Abstract

Dry beans (Phaseolus Vulgaris L.) are important source of proteins, carbohydrates, essential elements and vitamins to both rural and urban households. However, cooking time is influenced by slow water imbibitions due to hard seed coats. An experiment was carried out in Seed laboratory of Kenya Agricultural and Livestock Research Institute (KALRO)-Katumani, Machakos, Kenya to evaluate the effects of water imbibition of commonly grown bean genotypes (KATX69, GLPX92, WAIRIMU, EMBEAN118, KATX56, EMBEAN14, KATB9, GLP2, KATB1, KATRAM, and KATSW-13) to cooking time in a complete randomized design with three replications. Data was collected on bean grains hardness, water imbibitions of bean varieties at different times and the effect of water imbibition on cooking time. The data collected was subjected to analysis of variance (ANOVA) using SAS (version 9.3.3) to detect differences between treatments. The results showed that KATX69 had the hardest seed coat while KAT SW-13 seed coat had the softest. In terms of imbibitions and cooking time, KATSW-13 and KAT B1 had the highest amount of water imbibed and cooked significantly faster than other varieties while GLP X92 took significantly the longest time to cook. The study recommends breeding of bean varieties with less permeable seed coat to aid in fast cooking as this would save cost on time and fuel.