Vol. 44 No. 1 July 1980 BJNUAV 44 (No. 1) 1-112 (1980) 0007-1145

The British Journal of Nutrition

an international journal devoted to the Science of Human and Animal Nutrition



CAMBRIDGE UNIVERSITY PRESS

EDITED FOR THE NUTRITION SOCIETY

Editorial Board

G. D. BAIRD I. BREMNER P. J. BUTTERY W. A. COWARD D. I. DEMEYER J. W. T. DICKERSON G. S. FELL C. FISHER J. J. GRIMSHAW R. HILL D. J. KILPATRICK A. K. LOUGH A. G. LOW J. C. MacRAE K. D. MacRAE D. J. MILLWARD G. A. J. PITT (*Chairman*) P. MORSE E. R. ØRSKOV A. G. SINGLETON R. H. SMITH D. A. T. SOUTHGATE A. M. THOMSON B. A. WHARTON

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.

Membership is open to any 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.

Particulars of The Nutrition Society and application forms for membership may be had from the Honorary Secretary, Dr D. J. Naismith, The Nutrition Society, Chandos House, 2 Queen Anne Street, London W1M 9LE.

The Proceedings of the Nutrition Society, published by the Cambridge University Press, in part record meetings of the Symposium type, at which experts in a particular field are invited by Council to make contributions on specific parts of it and at which general discussion follows these invited contributions. The contributions will be published *in extenso*; such summaries of the ensuing discussions as circumstances warrant may also be published. The Society also holds scientific meetings at which papers are communicated by members and others on original work carried out by them. It is proposed at present to publish summaries of the papers read at each meeting, each communication being recorded in the Society's *Proceedings* by means of an abstract not exceeding in length 400 words or the equivalent space in print. The *Proceedings* are published three times a year.

The British Journal of Nutrition (ISSN 0007–1145) is published once every two months by the 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.

Subscriptions to the Society's Publications. For non-members of The Nutrition Society the subscription including postage, to volumes 43 and 44, 1980, of the *Journal*, is £70.00 net per annum, payable in advance to Cambridge University Press, P.O. Box 110, Cambridge CB2 3RL, or to any bookseller. The subscription in U.S.A. and Canada is US \$195.00, and inquiries there should be addressed to Cambridge University Press, 32 East 57th Street, New York, N.Y. 10022. Single issues are £14.00 (US \$40.00 in U.S.A. and Canada); postage extra. All orders must be accompanied by payment. POSTMASTER: send address changes in USA and Canada to Cambridge University Press, 32 East 57th Street, NewYork, N.Y. 10022.

The subscription to the *Proceedings* is £34.00 net (US \$95.00 in U.S.A. and Canada). Single issues are £13.00 (US \$38.00 in U.S.A. and Canada) each; postage extra.

A claim for the replacement of a publication lost in transmission will not be entertained unless made immediately on receipt of the subsequent issue.

Second class postage paid at New York, N.Y.

© The Nutrition Society 1980

Copying

This journal is registered with the Copyright Clearance Center, 21 Congress Street, Salem, Mass. 01970. Organizations in the U.S.A. who are also registered with C.C.C. may therefore copy material (beyond the limits permitted by sections 107 and 108 of the U.S. copyright law) subject to payment to C.C.C. of the per-copy fee indicated in the code on the first page of the article. This consent does not extend to multiple copying for promotional or commercial purposes.

ISI Tear Service, 3501 Market Street, Philadelphia, Pennsylvania 19104, U.S.A., is authorized to supply single copies of separate articles for private use only.

For all other use, permission should be sought from the Cambridge or New York offices of the Cambridge University Press.