

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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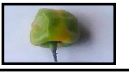




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Maturity Indices and Quality: Yellow Chili



Maturity Indices - Color Rating

| Maturity Stage | Class | Description | Photo |
|------------------------|--------------|---|---|
| 1 | Green | The chili is completely green |  |
| 2 | Breaker | Break of color from green to tannish-yellow of less than 10% of the chili surface |  |
| 3 | Turning | Tannish-yellow color shows on over 10% but not more than 30% of the chili surface |  |
| Start Harvest → | | | |
| 4 | Green yellow | Yellow color shows on over 40% of the chili surface |  |
| 5 | Light yellow | Less than 90% of the chili surface is yellow |  |
| 6 | Yellow | More than 90% of the chili surface is yellow |  |

Chilies for drying should be harvested when colors changes from green to yellow →

Weight, Size, Color in Maturity Stage

| Maturity Stage | Weight (Average of 20 pcs in g) | Size | Shape | Color |
|----------------|---------------------------------|----------------------------------|-----------|--------------|
| 1 | 58.7 | 3.7cm long, 8.1cm circumference | Shapeless | Green |
| 2 | 61.5 | 3.8cm long, 8.4 cm circumference | | Breaker |
| 3 | 63.8 | 4.1cm long, 8.2 cm circumference | | Turning |
| 4 | 66.5 | 4cm long, 8.8 cm circumference | | Green yellow |
| 5 | 64.8 | 4.3cm long, 8.1 cm circumference | | Light-Yellow |
| 6 | 66 | 4cm long, 8.6 cm circumference | | Yellow |

Overall Quality

High Quality



Yellow color evenly distributed and no other defects, like sunburn, cracks, decay and insect damage on the fruit.

Rejects

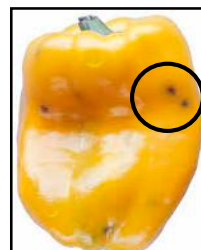


It has an unattractive appearance with a lot of cracks



The damaged part 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 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

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.

Chilies Harvesting

Chillies should be harvested by hand or using scissors. During harvesting keep them in smooth and perforated containers. It is advised to wear gloves during chillies harvesting.

