



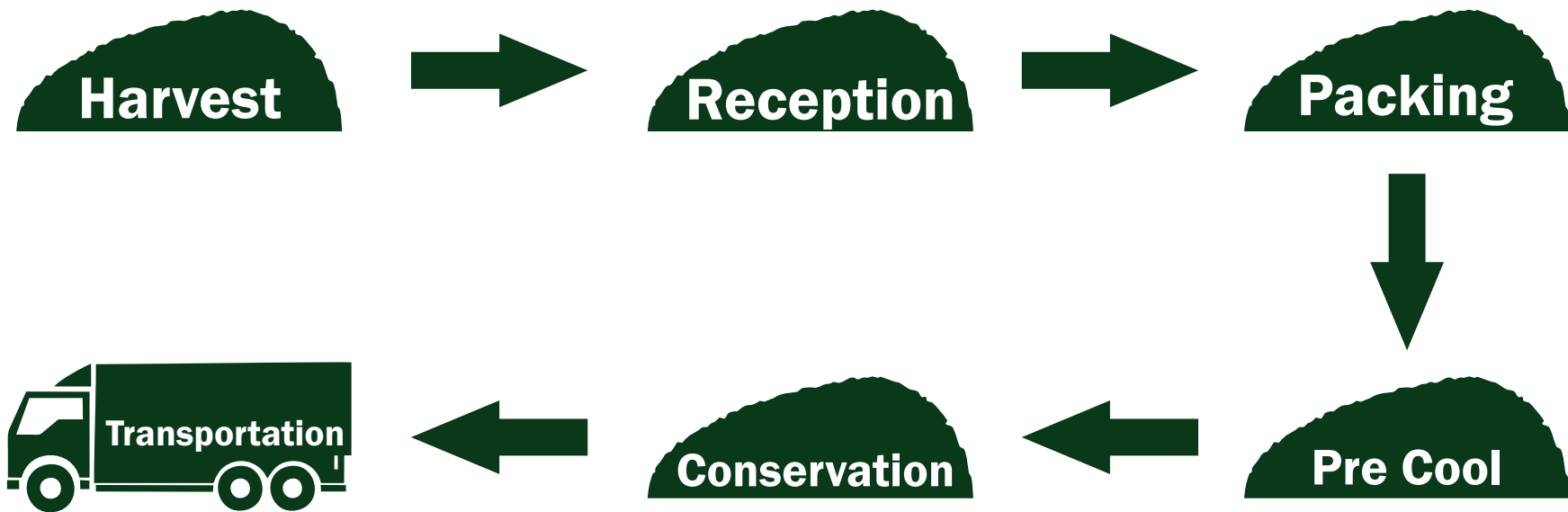
Quality Manual



AVOCADO // AGUACATE // AVOCAT // アボカド // ABACATE // 鱷梨



General Process





Months of Production





Harvest: The harvest is done by hand with all the care necessary to avoid damaging the quality of the product.

To determine the time of harvest is important to check the result of dry matter. Dry matter test is used to not affect the ripening of the fruit.

Reception:

- avoid the product affected by rotting or deterioration
it makes it unsuitable for consumption
- cleansed; practically free of any visible foreign matter
- fresh in appearance, free of pests and their damages
- free of abnormal external moisture
- free of strange smells and / or flavors.
- the stem must be +10 mm in length (clean cut) or absent
(place of dry and intact union)

The development and the condition must be such that they allow them:

- support transport and handling

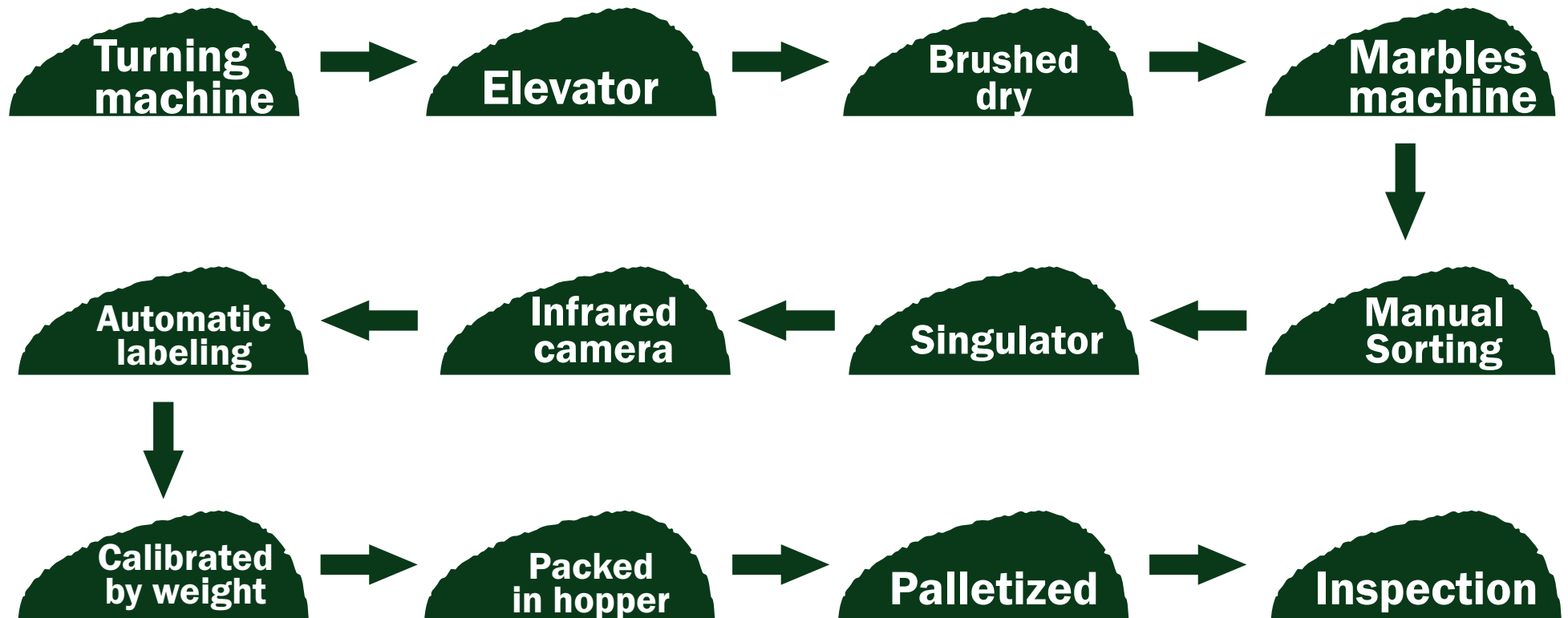


Cleaning: The cleaning process begins with the rollers, also known as elevator that is where garbage is removed coming from the orchard as it can be branches and leaves. Following the cleaning brushes will be handled with very soft bristles so as not to damage the skin of the fruit. We continue with the marbles machine, that is a exit where all the fruit less than 80 grams will be stored.

Sorting: In our packer we have 3 sorting filters the first is called Manual Sorting, which consists of a band in where it is pre-selected manually before being packed. our next quality filter are our detection cameras of infrared technology damage, here detects defect, damage and color. Our last quality control is in the packing area, in this filter our packing team previously trained to meet our and our clients' quality standards select only the best avocados.



Process of packing





Physical damages

- Free of live insects and hard lumps.
- Free from brown-black damage to skin and flesh, anthracnose, stem rot, soft bacterial rot.
- Cuttings, holes, perforations and free cracks.
- Free of copper deposits on the surface of the skin.
- No sunburn.
- Free of dirt and foreign objects.



AVOCADO DAMAGE



Hit



Wind



Scratch



**Without
Peduncle**



Sunburn



Chafing



Damage by knife

AVOCADO PESTS



Thrips



Roña



Pata de gallo



Sunblotch



Lenticel



Escama



Viruela



Worm Medidor



Clavo



Cobweb worm



Quality

According to the Mexican Standard NMX-FF-016-SCFI-2002, the avocado is classified in the following quality categories:

- **Supreme Quality**

Avocados must be of superior quality; uniform in the degree of maturity, color and size; and should not have defects or diseases

- **Quality I**

They must be of good quality; uniform as soon as to the degree of maturity, coloration and size. They are not allowed defects known as "nail," burns caused by the sun or by frost.

They may only show slight defects in no more than 6 cm² of their surface when they do not affect the appearance general of the product.

They must be free of mechanical damage and without damage caused by larvae and other diseases.



- **Quality II**

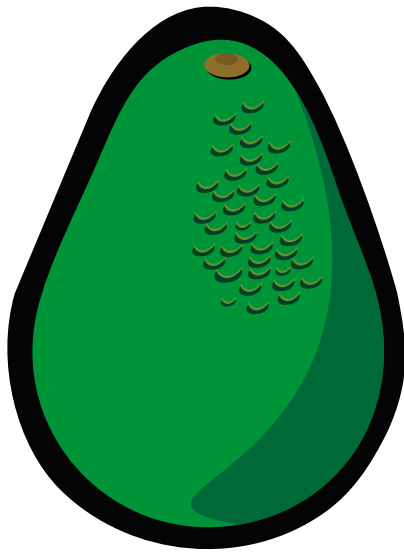
They should be uniform in terms of maturity, color and size. They will be able to afford damages surface conditions that affect a maximum of 50% of the surface of the fruit caused by physiopathies and mechanical damage, always and when avocados retain their essential characteristics of quality, conservation status and its presentation.

- **Not qualified**

All avocado that does not classify at least as Quality II is considered as not suitable for consumption human in fresh.

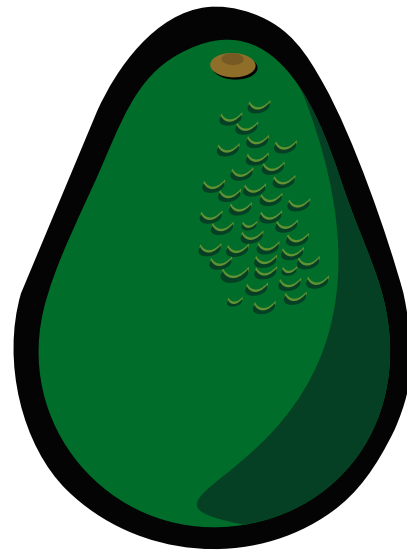


Ripening stages



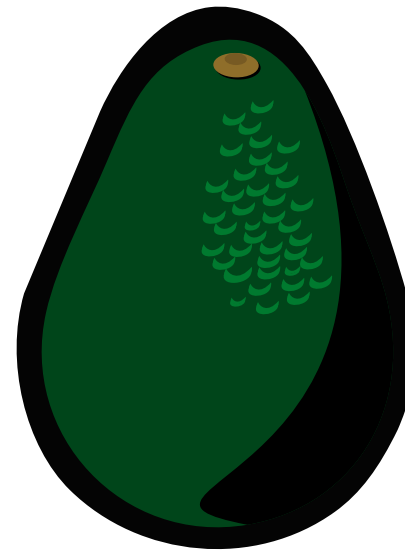
Green

23% - 25%



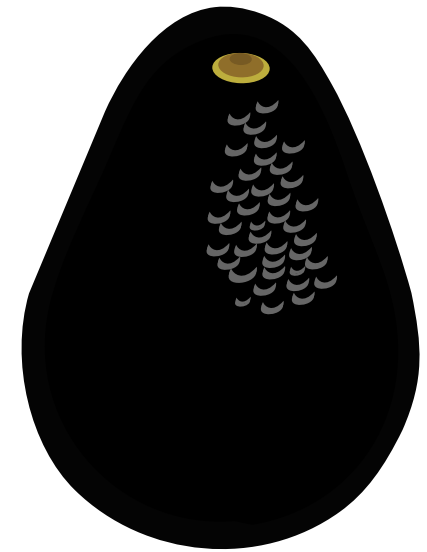
Firm

26% - 27%



Jaspeado

28% - 29%



Black

30% - More

The color that the avocado acquires is according to the amount of dry matter, the darker the fruit acquires a greater percentage of oil

To have an optimum quality when the fruit arrives at its destination, it is recommended that the fruit is sent in a stage of Green and Firm

Size Chart

Avocado



SIZES CALIBRES

	+ de 330 gr	300 a 330 gr	265 a 300 gr	205 a 265 gr	170 a 205 gr	150 a 170 gr	120 a 150 gr
	32s	36s	40s	48s	60s	70s	84s
	Súper	Súper	Extra	Extra	Primera	Primera	Mediano
	12s	14s	16s	18s	20s	22s	24s
	12s	14s	16s	18s	20s	22s	24s
	16s	18s	20s	24s	30s	35s	42s



PACKING AND SIZES

AVOCADO SIZES FOR JAPAN (ASIA)		
SIZE	WEIGHT MIN	WEIGHT MAX
18's	311	MAS
20's	286	310
24's	216	285
30's	176	215
35's	152	175

6 KG BOXES / 13 LB CASES
160 CASES PER PALLET

AVOCADO SIZES MEXICO		
SIZE	WEIGHT MIN	WEIGHT MAX
SUPER E	266	MAS
EXTRA	211	265
PRIMERA	171	210
SEGUNDA	140	170
TERCERA	100	139
CANICA	MENOS	99

10 KG BOXES / 22 LB CASES
20 KG BOXES / 44 LB CASES
23 KG BOXES / 50 LB CASES

AVOCADO SIZES FOR USA		
SIZE	WEIGHT MIN	WEIGHT MAX
32'	331	MAS
36's	301	330
40's	266	300
48's	206	265
60's	171	205
70's	151	170
84's	120	150

11.3 KG BOXES / 25 LB CASES
80 CASES PER PALLET
88 CASES PER PALLET

AVOCADO SIZES EUROPE AND CANADA			
SIZE	WEIGHT MIN	WEIGHT MAX	PLU
12's	300	371	4770
14's	258	313	4770
16's	227	274	4225
18's	203	243	4225
20's	184	217	4046
22's	165	196	4046
24's	151	175	4046
26's	144	157	
28's	134	147	
30's	123	137	

4 KG BOXES / 9 LB CASES
216 CASES PER PALLET
228 CASES PER PALLET
264 CASES PER PALLET



Use of proper uniform



- **Security**
- **Hygiene and personal hygiene**
- **High visibility**
- **Good first impression**
- **Unit of the team**
- **Clean clothes that protect the whole body**



Fruit packing



- Quality
- Excellent presentation
- Better Ventilation
- Avoid damages

- You damage the quality
- Terrible presentation
- Problems with Ventilation
- Damage of internal fruit and external
- Problems with stowing





Labeling of Boxes



**Needed information
on each label:**

Product: (multi language)
Scientific name:
Variety:
Seedless* (optional)
Net. Weight:
Size
GGN number:
Grower name:

The labeling and identification of the products is the first step of the traceability chain. Each product receives a label with basic information for the consumer: Exporter, Caliber, Product, batch number / pallet and identification number of the production line.



Incorrect placement



Lack of label



Boxes quality



- Work with material of always in perfect condition and quality.
- It must not be dirty and / or damaged.





Boxes quality



Packing: The product must be packaged in such a way that its protection is guaranteed.

The materials must be new, clean and of adequate quality.

Non-toxic ink or glue

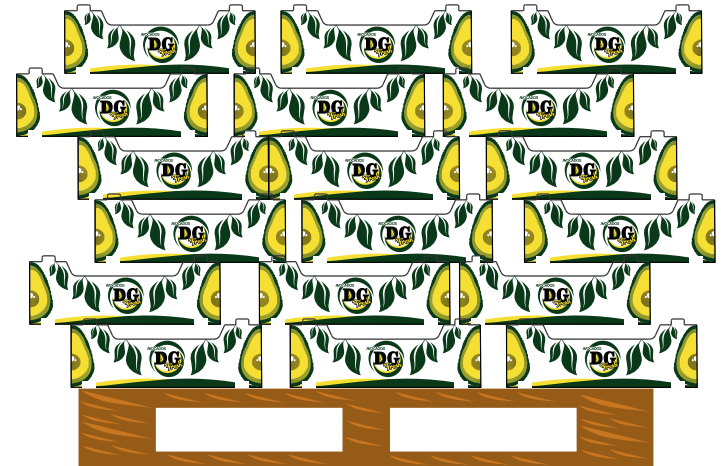
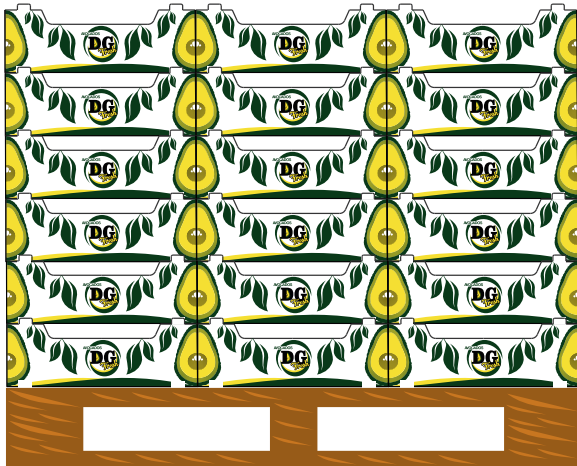
Packages must be free of all foreign material.

Important is enough ventilation holes / openings in the box.

The adhesive labels affixed individually to the product must be such that, when they are removed, leave no visible traces of glue or cause skin defects.



Box Stowage



Stowing: A good and clean work should always be done when stowing. Keep your hands always clean, work neatly, check the stowage to avoid accidents when placing a strap or loading the fruit in containers. Performing a perfect stowage helps deliver excellent quality to customers.



Fruit temperature

Dry matter	Temperature
20% al 22%	45° F / 7.22° C
23% al 25%	44° F / 6.66° C
26% al 27%	43° F / 6.11° C
28% al 29%	41° F / 5.00° C
30% ó más	40° F / 4.44° C

The moment the fruit leaves the cold chain, its metabolism it accelerates and ripens faster than fruit that was never subjected to cold.