

## **CLOSE-UP: AVOCADO**

## **Doha non-agreement & the banana dispute**

## **European apple & pear harvest forecasts**

<http://passionfruit.cirad.fr>



## Avocado post-harvest

*Post-harvest management of fruits is of prime importance. It affects both quality and yield as losses can range from 5 to 50%.*

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### The special features of climacteric fruits

Climacteric fruits have special physiological characteristics. They must be harvested after reaching a sufficiently advanced stage of development and hence of maturity. It is only then that they are capable of synthesising sufficient amounts of ethylene to be able to start ripening (a strong increase in respiration that physiologists refer to as the 'climacteric' marks the start of deep-seated physiological changes). Only mature fruits will display satisfactory organoleptic characteristics once they have ripened. Avocado is a singular climacteric fruit. It can only start the ripening process after it has been picked. One of the best ways of storing the fruit is therefore to leave it on the tree. Some varieties can remain on the branch for several months, depending on the season. Suitability for 'tree storage' is generally very small or non-existent for West Indian cultivars but marked for hybrids, especially for Guatemalan x Mexican crosses. Nevertheless, prolonged storage can have a negative effect on

production in the following season.

These physiological considerations highlight the importance of the harvest date. Several variables that depend on the variety and the producer country concerned are to be taken into consideration to judge the optimum stage of maturity. Visual appraisal, fruit weight and diameter and the number of days after flowering give useful information but this is not accurate enough. Determining the matter content—strongly correlated with the oil content—is the most commonly used method. Appraisal of the stage of maturity is completed by analysis of enzymatic activity, electrical conductivity, aromatic compounds or precursors or by tasting tests when the fruits have ripened.

Avocado — Europe — 4-kg box 35 x 28.5 x 9 cm	
Weight (g)	Size
461-475	8
366-400	10
306-365	12
266-305	14
236-265	16
211-235	18
190-210	20
176-189	22
156-170	24
146-155	26

### Packing

Fruits with the desired maturity index are sorted, washed and graded before packing. Each market has its own packing requirements.

Avocado — United States — 11.34-kg box 43 x 32.6 x 17.5 cm	
Weight (g)	Size
422	28
377	32
340	36
298	40
241	48
196	60
156	70
122	84
102	96

Avocado — Japan — 6-kg box 43.9 x 33.1 x 11 cm	
Weight (g)	Size
340	18
298	20
241	24
196	30
156	35

Avocado — United States 5.67-kg box	
Weight (g)	Size
422	14
377	16
340	18
298	20
241	24
196	30
156	35