

Mango Maturity & Ripeness

Mango Expectations at Receiving

- Mangos are harvested when mature, but not ripe
- A mature mango will ripen normally to become ready to eat
- At receiving, you can expect the mangos to be mature, but not necessarily ripe
- Maturity can be judged by a combination of factors, including brix, firmness, internal color and fruit shape (see box at right)
- It is very typical to find mangos of differing maturity and ripeness in the same load and in the same box
- These variances allow you to offer more choices to your customers

Understanding Maturity, Ripeness & Quality

Maturity - Stage at which harvested fruit can continue to ripen normally and attain good eating quality

Ripeness - Progression of mature fruit towards a “ready to eat” state

Quality - The degree of excellence or superiority characterized by sugars, acids, aroma, texture, flavor, etc

Changes Associated with Mango Ripening

- Decrease in flesh firmness and increased juiciness
- Starch conversion into sugars
- Increase in soluble solids content
- Increase in aroma
- Flesh color changes from greenish-yellow to yellow to golden-yellow (in all varieties)
- Skin color changes from green to yellow (in some varieties)

Assessing Mango Maturity

Soluble Solids Content (SSC) or Brix

- Approximately 7-9% at receiving, depending on growing conditions and cultivar
- Fully ripe mangos can have as much as 13-20% - but this should not be the expectation at receiving

Firmness

- Mature mangos that have yet to ripen will be very firm
- Measure firmness with a penetrometer
- At receiving, hand feel may not be adequate to measure firmness as mature mangos may not have any “give”

Internal Flesh Color

- Mature mango flesh will be at least light yellow, not green or white

Skin Color

- Indicators differ by variety
- Some varieties may shift from dark green to light green at maturity
- Red blush is NOT related to maturity, ripeness or quality

Mature Mango Fruit Shape

- Cheeks should be full
- Shoulders should be elevated slightly above the stem attachment

Information provided by Dr. Elizabeth Mitcham, Pomologist,
UC-Davis Postharvest Technology Research & Information Center



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Mango Defects

Latex Staining

- Naturally occurring substance produced by the tree
- Does not impact eating quality - cosmetic only



Chilling Injury

- Surface pitting
- Grayish scalding
- Flesh browning in severe cases
- Uneven ripening
- Poor color and flavor development



Hot Water Injury

- May cause black or brown scalding
- Severe cases may cause pockets in the flesh



Anthracnose Decay

- Black lesions
- Caused by a field fungus
- Generally well-controlled by hot water treatment



Stem End Rot Decay

- Brown, grey or black lesions and decay starting at the stem end of the fruit
- Caused by a number of different fungi



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