

3rd International FOOD SCIENCE, PROBIOTICS, NUTRITION & MICROBIOME CONFERENCE November 28-29, 2019 | Kuala Lumpur, Malaysia

Pili (*Canarium ovatum*, Engl.) Pomace Powder as a Functional Food

Ana Teresa L. Ibo^{1, 2*} and Trinidad P. Trinidad¹

¹The Graduate School, University of Santo Tomas, Philippines

²Bicol State College of Applied Sciences and Technology, Philippines

Pili nut (*Canarium ovatum*, Engl.) is endemic in the Philippines and can be abundantly found in the Bicol region. The pulp is a good source of oil essential for dietary and cosmetic manufacturing. Pilipomace is a by-product of pili pulp oil production which consists of peel and pulp usually discarded as animal feed and wastes. This study aimed to determine the potential functional properties of oven dried pilipomace powder (PPP). In this work, pilipomace was utilized into powder through oven drying for 22 hours at 60°C. Proximate composition and dietary fiber of PPP were analyzed using AOAC standards. Phytonutrient content and antioxidant activity of PPP were also determined. Results showed that PPP contains 7.9% crude ash, 7.7 moisture, 5.4% crude protein, 23.1% crude fat and 55.9% total carbohydrates. It is an excellent source of dietary fiber (45.9 g/100g) with significant amounts of phytonutrients: total polyphenols (11.3 mg GAE/g), total anthocyanin (1230.8 mg C3GE/kg) and total flavonoids (9.7 mg RHE/g). Its antioxidant capacity were determined by FRAP (13.4 mg TE/g) and DPPH (17.6 mg TE/g). Safety assessment through microbiological analysis showed that PPP were in safe levels (7.5×10^3 APC, <10 E. coli and 4.5×10^3 Yeast and Molds count). Physicochemical analysis showed that PPP has moderate pH (4.46 pH) and low water activity (0.47 Aw) indicating that PPP is less susceptible to spoilage under good storage condition. In conclusion, this study show the potential of PPP as a functional food ingredient which can be utilized in various food applications.

Biography

Ana Teresa L. Ibo is a graduate student of University of Santo Tomas and a faculty in the College of Arts and Sciences at Bicol State College of Applied Sciences and Technology. She received her B.S. degree in Nutrition and Dietetics from Universidad de Sta. Isabel. Trinidad P. Trinidad is a Food and Nutrition Scientist and a Professorial Lecturer at the Graduate School of University of Santo Tomas. She received her Ph.D. degree in Nutritional Sciences from the University of Toronto.

Notes: