Achieving safe food through effective total quality management

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Food handling courses have not changed much since their introduction except for diseases and new hazards that have emerged. In food preparation environments, knowledge only is not enough.

This article describes an innovative and simplified way towards achieving safe food through Total Quality Management through training, awareness, validation, competency, process ownership and monitoring.

Being a food handler is like learning how to drive a car. You can know what the controls are and you can know the highway code but you do not know how to drive or how to drive well. This is where skills come into the picture.

Overlap of skills

Our training is based on our major principle that quality is not only an overlap of skills plus knowledge but also of attitude. Knowledge is about knowing what to do, skills are about knowing how to do it and attitude is about knowing why we do it.

Graphically this is represented in Fig. 1. Increasing the circles will increase the nexus, representing an increase in quality.

Fig. 1. Quality is an overlap of skills, knowledge and attitude.

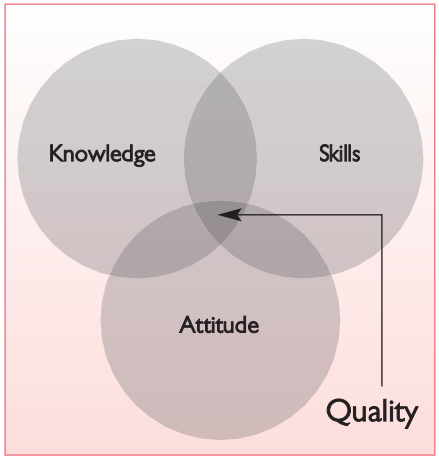

Fig. 2. An example of a process model for cleaning.

Why quality? Because safe food is a dimension of quality and this is a culture.

Why total? Because in a food industry everyone has to give his best input.

Installing a culture for quality is more effective. This comes as a result of training, but training has to be effective and people monitored continuously.

To simplify things we have introduced an awareness exercise using the traffic light system. We dedicate the GREEN colour to ready-to-eat foods and items which come in contact with food. So green means that it is free from any form of hazards, be it biological, chemical or physical.

RED is associated with hazards. If food is RED, then it cannot be consumed. It has to be transformed to GREEN via cooking. Why? Because biological hazards are eliminated by pasteurisation or other forms of process which eliminates them or reduce them to a safe level.

RED is like paint – whatever is RED becomes RED by direct contact (an easier definition for cross contamination).

GREEN that allows the multiplication of micro-organisms, becomes RED if left in the danger zone.

What about the AMBER? The amber colour of the traffic light comes in very handy to explain a critical point. It is far easier to explain this principle rather than trying to teach the seven principles of HACCP.

Simplification of the course is not enough. We start by shifting the paradigm that food production is something simple because everyone does it at home. With today's emerging diseases and forbidden compounds one can easily pick up something that causes harm.

The paradigm shift comes with the emphasis that food workers have a moral, legal and social obligation together with the fact that food can cause a long list of harmful effects besides food poisoning. And above all, everyone is responsible for his process.

Develop a process model

Each person has a process model of his process/es. To simplify, we do it in colour – again with the traffic light system.

Fig. 2 is an example of a process model. This visual diagram is a very helpful aide memoir. Hence, workers know what should enter the process and what goes out. They have to evaluate the process to ensure that they know the potential hazards that can enter their process. It is up to them to ensure that it does not enter their process. If it is a critical point the centre is AMBER and AMBER indicates monitoring and record keeping – a CCP or a critical point.

The place must have at least one trained worker to a higher level. This person does the monitoring. This can be subcontracted. Swab cultures have been found to be very effective as culture plates provide a visual display of the unwanted bacteria. These are counted and used as SPC (Statistical Process Control) data. The initial five swabs are used as a validation exercise. Once a new worker achieves five consecutive acceptable results, then his leader can certify him as being competent in terms of hygiene. The workers themselves mark the number on the graph.

Corrective action is needed if there is a gradual increase or a spike in the bacterial counts shown in the SPC chart in the records. Our experience has shown that this does not happen in an environment where quality becomes a culture and there is a good leadership. This applies in all situations even in micro industries of 10 people or less. In due time, quality becomes part of the software of the brain of the individuals with the right attitude. When this happens, food safety issues due to food handlers become history and the organisation is on its path to excellence. ■

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