



Tropentag, September 15-17, 2021, hybrid conference

“Towards shifting paradigms in agriculture
for a healthy and sustainable future”

Determining the Factors Affecting the Adoption of Fodder Crops by Farmers in Ethiopia and Kenya

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Abstract

Fodder crop production enables farmers to improve their livestock production and reach a higher level of self-sufficiency with livestock products. This study aimed to determine the level of adoption of fodder crops and assess factors that influence their adoption by farmers in selected regions of Ethiopia and Kenya. Study areas were selected purposively since forage production is limited to specific regions with intensifying dairy production in both countries. Village-level data was collected by the International Livestock Research Institute (ILRI) from Tigray, Amhara, Southern Nations Nationalities and Peoples Region (SNNPR), and Oromia regions of Ethiopia, as well as Upper Rift, Western, Nyanza, Central and Coast regions of Kenya, in 2015. Data was obtained from 180 villages or peasant-associations per country through group interviews based on a structured questionnaire. Descriptive statistics and a Tobit model were used to identify factors influencing the adoption of fodder crops.

Research findings show that fodder adoption intensity, expressed as the proportion of the total area allocated to fodder crop production, was 3.04 % and 10.66 % in Ethiopia and Kenya, respectively. The most commonly adopted species were Napier (*Cenchrus purpureus*, various varieties), Sesbania (*Sesbania sesban* (L.) Merr), and Rhodes grass (*Chloris gayana* Kunth) in Ethiopia; Napier, Calliandra (*Calliandra calothyrsus* Meisn.) and Rhodes grass in Kenya. The analysis revealed that altitude, mobile phone ownership, awareness about fodder, population size of dairy cows, the availability of a milk collection centre and milk marketing activities had a positive influence ($p < 0.05$) on the adoption of fodder crops, while distance to the nearest town, distance to the nearest all-weather road, arable land per farm household and population size of male (local) cattle had a negative effect ($p < 0.05$). In addition, the area of grazing land per farm household and female (local) cattle population of villages had positive and negative effects on fodder adoption in Ethiopia and Kenya, respectively.

Therefore, in regions where dairy cattle keeping predominates, the adoption of improved fodder crops should be enhanced by raising fodder awareness among farmers, providing infrastructure facilities such as all-weather roads, and promoting milk collection centres plus milk marketing activities.

Keywords: Dairy production, East Africa, extension, fodder cultivation

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