

b) Working rooms:

- Adequate space to accommodate all processing activities
- Easy to clean floors
- Walls painted white for easy detection of insects, dirt and any abnormalities
- Adequate lighting
- Temporary storage – stacked crates for raw materials, pallets for raw material and finished products, shelves for jars and airtight containers for the frozen products
- Good ventilation to allow moderate temperature
- Windows with insect proof screens.

ii. Equipment

- Should be properly cleaned before and after use
- Hot water should be used for sterilizing the equipments
- Wooden equipment should be scrubbed
- All utensils should be kept dry by wiping with clean cloth and stored in dust free places.

iii. Personal hygiene

- Health certificates should be acquired (commercial purposes)

- Health status (processing should not be done when one is sick or with open wounds)
- Illness and injuries (processing should not be done when one has open wounds)
- Personal cleanliness - maintaining personal cleanliness including body and clothes
- Personal behavior – hands should be carefully washed with soap; hair should be covered when handling food.

Compiled by: Ndambuki J. M., Wayua F. O., Gathambiri C. and Nyaga A.

KALRO Call Center: 0111010100

Editors: Nyabundi K.W., Maina F.W., Mukundi K.T., Maina P., Wanyama H.N. and Ekadeli J.

Formatting: Kibunyi N.

For further information, contact:
Food Crops Research Institute (FCRC)
KALRO-Muguga,
P.O. Box 30148- 00100, Nairobi
Email: fcrc.muguga@kalro.org

Date: March 2024

Design and layout by Emma. Nyaola

**KALRO/NAVCDP/AVOCADO
Brochure No. 171/2024**



MAKING OF FROZEN AVOCADO

Introduction

In Kenya, there has been a gradual increase in the establishment of micro, small, and medium-sized food processing enterprises. These enterprises focus on producing a variety of nutritious food products as a means to mitigate post-harvest losses and food wastage, prolong the shelf life of food items, enhance food security, and make significant contributions to both national employment and gross domestic product (GDP).

Frozen avocado are ripe avocado which are cut into small chunks (5 cm). Lemon paste is added, sealed tightly in plastic container to minimize browning and can keep for 4-6 months at a temperature of between -20°C to -78°C .

Requirements for processing of quality frozen avocado

i. Equipments

Weighing scale, knives, basins, washing troughs, stirring stick and zip lock bags.

ii. Ingredients

- ❖ Ripe avocados (the quantity is dependent on how much ripe fruit one has and the capacity of the freezer)



Ripe Avocados

Source: James Ndambuki, KALRO

I. Procedure

- Harvest mature avocados that are free from pests and diseases.
- Wash and cut into half and remove the stone/seed.



Cut avocado into half with removed stone

Source: James Ndambuki, KALRO

- Remove the peels and cut into small pieces (5 cm).
- Place avocado slices on baking tray, place in the freezer and flash freeze for a couple hours (until completely frozen).
- Make sure the pieces are not all touching each other to prevent them from sticking together once frozen.
- Transfer frozen avocados to a Ziploc bag or container and return to the freezer.

Defrosting of frozen avocados: Place the frozen avocado on the fridge the night before you plan on using it. Also you can leave them out on the counter top for 2-3 hours. After defrosting use them immediately, and discard any leftover (do not freeze again).

Uses of Frozen Avocado

- Once defrosted, they can be used in making smoothies or in making pulp.

II. Basic hygiene during processing

- ### i. Processing premises:
- spacious to accommodate all required facilities

a) Necessary facilities

- Sanitation area-toilets/latrines, changing rooms, hand washing areas and lunch areas
- Proper flooring
- Cleaning stations
- A floor drainage system