

Feed the Future Innovation Lab for Livestock Systems

INNOVATION SUMMARY: SORGHUM GENOTYPES FOR LIVESTOCK FEEDING

The innovation consists of two promising dual-purpose sorghum genotypes selected from a large number of sorghum varieties through on-station research. In addition to the crop varieties, the innovation includes a package of production management practices and recommendations. The improved sorghum genotypes and practices will increase the performance of livestock in semi-arid regions where access to quality feeds and forages can be challenging.



INNOVATION QUICK FACTS

Lead Implementing Institution: Kansas State University



Category: Crop Improvement



Applied in: Ethiopia



Innovation Type: Technology



New/Adapted: Adapted



Created for: Women & Men

THE PROBLEM & ITS IMPORTANCE

In Ethiopia and many developing countries, shortage of quality livestock feed limits animal productivity and the problem is compounded by conversion of traditional grazing areas to croplands. Sorghum is one of the most widely grown staple food crops in Ethiopia on which the lives of many depend. Sorghum also grows well in a wide range of agroecologies, including those that face drought or prolonged dry seasons. Two high performing dual-purpose sorghum genotypes were selected from a large number of varieties based on high forage dry matter yield, in vitro organic matter digestibility, and crude protein yield.

POTENTIAL BENEFITS

Producing high yielding forages like sorghum can enable year-round supply of quality feed that improves livestock performance. Smallholder and commercial medium and large scale producers in areas where sorghum can flourish will especially benefit from this innovation. Identifying best performing forage sorghum varieties, their management practices, and how they can be intercropped with leguminous crops can foster sustainable improved livestock production in Ethiopia and beyond.

APPLICATION OF THE INNOVATION

In order to use the innovation, extension and outreach efforts are needed to disseminate knowledge of how the optimal sorghum genotypes can be grown alone or intercropped. Additionally, information regarding the innovation's potential benefits on smallholder livestock systems needs to be communicated. Planting materials will need to be made available to potential adopters in target areas through public and private extension and advisory services. Due to the versatile nature of sorghum, the innovation can be applied to various geographies and production systems but in particular, the semi-arid agro-ecological zones. Disseminating the innovation with producer associations via extension and development organizations can facilitate uptake.