Introduction

Force-A provides optical sensors for real time and in vivo measurement of Polyphenols and Chlorophyll in plants. With the Dualex leaf clip series and the Multiplex non contact sensor, the measurement takes less than a second is non destructive and doesn't require any preparation of the sample.

Multiplex 3

Multiplex 3 measures:
- **Anthocyanins**: Epidermal VIS absorbance. FER method.
- **Flavonols**: Epidermal UV absorbance. FER method.
- **Chlorophyll**: Fluorescence Emission Ratio. UV Excited Blue-Green Fluorescence

Multiplex 3 measures polyphenols in leaves, berries skins and fruits and vegetables skins.

Multiplex 3 Advantages:
- Simultaneous, non contact, fast measurement
- Measurement under any light condition.
- Non destructive
- No preparation of the plant
- Portable device
- Easy to use datalogger

Dualex 3

Dualex 3 is available in three versions:
- **Dualex 3 HCA**: Hydroxycinnamic Acids
  - Epidermal UV absorbance. FER method.
- **Dualex 3 FLAV**: Flavonols
  - Epidermal UV absorbance. FER method.
- **Dualex 3 ANTH**: Anthocyanins
  - Epidermal Visible absorbance. FER method.

Dualex 3 Advantages:
- Fast measurement (less than a second)
- Measurement possible under any light condition
- Non destructive
- No preparation of the plant
- Portable device for field measurement
- Easy to use datalogger

Polyphenols measurement made easy

Dualex and Multiplex open new tracks for the plant science community, the agri-food industry, agriculture... It is now possible to quantify polyphenols in large amounts of samples in a short period of time relying on a routine procedure.

Acknowledgements


References


Bengtsson & al. 2006 Chlorophyll fluorescence for the assessment of winegrape phenolic maturity in situ. Harvest time monitoring of the phenolic maturity in situ. Harvest time decision making based on berry fluorescence. in press.


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