



EVALUATION OF SOME REPRODUCTION PARAMETERS OF DAIRY CATTLE FARMING IN THE EASTERN REGION OF ALGERIA: CASE OF THE WILAYA OF BEJAÏA

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1. Introduction

In Algeria, dairy cattle breeding in its current form is a recent activity. It was indeed in the early 1970s that our country called on the importation of so-called modern dairy cows to perfect its milk production. This new sector is at the origin of this strong demand for dairy products that our country is currently experiencing.

Like the other regions, Eastern Algeria, due to its agro-pastoral vocation, has opted for a dairy status. Given that the control and management of reproduction and production in local conditions are the pledges of the promotion of breeding,

the present study traces for objectives the determination and the evaluation of some parameters of reproduction and milk production in 361 dairy cows on a farm located in the wilaya of Bejaia over four successive agricultural campaigns (2012/2013 (n = 115), 2013/2014 (n = 95), 2014/2015 (n = 85) and 2015/2016 (n=66)).

5. Conclusion

At the end of this study, which focused on the evaluation of some zootechnical parameters of reproduction of imported dairy cattle, it was found that there is heterogeneity in the results of the different campaigns.

Problems relating to reproduction and the management of livestock in general exist in the unit. Among these problems, we can cite poor heat detection, non-compliance with breeding deadlines after calving linked to uncontrolled feeding, as well as the non-existence of the heat synchronization technique and calving groupings.

On the other hand, in terms of artificial insemination, this one was well controlled, which resulted in high rates of cows fertilized from the first insemination.

2. Materials and Methods

The data used constitute the results of technical support carried out regularly by the services of the Technical Institute of Livestock (ITElv) at the level of the agro-zootechnical and livestock complex (CAZEL) located in the eastern region of Algeria (Wilaya of Bejaia). They were collected from the database of the CIZ (Zootechnical Information Circuit) of this same institution and then analyzed using Excel 2013 software, for carrying out the various calculations, as well as for producing the tables and graphs representing the different parameters studied.

The study region was chosen because first of all it constitutes one of the most important dairy basins of the country and then for the availability of information concerning the feeding, lactation and reproduction of the herds. A total of 361 dairy cows of Holstein and Montbéliarde breeds belonging to this farm were the subject of this study.

The different reproduction parameters studied were:

- Fertility parameters: the fertility rate, the success rate in 1st insemination (SR1), the success rate at the 2nd insemination (SR2) and the rate of cows with 3 inseminations and more (SR3 and more).
- Fecundity parameters, namely the intervals: calving - 1st insemination [C-AI1] and calving - fertilizing insemination [C-AIF].

3. Results and Discussion

The analysis of the various results concerning the reproduction parameters indicated that the average results for fertility (SR1 = 56 ± 13%, SR3 and more = 19 ± 3% and a fertility rate = 86 ± 10%) are considered good (close to the recommended standards), this can be explained by a good practice of artificial insemination in right moment.

Contrary to the fertility parameters, the infertility problems in the herd studied (C-AI1 = 138 ± 18 days and C-AIF = 183 ± 15 days), expressed by the lengthening of the delays in breeding have had direct repercussions on the delay in fertilization and on the interval between two successive calvings. This can be explained by the errors made in the conduct of the reproduction, in particular with regard to:

- Poor heat detection as well as the long interval between the moment of heat detection and the moment of insemination;
- The poor body condition in which cows generally found themselves after calving, which forced them to postpone their reproduction until the resumption of good body condition;
- Diseases related to reproduction, more particularly metritis encountered after calving;
- And finally, the energy deficit at the beginning of lactation which led to a decrease in the fertility and fertility of the cows and a weaker lactation.

4. Figures and tables

Fig1. Fertility balance sheet

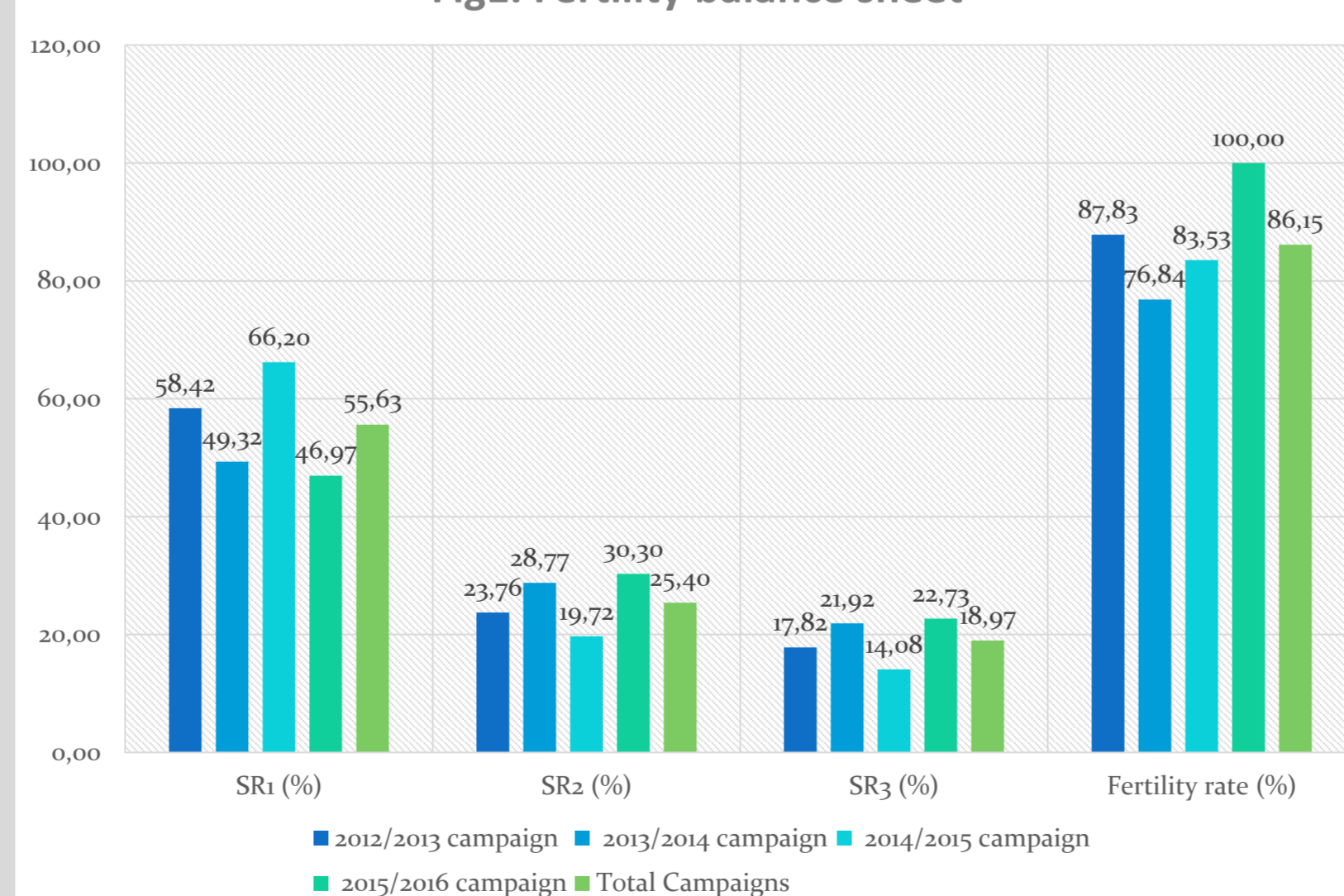
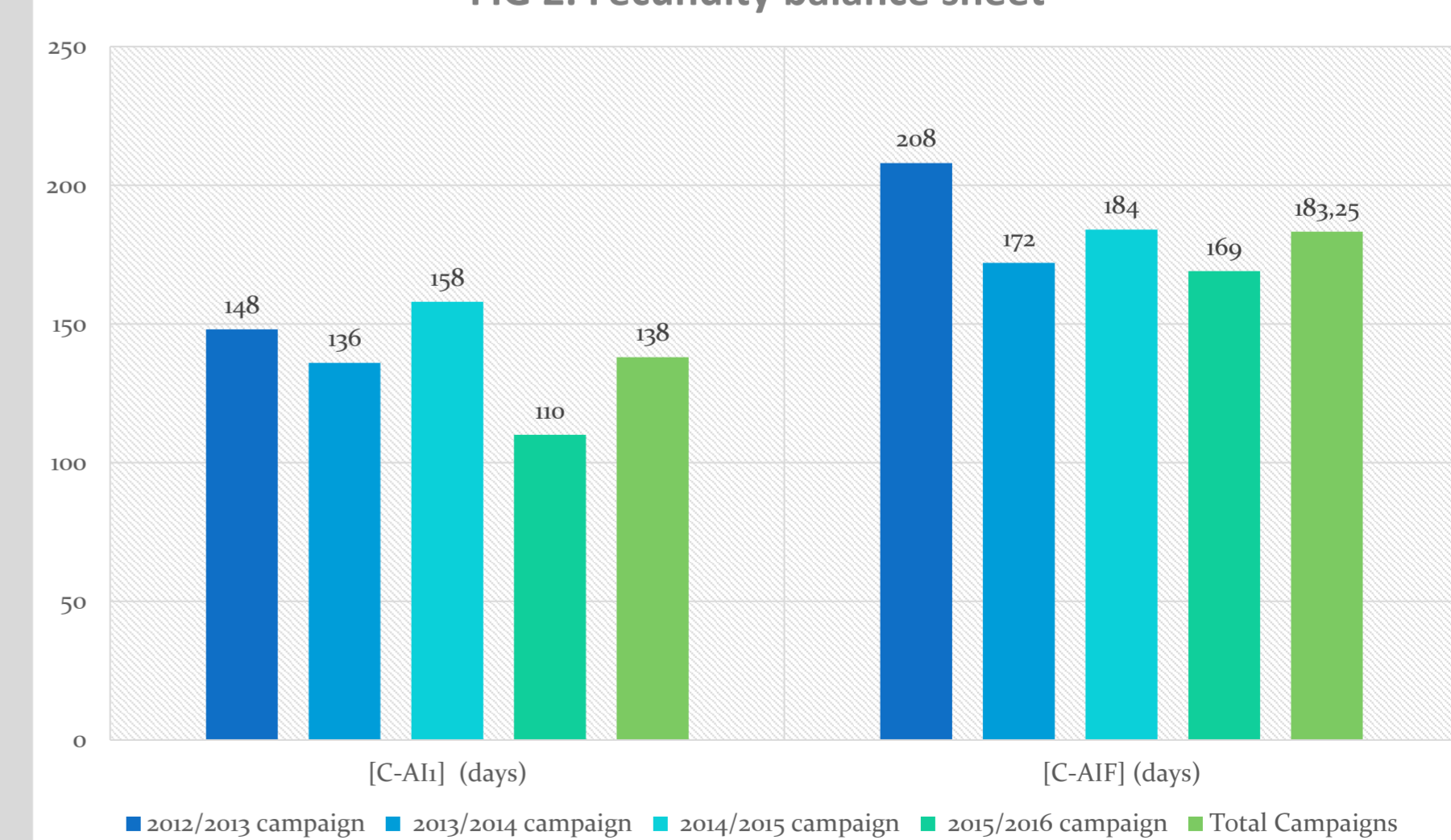


FIG 2. Fecundity balance sheet



6. Acknowledgements / References

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