

## Rice Value Addition

### 1. Introduction

- Value addition enhances profitability of rice production.
- In Kenya rice is consumed as grain in several forms:
  - Polished rice of various grades (Table 1).
  - Parboiled rice.
  - Quick cooking rice.
  - Value added rice products.

### 2. Polished rice of various grades (Table 1)

**Table 1. Grades for milled rice in Kenya**

	Head Rice, % (Min)	Broken Rice, % (Max)
Grade I	85	15
Grade II	75	25
Grade III	65	35

- Such rice can be boiled in water (with salt and fat added) and served with stew.

### 3. Parboiled rice

- Parboiling is the process in which paddy is soaked in water and steamed before milling.
- Parboiling loosens the hulls before milling. Other advantages of parboiling include:
  - Paddy gets harder and results in higher milling yield with lesser breakage.
  - Nutritional value of rice milled from parboiled paddy is increased. Vitamins and minerals are transferred from the hulls and bran into the endosperm.
  - Parboiled rice is less liable to insect attack than rice which has not been parboiled.

### 4. Quick cooking rice

- This is made by steeping rice in water to attain a moisture content of 35%. This is then cooked under pressure and dried or frozen.
- Such rice is already precooked and requires few minutes of boiling and is ready for consumption.

### 5. Value added rice products

A wide range of value added products can be developed from rice, i.e.:

- Canned rice.
- Flaked or puffed rice.
- Popped rice.
- Ready-to-eat products.
- Starch (from broken rice).



**Fig1. Popped rice**  
Source: Francis Wayua



**Fig 2. Puffed rice**  
Source: Francis Wayua



**Fig 3. Value added rice products**  
Source: Consumer reports

