



Industry &
Investment

Australian Olive Expo

Canberra 27th – 28th October 2009

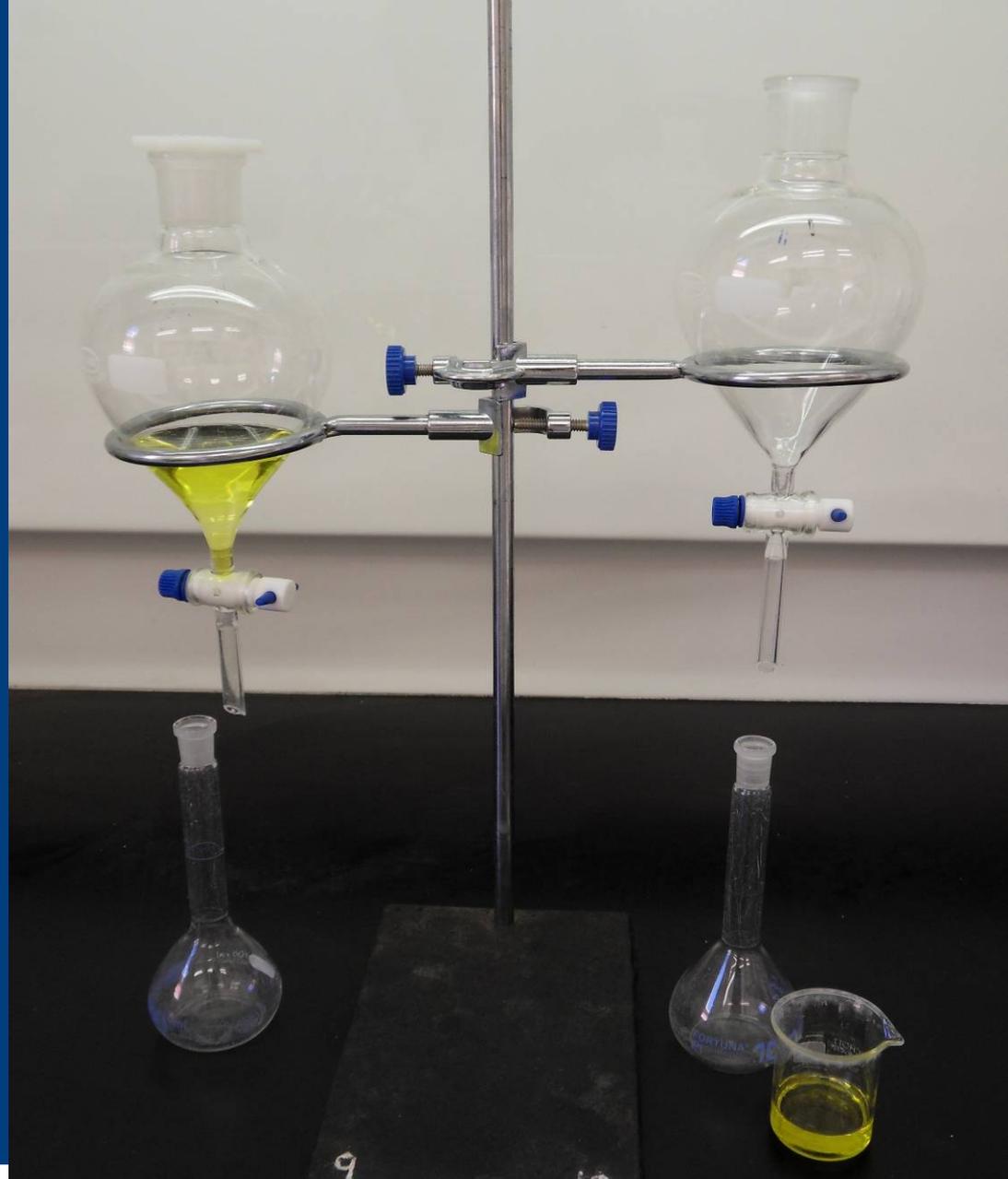
Olive oil testing methods

- Polyphenol content
- Free fatty acids
- UV absorbance



Polyphenol Content

- Weigh oil
- Transfer to separating flasks using hexane

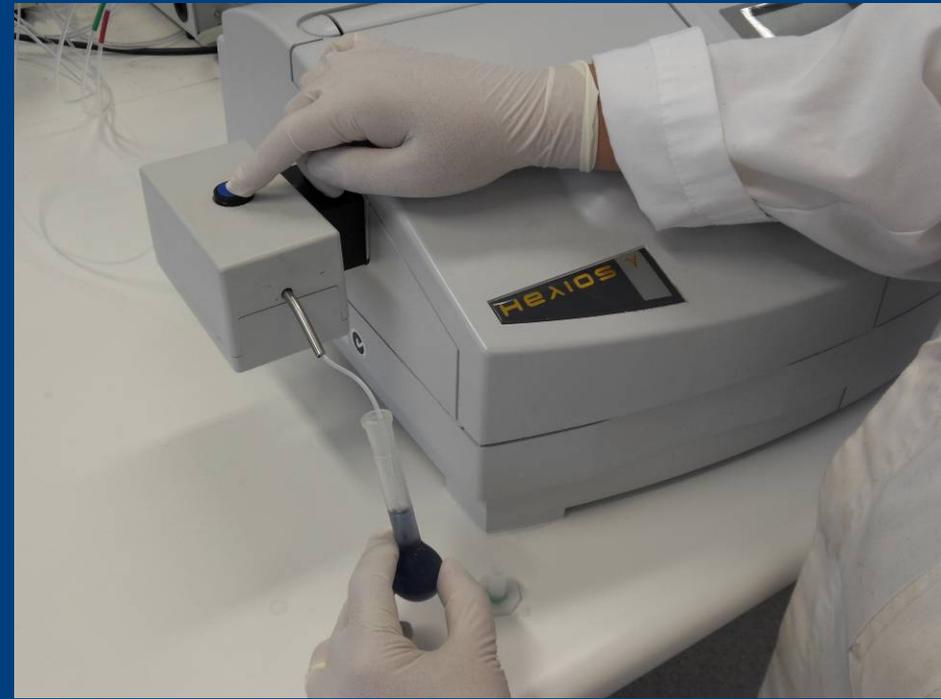


Polyphenol Content

- Extract with 80% methanol
- Shake for 1 minute
- Decant methanol layer
- Repeat twice



Polyphenol Content



- Aliquot sample and calibration curve standards
- React with Folin & Ciocalteus Reagent and saturated sodium carbonate solution
- Develop for 1 hour in dark – darker colour equates to higher polyphenol content
- Read samples on spectrophotometer

Free Fatty Acid



- Weigh oil



- Add neutralised isopropanol

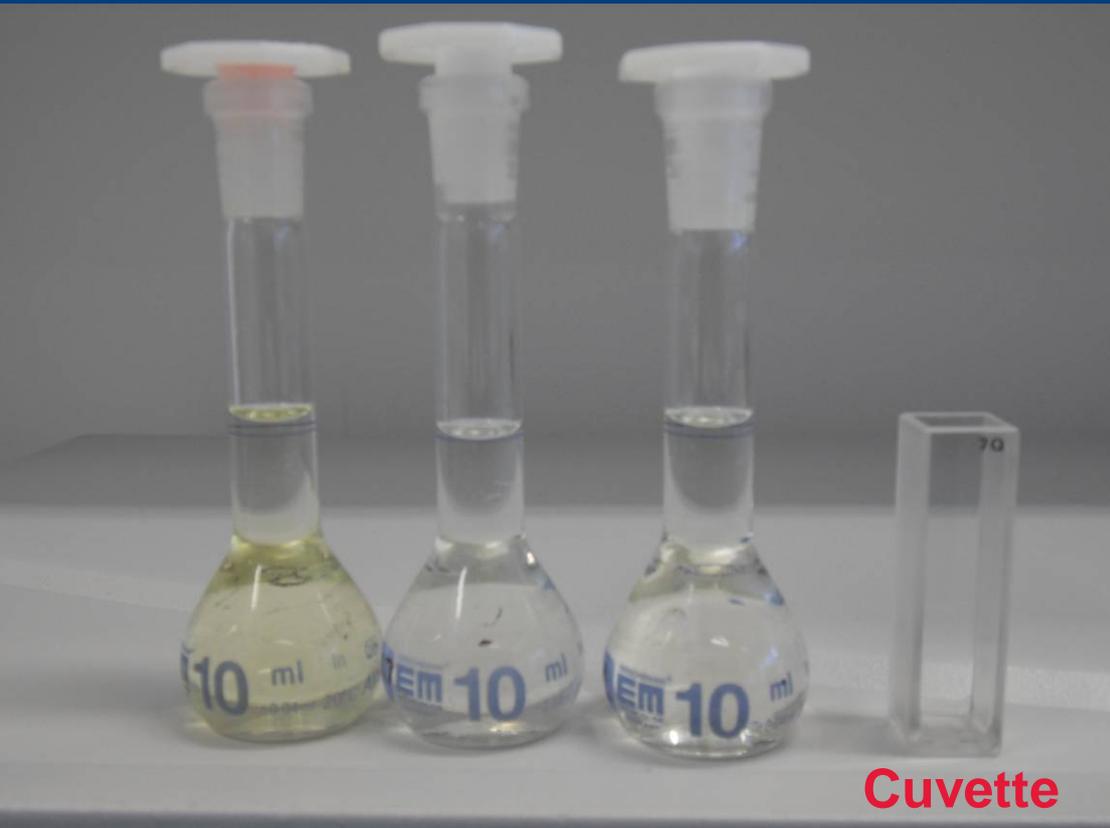
Free Fatty Acid



- Titrate with sodium hydroxide until colour changes
- Endpoint when pink/peach colour is reached



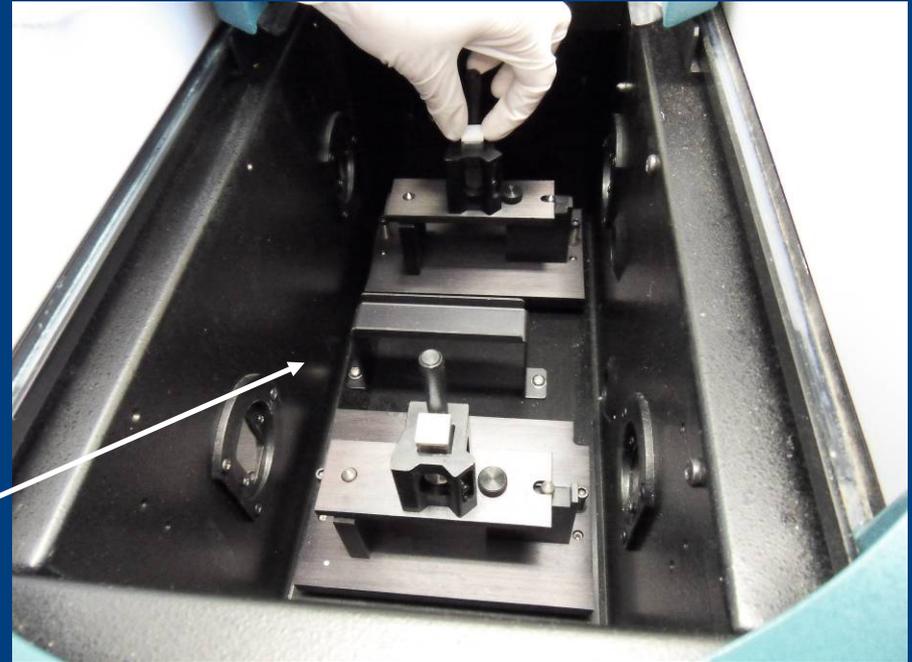
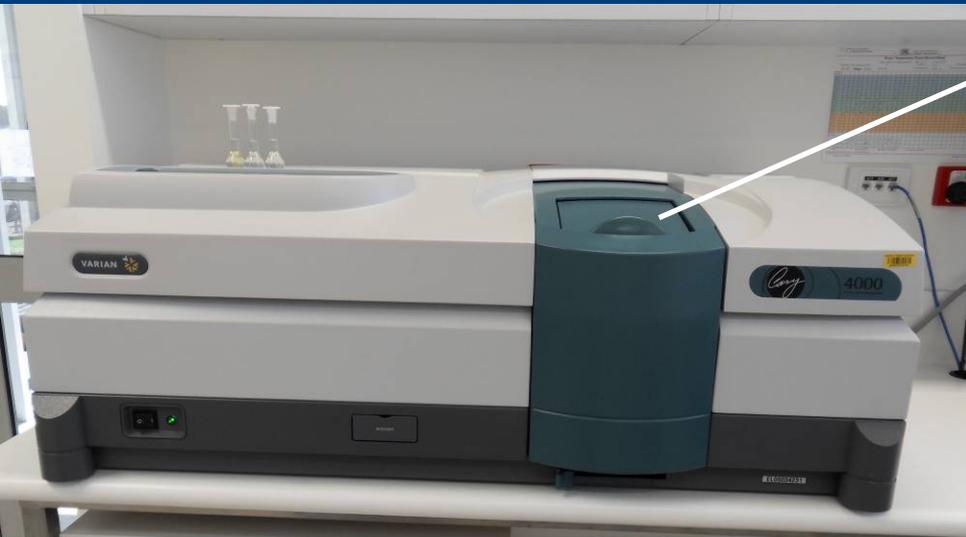
UV absorbance



- Sample weighed and dissolved in 10 mL isooctane
- Sample poured in to cuvette

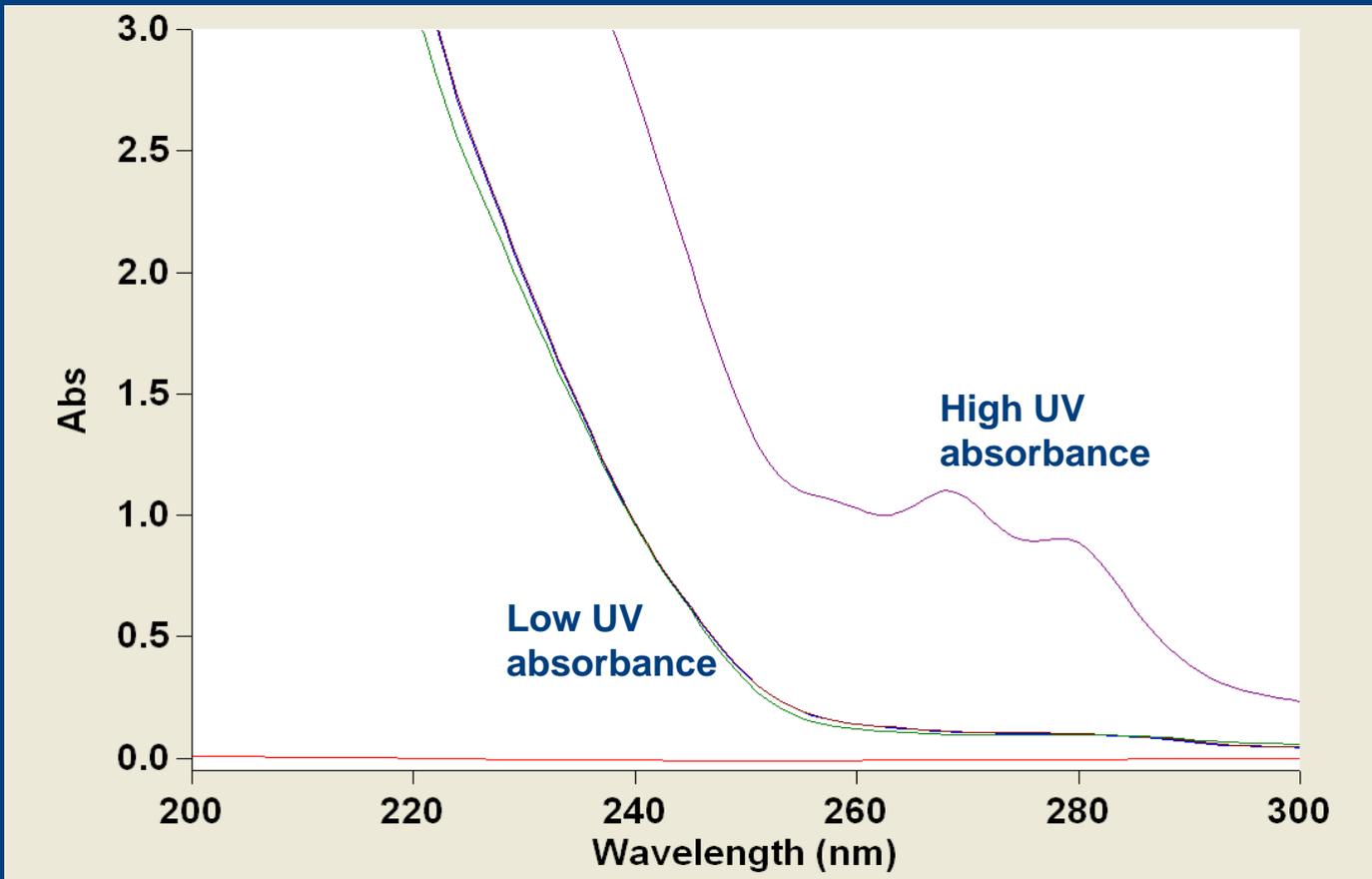
UV absorbance

Spectrophotometer



- Sample placed in spectrophotometer
- Absorbance recorded at 232, 264, 268, 272 nm

UV absorbance



Absorbance recorded at 232, 264, 268, 272 nm

Thank you



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