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Development of a whey based ready to serve nelli drink (*Phyllanthus emblica* L.*)*

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The objective of this study was to explore the possibility of utilizing whey for the development of nutritious whey based ready to serve (RTS) drink.

Liquid whey a by product of cheese manufacturing process was analyzed and it was pasteurized (85 °C, 15 sec) in order to destroy pathogenic microorganisms, inactivate the residual milk coagulating enzyme rennet and starter microflora added in manufacture of cheese. Nelli fruit was Steam blanched (95 °C, 4 bars, and 2 minutes) and juice was extracted. In developing RTS pasteurized whey was mixed with sweetened Nelli juice and Sulpher dioxide was added at three levels as 0 ppm, 35 ppm, and 70 ppm. Nelli, banana and vanilla essence were added separately. In sensory evaluation a five point Hedonic test was carried out by using a taste panel of 20 panelist to evaluate the flavour and colour and overall acceptability. It was found out that whey contain 93.80% moisture, 5.00% total sugar, 0.84% protein, 0.55% ash, 0.30% fat, 0.23% salt and 0.14% titratable acidity. The microbiological results (total plate count) revealed that 35 ppm and 70 ppm of preservative levels (sulpher dioxide) were acceptable after one week storage at 4 °C. Since the level of 70 ppm formed off flavour, 35 ppm was selected for further studies. The composition of developed RTS was 15.3% total solids, 14% sugar, 0.65% titratable acidity, 0.44% protein and 0.08% vitamin C. Development of acidity at room temperature stored product was significantly ($p<0.05$) higher than refrigerated stored product. Off colour formation was not observed during storage. Nelli and Banana flavourings were acceptable for the whey based RTS.

It can be concluded that the acceptable levels of whey and Nelli juice for RTS were 74% and 15%, respectively. Nelli and Banana flavourings, natural colour and 35 ppm of sulpher dioxide concentration were acceptable for the whey based RTS.

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