

## News and Views

In a broadly based lecture to the Society of the Chemical Industry Food Group and The Institute of Food Technology given in London on 17 October 1988, Professor James BeMiller, head of the Purdue University's Whistler Center for Carbohydrate Research traced the historical developments in industrial polysaccharides and made some predictions for the future.

Key points regarding the future were:

(a) The importance of developing an understanding of starch structure in relation to function. Despite over 20 000 literature references on this topic to date many questions still remain to be answered.

(b) The potential, already partly realised, in applying ideas developed for synthetic polymers to polysaccharides. For example, the importance of the glassy state in many polysaccharide applications.

(c) Despite the biotechnological revolution, developments in new products via a biotechnological route will continue to be slow. Possibilities include advances in the use of specific debranching, polymerising the derivitising enzymes for polysaccharides. However, the cost of obtaining approval means that the chances of completely new polysaccharides for food use becoming available will be low. Gellan gum is likely to be the last totally new food polysaccharide.

(d) Challenges in the new product area include the use of carbohydrate-based materials as low-calorie fat replacers and the need to develop alternative sources or a replacement for gum arabic.

**M. A. Hill**

### ROYAL SOCIETY OF CHEMISTRY — CARBOHYDRATE DISCUSSION GROUP

#### **Carbohydrate Structure, Function and Shape**

The 1989 Spring meeting of the RSC Carbohydrate Discussion Group will be held at the Cranfield Institute of Technology, from the afternoon of Wednesday 29 March to the afternoon of Friday 31 March 1989.

The general theme of the meeting will be the relationship between carbohydrate primary structure and functional properties in both biological systems and industrial applications, with particular emphasis on conformation as a structure–function link. *A major part of the meeting will be devoted to polysaccharides particularly novel bacterial polysaccharides.*

Invited lectures will be given by:

S. Arnott FRS, St Andrews, UK	M. R. Lively, Wellcome, UK
S. G. Ash, Shell Research, UK	W. Mackie, Leeds, UK
C. van Boeckel, Organon, The Netherlands	I. T. Norton, Unilever, UK
G. G. S. Dutton, Vancouver, Canada	O. Smidsrød, Trondheim, Norway
N. K. Kochetkov, Moscow, USSR	E. S. Stevens, Binghamton, USA
R. U. Lemieux FRS, Edmonton, Canada	I. W. Sutherland, Edinburgh, UK

In addition there will be a full programme of contributed lectures and posters. *Research students in particular are encouraged to deliver short talks (15–20 min) and there will be an award for the best presentation.*

Total cost (accommodation plus registration) will be about £110. Further details are available from the local organiser:

Professor E. R. Morris  
Department of Food Research and Technology,  
Cranfield Institute of Technology,  
Silsoe College,  
Silsoe,  
Bedford MK45 4DT, UK  
Tel: 0525 61482

INTERNATIONAL SYMPOSIUM ON CEREAL  
CARBOHYDRATES, EDINBURGH, SCOTLAND,  
9–11 AUGUST 1988

A three-day symposium in the biennial series of meetings on Cereal Carbohydrates was held at the Heriot-Watt University, Edinburgh, on 9–11 August 1988, during the week preceding the XIVth International Carbohydrate Symposium which was held in Stockholm, Sweden. The symposium was organised jointly by the Department of Brewing and Biological Sciences, Heriot-Watt University, the Food Chemistry Group

of the Royal Society of Chemistry and the Food Group Cereals Panel of the Society of Chemical Industry. The scientific programme, which attracted more than 150 participants, covered both fundamental and commercially applied aspects of cereal carbohydrates.

The lectures were arranged in five sessions dealing with: (1) carbohydrates in relation to grain structure, physiology and functionality; (2) starch chemistry, biochemistry and granule structure; (3) developments in cereal grain and starch utilisation; (4) cereal glucans, nutritional importance and utilisation; (5) non-starchy polysaccharides, structure, function and nutritional importance. The speakers included cereal scientists from Australia, Canada, Eire, France, Germany, Japan, USA and the United Kingdom. The opening plenary lecture given by Professor Bruce Stone of La Trobe University, Australia, was a physiological perspective of cereal carbohydrates which included some discussion on newer aspects of the physiology of carbohydrate synthesis during grain development, and their subsequent depolymerisation during germination. The symposium closed with a plenary lecture by Professor David Lineback of North Carolina State University, USA, entitled 'Cereal carbohydrate research and technology: reflections on foods, chemicals and the future'. This lecture was designed to generate more thought and discussion about what is needed in research and technology for increased and improved food, feed and industrial uses of cereal carbohydrates in the future.

One significant feature of the symposium was the presentation of some 32 posters describing the latest research findings in several areas of cereal carbohydrate chemistry and biochemistry.

The next symposium in this series will be held in Japan in 1990.

**D. J. Manners**