

SAMPLING REGULATION FOR MEASURING RIPENESS

1. SAMPLING:

Start sampling 10 – 15 days before the usual picking period.

Pick 10 – 15 representative fruits of the same variety coming from an homogeneous plot of land. The fruits must be picked from different locations of the plot and from different area of each plant. The sample fruits must be homogeneous in size. It is important that the selected fruits are healthy, and do not show any pest and diseases infestation or any sign of physical damage that could have altered the normal ripeness process of maturation in comparison the remaining fruit belonging to the same batch.

2. MESURING:

Peel only the fruit area you intend to use for the measurement, removing a thin layer of epicarp using the peeler provided with the penetrometer (the peeler or knife used must be very sharp).

Hold firmly the fruit in one hand and the penetrometer in the other one between the thumb and the forefinger. Push the resetting button to set to zero the device, place the plunger against the peeled area. Press the plunger increasing strength until the notch is reached. In order to avoid mistakes and to ensure slow and constant penetration, make sure the hand holding the fruit is firm, lying down on a table with the arm firmly rigid. The measurement must be done on the face of the sampled fruits exposed to the sun and the final value of hardness will be the average of the whole measurement done.

When using the device to measure apples and peaches 8mm Ø tip (biggest) must be utilized.

Repeat this operation every 3-4 days until the measurement complies with picking standard parameters.

The same process must be applied in the processing center for controlling fruits delivered by the members. The sample must be randomly taken from the boxes after the weighting.

PRESSURE VALUES FOR THE STANDARD PICKING OPERATION

SPECIES AND VARIETIES	PRESSURE VALUE* (kg/0,5 cm²)
Peaches ready for placing on the market	3-4
Peaches that will be stored for 5 – 8 days	4,4 – 5,20
Peaches that will be stored for long time (10-20 days)	5,2 - 6
Apple Gala group	5
Apple Red delicious group	5,5

* The given values in this Protocol shall be considered approximate and subject to adjustments, in relation to the cultivation area.

Fig 1: Penetrometer and its parts

