

Studies on formulation of cookies by using soy protein isolates from de-oiled soya meal

S.D. KATKE AND N.N. KELAPURE

Present investigation was undertaken to study the compatibility of de-oiled soy meal in preparation of Soy Protein Isolate and further to study formulation of cookies with different wheat flour and Soy Protein Isolate blend ratio. The raw material *i.e.* de-oiled soy meal was subjected for the proximate analysis to judge the suitability of raw material in preparation of the Soy Protein Isolate and it was also analyzed for the chemical composition. From the proximate analysis, it was found that Soy Protein Isolate contains 84.5% protein which justifies it was suitable as nutritional ingredient. Cookies were predominantly based on refined wheat flour (RWF) and Soy Protein Isolate (SPI) blended composite flour so as to upgrade the nutritional quality. Preliminary experimental work was done with different high levels of Soy Protein Isolate (SPI) incorporation so as to select the range of % incorporation which could be used in formulating composite flour for cookies. Through sensory evaluation by a panel of food scientists it was found that not more than 20% of SPI could be used in preparation of composite flour as further increase in SPI concentration resulted in drastic reduction of overall acceptability of product. Therefore cookies were prepared with incorporation of Soy Protein Isolate from 0% [control *i.e.* T₁(c)], 5% [T₂], 10% [T₃], 15% [T₄], 20% [T₅] and analyzed for their physical, chemical and organoleptic evaluation. Sample T₄ with 15% incorporation found to be superior with respect to all the aspects. Further increase in the Soy Protein Isolate level will reduce overall acceptability of the product.

Key Words : Soy protein isolate (SPI), De-oiled soy meal, Refined wheat flour (RWF), Soy cookies

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MEMBERS OF RESEARCH FORUM

Author for correspondence :

S.D. KATKE, Department of Food Chemistry and Nutrition, MGM College of Food Technology, Gandheli, AURANGABAD (M.S.) INDIA

Associate Authors' :

N.N. KELAPURE, Department of Food Science and Technology, MGM College of Food Technology, Gandheli, AURANGABAD (M.S.) INDIA
