

Studies on textural profile of *gulabjamun* blended with wheat bran

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Objective

To study the textural profile of *gulabjamun* blended with wheat bran

Methodology

Buffalo milk was procured, filtered through muslin cloth and standardized to 6% fat and 9% SNF. The milk was heated in a pan on low fire with stirring to obtain *khoa*. All the ingredients viz., *khoa* (70%), *maida* (30%), baking powder (0.2%) and wheat bran ($T_0 - 0$, $T_1 - 0.2$, $T_2 - 0.4$ and $T_3 - 0.6\%$) by weight of milk were weighed and mixed thoroughly in small quantity of water to make dough and thereafter 10 g spherical/ round shape balls were prepared and these were deep fried in fat using the electrical fryer at 130°C/15 min to get a light brown coloured surface (Rangi *et al.*, 1985). Deep fried *gulabjamuns* were soaked in hot sugar syrup having 50° Brix TSS (Total Soluble Sugar) at 70°C for 4 h (Rangi *et al.*, 1985). The textural property was evaluated using the Instron Texture analyzer of Stable Micro System equipped with 50 kg load cell. The textural properties of *gulabjamun* were determined by using textural parameters such as hardness, cohesiveness, adhesiveness, springiness, gumminess and chewiness.

Result and Discussion

The textural profile of *gulabjamun* revealed that there were wide range (1.843-2.157) in hardness values in *gulabjamun* blended with 0.2, 0.4 and 0.6 per cent wheat bran. The highest value of hardness was observed in control *gulabjamun*, whereas lowest hardness value in *gulabjamun* prepared with 0.6 per cent wheat bran. This indicates that addition of wheat bran reduces the hardness of *gulabjamun*. The highest hardness value in control *gulabjamun* might be due to higher content of *khoa*. The results are in accordance with those of Yawale and Rao (2012). The superior results in terms of cohesiveness were observed in *gulabjamun* blended with 0.2 per cent wheat bran than rest of the treatments. The results are comparable with those of Adhikari (1993) who reported cohesiveness values of laboratory and market *gulabjamun* as 0.35 and 0.39, respectively. The adhesiveness values were highest for *gulabjamun* without blend of wheat bran and lowest for *gulabjamun* prepared with 0.6% wheat bran. The springiness values were observed in wide range among treatments groups. However, *gulabjamun* without blend of wheat bran showed highest score for springiness compared to *gulabjamun* blended with 0.2, 0.4 and 0.6 per cent wheat bran. The addition of wheat bran significantly affected the chewiness of *gulabjamun*. Among all treatments, *gulabjamun* blended with 0.6 per cent wheat bran showed lowest chewiness while highest values of chewiness were observed in case of control *gulabjamun*.

Conclusion

The textural quality of *gulabjamun* blended with 0.2 per cent wheat bran was comparable to control *gulabjamun* but *gulabjamun* blended with 0.4 (T_2) and 0.6 (T_3) per cent wheat bran significantly affected the textural quality of *gulabjamun*.

