



The status of knowledge, attitudes, and practice in the cultivation and usage of improved forages in Kenya and Uganda

Kenneth W. Sibiko¹; Margaret Lukuyu¹; An Notenbaert¹; **Stefan Burkart**².

¹International Center for Tropical Agriculture, Tropical Forages Program, Kenya; ²International Center for Tropical Agriculture, Tropical Forages Program, Colombia.

Contact: s.burkart@cgiar.org

CIAT/Georgina Smith

Introduction

Over the past 5 years development partners have intensified their efforts to promote the forage technologies and scale out their adoption among farmers in East Africa. However, apart from Maina et al. (2021), there is a scarcity of published literature focused on the effect of the intensified promotion on farmers' knowledge, attitudes, and practices toward improved forage cultivation, particularly where development projects continue to be implemented. We sort to fill this gap since the first step towards wide-scale technology adoption is awareness creation and attitude change.



Methodology

- ▶ We rely on cross-sectional data with a sample of 353 respondents equally drawn from treatment and control areas across 3 counties (Kakamega, Uasin-Gishu, Meru) in Kenya and 3 districts (Kiruhura, Ibanda, Bunyangabu) in Uganda, respectively.
- ▶ These were selected from the project sites to represent the diversity in farm sizes, degree of commercialization, and agro ecologies. Data was collected in December 2022 using a pretested semi-structured household questionnaire.
- ▶ Analysis was done using pairwise correlations, t-tests, and left-censored Tobit regression with treatment vs control areas and cross-country comparisons.

Table 1. Factors influencing the forage area planted

Key Variables	Kenya (n=182)	Uganda (n=171)
Attended training event(s)	0.492***	2.656***
Sex of head (1 if male)	-0.218	1.97 *
Education level of head	0.062	0.609***
Age of head	0.012	0.055**
Age of spouse	0.007	-0.053**
Cattle herd size	0.066***	0.011
Land size (acres)	0.423***	0.648**
Proximity to water source	-0.46 ***	-0.418

***, **, * denote significant coefficients at 1%, 5%, & 10% levels respectively

Results

- ▶ Intervention areas had significantly higher knowledge levels and attitudes than the control areas.
- ▶ Cross-country comparisons show that Kenyan farmers were more knowledgeable with a higher percentage adopting than their Ugandan counterparts.
- ▶ The main factors influencing the area cultivated varied by country. They include participation in forage training events, land size, and number of cattle owned, as well as education and experience levels of farmers, indicating the need for more intensified forage promotion campaigns, especially in Uganda.

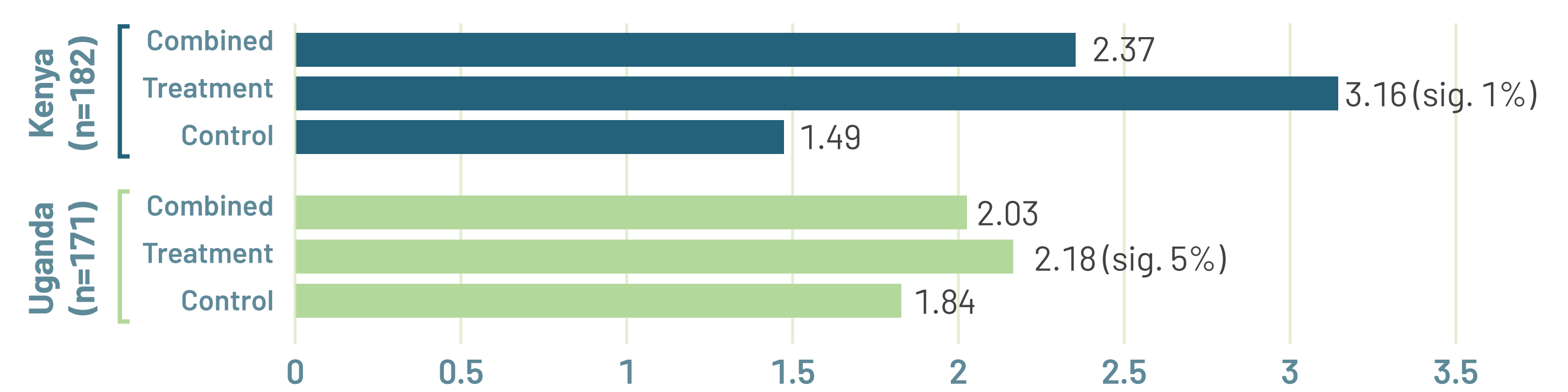


Figure 1. Average knowledge on forage cultivation (Likert scale: 1–5)

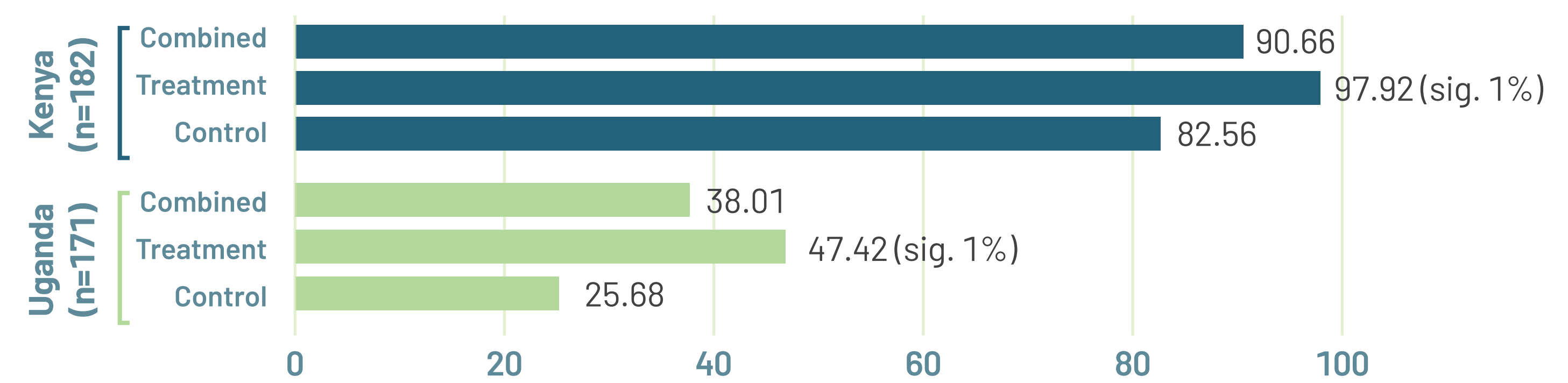


Figure 2. Percentage of sampled farmers cultivating at least 1 forage crop

Conclusions

- ▶ Average levels of knowledge on improved forages remain low (<2.5) in both countries.
- ▶ Increased interventions to train farmers on new forage varieties can result in wider adoption.
- ▶ Further need for gender-disaggregated training (more so in Uganda).

References

Maina, K. W., Ritho, C. N., Lukuyu, B. A., Rao, E. J. O., & Mugwe, J. G. (2021). Knowledge, attitudes, and practices of dairy farmers in the adoption of Brachiaria grass in Kenya. *Scientific African*, 13, e00874.

Acknowledgments

This research was financed by GIZ as part of the activities of the Grass2Cash@Scale project (Grant no: 81260860). We also appreciate the contribution of SNV towards the forage scaling work through the TIDE II project in Uganda.



Poster prepared for:
Tropentag 2023
Berlin (Germany), September 20–22, 2023.