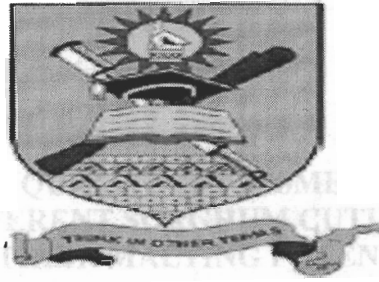
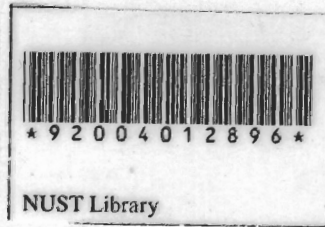



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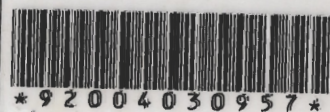
PROSPER JAMBWA
A QUALITY ASSESSMENT
OF DIFFERENT SORGHUM CULTIVARS
FOR THEIR MALTING POTENTIAL

BY

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ABSTRACT

Micro-malting was carried out on five sorghum cultivars [NS5511, NL9964, NL9412, NL2041 and GV3017]. Malt quality parameters, diastatic power (DP) and free amino nitrogen (FAN) were measured on the malts to assess the malting potential of the sorghum varieties. Applying single factor ANOVA at the 5% level there were significant differences among the five cultivars with respect to both diastatic power and free amino nitrogen. Sorghum varieties NL9964 and NL2041 produced malts with mean diastatic activities of ± 32 and ± 28 SDU/g respectively, which were better than the diastatic power of the malt produced from NS5511 (the variety that is currently used for malting purposes by "Delta Beverages Sorghum"), which had a mean diastatic activity of ± 27 SDU/g. The other two cultivars NL9412 produced malt with mean diastatic activities of ± 18 and ± 13 SDU/g respectively which were below brewing specifications. The malts produced from NL9964, NL2041 and NS5511 produced malt with free amino nitrogen levels which are acceptable for brewing purposes whilst malts produced from NL9412 and GV3017 had FAN levels which were below brewing specifications. It was concluded that cultivars NL9964 and NL2041 are suitable for malting whilst cultivars GV3017 and NL9412 have poor malting abilities.