

## **Textural, functional, and sensory characterization of low sugar gummies formulated with stevia (*Stevia Rebaudiana* Bertoni) and red fruits..**

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The consumption of foods high in sugars and specifically sweets and gummies, represent a risk to the health of the people who consume them, because they can cause various diseases associated with cardiovascular problems and diabetes; In this sense, it is important to look for emerging raw materials that allow the development of healthier candies or gummies. In that order of ideas, red fruits such as blackberries and strawberries are rich in bioactive compounds which, when consumed, generate health benefits for human beings; In addition, Stevia, being a non-caloric sweetener, is an alternative to the use of sugar in the formulation of gummies. The main goal of this research was to develop gummies with berries and the addition of Stevia, as well as their characterization, as a nutritional and consumption alternative. The methodology included the formulation of a control gum which contained a percentage of red fruits of 18% in a ratio of blackberry/strawberry 70/30. Sugar was replaced by stevia at 15%, 20% and 30%. Moisture content, total phenols and ascorbic acid content of the gums were determined. Finally, textural, and sensory analyses were performed, the latter according to GTC 293/2018. The gummies with 20% stevia were the best formulation which reported an adhesiveness and hardness value of  $-0.01858 \pm 0.0026$  and  $30.5726 \pm 3.85$  N, respectively. The sensory scores for flavor attributes and texture were 2.5, with 3 being the maximum score. Finally, moisture content, total phenols and ascorbic acid were 45%,  $99.74 \pm 0.9$  mgAG/100g dry sample and  $37.80 \pm 0.94$  mgAA/100g dry sample, respectively. In general, it can be concluded that it is possible to formulate a gummy with textural, proximal and sensory properties of its own, from red fruits and stevia, as a healthy consumption alternative for people.