

Insects as Sustainable Source of Human Food: A Review

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Entomophagy, consumption of insects, is an age old practice with more than 2100 insect species categorized as edible and relished by more than 2 billion people globally. Despite having been a common practice in Africa, Asia and Latin America, entomophagy has only recently gained more attention in the wake of looming food scarcity due to the effects of climate change on agricultural productivity. Insects have been getting the special attention due to their competitive advantage as a sustainable source of high quality protein with little carbon foot print than the conventional sources of proteins such as beef and poultry. In addition to offsetting the greenhouse gas emissions, insects are also cheaper to produce, are less vulnerable to diseases, have high feed conversion ratio and multiply fast. Many studies have been done to assess the acceptability of insects as human food. Other researchers have also conducted studies on the use of insects as animal feed versus the conventional feeds and how these affect the quality of the carcass that is ultimately used as human food. This paper reviews published works in the recent times to consolidate research findings on the nutritional benefits of insects in human diet, functional properties and application of insect products in food product development as well as the food safety concerns associated with such use.

Key words: Entomophagy, insects, insect protein, sustainability