

Insects as an alternative source of protein: a review of the potential use of grasshopper (*Sphenarium purpurascens* Ch.) as a food ingredient

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Abstract

The intake of insects by humans is not a new practice, but in some cultures, is still an insalubrious activity or even a taboo. Over time, eating some insect's species to obtain proteins seems to be a feasible idea to an economic, environmental and nutritional point of view. Among more than 2000 species of edible insects, the *Sphenarium purpurascens* stands out, due to its nutritional properties. A review of the intake of insects as a source of proteins was made, to integrate the information of *S. purpurascens* analyzing nutritional aspects to establish its potential to the food industry. The data found reveal that *S. purpurascens* has higher protein content than some conventional sources of animal origin, with an important contribution of fats, carbohydrates, minerals and their amino acid profile, it complies with the FAO requirements. All these characteristics offer a potential for processed foods development with high protein content and not only to encourage the consumption of the classic fried and spiced insect as it is currently consumed. However, studies that register officially the total production for their possible mass production and potential industrial uses are needed.

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