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Sugars Content of Pearl Millet as Diversed among Cultivars and Affected by Germination

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Ten pearl millet (*Pennisetum americanum*) cultivars were germinated along with one sorghum cultivar for 96 h. Various sugars were determined at intervals of 24 h over a total of 96 h. The germinated grains were dried and polished. The polished pearl millet malt was milled, defatted and the sugars extracted with 80% ethanol for 6 h. The quantities of individual soluble sugars were estimated with high performance liquid chromatography. The sucrose, maltose, glucose and fructose contents of the grains increased significantly ($p < 0.05$) with increase in germination time. The maltose content of unmalted LCRI-IC 9701, ICMV-IS 94208, GWAGWA, G.1-14.9, GB 8735 and GI-297-1 was not detected. Most of the grains reached their various optimum sugar levels at 72 h of germination. SOSAT C-88 had higher ($p < 0.05$) various sugar levels, followed by ZANGO, G.I-14.9 and G.I-297.1. Therefore, these pearl millet cultivars have been found to be good source of sucrose, maltose, glucose and fructose.

Key words: malting, maltose, pearl millet, sorghum, sugar

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