STUDY CONCERNING DAIRY CATTLE NUMBERS AND COW MILK PRODUCTION IN THE TIMIS COUNTY, ROMANIA

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Abstract: *Total cow milk production of a country depends not only on the number of dairy cattle but also on the mean production of cow milk. The larger the mean production of cow milk per cow, the higher global production is and the lower the cost price of the cow milk is. The increase of the mean cow milk production per cow largely depends on the genetic material on the dairy cattle farm. Estimated cow milk production and the necessary number of calves also depend on the delivery of a calf per cow every year. We also need to strictly monitor the insemination and farrowing plans. At the level of the year 2008-2009, there were, in the Timiş County, Romania, 8,099 exploitations that marketed cow milk through direct sale (27,583,019 l) while in the year 2012-2013, only 7,064 exploitations marketed 30,914,481 l of cow milk: it is obvious that cow milk production increased due to the decrease of the number of exploitations.*

Keywords: *dairy cattle, cow milk, cow milk quota, Timiş*

INTRODUCTION

Dairy cattle raising ranks among the first types of animal productions in both Romania and abroad: dairy cattle produce 90% of the total amount of cow milk consumed in the world, and about 80% of the total amount of cow milk consumed in Romania [3,7].

Raising dairy cattle for cow milk production contributes to the profitability of other farm species due to the dairy products. Using skimmed cow milk and whey in pigs' and broiler chickens' feed ensures quicker growth and saving concentrated feed [1].

The total amount of cow milk produced in an establishment or country depends on three main factors: the number of dairy cows per 100 ha, the mean production of cow milk per fed dairy cow, and the accomplishment of the mounting and farrowing plans.

The number of dairy cows per 100 ha influences directly the cow milk production [8,10]. Therefore, they have taken severe measures to identify good reproduction dairy cattle, to limit the number of dairy cattle to be slaughtered for different reasons (except for bare ones), and to accomplish the mounting and farrowing plans [2,6,9].

Total cow milk production of a country is influenced not only by the large number of cows, but also by their mean cow milk production. The larger the mean cow milk production per dairy cow, the larger the global cow milk production and the lower the cost price of the cow milk [3]. Improving the dairy cattle plays a considerable part in the increase of the mean cow milk production per dairy cow.

Cow milk production in cows is closely linked to reproductive activity. Only if every cow delivers a calf every year it is possible to produce the estimated amount of cow milk and to increase the number of dairy cattle. This is why we need to monitor very strictly the mounting and farrowing plans and to treat in due time sterile animals [4,5].

MATERIAL AND METHOD

Due to the particular importance of cow milk in human nutrition, we have undertaken the analysis concerning the number of dairy cattle per exploitations, the cow milk production, and the cow milk quota in the Timiş County, Romania. We have appealed

to the existing statistics to take the necessary measures that could improve individual production per dairy cow.

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RESULTS AND DISCUSSION

According to statistics, there were, in 2012, in the Timiş County, Romania, 53,198 dairy cattle and, in 2013, only 42,781 dairy cattle, as shown in Table 1.

Table 1.

Dynamics of dairy cattle in the Timiş County, Romania (2012-2013)

Year	Number of dairy cattle
2012	53,198
2013	42,781
Difference	-10,417

As we can see, the number of dairy cattle in the Timiş County, Romania, in 2013, decreased with 10,417 dairy cattle compared with 2012.

They provide complementary direct national payments in the animal production sector (be they physical or legal persons) who own, raise, and exploit animals identified and recorded in the national system (dairy cattle breeders) for both the cow milk and the beef schemes.

During 2012-2013, the Payments and Intervention for Agriculture Agency of the Timiş County, Romania, recorded a decreasing number of both beneficiaries and dairy cattle, as shown in Table 2 below. It should not be ignored that one of the causes that lead to the decrease of the numbers of both dairy cattle breeders and dairy cattle was the eligibility conditions enforced by the current legislation concerning farm size, cow milk quality, and NTG.

Table 2.

Payments demanded by dairy cattle breeders

Year	Number of beneficiaries	Number of dairy cattle
2008	3,155	28,413
2009	2,702	26,432
2010	2,497	26,323
2011	2,568	27,873
2012	2,644	28,972
2013	2,178	25,551

According to statistics, in the quota year 2008-2009, there were 8,099 exploitations that marketed 27,583,019 l of cow milk through direct sale, in the year 2012-2013, a number of only 7,064 exploitations marketed 30,914,481 l of cow milk, i.e. a decrease of the number of exploitations and an increase of the cow milk production, as shown in Table 3 below.

Table 3.

Beneficiaries of the cow milk quota in the Timiş County, Romania

Year	Number of beneficiaries	Cow milk marketed through direct sale (l)

2008-2009	8,099	27,583,019
2009-2010	7,853	27,179,640.5
2010-2011	7,866	27,086,952
2011-2012	7,096	29,526,309
2012-2013	7,064	30,914,481

We need to take into account that this bonus is awarded per t of product as recorded upon direct delivery and/or sale in the System of administration of the cow milk quota in the quota year.

If we compare the years 2008-2009 and 2012-2013, we see that the number of beneficiaries who operate dairy cow farms decreased while the total amount of cow milk tends to remain constant. The same happened in the next period, when the number of exploitations decreased to 7,064 but the total amount of cow milk marketed increased from 27,853,019 l (produced by the 8,099 exploitations) to 30,914,481 l (produced by 7,064 exploitations).

Though the number of exploitations decreased with 1,035, the amount of cow milk marketed increased with 3,331,462 l, which shows that the dairy cattle breeders invested in the modernisation of the exploitations by implementing new exploitation technologies, new feeding technologies, and performing biological material that responds very well in the climate conditions of the Timiş County, Romania.

CONCLUSIONS

Cow milk production marketed on the market of the Timiş County, Romania, increased from the quota year 2008-2009 to the quota year 2012-2013, reaching 30,914,481 l of cow milk.

During this period, the number of exploitations under the milk quota regime diminished with 1,035, but the cow milk production increased with 3,331,462 l, which shows that the farmers made investments in the raising and exploitation of dairy cattle and that the dairy farms specialised in a single milk morpho-productive type of dairy cattle with high productions in performing exploitation conditions.

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