**Development and Evaluation of a ‘Tender Jackfruit in Barbecue Sauce’, Destined to the European Vegan Food Market**

**PRDC Karunasena1\*, PMAS Karunaratne1, DDMO Dissanayake 1, N Jayathilake2**

*1Department of Export Agriculture, Faculty of Agriculture sciences, Sabaragamuwa University of Sri Lanka,Belihuloya Sri Lanka.*

*2Worga Naturals (Pvt) Ltd, Meepavita, Dompe, Sri Lanka.*

*\*dinushac91@gmail.com*

Jackfruit (Artocarpus heterophyllus L*.*) is used as a vegetable at its tender stage and is popular for its flavor, color, and meat-like texture. This research is based on reducing wastage of jackfruits during the ripening stage. Moreover, a trend is being developed towards vegan food products and is encountering a significant demand specifically at the European market. Therefore, a study was designed to assess a product developed using tender jackfruit in a barbecue sauce as a jar-type product for European market. Sauce was developed by using tomato juice, sugar, vinegar, cinnamon, chili, onion, cardamom, garlic powder, and sugar. Hence, three products were developed by changing the added concentrations of tomato paste and sugar contents (700ml, 800ml, 900ml tomato juice level and 250g, 150g, 50g sugar level). This product was subjected to sensory evaluation, done by using trained European panelist and local panelist with nine point hedonic test to select best spice combination and final product. Also proximate analysis and microbiological analysis adhered to AOAC and SLS methods were conducted without adding chemical preservatives. According to sensory evaluation, 80% tomato paste level with 15% sugar product was selected as the best product. The moisture, total fat, total fiber, crude protein and ash of the selected final product orderly were 76.33 ± 0.01%, 0.19 ± 0.04%, 7.23 ± 0.09%, 2.68± 0.30% and 2.17 ± 0.07%. The total carbohydrate value was 11.43 ± 0.02% of selected final product. Shelf life of the product was determined by using TPC and yeast and mold count methods. According to the result after 4 weeks the total plate count was increased and it was lower than SLSI recommended level. Also yeast and mold count were not detected. According to the results this product is preferred by the local market than export market. Also, product contains high crude protein and fiber.

**Key words:** *hedonic test,* *proximate analysis, sensory evaluation, vegan food*