

Enrichment of crop plants with thiamine (Vitamin B1): Strategy to combat the nutritional deficiency

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Thiamine (Vitamin B1) plays an important role in maintaining human health by aiding in the metabolism of carbohydrate, fats and amino acids. This very important nutrient is a water soluble vitamin and cannot be synthesized or even stored in the body for more than a fortnight. Hence humans are dependent on dietary supplements to fulfil their thiamine requirements, deficiency of which causes beriberi, a potentially lethal disturbance of the central nervous and circulatory systems and also causes other neurodegenerative diseases such as Parkinson's, Alzheimer's and Huntington's which have no permanent

cure. Economic disadvantages form the major grounds for the malnutrition deficiencies, which is also the prime cause for such a low response towards the current pharmacological procedures involving supplementation of thiamine in the form of tablets manufactured from different wild and chimeric micro organisms that cannot reach all sections of society. In the present study, we attempt to bring about a change in the current scenario by increasing the level of thiamine in plant products, which can be consumed by people from all economic categories.