

Quality protein maize for nutritional security

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■ **ABSTRACT** : Food insecurity and hunger affect over 900 million people globally each year with the most at-risk populations living in poor, underdeveloped and developing nations. More than 200 million of the world's children are hungry and at least 5 million die each year from nutrient-deficiency diseases. Maize (*Zea mays*) is a major cereal crop for human nutrition worldwide with its high content of carbohydrates, fats, proteins, some of the important vitamins and minerals. Maize acquired a well deserved reputation as a poor man's nutria- cereal. However, in spite of several important uses, maize has an inbuilt drawback of being deficient in two essential amino acids, viz., lysine and tryptophan and the same has been overcome by developing quality protein maize (QPM) which contains twice the quantity of lysine and tryptophan, thus, making it rich in quality of protein in maize. With this background an attempt has been made to process the maize into local south Indian foods in which nutrients are more readily available and optimally utilized. Quality protein maize (QPM) was substituted with different proportions in traditional foods (Idli, Dosa, Pittu and Adai), convenience foods (Papad and Noodles), bakery foods (Cookies and Bread) and snack foods (Vada and pakoda) which were organoleptically evaluated using 9 point hedonic scale. The entire products were scored maximum acceptability. This contributes food and nutritional security by meeting energy and protein needs of consumer. Value added products prepared from maize can help in increasing food availability, adding variety to it and make the diet rich in micronutrients with affordable price and helps to eradicate hunger and poverty.

■ **KEY WORDS** : Maize, Quality protein maize, Lime treatment, Sensory evaluation

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