

ORIGINAL RESEARCH

Pearl Millet and Honey Bee Brood: A Systematic Review on Nutritional Composition, and Other Characteristics with Combination Advantage to Model A Supplement

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Abstract

Pearl millet is one of the crops that thrive well in the Arid and semi-Arid lands (ASALs). However, its utilization, market, and processing are limited. Honey bee brood similarly, is also producible in the ASALs. However, though the duo is readily consumed as food, little processing is evident especially in relation to ASALs. From the previous literature, untapped potential for food security exists provided enhanced production, processing and utilization of these products in ASALs. However, there is limited systemic reviews on characteristics of pearl millet and honey bee brood. This systemic literature review was aimed at determination of the biochemical, nutritional and sensory characteristics as well strengths and weaknesses for combination of the two to form a supplement for treatment of moderate wasting among children. The study concluded that both pearl millet and honey bee brood are consumed worldwide as food. Twenty-six studies were included in this study. Pearl millet was presented to have high calorie, high protein, and balanced micronutrients. Honey bee brood was described as rich in amino acids and fats. Combining the two in conventional diet would provide adequate nutrients for humans when utilized for food. Due to the presence of high contents of balanced amino acids, especially leucine, histidine, high calorie nature in pearl millet and bee brood, the two can be formulated to a supplement which can cause weight gain and cure in moderate wasting.

Key words: Pearl Millet, Honey Bee Brood, Arid and Semi-Arid Lands, Moderate wasting, Supplementary Foods.