

SENSORIAL AND NUTRITIONAL INFLUENCES OF SEVERAL TYPES OF HYDROCOLLOIDS IN BREAD

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Abstract: In this paper, four types of hydrocolloids were used to make breads with lower caloric values and higher fiber content. The hydrocolloids with lower capacity to bind water lead to breads with higher fiber content and higher caloric values than the hydrocolloids with higher capacity to bind water. At low level of gums the sensorial properties are even slightly better than the scores of control sample but at high levels the scores drops dramatically and the breads are at the lower limit of acceptability. The breads with xanthan had the lowest scores while the breads with alginate had the highest cores at 3 and 5% addition. At 10% addition the cellulose and guar gums showed superior scores. At 3 and 5% gums added the breads with xanthan and alginate had caloric values lower than the samples with cellulose gums while cellulose gums and alginate had the lowest caloric values at 10% adition.

Keywords: bread, dietary gums, xanthan, guar, alginate, carboxymetilcelullose, sensorial properties, caloric value, fiber content

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