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EFFECTS OF SOAKING AND GERMINATION TIME ON THE ENGINEERING PROPERTIES OF FINGER MILLET (*ELEUSINE CORACANA*)

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ABSTRACT

The effect of germination time on malting loss and engineering properties namely: 1000 kernel weight, bulk density, true density, porosity, length, width, thickness, geometric mean diameter, arithmetic mean diameter, sphericity, surface area, sample volume and angle of repose were studied. Increase in germination time increased malting loss up to 35.27% after 96 hours of germination. Reduction in thousand kernel weight, bulk density and true density was 35.8%, 25.4% and 20.18%, respectively after 96 hours of germination. Porosity of grains was decreased while length increased with increase in germination time up to 72 hours of germination. Width and thickness showed an increase up to 36 hours and 24 hour of germination, respectively, followed by a linear decrease. A similar trend was observed in geometric and arithmetic mean diameter, sphericity, surface area and sample volume of grains. Angle of repose increased from 24.93° to 32.81° after 72 hours of germination followed by a linear decrease.