

# Farmers' view on the reintroduction of grazing for dairy cows in the Niort plain (France)

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**Abstract:** A survey was carried out to assess farmers' views on dairy cow grazing in a region where, due to a lack of water and biodiversity protection, the replacement of maize by grass is encouraged. The results show that farmers think that grass is possible only for certain types of farm and cattle. Reverting to grazing involves a decrease in production per cow per year, and farmers with huge investments in cowsheds or who exhibit at agricultural shows cannot accept these consequences. But there are some young farmers, with the 'right' type of fields, who are concerned with ecological issues, and whose fathers have grazed cattle in the past, who are reverting to grazing. Issues related to grazing management, especially how to manage a mixed ration with grazing and winter feed, are discussed.

**Keywords:** dairy cow grazing, farmers' conceptions, farm survey, Niort plain

## Introduction

Dairy cows in the Niort plain have been fed with maize silage and soybeans since the 1980s. However a shortage of water has raised doubts about irrigation since 2005, and researchers and advisors are looking for new methods of feeding. At the same time, the protection of a bird threatened with extinction (the little bustard) leads researchers to propose an increase of grassland areas in the region. A previous enquiry showed that farming systems have changed: farmers are diversifying their feeding methods and grassland areas are increasing (Havet et al., 2007). But is it possible to graze dairy cows? We tackle this issue from a socio-anthropological viewpoint. We study how the farmers' community thinks about the reintroduction of grazing and the adaptation of their systems. There are two reasons to undertake this study: (i) there is a link between the way people conceive of technical issues and their activities, (ii) it is necessary to understand how farmers think to be able to interpret local changes and to propose relevant advice.

## Method

Comprehensive interviews were carried out in two groups of villages. The farmers were chosen to have the maximum of diversity in relation to their age, their farm size, and whether or not they practice grazing. Eleven farmers were interviewed: five who practice it, five who do not, and one retired. We asked two open questions: "can you talk about the changes in dairy cow feeding, for you and your neighbours?" And "can you talk about the advantages and drawbacks of grazing?" Interviews were transcribed and analysed with linguistic methods (Darré et al., 2004; Mathieu, 2004).

## Results

All the farmers agree that grass is the best crop for environmental sustainability. Grazing provides a good product with a reputable origin. Grazing can be practised only if the cowshed is in the middle of the grazed plots. In this peri-urban area, it is impossible to drive the herds through the villages or on the roads. Cows must be able to return to the cowshed when they want, one at a time, and they must not have to walk a lot. For these reasons, large herds (more than 60-70 cows) cannot graze: the area needed would be too large, and herds of this size are difficult to drive in the open.

Whether they practice grazing or not, farmers agree that it is good for the cows. They have healthy legs, are content and not nervous. Grazing is associated with freedom. In this region, grazing lasts only 3-4 months, between March and June, because of summer drought. Very early grazing, in January and February, is possible but not reliable, due to the soil's capacity to bear animals. At such

times farmers may have to drive their cows out and bring them back in frequently because of the weather. Dietary changes are regarded as a problem.

Farmers distinguish two kinds of cows: those which produce 10,000 kg of milk per year, and those which produce 7-8,000 kg. Of the former, they say: *"We ask a lot of them. They are tired."* Then again, *"We have got to get it right. They must always have the right amount of everything. It's out of the question that feeding values should vary! You notice it at once!"* Farmers think that when the cattle fail to receive exactly what the farmers think they must have, these cows will have problems of fecundity. The turnout is linked with a peak of soluble nitrogen, which can cause fecundity problems in the following year: *"It is in the next year that you will notice it!"* Farmers say that Holsteins, if grazed, will give a lot of milk but lose condition. This leads to other problems. The farmers who exhibit at agricultural shows assess cows in terms of total quantity of milk during their life. Hence they are afraid of abortions which can happen at turnout: *"a pregnant cow which goes to grass aborts, and has to be re-inseminated after three months: it will be difficult to keep it. And me, culturally, I want that my cows to get old"*. This kind of cow is not well adapted to grazing. Conversely, a cow which produces 7-8,000 kg of milk per year is associated with extensive schemes. It is considered as having a better resistance, not being so weakened. One farmer, who competes at shows, even considers that they have the same requirements as a maintenance animal. These cows are considered as adapted to grazing. The Normande breed is considered to be better suited to grazing because the cows do not lose their body condition as Holsteins are thought to do.

No farmer would consider grazing without giving winter dietary supplements. During winter, they mix all the feeds and measure the daily allowance by volume for a given number of cows. During grazing, they reduce the volume distributed in relation to the number of cows: *"I have 60 cows, and during grazing, I give them feed for only 40."* The share of the winter diet distributed during grazing is high (50 to 70 %).

The obligation to bring cowsheds up to ecological standards leads farmers to combine two or three farms, and to build a new cowshed. They calculate the cost of the space per cow to estimate the cost of the building. Consequently they say that they do not want to have 4-5 more cows, but want to fulfil their milk quota with as few cows as possible. This means that they have to obtain the highest production per cow. This reasoning is hardly compatible with grazing.

The economic advantages of the alternatives are not clear. Farmers think that *"there is probably not an enormous difference in costs"*, but they say also that they do not really know. What they know is that the cost of diesel oil is attractive for grazing and that there are no subsidies for grass.

Labour requirements for grazing are also a drawback: *"it takes more work than one thinks"*, or *"one spends as much time, or more, as those who don't practice grazing"*. What is different is the type of labour. This is assessed in relation with farmers' likes and fears. For example, one who practices grazing says: *"I enjoy going to the meadows and watching the cows: I meet people and we talk"*, and another who does not practice grazing says: *"when they have been fed in the morning, I can leave to work in the fields without anxiety. If they graze, suddenly you have a phone call - they have broken the fence and escaped."*

From the farmers' point of view, there are two types of farmers who practice grazing: (i) farmers, known as "extensive" (whose cows produce 8,000 kg of milk per year). They have never stopped grazing due to the lack of maize; and (ii) people who believe strongly in ecological issues try to reduce their use of fertilisers and pesticides. They have economic reasoning, but also ecological.

Farmers who do not practice grazing say of the others: *"they are very precise technically"*. They consider that: *"if I had to put my cows in the fields, I would be completely lost."* The size of plots is not a big problem; there are figures for the number of acres per cow in the specialised journals. But for management, the only solution would be to see what others do. Effectively, farmers who practice grazing either have never stopped grazing, or have a father who practised grazing.

The issues important to grazing farmers are: how to identify the grass stages by eye; the sequence of rotation of the meadows; associations of different species of grass to extend the time of grazing; how to assess the quantity of winter feed to give during grazing; relation between body condition and fecundity problems; organisation of paths and water points so that cows don't walk too far.

## Discussion

At present, dairy cow grazing is not developing much in this region, but it is a subject of debate. The main question for agricultural scientists is how to manage a mixed diet of grazing and silage. Another important question, in the more general context of replacing maize with grass, is: is it possible to formalize the required knowledge to manage grazing for farmers who have never practised it?

## References

Darré J.P., Mathieu A., Lasseur J. (eds), 2004. Le sens des pratiques. Conception des agriculteurs, conception des agronomes. Paris, INRA éditions.

Havet A., Martin P., Lelaure B., Laurent M., 2007. L'eau, principal facteur d'évolution des fonctionnements d'exploitations laitières en plaine de Niort. Actes des journées AFPP, 27-28 mars, Paris, 180-181.

Mathieu A., 2004. The meaning of practices: farmers' conceptions in agricultural development strategies. *Journal of Agricultural Education and Extension*, 10, 3, 101-109.