

The British Journal of Nutrition

VOLUME 70 NUMBER 1 JULY 1993



CAMBRIDGE
UNIVERSITY PRESS

Edited for the Nutrition Society

EDITORIAL BOARD

J. R. Arthur	D. Hewitt	G. Livesey	A. Prentice
M. E. Coates	P. H. Holmes	G. E. Lobley	T. A. B. Sanders
M. S. Dhanoa	R. F. Hurrell	M. A. Lomax	J. D. Sutton
C. A. Edwards	A. A. Jackson	C. McCorquodale	D. I. Thurnham
A. Fehily	M. J. Jackson	K. J. McCracken	C. E. West
M. F. Franklin	I. T. Johnson	J. C. MacRae	C. C. Whitehead
M. Gill	D. Kelly	J. A. Milne	A. F. Williams
M. I. Gurr	P. Kelly	S. V. Morant	
J. C. K. Henry	M. G. Kenward	M. Nelson	
	D. A. T. Southgate (<i>Chairman</i>)		

EDITORIAL ADVISERS

P. J. Aggett	G. G. Duthie	F. J. Kelly	I. R. Rowland	L. F. Villard-
J. M. Bassett	G. C. Emmans	T. J. A. Key	M. Salter	Mackintosh
I. Bremner	M. Enser	A. B. McAllan	C. J. Schorah	P. A. Wharton
R. Bruckdorfer	A. Faulkner	G. McNeill	H. S. A. Sherratt	A. P. Williams
R. A. Clegg	D. J. Flint	A. MacPherson	E. R. Skinner	C. M. Williams
W. H. Close	A. Flynn	D. J. Millward	J. F. Soothill	P. E. V. Williams
B. Crabtree	J. M. Forbes	D. S. Parker	S. Southon	D. H. Williamson
D. C. Davidson	M. J. Gibney	J. Pearce	M. J. Stock	
D. I. Demeyer	F. W. Heaton	J. M. Pell	L. Stockley	
P. F. Dodds	R. Hill	J. Price	N. F. Suttle	
M. B. Duggan	R. E. Hughes	J. A. Rooke	M. K. Theodorou	

The **Nutrition Society** has as its object the advancement of the scientific study of nutrition and its application to the maintenance of human and animal health.

Application for membership is invited from anyone whose work has contributed to the scientific knowledge of nutrition, whether such work has been in the laboratory, the field or the clinic, and whether experimental, clinical, agricultural or statistical in nature. There is also a student membership scheme with reduced subscriptions.

Particulars of the Nutrition Society and application forms for membership may be had from the Honorary Secretary, Dr R. F. Grimble, The Nutrition Society, 10 Cambridge Court, 210 Shepherds Bush Road, London W6 7NJ.

The **British Journal of Nutrition** (ISSN 0007-1145) is published once every two months by Cambridge University Press for The Nutrition Society, which owns it and controls its publication. A volume consists of three parts and two volumes appear each year. For 1993, the annual *Nutrition Research Reviews* is included as a supplement.

Subscriptions to the Society's Publications. For non-members of The Nutrition Society the subscription including postage, to volumes 69 and 70, 1993 of the *Journal*, is £241.00 payable in advance to Cambridge University Press, The Edinburgh Building, Shaftesbury Road, Cambridge CB2 2RU, or to any agent. The subscription in USA, Canada and Mexico is US \$479.00, and inquiries there should be addressed to Cambridge University Press, Journals Department, 40 West 20th Street, New York, NY 10011-4211. Single issues are £35.00 (US \$72.00 in USA, Canada and Mexico); single copies of *Nutrition Research Reviews* are £46.00 (US \$85.00); postage extra. All orders must be accompanied by payment. POSTMASTER: send address changes in USA, Canada and Mexico to *British Journal of Nutrition*, Cambridge University Press, 110 Midland Avenue, Port Chester, New York, NY 10573-9864. Japanese prices for institutions (including ASP delivery) are available from Kinokuniya Company Ltd, P.O. Box 55, Chitose, Tokyo.

Second class postage paid at New York, NY and at additional mailing offices.

For details of the *Proceedings of the Nutrition Society*, and copying, see inside back cover.