## ERRATUM

ANIMAL PRODUCTION, Volume 48, Part 3, p. 579.

The title should read as follows:

## A LONG-LIFE AMBIENT TEMPERATURE DILUENT FOR BOAR SEMEN

# British Society of Animal Production OCCASIONAL PUBLICATIONS

The British Society of Animal Production's *Occasional Publication* Series contains the full papers presented at certain symposia organized by the Society.

Copies may be obtained from the British Society of Animal Production, PO Box 3, Penicuik, Midlothian EH26 0RZ, Scotland.

- No. 2. THE MECHANIZATION AND AUTOMATION OF CATTLE PRODUCTION (1977). Published 1980. 206 pp. Price £1.50 (\$2.40) + £2.00 (\$3.20) airmail supplement.
- No. 3. BY-PRODUCTS AND WASTES IN ANIMAL FEEDING (1978). Published 1980. 118 pp. Price £1.50 (\$2.40) + £2.00 (\$3.20) airmail supplement.
- No. 4. INTENSIVE ANIMAL PRODUCTION IN DEVELOPING COUNTRIES (1979). Published 1981. 481 pp. Price £10.00 (\$16.00) + £5.00 (\$8.00) airmail supplement.
- No. 6. FORAGE PROTEIN IN RUMINANT ANIMAL PRODUCTION (1981). Published 1982. 193 pp. Price £10.00 (\$16.00) + £3.50 (\$5.60) airmail supplement.
- No. 7. TRACE ELEMENTS IN ANIMAL PRODUCTION AND VETERINARY PRACTICE (1982). Published 1983. 155 pp. Price £12.00 (\$19.20) + £3.50 (\$5.60) airmail supplement.
- No. 8. MATCHING PRODUCTION TO THE MARKETS FOR MEAT (1983). Published 1984. 127 pp. Price £12.00 (\$19.20) + £3.50 (\$5.60) airmail supplement.
- No. 9. MILK COMPOSITIONAL QUALITY AND ITS IMPORTANCE IN FUTURE MARKETS (1984). Published 1984. 115 pp. Price £12.00 (\$19.20) + £3.50 (\$5.60) airmail supplement.
- No. 10. HILL AND UPLAND LIVESTOCK PRODUCTION (1985). Published 1985. 168 pp. Price £12.00 (\$19.20) + £3.50 (\$5.60) airmail supplement.
- No. 11. PIG HOUSING AND THE ENVIRONMENT (1986). Published 1987. 148 pp. Price £13.00 (\$20.80) + £3.50 (\$5.60) airmail supplement.
- No. 12. ANIMAL BREEDING OPPORTUNITIES (1988). Published 1988. 251 pp. Price £8:00 (\$12:80) + £4:00 (\$6:40) airmail supplement.
- No. 13. THE VOLUNTARY FOOD INTAKE OF PIGS. (1988). Published 1989. 123 pp. Price £14.00 (\$22.40) + £5.00 (\$8.00) airmail supplement.

*Symbols and abbreviations.* Authors should consult the notes prepared for guidance. Levels of statistical significance must be clearly indicated.

Illustrations. The same material should not normally be presented in tables and figures. Legends should be typed on a separate sheet.

- (a) Diagrams should be drawn in Indian ink, about twice the size of the finished block, on Bristol board, stout tracing paper or plastic film. Photographed diagrams are also accepted. Lettering inside the framework of the diagram should be avoided as far as possible but if unavoidable it should be included on a fly-leaf. Marginal lettering should be inserted lightly in pencil on the original diagram or on a fly-leaf.
- (b) Photographs intended for half-tone reproduction should be on glossy paper. They will be accepted only if found necessary by the Editors.
- (c) Colour plates are unlikely to be accepted unless authors bear the cost.

Tables should be as simple and as few as possible. Each table should be typed on a separate sheet.

Abstract. Every paper should have a short abstract (not more than 250 words for a paper and 120 words for a note) complete in itself and understandable without reference to the paper. The abstract will be printed at the beginning of the paper.

*Keywords*. Up to a maximum of five keywords selected from the CAB Thesaurus (1988) or from an equivalent reference volume should be listed at the end of the *Abstract*.

*References.* Only papers closely related to the author's work should be referred to; exhaustive lists should be avoided. The arrangement of references should be as in recent papers in *Animal Production;* details are given in the notes for guidance.

*Proofs* are supplied once and must be returned corrected to the Editors *within 3 days*. Only essential corrections should be made.

*Reprints.* Twenty-five reprints of each paper will be supplied free to authors on request. Further copies may be purchased if the order is sent at the proof-stage. Reprints are not supplied for notes.

Animal Production is published six times a year in two volumes. Annual subscription is  $\pm 87.00$  (or \$180.00 in the USA and Canada) and the price for a single part is  $\pm 16.00$  (or \$33.00) net.

Proceedings of the British Society of Animal Production (New Series) ceased publication in 1975 and the material is now published as a separate section in the June issue of Animal Production.

Correspondence regarding subscriptions and sales (current and back numbers of the Journal and the Proceedings), should be addressed to: Scottish Academic Press Ltd, 33 Montgomery Street, Edinburgh, Scotland EH7 5JX.

Other enquiries, including those concerning copyright, should be addressed to: Durrant Periodicals, Winton Lea, Pencaitland, East Lothian, Scotland EH34 5AY.

### Senior Editor

T. L. J. Lawrence, University of Liverpool

Editors

D. G. Chamberlain, Hannah Research Institute, Ayr

W. Haresign, University of Nottingham

- C. L. Johnson, University of Leeds
- I. J. Lean, Wye College, University of London
- A. G. Low, AFRC Institute for Grassland and Animal Production, Reading
- J. C. McCarthy, University College Dublin
- E. Owen, University of Reading
- R. Thompson, AFRC Institute of Animal Physiology and Genetics Research, Edinburgh
- A. J. F. Webster, University of Bristol
- J. D. Wood, AFRC Institute of Food Research, Bristol.

Technical Editors

Hilary Davies

Marie C. Pitkethly

#### CONTENTS

MORANT, S. V. and GNANASAKTHY, A. A new approach to the mathematical formulation	
of lactation curves	151
TEEPKER, G. and SMITH, C. Combining clonal response and genetic response in dairy	1(2
GIBSON, J. P. Economic weights and index selection of milk production traits when	163
	171
JONES, G. P. and GARNSWORTHY, P. C. The effects of dietary energy content on the	1/1
response of dairy cows to body condition at calving	183
MEUWISSEN, T. H. E. A deterministic model for the optimization of dairy cattle breeding	105
based on BLUP breeding value estimates	193
THOMPSON, R. and JUGA, J. Cumulative selection differentials and realized heritabilities	203
KINGHORN, B. P. and VERCOE, P. E. The effects of using the wrong genetic model to	
predict the merit of crossbred genotypes	209
WRAY, NAOMI R. and HILL, W. G. Asymptotic rates of response from index	
selection	217
Hendriks, H. G. C. J. M., Koninkx, J. F. J. G., Draaijer, M., van Dijk, J. E.,	
RAAIJMAKERS, J. A. M. and MOUWEN, J. M. V. M. Variability of soya-bean	
lectin binding sites in the brush border membranes of calf intestinal epithelium	229
STEEN, R. W. J. and MOORE, CHARLOTTE A. A comparison of silage-based and dried	
forage-based diets, and the effect of protein supplementation of a silage-based	222
diet for finishing beef cattle	233
fleece pigmentation in Corriedale sheep	241
NGONGONI, N. T., ROBINSON, J. J., AITKEN, R. P. and FRASER, C. Efficiency of	241
utilization during pregnancy and lactation in the ewe of the protein reaching	
the abomasum and truly digested in the small intestine	249
Rhind, S. M., McMillen, S., Wetherill, G. Z., McKelvey, W. A. C. and Gunn,	247
R. G. Effects of low levels of food intake before and/or after mating on	
gonadotrophin and progesterone profiles in Greyface ewes	267
TEIXEIRA, A., DELFA, R. and COLOMER-ROCHER, F. Relationships between fat depots	
and body condition score or tail fatness in the Rasa Aragonesa breed	275
SINNETT-SMITH, P. A., WOOLLIAMS, J. A., WARRISS, P. D. and ENSER, M. Effects of	
recombinant DNA-derived bovine somatotropin on growth, carcass characteristics	
and meat quality in lambs from three breeds	281
ZYGOYIANNIS, D., KATSAOUNIS, N. and KARATZAS, G. The effect of method of breeding	
on reproductive performance in indigenous goats (Capra prisca) mated at the	001
beginning of the breeding season	291
MAKKAR, H. P. S., SINGH, B. and NEGI, S. S. Relationship of rumen degradability with	299
microbial colonization, cell wall constituents and tannin levels in some tree leaves . OGLE, R. B. and DALIN, ANNE-MARIE. The effect of food intake in the rearing period	299
on the reproductive performance of heavy and light gilts from large litters	305
RUNDGREN, M. and Löfquist, I. Effects on performance and behaviour of mixing 20-kg	505
pigs fed individually	311
GILL, B. P. and TAYLOR, A. G. Low glucosinolate full-fat rapeseed meal in the diets of	011
early-weaned piglets	317
ABUBAKAR, M. M. and ROWLINSON, P. A note on the inclusion of the antibiotic	
Actaplanin in the diets of lactating dairy cows	323
DELFA, R., TEIXEIRA, A. and COLOMER-ROCHER, F. A note on the use of a lumbar joint	
as a predictor of body fat depots in Aragonesa ewes with different body	
condition scores	327
GATEL, F., FEKETE, J. and GROSJEAN, F. A note on the use of spring pea (Pisum	220
savitum hortense) in diets for weaned pigs	330
SANZ, E. ORTIZ, V., DE BLAS, C. and FRAGA, M. J. A note on the critical temperature	222
of sucking rabbits	333
copyright (C) 1989 british society of animal production	
Printed in Great Britain by D. & J. CROAL LIMITED, HADDINGTON, EAST LOTHIAN ISSN 000	03-3561

Papers