## ABSTRACT

The Lablab bean (Lablab purpureus) has potential of being an outstanding resource for human food and animal feed in tropical agricultural systems. The bean is however grossly underutilized due to anti-nutritional factors, which may affect its nutritive value and organoleptic properties. In this study, twenty-four (24) lablab bean accessions were assayed for sensory flavor characteristics and volatile compounds to identify acceptable selections for adoption and incorporation into a rationalized breeding program. Sensory tests were carried out by a panel of 11 trained evaluators. Volatile compounds were extracted using hexane and separated using gas chromatography. Sensory tests showed significant differences for the bitter taste ($p \leq 0.05$), with accession 10706 showing the highest odour and bitter taste levels, while accession 13096 had the lowest. Two hundred and sixty two (262) volatile compounds were identified and grouped into 12 classes. The major compounds were esters (46), terpenes and terpenoids (59), hydrocarbons (57), and alcohols (28). The retention times of the volatile compounds revealed an overall 89% similarity of the lablab bean accessions. Accessions showing lower levels of bitter taste are recommended for inclusion in the participatory evaluation stage of the breeding process.



**Key words**: Lablab purpureus, odour, flavour, taste, volatile compounds, underutilized crops.