

[6-1130-P]Functional/Wellness Foods & Nutrition (6th)

2019年9月6日(金) 11:30 ~ 12:30 Poster Place (Entrance Hall)

11:30 ~ 12:30

**[6-1130-P-07]Nutritional and Functional Properties of Yoghurt Drink
with Philippine Gac (*Momordica cochinchinensis* Spreng.)
and Bignay (*Antidesma bunius*) Fruits**

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キーワード : Philippine indigenous fruits, Fortified yoghurt drink, β -carotene, Lycopene, Antioxidant activity

Philippine indigenous fruits, Gac (*Momordica cochinchinensis* Spreng.) and Bignay (*Antidesma bunius*), were added to yogurt drink to increase its nutritional and functional properties. Fresh gac fruit aril was found to have high amounts of lycopene (204.54 μ g/g), β -carotene (727.80 μ g/g), and antioxidant activity (32.94% scavenging activity) while Bignay berries have high antioxidant property (85.54% scavenging activity). The best formulation, 20g bignay juice with 3.5g gac aril per 100g yogurt drink, was identified through sensory evaluation using quality scoring. The pH, titratable acidity (TA), total soluble solids (TSS), and lactic acid bacterial count of the gac-bignay yogurt drink were determined during a two-week storage period at 4° C. At the same time, the proximate composition, β -carotene, lycopene, and antioxidant activity of the most acceptable formulation were also determined. After the storage period, results showed that the gac-bignay yogurt drink has a pH value of 4.00, TSS of 23° Brix, lactic acid content of 1.00%, and lactic acid bacterial count of 6.75 log CFU/mL. The nutritional composition of the gac-bignay yogurt drink showed no significant difference with the plain yogurt drink in terms of the protein, fiber, and fat contents. However, the gac-bignay yogurt drink was found to have significantly higher β -carotene content (25.92 μ g/g), lycopene content (16.56 μ g/g), Vitamin A content (4.02 IU/g), and antioxidant activity (3.05% scavenging activity) than the plain yogurt drink. For a serving size of 80mL, it can provide 18% of the daily value required for Vitamin A and this has satisfied the definition for Vitamin A fortification. Thus, the functional properties of a regular probiotic drink has been elevated which can address different diseases such as cardiovascular disease, atherosclerosis, cancer, and neurodegenerative disorders.