

Book Reviews

Digestibility and Amino Acid Availability in Cereals and Oilseeds. Edited by John W. Finley and Daniel T. Hopkins. The American Association of Cereal Chemists, Inc., USA, 1986. ISBN 0–913250–40–6. Price: US\$58.00.

This book is the result of a symposium sponsored by the Protein Division of the American Association of Cereal Chemists. The stated aims of the symposium were (1) to evaluate the magnitude of the effect of digestibility on the nutritional quality of cereal and oilseeds, (2) to identify procedures from current research that might be used to estimate individual amino acid availability, (3) to specify chemical and physical characteristics of cereal and oilseed proteins that account for differences in digestibility and amino acid availability, (4) to evaluate the critical factors in processing that affect the digestibility and availability of individual amino acids in cereal and oilseed proteins and (5) to ascertain whether estimates of digestibility, amino acid content or amino acid availability could be used to measure protein quality. Apart from the first stated aim, the objectives of the symposium seem to be generally very appropriate considering how freely plant proteins are now being used. The first aim is rather peculiar as, by definition, digestibility is directly related to nutritional quality. The content of the book in general reflects quite closely the aims of the symposium. Oilseeds are, however, poorly represented, the relative preponderance of discussions on cereal and oilseeds is not what might be expected from the title of the book.

The book consists of twelve chapters. Chapter 1, by C. E. Bodwell, considers how the amino acid content of a protein may be used as an estimate of protein quality; he concludes that reasonable predictions are possible. John Finley, in Chapter 2, reviews the sources of variability in the analysis of amino acids and includes explicit suggested procedures. Interactions between proteins and other constituents in cereals and oilseeds that might affect protein quality are considered by Pamela Anderson in Chapter 3. Later in the book, Chapter 8, Hurrell and Finot look at the effects of processing on amino acid availability. An important factor in protein quality is the availability of sulphur amino acids and lysine. Two chapters examine *in vitro* methods for measuring and predicting the availability of these amino acids. Chapter 4, by Samuel MacKenzie, considers the sulphur amino acids and Chapter 9, by Finot and Hurrell, considers lysine.

Three chapters (5, 6 and 7) by Chang and Pomeranz, which account for 167 pages of a 304 page book, examine comprehensively the characteristics of proteins from cereals. These chapters cover amino acid composition of cereal proteins, proteins in developing and germinating cereals and the functional and nutritional characteristics of cereal protein.

The problems of assessing the digestibility of food proteins are also considered. Bjørn Eggum (Chapter 11) discusses these problems in general terms, while, in Chapter 10, Tanksley and Knabe consider the digestibility of individual amino acids. Siamak Adibi in his chapter on the absorption of products of protein digestions, (Chapter 12) points out that dipeptides and tripeptides are probably the predominant forms in which amino acids are absorbed. Overall, it is a useful and well referenced book.

R. D. King

Food Additives—Taking the Lid off what we Really Eat. By Erik Millstone. Penguin Books, Middlesex, UK, 1986. ISBN 0-14-052369-3. Price: £2.95.

During the last 2 years the food industry in the UK has come under increasing attack in the media. The attack has concentrated on two aspects of processed foods: foods produced using 'unhealthy' natural