Seminar on Food Safety Risk Assessment in Regulatory Dialogues

Report by Ms. Ummeayman R., Nutritionist, PFNDAI

PFNDAI organised this seminar to begin the regulatory dialogue on Risk Analysis among the industry units and with regulator. Science-based approaches are crucial in replacing the mechanical and kneejerk traditional system with a predictive one. The event was held in December 2015 in Hotel Kohinoor Continental in Mumbai.

Dr. Sesikeran, Former Director of NIN, in his inaugural address stated the importance of risk assessment. When there is moderate consumption of an ingredient it may act as a medicine but over consumption can be a health risk or fatal. Thus the key words to note is 'moderate consumptions', thus one aspect that needs to be known is what is the quantity that is safe to consume and frequency of consumption of the ingredients.

Session on Framing the Regulatory Dialogue was chaired by Mr. V. Mohan, Chairman PFNDAI-Regulatory Affairs. Dr. Lewis J.I, Consultant FSSAI & GB member, PFNDAI in his presentation on Moving Dialogues based on a Risk Framework, stated there is a need to harmonise the structures of FSSAI with that of codex commission and EU commission as we have already moved from PFA to FSSAI which is a modern food law based on risk assessment and scientific evidence as compared to PFA which is based on adulteration and opinion. Thus it is time to move to risk assessment based standards too, and have a risk framework like CODEX. Risk communication is also an important part of regulations, as the consumers should be informed of the levels of harmful ingredients along with the health effects and dosage that would cause these harmful effects.

Dr. Shatadru Sengupta, Sr. Director Legal & Company Secretary, Hardcastle Restaurants, presented 'Framework of Procedures prior to making Regulations under Indian food law'. Food Safety & Standards Act is very positive; however Regulations should be consistent with the Act. The Act gives the responsibility of risk management on the authority and also to carry out risk assessment. Also the risk management methods shall be proportionate and no more restrictive of trade than is required to achieve appropriate level of health protection, regard being had to technical and economic feasibility and other factors regarded as reasonable and proper in the matter under consideration. The act also provides an opportunity to protest at various stages before the enactment of the regulations.

Session on Risk Assessment Application in Food was chaired by Dr. Sesikeran. Dr. Debabrata Kanungo, Chairman of Sci. Panel on Pesticides, Veterinary Drugs & Antibiotics of FSSAI presented 'Risk Assessment RA: The Basic Process'. Risk includes both toxicity and exposure, He gave an insight into Risk assessment, which is the central component of risk analysis

and provides a scientific basis for risk management decisions on measures needed to protect human health.

Dr V. Sudershan Rao, Deputy Director, NIN further expanded on 'Risk Assessment - Food Additives'. He gave an insight into JECFA and how it serves as an independent scientific committee which performs risk assessments, provides advice to FAO, WHO and the member countries of both organizations. He also gave an insight into how JECFA does risk assessment and ADI (Acceptable Daily intake) levels.

Special Lecture was chaired by Dr. Vilas Adhikari, Chairman,


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Conference Committee & member of GB of PFNDAI. Dr. Sesikeran presented the special lecture on 'Nutrient Risk Assessment- arriving at Tolerable Upper limits (UL). Data from various states shows that India is already a micronutrient deficient nation and we need to first bring the nation to the level of normal RDA and then try to restrict their intake levels. It makes no sense in trying to control the levels of various minerals and vitamins without first coming to the levels of RDA. He also gave an insight into RDA which is quantity of a nutrient a healthy individual needs to consume on daily basis for the entire lifetime to stay healthy. This is based on the fact that if intakes are likely to be less than the risk of deficiency disorders go up. By definition itself RDA indicates that this is the minimum level / a deficiency prevention level one needs to take daily, than an optimal level.


Dr. Adhikari & Dr. Sesikeran

Session on Dietary Exposure & Monitoring Safe Intakes was chaired by Dr. Pai, Executive director PFNDAI. Dr. Nimish Shah, Director, Safety & Environ. Assurance Centre, HUL, presented 'Microbiological Risk Assessment for Food Safety wherein he presented the concept of Predictive Food Microbiology, which is to identify the best options (most effective/feasible) for reducing the risk to acceptable levels. Predictive food microbiology is used to know the risk; it is use of mathematical models to predict the effects of factors (temperature, preservatives, water activity, pH etc.) on bacterial behaviour. This is a very useful tool for food industry as it aids in decision making and is better faster and safe.

Dr. Sudershan Rao gave an insight of 'Dietary exposure assessment: Food Additives & Metal contaminants'. The total diet studies are carried out to know the consumption of contaminants and metals. The results are based on analysis of edible portions and not as per the raw materials and consideration is given to the reduction of chemicals that degrade due to processing at home. He also gave an insight into the various foods consumed in rural and urban regions of southern India and the analysis of contaminants carried out in the NIN study.

Dr. Debabrata Kanungo presented 'Surveillance & Monitoring of Pesticide residues: Are we safe?' wherein he gave an insight into the reasons of pesticide residuals found in food commodities and how the different pesticide residues are monitored in different food commodities.
The conference concluded with the discussion of various aspects of health, monitoring of risk assessment and how regulations can play a positive role in risk assessment. The conference was supported by DSM Nutritional Products and Mondelez India. The souvenir for the event was sponsored by Vista Processed Foods, Marico and Hardcastle Restaurants.


Dr. Jasvir


Dr. Kanungo


Dr. Lewis


Dr. Sengupta


Dr. Sesikeran


Dr. Shah


Dr. Sudarshan Rao


Mr. Mohan