

A descriptive study of natural nursing procedures in French dairy farms

Yannick Le Cozler^{1,2}, Catherine Disenhaus^{1,2}, Elisa Arnaud¹, Lucie Beugnet¹, Marie Charleuf¹, Pauline Denis¹, Marie Roig-Pons¹, Dominique Pomies^{3,4}, Bruno Martin^{3,4}, Chantale Chassaing^{4,3}, Audrey Michaud^{4,3}

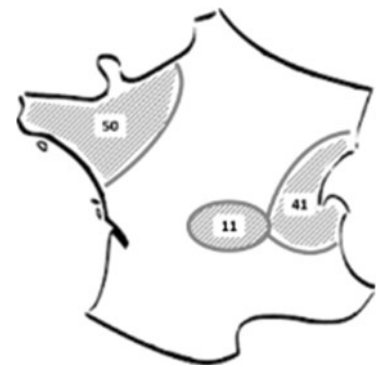
¹Agrocampus-Ouest, 65 rue de St-Brieuc, 35 042 Rennes cedex, France, ²INRA, UMR 1348 Physiology, Environment and Genetics for Animal and Livestock Systems, 35590 St-Gilles, France, ³INRA, UMR 1213 Herbivores, 63163122 Saint-Genès-Champelle, France, ⁴Vet AgroSup, 89, avenue de l'Europe - BP 35, 63370 Lempdes, France

E-mail: audrey.michaud@vetagro-sup.fr

Take home message Various methods and practices are available to efficiently rear calves through suckling in dairy cows, using specific dairy nurse cows or not.

Introduction On most dairy farms, calves and cows are separated shortly after birth, but animal welfare associations are questioning such practices more and more. Alternative methods (Johnsen *et al.*, 2016), based on calves suckling their mother or a specific nurse, have been adopted for a long time by some dairy farmers, for purposes such as a reduction of labor or improvement of calves growth and health. However, practical (how these methods are applied within farms) and human (motivations, perception...) aspects are scarce and not very well-known in France. The present study, based on a descriptive survey, aimed to fulfill such lack of information.

Material & methods A semi-quantitative survey was designed and conducted from January to March 2018 and comprised results from 102 farms. Farms where calves were not artificially fed were identified by different technicians and operators. Farmers were selected if calves stayed with their mother ("Fed by their dam, FBD; n = 59), a nurse cow ("Fed by a nurse cow", FBN; n = 13) or both (*i.e.*, fed first by their dam and then by a nurse cow; "mixed"; n = 30) at least 24 hours. To get the highest variability in breeds (Holstein, Montbeliarde...), type of farming (organic or not), facilities (tie-stall or not, milking parlor...), survey was conducted in west (n = 50), middle (n = 11) and east (n=41) of France (Figure 1).

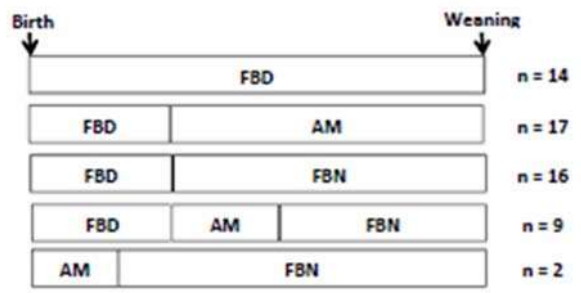


The survey comprised general description, nursing procedures, perception of performances of calves and cows, behavioral aspects and farmers' perception. It was completed either through phone call (n = 56) or face to face interview (n = 46). Only descriptive results are presented in this paper.

2.2 Labor Unit (min 0.5; max 8.5)
 114 ha (min 11; max 500)
 66 dairy cows (min 8; max 210)
 56% Organic farming

Results & discussion Herd size varied from 8 to 210 dairy cows and out of the 102 farms studied, 56 % of them were organic farms. A wide diversity of practices among farms was noted, observed in both small (≤ 70 dairy cows) and large herds. FBD was more frequent in small herds compared to FBN or "mixed", but equally distributed in large sized herds. In detail, 5 different types of nursing were observed, from 58 farms where such details were available (Figure 2). According to farmers, these practices were efficient to save time and improved working conditions (quoted by 47 and 29 farmers, respectively). Eighty per cent of farmers considered that, regardless of the nursing procedure, these methods resulted in a decrease of diarrhea frequency in comparison of previous artificial nursing. If they agree for a better welfare for calves, they also considered that weaning is a stressful situation especially for the cows.

Figure 1 Localization of the 102 farms included in present study and variability of surveyed farms.



FBN : fed by a nurse; FBD : Fed by their Dam; AM: Artificial milking

Figure 2 Schematic representation of nursing procedures observed in 58 farms where detailed procedure was available.

Conclusion A diversity of systems and methods exists to rear calves through suckling, either by their mother or another nurse cow. According to most of the farmers in the present study, these practices are easy to use and manage, in a large variety of farms. They also considered that calves' health and welfare are improved, even though weaning is a hard and stressful situation for the cows. Moreover, it is an opportunity for the farmer to save time, money and improve working conditions.

Acknowledgements This investigation was supported by performed by master students from both Agrocampus Ouest and VetAgro Sup high School. Authors thanks Gala Association for its financial support.

References

Johnsen JF, Zipp KA, Kälber T, Passillé AM de, Knierim U, Barth K and Mejdell CM 2016. Applied Animal Behaviour Science 181, 1–11.