# What's not on the CoA spec

**Professor Glen Fox PhD FIBD** 

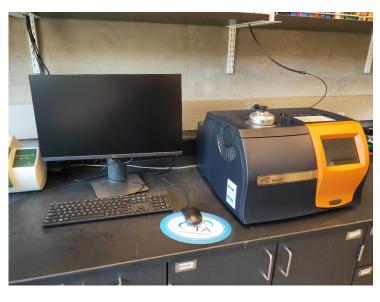


**BREWING SUMMIT 2022** 

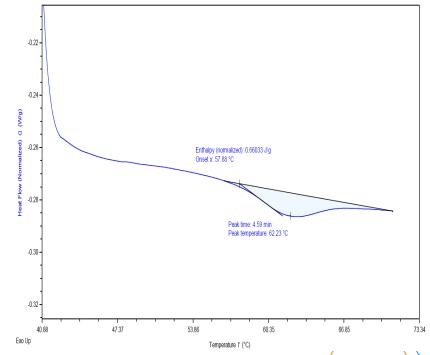
Providence, Rhode Island | August 14-16



- Standard malt analysis +
- starch gelatinization properties
  - On set, peak and off-set
  - Peak and off-set temps (>150F (65C))
  - Efficient conversion of starch
  - Risk of hop creep
  - Reduce unwanted starch hazes



Malt(160)



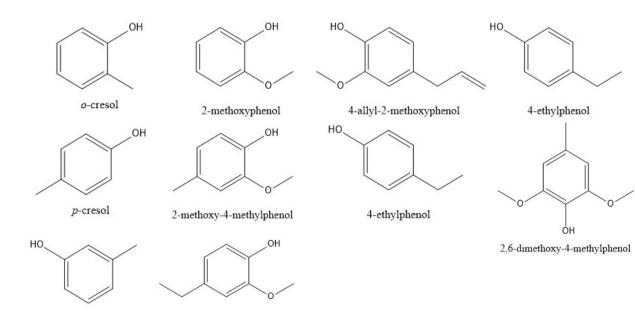
- Standard malt analysis +
- Beta-glucanase
  - [S] + [E] = [P]
  - BG + BGase = shorter chain BG
  - Improved wort separation
  - Improved filtration
  - Reduced risk beta-glucan haze

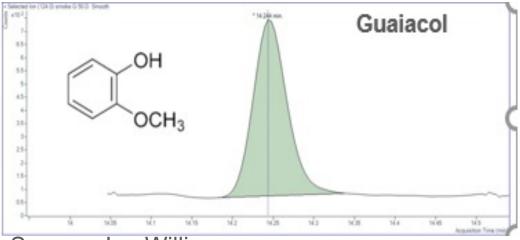


- Standard beer analysis +
- IBU
  - Precise calculation
  - More efficient use of hops



- Standard beer analysis +
- Smoke phenols
  - Smoke contaminated hops





4-ethyl-2-methoxyphenol

m-cresol

## At-line real-time beer analysis

- Portable Infrared analyzer
  - Gravity
  - ABV
  - IBU (in development)
  - Total Polyphenols (in development)
  - Fermentable & non fermentable sugars (in development)



# 23<sup>rd</sup> North American Barley Researchers workshop 43<sup>rd</sup> Barley Improvement Conference

# 23rd North American Barley Researchers Workshop and 43rd Barley Improvement Conference

Home Upcoming Events 23rd North American Barley Researchers Workshop and 43rd Barley Improvement Conference



https://brewing.ucdavis.edu/events/23rd-north-american-barley-researchers-workshop-and-43rd-barley-improvement-conference

## Thank you!



