

Session (7):

Nutrition, Range & Environment

Identification of Suitable Trees and Shrubs for Sustainable Camel Production

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ABSTRACT

The aim of this study was to identify potential browse species in Hamelmal area of Eritrea. A total of 22 household from four districts in Hamelmal were interviewed to identify locally important browse species. Herbarium samples were collected for identification and confirmation of the scientific names. Trees and shrubs are more relevant to camels which are heavily dependent upon forages for their health and production in a cost-effective and sustainable manner. A total of 31 different browse species were identified, which are regarded as being important for camel. The most widely utilized browse species, as indicated by the interviewed herders, were *Acacia albida*, *Acacia etbaica*, *Cadaba farinose* and *Salvadara persica* (95.5%); *Acacia tortilis* (90.9%); *Acacia senegal*, *Acacia laeta*, *Balnites aegyptica*, *Albizia amara*, *Capparis deciduas*, *Dalbergia melanoxylon*, *Ziziphus spina-christi* (86.4%); *Adansonia digitata* (81.8%); and *Dichrostachys cinerea*, *Tamarindus indica*, *Dobera glaba* and *Olea europaea* (77.3%). These results indicate that there is a number of promising browse species in the indigenous flora. Although the role of these forages could vary depending upon the regional preferences for the animal and forage species, climate and resources, their importance in the success of camel production is acknowledged. To maintain sustainability, it is crucial that such farming systems remain profitable and environmentally friendly while producing nutritious foods of high economical value. However, they need to be characterized further in terms of chemical composition, palatability, digestibility, feed intake, animal response trials and anti-nutritional factors, in order to be able to enhance their utilization in the future.

Keywords: *trees and shrubs, camel, sustainability*