

## Feed the Future Innovation Lab for Livestock Systems

### INNOVATION SUMMARY: BEST PERFORMING FORAGE CULTIVARS RECOMMENDED FOR RELEASE IN BURKINA FASO

As part of the EQUIP FEED project, new forage cultivars were evaluated for improvements in yield, quality or preservation. After two years of evaluation through agronomic trials, which compared introduced cultivars with the best performing local varieties in the sub-humid zone of Burkina Faso, there are two promising *Brachiaria* cultivars (CIAT hybrid cv Mulato II and *B. brizantha* cv Paiguas) as well as two promising *Panicum* cultivars (cv Zuri and cv Massai).



**Lead Institution:**  
Institute for the  
Environment and  
Agricultural Research



**Developed In:**  
Burkina Faso



**Innovation Type:**  
Technology



**New/Adapted:**  
Adapted



**Created For:**  
Women and  
Men



**Nutrition Linkage:**  
Improved  
Productivity

### The Problem and Its Importance

Limited availability of quality feed is the most important factor limiting livestock productivity. Despite decades of organized efforts, adoption of improved forage varieties has remained low. One contributing factor to low adoption is the lack of adaptable species that can outperform local varieties. These forage cultivars introduced from Brazil can produce high quality livestock feed, which can improve the productivity of both indigenous and improved breeds. Increasing livestock productivity through higher quality feed can increase the income of farmers, decrease the emissions intensity of animal source foods, and increase the availability of animal source foods for consumption.

### The Innovation and Potential Benefits

Each of the best cultivars can be harvested three times during the rainy season in sub-humid zone of Burkina with annual fodder biomass yield between 10-12 t dry matter per hectare. All of the new cultivars tested demonstrated that they could survive the dry season and produce seed. Of all the cultivars tested, Mulato II had greater total herbage mass (26 Mg ha<sup>-1</sup>) total accumulation after 2 years and greatest crude protein (170 g kg<sup>-1</sup>), in vitro digestible organic matter (635gkg<sup>-1</sup>), metabolizable energy (89 MJ kg<sup>-1</sup>) and least neutral detergent fiber (537 g kg<sup>-1</sup>) concentrations than other cultivars tested. Mulato II, having better annual fodder biomass production and nutritive value than local varieties, will improve season feed gaps both in quantity and quality. Moreover, given that it is a perennial grass makes it preferable in drier environments such as the Sahelian zone of Burkina Faso where moisture availability is a limiting factor.

### Application of the Innovation

This innovation targets smallholder and commercial farmers as end users. The seed regulation authorities in Burkina Faso will need to approve these varieties before they can be released to farmers. Farmers implementing this innovation will need to prepare land and purchase seeds in order to cultivate these fodder varieties. In-country seed systems and private sector companies will need to produce seeds for sale and monitor seed quality.

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