



Insights on food science

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DESCRIPTION

Food science is the application of scientific values to create and maintain a wholesome and nutritious food supply. Food Science has given us frozen foods, canned foods, micro-wave meals, snacks, more easily prepared traditional foods like pickles, etc. It leads to wide range of scientific information to maintain a high quality, plentiful food supply. Food Science allocates us to make the best usage of our food resources and diminish waste in an eco-friendly manner. Most food materials are of biological origin. The basis lies in an understanding of the chemistry of food components, such as proteins, carbohydrates, fats, vitamins, minerals etc. and the reactions they undertake during processing and storage. A complete understanding of processing and preservation methods is essential including drying, freezing, pasteurization.

USES

The food industry, which originally provided only primary products for final preparation in the home, finds itself countering to market demands for more refined, sophisticated, and appropriate products. Food Science involves various fields of its application. Food physiochemistry involves physicochemical techniques and instrumentation for the study and analysis of foods.

CONCLUSION

Food Science is still a relatively new and growing discipline, brought about mainly as a response to the social deviations taking place in the world. The demand for easy to prepare, convenience or conserved foods, poses major scientific and technical challenges which cannot be done without highly trained scientists capable of understanding the complex chemistry/biochemistry of the whole food systems and acquaintance of the methods to preserve them. In order to safeguard high quality and competitive products, new technologies are being developed in food manufacturing and the

canning, irradiation, extrusion, etc. Nutrition is also an emergent branch in food science, food developers have to improve quality of the food products that are having low calories but well in taste. Food scientists put efforts in recognizing the biological effects of functional foods. Food researchers use bio active compounds with new products to recover the functions of the food products. The ability to carry out analysis of food constituents is developed along with statistical quality control methods in the food science discipline. The microbiology and the safety features of food must also be understood. Other topics include food additives, the physiochemical properties of food, flavour chemistry, product development, food engineering and packaging.

Engineering involves the industrial procedures to manufacture the food. Food microbiology helps in the growth of good microorganisms that are essential for the production of foods such as probiotics, cheese, yogurt, bread, beer, wine and other fermented foods. Foodomics comprises the combination of food chemistry, biological sciences, and data analysis. Foodomics greatly supports the scientists in the area of food science and nutrition to gain a better access to data, which is used to analyse the effects of food on human health.

body of that knowledge required discipline is called Food Science. Nowadays everybody is aware of healthy diet, and they have a good understanding of healthy food and unhealthy food. There are foodstuffs that are high in MSG value like noodles, pizza, pasta, burger etc. Ingestion of such food products can lead to food poisoning, stomach infections and other health related issues. Food science retains a check over the chemical configurations of such food through testing and providing fitness certificate. Food safety plays a vital role in concentration on the safety of food.

Otherwise it can be detrimental to the consumers. Food safety saves consumers from various health issues such as poisoning, allergy, and death. Hazardous food can be a tragedy for both consumers as well as producers as consumers can get health disputes where producers can face financial loss. Unsafe food production if gets reported or caught by food safety authority can result in a substantial penalty. Food safety can be ensured by proper monitoring over the food production houses or entities. Food safety departments should always do a scrutiny and check the sanitation condition, food manufacturing practices, and the environment in which food is kept.

Among the disquiets of food science and technology are postharvest changes in substances that nourish and occasionally affect human beings. Food science examines everything that happens to food between harvest and consumption. Food technology is another aspect in food science as it is used to develop and manage the processes by which the food is altered from raw harvest to edible goods purchased by individual consumers. Almost all foods are improved before consumption.