

DEVELOPMENT OF A CONCENTRATED MALT EXTRACT USING LOCALLY AVAILABLE GRAINS AND STARCHES

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Malt extract is a sweet and viscous product containing considerable amounts of dextrin and maltose, prepared by digesting starch with enzymes of germinating grains. It is used to partly replace sugar in malted milk and confectionery. In developed countries, the main enzyme source for the production of malt extract is germinating barley and the substrate is wheat starch.

Locally available raw materials like germinating kurakkan (*Eleusine coracana*) seeds and manioc starch were investigated as substituents to reduce cost of production of malt extract. The product is designed to replace a certain amount of cane sugar used in the food industry.

Laboratory investigations revealed that: (a) The fourth day of germination paralleled with maximum diastatic activity; (b) A ratio of 1 : 8 of enzyme source : substrate could be recommended to result in a malt extract of 65-70° Brix, and (c) Mashing of enzyme source with substrate for one hour in each of the following temperature ranges (40-45, 50-55 and 60-65°C) maintained at neutral pH, are optimum conditions for maximum yield of a good quality malt extract.

References

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