

## MINIMAL PROCESSING OF TROPICAL FRUITS

It has been anticipated that 25% of minimal processed fruits will be marketed in the coming years. In the tropical fruit industry, minimal processing is becoming increasingly popularly, as consumer lifestyle and trends move towards convenience and quality foods. Minimal processing offers several benefits to the consumers as it reduces preparation time, provide uniformity and consistency in quality of the ready to eat products. It also requires less storage space, easily packed and reduces waste and handling.

Minimal processed handling operations vary with fruit types and how the fruits are normally prepared and consumed. Operations include sorting, cleaning, washing, skin peeling and cutting, packing and storage at suitable temperatures. This situation can easily be seen in most of the hypermarkets in the US, Europe, Australia and New Zealand.



**Filling jackfruit into the container**



**Sealing the container to keep it airtight**

Discolouration of the cut surface is a common problem with minimally processed fruits. Cutting stimulates enzymes involved in phenolic metabolism which in turn leads to the formation of undesirable brown pigments and shortens the storage life. The use of suitable treatments can solve the problem which allows the cut surface to retain colour for 2 weeks as observed with cut pineapple, melon and guava.

Selection of proper packaging system is a major consideration in the production and marketing of minimally processed products. Incorrect use of packages will create an environment which will accelerate the deterioration of the minimally processed products. The use of suitable packaging system to establish a modified atmosphere (MA) around minimally processed products can achieve a degree of product preservation and hence extend the shelf life as observed with jackfruit and durian (3 weeks) and 2 weeks for pineapple and melon. Such storage life provides sufficient time for the products to be displayed on store shelves and consumed while still fresh.

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