



## Autonomy and forage grasses in goat farming of western France First results of a sociological survey

D Inda, A.-L Jacquot, P.-G Marnet, C Disenhaus, J. Flament, B Coquard, B. Leroux

### ► To cite this version:

D Inda, A.-L Jacquot, P.-G Marnet, C Disenhaus, J. Flament, et al.. Autonomy and forage grasses in goat farming of western France First results of a sociological survey. Joint meeting FAO- CIHEAM Networks on sheep and goats and Mediterranean Pastures, Oct 2019, Meknes, Morocco. hal-02384316

HAL Id: hal-02384316

<https://hal.archives-ouvertes.fr/hal-02384316>

Submitted on 28 Nov 2019

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# Autonomy and forage grasses in goat farming of western France

## First results of a sociological survey

D. Inda<sup>1</sup>, A.-L. Jacquot<sup>2</sup>, P.-G. Marnet<sup>2</sup>, C. Disenhaus<sup>2</sup>, J. Flament<sup>2</sup>, B. Coquard<sup>3</sup>, B. Leroux<sup>4</sup>

<sup>1</sup> IRIS – EHESS. 54 bd. Raspail, Paris, France; <sup>2</sup> UMR Pégase – Agrocampus Ouest 65 rue de Saint-Brieuc, Rennes, France; <sup>3</sup> UMR CESAER – INRA. 26, bd Docteur Petitjean, Dijon, France; <sup>4</sup> GRESCO – Université de Poitiers. 8 Rue René Descartes, Poitiers, France.

---

**Abstract.** Our communication is based on the results of a multidisciplinary research (PSDR FLECHE – Fromages et Laites issus d'Élevages de Chèvres conduites avec de l'Herbe – 2016-2020) which aims to study the potential of grass valorization in goat systems, with the dual objective of strengthening the economic resilience of farms and the social image of the dairy goat sector of Western France. The latter currently represent almost half of the national goat population and 58% of the milk supplied in France. The sociological aspect of the research concerns the representations, value systems, interests and constraint systems (technical, economic, etc.) that guide the practices of all the actors in the sector: farmers, upstream and downstream actors. The objective of this approach is to analyse, at all levels of the value chain, the incentives and obstacles to a possible transition to more grassy feeding systems. Based on 76 semi-directive interviews, this paper presents the first results of this survey by showing how contextual elements (socio-economic, professional, etc.) impact farmers' choices of practices. While, in principle, the whole goat sector seems to be converging towards an agro-ecological transition that ensures its sustainability, in practice, each of its actors is confronted with a system of constraints that limit actual developments. The articulation of these obstacles seems to lead to a kind of inertia, which prevents the adoption of practices that are nevertheless perceived as recommendable by most actors.

**Keywords.** Autonomy, forage grasses, goat, sociology.

***Autonomie et fourrages herbagers dans les élevages caprins de l'Ouest de la France. Premiers résultats d'une enquête sociologique.***

**Résumé.** Notre communication s'inscrit dans le cadre d'une recherche pluridisciplinaire (Programme PSDR - FLECHE – Fromages et Laites issus d'Élevages de Chèvres conduites avec de l'Herbe – 2016-2020) qui vise à étudier le potentiel de valorisation de l'herbe dans les systèmes caprins, dans le double objectif de renforcer la résilience économique des exploitations et l'image sociale des filières caprines laitières de l'Ouest de la France. Ces dernières représentent actuellement près de la moitié de l'effectif national de chèvres et 58% du lait livré en France. Le volet sociologique de la recherche porte sur les représentations, les systèmes de valeurs, les intérêts et les systèmes de contraintes (techniques, économiques, etc.) qui orientent les pratiques de l'ensemble des acteurs de la filière : éleveurs, acteurs de l'amont et de l'aval. L'objectif de cette démarche est d'analyser, à tous les niveaux de la filière, les incitations et les freins à une éventuelle transition vers des systèmes alimentaires plus herbagers. A partir de 76 entretiens semi-directifs, ce papier présente les premiers résultats de cette enquête en montrant, notamment, comment les éléments contextuels (socio-économiques, professionnels, etc.) impactent les choix des pratiques des exploitants agricoles. Si, en principe, l'ensemble de la filière caprine semble converger vers une transition agroécologique qui en assure la durabilité, dans la pratique, chacun de ses acteurs est confronté à un univers de contraintes qui limitent les évolutions effectives. L'articulation des freins relevant des différents maillons de la filière, semble ainsi déboucher sur une sorte d'inertie, qui empêche l'adoption de pratiques pourtant perçues comme souhaitables par la plupart des acteurs.

**Mots-clés.** Autonomie - fourrages herbagers - caprins- sociologie.

---

## **I – Introduction**

In a context characterized by renewed attention to environmental issues and lower prices for agricultural products (Bourgeois and Demotes-Mainard, 2000), agricultural sectors are promoting the adoption of production systems that are both more sustainable and less costly, by reducing inputs (Lécole and Thoyer, 2017). Several authors suggest the use of agro-ecology to improve the autonomy and sustainability of livestock farms (Altieri, 2002; Dumont et al., 2013; Dumont et al., 2018). With regard to goat systems, the use of grass, when available, can be an asset to strengthen autonomy, control production costs and secure systems against economic hazards (Peyraud et al., 2014). In addition, the valorization of grass is likely to bring a positive image to goat cheese, as well as promote the preservation of biodiversity and landscapes. While recent research on dairy cattle farms has helped to identify the obstacles to changes towards grass-based feeding systems (Peyraud et al., 2010; Le Rohellec et al., 2013), there are still many unidentified and specific obstacles in order to develop these feeding systems in goat farms. In this context, the PSDR FLECHE project (Fromages et Laits issus d'Élevages de Chèvres conduits à l'Herbe) aims to study the technical, economic and social incentives and obstacles to the adoption of grass-based feeding systems in goat farms of western France which represent almost half of the national goat population and 58% of the milk supply (IDELE, 2018). It also aims to provide scientific and technical references in order to facilitate this transition. This article presents a sociological analysis of the motivations and obstacles to the adoption of these feeding systems, based on a survey conducted among the actors of the dairy goat sector.

## **II – Methodology**

The survey is based on semi-directive interviews conducted by the authors and 46 engineering and MSc students on "Science and Animal Production" (Agrocampus Ouest), specifically trained in interview survey methodology. The interviews were conducted between October 2016 and November 2017 with the actors of goat sectors of Poitou-Charentes, Pays de la Loire and Brittany regions. In total, we conducted 76 interviews with 34 diversified farmers (intensive; extensive with pasture system); 37 upstream and downstream actors (11 from processing companies; 6 from technical consulting organizations; 6 from cooperatives and service companies; 5 from agricultural training schools; 3 from health management institutions; 1 from a control authority; 1 from a slaughterhouse); 3 representatives of credit and rural economy institutions; 2 representatives of local authorities. The sample is not intended to be representative of the whole sector, but it reflects the diversity of actors and livestock farming systems. The transcribed interviews were subject to a cross-analysis of the discourses, in order to highlight the dispositions systems, representations systems and constraints systems that can influence the strategies and choices of practices of the different actors in the sector.

## **III – Incentives and obstacles to the development of grass-based feeding systems in the goat sector**

All actors in the sector share two concerns. The first is the medium- and long-term sustainability of goat systems, which are affected by recurrent economic crises, among other things, because of their low level of food autonomy (Bossis et al., 2014). The second concern is the risk of a deterioration of the social image of the sector, in the event that the media reveal the intensive production systems that predominate in goat farms. These concerns have led some actors in the goat sector to question the sustainability of current production systems, as also indicated by the emergence of a growing number of research programmes on this subject (FLECHE; REDCap; CAPHerb projects). Several of them (representatives of trade unions and producer

groups, technical advisory companies, processing companies, agricultural training institutions and some of the farmers) agree that a transition to grass-based systems would strengthen the resilience of farms on the one hand and bring farming practices closer to consumer expectations on the other. It may be added that, in line with consolidated national trends (Lécole and Thoyer, 2017), the promotion of an agro-ecological transition is also perceived as desirable by local and regional authorities.

With a favourable political context and many actors increasingly concerned by these issues, the conditions would seem to be set for the transition to take place. However, the effective evolution of feeding systems is hampered by a series of constraints at all levels of the value chain.

Milk processing companies are sensitive to issues related to the low resilience of farms (which may threaten the supply of milk) and the possible deterioration of the social image of the sector (which may threaten the sale of their products). However, they are also concerned that changes in management systems could lead to a reduction of total milk production, as well as difficulties in the logistical organisation of collection (in the event of double collection); the management of health risks (risk of listeria for raw milk cheeses); the management of fluctuations in milk production (greater in grass-based systems); and the management of variations in milk composition (variations in fat/protein ratings; increased presence of somatic cells). Thus, there is a tension between the favourable perception of a possible transition to grass-based systems and the tendency to maintain current systems that are easier to control.

On their part, technical advisory companies are also sensitive to previously mentioned issues, because their existence is closely linked to the sustainability of the whole sector. Nevertheless, the technicians interviewed tend to feel that they do not have the necessary skills to support a transition to grass-based feeding systems. This could be explained by the fact that grassland cultivation is not widely covered in higher agricultural education institutions, whose "Animal Production" curricula focus on zootechnical aspects and whose "Plant Production" curricula focus on field crops.

Training in grass-based feeding systems is also practically absent from agricultural secondary and professional curricula in the regions concerned by our survey. Indeed, while the teachers and technicians from the agricultural training institutions (EPLEFPA) surveyed say they are in favour of promoting these grass-based feeding systems, the educational farms of these institutions are faced with a shortage of staff. As a result, students are only exposed to systems that are less burdensome in terms of workload (distribution of corn silage and commercial concentrates). This lack of training seems to be one of the obstacles to the evolution of farmers' practices.

From the latter's point of view, other obstacles stem from the perception that the adoption of a grass-based feeding system implies considerable economic investments (acquisition of land, adaptation of buildings, purchase of suitable machinery, etc.); increased difficulties in managing health risks (parasitism, listeria, acidosis, etc.); a permanent adjustment of the food ration (due to seasonal variations in the nutritional value of the grass) and fluctuations in milk production (qualitative and quantitative).

However, it must be noted that the main obstacle to the spread of grassland systems is the fear of increased workload due to grassland planning and management; the installation of fences and monitoring of animals on pasture; the daily collection of grass for green feeding; the time spent travelling between livestock buildings and the fields; and the difficulties in automating the distribution of feed. It is noteworthy that farms that have adopted such systems tend to be smaller (by Utilised Agricultural Area and livestock size) and more specialised than the average of the farms studied.

Finally, it seems that the spread of grass-based feeding systems could also be hindered by difficulties in accessing credit. The representatives of the credit institutions we interviewed are reluctant to support investment towards these systems, which they attribute to the absence of

consolidated technical references. However, this hypothesis would require verification with a larger number of credit institutions.

## IV – Conclusion

While, in principle, most actors in the goat sector perceive the value of grass as an asset to strengthen the resilience of farms, in practice, each of them is confronted with a system of constraints that limit the effective dissemination of grass-based feeding systems. The articulation of obstacles at different levels of the goat sector seems to lead to a kind of inertia, which prevents the adoption of practices that are nevertheless perceived as desirable by most actors. This inertia is so strong that it seems to have transformative effects on the dispositions internalized by individuals. Thus, at the end of agricultural training, internship experiences, interactions with technicians, as well as the confrontation with the reluctance of credit institutions and the difficulties specific to goat farming (ration management, rate management, etc.), some young farmers who initially intended to create an extensive and pasture-based system farm, have finally opted for more conventional management systems.

## Acknowledgments

We wish to thank the 76 actors who agreed to meet us, as well as the engineering students in "Science and Engineering in Animal Productions" and the students of the MSc "Sciences de l'animal pour l'élevage de demain" from Agrocampus Ouest, who conducted the interviews: Guillaume Auber, Nina Delarbre, Sara Benmansour, Quentin Benoit, Lucile Buffet, Amandine Caille, Sébastien Carnel, Laura Charbonnier, Salomé Constantin, Morgane Coty, Priscillia Derbois, Thibault Desrousseaux, Elisa Dubois, Hajar El Dirany, Elise Fanène, Maxime Foubert, Mélanie Gautier, Augustin Gravier, Arthur Grilleau, Mathilde Laurin, Hélène Le Palud, Aude Pasquet, Loup Piedfer, Aurore Poisson, Carole Sérusier, Margaux Weye, Marianne Berthelot, Lucie Beugnet, Malaurie Chanut, Marie Charleuf, Florent Chervet, Alexandra Courty, Pauline Denis, Manon Féat, Nicolas Génot, Côme Guidou, Mathieu Ladroue, Aymeric Le Mignot, Louis Leblanc, Paul Leroux, Florence Maison, Claire Montocchio, Morgane Pape, Camille Richer, Léa Valenzisi, Lisa Vigneron.

## References

- Altieri M., 2002.** "Agroecology: the science of natural resource management for poor farmers in marginal environments". *Agriculture, Ecosystems & Environment*, 93, 1-24.
- Bossis N., Legarto J. and Guinamard C., 2014.** "Etat des lieux de l'autonomie alimentaire des élevages caprins français". *Rencontres Recherche Ruminants*, 21, 127.
- Bourgeois L. and Demotes-Mainard M., 2000.** "Les cinquante ans qui ont change l'agriculture française". *Économie rurale*, 255, 14-20.
- Dumont B., Fortun-Lamothe L., Jouven M., Thomas M., and Tichit M., 2013.** "Prospects from agroecology and industrial ecology for animal production in the 21st century", *Animal*, 7(6): 1028-43.
- Dumont B., Groot J. and Tichit M., 2018.** "Review: Make ruminants green again – how can sustainable intensification and agroecology converge for a better future?", *Animal*, 12(S2), S210-S219.
- Peyraud J.L., Delaby L., Delagarde R. and Pavie J., 2014.** "Les atouts sociétaux et agricoles de la prairie". *Fourrages*, 218, 115-124.
- Peyraud J.L., Le Gall A., Dupraz P., Delaby L., 2010.** "Produire du lait en maximisant le pâturage pour concilier performances économiques et environnementales". *Rencontres Recherche Ruminants*, 17, 17-24.
- IDELE, 2018.** "Caprins 2018 – Productions lait et viande, les Chiffres-Clés du GEB", 10.
- Lécole P. and Thoyer S., 2017.** "La PAC et l'environnement. Freins et leviers pour la transition agroécologique". In: *Systèmes agroalimentaires en transition*, Editions Quæ, Versailles, 51-70.
- Le Rohellec C and Lussou J-M., 2013.** "Freins et leviers au développement de l'herbe dans les exploitations agricoles de l'Ouest à partir de l'analyse d'enquêtes individuelles de 42 éleveurs en système non herbager, 10 conseillers et 9 futurs éleveurs". *Réseau Agriculture Durable des Civam*, ,

9

6

p

,

6

1