Global Ingredients Safety Standards Initiative

The food demand is expected to increase by 50% by the year 2030. Countries have historically relied on global food trade involving raw ingredients and manufactured foods to meet demands from growing population. Beginning the 1960s, global food trade has been increasing exponentially and global food trade is growing faster than global food production.

Increasing affluence in the emerging markets such as China and India has created an upwardly mobile middle class whose nutritional patterns are significantly changing, from consuming locally procured raw ingredients based foods to increasingly consuming branded nutritional products.

The rise of middle class in China and India has created a surging demand for dairy based nutritional products, from infant foods to adult nutritional foods. Dairy products are widely regarded as the wholesome nutrition in predominantly vegetarian population in India. The dairy industry in both India and China is largely fragmented in nature and hence the quality of supplies can vary from region to region and from season to season.

Rising affluence is also raising the safety awareness of food products among the consumers. The 2008 milk scandal in China, involved milk and infant formula adulterated with melamine, a chemical widely used in the plastic s industry. The resulting adulteration reportedly affected 300,000, an estimated 54,000 babies being hospitalized and resulted in the deaths of six infant dying from related ailments. The dairy based nutritional product s, which were historically enjoyed a safe reputation, suffered a damaged reputation on a global scale.

In 2015, Nestlé’s iconic product Maggie noodles suffered a huge damage to its food safety reputation in India after the reporting of find of “excess lead” by the regional food safety authorities. The incident resulted in the withdrawal of the product from the shelves and resulted in damaging confidence in food safety among the general public.

Recent decades saw the rapid rise of new technologies in communication such as the Internet. The past decade also saw rapid strides being in the science of analytical measurements. The technical barriers to analysis of food in terms of cost, time, and sensitivity of analysis have been steadily coming down. As a result, sophisticated technologies of food analysis are becoming wide spread in use and the means to disseminate the results have also become wide spread in their use.

The ever increasing trade in foods, changing consumption patterns in the emerging markets, technology advancements and heightened awareness of food safety creates a huge pressure on regulatory agencies and manufacturers alike in ensuring the safety of food ingredients and products.

Nutritional products manufacturers are increasingly expanding their global supply chains in order to meet ever growing demands for their products. The expansion of supply chains for raw ingredients in the emerging markets poses numerous challenges and is resulting in challenges which have not been experienced before. Some of these challenges include ensuring the safety of raw ingredients in a fragmented suppliers network, inconsistent regulatory standards, rapidly evolving regulatory environment, and heightened consumer awareness of safety.

Consumers will be better served from globally harmonized food safety standards which are applied consistently similarly across all geographies. This will have the effect assuring the general consumer that harmonized and uniform safety standards will be maintained to match the global movement of food ingredients and products. Harmonization of safety standards will also result in an improved regulatory compliance. Establishing globally harmonized safety standards will have the beneficial effects of lowering trade barriers and also strengthen the efforts to develop sustainable ingredients supplies across the world.

The proposed global safety ingredients initiative will include a multidisciplinary approach and a broader participation of stakeholders involved. The chief elements are the proposed initiative includes a consortium with the below listed stakeholders:

* Nutritional ingredients and products manufacturers,
* Analytical instrumentation vendors,
* Regulatory toxicologists and medical safety, academic experts, and
* Official scientific bodies such as the Association of Analytical Communities (AOAC)

The proposed initiative will include the following phases of implementation:

**Phase-1:**

The initial phase involves the recruitment of stakeholders from the aforementioned disciplines and developing a charter for the project. The goal of the charter would be “Develop globally harmonized safety standards for nutritional ingredients and define a mechanism of implementation”.

**Phase-2:**

Identify key safety categories for major nutritional ingredients such as dairy, carbohydrates, and lipids. Define a harmonized list of safety parameter relevant to each ingredient category based on sound regulatory and medical safety principles. The risk assessment process for each commodity category will take into account the ingredients source, processing information, previous incidents of safety issues, and existing regulations from around the world.

The expected outcome is a clearly defined list of safety parameters, testing limits, test methods requirements, and call for valid analytical test methods.

**Phase-3:**

Invite the validated analytical test methods from the global scientific community and evaluate the submitted test methods. Use scientific expert review panels to select appropriate test methods and accord them an official status to be used in laboratories around the world.

**Phase-4:**

Submit the harmonized safety parameters and the test methods to the national and international regulatory bodies such as the Codex for the universal adoption of safety standards.

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