

Development of a Prawn Flavored Spicy Cracker with Prawn Waste and Drumstick Leaves

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Prawns are very important aquatic products in Sri Lanka. Prawn industry wastes are used as value-added human food, fish feed or to extract chitin. This research intended to produce high protein spicy prawn cracker with prawn waste and drumstick leaves. Prawn industry wastes (head, appendages, carapaces, and shell) were thoroughly washed, dried in hot air oven at 80°C for 4 hours and ground by a blender. Fine prawn head waste powder thus obtained was used for producing prawn crackers. Drumstick leaves were wilted for 5 days at the room temperature and finely ground. Wheat flour, rice flour, vegetable oil, salt, dry yeast, pepper, water were mixed to make a dough. According to the sensory results 2% (w/w) prawn head waste powder and 1% (w/w) drumstick leaves powder was selected as the best. The dough was cut into pieces of square shapes and put into the oven at 180°C - 200°C for 8-10 minutes. Nutrition evaluation of prawn cracker was total carbohydrate 62.34%, crude protein 13.06%, crude fat 15.8%, ash 2.40% and crude fiber 2.50%. pH of the product did not significantly vary within the measured period (around pH 7). Microbiological analysis reveals that the product is within the SLSI limits in room temperature up to 14 days. Hygienic handling practices and proper packaging will increase the shelf life. This research revealed that high quality protein fortified prawn crackers could be manufactured from unutilized prawn wastes. Finally the development procedure can be scale up and can increase the shelf life with introducing proper packaging materials.

Keywords: Prawn head waste powder, Drumstick leaves powder, Prawn cracker