

**PENANG SANGAM HIGH SCHOOL**

**P.O.BOX 44 RAKIRAKI**

**HOME ECONOMICS**

**YEAR 13 (week 17)**

<b>Strand</b>	FOOD AND NUTRITION
<b>Sub strand</b>	<b><u>FOOD PRESERVATION</u></b> <b><u>FOOD SAFETY</u></b> <b><u>INTANGIBLE CULTURAL HERITAGE</u></b>
<b>Content learning outcome</b>	<ul style="list-style-type: none"><li>• Examine the importance of food safety and food labelling using relevant legislations/policies.</li><li>• Explore intangible cultural heritage (food) practices inherent in Fiji and ways to preserve them.</li></ul>

**Seven principles in HACCP.**

1. Identify the hazards and assess the risks: area by observing each food processing stage to assess the probable micro-biological, physical and chemical hazards and allergens.

2. Identify the critical control points in the process at which the danger can be controlled. The critical control points might be the food-handling areas, processes, or practices and procedures which, could present risks to the safety of the food if not properly controlled

3. Critical limits need to be set during food handling for the staff to follow and maintain. e.g. the temperature of frozen foods must never rise above -18° C.

4. Monitor the controls: All the batches of food that are being controlled need to be closely monitored to ensure that no variables are introduced. Monitoring includes observation, checking temperatures, acidity, checking times or even taking samples.

5. Taking corrective action: Where controls are not working, action may need to be taken to curb any risks to foods. T

6. Verify the procedure: A suitable person carries out the assessment of risks considering all aspects of the food handling processes. Another person should verify the findings.

7. Documentation: All the information collected on the risk analysis and monitoring processes need to be accurately recorded. This is useful for analyzing the situation if things go wrong and verifies that all possible actions have been taken in preserving safety of food. Can also be used as evidence, if a legal problem arises.

- Once the system is in place, people will be aware of their responsibilities and reviews continuously carried out.

**Food Hygiene**

- Food Hygiene deals with protecting food from contamination.

- Food can be contaminated by:

A. the soil it is grown in.

B. the animal it is derived from.

- C. handling during processing and preparation.
- D. the dish it is served on.
- Temperatures above 60° or cold temperatures will prevent the growth of bacteria.
- The most dangerous pathogens are tasteless, colourless and odourless.

#### Cross Contamination

- Cross-contamination is the transfer of harmful bacteria to food from other foods, cutting boards, utensils.

#### **Prevention**

##### 1. Hand washing

- The hands are the most likely carrier for microorganisms hence should be washed frequently. One should avoid touching food with the hands as much as possible.
- Wash hands with hot water and soap (liquid soap or sanitizers) and dried thoroughly using paper or roller towels.

##### 2. Design of Premises

- This should allow for hygienic operations considering the critical points relating to specific food business. Aspects to consider are workflow, space, cleaning, storage areas, ventilation and lighting.

##### 3. Temperature Controls:

- Effective way of controlling the growth of microorganisms in food is by the use of temperature. Microorganisms thrive at temperatures between 50C and 630C.

##### 4. Cleaning Procedures

- Cleaning is an essential part of any food related operation and high standards of cleanliness must be maintained always.
- Stages of cleaning, cleaning schedules, equipment for cleaning and cleaning chemicals are all considered for ensuring that the task and areas of work are clean thus reducing hazards associated with food debris.

##### 5. Waste Management

- Waste storage and disposal should be adequate.
- Proper storage and removal of refuse from food handling areas and its regular removal from the premises is important.
- Refuse areas should be kept clean and tidy at all times.

##### 6. Personal Hygiene

- It is important that food handlers are generally clean and tidy, wear appropriate protective clothing and avoid wearing heavy make-up, nail polish, hair ornaments and

jewellery which could harbour micro- organisms or fall off and contaminate food.

#### 7. Training of Food Handlers:

- Training for food handlers should cover all general aspects of food hygiene including the causes and prevention of food borne illnesses.
- The training courses and the 'on the job' instructions will help staff understand the importance of hygienic practices.

## **FOOD LABELLING**

### **I . Food Labels**

- The type of information found on food labels will differ depending on the country producing the food commodity.
- According to Codex, a food label must contain the following:
  1. Name of the food
  2. List of ingredients
  3. Net contents and drained weight
  4. Name and address of manufacturer
  5. Country of origin • Lot identification
  6. Date markings and storage instructions
  7. Instructions for use

- Given below is a model of a Codex Nutrition label and is advisory in nature.

- The date given must include the expiry date which states how long the manufacturer can guarantee the true quality of the product.
- Without this information, the consumer would be unaware of what they were buying. Products with little or no information can be very misleading.

#### Other information to be included:

1. the naming of vegetable/animal oils used
2. the food additives included and a nutrition label to supply the consumer with information on the nutritive value of the product.
3. contain information on the energy value (Calories), protein, fat , carbohydrates, vitamins and mineral content.
4. the vitamin and mineral list should include those listed on the RDA table for that particular country.
5. substances that are present in significant quantities should also be named.

#### By law nutrition labeling is necessary when

- nutrients are added to food either through enrichment or fortification to improve the nutritional quality of the food

- if a nutritional claim is made about the product either on the label or in advertising.

Label regulations in Fiji states that all processed commodities should contain the:

- name of the food and any special treatment done to it like processing in heavy or light syrup, water packed or pickled.
- Name and address of the packer or manufacturer.
- Contents of the container listed by weight or volume and the ingredients must be listed in decreasing content.

- Food labelling is one way in which consumers can get knowledge about the food they consider buying.

- Correctly following the information provided on food labels (such as expiry dates, handling instructions and allergy warnings) can help consumers prevent unnecessary food-borne illness and allergic reactions.

- Knowing how to read food labels also assures that consumers get more value for their money and protects them from incorrect claims on the product packs.

## II.The Basics of the Food Label

- Labels are designed so that consumers are provided with useful information about the product and how this would fit into their daily diets.

### **Ponits to Consider When Reading Labels:**

1. Look at the list of ingredients - The list provides an overview of the product's "recipe" or constituents. Ingredients are arranged from the maximum to the least amount. eg. If a product lists its ingredients as: Sugar, Water, and Juice Concentrate Artificial Flavour, this means that the bulk of the product is sugar.

2. Be aware of health-sensitive ingredients - Health-sensitive ingredients include fat, sugar, and salt. The rule for these is "Less is better".

3. Watch the nutrient amounts - Nutrition Information Label for nutrient amounts are given either by per 100g of the product or the recommended Energy and Nutrient Intake .This allows one to compare nutrient amounts among different brands of a particular food.

4. Get more value - Check the real cost per serving of a product & how many servings could be prepared from a big pack. For this one will need to look at these 2 items:

A. Net Weight- the amount of product inside the pack. This can be found near the bottom of a pack, usually at the front of the packaging

B. Serving Size- is the amount (usually in grams or milliliters) per serving of a product. Divide Net Weight by Serving Size. This would give the number of servings in the pack and help decide if the pack is worth the price being charged.

5. Choose low energy-dense foods- Opt for low energy-dense foods. Energy density refers to the ratio of calories to the weight of the food. Less calories per portion size is generally better for weight management. Eating low energy-dense food will help one feel full due to relatively bigger portion size, yet low caloric amount.

6. Understand nutrient content claims.

- A zero-calorie product can actually contain up to 4 calories per serving.
- A fat-free product can contain up to 0.5 grams of fat per serving

(i) State the importance of food hygiene in food manufacturing industries.

(ii) Explain the importance of food labels.

<b>Strand</b>	FOOD AND NUTRITION
<b>Sub strand</b>	<ul style="list-style-type: none"> <li>• A low-fat product can have as much as 3 grams for solid products and 1.5g for liquid products.</li> </ul>
<b>Activity</b>	<ul style="list-style-type: none"> <li>• <b>FOOD PRESERVATION (cont" from wk 17)</b></li> <li>• <b>FOOD SAFETY</b></li> <li>• <b>INTANGIBLE CULTURAL HERITAGE</b></li> </ul>
<b>Content learning outcome</b>	<ul style="list-style-type: none"> <li>• Examine the importance of food safety and food labelling using relevant legislations/policies.</li> <li>• Explore intangible cultural heritage (food) practices inherent in Fiji and ways to preserve them.</li> </ul>