FELIX INSTRUMENTS
APPLIED FOOD SCIENCE

F-750
Produce Quality Meter

Measuring the quality of mangoes at all points in the supply chain is key to:

- Maximizing eating quality
- Optimizing shelf-life
- Increasing consumer satisfaction

Historical methods for measuring mango quality indicators, such as **Dry Matter**, have been destructive, subjective, and time-consuming.

Now, with the F-750 Produce Quality Meter, professionals in the Mango Industry can have superior control over the quality of their fruit more quickly and without loss of product.

Growers
can accurately predict and anticipate optimum harvest time

Packers
can systematically cull and classify produce with ease and efficiency

QA Professionals
can build models based on objective metrics such as flavor index, and consumer preference

Receivers
can rapidly inspect the quality of their imports for specific markets

Product Features

- **Non-destructive** tool for measuring internal qualities of fruits
- Measures in under 5 seconds
- Collects data pre- or post-harvest
- Measures multiple qualities with a single scan
  - o **Total Soluble Solids, or "Brix"**
  - o **Dry Matter**
  - o **Titratable Acidity**
  - o **Internal Color**

Getting Started:

Building a model with the F-750 for non-destructive measurement of Dry Matter in Kent Mangoes

In July 2015, the F-750 was used to build a model for mangoes that will allow for ongoing non-destructive measurement of dry matter with the instrument.

1 Collecting the Data

Non-destructive Measurement

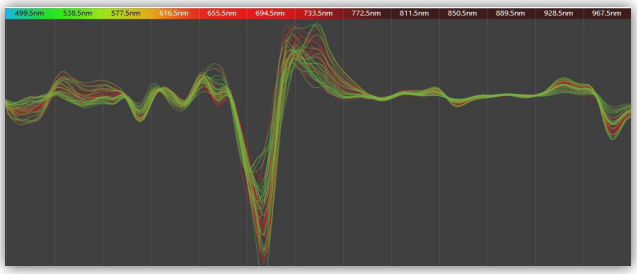
78 Kent mangoes were scanned using the F-750 to create a training set for a Dry Mattter model.

Destructive Measurement

The same mango regions were destructively measured for Dry Matter using our documented Standard Operating Procedure.

2 Building the Model

Training set values collected by the F-750 were matched with destructive reference values using Model Builder Software. Using a spectral range of 800-975 nm, a new mango dry matter model was created with an R2 of 0.83.

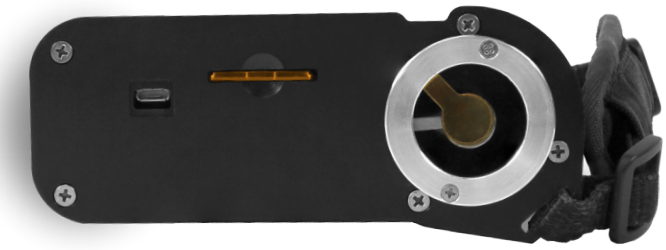


3 Validating the Model

The newly created mango model had a prediction error of +/- .60 (%DM) when used to measure samples independent of the original training set fruit.

4 Execution

The mango model can now be used repeatedly over the course of the season to non-destructively measure Dry Matter.



Authorized Distributor:
GasDetectorsUSA.com
Houston, TX USA
832-615-3588
sales@GasDetectorsUSA.com