

Oral presentation

Session I

Forage intake of tree species on rangelands : a relative value as a combination of resource availability, species traits and ruminant feeding behavior

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Abstract

In sub-saharan Africa animal feeding depends mainly on free grazing on rangelands and pastoralists have to deal with fodder shortages during the dry season. During the lean season, trees and shrubs represent the only source of green fodder still available on rangelands. The main objective of this study was to identify fodder species and their functional characteristics as animal feed on the specific conditions of Sahelian rangelands of the Louga area in Senegal. This context is characterized by high anthropogenic pressure and low biodiversity of tree layer. The methodology used consisted in analyzing the behavior and the feed preferences of cattle for available woody species on rangelands. Regular monitoring of cattle herds have been done during the dry season. Food preferences were characterized by direct observation method of the woody plants intakes. Results were compared with biological aspects of consumed species. *Guiera senegalensis* and *Boscia senegalensis* appeared to be the most important trees consumed as they represent 60% to 100% of the feeding time to woody plants. Differences in behaviors were partially explained by differences in morphological characteristics and phenology stages among the fodder species. Chemical analysis of the consumed trees and scrubs provided in next studies would allow searching for other characteristics impacting the food choices of woody plants. The results obtained in this study on the main species contributing to cattle diets during the late dry season in Louga context are primarily of methodological interest. To strengthen the diagnostic of traits related to the fodder function of these forage species, they must be compared to the results obtained in other diversified sahelo-sudanian agro-pastoral rangelands.