

Food Toxicology 3(3-0)

Theory

Food toxicology: Overview - intrinsic and extraneous toxins. Principles, types, branches. Toxicity: curve, factors influencing potency, margin of safety, factors influencing toxicity. Dose-response relationship, manifestation of organ toxicity. Measurement of toxicants and toxicity. Toxicokinetics: carcinogenesis, mutagenesis, teratogenesis. Chemical carcinogenesis: initiation, promotion, progression, angiogenesis. Manifestation of organ toxicity. Toxicants in the body: absorption, distribution, translocation, biotransformation, excretion. Detoxification mechanisms. Wholesomeness of processed foods: heat processed, irradiated, genetically modified foods.

Books Recommended

1. Awan, J.A. and Anjum, F.M. 2010. Food Toxicology. Unitech Communications, Faisalabad-Pakistan.
2. Helferich, W. and Winter, C.K. 2000. Food Toxicology. Woodhead Publishing Limited, Abington Hall, Abington, Cambridge.
3. LU, F.C. and Kacew S. 2002. Lu's Basic Toxicology, 4th ed. Taylor and Frances Inc., New York.
4. Sharma, P.D. 1997. Toxicology. Rastogi Pub. Co., Meerut, India.
5. Shibamoto, T., Taylor S. and Bjeldanes L. 1993. Introduction to food toxicology. Academic Press, London.

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