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"Can agroecological farming feed the world? Farmers' and academia's views"

## Perception of livestock keepers about woody fodder in the diet of sheep in two rural communes in Koulikoro region, Mali

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## Abstract

The Sahel is one of the areas of Africa where livestock farming is practised essentially in a traditional and extensive way. However, the management of pastoral resources raises the environment issues that must be quickly addressed by providing scientific and technological supports to the communities. Within the EU-Horizon2020 project SustainSahel (https://www.sustainsahel.net), this study aimed at better understanding the perception of livestock keepers about the utility of local woody fodder plants in sheep production systems. To this end, an interview-based survey was carried out in five villages in the communities of Méguétan and Doumba in the Koulikoro region of Mali. One hundred and thirty-one livestock keepers were randomly selected for personal interviews. In addition, 15 key stakeholders (village leader) were interviewed, and one focus group discussions (FGDs) were conducted with at least twenty agro-pastoralists per FGD in order to complete the information. The survey data has been captured in the Excel software and analysed using the software SPSS statistics. The results showed that more than three quarters of the respondents practice mixed crop-livestock farming, while the remaining were pure pastoralists. Nearly all livestock keepers (95%) used woody fodder plants; in addition 85%, 56% and 47% used grasses, agro-industrial by-products, and commercial feedstuffs. The most widely used browse species for feeding sheep were Pterocarpus lucens, P. erinaceus, Ficus sycomorus, Entada africana, and Khaya senegalensis. These trees were exploited by pruning (100 % of those surveyed), shaking fruits (11 %) or picking fruits (5 %). Woody fodder is mostly used during the dry season (95%) and at the beginning of the rainy season (72%). These results show the importance of woody species as feed for sheep during the dry season when grasses become scarce and of poor quality; in a further step the nutritional value of the most widely used woody species needs to be explored to assist farmers in formulating adequate rations.

**Keywords:** Livestock keepers, Mali, perception, sheep, woody fodder

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