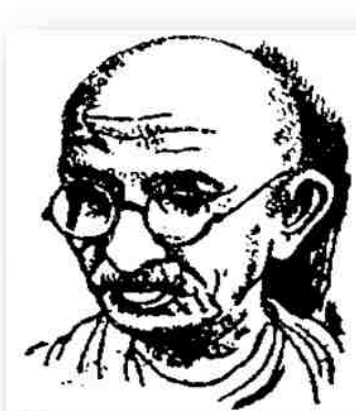


Soya Fortified Wheat Flour:

A Big Step Towards Nutrition and Health Security of At Risk Population



Starting in 1935, Mahatma Gandhi became interested in soybeans as a source of low-cost, high-quality protein in the vegetarian diet he advocated. He had learned of soy from Shri Narhar Bhave (father of his famous nonviolent co-worker Vinoba Bhave) who was eating 6 ounces of cooked soybean daily, and reported that they greatly improved his health. Starting in October 1935 Gandhi began serving whole soybeans (steamed for 2 hours) to all members of his community at Maganwadi; they were eaten with chapati or bhakari for breakfast and with rice for dinner, seasoned with a little salt and oil. In late 1935 Gandhi wrote several articles about soybeans and soy foods and published information provided by the Baroda State Food Survey Office in his popular magazine Harijan.



Soybean is one of the very few plants that provides a complete protein source and it has high quality protein with minimum saturated fat. Soy protein has good amino acid profile and also has a number of health and functional benefits. One of the best ways of adding soy to the daily diet is to fortify wheat flour. Addition of soy flour to wheat flour has a number of advantages. One of the most promising benefits is improvement of both wheat protein quality as well as quantity. Soy flour is rich in protein and has an excellent profile of amino acids, particularly lysine, which is deficient in wheat flour. Earlier it was perceived that soy protein is deficient in sulphur containing amino acids but with the new method of evaluation, soy protein has all the essential amino acids. Based on this new FAO/WHO method soy protein quality is at par with milk and egg. Blending of soy flour with wheat flour will not only provide higher protein content but also improves the amino acid balance. Research shows that, blending of soy flour with wheat flour will increase the recommended amino acid availability from 40 to 80%.

In 1996 Government of India through Prevention of Food Adulteration Act (PFA) amended its specifications for whole wheat flour (atta) and white (maida) and included a new category, called 'paushtik atta and maida' (A.18.01.02, PFA 1996), with a maximum of 10 percent fortification of wheat flour with other protein sources such as defatted soy flour (DSF).

In spite of Mahatma's advocacy and also being one of the leading (oilseed) crops in India soybean could not reach its deserved place in the Indian diet. The initiation taken by Shri Narendra Modi, Chief Minister of Gujarat to fortify wheat flour with soy flour along with other micronutrients is highly commendable. This would greatly help in meeting the protein quality requirement of the at risk population in the state. Soy fortified wheat flour would not only improve the nutritional security but also improve the health status of the people at large as soy protein is found to have a number of health benefits.

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