

# **Developing of low calorie and high fiber cereal bars using local cereals as an alternative of functional food for the prevention of obesity**

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## **ABSTRACT**

Obesity has become a global epidemic faced by all countries in the world, including Indonesia. Efforts to prevent obesity can be done by consuming food products that are low in calories and rich in fiber, for example in the form of cereal bars based on local cereals. The purpose of this study is to develop low calorie and high fiber cereal bars from local cereals, i.e. Job's tear (jali-jali), foxtail millet (jewawut), and sorghum (cantel), as an alternative functional food product for the prevention of obesity. The raw materials are jali-jali, jawawut, and cantel. The research stages consists of 1) making flour of jali-jali, jewawut, and cantel; 2) determining the reference formula for cereal bars; 3) designing a formula for low-calorie and high fiber cereal bars from jali-jali, jawawut and cantel; 4) determination of the best formula for low calorie and high fiber cereal bars from jali-jali, millet and cantel; 5) determination of consumer preference test with 30 semi-trained and large-scale panelists with 80 people; 6) determination of color, water activity, degree of Brix, proximate, amylose, dietary fiber and resistant starch contents. Data analysis was performed using one-way anova with Duncan's Multiple Range Test. The benefits of research is for producing local cereal-based functional foods for the prevention of obesity. The research output is scientific articles in Scopus indexed international journals and draft patents.

**Kata Kunci:** *Cereal bar, local cereals, high fiber, functional food, obesity*