

## Reducing Postharvest Losses in Rwanda Project

Reducing Postharvest Losses in Rwanda project is a three-year project (2016 – 2019), which is facilitating systemic changes in the horticultural sector with a focus on postharvest practices. Postharvest management is a systems-based challenge and requires an integrated innovation strategy that incorporates technological and financial innovations, capacity building, enhanced market access and other elements to achieve impact at scale.

Funded by Feed the Future Horticultural Innovation Lab, the Reducing Postharvest Losses in Rwanda project is working under the guidance of the Ministry of Agriculture and Animal Resources in Rwanda with implementing partners, Agribusiness Associates, Rwanda Agricultural Board, National Agriculture Export Development Board and University of Rwanda – College of Agriculture and Veterinary Medicine. The project's postharvest technical assistance partner is Postharvest Education Foundation.

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*This brochure is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the Horticulture Innovation Lab's Reducing Postharvest Losses in Rwanda project and do not necessarily reflect the views of USAID or the United States Government.*



## Green Bananas: Maturity Index, Quality and Harvesting



## Maturity Indices

Maturity Stage	Class	Description	Photo
1	Angular	The shape of finger is angular	
2	Round	The shape of finger is round (Bananas are ready to harvest when the ridges on the surface of fingers change from angular to round.)	

Start harvest 

## Weight, Size, Color, and Firmness in Maturity Stage

Maturity Stage	Weight (Average of 3 pcs in g)	Size	Shape	Color	Firmness (Average of 3 pcs in kgf)	Soluble Solids
1	480	18 cm length, 15.5 cm circumference	Angular	Dark green	3.8	Was not juicy enough to measure brix
2	525	24 cm length, 16.5 cm circumference	Round		3.8	

## Abscission

Abscission of the banana when the bunch matures is characterized by the drying of the top most leaf.

Premature abscission of banana occurs as a result of damage by insect or by diseases, low temperature, drought, and other unfavorable



## Quality

### High Quality



They are full mature and with very minimum defects.

### Rejects



The part damaged by insect may harbor microorganisms.

## Quality Defects



### Decay:

Microorganisms such as bacteria, yeast and fungus feed on the fruit and break it down.



**Cracks:** It is a disorder resulting in peel thickness and hardness. There is insufficient mineral nutrients in the peel of the fruit.



### Sunburn

It is a loss of pigmentation resulting in a yellow, bronze, or brown spot on the sun exposed side of the fruit. The sunburnt fruit does not have the capacity to prevent oxidative stress as the pool of soluble antioxidants is reduced.



### Insect damage

Damaged parts by insects may harbor microorganisms

## Banana Harvesting



Bananas should be harvested by hand using a two-person team. One person cuts the bunch stem with cutting knife and other carries the bunch away. Banana can be harvested into container before it reaches the ground by using a ladder in order to avoid damages.

