

Understanding Flavour:

A Three Day Workshop



Overview

This comprehensive workshop is a unique combination of daily lectures and hands on exercises designed to help scientists and technologists gain a better appreciation of “flavour”.

Course Instructor

The course will be taught by Professor Gary Reineccius from the University of Minnesota.

Key Topics

- Flavour encapsulation
- Processed flavours
- Off flavours in food

Topics covered include:

Flavour encapsulation, methods such as spray-drying spray-cooling/chilling, freeze-drying, fluidized-bed coating, extrusion, coacervation, co-crystallization and molecular inclusion.

Production of flavouring materials as a result of Maillard reaction, controlled enzymatic reactions, fermentation and thermal reactions.

Off-flavour issues related to raw materials and storage conditions, including non-enzymatic off-flavour development in dry products, enzymatic browning, light oxidation, stripping of flavour by packaging and leaching of packaging material into the food.

Where and When

Dates: February 29 – 02 March 2012

Location: Department of Food Science,
University of Otago, Dunedin

Target audience

All scientists and food technologists involved in flavour and food chemistry. This is a rare opportunity to network with a leading professional in Flavour Science. The course will provide a comprehensive review of recent developments and applications in flavour research and will provide a foundation for new innovations.

Cost

\$NZD 750.00 plus GST

Places are limited

Registration

FOR REGISTRATION PLEASE CONTACT:

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Programme

Wednesday, February 29 2012

9:00 – 10:30 Introduction to encapsulation
Spray drying
10:30 – 10:45 Break
10:45 – 12:15 Practical session
12:15 – 13:15 Lunch
13:15 – 14:45 Extrusion, plating, cyclodextrins,
etc.
Coacervation and secondary
coatings
14:45 – 15:00 Break
15:00 – 15:45 Controlled release of flavourings
15:45 – 17:15 Practical session

Thursday, March 01 2012

9:00 – 10:30 Introduction to reaction flavours
and the Maillard reaction
10:30 – 10:45 Break
10:45 – 12:15 Practical session
12:15 – 13:15 Lunch
13:15 – 14:45 Meat-like flavours and other
reaction flavours
14:45 – 15:00 Break
15:00 – 15:45 Enzyme modified flavours
15:45 – 17:15 Practical session

Friday, March 02 2012

8:45 – 10:30 Chemical changes in foods
Oxidation
Non-enzymatic browning
Enzymatic changes
Light exposure and pH
10:30 – 10:45 Break
10:45 – 12:15 Practical session
12:15 – 13:15 Lunch
13:15 – 14:45 Packaging as a source of off
flavours
Flavour scalping
Contamination from packaging
materials
14:45 – 15:00 Break
15:00 – 15:45 Monitoring off flavours in foods
15:45 – 17:15 Practical session





Course Instructor

Gary A. Reineccius, PhD
Professor and Department Head
Department of Food Science and Nutrition
University of Minnesota

Gary Reineccius, PhD, is a Professor and Department Head in the Department of Food Science and Nutrition at the University of Minnesota. He is also the co-director of the new Flavor Research and Education Center (flavor.umn.edu). Prior to becoming department head, he was a faculty member of the department (39 years) focusing his research efforts on flavor chemistry. During this time he published over 210 research articles. Dr Reineccius has spent sabbatical leaves with Fritzsche Dodge and Olcott (New York, flavor creation and production), Nestle (Switzerland, reaction flavors) and Robertet S.A. (France, taste modifiers and manufacturing).

Dr Reineccius has taught courses in Food Processing, Food Chemistry, Food Analysis, and Flavor Chemistry and Technology. He has written a College textbook on food flavors with Henry Heath (the second edition of this book became available in 2006). This was the first textbook in the flavor area, which combined both flavor chemistry and technology. Dr. Risch and he edited and were major contributors to two books on flavor encapsulation. He is the sole author of the *Source Book of Flavors* and coeditor of *Heteroatomic Flavor Compounds in Foods*.

Dr Reineccius' achievements have been recognized by several local and international organizations. He is an honorary member of the Society of Flavor Chemists. He has been granted the Palmer Award for his contribution to chromatography by the Minnesota Chromatography Forum. He has received the Distinguished Achievement and Service in Agricultural and Food Chemistry Award and been honored by being made a Fellow by the American Chemical Society. He has been presented the Stephen S. Chang Award by the Institute of Food Technologists (first flavor chemist to be so honored). These are the highest awards given to individuals in the flavor area. In 2006 he was selected as the first recipient of the FEMA (Flavor Extract Manufacturers Association) award. This award is for life-long contributions to the field.

He often speaks at public schools and other groups. His favorite lay topics are chocolate (he spent 3 years researching chocolate flavor for his PhD thesis) and the chemistry of gourmet cooking. From a professional standpoint, his favorite topic is flavor encapsulation. He has been actively engaged in research in this area since 1964.

