

# Technologies developed in Small Ruminants livestock in Benin

## Introducing the Research Study

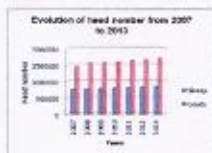
With an estimated annual growth of 4%, the demand for animal products is destined to increase in sub-Saharan Africa, especially West Africa, by more than 250% by 2020 (Club du Sahel/OECD, 1998; Delgado *et al.*, 2001). This will result from population growth, accelerated urbanization, growing incomes and consequently increased purchasing power of the populations. In economic terms, livestock rearing plays a major role in household incomes, even if its contribution to West African national budgets is negligible and variable.

The small ruminant production in West Africa is not very developed. Average herd size is small and does not encourage homeowners to improve their farming practices. Production of small ruminants is a subsidiary or minor activity; it is not specialized livestock production. In addition, it generates a comparatively small percentage of total farm income, although this percentage is higher for smaller producers.

In Benin, small ruminants are an activity practiced by the vast majority of the population. Apart from the prestige functions and savings, livestock intervene to increase the income of farmers through the sale of animals and their by-products (skin, milk) and the use of manure for fertilizing farms (Savi *et al.*, 2004).

The number of goats sheep estimated in 2013 at 2 576 000 head and contributed to approximately 13% (8 243,10 tons) of the national total meat production (64 968,55 tons). There is a predominance of goats in the southern area while sheep predominate in the north. The rate of believes is estimated over a period of 35 years (1960-1994) to 3% for sheep and 4.5% for goats. Researches try always to improve small ruminants' feeding (Gbego, 1999; Gbego *et al.*, 2016); health Hounzangbé-Adoté *et al.*, 2001)

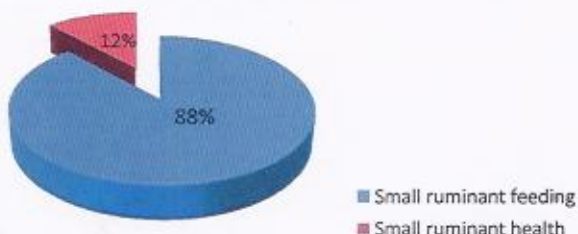
The small ruminants are practiced in rural, peri-urban and urban areas it is a family breeding. The types of farming are varied and reflect the diversity of agro-ecological zones, ethnic and social behavior and the technical level of farmers. The number of sheep is higher than the goats' one like it show on the graphic.



Source: (DE, 2007-2013)

## Results and outputs

Relative importance of technologies developed in small ruminants livestock



Innovation carried out technologies on small ruminants feeding, lead and health. In whole, 32 innovations are developed by research and start to sheep and goats producer. Globally 56 % of technologies concern animals feeding, 31 % for animals health and 13 % for small ruminant lead.

To improve animals feeding on dry season, supplementary feeds testing by research to feed small ruminants can be obtained from agro-industrial by-products such as residues of oil extracted from oil bearing seeds (groundnuts, coconut, palm kernels, cotton seed, soya bean etc), by-products of grain processing (maize, rice, wheat, sorghum, millet etc), peelings of crops (yams, cassava, potatoes, plantains etc) and industrial by-products (brewers' dried grains, fruit cannery by-products, molasses etc).

According to animals health research experiment with success many plant to treat sheep and goats. We can name: papaya seed, Newbouldia to struggle worm, Hiptrix to trait scab etc.

## References

- C.L. Delgado, M.W. Rosegrant, et S. Meijer (2001). Livestock to 2020: The revolution continues. Communication présentée à la Réunion annuelle de l'International Agricultural Trade Research Consortium (IATRC), Auckland, New Zealand, January 18-19, 2001; 39 p.
- I. Gbego Tossa, 1999 Protein Mineral improvement on the Reproductive performances of Female Goats on Farms on the Adja Plateau, Republic of Benin, (PhD Thesis) INRAB, Cotonou Republic of Benin, University of Ibadan, Ibadan Nigeria.
- I. Gbego Tossa, A. K. Edénakpo, K. O. Badarou, M. F. Houndonougbo et G. A. Mensah (2016). Formulation de rations alimentaires efficaces pour la production de lait et de viande chez les bovins Girolando de la ferme d'élevage d'Etat de Kpinnou. Comité Technique de l'INRAB 2016.
- M. S. Hounzangbé-Adoté, F. E. Zinsou, K.J. Affognon, B. Koutinhouin, K. Moutairou et M. Adamou N'Diaye. (2000). Essai de traitement des parasitoses gastro-intestinales par les graines de papaye chez les moutons Djallonké (Ovis amon aries). Actes de l'atelier scientifique, Niaouli 2001.



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## Who is the research product useful for?

The study will result in the development of an ICT based dietary advice system for a participating region and will lead to relevant recommendations on future agricultural innovations that would contribute towards economic development, food security and enhanced nutrition and health in the region.

The result will be firstly benefit to the small ruminants breeder in particular and generally for the famers. So the different technology developed will help them to improved their animals breeding in order to add value to the production. Secondary the small ruminant trading will increase their activities and will deliver meat to consumer. Manure will be used to fertilize farms and increase production. Altogether, innovations will impact positive small ruminant production and grow household income for famers and that contribute to development.



Sahelian sheep



Sahelian goat



Sheep Djallonke



Goats Djallonke

Source: [www.agricultureaufeminin.worldpress.com](http://www.agricultureaufeminin.worldpress.com)

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