

Non Destructive Firmness Measurement for Bartlett Pears

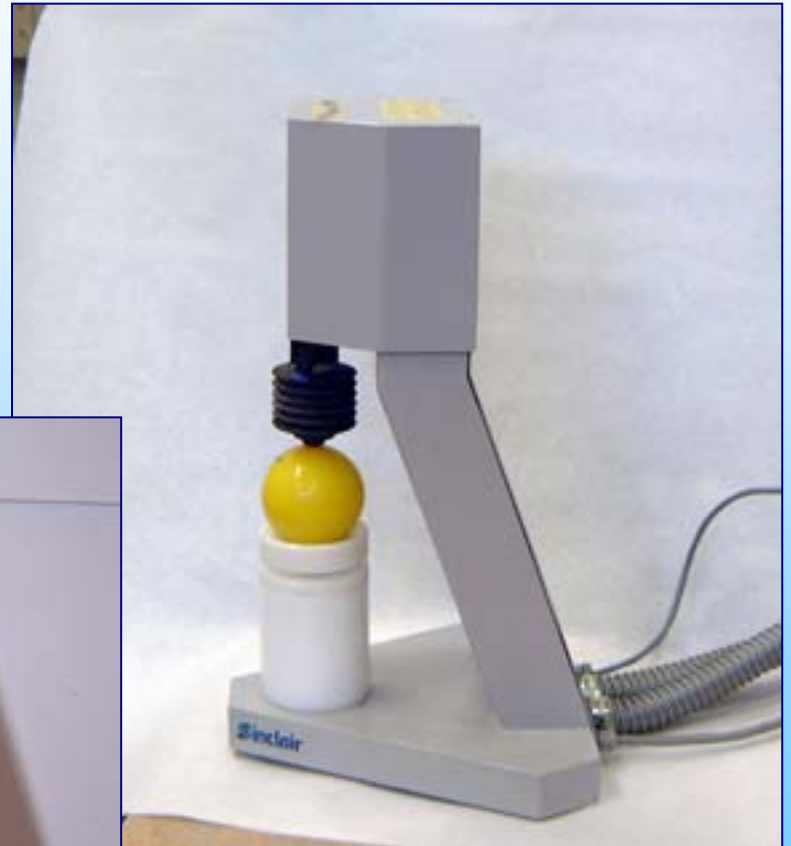
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Goal

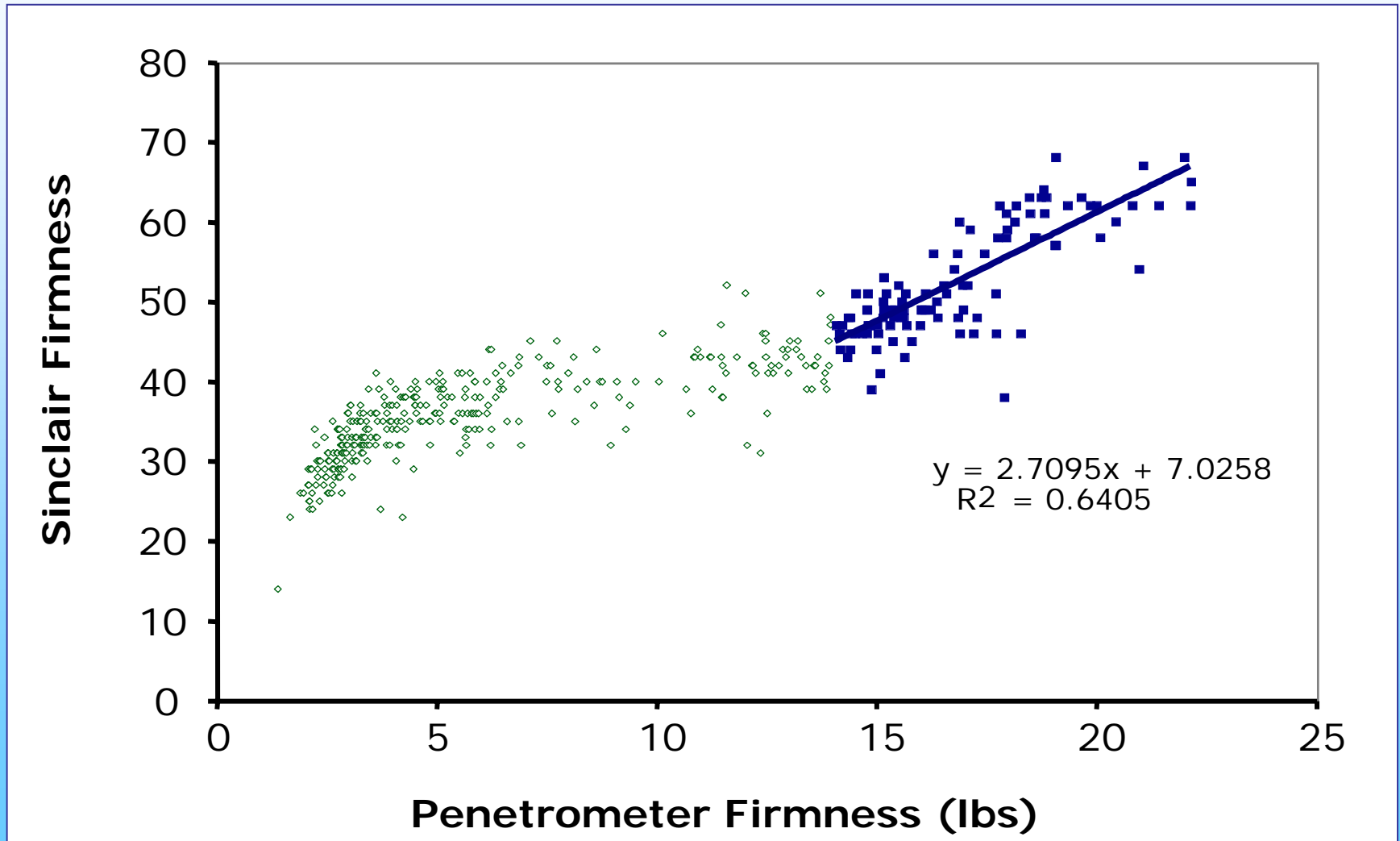
- Evaluate non destructive firmness measurement devices for pears.
Consider high firmness levels at harvest and low levels during ripening.

Sinclair

- Bench top unit
- \$5000+



Comparison with Penetrometer



Calibration with Penetrometer

- For Pears > 15 lbs firmness:

Sinclair unit $\times 0.37 - 2.6 =$ Penetrometer
(or set standards using new units)

- Not accurate below 15 lbs firmness.

Durometer

- Use 'E' tip for pears
- Hand held
- Stand mounted
- \$600 - \$1100



Durometer Sources

- Durometers are available from a number of companies, for example:

- Corporate Consulting, Service & Instruments, Inc.

Tel: 330.376.3600 / 800.742.8535

<http://www.ccsi-inc.com>

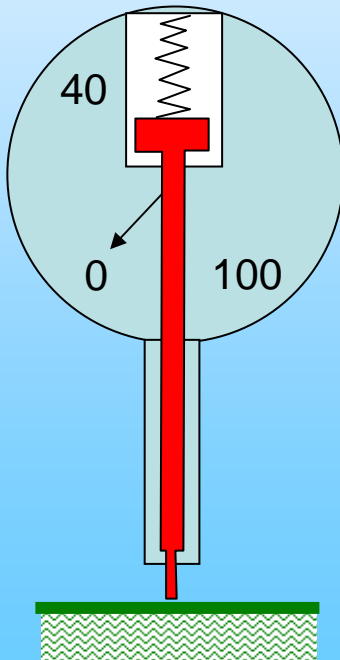
- Gaging.com

Tel: 702.456.2264

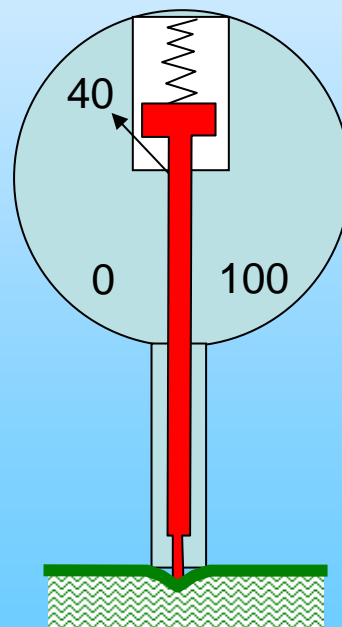
www.gaging.com

Schematic of Operation

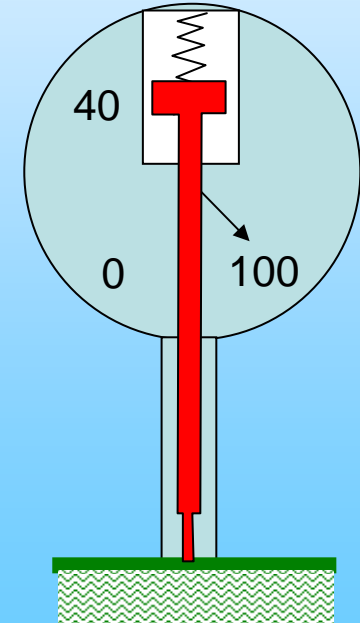
0 points



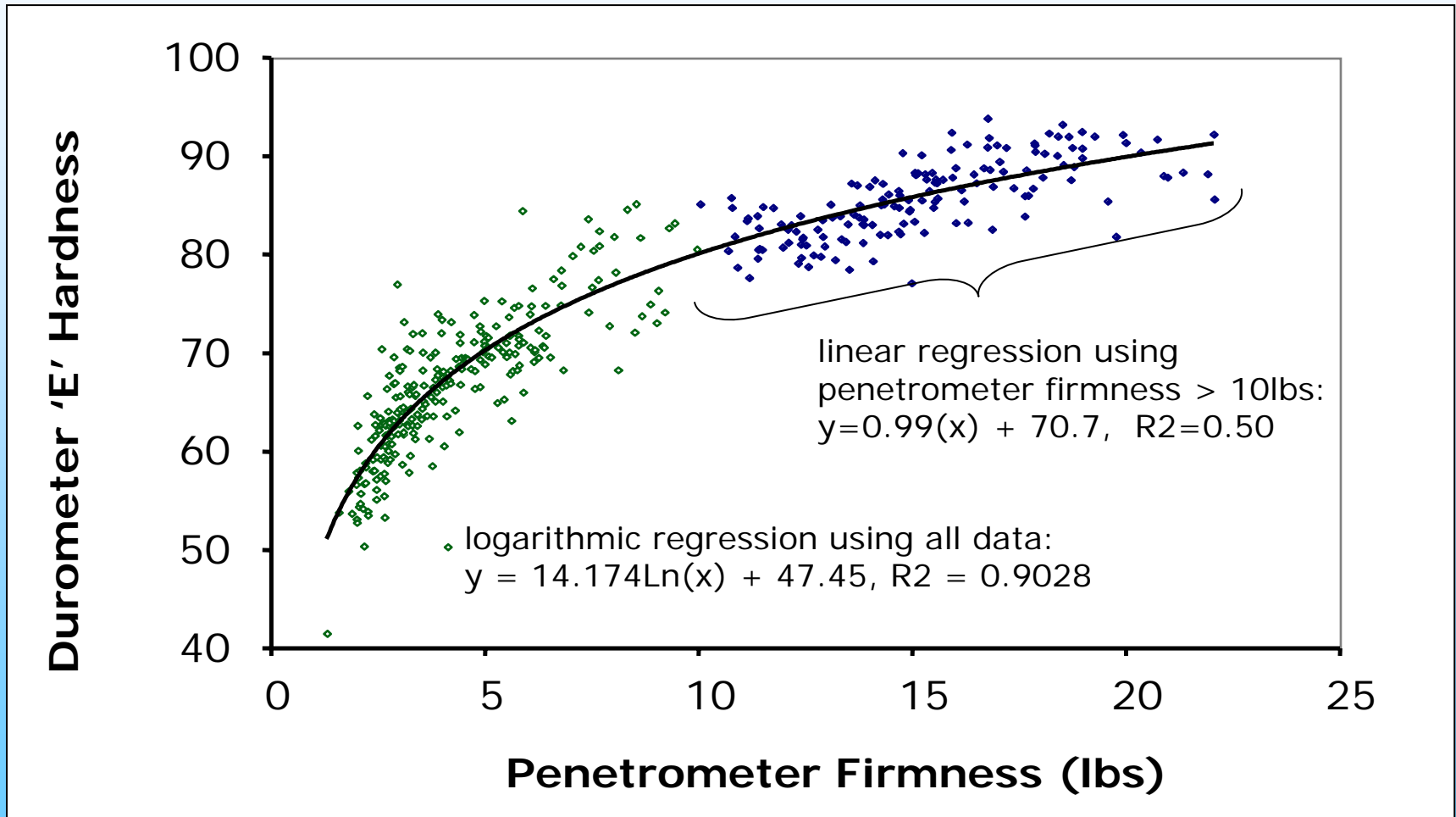
40 points



100 points



Comparison with Penetrometer



Calibration with Penetrometer

- For Pears >10 lbs firmness:

Durometer reading - 70 = Penetrometer
firmness