J Food Process Technol 2016, 7:8(Suppl)
http://dx.doi.org/10.4172/2157-7110.C1.042

R-BSMT-The Role of Black Soybean Milks on Metabolic Syndromes and Immune Respones of Diabetics Subjects

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Black soybean has been used to produce soysauce in Asian countries. Its use for soy milk is still limited inspite of its excellent nutrient, prebiotic and bioactive compound but trace digestible carbohydrate content. Although rich in anthocyanin and other flavonoids, soybean contain limited amount of carotenoids. In this research, soy milk and microencapsulated palm oil, rich in carotenoids, productions were optimized in the university production laboratory. There were 36 diabetic subjects participated, the subjects were patients of a local neighbourhood clinic and all signed the informed consents. The subjects were divided into three groups i.e. control, receiving plain black soy milk and receiving black soy milk enriched with microencapsulated palm oil (BSMPO) group. The milk products were disributed for 30 days 240 ml daily while observing the subjects acceptance and general condition. Blood collections were done before and after intervention by certified nurses for all groups for analysis in the department laboratory. Consumption of both plain black soy milk and BSMPO resulted in declining of fasting glucose level (P=0.23), reduced Cox-2 level (P=0.00) and IL-6 levels and increase in plasma antioxidant status (P=0.19). There are increment in blood CD4 and CD8 but no changes in DNA-adduct level. We concluded consumption of black soy milk may contribute to improvement in overall health of diabetic subjects and may serve as important preventive food.

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