



Quality Trait Analysis

# Rapid, On-site Hops & Beer Analysis

2019

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# Our History

In 1987, Eurofins started with 1 lab, 10 employees, and 1 method.



**1987 - 1997:**  
Start up lab  
with 10 staff  
for SNIF-NMR

1 Country  
1 Lab

**1997 – 2001:**  
IPO in Paris,  
1997. Entry into  
US market.

10 Countries  
50 Labs

**2002 – 2004:**  
Investment in  
Infrastructure

15 Countries  
100 Labs

**2005 – 2012:**  
Growth thru  
Acquisitions  
and New Labs

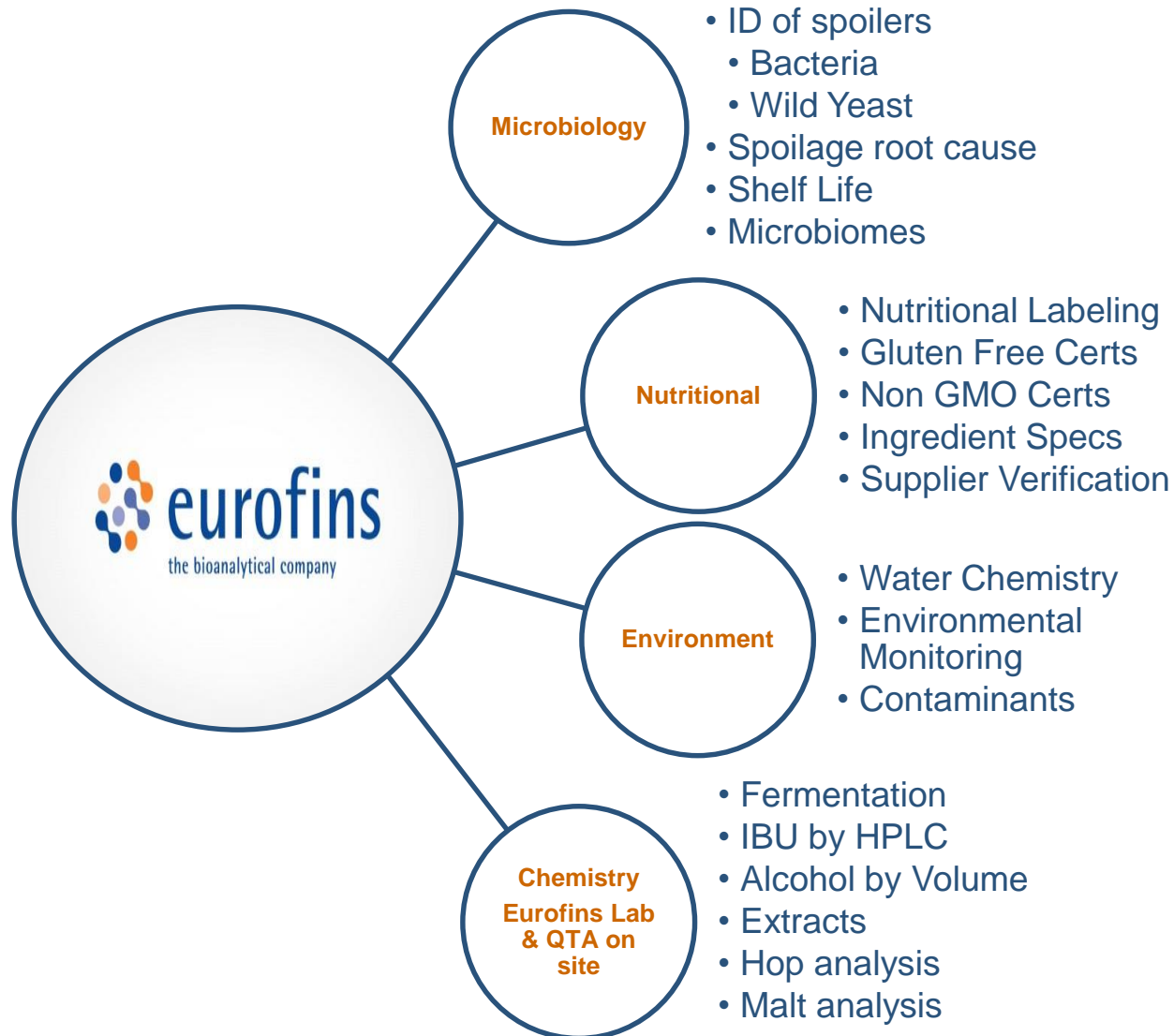
30 Countries  
150 Labs

**2012:**  
170 labs in 32  
countries

32 Countries  
170 Labs

Globally  
recognized  
testing leader

39 Countries  
250+ Labs  
25K+ Staff

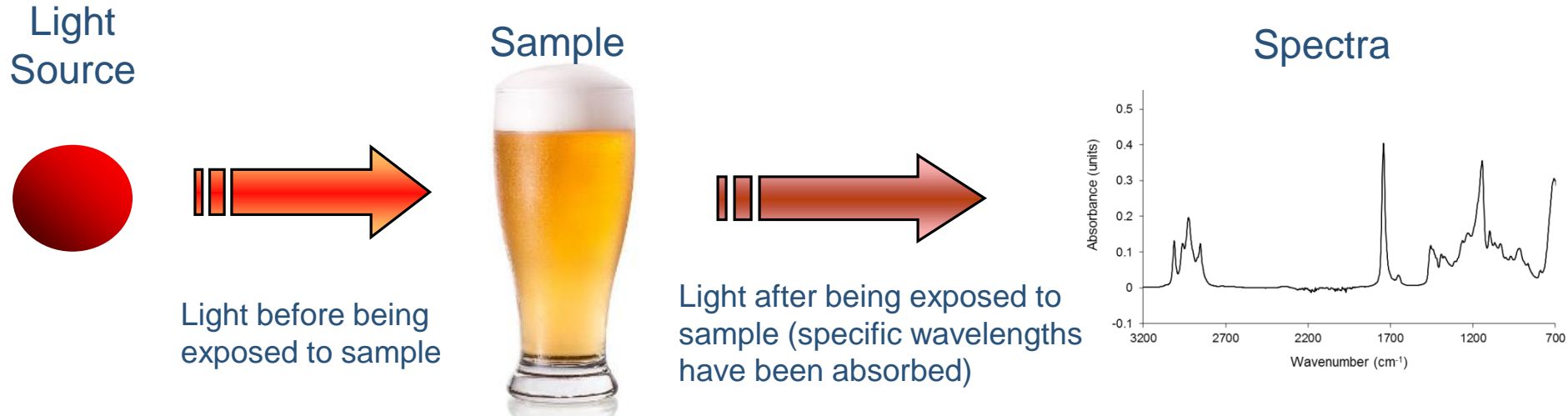


# Eurofins QTA

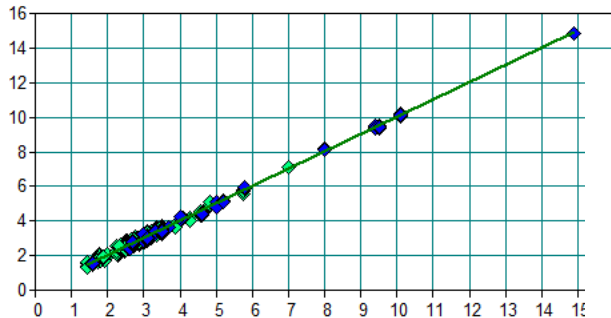
## - Competence center of Infrared Analysis



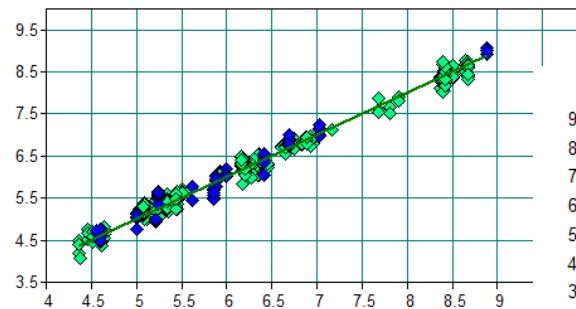
# QTA Infrared Analysis



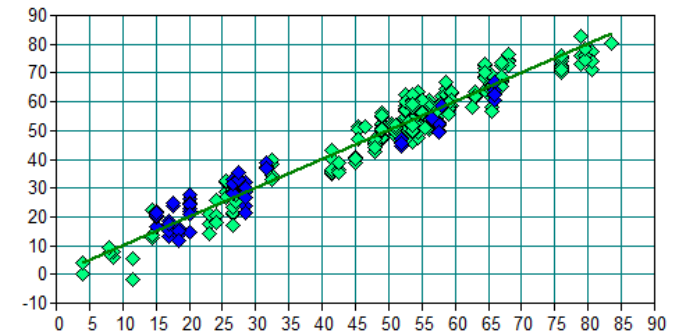
Prediction vs True / Apparent extract / Test Set Validation



Prediction vs True / ABV [%] / Test Set Validation



Prediction vs True / IBU / Test Set Validation



# EQTA HOPs Testing Capability

Material/Category	Trait	EQTA HOPs Algorithm	
		Range	SEP
HOPs	Alpha Acids, %	1.0 – 19.6	0.6
	Beta Acids, %	1.1 – 8.7	0.4
	B-Pinene, %	0.33 – 1.04	0.07
	Caryophyllene, %	4.2 – 11.2	0.5
	Farnesene, %	0.05 – 0.49	0.05
	HSI	0.2 – 0.957	0.025
	Moisture, %	7.0 – 25.7	0.4
	Total Oil, %	0.3 – 4.3	0.25
	Total Oil, mL/100g	0.3 – 4.3	0.2

# EQTA Wort Testing Capability



Material/Category	Trait	EQTA Wort Algorithm	
		Range	SEP
Wort	Fructose, %	0.00 – 2.48	0.08
	Glucose, %	0.00 – 2.9	0.11
	Maltose, %	0.00 – 20.0	0.6
	Maltotriose, %	0.00 – 7.80	0.4
	Sucrose, %	0.00 – 8.00	0.14
	Total Sugars, %	0.5 – 52.0	0.64
	Original Gravity (°P)	10.6 – 20.9	0.3

# EQTA Beer Testing Capability



Material/Category	Trait	EQTA Beer Algorithm	
		Range	SEP
Beer (finished product)	Alcohol by Volume, %	0.13 – 10.48	0.26
	Bitterness (IBU)	4 – 92.6	7.6
	Specific Gravity	0.9981 – 1.031	0.0009
	Original Gravity (°P)	7.48 – 21.38	0.36
	Real Extract (°P)	1.04 – 9.82	0.16
	Apparent Extract (°P)	0.0 – 14.9	0.26
	Real Degree of Fermentation (%)	47.4 – 86.56	1.5
	Apparent Degree of Fermentation (%)	57.77 – 106.6	2.0
	Calories (per 12 fluid oz)	92.47 – 297.5	5.7
	Color (SRM)	1.59 – 183.6	7.9
	pH	3.43 – 5.03	0.08

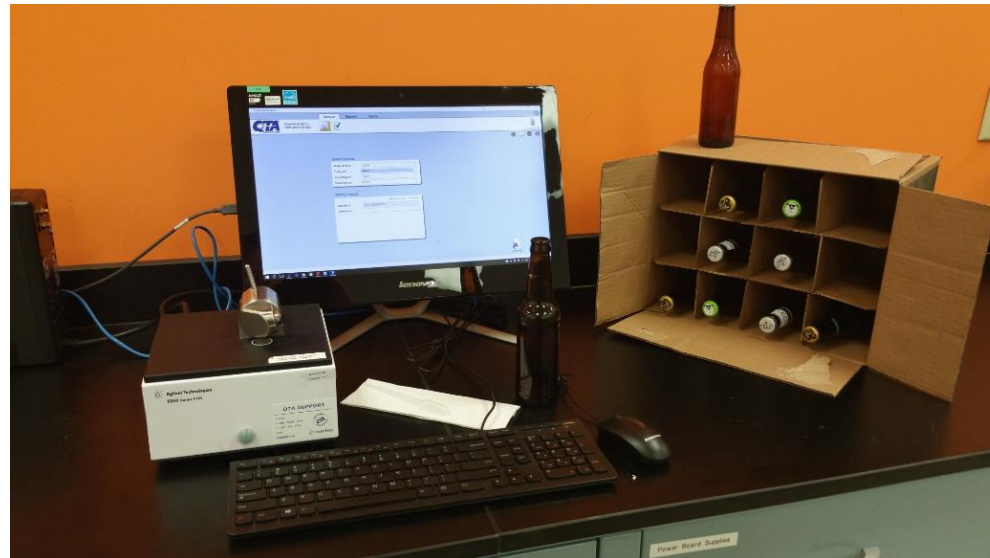


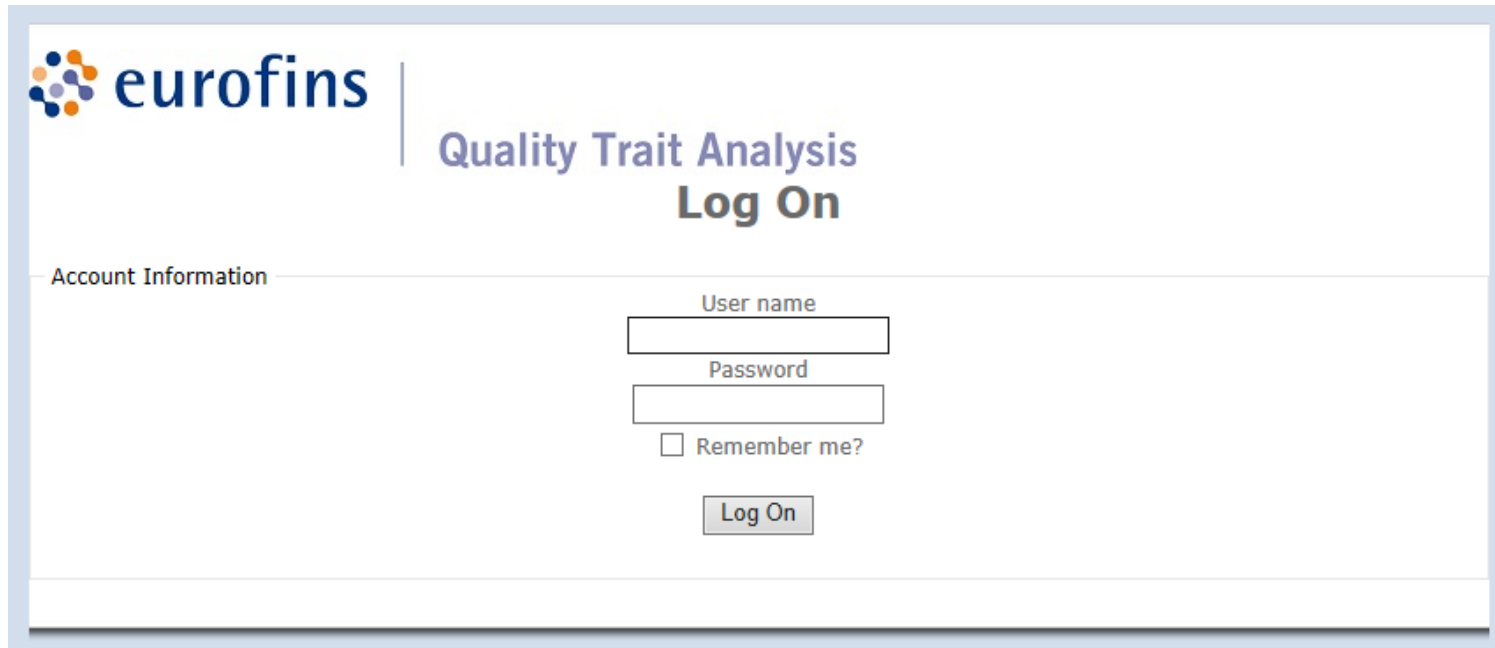
# EQTA Sour Beer Testing Capability



Material/Category	Trait	EQTA Sour Beer Algorithm	
		Range	SEP
Sour Beer (finished product)	Alcohol by Volume, %	0.13 – 10.48	0.26
	Bitterness (IBU)	4 – 92.6	7.5
	Specific Gravity	0.9981 – 1.028	0.0009
	Original Gravity (°P)	7.48 – 21.38	0.36
	Real Extract (°P)	1.04 – 10.92	0.16
	Apparent Extract (°P)	0.62 – 14.9	0.26
	Real Degree of Fermentation (%)	55.16 – 86.56	1.5
	Apparent Degree of Fermentation (%)	64.97 – 106.6	2.0
	Calories (per 12 fluid oz)	92.47 – 297.5	4.9
	Color (SRM)	1.59 – 183.6	7.8
	pH	3.29 – 5.03	0.09
	Acetic Acid	0.000 – 0.180	0.016
Lactic Acid	0.000 – 2.014	0.045	

- Rapid
- Small Sample Size
- Ease of operation and maintenance
- No sample prep
- Chemical analysis without chemicals and chemist
- Multi-component analysis
- Good reproducibility
- Analysis in any working environment





The screenshot shows the login interface for the eurofins Quality Trait Analysis system. It features the eurofins logo in the top left corner. The main heading is "Quality Trait Analysis Log On". Below this, there is a section titled "Account Information" which contains a "User name" input field, a "Password" input field, a "Remember me?" checkbox, and a "Log On" button.

eurofins | Quality Trait Analysis  
**Log On**

Account Information

User name  
[Input Field]

Password  
[Input Field]

Remember me?

Log On

<https://www.youtube.com/watch?v=aaUSSBMuvZc>



**Eurofins QTA**  
8900 Beckett Rd  
Cincinnati, OH 45069  
[www.qta.com](http://www.qta.com)



**Karen Gerwitz**  
National Solutions Manager  
716-206-9874  
[karengerwitz@eurofinsus.com](mailto:karengerwitz@eurofinsus.com)