



## DEVELOPMENT AND QUALITY ANALYSIS OF WAFER PREMIXES USING DIFFERENT TYPES OF MILLETS

Baishakhi Mandal<sup>1✉</sup>, Surbhi Antarkar<sup>2✉</sup>

<sup>1</sup>*Department of Food Science and Nutrition SNTD Women's University (SNTD College of Home Science), Karve Road, Pune, Maharashtra, India.*

✉[bmandal352k@gmail.com](mailto:bmandal352k@gmail.com); ✉[surbhi.antarkar@gmail.com](mailto:surbhi.antarkar@gmail.com)

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### ABSTRACT

In the current study, four different varieties of wafer premixes incorporated with malted finger millet flour, pearl millet flour, sorghum flour and mixed millet flour (finger millet, pearl millet and sorghum) were developed by replacing refined wheat flour as millets are rich in dietary fiber, vitamins, and minerals including other nutrients and have several beneficial effects to our health. Malting helps to increase digestibility by breaking down complex substances into simple one and helps in increasing the bioavailability of some nutrients. The variety of developed premixes has four distinct flavours namely, chocolate flavour for ragi wafer premix, cinnamon flavour for bajra wafer premix, vanilla flavour for jowar wafer premix and strawberry flavour for the mixed millet wafer premix. Raw materials were procured from local grocery shops and e-commerce platform. Trials were taken by developing ice cream cones using malted millet flour and other raw materials. The amount of ingredients to be used to develop the premixes was decided through the organoleptic evaluation performed using a 5-point hedonic scale. Among these four premixes, wafers made with ragi (finger millet) wafer premix got the most overall acceptability score followed by jowar (sorghum) wafer premix, mixed millet wafer premix and bajra (pearl millet) wafer premix. Standby pouches made of LDPE were used as packaging material to perform the primary functions of packaging such as protection, preservation, and presentation of the product inside the packet. Developed premixes were subjected to physical, chemical, and microbial analysis to evaluate the quality and storage behaviour. The main motive of this study was to develop healthier version of wafers without compromising their taste as well as texture and to know the effect of using different kind of millets in the processing of wafers. Cereals can be replaced by millets to add more nutrition in daily diet. So, if millets are used in commercial snack products, then it can contribute to the upliftment of total health of a community. Wafers in the form of cones, bowls etc. can contribute to edible cutlery which is sustainable and can reduce the load of waste from the food industry.

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