

FINGER MILLET (*Eleusine coracana*) BASED MALTED MILK

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Finger millet (*Eleusine coracana*) is one of the nutritious but underutilized cereals in Sri Lanka. Since finger millet is a rich source of iron and calcium, the issues of calcium and iron deficiencies common among Sri Lankan children and women could be addressed by popularizing consumption of malted finger millet. In this study, malt was prepared using locally recommended finger millet varieties *i.e.* Ravi, Oshada and Rawana. To find out the optimum conditions for malting, four different soaking durations (4, 8, 12 and 16 h) and four different germination periods (12, 24, 36 and 48 h) were tested in Complete Randomized Design with three replicates. Results revealed that there were no differences ($p > 0.05$) among different soaking durations for germination of the three varieties. Hence, soaking was done for 4 h to prepare the malt efficiently. Sensory evaluation was conducted to determine the best germination period by ranking each sample. Based on the results, 48 h of germination period was selected for Ravi and Oshada, while 24 h was selected for Rawana. All sprouted finger millets were dried in a hot air dryer at 70 °C for 5 h to enhance the taste development of malt and then ground into a fine powder. Another sensory evaluation was conducted to select the best finger millet variety to produce malt. Results revealed that, all three varieties were used in production of malt and out of the three varieties, Oshada variety was selected as the best. Malt processed from Oshada contained 94.56% dry matter, 6.69% crude protein and 2.61% crude fat. Further, yeast and mould counts in final product produced from variety Oshada was acceptable and therefore safe to consume. Thus, there is a high potential of utilizing malted finger millet in human diets.

Keywords: Finger millet, Malting, Germination