

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: BEST PERFORMING FORAGE CULTIVARS RECOMMENDED FOR RELEASE IN ETHIOPIA

As part of the EQUIP FEED project, new forage cultivars introduced from Florida (USA) 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, there are two promising cultivars for oats (Legend 567 and FL-720) as well as rye grass (Jumbo and Attain). The two introduced varieties of oat show more than 10% improvement in biomass compared to the best local variety, while the Attain and Jumbo varieties of ryegrass were selected for their better yield and tolerance to disease.



Lead Institution:
Ethiopian Institute for
Agricultural Research



Developed In:
Ethiopia



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 in Ethiopia. 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 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

The two-year agronomic trials for oat varieties demonstrated that they can improve the productivity of cultivated forage by up to 10% as compared to the best local options. The CP content of Legend 567 and FL 720 oat varieties is also higher than the local best varieties by 32% and 5% respectively. The Attain and Jumbo varieties of ryegrass were selected for their better yield and tolerance to disease. High yielding oat varieties (FL-720 and Legend 567) and ryegrass varieties (Jumbo and Attain) can help fill the feed supply gap that is very common in the central highlands of Ethiopia where the majority of livestock in the country are concentrated. Given the cold and highland agro-ecology, there are limited options of adaptable forage for the central highlands of Ethiopia. These oat and rye grass varieties, which are adapted to the cold highlands, will provide very good alternatives.

Application of the Innovation

This innovation targets smallholder and commercial farmers as end users. The seed regulation authorities in Ethiopia 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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