



EFRAC - Food Testing Lab

Engaged in testing nutrients, hygiene, adulteration and quality in food products. Located in Kolkata, West Bengal

Edward Food Research and Analysis Centre Limited (EFRAC) is an integrated food testing laboratory in Kolkata, set up with an investment of Rs. 35 crores at Barasat, Kolkata.

The laboratory is engaged in testing food products for nutrition, hygiene, adulteration and quality. Dr. Balwinder Bajwa is the CEO of EFRAC. Dr. Bajwa has done Ph. D in molecular genetics and has 15 years of professional experience in the field of quality assurance, R & D and applied sciences. He has designed and commissioned EFRAC.

EFRAC houses five different wings: trace analysis lab, ultra trace analysis lab, food lab, water lab, and microbiology lab. The laboratory offers services like pesticide analysis, heavy metal analysis, chemical analysis, microbiological analysis, GMO testing, dioxin analysis, antibiotic analysis, mycotoxins analysis, food R&D, training and consultation under one roof. EFRAC caters to the R&D and analytical needs of sectors like food processing, beverage and juice manufacturing units, packaged drinking water, milk and milk products, spices, canned and frozen food, poultry, meat, fruits, and vegetables, besides others.

Regarding the initial research done before establishing EFRAC, Dr. Bajwa says, "We have more than two decades experience in food processing and exports industry. With



Dr Balwinder Bajwa

a lot of FDI in Indian market, and multinationals finding India a global trade hub, it is the need of the hour to have ultra-modern, sophisticated facilities like EFRAC which meet the stringent international benchmarks."

He adds, "We will offer independent, high precision, cost effective analytical and R&D services to food and allied sectors. It is an approved project by ministry of food processing industry, Government of India."

Further speaking about the growth of food exports, Dr. Bajwa says, "Agricultural and allied food exports have grown 35% in 2010-11 over previous fiscal year and the total exports market is expected to grow by 500 billion USD by 2013-14. In order to maintain the importers confidence in quality of the product and to meet the stringent food safety standards of EU and other Gulf countries, a long term sustainable plan is required

which EFRAC can support through its technological advancement and skilled manpower. This project will benefit all stakeholders of food processing and allied industries, food product exporters, academic and research institutions, regulatory bodies, and concerned government and non-government organizations."

Food Safety

Commenting on increasing food safety, Dr. Bajwa says, "Increasing population has raised the demand for agricultural produce and livestock. To meet this demand and raise productivity, some farmers use pesticides, banned chemicals, antibiotics, and hormones, which enter the food cycle through vegetables and meat products. These harmful pesticides and chemicals then enter the human body through the food chain, posing potential health risks to mankind. Food contamination monitoring is thus an essential component of assuring the safety of food supplies and managing health risks."

He adds, "We have plans to get connected with all the links in food chain to ensure quality food reaches the final consumer. We are trying to address the current issues of adulteration in food. To bring the awareness in consumers about food safety we have plans to set up food safety clinics, where any consumer can come and take consultation on food safety. We are trying to make available some food safety kits also at these clinics so that with the help of these kits the consumers can even do the basic food testing at their home itself."

Target Customers

EFRAC operates through three wings: analytical services, R&D services and training programs. For analytical services, the com-

Quality Testing Lab



pany targets processors and exporters of food and allied products like dairy, meat and poultry; seafood; bakery and confectionery; fruits and vegetables; staples like grains, pulses and oil seeds; alcoholic and non-alcoholic beverages; and packaged food.

For R&D, the company offers services to companies looking for product development, and product modulation, besides others. "We provide genetic engineering solutions for enhancing crop productivity, crop tolerance to various natural stress conditions, isolating commercially useful active ingredients; mapping of contaminated water sources; soil fertility and bioremediation studies," informs Dr. Bajwa.

For training programs, EFRAC has designed course modules. "Our modules enable students to gather practical experience in handling, operating and maintaining the sophisticated and automated instruments which are used for the high end analysis in the field of chemical and biological science. This training module will also be very beneficial for quality and food safety professionals, scholars and faculty members in the above mentioned fields to upgrade and hone their analytical and R&D skills at par with current advancement in science and technology," he says.

Soil Testing Services

Regarding soil testing Dr. Bajwa says, "Farmers are today spraying the same fertilizers and chemicals year on year without actually understanding the nutrient level requirements of the soil. Moreover, these harmful chemicals do pose a potent threat of irreversible damage to the soil fertility." He avers, "Land is the most important resource today and it must be used wisely to get the best output. We have to involve scientific ways and means to identify and rectify the problem areas." Adding, "We have plans of conducting informative promotional events in coordination with government to make farmers aware about the availability

of this service at EFRAC."

Dioxin Analysis

Dioxins are a family of toxic chemicals where all share a similar chemical structure and a common mechanism of toxic action. This family includes the polychlorinated dibenzo dioxins (PCDD's), polychlorinated dibenzo furans (PCDF's), and polychlorinated biphenyls. Dioxins have been characterized by EPA as likely to be human carcinogenics and are anticipated to increase the risk of cancer at background levels of exposure.

"Humans receive almost all of dioxin exposure from the food we eat, specifically from the animal fats associated with eating beef, pork, poultry, fish milk and dairy products. All the developed countries are very much cautious about testing of dioxin along with other harmful pesticides and microbial parameters. Analysis of dioxin in PPT (parts

per trillion) is very difficult as it requires highly skilled manpower and is one of the most sophisticated and ultramodern instruments – HRGC-HRMS. EFRAC is one among the very few testing and R&D centres, who are having the facility of analyzing dioxins and furans in PPT levels," informs Dr. Bajwa.

Commenting on compliance with Food Safety Law called Food Safety Standards Act, Dr. Bajwa says, "In the Indian scenario food safety regulations are not as stringent as compared to European or any other developed countries. With the implementation of FSSA, the food safety policies and hygiene control are becoming more stringent which demands the food processing industries to cope up with this challenging environment."

He adds, "Consumer awareness is a major challenge for successful implementation of FSSA. We all have to work collectively to bring food safety awareness in consumers. FSSAI is doing remarkable job in this area. They are giving regular advertisements on television and in newspapers. Apart from that they are conducting training programs for consumers also."

Our Correspondent

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