Development of Rice Base Herbal Biscuit Using *Kowakka (Coccinia grandis)*

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Rice-based products have been developed as an alternate to wheat flour based food products. The rice flour products have an increasing consumer demand due to variety in taste and nutritional aspects. Both rice and leafy vegetables are good sources of nutrition that can provide wider array of nutrients to the mankind.Hence *"Kowakka" (Coccinia grandis)* has been used by some Sri Lankan people as a leafy vegetable for ages. The present study was designed to find the correct proportion of *"Kowakka"* dehydrated leaf powder to incorporate to biscuit in order to produce a rice- based herbal biscuit.

The leaf coarse powder obtained by dehydrating *"Kowakka"* leaves was used in different heat treatments for dehydration of the *"Kowakka"* leaves. Two types of biscuit formulas were developed using *"Kowakka"* dehydrated leaf powder with or without rice bran. Sensory evaluation was conducted to evaluate best treatment using color, taste, flavor, appearance and overall acceptability. The product with the highest score was analyzed for physico- chemical parameters with proximity analysis. The shelf of the product was determined by studying the changes in moisture, color, total plate count and acidity of extracted fat at two weeks interval for the biscuits packed in metalized petILLDPE and Pet/LLDPE.

Results revealed that the steam blanching 15 seconds and oven 55 °C for two hours with fan was the best to prepare the *"Kowakka"* leaf coarse powder. The data on estimated median value of the sensory test revealed that the biscuit containing 1% *"Kowakka"* dehydrated leaf powder and 1% *"Kowakka"* dehydrated leaf powder with 5% rite bran were best formula. The storage study was conducted for the developed two-types of biscuits, which were packed in metalized pet/LLDPE packing material. During the storage time period moisture, color, total plate count and acidity of extracted fat did not changed significantly.

The product with 1% *Kowakka* has crude protein 2.8%, Crude fat 12.8%, and crude fiber 1.7%, total ash 1.6%, and the product with 1% *Kowakka* and 5% rice bran added biscuit has crude protein 3.2%, crude fat 16.2%, and crude fiber 2.8%, total ash 2.4% with some minerals in minor quantities.

Key words: *Rice biscuits, Kowakka, Herbal*