

# QUALITY REQUIREMENTS OF COCONUT FOOD PRODUCTS: AN IMPORTER'S POINT OF VIEW

By Cameron Dick.

## Introduction

Coconut is considered very much in the western world as a tropical delight, something to remind people of holidays and far away places. The best possible example of this is Mars advertisement for their Bounty Bar which promises a taste of the tropical. The showing of far away beaches or tropical maidens reinforces the image. Yet coconut is still a cheap high bulk and high taste raw material. So we are seeing high demand for this product in western countries. Most major food manufacturers have a least one product that contains a coconut derivative whether it is desiccated coconut, coconut oil or any other coconut product.

More products are planned with coconut in them all the time. This means that we are looking at an ever-expanding market for these products. Yet we are also looking at an ever-increasing need for greater quality in the products supplied. So all manufacturers of coconut products must now look to improve the quality of the finished goods or be faced with reduced sales or worse still no sales at all.

## What is Quality?

Quality could be defined as the total of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs.

Within this definition, concepts of fitness for a given purpose, customer satisfaction, safety and value for money can be identified. It does not, however, mean the most expensive or the most excellent. Quality must not be confused with the grade of the product. If there are several grades of a product, the differences between each grade can be the purity or refinement of that product. It does not mean that there is a quality difference between the grades.

## Quality Assurance and Control

Quality assurance is considered to be the planned and systematic actions necessary to provide confidence that a product or service will satisfy the

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customers requirements for quality and the government's laws.

Quality control is differentiated from quality assurance in that it is a series of techniques used to assess compliance with a specification by product sampling, which is usually based on statistical

criteria. This often takes place at the end of production and the information is then fed back into the organization. It is in essence a reactive process, which identifies things that may be wrong after the event and does not necessarily determine the cause of the problem. Quality assurance, on the other hand, is proactive and attempts to stop things going wrong in the first place, often said to be getting it right the first time every time.

## Modern Food Quality

Over the last few years, there have been several changes in the Western food market affecting the quality of food and the raw materials. The question that is most commonly asked of people in the food trade is why are we seeing an ever-increasing demand for high quality food products. The answer is not simple. There are several factors forcing manufacturers to take a long deep look at the quality of the products that they produce.

As lifestyles have changed in the last thirty years one thing is sure, people are demanding higher quality food that can be stored longer and cooked quicker. In the western world cheap mass produced refrigerators and freezers have meant that people no longer shop for food once a day but now shop once a week and sometimes once a month. This means that the food itself must be of a higher quality as the chance of

microbiological contamination is greatly increased.

So people are demanding higher quality food but why should we as manufacturers comply with this. In the west, failure to provide any service or product satisfactorily means taking the risk of legal proceedings. This can, in extreme cases, result in heavy payments to the people claiming money against food manufacturers.

As if the threat of heavy fines was not an incentive enough to produce a higher quality product, there are also new food laws in Europe. Basically, these laws state that if a company fails to provide food to an acceptable standard as decided by the court then the directors of that company can be sent to prison for the offense.

Now after seeing these new rules and the chances of being sued for failure to produce suitable food products you would imagine that the quality of food products is rising and the cases of food contamination falling. However, although the quality standards in food products are rising, cases of food poisoning and contamination are also unfortunately increasing.

This is due in some part to better recording of the figures and more people coming forward to doctors if they are ill. But there are other reasons such as food prepared incorrectly, incorrect storage and storage greater than the shelf life of the product. Although better descriptions of food preparation are now on the food sold in the UK, along with full storage instructions, it still falls on the

manufacturer to produce products that are easier to cook and have greater shelf life.

### Improving Quality

How then do we go about improving the quality of food products? There are at the moment two acceptable ways of doing this. The first is using some form of international standard like ISO 9001. This relies on the company setting up a strict quality control system as per the guidelines set out by the International Standards Organization and then having an outside body come in every year to check that you are following this system. It is often said that the standard is common sense set down on paper in an organized fashion. The other, and at the moment the most preferred way of improving your quality control is Hazard Analysis and Critical Control or HACCP.

The HACCP concept provides a logical and a systematic approach for food quality management. The original HACCP concept was proposed in 1973 as a result of a joint effort

by the Pillsbury, NASA and the US Laboratories to defects program production of food NASA wanted wa in space with an up

It has since establish effective control systems in of the food indu intermediate moi and frozen food The World Health strongly recommen HACCP by food in both deve developed countri law in the UK manufacturers hav Analysis system in

In order to HACCP system fo process, it is nece first undertake a de of all operations th process and all ing The hazard analy specific to the f equipment and plan should take into other processes on the same area or u

Table 1: Risk Inputs and Control Point in Food

	Risk Input	Control Points
Ingredients	Contamination	Ingredient contro
Events	Survival of pathogens	Time/Temperatur
Methods	Proliferation of pathogens	Time/Temperatur Water activit atmosphere, Packaging integri
Personnel	Contamination	Hand washing, P Health, Behavior
Equipment	Contamination	Cleaning and dis Pest control, Air Maintenance
Environment	Contamination	Cleaning and dis Pest Control, Air Maintenance

equipment which could affect the process under investigation.

It is useful to visualize the process, which any food undergoes from raw material to finished goods. A comprehensive hazard analysis for any food product should include a consideration of likely events in distribution, storage and shipping. Possible risk inputs associated with ingredients, events and methods are listed in the table I, together with some relevant control points, which might be used to keep the risk inputs within acceptable limits.

These significant risk inputs must then be controlled within acceptable limits but, although it is possible to set quantitative microbiological limits for contamination, survival and proliferation, microbiological monitoring is expensive and retrospective. It is, therefore, preferable to decide on the means by which the risk is to be prevented or minimized and to set limits or standards for these controls points, which can be more readily monitored. A classic example of this is ATP testing of machinery that has been cleaned which is much cheaper and quicker than microbiological swab testing.

Food product safety is thus controlled indirectly by means of a set of critical control points, which are specific to a production process. Clear and appropriate standards must be defined if the critical control points are to be maintained within the agreed acceptable limits along with regular testing to prove these standards are being met. However, the nature of the critical control points used and the standards set will have to

depend, to some extent, on the resources and expertise available.

Another main concern when dealing with food quality is not just the quality control in the

system for a particular food manufacturer.

### Concluding Remarks

Manufacturers in the west are facing an ever-increasing threat of



Good Quality Coconut Products Starts with Properly Selected Good Quality Raw Materials

plant where the food material is being manufactured but also the fact that the staff must be fully trained. Nearly all HACCP systems require fully trained staff who are aware of basic food hygiene. The cost of this training is not too expensive as the main course used in the UK for basic training only takes about 4 hours and costs very little. With the correct training and a correct quality system, a higher quality finished product could be ensured.

As manufacturers of food ingredients, the cost of installing a fully working HACCP system with complete staff training could be a major concern. It is true that these systems are not cheap to install but they can be very cost effective. In the UK many small companies are faced with the same problem. So we have now seen a creation of a small set of companies who will create specific HACCP plans for a set fee. They will handle all the training and creation of the

legal action from the manufacture and supply of low or poor quality finished goods. To protect themselves from this threat of action they are requiring an ever-increasing higher level of quality of the food ingredients that they use. Coconut is one of those ingredients and the usage of this product is getting higher.

Therefore, suppliers must learn how to improve the quality of the products by whatever means possible or face losing out to an ever increasing and competitive market. If this is not done, reduced sales and lower profits will be seen. For no matter what we are all in for, to make money is still important at the end of the day. □

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