

Organoleptic evaluation of omega-3 fatty acid rich noodles – A convenience food

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Introduction: Omega-3 fatty acids are considered essential fatty acids. Also known as poly unsaturated fatty acids (PUFA'S). Omega-3 fatty acids can be found in fishes and other sea foods, nut oils. Omega-3 fatty acids play crucial role in brain function as well as normal growth and development, they reduce risk of heart diseases. Research shows that omega-3 fatty acids reduce inflammation and may help lower risk of chronic diseases such as heart disease, cancer, arthritis. Omega-3 fatty acids appear to be important for cognitive (brain memory and performance) and behavioral function. Symptoms of omega-3 fatty acids include fatigue, poor memory, dry skin, heart problems, depression, and poor circulation.

Methodology: To reach the demand for omega-3 fatty acids we opted to develop noodles i.e. hand made and machine made with two different flours i.e. wheat and Maida flour based noodles with flax seeds, pumpkin seeds, water melon seeds, walnuts, multi grain (flax, watermelon, pumpkin seeds), egg based and non egg based and fish varieties were developed. Thus fifteen varieties of noodles were developed. Panel members were selected. A questionnaire with five point hedonic scale was taken where the maximum score is 5 and minimum score was 1 basing on the attributes appearance, flavor, texture, taste, overall acceptance.

Result: The results were positive and very good compliments were received by the panel members. A handmade multi grain noodle which is very nutritious as well as scored excellent was a successful experiment.

Conclusion: There is considerable change in the day by day life of an average Indian due to various reasons like urbanization, changing life styles, increased in working population etc. In view of all these aspects it can be assumed that there will be an increase in consumption of processed foods because these products were convenient in use. Thus industrial level and house hold purposes such type of extruded products or convenience products can be developed for our convenience but salubriously.

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Areas in food processing and technology: Functional foods

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Functional foods have the potential to mitigate diseases, promote health, reduce health care cost and reduce the risk of various diseases such as cardiovascular diseases, chronic diseases particularly cancer and coronary heart diseases. Functional foods are derived either from plant sources such soy that contains isoflavones accounting for its cholesterol lowering effect, flaxseed which contains lignans which being weakly estrogenic prevent estrogen dependent cancer, oats that have cholesterol lowering fibre b-glucan, tomatoes contain lycopene that reduces risk of cancer, citrus fruits contain polymethoxyflavones imparting anti-cancer properties. Animal sources include fish that contains marine derived bioactive peptides that have antihypertensive, anticoagulant, antimicrobial properties. Dairy products like milk contain bioactive derived proteins that prevent cardiovascular diseases, diabetes type two etc. However, a number of factors complicate the establishment of a strong scientific foundation including complexity of food substance, effects on food, compensatory metabolic changes that may occur with dietary changes, lack of surrogate markers of disease development and scientific demonstration that a satiety based approach to weight management based on single manipulated food items is sufficient to help resist overconsumption. Nevertheless, market value of functional foods is booming because of their health benefits.

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