

## YAM STORAGE PROCEDURES

### Step 1: Improved yam barn

Construct an improved yam storage barn with shelves.

### Step 2: Yams

Select freshly harvested yam tubers.

### Step 3: Cleaning

Clean tubers to remove dirt.

### Step 4: Wounded Yams

Select wounded yam tubers and cure for 5 - 7 days.

### Step 5: Treatment

Treat apical portions of yam tubers in 600ppm potash solution to delay bud and sprout formation.

### Step 6: Arrange on shelves

Arrange yam tubers on shelves.

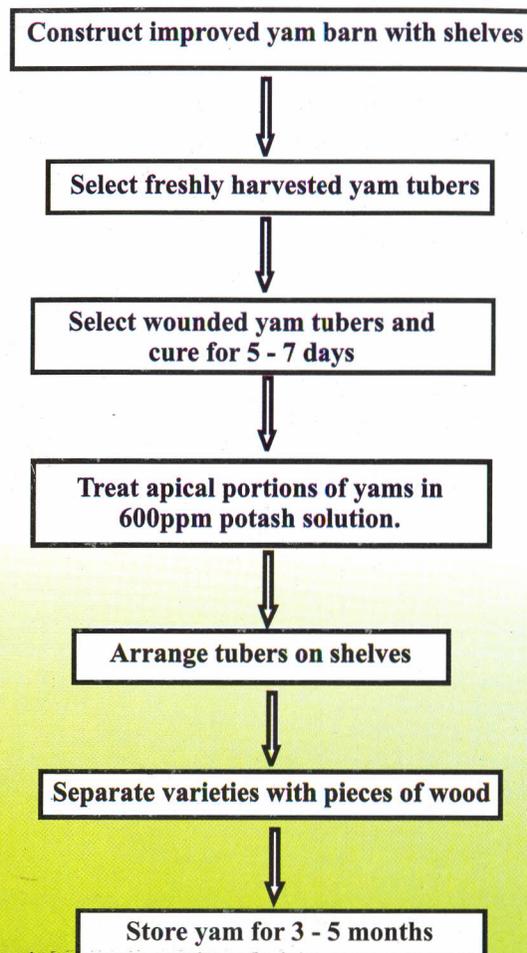
### Step 7: Partition

Separate different varieties with pieces of wood.

### Step 8: Storage

Store yam for 3-5 months.

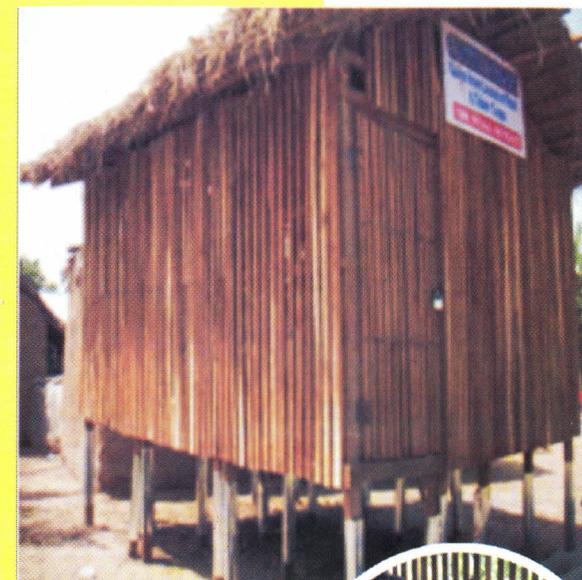
## YAM STORAGE FLOW CHART



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Sponsorship:  
**GRATITUDE PROJECT**

# YAM STORAGE



CSIR-FRI

GRATITUDE, an EU funded project in collaboration with CSIR-Food Research Institute (FRI) and NRI of University of Greenwich focuses on gains from losses of roots and tubers along the value chain.

## YAM STORAGE

Yams (*Dioscorea* spp.) are important tuber crops in Ghana. They are wide spread and are one of the high value crop and significant source of dietary energy in Ghana. However, the storage of yams is associated with losses which have been identified to be caused by physical factors such as mechanical damage and temperature, physiological factors such as water loss, respiration and sprouting, and pathological factors such as diseases initiated by nematodes and aggravated by fungi and bacteria. Temperature and humidity influence respiratory losses in agricultural produce hence, water losses are higher in tropical countries.

After harvest, yam tubers enter into dormancy, which is of major importance in yam storage. Once sprouting occurs, storage is no longer possible. Although, yams are important source of carbohydrates the production is hindered by storage problems. Attempts to preserve raw yam by using sprout inhibitors, controlled atmosphere, or low temperature storage have been a challenge over the years. This lack of suitable preservation methods explains the seasonal fluctuation in ware yam prices.

There are various forms of storing yam at the farmers' level as below:

Storage structure	Description	Advantage / Disadvantage	Picture
Pit	The pit is a cylindrical hole dug in the ground and lined with dry grass on the floor and sides of the hole. Tubers are covered with dried grass or vines.	Protection from high temperature. Tuber loss is low. Poor aeration for tubers. High nematodes infection of tubers.	
Under shady tree	A shady tree on farm is identified. The ground is cleared and lined with dry grass. Tubers are clamp on the tress and covered with dry grass.	High aeration reduce rot of tubers. Not expensive Easy control of sprout. Rodents/pest attack. Stealing. Bushfires.	
Local barn	A rectangular wooden hut consisting of woven straw. The floor is lined with dry grass to cushion the tubers.	Tubers inspection is easy. Not expensive. High aeration. Rodents/pest attack is high. Requires labour for stacking.	
Improved barn	The improved barn storage structure is a rectangular hut raised above the ground. Is well aerated with shells for the tubers. Metal plates on the stands prevent rodents entry. (L=19ft 17"; H=12ft 41"; B= 19ft)	Tubers inspection is easy. High aeration. Rodents/pest attack is very low. Tubers protected from solar radiation. Requires labour for stacking. Very expensive.	