

Atlas of Sorghum Production in Five Countries of Eastern Africa

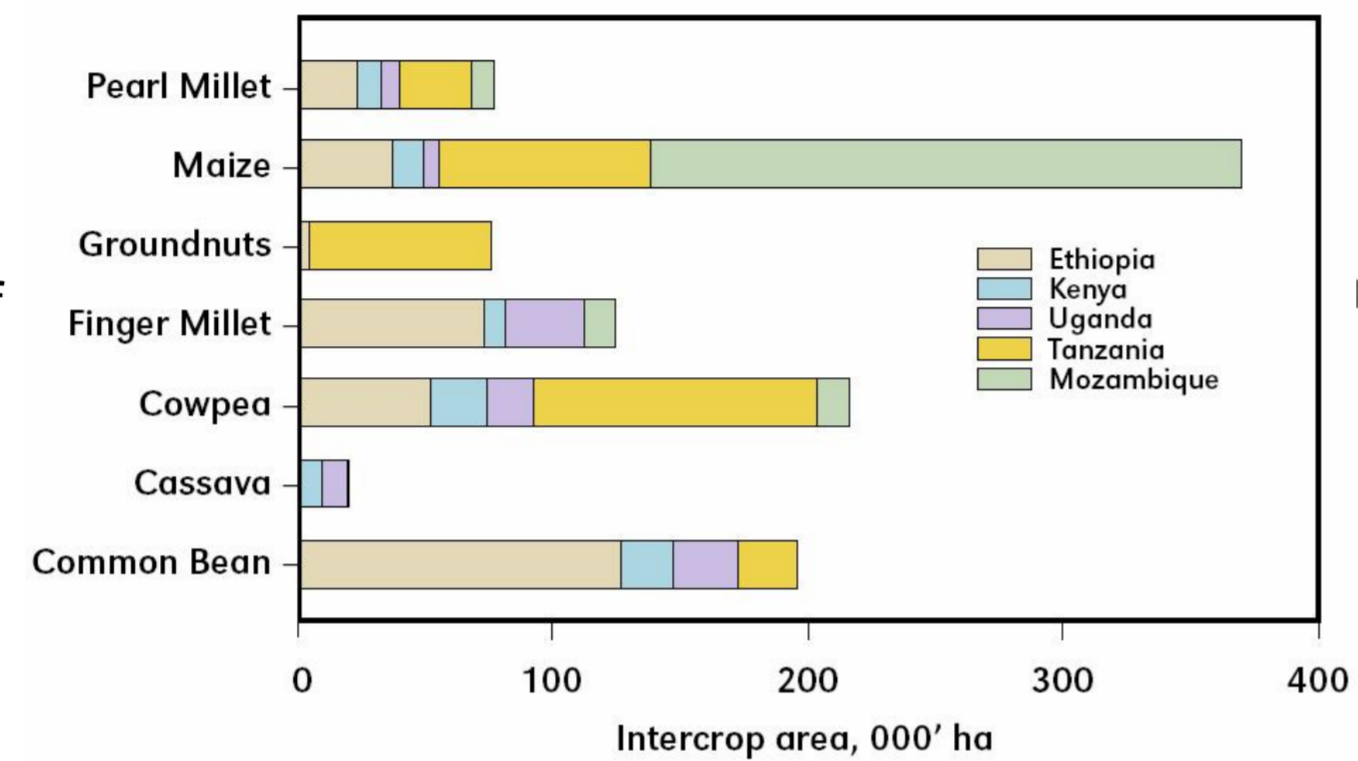
Charles Wortmann¹, Martha Mamo¹, Girma Abebe², Christopher Mburu³, Kayuki Kaizzi⁴, Elias Letayo⁵, and Soares Xerinda⁶

¹University of Nebraska-Lincoln, ²Ethiopia Inst. Agric. Res., ³Kenya Agric. Res. Inst., ⁴Uganda Nat. Agric. Res. Org., ⁵Tanzania Dep. Agric. Res. & Dev., ⁶Inst. Investig. Agric. Mozambique

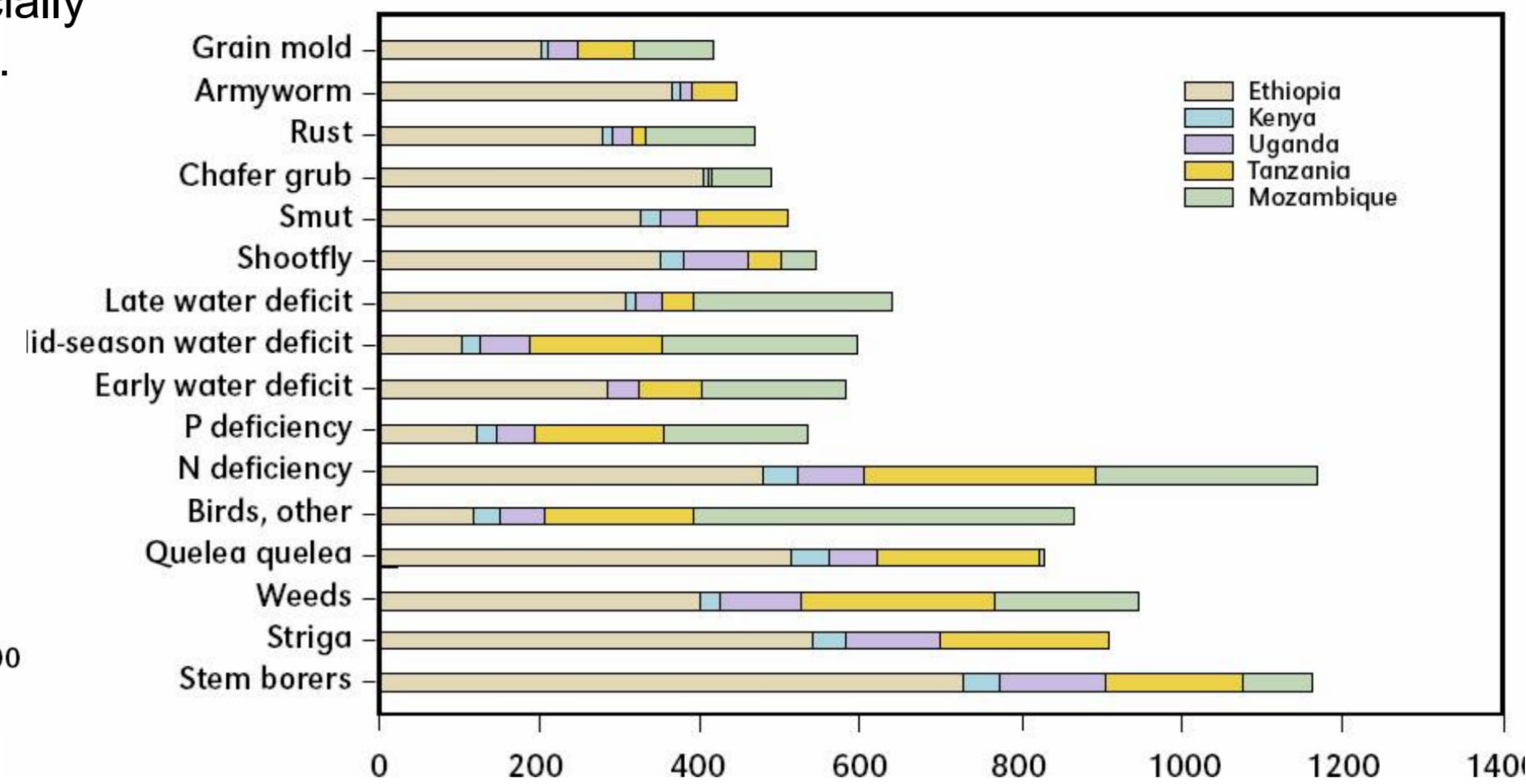
Grain sorghum is a major food crop in western and eastern Africa. It is a versatile, diverse, and widely adapted crop. In Africa, it is typically produced under adverse conditions by resource-poor small scale farmers with little input use. Under these conditions, yield is constrained by numerous biotic and abiotic factors. The grain and stover have many uses. Much information is needed to address the problems and opportunities of this diverse crop. The Atlas of Sorghum Production in Five Countries of Eastern Africa (available in .pdf at www.intsormil.org) serves information needs of researchers, extension and rural development specialists, policy makers, and emergency relief planners. Information is presented in maps, graphs, and tables for 30 sorghum production areas in the five countries. These countries account for >80% of the production in eastern and southern Africa, excluding Sudan.

Grain sorghum production systems.

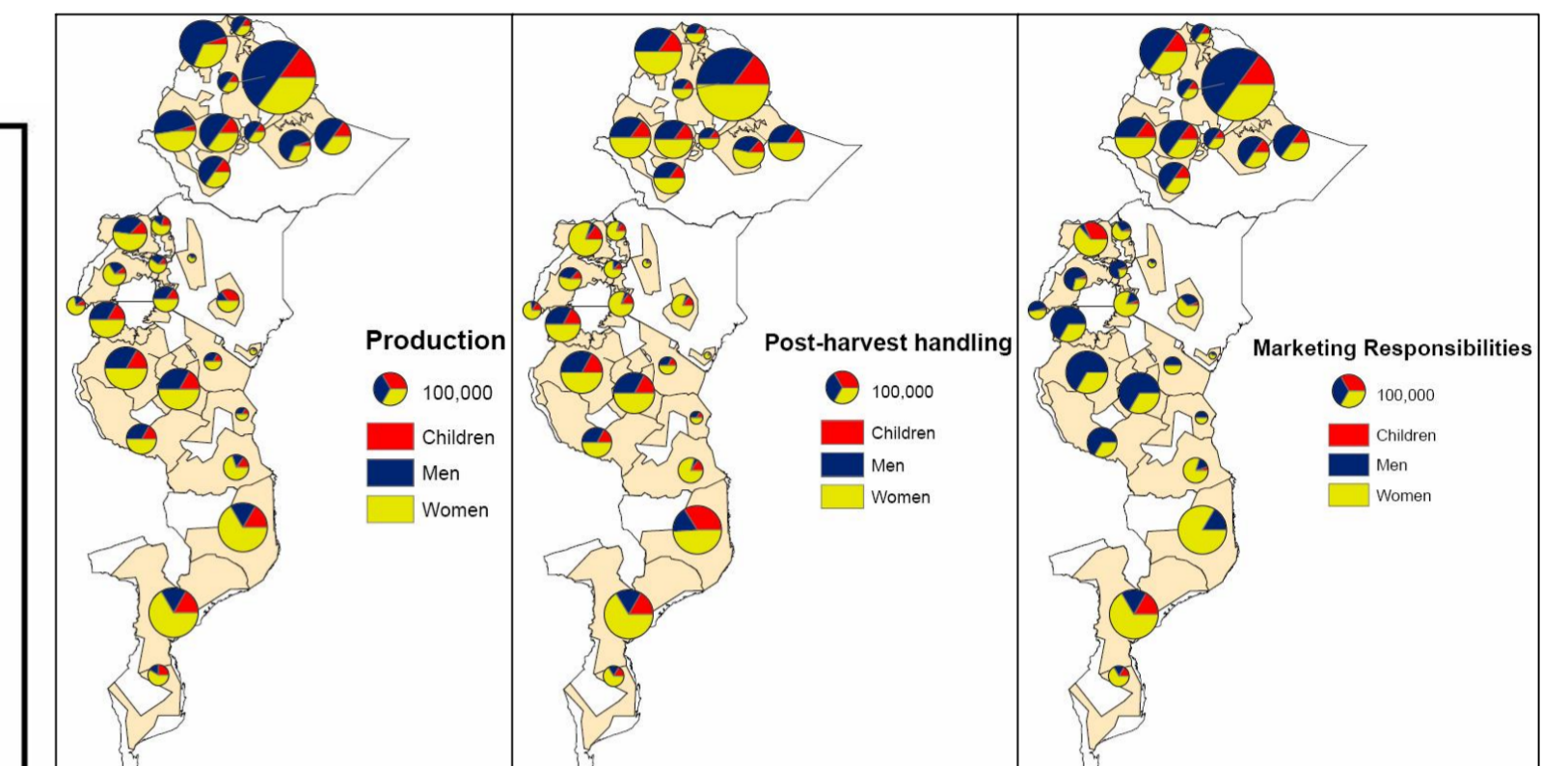
Approximately 30% of sorghum is produced by intercropping. Sorghum-maize intercropping is important, especially in parts of Mozambique. Intercropping with cowpea and dry bean is especially important in parts of Tanzania and Ethiopia, resp.



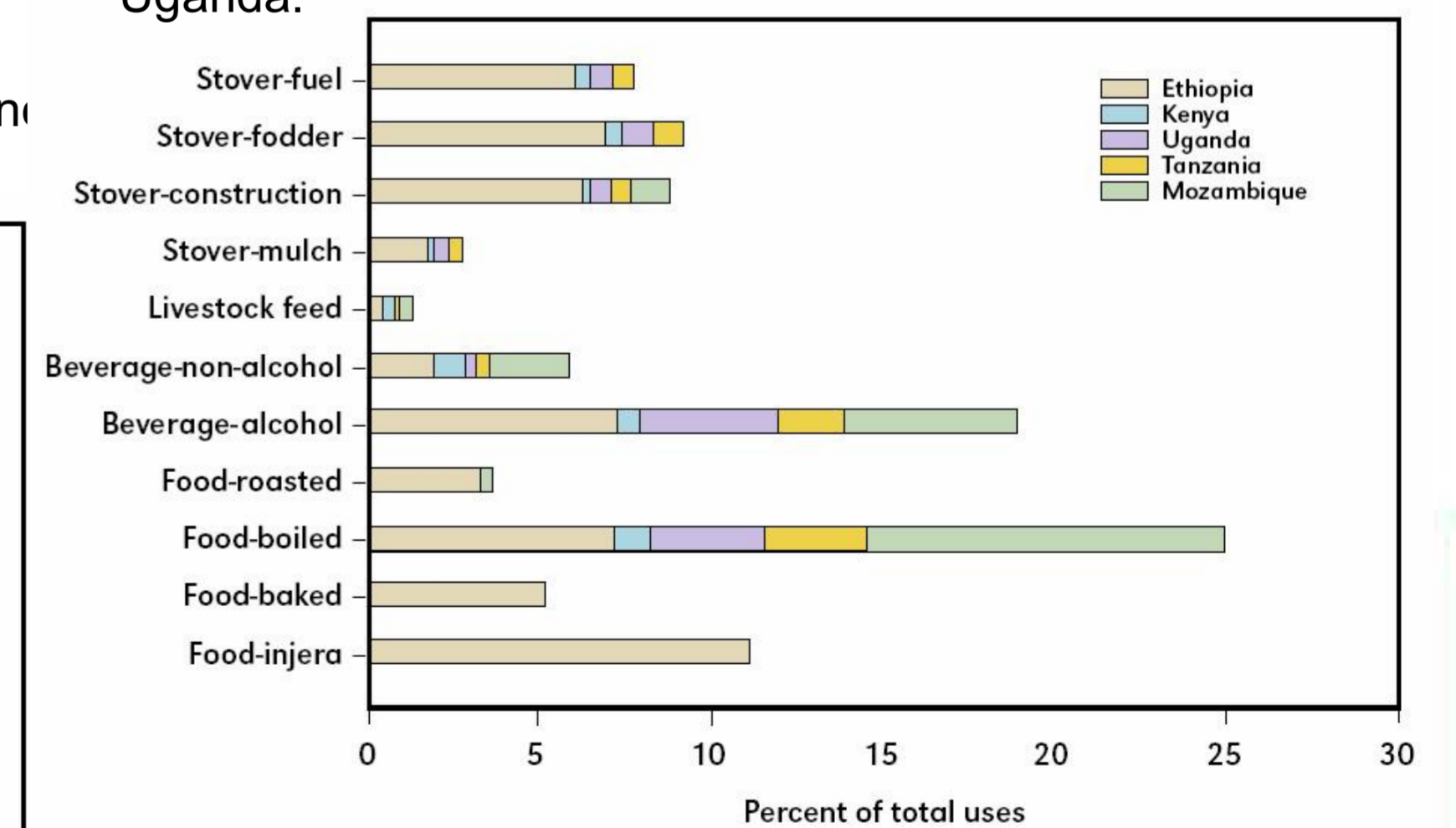
Production constraints. These are addressed in more detail in another poster. Soil water deficits, N and P deficiency, the stem borer complex, striga and other weeds, *Quelea quelea* and other birds, are among the most important constraints.



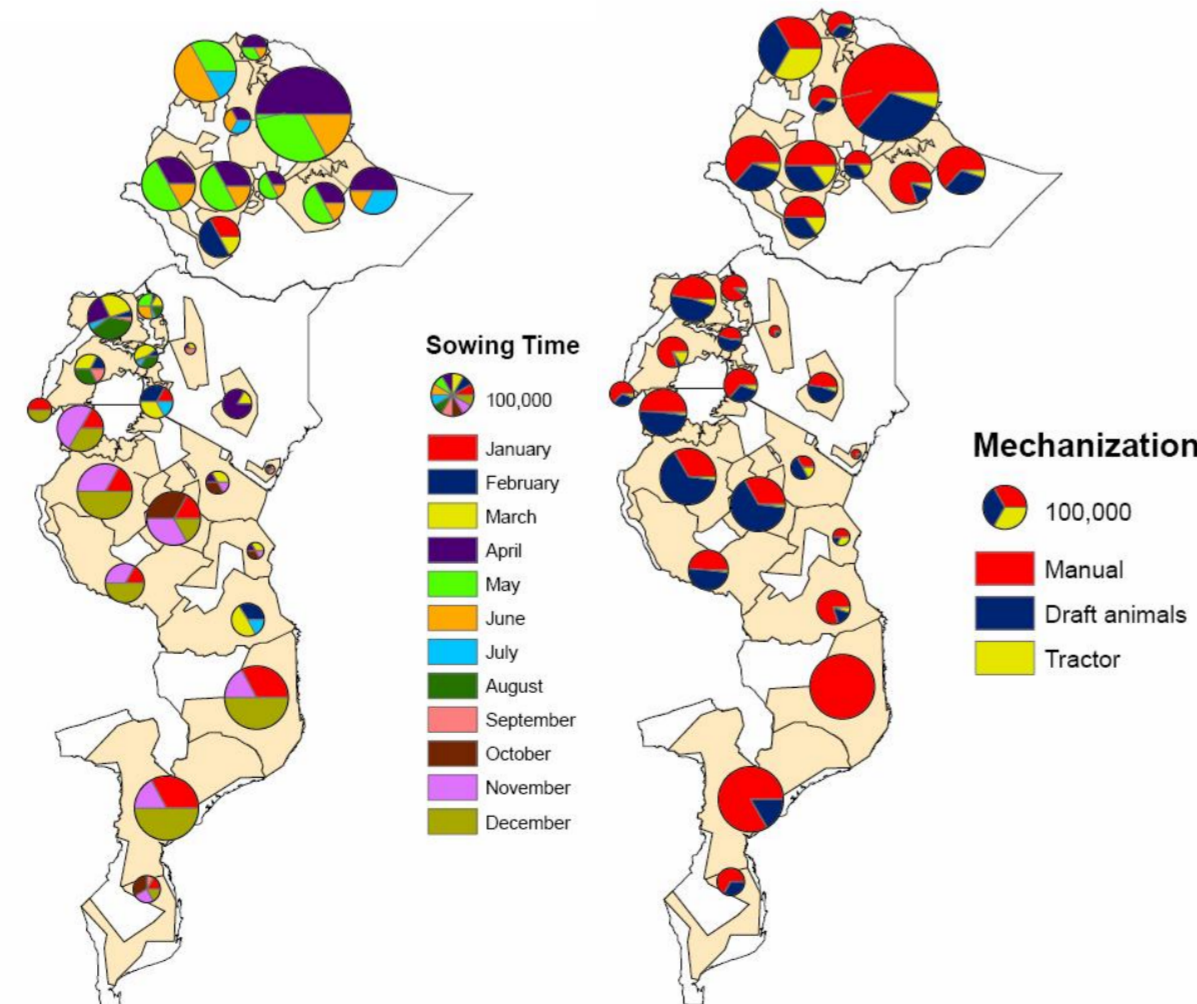
Gender and family roles. Women are primarily responsible for sorghum production, post-harvest handling and marketing.



Utilization. Most sorghum grain is consumed as boiled foods such as porridge. The second greatest use of grain is for brewing. In Ethiopia, grain is used primarily in making *njera*. Livestock feeding accounts for less than 5% of grain use. Stover is much used as fuel, fodder, and construction, and accounts for over 40% of the value of the crop in Ethiopia. The importance of marketing of grain varies ranging from a mean of 24% in Mozambique to 50% in Uganda.



Sowing time varies with latitude with most sowing in May and June in the north and in December and January in the south, while two cropping seasons are common with bimodal rainfall near the equator. Mechanization is largely dependent on manual and draft animal power with relatively little tractor use.



Preferred phenotypic characteristics. Sorghum phenotype preferences varies; the importance of 28 characteristics was assessed. Plant height is very important; <2 m height is most commonly preferred but taller plants are most preferred in some production areas. Seed size and color were important considerations in cultivar selection, with color preferences varying with production areas.

