

RESEARCH ON APTITUDE FOR MILK PRODUCTION IN FRENCH MONTBELIARD BREED

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Abstract

Montbeliard breed was formed Franche-Comté region, Swiss-owned farms came in France in the eighteenth century. In terms of origin threaded Montbeliard breed comes from *Bos taurus* Frontosus, part of Group races in red spotted, Simmental type.

Herd-book was opened on December 2, 1889, and official control of milk production is from 1923.

The objective of our work is to determine the production potential of heifers imported from France in the Moara Domneasca experimental farm, University of Agricultural Sciences and Veterinary Medicine Bucharest. The study was conducted on a herd of 20 cows mothers in France. In the analysis performed we found that dairy production has varied between 3823 kg milk a cow located in first lactation at 11299 kg in six lactation. The average yield achieved in a normal lactating mothers heifers is 6921 kg milk, 3.66% fat and 3.23% protein. Age at first calving of cows mothers are on average 32 months.

Key words: milk, lactation, control, adaptation, quality

INTRODUCTION

Montbeliard breed is part of the Simmental breed (mottled red or yellow). It was formed in Franche-Comte region, which were established in the eighteenth-century Swiss farmers.

Cattle imported from France and Switzerland have interbred with the local (Femeline and Taurache), two races have now disappeared. Montbeliard was selected especially after milk and increased skills in pure-bred until 1965. As a result, the end of the first quarter of the twentieth century, French farmed first reached 7000 kg milk per year and in 1947, the threshold of 10,000 kg of milk per year. Since 1968, France was used for infusion of the cross Red-Holstein from Canada and the U.S. with a share of blood, below 25%. Following the cross was able to improve, especially the ability of milk production and milking machine level, and early and economy towards the production of milk. Thus, it was enough today to be placed

in Montbeliard breed leading breeds in milk production with Prime Holstein.

From France Montbeliard breed has spread to other European countries, especially in Switzerland (Suisse Romande), is integrated into the Swiss Federation of growth of the breed "mottled red, but imported and Romania (Transylvania Plateau, Plain Danube and Moldova). The morphologically, Montbeliard breed is characterized by: large body development, differentiated according to sex (body weight, 600-750 kg cows and bulls, on average 1100 kg, with variations between 1000 and 1200 kg); harmonious body conformation and body segments-head with the following relatively smooth, with convex crown, long and broad forehead, face proportionate, gentle eyes and eyes with bright, middle-neck developed, with some creases on its sides, developed and medium chain loose neck and head and neck, trunk-developed tendency to „pear; top line straight back and its well-developed, long croup, wide and

slightly oblique, with tail well set, broad chest and well developed udder and caught, symmetrical morphological, with rich vascularity, size and shape nipples normal and symmetrical.

MATERIAL AND METHODS

In autumn 2010, the Experimental farm-Moara Domneasca were imported from France 20 Montbeliard breed heifers. This study aimed to highlight the productive potential of animals imported into the analysis carried out on Pedigrees. It will study the performance achieved in heifers taking into account mothers completed lactations. Of pedigree data are statistically analyzed and interpreted scientifically.

RESULTS AND DISCUSSION

Based on existing data Pedigrees imported animals was performed statistical processing and interpretation of results. The

animals were purchased from different locations were subjected to a quarantine center in southern France and then brought to the teaching farm. Analyzing the dynamics during lactation differences were found in one lactation to another (Table 1). Thus, at first lactation cows had an average of 294.45 days of lactation, with a very low coefficient of variability (5.52%). Then gradually decreased during lactation, reaching its lowest value in the fourth lactation (281, 92 days). On average, an analysis of all lactations (Table 2) was calculated an average of 289.48 days, with a coefficient of variation of 8.02%. In various regions of France has the value of total lactation period ranged between 294 days and 325 days [2]. Gheorghe Georgescu and Vidu Liviu (2009) were determined in the Montbeliard breed animals in Romania from an average of 340 days, with about 50 more days. [1].

Table 1 The dynamics of quantitative parameters of milk production in cows bred in France Montbeliard

Lactation	n		Parameter			
			Lactation duration (days)	Milk Quantity (kg)	Quantity fat (kg)	Protein quantity (kg)
Lactation 1	20	X±S _x	294,45±3,63	6086,6±266,93	226,25±10,26	201,22±9
		V%	5,52	19,60	20,28	19,99
Lactation 2	20	X±S _x	292,30±6,14	6921,55±325,74	250,1±10,03	223,75±8,83
		V%	9,39	21,03	17,93	17,64
Lactation 3	17	X±S _x	290,05±3,82	7054,70±362,86	259,88±11,40	229,58±9,62
		V%	5,43	24,19	18,07	17,27
Lactation 4	14	X±S _x	281,92±8,78	7185,64±376,06	265,21±11,35	228±11,27
		V%	11,65	19,57	16,01	18,5
Lactation 5	10	X±S _x	284,6±6,87	7373,5±339,95	268,5±13,25	235,2±8,35
		V%	7,63	14,57	15,60	11,22
Lactation 6 and 7	10	X±S _x	288,4±7,60	7542,7±464,22	276,4±17,68	239,9±13,4
		V%	8,33	19,44	20,21	17,75

In terms of quantity of milk, it ranged from 6086.6 kg 7542.7 kg in cows and primiparous cows at lactations of sixth and seventh. Coefficients of variance values indicate a low homogeneity in the herd. The average amount of milk had a value of 6921.47 kg, with a

coefficient of variability of 20.41%. Graph 1 show the evolution of milk during lactation. In France, 382,965 lactations analysis we obtained a mean of 6671 kg of milk, which highlights the higher potential of the cows examined by us, purchased heifers respectively [3].

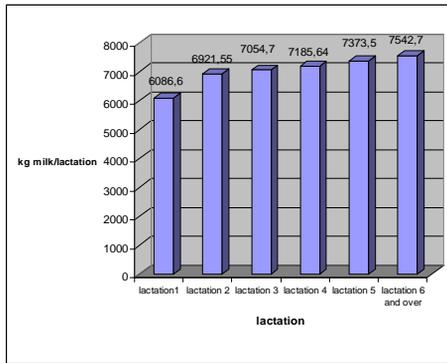


Fig. 1 Succession dynamics of milk in lactation cows Montbeliard

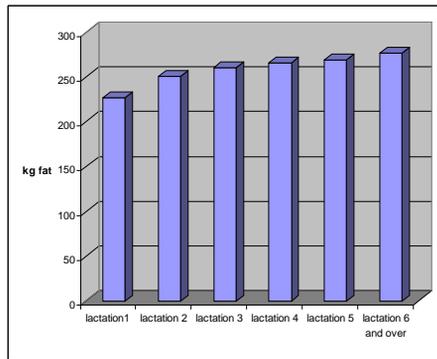


Fig. 2 Evolution of the quantity of fat in lactation sequence

The analysis shows that the amount of fat during the life of animals subjected to analysis increased the amount of fat. The mean amount of fat is 253.9 kg, with a variance of more than 18%. The chart below can be seen that growth.

Regarding protein, it increases up to 5th lactation and over, reaching a value of 239.9 kg. The average amount of protein was 223.57 kg, with a high variability (18.02%), indicating a less homogeneous population. These high values of the coefficients of variability may be purchased explicate by the fact that animals came from different farms in France.

Table 2 Average values of quantitative and qualitative parameters of milk production in cows bred Montbeliard

Parameter	n	$X \pm S_x$	V%
Lactation duration (days)	91	289,48±2,43	8,02
The amount of milk (kg) / total lactation	91	6921,47±148,11	20,41
The amount of fat (kg)	91	253,92±5,01	18,84
The amount of protein (kg)	91	223,57±4,22	18,02
% Fat	91	3,66±0,02	16,12
% Protein	91	3,23±0,01	17,05

In terms of quality milk from animals subjected to analysis we determined mean values of 3.66% fat to 3.23% for proteine. For milk fat content, the mean effective whole of France was in March 2010 3.88%.

For protein percentage, the mean total number in France was in 2010 of 3.26%, comparable to that identified by us (3.23%) in cows analyzed [3].



Fig. 3 Montbeliard breed

Overall, the Montbeliard breed imported from France, although the process of acclimatization had performed very well in milk production, especially since growth habitat is significantly different from home, far exceeding the performance of local breeds, being competitive with Friesian breeds Spotted and red and black. However, Montbeliard is a breed that has good skills and the meat production, especially when used intensively fattening system. Thus, the gain achieved high growth, low specific fuel consumption, senior quantitative and qualitative indices of carcass and meat.

CONCLUSIONS

Analyses carried out leading to the following conclusions:

-the genetic potential of heifers imported from France is superior to existing local breeds in our country;

-resistant animals, have good rusticity and easily adapted to growing conditions;

- total duration of lactation has an average of 289.48 days, the average was 6921.47 kg milk, a higher value of the national average in France (6671 kg).

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