

## 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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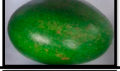


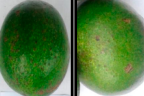
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## Maturity Indices and Quality: Local Avocados (Not hybrid)



## Maturity Indices

Maturity Stage	Class	Description	Photo
1	Very smooth	With very smooth and shining skin	
2	Smooth	With smooth skin	
3	Rough	<50 % skin is rough	
Start Harvest 			
4	Very rough	>50% skin is rough Rough green skin with traces of yellow	

## Weight, Size, Soluble Solids, Color, Firmness in Maturity Stage

Maturity Stage	Weight (Average of 3 pcs in kg)	Size	Shape	Color	Firmness (Kgf)	Soluble Solids (Brix)
1	0.8	14 cm length, 28 cm circumference	Pine-cone shaped	Green	Was too hard to find firmness by penetrometer	Was not juicy enough to measure brix
2	1.3	14 cm length, 29.5 cm circumference				
3	1.5	15 cm length, 31 cm circumference				
4	1.5	16 Length, 33 cm circumference		Green with traces of yellow	9.3	5

## Abscission

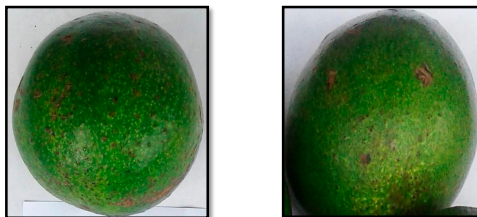


Abscission of avocado is the separation of fruit from a branch caused by the formation of a separation layer of cells on the fruit stalk.

The wind can cause the fruit to fall. A mature fruit falls primarily because it does not receive all the necessary amount of nutritive substances from the mother plant.

## Overall Quality

### High Quality



With very minimum quality defects, have developed good eating quality

### Rejects



If an immature avocado is picked, it will not ripe to an acceptable eating quality and will often shrivel and develop fruit rot.

Damaged parts by insects may harbor microorganisms.

## Quality Defects



**Decay**  
Microorganisms such as bacteria, yeasts and fungi 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 loss of pigmentation resulting in a yellow, bronze, or brown spot on the sun exposed side of the fruit. The sunburnt fruit can not prevent oxidative stress as the pool of soluble antioxidants is reduced.



### Insect damage

It is injury done to the plant by the feeding insect, which eats leaves or burrows in stems, fruit or roots. Insects leaves microorganisms into injured parts.

## Avocado Harvesting

Avocados can be picked by hand using the following to avoid damages:



Ladders



Picking poles

