# **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 mange 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





## **Hot Water Injury**

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





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## **Chilling Injury**

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





## **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



