

CHAIR

J. DE CLERCK

XI

2004

5-8 September
Louvain-la-Neuve

THE pH PARADOX IN THE MALTING AND THE BREWING PROCESS

For improved flavour, microbiological and colloidal stability

SPEAKERS

LECTURES IN ENGLISH

DELVAUX B. - Belgium
COLLIN S. - Belgium
VERMEULEN C. - Belgium
DELANGE A.J. - USA
MOLL M. - Switzerland
MALANDA M. - France
WILHELMSON A. - Finland
AERTS G. - Belgium
DELVAUX F. - Belgium
PERPETE Ph. - Belgium
STEWART G. - UK
VAN NEDERVELDE L. - Belgium
LERMUSIEAU G. - Canada
DERDELINCKX G. - Belgium
SIEBERT K.J. - USA
GIJS L. - Belgium
LIEGEOIS C. - Belgium
GUIDO L. - Portugal
BLANK I. - Switzerland
CALLEMIEN D. - Belgium
VERACHTERT H. - Belgium

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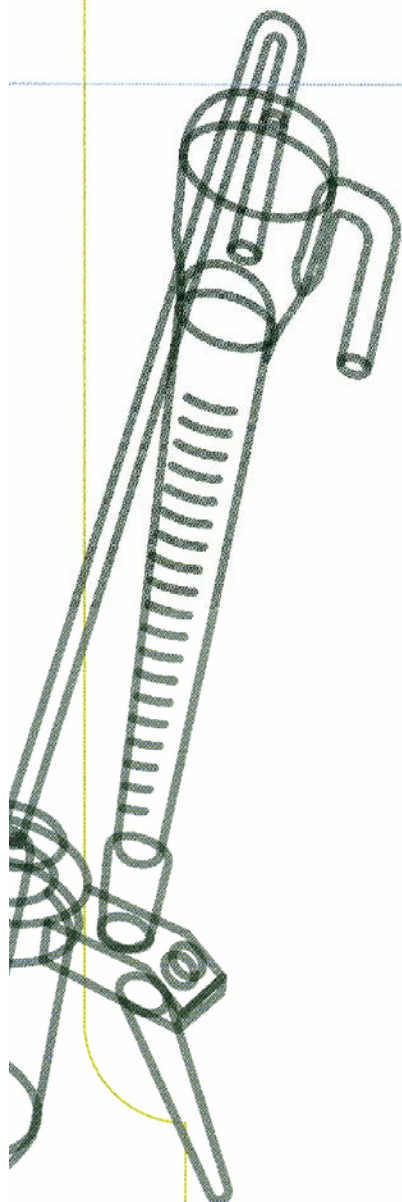
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XI

THE pH PARADOX IN THE MALTING AND THE BREWING PROCES
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PROGRAM



Sunday September 5

18.00-22.00 Registration and get together party at Novotel, Wavre

Monday September 6

SESSION 1 - Introduction

09.00-09.15 Welcome address

Prof. B. DELVAUX
Dean of the Faculty of Biological, Agronomic and Environmental Engineering, UCL, Belgium

Prof. S. COLLIN
Chairman Scientific Committee, Head of the Brewing Department of UCL, Belgium

Chairman - *DUPIRE Stéphane* Interbrew

09.15-10.00 pH, total acidity and buffering capacity : the basics and beyond.

Ir C. VERMEULEN
Brewing Department of UCL, Belgium

10.00-10.30 BREAK

10.30-11.45 Water quality and residual alkalinity. How to modify wort pH ?

Dr A.J. DELANGE, USA

11.45-12.30 pH control in the brewery.

Prof. M. MOLL, Switzerland

12.30-14.15 LUNCH

SESSION 2 - Malting and brewing

Chairman - *DELVAUX Freddy* K.U.Leuven

14.15-15.00 What pH to choose for steeping ? Influence on mycotoxins and other contaminants ?

Dr M. MALANDA
IFBM, France

15.00-15.45 Amylase and protease activities related to pH.

M Sc A. WILHELMSON
VTT, Finland

15.45-16.15 BREAK

16.15-17.00 How does pH modify other enzymatic activities in malt ?

Prof. G. AERTS
KaOh-St.Lieven, Belgium

Tuesday September 7

SESSION 3 • Yeast and fermentation

Chairman — *PERPETE Philippe*
Brewing Department of UCL, Belgium

09.00-09.45 — How do fermentation conditions (temperature, duration, yeast strain, yeast vitality, autolysis,...) influence beer pH in industrial production? How to modify beer pH still after fermentation?

Prof. F. DELVAUX
Center for Malting and Brewing of K.U.Leuven, Belgium

09.45-10.30 — Behaviour of yeast facing pH variations.

Prof. Ph. PERPETE
Brewing Department of UCL, Belgium

10.30-11.00 — BREAK

11.00-11.45 — Yeast flocculation and yeast handling related to pH.

Prof. G. STEWART
Heriot-Watt University, UK

11.45-12.30 — Esters, diacetyl and dimethylsulfide concentrations related to fermentation pH.

Ir L. VAN NEDERVELDE
Institut Meurice, Belgium

12.30-14.15 — LUNCH

SESSION 4 • Colloidal and microbiological stability

Chairman — *VERACHTERT Hubert* K.U.Leuven

14.15-15.00 — Key role of pH in the boiling kettle.

Dr G. LERMUSIEAU
Interbrew-Labatt, Canada

15.00-15.45 — pH and microbiological stability.

Prof. G. DERDELINCKX
Center for Malting and Brewing of K.U.Leuven, Belgium

15.45-16.15 — BREAK

16.15-17.00 — pH and colloidal stability.

Prof. K.J. SIEBERT
Cornell University, USA

19.30 — Farewell dinner at Château-Ferme de Profondval

Wednesday September 8

SESSION 5 • Flavour stability

Chairman — *MAUDOUX Marc*
Brewing Department of UCL, Belgium

09.00-09.45 — How can low pH intensify dimethyltrisulfide and β -damascenone production through ageing?

Dr L. GISS
Interbrew, Belgium

09.45-10.30 — How can high pH control *trans*-2-nonenal production through ageing? Cardboard or bread flavour : what's your favourite?

Dr C. LIEGEOIS
Haute Ecole Roi Baudouin - ISIC, Belgium

10.30-11.00 — BREAK

11.00-11.45 — How do sulphites help control beer ageing?

Dr L. GUIDO
University of Porto, Portugal

11.45-12.30 — pH and Maillard reactions.

Dr I. BLANK
Nestlé Research, Switzerland

12.30-14.15 — LUNCH

SESSION 6 • Beer drinkability and conclusions

Chairman — *COLLIN Sonia*
Brewing Department of UCL, Belgium

14.15-15.00 — pH and beer drinkability.

Ir D. CALLEMIEN
Brewing Department of UCL, Belgium

15.00-15.45 — Acidic beers.

Prof. H. VERACHTERT
Center for Malting and Brewing of K.U.Leuven, Belgium

15.45-16.00 — Conclusions.

Prof. S. COLLIN
Brewing Department of UCL, Belgium