

# ANIMAL PRODUCTION

## NOTES FOR THE GUIDANCE OF CONTRIBUTORS

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## INTRODUCTION

These notes deal with the more common situations arising in the preparation of manuscripts intended for publication. They expand the information printed inside the cover of each issue of *Animal Production*. Further guidance can be obtained by consulting the authoritative sources listed at the end of the notes. Adherence to these house rules will reduce the time taken in making a paper ready for publication.

*Animal Production* publishes papers on original research provided that they have not been and, with the exception of authors' summaries, will not be published elsewhere without the Editors' written permission. Authors' summaries can be reproduced if full acknowledgement of the source is made.

Contributions may be in the field of animal production, or in any related scientific field. Reports on techniques will be published only as appendices to scientific papers. Results of research which do not warrant a comprehensive presentation may be submitted for consideration as Notes. Notes are not intended for the publication of interim results. They should not exceed 2000 words or the equivalent, inclusive of tables and illustrations.

## ABBREVIATIONS AND SYMBOLS

1. *Units of measurement*

Metric units should be used. (SI units will be accepted but are not obligatory.) They are abbreviated as follows. Except for units of time we follow British Standard 1991. The same abbreviation is used for singular and plural.

centimetre	cm
cubic centimetre	cm <sup>3</sup> or cc
cubic metre, etc.	m <sup>3</sup> , etc.
curie	c
day	day
degree Celsius (centigrade)	°C
equivalent	equiv
gram	g
gram calorie	cal
hectare	ha
hour	hr
hydrogen ion concentration, negative exponent	pH
international unit	IU
joule	J
kilogram	kg
kilogram calorie	kcal
kilometre	km
kilometre per hour	km/hr
litre	litre (or l†)
metre	m
microcurie	μC
microgram	μg
micron	μ
milligram	mg
millilitre	ml
millimetre	mm
minute	min
molar concentration	M
month	mo
normal concentration	N
parts per million	p.p.m.

per cent ‡	%
röntgen	r
second	sec
square centimetre, metre, etc.	cm <sup>2</sup> , m <sup>2</sup> , etc.
tonne (metric ton)	t
year	yr

† If there is no possibility of confusion.

‡ Percentage (in text) should not be abbreviated.

*Fractions and multiples.* Only a few commonly used metric combinations have been included in the above list. The more common prefixes are as follows:

<i>Fraction</i>	<i>Prefix</i>	<i>Symbol</i>
10 <sup>-12</sup>	pico	p
10 <sup>-9</sup>	nano	n
10 <sup>-6</sup>	micro	μ
10 <sup>-3</sup>	milli	m
<i>Multiple</i>		
10 <sup>3</sup>	kilo	k
10 <sup>6</sup>	mega	M

## 2. Symbols and standard abbreviations

These can be used without prior explanation. Chemical symbols for atoms and molecules should be used in the text only if they occur repeatedly.

### (a) Symbols

smaller than	<
larger than	>
smaller than or equal to	≤
larger than or equal to	≥
equal to	=
not equal to	≠
approximately equal to	≈
approaches	→
proportional to	∝
infinity	∞
female	♀
male	♂

### (b) Statistical terms

coefficient of variation	CV
correlation coefficient	r
degrees of freedom	d.f.
mean square	MS
multiple correlation coefficient	R
non-significant	NS
probability	P
regression coefficient	b
significant at the 5% (0.05) level	*
significant at the 1% (0.01) level	**
significant at the 0.1% (0.001) level	***
standard deviation	SD
standard error	SE
standard error of estimate or residual standard deviation	Sy.x or residual SD
variance ratio	F

**(c) Standard abbreviations**

abstract	abstr.
deoxyribonucleic acid	DNA
experiment	expt
figure (in captions only)	Fig.
heritability	$h^2$
logarithm (in formulae):	
common	log or $\log_{10}$
natural	ln or $\log_e$
number	$n$ or no.
ribonucleic acid	RNA
species (taxonomy)	sp.
versus (i.e. compared with)	<i>v.</i>
weight	wt

**(d) Forms of address**

Dr, Jr, Ltd, Messrs, Miss, Mr, Mrs—without full stop.

**3. Other abbreviations**

These abbreviations should be avoided in the text unless the expression occurs very frequently. They should be normally given in full at first textual reference followed by the appropriate abbreviation in brackets.

The rules for the full stops are:

- (1) Abbreviations in capitals have no full stops.
- (2) Lower case abbreviations have full stops unless the last letter of the abbreviation is also the last letter of the word.

The more commonly used abbreviations in this class are as follows:

adrenocorticotrophin	ACTH	net energy	NE
artificial insemination	AI	non-protein nitrogen	NPN
basal metabolic rate	BMR	organic matter	OM
central nervous system	CNS	pregnant mare's serum	PMS
digestible crude protein	DCP	protein equivalent	PE
digestible energy	DE	relative breeding value	RBV
digestible organic matter	DOM	relative humidity	r.h.
dry matter	DM	solids-not-fat	SNF
fat-corrected milk	FCM	specific gravity	sp. gr.
follicle stimulating hormone	FSH	starch equivalent	SE
haemoglobin	Hb	total digestible nutrients	TDN
luteinizing hormone	LH	total solids	TS
metabolizable energy	ME	weight (e.g. in formulae)	W

**CONSISTENCIES****1. Headings**

*Animal Production* convention is as follows:

- Title** of the paper is in large capitals and any subtitle is in small capitals. Authors' names are in capitals and small capitals and their addresses are in italics. (Addresses include country names only for countries outside the British Isles.)
- Main section headings** (SUMMARY, INTRODUCTION, MATERIAL AND METHODS, RESULTS, DISCUSSION, ACKNOWLEDGEMENT(S), REFERENCES) are printed in small capitals throughout and placed centrally in the line of type. (In *Notes* the only headings required are SUMMARY, ACKNOWLEDGEMENT(S) and REFERENCES.)



(c) *Subheadings* are italicized and only the initial letter is in capitals. The two main classes are:

- (i) Side italics unpunctuated (shoulder headings).
- (ii) Indented italics, punctuated and text run-on (side headings).

When more than two types are needed, centred italics (iii) may be used.

The sequence is always (iii) to (i) to (ii). In cases where only one type is required it is left to the editors' discretion which class is adopted.

*Note.* In manuscripts, capitals are denoted by triple underlining (      ) and small capitals by double underlining (      ), italics by single underlining (      ) and bold type by a wavy line (~~~~).

## 2. Capitals

- (a) Initial capitals are used for proper nouns, for adjectives formed from proper names, for generic names, and for names of classes, orders and families.
- (b) Names of diseases are not normally capitalized.

## 3. Italics

Words to be italicized should be underlined in manuscript or typescript. Use italics for:

- (a) titles of books and names of periodicals in the text and in references,
- (b) authors' addresses,
- (c) subheadings (see above),
- (d) titles for tables (but not captions for figures),
- (e) most foreign words, especially Latin phrases,

e.g. <i>ad hoc</i> <i>ad libitum</i> <i>et al.</i> <i>in situ</i> <i>inter alia</i> <i>inter se</i> <i>in vitro</i> <i>per se</i> <i>vide</i> <i>viz.</i>	but <i>no italics</i> for corpus luteum cf. e.g. } i.e. } no following comma N.B. } post mortem post partum
--	--

- (f) mathematical unknowns and constants,
- (g) generic and specific names,
- (h) letters or numbers in the text which refer to corresponding letters or numbers in an illustration,
- (i) letters used as symbols for genes or alleles e.g. *Hb<sup>A</sup>*, *Tf<sup>D</sup>* (but not chromosomes or phenotypes of blood groups, transferrins or haemoglobins e.g. HbAA, TfDD).
- (j) first occurrence of a special term,
- (k) repeated emphasis of a special term (use cautiously),
- (l) Latin names of muscles (but not of bones).

## 4. Hyphens

In *numerical* expressions hyphens should be used:

- (a) between the numerator and denominator of a fraction when spelled out (e.g. one-third), and in compound numbers (e.g. twenty-four),
- (b) in adjectival phrases such as '3-year-old' when they precede the noun,
- (c) between figures in tables to indicate a range. In running text the word 'to' is usually preferable. Always write 'from 9 to 12' not 'from 9–12' except when it is in the form 'from 9–12 to 18–21'.

*Temporary hyphens* should be used as follows:

- (a) In compound modifiers (double-barrelled adjectives or phrases used attributively) when it is necessary to avoid misunderstanding or to aid understanding, e.g. short-term trend, two-egg twin, 12-week period, all-pelleted diet. Note the difference in meaning between 'superfluous-hair remover' and 'superfluous hair-remover' and between 'white-fish meal' and 'white fish-meal'.
- (b) After some prefixes used temporarily (e.g. anti-oestrogenic, ex-army, intra-class, non-active, pre-treatment, semi-conductor).

Hyphens should be avoided:

- (a) between the parts of a compound modifier which follows the noun modified (e.g. the wool was dirty white),
- (b) between the parts of a well known open-compound noun used to modify a substantive (e.g. sodium chloride solution, post mortem examination),
- (c) between an adverb and the objective it modifies even if they precede the noun (N.B. 'well known scientist' but 'dirty-white wool').

*Permanent hyphens* should be used between the parts of a compound noun (or verb) not yet acceptable as a single word. The necessity for a link between the two parts is normally indicated by the reduction of two accents to one and the fact that the compound word has a different meaning from the two words used separately. It is preferable to join up the single elements if possible without offending or misleading the eye, e.g. 'crossover' but not 'crosssection'.

For special cases see the section on *Spelling* (p. xv).

For useful general discussions see Fowler's *Modern English Usage*.

## 5. Numerals

- (a) Sentences should not begin with numerals.
- (b) Use numerals whenever a number is followed by a standard unit of measurement (e.g. 100 g).
- (c) In text, use words for numbers zero to nine and figures for higher numbers. In a series of two or more numbers, use figures throughout irrespective of their magnitude.
- (d) For large numbers in the text substitute 'million' or ' $\times 10^n$ ' for part of a number (e.g. 1.6 million for 1 600 000). Avoid the word 'billion'.
- (e) In large numbers (i.e. in excess of 9999) figures should be grouped together in threes with a space (not a comma) between the groups. In tables this space may be omitted at discretion, e.g. to give consistency in columns or to give more room in rows.
- (f) Use numerals for dates, page numbers, class designations, percentages, expressions of time, e.g. 1 January 1966; page 5; type 2; 9%.
- (g) For values less than unity, 0 should be inserted before the decimal point.
- (h) Where figures are altered by multiplication, the multiplication factor must be clearly shown, e.g. a series of variance estimates multiplied by  $10^4$  would be headed 'Variance ( $\times 10^4$ )', not ' $\times 10^{-4}$ ' which would be the power necessary to reduce them to their original values.
- (i) Dates should be given with the month in full in the text and with the day in straightforward numerals (i.e. 12 January *not* 12th January). Single non-calendar years should be written 1961/62; periods of two calendar years as 1961–62, and two non-calendar years as 1961/62–63/64).
- (j) For time use 24-hr clock, e.g. 13.20 hr.

## 6. Parenthesis

Parenthesis takes four main forms: (a) commas, (b) dashes, (c) round brackets and (d) square brackets. A general rule is almost impossible to formulate, but it should be noted that the 'strength' of the parenthetical effect increases from (a) through (b) and (c) to (d). It follows therefore that (d) should be avoided if (c) will suffice, and so on. It should be noted that the distinction in emphasis between (b) and (c) is very marginal. Square brackets (d) are often used to denote material inserted by a quoter, editor or translator.

Note that a dash is differentiated from a hyphen by typing the former as two unspaced hyphens.

## 7. Quotation marks

Single quotation marks should be used around:

- (a) all direct quotations,
- (b) titles of articles and parts of books (in the text, not in list of references),
- (c) new technical terms or old terms used in a new sense.

Double quotation marks should be used around a word, title or term within a quotation.

If a quotation extends over more than one paragraph, begin each paragraph with a single quotation mark but close the quotation only at the end of the last paragraph.

## 8. Spelling

In general, the spelling of the *Shorter Oxford English Dictionary* (SOED) is used, but with fewer hyphens. Care should be exercised in the use of agricultural terminology which is ill defined and of local familiarity only. The following specific words should be noted, some of which we spell differently from SOED:

acclimatize	connexion
acknowledgement	cooperate
ageing	coordinate
albumen (egg white)	covariance
albumin (protein)	cover-slip
amino acid	crossbred
analyse	cross-section
antenatal	crossing-over
autosexing	crossover
	cryptorchidism
backfat	
biased	deflexion
birthcoat	depot
birth weight	dioestrus
bloodline	draft
body weight	dressing percentage
breech (not britch)	†dry-matter
butterfat	dry matter (noun)
by-product	†dual-purpose
	dystocia
Caesarean	
cannon bone	egg-yolk phosphate
carcass	élite
carotene	eye muscle
†clear-cut	†eye-muscle area
coloration	



†fat-corrected	oestrous (adj.)
feed-back	oestrus (noun)
fish meal	ovariectomy
flockbook	overall (noun, adv. or adj.)
foetuses	overestimate
foodstuff	
forequarter	perinatal
	post mortem
gelatin	postnatal
genotype × environment interaction	†post-weaning
gonadotropin	prenatal
greasy weight	†pre-weaning
grey	product-moment correlation
guinea-pig	†progeny-tested
	pronucleate
halfbred	pseudopregnant
†heat-resistant	purebred
herdbook	purebreeding
†high-producing	pycnosis, -notic
hindquarter	
homeothermic	
	racehorse
indexes (books)	reflexion
indices (mathematics)	rôle
inflexion	
-ize (not -ise) as suffix in verbs (but not, of course, in advise, comprise, compromise, devise, enterprise, excise, exercise, improvise, revise, surprise).	†self-fed
	†self-feeding
killling-out percentage	sex-linked
leucaemia	sex linkage
leucosis	skim milk
life cycle	soya bean
lifetime	spay
linecross(ing)	stillbirth
linebred	stillborn
linebreeding	studbook
littermate	subclass
liveborn	subgroup
livestock	sugar beet
live weight	summarize
†live-weight gain	
	test-tube
meiosis	textbook
†milk-recorded	thyroxine
neonatal	underestimate
newborn	
	wooled
	woollen
	woolly

† Hyphenate only when used as adjective and preceding noun.



NOMENCLATURE OF FARM ANIMALS

1. General

At first mention after the Summary, and normally in the Material and Methods section, a clear definition should be given of each class of animal used in terms of species, breed (or cross), sex, age and physiological state. The agricultural function(s) of the class can often be added with advantage. Subsequently a single descriptive term can be used.

2. Descriptive words for use in definition

**Species:** Cattle, sheep, goat, pig (or swine), horse, ass, fowl, turkey, duck, goose.

**Breed:** Use full name (e.g. 'British Friesian' or 'Holstein-Friesian' not 'Friesian'). Consult Mason's *Dictionary of Livestock Breeds* for recommended English usage.

**Crosses:** Show the breed constituents and sexes of respective parents. For example, a 3-way cross might be:

Suffolk ♂ × (Border Leicester ♂ × Scottish Blackface ♀) ♀.

**Sex:** Male (or ♂), female (or ♀), ♂ castrate, ♀ castrate.

**Age:** (i) Whenever possible in terms of days, weeks, months or years, as appropriate.

(ii) In addition (or alternatively, if necessary) weight or weight range, or other size dimensions, describing the limits of the class.

**Physiological state:** Growing, pregnant (or non-pregnant), lactating (or non-lactating), working, wool-producing, laying.

**Breed function:** Milk (or dairy), meat, wool, hair, work, egg, or combinations.

(N.B. Avoid hyphenated terms to link different states or functions, e.g. meat-milk, pregnant-lactating, growing-fattening).

3. Standard sex and age terminology

These terms should be preceded by the exact definition in terms of age and physiological state. They should not be used as replacements for more precise words, e.g. write 'male calf' not 'bull calf', 'pregnant cow' not 'in-calf cow'. Terms should not be used to describe a defined class where the normal meaning of the term runs counter to the defined usage, e.g. where pregnancy has been induced in 3-month-old female sheep call them 'pregnant females' not 'lambs'.

	Adult			Young adult			Young
	Sexually mature	Castrate		Generally sexually mature		Generally sexually immature	Approx. upper age limit
	♂	♀	♂	♂	♀	♂ and ♀	
Cattle	bull	cow	steer	—	heifer†	calf	8 mo
Sheep	ram	ewe	wether	—	—	lamb	6 mo
Goat	buck	doe	—	—	goatling‡	kid	6 mo
Pig	boar	sow	barrow	—	gilt‡	piglet	8 weeks
Horse	stallion	mare	gelding	colt	filly	foal	12 mo
Fowl	cock	hen	capon	cockerel	pullet	chick	with down
Turkey	stag	hen	—	—	—	poult	with down
Duck	drake	duck	—	—	—	duckling	with down
Goose	gander	goose	—	—	—	gosling	with down

† To end of first lactation.

‡ To end of first pregnancy.

## MANUSCRIPTS

1. *Typing*

Manuscripts should be typewritten in double spacing with wide margins. The top copy should be on good quality paper. Two copies are required by the Editors. *The lines on each page of the manuscript should be clearly numbered.* Manuscripts are not returned with proofs.

2. *Illustrations*

- (a) *Diagrams* should be drawn in Indian ink, on Bristol board, stout tracing paper or plastic film, about twice the size of the finished block, which will be the smallest size (printed) consistent with clarity. Photographed diagrams are also accepted. Lettering inside the framework of the diagram should be avoided as far as possible; if unavoidable it should be stencilled in Indian ink. Marginal lettering may, if preferred, be inserted *lightly* in pencil.
- (b) *Plates*: Photographs intended for half-tone reproduction should be on glossy paper and will be accepted only if found necessary by the Editors. Colour plates are unlikely to be accepted unless authors bear the cost.
- (c) *Captions* for all figures should be typed on a sheet of paper separate from the body of the text, but an indication of where a figure should appear should be given within the text. Diagrams and Plates are referred to within the text as Figure 1, Figure 2, etc., but captions begin with Fig. 1., Fig. 2., etc. Plates are numbered consecutively throughout the *volume* but they should also have a Figure number in the same series as diagrams within the paper.

3. *Tables*

Tables should be as simple and as few as possible. The same material should not normally be presented in both tabular and graphical form. In designing tables authors should take account of the size and shape of the pages of *Animal Production*. Each table should be typed, preferably in double spacing, on a page separate from the main body of the text and an indication given in the text where it should be inserted. Tables should be given arabic numbering and each should have its own explanatory title (in italics, i.e. underlined). Subtitles are also in italics and, if on a separate line, are in a smaller type size.

Column headings should be concise and units should be clearly stated using standard abbreviations. Only the first letter of the first word is in capitals. Cross-headings (dividing a table into several parts horizontally) are normally italicized. Stub-items (describing the data in the rows) should be indented relative to cross-headings; where they involve printing on more than one line they should be indented in the second and subsequent lines. Sub-stub-items should also be indented.

Footnotes should be used sparingly and kept brief. The reference symbols used are, in order, † ‡ § || ¶. Numbers and letters should be avoided. Asterisks should be reserved for indicating levels of statistical significance (\* =  $P < 0.05$ , \*\* =  $P < 0.01$ , \*\*\* =  $P < 0.001$ ). These levels need not be explained; other levels should be explained in a footnote.

4. *Summary*

Every paper should have a short summary (not more than 250 words) complete in itself and understandable without reference to the paper. It will be printed at the beginning of the paper. It is often preferable for the summary to be arranged in short numbered paragraphs. It should state succinctly the problem, the experimental methods, results and conclusions. Abbreviations and references must be avoided. The acid test of a summary is that it could satisfactorily appear in an abstracting journal without addition or amendment.



## 5. References

Literature cited should be listed in alphabetical order of authors. Bibliographical details should be in the following order: author's name, initials, year, title of paper in English (when translated, put title in square brackets), title of journal—abbreviated according to the *World List of Scientific Periodicals*, volume of journal, first and last page of paper. When abstracts are referred to, the page reference should be followed by (Abstr.). A full stop should follow the 'author' even if it is an institution or if the first name in full replaces the more usual initials.

References should be set out as in the following examples:

- BLAXTER, K. L. and WILSON, R. S. 1962a. The voluntary intake of roughage by steers. *Anim. Prod.* 4: 351–358.
- HAMMOND, J. 1932. *Growth and the Development of Mutton Qualities in the Sheep*. 2nd ed. Oliver and Boyd, Edinburgh.
- MOUSTGAARD, J. 1962. Foetal nutrition in the pig. In *Nutrition of Pigs and Poultry* (ed. J. T. Morgan and D. Lewis), pp. 189–206. Butterworth, London.

If only single pages in a book are referred to, these should be given after the title.

Note also:

- Tech. Bull. Ore. agric. Exp. Stn, No. 96.*
- Ph.D. Thesis, Fac. Agric., Univ. Reading.*
- Proc. 8th int. Grassld Congr., Reading, p. 606.*
- A. Rep. agric. Res. Coun., 1962/63, p. 16.*
- In press.
- (Mimeograph).

In the text, references should be cited by author and year. At the first mention all authors should be named; thereafter, papers with more than two authors should be referred to by the first author followed by *et al.* Names of organizations used as authors (e.g. Milk Marketing Board, Agricultural Research Council) should be written full out in the list of references and on first mention in the text. Subsequent mentions can be reduced to MMB, ARC, etc. Ampersands should be avoided and multiple references should be as follows:

(Keith *et al.*, 1955 and 1959; Flint and James, 1958a and b).

'Personal communication' should follow the name of the author in the text, where appropriate. The author's initials should be included but not his title. Such citations should not be included in the list of references.

## PROOFS

The following guidance is given by the Royal Society (see 'Authoritative Sources' below).

'Proofs are submitted so that authors can make sure that the printers have reproduced the typescript faithfully. Authors should not insert new matter into proofs or correct faults in the style or arrangement of their papers at this stage. Many journals quite justifiably ask authors to pay for the heavy cost of alterations made in proof that do not arise from mistakes in the setting up. However, any errors of fact or of logic that have escaped earlier notice must be corrected, even at this stage. . . .

'Authors are advised to pay particular attention to checking scientific and proper names, numerical data, formulae, tables and illustrations. Whilst printers' readers are competent in correcting proofs dealing with subjects of which they have no specialist knowledge, the ultimate responsibility for the correction rests with the

author. The proofs should be compared with the original typescript, and it is helpful to have the proofs read by a colleague, since it is very difficult for an author to see mistakes in his own work.

'Marks for proof corrections are given in British Standard 1219 : 1958, *Recommendations for proof correction and copy preparation*. The tables of symbols from this standard are available printed on stout card as British Standard 1219C : 1958. Corrections should be made as legibly as possible in ink, not pencil. Incorrect use of printers' symbols can be extremely misleading, and when a complicated correction has to be made it is better to write a note in the margin explaining in plain English what is wanted. Directions to the printer which are not to be set up in type should be encircled.'

### AUTHORITATIVE SOURCES

The following sources are taken as authoritative in matters not covered herein:

*Abbreviated Titles of Biological Journals*. 1968. 3rd ed. The Biological Council, London.

FOWLER, H. W. 1965. *Modern English Usage*. 2nd ed. Revised by Sir Ernest Gowers. Clarendon Press, Oxford.

MASON, I. L. 1969. *A World Dictionary of Livestock Breeds, Types and Varieties*. 2nd ed. Commonwealth Agricultural Bureaux, Farnham Royal, Bucks.

The Royal Society. 1965. *General Notes on the Preparation of Scientific Papers*. The Royal Society, London.

*The Shorter Oxford English Dictionary*. 1944. 3rd ed. Clarendon Press, Oxford.

*The World List of Scientific Periodicals*. 1963-65. 4th ed. Butterworth, London.



**Summary:** Every article should have a short summary (not more than 250 words) complete in itself and understandable without reference to the paper. *The summary will be printed at the beginning of the paper.*

**References:** Only papers closely related to the author's work should be referred to; exhaustive lists should be avoided. Bibliographical details should be in the following order: author's name, initials, year, title of paper, title of journal (abbreviated according to the World List of Scientific Periodicals), volume of journal, first and last page of paper. References should be listed in alphabetical order. When abstracts are referred to, the page reference should be followed by (Abstr.).

*Examples:*

BLAXTER, K. L. and WILSON, R. S. 1962. The voluntary intake of roughages by steers. *Anim. Prod.* 4: 351-358.

HAMMOND, J. 1932. *Growth and the Development of Mutton Qualities in the Sheep*. Oliver and Boyd, Edinburgh.

In the text, references should be made by giving author and year; at the first mention all authors should be named, thereafter the first author followed by *et al.* should be used for papers with more than two authors.

**Proofs** are supplied once and must be returned corrected to the Editors within seven 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.

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**Business matters**, including regular subscriptions and sales (the current Journal, back numbers, the *Proceedings of the British Society of Animal Production* (1944-58) and reprints), should be addressed to Longman Group Limited, Journals Division, 33 Montgomery Street, Edinburgh EH7 5JX.

**Publication of the Proceedings** will recommence in 1972. Particulars will be announced at the time of publication.

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