

# HACCP System

## Assurance For Safe Food Production

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In connection with food production, various control systems have been introduced to assure the food produced is of good quality and safe for consumption. We have heard about Quality Control System, Total Quality Management, 5S Concept and recently ISO9000. All these concept, system or plan share a similar objective, that is to produce food products of good quality. Meanwhile, HACCP has a more specific objective that is to make food products which are safe to eat.

### What is HACCP ?

Hazard Analysis Critical Control Point (HACCP) concept was first developed in the United States by a group of factory workers producing food especially for NASA (National Aeronautical and Space Administration) astronauts. Due to high costs of sending astronauts to outer space and their well organised tasks, the food supplied does not only need to be suitable for consumption in space but more importantly, the food eaten does not cause food poisoning. Based on this requirement, the factory workers has developed a system which can detect hazards as early in food production system as possible. The idea is to identify safety hazards, control and prevent them. HACCP system is not only restricted to food manufacturers but it can also be applied to field production starting from planting operation of a particular commodity until the stage of food preparation in restaurants or at home. In field production, the hazards analysis considered will be the selected genetic variety of the plant, soil environment, fertilizers and pesticides used. Meanwhile, implementation of HACCP in restaurants involves the analysis of bulk food storage methods, methods of reheating food and hygiene during food handling.

### Seven (7) Basic principles of HACCP

In order to achieve a successful HACCP plan, seven (7) basic HACCP principles has to be applied. The 7 principles are as follows :

1. Conduct hazard analysis.
2. Identify the critical control points (CCP).
3. Establish critical limits for preventive measures associated with each identified



Sampling and analysis of end product can be minimised with the implementation of HACCP.

4. critical control point.
4. Establish monitoring procedures.
5. Establish corrective action procedures if monitoring shows that a critical limit has been exceeded.
6. Establish record keeping procedure that document the HACCP system.
7. Establish verification procedure or audit plan for HACCP system.

### Why HACCP is needed?

In a quality control system, the finished packaged food product needs to be tested to ensure that it is safe for consumption. On the other hand, HACCP system takes into account food safety aspects from early stages of processing that is during receipt of raw materials, processing until the finished product. If these control procedures are implemented, sampling and analysis of food at the beginning, middle and end of processing will be eliminated except for monitoring purposes.

HACCP system has been practised in many food production premises in United States, Europe, Australia and New Zealand. At present, United States and Europe has enforced the implementation of HACCP in food products based on fish such as frozen fish and prawns or canned sardines.

### Benefits of HACCP in Negara Brunei Darussalam

HACCP system is quite new to local farmers and food processors (SMEs - small and medium enterprise) in Brunei Darussalam. Therefore, the Food Technology Unit, Department of Agriculture has taken the initiative to plan both short term (5 years) and long term (10 years) programs for implementation of HACCP system.

The short term action plan includes introducing HACCP system in food safety to SMEs via training, workshops, promotion and publication of documents about GMP (Good Manufacturing Practices) and HACCP. Meanwhile the long term action plan includes assisting SMEs of the industrial food sectors in developing and implementing their HACCP system for their particular food product.

There are obvious economic benefits of HACCP to the food industry to expand their markets. In Brunei Darussalam, this system can aid in production of local product which are hygienic, safe, high quality and competitive to ascertain success in the competitive market, especially the implementation of AFTA - ASEAN Free Trade Agreement which will commence fully in the year 2008, emphasizing on open market system.