

HACCP
Plan For Small
Scale Production of

TILAPIA

products





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Implementation of HACCP Plan for Small Scale Production of Tilapia Products



1.0 Introduction

1.1 Hazard Analysis Critical Control Point (HACCP)

Hazard Analysis Critical Control Points (HACCP) is a system which identifies, evaluates and controls the hazards which are significant for food safety. In order to assure food safety, a properly designed HACCP that considers chemical, physical and biological hazards should be developed. The HACCP system can be used to control the hazards at all stages of a food chain from production and preparation processes including packaging, distribution and storing.

Without the prerequisite programs including Good Manufacturing Practices, Standard Operating Procedures, and Sanitation Standard Operating Procedures, HACCP is not a complete food safety program. For the development and implementation of successful HACCP plans, the five Codex HACCP guidelines and seven principles of HACCP that have been universally accepted by government agencies, trade associations and food industries should be followed. According to HACCP guidelines, firstly we need to assemble the HACCP team, and then describe the product, describe the intended use and consumers of the food, we also need to construct a flow diagram and lastly need to do confirmation of on-site flow diagram. While the seven principles that are important to achieve successful implementation of HACCP plan includes: conduct hazard analysis, determination of Critical Control Points (CCPs), determination of critical limits, establishment of monitoring system, take corrective actions, establishment of verification procedures and lastly, establish documentation.

A HACCP plan is very important especially to food industries. With the documented HACCP plan, the industry can guarantee production of safe food every time. Besides, the plan acts as an evidence for safe production and handling of food products and customers are confident with the product.

1.2 Good Hygiene Practices in the Preparation of Tilapia-Based Products

- ✓ Good Hygiene Practices are important to maintain the cleanliness and to minimize the spread of infections like bacteria, pathogens or viruses. The practices and procedures include:
 - ✓ Thoroughly wash and dry hands frequently before handling any raw materials or ingredients during the preparation of tilapia-based products.
 - ✓ Wash hands with soap or sanitizer and dry hands with clean towels, disposable paper towels or air dryer. Change disposable gloves regularly (if wearing) to reduce contamination of food with bacteria.
 - ✓ There should be adequate supply of hot and cold water and adequate facilities for cleaning, disinfecting and storing utensils and equipments. These facilities need to be easy to clean.
 - ✓ Protective clothing like aprons, hairnet, safety boots and gloves are provided and never be worn outside the production area.
 - ✓ Smoking, jewelries and mobile phones are prohibited in the production area. This is because smoking involves the person touching their mouth and could contaminate the food item whereas mobile phones and jewelries could fall into the food.
 - ✓ Keep the nails short and do not wear nail polish as it can chip into the food.
 - ✓ Staff who have long hair should tie up and cover it in order to prevent it from falling into the food. For male staff or staff who are not wearing scarves, hair nets should be worn.
 - ✓ Cuts or wounds should be completely covered with waterproof wound strip or bandage. Brightly colored wound strip is preferable as can be seen easily if they fall off.

1.3 Tilapia-Based Industry Plant Layout

Figure 1.1 shows an example of a tilapia-based product (lekor) industrial plant layout from receiving to distribution.

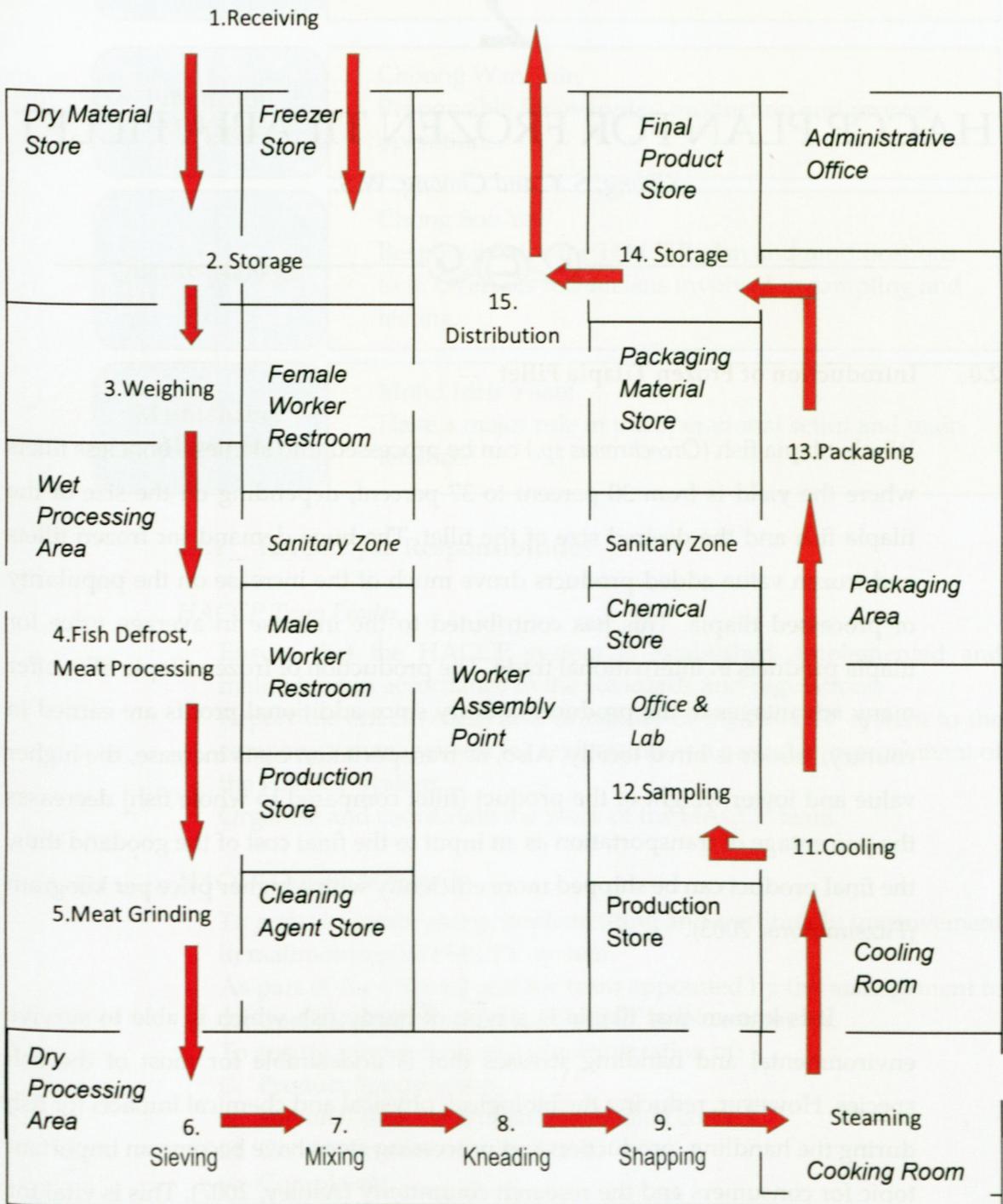


Figure 1.1: Example of Tilapia-Based (Lekor) Industry Plant Design
(Designed by: Low and Lee)