

# Estimation of Chemical Composition of Wood Apple *Burfi*

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## Objective

To determine the chemical composition of wood apple *burfi*

## Methodology

Wood apple *burfi* was prepared as per the procedure laid down by Sachdeva and Rajorhia (1982). Buffalo milk was procured, filtered through muslin cloth, and standardized to 6% fat and 9% SNF. The milk was heated in a pan for conversion to *khoa*. *Khoa* was fortified with 40% (w/w) sugar, and wood apple pulp at different concentrations, viz., 0% ( $T_0$ ) control, 5% ( $T_1$ ), 10% ( $T_2$ ), and 15% ( $T_3$ ) (w/w) of *khoa*. The mixture was heated on low fire with stirring till the desired texture was obtained. The mixture was spread in an aluminum tray and allowed to cool and settle. After setting, the mass was cut into rectangular blocks of 3.0 X 3.0 cm size. Wood apple *burfi* was obtained as the final product. The proximate composition of the finished products were evaluated with respect to moisture (IS, 1964), fat (Gerber's method, IS, 1977), protein (Kjeldahl's method, Meneffee and Overman, 1940), total sugar (Volumetric (Lane-Eynon) method, IS, 1981) and ash (IS, 1981). The data were analyzed statistically by using completely randomized design (CRD) as per Panse and Sukhatme (1985).

## Result and Discussion

The proximate composition of wood apple *burfi* revealed that it had significantly ( $P \leq 0.05$ ) higher moisture (%) and total sugar (%) but lower ( $P \leq 0.05$ ) fat (%), protein (%), ash (%), and total solids (%) than control (Table-1). Comparison between the treatment groups indicated that fat (%), protein (%), ash (%), and total solids significantly ( $P \leq 0.05$ ) declined, while moisture (%) and sugar (%), increased ( $P \leq 0.05$ ) with the increase in the concentration of wood apple pulp in the product. Increase in moisture content of wood apple *burfi* is attributed to addition of wood apple pulp, which has increased moisture content (Jayakumar and Geetha, 2012) than buffalo milk *khoa* (Patel and Shah, 2009). There was consistent decrease in fat%, protein%, and ash% with the increase in the content of wood apple pulp due to the presence of these elements in lower proportion in wood apple pulp (Jayakumar and Geetha, 2012) compared to buffalo milk *khoa* (Patel and Shah, 2009). The chemical parameters of wood apple *burfi* obtained in our study agreed with the findings of Wakchaure (1998), Kolhe (2003), Matkar (2006), Galande (2007), and Bankar *et al.* (2013).

Table-1. Proximate composition (%) of wood apple *burfi*.

| Constituent  | $T_0$              | $T_1$              | $T_2$              | $T_3$              | SE   | CD at 5% |
|--------------|--------------------|--------------------|--------------------|--------------------|------|----------|
| Moisture     | 16.96 <sup>d</sup> | 18.10 <sup>c</sup> | 19.17 <sup>b</sup> | 20.30 <sup>a</sup> | 0.06 | 0.18     |
| Fat          | 20.41 <sup>a</sup> | 19.34 <sup>b</sup> | 18.10 <sup>c</sup> | 17.03 <sup>d</sup> | 0.06 | 0.18     |
| Protein      | 14.88 <sup>a</sup> | 14.37 <sup>b</sup> | 13.52 <sup>c</sup> | 12.67 <sup>d</sup> | 0.07 | 0.22     |
| Ash          | 2.98 <sup>a</sup>  | 2.82 <sup>b</sup>  | 2.69 <sup>c</sup>  | 2.56 <sup>d</sup>  | 0.01 | 0.05     |
| Total solids | 83.04 <sup>a</sup> | 81.90 <sup>b</sup> | 80.83 <sup>c</sup> | 79.70 <sup>d</sup> | 0.06 | 0.18     |
| Total Sugar  | 44.77 <sup>d</sup> | 45.37 <sup>c</sup> | 46.52 <sup>b</sup> | 47.44 <sup>a</sup> | 0.06 | 0.18     |

Means with different superscripts differed significantly at  $P \leq 0.05$ .



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## Conclusion

The chemical parameter such as fat (%), protein (%), ash (%) and total solids significantly ( $P \leq 0.05$ ) declined, while moisture (%) and sugar (%) increased ( $P \leq 0.05$ ) with the increase in the concentration of wood apple pulp in the product.

