

# Brachiaria grass

## The forage for more milk and meat production in sub-Saharan Africa

Livestock is a great source of food, nutrition, crop production input, income, employment, and livelihoods for the majority of people in sub-Saharan Africa and contributes 40% of the total agricultural GDP of the continent. Livestock reduces the risk of food insecurity that rises from frequent crop failures particularly in the arid and semi-arid lands. Despite the importance of livestock in Sub-Saharan Africa, livestock productivity in this region is the lowest in the world. Seasonal availability and low-quality forages are accountable for the lowest livestock productivity. Forages of African origin have been instrumental in the transformation of the livestock sector in tropical America, Australia, and East Asia. For example, Brachiaria pasture was footing for the intensification of beef production in Brazil. However, the potential of native forages to alleviate livestock feed shortage in Africa has had minimal exploration.

## Climate-Smart Brachiaria Project

In 2012, the Biosciences eastern and central Africa - International Livestock Research Institute (BecA - ILRI) Hub initiated a collaborative research project on Brachiaria grass to increase livestock productivity in East Africa by increasing the availability of quality forages.

## Why Brachiaria?

- Brachiaria is drought tolerant.
- Performs well in low fertile soils.
- It is palatable and nutritious to livestock.
- It has high biomass production potential (30t DM/ha)
- Sequesters carbon from the atmosphere into soil (3t/ha).
- Enhances nitrogen use efficiency.
- Helps in soil conservation.
- Reduces greenhouse gas emission and groundwater pollution.
- When fed to livestock, it increases milk and meat production.


## Achievements

Through the farmer's participatory variety evaluations in Kenya and Rwanda, five Brachiaria varieties (*B. brizantha* cv. Marandú, *B. brizantha* cv. MG-4, *B. brizantha* cv. Piatã, *B. brizantha* cv. Xaraés and *B. decumbens* cv. Basilisk) were identified as suitable for East Africa.


All but Marandú were successfully integrated into mixed crop-livestock farming systems in both countries.




# Achievements

 Feeding animals on Brachiaria grass increased milk production between 15 to 40%.

 The livestock gained weight by up to 50%.

 The project trained 2,000 farmers and provided Brachiaria seeds to over 6,000 farmers.

 20 researchers from Ethiopia, Kenya, Rwanda, Tanzania and Uganda received trainings on forage biosciences.



The Brachiaria grass has been the preferred forage for farmers, extension agents and researchers due to its high biomass production potential, higher nutritive value than local forage (e.g. Napier and Rhodes grasses), instant increase in milk production and improved animal health.

Since the project's inception, farmer to farmer distribution of Brachiaria grass has been the preferred dissemination method.

The International Livestock Research Institute (ILRI) coordinates two main livestock development initiatives; in Kenya (2015 - 2018) and in Mali (2016 - 2019). The dissemination of Brachiaria varieties is one of the main forage activities in both initiatives. Currently, over 40,000 households in Kenya and Mali are growing Brachiaria grass under these two initiatives. Farmers have been producing Brachiaria grass and making hay for their own use and for sale (USD2.5-3.5/20 kg bale).

Many non-livestock farmers including women and youth are also engaged in Brachiaria farming as a source of income generation. These farmers sell hay and planting materials to fellow farmers.

Currently, the climate-smart Brachiaria project is implemented in 12 countries of Sub-Saharan Africa and the varieties identified by the project are grown by farmers from 18 countries. This is a flagship project undertaken by BecA - ILRI Hub; it collaborates and supports the African national agricultural research systems (NARS) in areas of research and capacity building on tropical forages biosciences, and disseminates Brachiaria technologies.

The project also conducts discovery research with the aim of exploring the potential of plant beneficial microbes for drought tolerance, water, and nutrient uptake; and the management of disease in Brachiaria grass.



The countries in green (18) have benefited from the Brachiaria project



biosciences eastern and central africa



NEPAD TRANSFORMING AFRICA

ILRI INTERNATIONAL LIVESTOCK RESEARCH CENTRE



## Contact:

Sita R. Ghimire, Principal Scientist  
Biosciences eastern and central Africa - International Livestock Research Institute (BecA - ILRI) Hub  
PO Box 30709, Nairobi 00100, Kenya  
Email: [s.ghimire@cgiar.org](mailto:s.ghimire@cgiar.org)  
Tel: +254 20 422 3820 / 727164670

The International Livestock Research Institute (ILRI) works to improve food security and reduce poverty in developing countries through research for better and more sustainable use of livestock. ILRI is a CGIAR research centre. It works through a network of regional and country offices and projects in East, South and Southeast Asia, and Central, East, Southern and West Africa.

[ilri.org](http://ilri.org)

Biosciences eastern and central Africa (BecA) Hub - International Livestock Research Institute  
PO Box 30709 Nairobi 00100 Kenya | Tel: +254 20 422 3805 | [BecA-Hub@cgiar.org](mailto:BecA-Hub@cgiar.org) | [www.beca.ilri.org](http://www.beca.ilri.org)

CGIAR is a global agricultural research partnership for a food-secure future. Its research is carried out by 15 research centres in collaboration with hundreds of partner organizations.  
[cgiar.org](http://cgiar.org)



This document is licensed for use under the Creative Commons Attribution 4.0 International Licence.

November, 2019