

Studies on Textural Profile of *Peda* Blended with Wheat Bran

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Objective

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

Methodology

For the preparation of *peda*, Buffalo milk was procured, filtered through muslin cloth and standardized to 6% fat and 9% SNF. The calculated amount of standardized milk and wheat bran as per treatment combination (T_0 - 0%, T_1 - 0.2 %, T_2 - 0.4 % and T_3 - 0.6 % weight of milk) was heated on low fire with stirring till the desired texture was obtained. The sugar was added @ 30 per cent by weight of *khoa* (80°C) and mixed till mixture turned relatively firm. The content of the pan were then removed and transferred into stainless steel tray for cooling to room temperature (30°C) and finally ball forming (20 g each with an approximate 3 cm diameter) was done manually using palms. The textural profile was evaluated using the Instron Texture analyzer of Stable Micro System equipped with 50 kg load cell. The textural profile of *peda* was determined by using textural parameters such as hardness, cohesiveness, adhesiveness, springiness, gumminess and chewiness.

Result and Discussion

The textural profile of control *peda* and *peda* blended with wheat bran revealed that hardness value in *peda* (T_0) was highest compared to rest of the treatments. It indicating that addition of wheat bran reduces the hardness of *peda*. The results were in accordance with those of Gupta *et al.* (1990) and Suresh and Jha (1994) who reported that the hardness of *khoa* (base material for *peda*) highly correlated with the total solids. Patel (1996) reported that moisture content of *peda* had direct relationship with hardness. The highest cohesiveness values were observed in the treatment (T_0) than *peda* blended with wheat bran. The control *peda* had higher score (0.161) for cohesiveness among the treatments. Cohesiveness results were comparable to that of Rasne *et al.* (2012). The lowest cohesiveness value in treatment T_2 might be due to higher moisture content in *peda*. The adhesiveness value was lowest in *peda* blended with 0.2 per cent wheat bran whereas, highest values of adhesiveness was observed in *peda* blended with 0.6 per cent wheat bran. The higher adhesiveness values of *peda* (T_3) may be due to higher fiber content. The springiness results were comparable among all treatments. However, the *peda* blended with 0.2 per cent wheat bran showed highest score (7.923) as compared to rest of all treatments. The results are in accordance with those of Patil *et al.* (1991). Among all treatments, control *peda* showed highest (6.618) gumminess values, whereas lowest (2.170) was observed in T_3 . The blending of wheat bran significantly affected the chewiness of *peda*. Among all treatments, *peda* blended with 0.4 per cent wheat bran showed lowest chewiness while highest values were observed in control *peda*. Texture profile analysis revealed that blending of wheat bran in *peda* progressively decreased the hardness, gumminess and cohesiveness towards the higher incorporation of wheat bran.



Table 1-Textural properties of *Peda* blended with wheat bran

Treatment	Hardness (kg)	Cohesiveness	Adhesiveness	Springiness (mm)	Gumminess	Chewiness
	H	A2/A1	A3	D1	H x A2/A1	(H x A2/A1) x D1
T ₀	40.959	0.161	0.166	7.920	6.618	52.422
T ₁	31.007	0.125	0.125	7.923	3.888	30.806
T ₂	23.018	0.097	0.155	7.920	2.245	17.787
T ₃	20.674	0.125	0.179	7.920	2.170	20.674

Conclusion

It is concluded that wheat bran tried in this study could be successfully incorporated in *peda* up to 0.4 per cent without adversely affecting textural profile of product.

