

FORMULATION AND DEVELOPMENT OF
WHEY BEVERAGE INCORPORATING GINGER
(*Zingiber officinale*) POWDER AND LEMON FLAVOR

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By

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ABSTRACT

This study was conducted to produce whey based beverage in order to get rid of whey disposal problem. In this research, preparation of ginger powder from ginger roots (*Zingiber officinale*), determination of the most suitable ginger

Powder percentage, determination of the best lemon flavor and sugar percentage and determination of the most suitable stabilizer for the beverage was undertaken.

Best samples were selected with the help of 15 trained panelists and the results were analyzed using Friedman test by MINITAB 14 software. Friedman test was done with 0.05 significance level.

The best ginger powder, citric acid, and sugar levels were 1.2% (w/w), 0.16% (w/w), and 7.2% (w/w) respectively. And the best stabilizer was carboxymethylcellulose (CMC), 0.1% (w/w). Tatzine (E 102) was used as an added color. pH changes and microbiological qualities were used as quality parameters for determination of shelf life of final product. Total Plate Count (TPC) and Coliform count were taken into consideration as microbiological properties. As pH of the final product and total plate count of the final product begin to increase steadily at the 5th day. As a result of that shelf life of product were determined as 5 days under refrigerated conditions (4 °C).