

### Introduction:

Our Fruit Firmness Tester (also known as a Fruit Pressure Tester) is a penetrometer that measures fruit firmness and provides a quick, easy and, according to university studies, accurate method to determine fruit maturity.



### General Features & Specification:

**RANGE:** till 1 kg.

Firmness, or degree of softness or crispness, is used world wide as a test of ripeness and maturity of many fruits. The Fruit Tester can be used as either a hand-held instrument or mounted on a test and for more precise measurements.

#### **RUGGED CONSTRUCTION:**

High impact plastic case, aluminum dial, precision steel spring, brass mechanism chassis, impact resistant plastic crystal, stainless steel plunger and accessories. Parts disassemble for easy cleaning.

This tool is perfectly fit to detect proper picking maturity and control fruit softening during cold storage. It measures the pressure necessary to force a plunger of specified size into the pulp of fruit.

#### **PREPARING SAMPLES:**

About ten days before normal picking time, control pulp firmness, repeat control each 6-7 days for winter pome-fruits, each 2-3 days for summer pome-fruits, and stone fruits. Take samples from several plants and several spots of each plant as a random sample will be more representative of the lot.

A suitable sample will be composed of 15-20 fruits; 2 measures have to be taken on each fruit at opposite sides, at the middle point of each side, after removing 1/2"-3/4" diameter disc of peel.

#### **HAND HELD MEASUREMENT:**

Hold the fruit firmly in the left hand, hold the fruit tester between thumb and forefinger of the right hand, push button-commanded indicator hand, place the plunger against the fruit and press with increasing strength until the plunger tip is penetrated into the pulp up to the notch.

Slow penetration of the plunger is essential. Sharp movements and sudden pressure application may impair your measurements. In order to avoid mistakes and to assure slow penetration of the plunger, make sure that the hand holding the fruit is firm, leaning it on the table, and keep the arm rigid.

Sunshine Instruments  
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Branch office :- Mumbai

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Our Fruit Firmness Tester (also known as a Fruit Pressure Tester) is a penetrometer that measures fruit firmness and provides a quick, easy and, according to university studies, accurate method to determine fruit maturity.



### General Features & Specification:

**RANGE:** till 5 kg.

**SENSITIVITY:** 20 grams.

#### **RUGGED CONSTRUCTION:**

High impact plastic case, aluminum dial, precision steel spring, brass mechanism chassis, impact resistant plastic crystal, stainless steel plunger and accessories. Parts disassemble for easy cleaning.

#### **SPECIFICATIONS:**

"Peak Firmness Hold" button automatically freezes the highest reading until released by push button that returns the pointer to zero. Dual Graduations; reads in Pound and Gram. Accuracy:  $\pm 2$  graduations through 2500 grams;  $\pm 1$  graduation over 2500 grams (all models).

#### **SPARE PARTS INCLUDED:**

8 mm (5/16") and 11 mm (7/16") stainless steel plunger tips, protection (splash) plate, peeler, manual, use recommendations, and carrying case.

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Our Fruit Firmness Tester (also known as a Fruit Pressure Tester) is a penetrometer that measures fruit firmness and provides a quick, easy and, according to university studies, accurate method to determine fruit maturity.



### General Features & Specification:

**6003C: For Apples, Pears, Avocado, Kiwi, Tomatoes, etc.**

**Range: till 13 kg / 28 lb**

Firmness, or degree of softness or crispness, is used world wide as a test of ripeness and maturity of many fruits. The Fruit Tester can be used as either a hand-held instrument or mounted on a test and for more precise measurements.

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High impact plastic case, aluminum dial, precision steel spring, brass mechanism chassis, impact resistant plastic crystal, stainless steel plunger and accessories. Parts disassemble for easy cleaning.

#### **SPECIFICATIONS:**

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#### **SPARE PARTS INCLUDED:**

8 mm (5/16") and 11 mm (7/16") stainless steel plunger tips, protection (splash) plate, fruit peeler, manual, use recommendations, and carrying case.

This tool is perfectly fit to detect proper picking maturity and control fruit softening during cold storage. It measures the pressure necessary to force a plunger of specified size into the pulp of fruit.

#### **PREPARING SAMPLES:**

About ten days before normal picking time, control pulp firmness, repeat control each 6-7 days for winter pome-fruits, each 2-3 days for summer pome-fruits, and stone fruits. Take samples from several plants and several spots of each plant as a random sample will be more representative of the lot.

A suitable sample will be composed of 15-20 fruits; 2 measures have to be taken on each fruit at opposite sides, at the middle point of each side, after removing 1/2"-3/4" diameter disc of peel.

# SUNSHINE INSTRUMENTS

## HAND HELD MEASUREMENT:

Hold the fruit firmly in the left hand, hold the fruit tester between thumb and forefinger of the right hand, push button-commanded indicator hand, place the plunger against the fruit and press with increasing strength until the plunger tip is penetrated into the pulp up to the notch.

Slow penetration of the plunger is essential. Sharp movements and sudden pressure application may impair your measurements. In order to avoid mistakes and to assure slow penetration of the plunger, make sure that the hand holding the fruit is firm, leaning it on the table, and keep the arm rigid.

## SUGGESTED ACCEPTABLE FRUIT FIRMNESS LEVELS Errore. Il segnalibro non è definito.

<u>FRUIT</u>	<u>TIP SIZE</u>	<u>HARVEST</u>	<u>RECEIVE</u>
Apple	7/16" (11 mm)	16	10 - 14
Avocado	5/16" (8 mm)	32 - 30	18 - 22
Honeydew Melon	5/16" (8 mm)	10	7
Kiwifruit	5/16" (8 mm)	14 - 18	5 - 10
Nectarine	5/16" (8 mm)	12	10 - 14
Pears, Anjou	5/16" (8 mm)	15	10 - 14
Pears, Asian	5/16" (8 mm)	13	7 - 10
Pears, Bartlett	5/16" (8 mm)	19 - 22	15 - 18
Pears, Bosc	5/16" (8 mm)	16	11 - 13
Peach	5/16" (8 mm)	12 - 14	12
Plum	5/16" (8 mm)	6	4 - 5

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### General Features & Specification:

**For Apples, Pears, Avocado, Kiwi, Tomatoes, etc.**

**RANGE:** 0-20 kg / 44 lb

**SENSITIVITY:** 0,5 kg

Firmness, or degree of softness or crispness, is used world wide as a test of ripeness and maturity of many fruits. The Fruit Tester can be used as either a hand-held instrument or mounted on a test and for more precise measurements.

#### **RUGGED CONSTRUCTION:**

High impact plastic case, aluminum dial, precision steel spring, brass mechanism chassis, impact resistant plastic crystal, stainless steel plunger and accessories. Parts disassemble for easy cleaning.

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Spare parts included: 8 mm (5/16") and 11 mm (7/16") stainless steel plunger tips, protection (splash) plate, fruit peeler, manual, use recommendations, and carrying case.

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