity of protein	Kg	228.44	217.79	166.82	170.77	157.30	188.17
Protein content	%	3.44	3.44	3.45	3.41	3.42	3.43
Lenght of normal lactation	Days	296.77	293.50	289.94	291.34	288.76	291.78
Quantity of milk	Kg	4665.58	4522.88	4012.73	4006.18	3849.90	4212.11
Quantity of fat	Kg	183.65	178.67	157.87	158.25	152.46	166.29
Fat content	%	3.91	3.92	3.92	3.92	3.94	3.93
Quantity of protein	Kg	185.02	185.66	151.35	152.83	141.37	162.46
Protein content	%	3.36	3.41	3.43	3.38	3.40	3.39
Mamar repose	days	87.01	86.34	81.28	90.64	76.62	83.20
Calving interval	days	464	433.87	421.17	432.87	409.73	432.80

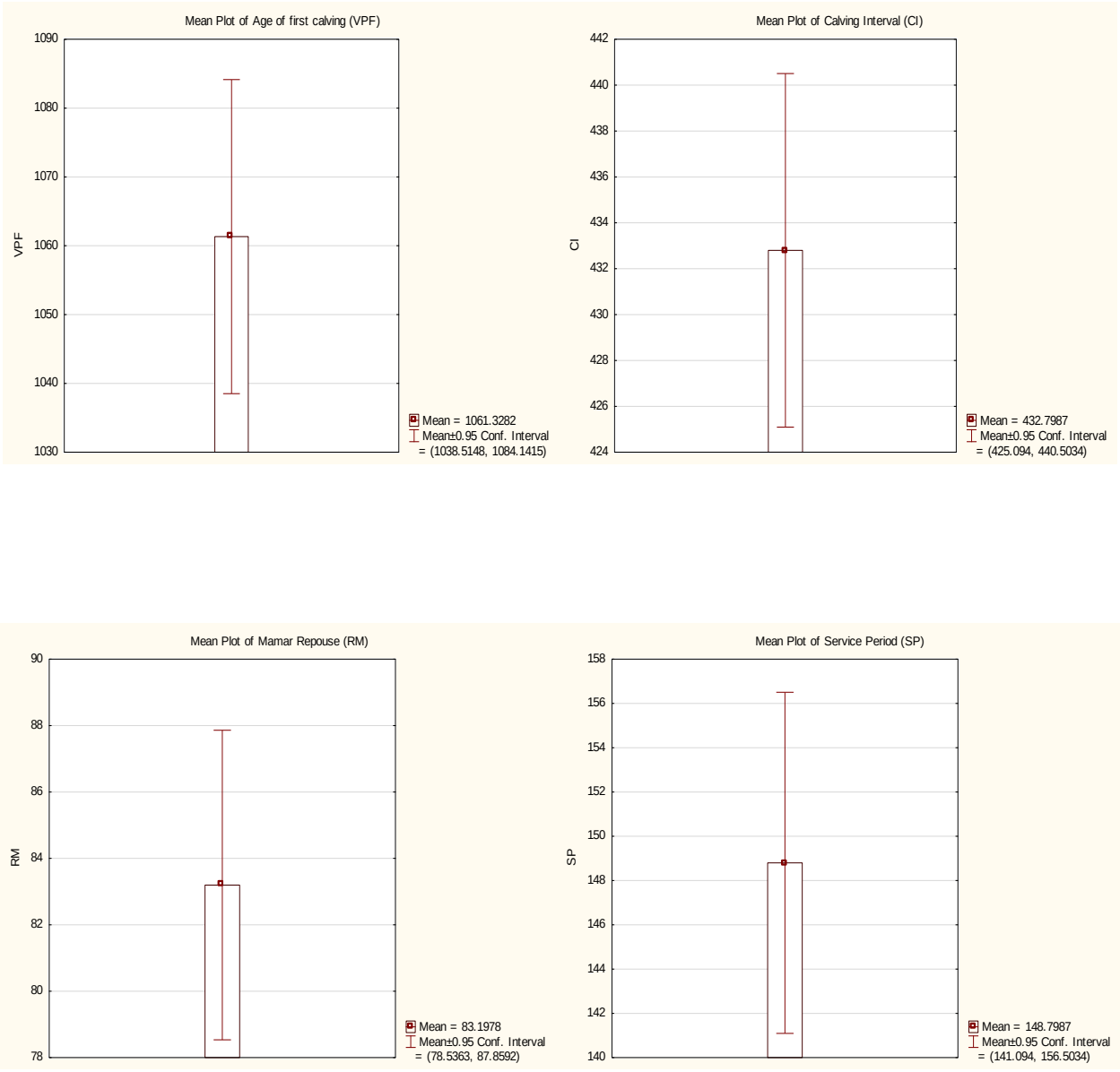

Fig. 1. Average values of reproduction indexes for Romanian Black and White breed

The quantitative dairy production of these breed is above the national average but still characterized by lower values according to European Union members. A real challenge for the romanian farmer is to obtain qualitative agricultural products according to the European Union legislations. From vegetable and zootechnical point of views, this challenge is very hard to complete due to the fact that agricultural and alimentary products in European Union reached the saturation point, and represents a barrier for the cattle breeding.

CONCLUSIONS

The research allowed to establish the main qualitative and quantitative properties of milk production, precocity and reproduction. For all the Romanian Black Spotted cows holdings from this county, the variability estimates reflect very heterogeneous groups and the lack of rigorous selection, with retention and reproduction of the most valuable genotypes as well as the strong influence of the operating technological factors primarily feeding. From the researches

carried it appears that annually is lost a large number of calves with failure of fertilization and even at pregnant cows, due to organizational weaknesses and exploiting in less favorable technological conditions the pregnant females. To achieve the most high milk production, growth and improvement of indigenous breeds specialized for milk production and also with high productive potential, it is necessary to ensure technical and material bases suitable in order to apply optimal growth technologies.

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