

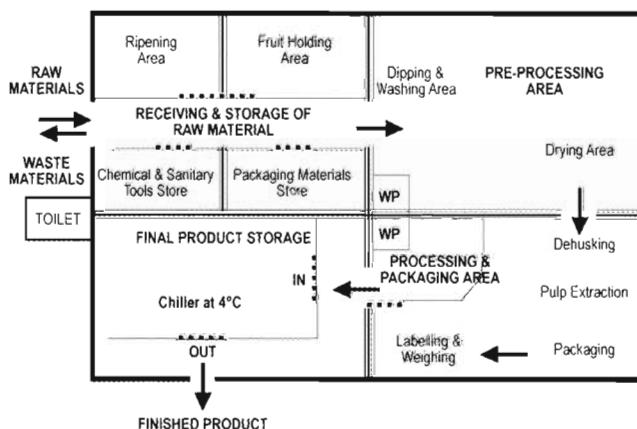
Minimally Processed (MP) Fruits And Vegetables



Requirements of Minimally Processed Fruits and Vegetables

In order to produce MP products which are safe, high quality with long shelf life, accepted by consumer and not damage when stored. The processor has to apply Good Manufacturing Practice (GMP). One important factor in GMP is processing plant design (refer to Diagram 1).

Diagram 1. Basic floor plan for minimally processing plant.



Key:
WP - Wash Point

Minimal processing is defined to include all unit operations such as washing, sorting, trimming, peeling, slicing, coring, etc.

The purpose of minimal processing is to deliver to the consumer a like-fresh with an extended shelf-life whilst ensuring food safety and maintaining sound nutritional and sensory quality. Generally, a shelf life of about 7 days is required for domestic consumption and 7 - 15 days for overseas consumption.

MP products are also called fresh-cuts, semi-processed, ready cut and fresh processed.

Advantages of MP fruits & vegetables

MP fruits and vegetables have been popular in Western countries due to convenience and freshness they offer. The following are some advantages offered by minimal processing.

- Ease of portion control
- Lower transportation cost (per \$ value of the product) as waste material is removed prior to transport.
- "No waste" at the point of consumption
- Centralization of waste collection and possible utilisation/recycling
- Minimal quarantine restrictions
- Value added alternative product to fresh fruit for local and export markets.

Design of MP processing plant is important in assuring the quality and safety of the product. The product flow should be in one direction, going from receiving area for raw materials to pre-processing area and then, to processing and packaging area and finally, to finished product storage. In order to succeed, the processor must have separate rooms for different operation, the work done in one place should not overlap in order to avoid cross contamination of dirty whole fruits or vegetables to ready-to-eat MP products.

Cleanliness and sanitation are two important factors in quality control and safety of MP product. However, these factors are seldom practiced by some of the food processors. This can cause problems such as short shelf life and consumer complaints. Therefore, it is advisable for them to practice the appropriate cleanliness and sanitation procedures during processing, to ensure the MP products are of high quality and safe for consumption.