

TOOL KIT 2

PROCESSING YOUR PRODUCT



UNOPS



Kenya Agribusiness
and Agroindustry
Alliance

Transforming Kenya's Agribusiness

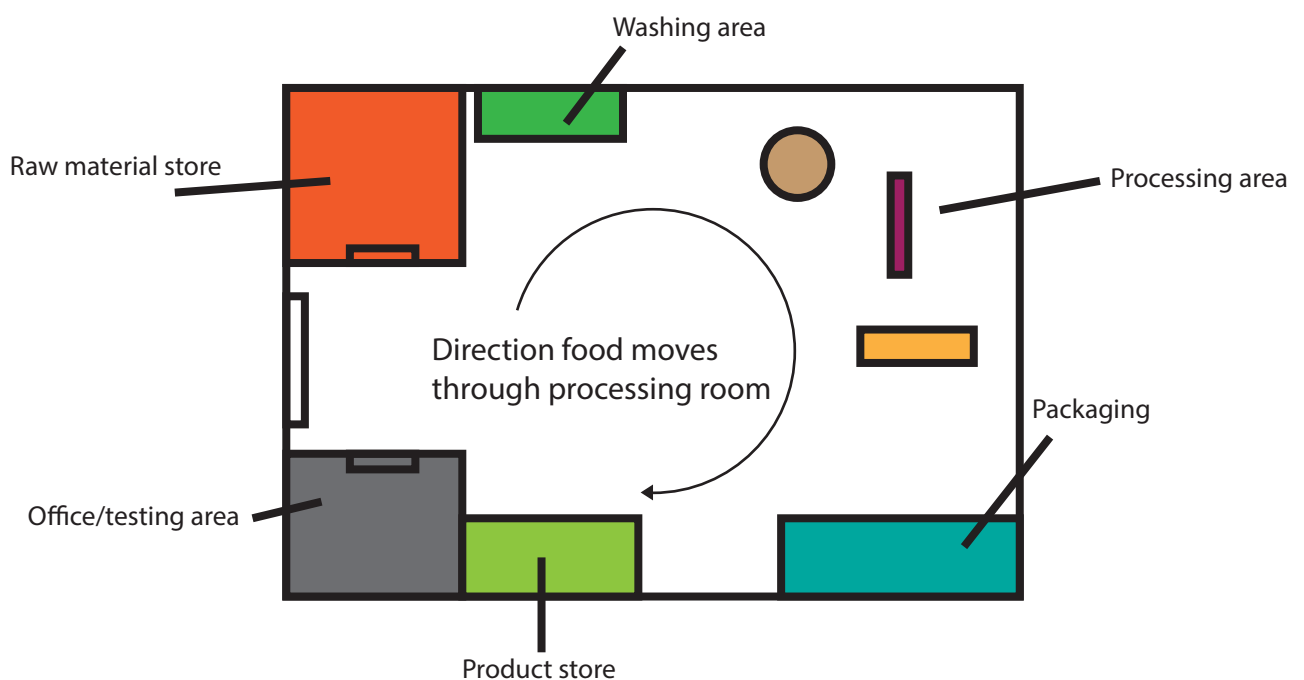
Let's grow your business, one Tool Kit at a time!

©2017

PROCESSING STAGE

Layout of factory

- The physical planning and design of the factory floor should ensure maximum efficiency by reducing unnecessary movement of inputs which add minimal or none added value.
- The flow of materials right from the intake, processing to packaging should be well structured.
- The layout should have a hygienically designed and easily cleaned building to prevent contamination of products.
- Within the building, food should move between different stages in a process without the paths crossing. This reduces the risk of contaminating finished products by incoming, often dirty, raw materials, as well as reducing the likelihood of accidents or of operators getting in each other's way.
- The following sketch implies such an integrated exhaustive layout:



Waste

Calculating material losses during production

- The amounts of raw materials and ingredients calculated from a recipe are not the amounts actually used in a process, because losses arise during processing.
- These can occur, for example, from spoiled raw materials thrown away during sorting, from spillage during filling into packs, or from food that sticks to equipment and is lost when it is washed down after processing.

- The calculation of production rate should therefore take into account the losses that occur in a process. These are different for each type of food processed.
- Losses that arise towards the end of the process have had the maximum value added and are therefore much more serious, particularly losses of packaged product.
- Particular care should be taken to handle final products carefully to avoid damage. To maintain profitability, it is important to reduce losses as much as possible. Buying only good quality raw materials and training staff to reduce wastage by careful processing can achieve this.

Waste management and by-product use

Most types of food processing produces some form of wastes that must be disposed of without risk of local pollution, especially to water sources. There are two types of waste:

1.	Liquid effluents
2.	Solid waste

- Even at the smallest scale of production, responsible entrepreneurs should install water treatment facilities to reduce environmental pollution.
- It may be necessary to consult authorities about local regulations, especially if large volumes of wastewater are produced or the processing unit is situated in a residential area.
- Solid wastes should be placed in bins and there should be a management system in place. This should remove wastes from the building as they are produced, rather than letting them accumulate during the day.
- Waste disposal is an operating cost to the processor, but in some cases the materials can be sold to generate an income. For example, the oilcake that remains after oil extraction has significant amounts of nutrients.