



Fruit penetrometer

Beauty is more than skin-deep

Complexity



Price



Scale



Fruit and vegetable hardness is often an indicator of ripeness – and of the quality of the produce.

Australia prides itself on being the food basket of the Pacific, growing a wide range of fruits and vegetables across the country.

Due to climate change and other environmental shifts, harvest seasons are also changing and becoming a less reliable indicator of produce ripeness. Manual hardness testing works to alleviate this issue.

How

At their core, penetrometers are force testers. They measure the number of kilograms per cubic centimetre that are required to pierce a fruit or vegetable.

Penetrometers are ideal for testing a wide range of fruits and vegetables. The force measurement provides the necessary information for growers to determine the best picking time, and to monitor fruit ripening and softening during storage.

Penetrometers operate by measuring the force required to push a plunger tip – of varying sizes – into the flesh of a fruit or vegetable. The plunger tips can vary based on the target produce, or by the size of the penetrometer.

The measurement then gives an indicator as to how ripe the fruit is, which can then be used to inform when the growers should harvest.

Some penetrometers also feature a resettable maximum force indicator hand to show max force reading, and users can then switch to a more resistant plunger.

Why

Fruit and vegetable hardness is a clear indicator of ripeness for many types of produce, and accurately measuring this factor can be the difference between a perfect harvest and an overripe mess.

Old methods of testing by visual indicators, or through manually feeling the surface of produce, do not provide the accuracy afforded by a penetrometer.

Naturally, different fruits and vegetables will vary: varieties, geographical location and climate will all affect the appropriate firmness for picking a particular fruit.

Recommended measurements are used as a guide, the growers using their experience and expertise to establish the precise firmness value applicable to their particular variety and environment.

The data from the penetrometers can then be used to identify trends in climatic conditions and the impact they have on produce.

Productivity

Efficiency



Benefits

Quality assurance

Know exactly what stage of ripening your produce is at.

Ease of use

Penetrometers are simple and easy to use without specialised training.

Cost effective

Penetrometers are inexpensive and can be bought in bulk for larger operations.

Getting started

1. Obtain penetrometers from reputable suppliers.
2. Calibrate the penetrometers.
3. Use on fruit and vegetables over a period of weeks to find the optimal time to harvest, and to ensure that harvested fruit is ready to export.

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More Info

For more information on how you can deploy this technology on farm, give us a call or visit our website via the link below or QR code.

