Original scientific articles and short research communications on animal diseases and parasites, especially in Africa, will be considered for publication in this journal. Such papers should be forwarded to the Editor, Onderstepoort Journal of Veterinary Research, Onderstepoort Veterinary Institute, Private Bag X5, ONDERSTEOORT, 0110 South Africa.

It will be assumed that papers submitted to the journal are not being considered simultaneously for publication elsewhere. Initially 2 copies of the paper and figures should be submitted. When the paper has been refereed and edited it will be returned for any necessary amendments. Please note that suggestions made by the editorial committee and referees may not be ignored; any objections must be discussed or lodged in writing with the editor.

A copy of the edited manuscript plus three copies of the final manuscript must be sent to the editor. A copy must also be provided on floppy or stiffy disc—preferably processed from WordPerfect for Windows or WordPerfect 5.1; Microsoft Word version 5.0; Lotus Ami Pro for Windows 3.0; MultiMate version 3.3; or WordStar version 5.0.

The originals of figures should be covered with an overlay and carefully packed to ensure that they arrive in perfect condition. A total of 150 reprints will be supplied to the author(s) free-of-charge. Provision cannot be made for any additional reprints.

FORMAT

Manuscripts must be prepared in double spacing with a margin of at least 3 cm on the left and at the top of each page. The first line of every paragraph must be flush left (start at the left margin). All paragraphs must be blocked with an extra line space between them.

Words to be printed in italics should preferably be typed in italics. If this is not possible, underline the necessary words on the manuscript, but NOT on the floppy or stiffy disc copy for the computer.

All headings are flush left, as follows:

Major headings - CAPITALS (bold)
First level subheadings - Upper and lower case (bold)
Second level subheadings - Upper and lower case (italics)
Third level subheadings - CAPITALS (SMALL)

All pages must be numbered.

Manuscripts that do not comply with the editorial requirements will be returned forthwith for amendment before they are considered by the editorial committee.

SCIENTIFIC PAPERS

The contents must be presented in the following sequence: Title; name(s) of author(s); abstract and text.

The title of a paper should, if possible, be short, but must contain enough information to indicate its contents accurately. In the abstract the text should convey the essential results concisely, preferably in not more than half a page (c. 150 words).

The layout of the title and abstract should be as follows:

**Single author**

**Serological differentiation of five bluetongue virus serotypes by indirect ELISA**

D.H. DU PLESSIS

Biochemistry Section, Onderstepoort Veterinary Institute, Onderstepoort, 0110 South Africa

**ABSTRACT**


**Multiple authors**

**Adult Amblyomma hebraeum burdens and heartwater endemic stability in cattle**

J.L. DU PLESSIS ¹, P.J. LOOCK ² and C.J.F. LUDEMANN ³

**ABSTRACT**


In this case the authors' addresses must be given in a footnote on the 1st page:

¹ Onderstepoort Veterinary Institute, Onderstepoort, 0110 South Africa
² State Veterinarian, Private Bag X2408, Louis Trichardt, 0920 South Africa
³ Mara Research Station, Private Bag X260, Mara, 0934 South Africa
In the majority of papers the text is normally presented under the following main headings:

- Introduction
- Materials and methods
- Results/observations
- Discussion
- Acknowledgements
- References

**INTRODUCTION**

The introduction should be a motivation for the article. It should outline the problem and state the object of the research. Reference to previous work is admissible only if it relates directly to the present research. An extensive literature review is generally inappropriate.

**MATERIALS AND METHODS**

These should be described in sufficient detail to allow repetition of the work. Details of any statistical analyses employed must be included. A literature citation is adequate for methods fully described elsewhere.

**RESULTS/OBSERVATIONS**

The principal results should be given in the text, with supporting evidence in tables (Table/s) or figures (Fig.). Data given in a table must not be repeated in a figure or vice versa. Tables and figures must be numbered in the order in which they are cited in the text. Use Arabic numerals for figures.

**DISCUSSION**

The results obtained must be interpreted in relation to existing knowledge. It is sometimes desirable to combine the results and discussion.

**ACKNOWLEDGEMENT(S) (Optional)**

Acknowledgement(s) should be kept to a minimum and should be concise, e.g., "I thank Mr S.W. Smith for . . . ."

**REFERENCES**

These must always be checked meticulously to ensure that all references mentioned in the text are listed at the end of the paper, and that all references in this list are quoted in the text. Make sure that the spelling of names and the dates tally.

**Citations in the text**

*References*

These must be arranged chronologically, e.g., (Smith 1955; Jones 1973; Brown 1977), but references from the same year must be listed alphabetically, e.g., (Brown 1966; Jones 1966; Smith 1966).

*One author*

When an author's name and the year of publication do not form part of a sentence, they are given in parentheses and are only separated by a single space (authors please note—no comma), e.g., (Taylor 1931). However, an author's name, and sometimes the year of publication, may form part of a sentence, as follows: "Taylor (1931) showed that . . . ." or "In 1931 Taylor published this report . . . ."

*Two authors*

Both names are quoted, linked by an ampersand (&).

*More than two authors*

All the authors' names are quoted the 1st time the reference is mentioned. Thereafter the name of the 1st author is given followed by et al., either underlined on the hard copy of the manuscript or typed in italics, e.g., Taylor, Smith & Jones (1931); Taylor et al. (1931); (Taylor et al. 1931).

**Multiple papers**

When several papers published by the same author, or with the same senior author, in the same year are cited, they must be distinguished by the suffixes a, b, c, etc., inserted after the year of publication.

**Papers "in press"**

Papers should not be cited as being "in press" before they have actually gone to press. Then the words "in press" should be inserted in the text in parentheses, in place of the year of publication.

**Citations from other publications**

When an unseen paper has been quoted from another publication, only the latter should be included in the reference list. Refer to the unseen paper only in the text, e.g., "Martins (1947, cited by Shepstone 1950) found that . . . ." In this example only Shepstone (1950) would be included in the reference list.

**Personal communications**

Provided permission has been received from the person(s) concerned these communications may be quoted in the text, but not in the reference list, e.g., "J.B. Smith (personal communication 1966) found that . . . ." (J.B. Smith, personal communication 1966). Such references should be restricted to a minimum.

**Unpublished data**

Permission must be obtained to refer to any unpublished data received from other people. The observer(s) can then be quoted in the text, but not in the reference list, e.g., "R. Shaw (unpublished data 1972) found that . . . ." (R. Shaw, unpublished data 1972). Mention of such data should preferably be avoided.

**Reference list**

References must be set out according to the Harvard reference method. Components that are essential for compiling a reference list are the following (in this order):

<table>
<thead>
<tr>
<th>BOOKS</th>
<th>PERIODICAL ARTICLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author/editor/compiler</td>
<td>Author</td>
</tr>
<tr>
<td>Year of publication</td>
<td>Year of publication</td>
</tr>
<tr>
<td>Title of article</td>
<td>Title of article</td>
</tr>
<tr>
<td>Title of chapter</td>
<td>Title of periodical (italics)</td>
</tr>
<tr>
<td>(if appropriate)</td>
<td>Volume</td>
</tr>
<tr>
<td>Title of book (italics)</td>
<td>Number</td>
</tr>
<tr>
<td>Edition/editor</td>
<td>Pages of article</td>
</tr>
<tr>
<td>Place of publication</td>
<td></td>
</tr>
<tr>
<td>Publisher</td>
<td></td>
</tr>
<tr>
<td>Numbering and/or pagination</td>
<td></td>
</tr>
<tr>
<td>Series (optional, in parentheses)</td>
<td></td>
</tr>
</tbody>
</table>

References are listed alphabetically by the name of the 1st author and set out in the following style:


**Authors**

When several publications by the same author or having the same senior author are included, they must be listed chronologically.
GUIDE FOR AUTHORS

If 2 or more papers having the same senior author are published in the same year, the letters a, b, c, etc. should be added after the year.

Editors
When the name given is that of the editor, not the author, insert "(Ed.)" between the name and the date of publication. If there is more than one editor, use the abbreviation "(Eds)", e.g.:


When the reference includes both author(s) and editor(s), insert the phrase "edited by" after the title of the book, e.g.:


Titles of journals, volume numbers and page numbers
The title of a periodical must be given in full (it should not be abbreviated) and italicized. When sections of a periodical appear either as supplements or as parts which are paginated separately, indicate this immediately after the volume number. Use arabic numerals to indicate the volume number, e.g. Experimental Parasitology, 3:4-11.

When the reference consists of a single page only, just insert a colon before the page number.

When a paper has been accepted for publication, but has not yet been printed, insert the name of the journal followed by "in press". If possible insert the correct volume and page numbers when you receive your proofs.

Titles of articles
These must be copied exactly, taking special care with foreign spellings, accents and the use of italics for scientific names, e.g. Pferd (in German nouns begin with a capital letter); vétérinaire; São Paulo. Note that titles of articles are NOT underlined or italicized, or placed in quotation marks.

Text books
Titles must be italicized. Note that capital initial letters in book titles are used for the first word and proper names only. Use the abbreviation "ed." for edition and only an arabic numeral to indicate the volume(s) cited. No page numbers are given. List text books as follows:


Abstracts
When only an abstract of an article was seen, indicate this as follows:


Articles/chapters appearing in text books
These should be given as follows:


individual articles appearing in the proceedings of periodic international conferences
These should, if possible, include the serial number of the conference, its venue and the year in which it was held, as well as the pagination, e.g.:


Extracts from annual reports
All extracts should include the year to which the report refers. This is not always the same as the year of publication, e.g.:


Theses
These are listed as follows:


Pamphlets
Give the name(s) of the author(s), year and title of the article, followed by the name of the institute, organization or society, and the country. If the source forms part of a series, this information is enclosed in parentheses, placed at the end of the description. Note that the number ("no.") within the series is preceded by a semicolon, e.g.:


Publications in which no individuals are named as either author or editors
Give the name of the organization issuing the publication in place of that of the author or editor, followed by the date, title and finally the place of publication, followed by the publisher, e.g.:


RESEARCH COMMUNICATIONS
These are intended for the publication of smaller items of interest, e.g. a description of a new or modified technique or an un-
usual record of a parasite. Research communications must include an abstract and be concise (not more than 2 printed pages, i.e. c. 4 - 5 double-spaced typed pages, in length). They need not be subdivided into sections.

GENERAL INFORMATION

Tables

Each table must be typed on a separate sheet with a brief heading containing enough information to enable the reader to understand the table without consulting the text, e.g.:

<p>| TABLE 1 Persistence of IFA test antibody in cattle after withdrawal from exposure to ticks |
|---------------------------------|-----------------|-----------------|-----------------|</p>
<table>
<thead>
<tr>
<th>Sheep</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1.41 (0.29)</td>
<td>3.31 (0.47)</td>
<td>3.28 (1.51)</td>
</tr>
<tr>
<td>B</td>
<td>1.67 (0.49)</td>
<td>3.96 (0.75)</td>
<td>4.20 (0.61)</td>
</tr>
<tr>
<td>C</td>
<td>1.70 (0.73)</td>
<td>4.33 (0.82)</td>
<td>4.13 (0.38)</td>
</tr>
<tr>
<td>D</td>
<td>2.08 (0.35)</td>
<td>5.06 (0.48)</td>
<td>5.16 (0.41)</td>
</tr>
<tr>
<td>E</td>
<td>1.94 (0.49)</td>
<td>5.63 (0.66)</td>
<td>4.82 (0.73)</td>
</tr>
<tr>
<td>F</td>
<td>1.32 (0.39)</td>
<td>5.31 (0.96)</td>
<td>5.13 (1.49)</td>
</tr>
<tr>
<td>Mean</td>
<td>1.69 (0.32)</td>
<td>4.60 (0.82)</td>
<td>4.45 (0.65)</td>
</tr>
</tbody>
</table>

Reference to tables in the text must be written as follows: Table 1; Tables 2, 3 & 4; (Table 1). Indicate the approximate position in the text where the tables should be inserted as follows:

INSERT TABLE 1 HERE

Figures

All illustrations are referred to as figures (abbreviated as “Fig.”). They should be arranged to fit across one or both columns of the printed portion of an A4 page. The measurements of a single column are 8 cm (width) and 23 cm (depth), while those of a full page are 16,5 cm (width) and 23 cm (depth). Several figures can be put together to form a composite plate in which each individual illustration is numbered; in such cases the plate itself is not numbered. Alternatively, if a plate is made up of a closely-related series of small figures, the plate can be numbered and the individual illustrations in it designated a, b, c, etc.

Captions for the figures must be typed separately from the text and should contain enough information to enable the reader to understand the figures without reference to the text. Note that “FIG.” is typed in capitals in the captions.

Reference to figures in the text should be as follows: Fig. 12; Fig. 2 & 3; Fig. 1a, b & c (Fig.). Their approximate positions in the text should be indicated thus:

INSERT FIG. 1 HERE

Remember that duplication in the text of information given in tables and figures must be avoided.

Black-and-white photographs

Provide all these photographs as glossy prints, preferably with relatively high contrasts. The individual prints making up a composite plate should be of equal contrast as a combination of light and dark prints will not reproduce well. Each photograph or plate must be carefully labelled on the back with the author's name and the figure number. Insert the word “top” on the upper margin.

Colour photographs

Reproduction of colour photographs is expensive, therefore they will not be accepted for publication in the journal unless they are essential for illustrating the particular points shown and are of the highest possible quality. Colour prints must not be mounted. Figures in colour will be accepted only when accompanied by a signed agreement from the author to cover the full cost of publication.

Graphs, histograms and black-and-white drawings

Drawings must be drafted neatly on a clear white surface. Any necessary numerals, lettering, etc. can be inserted by the printer provided a clearly labelled copy of the figure is attached to the original.

When labelling the figures, please allow for any reduction/cropping that may be necessary when they are printed. Either draft labels on computer software or insert them with stencils or dry transfer letters.

Use of italics

Words to be italicized must either be typed in italics or underlined on the manuscript. Italics are used for:

- The names of genera, subgenera, species and subspecies of animals, plants and bacteria in titles, main headings, first level subheadings and the text, but not in second level subheadings.
- Generic names of viruses.
- The titles of books and journals in the reference list. (Note that the title of an unpublished work is not italicized.)
- Unacclimated foreign words and phrases (e.g. in vitro; per os; vide supra; virus fixe; ad libitum).

The following are not italicized:

- The names of phyla, classes, orders and families.
- The second level subheadings are italicized, therefore generic, specific and subspecific names of animals, plants and bacteria and generic names of viruses will be typed in normal font (these names will be set in "Roman" by the printer).
- Foreign words and phrases that have passed into common use, e.g. post mortem, vice versa.
- The title of an unpublished work.

Biological nomenclature

A taxonomic article must be in accord with the relevant rules in the International Codes of Nomenclature for animals, bacteria and plants. The rules governing viral nomenclature are given in Fenner (1976). Alternatively, you can seek the advice of a professional taxonomist or a member of the editorial committee, or consult a reference such as Jeffery (1977).

The following brief notes on nomenclature are intended for general guidance only.

Animals, bacteria and plants

The codes governing the nomenclature of organisms in these 3 groups have many basic features in common, but differ somewhat in detail. In all these groups the name of a species is binomial, i.e. it consists of the generic name, which begins with a capital letter, followed by the specific name, which is peculiar...
to the organism concerned and (except in a few special cases governed by the Bacteriological and Botanical Codes) begins with a small letter, e.g. *Bos taurus*. In some cases the generic and specific names may be followed by a subspecific name and, in Botany only, by a variety name. All these names are printed in italics.

The first time an organism is mentioned in the text its generic and specific names must be given in full, e.g. *Babesia bigemina*, *Taenia ovis*. When it is mentioned again, its generic name can usually be abbreviated to the initial letter, e.g. *B. bigemina*, *T. ovis*. If, however, the generic names of 2 organisms mentioned in a paper have the same initial letters, and in addition these organisms have identical specific names, their generic names must always be spelt out to avoid confusion, e.g. *Taenia ovis* and *Trichurus ovis*.

In a taxonomic article, in addition to the full scientific name of each organism mentioned, the author(s) must be given the first time it is cited. The date on which the original description of the organism was published is often, but not always, given. The rules governing the ways in which authors and dates are quoted differ somewhat in the 3 International Codes of Nomenclature. For a zoological organism the generic and specific (and where necessary subspecific) names are followed by the name(s) of the author(s), then—should you wish to cite the date—by a comma and the date, e.g. *Babesia bigemina* Smith & Kilbourne, 1893. With bacteria there is no comma between the name(s) of the author(s) and the date e.g. *Babesia bigemina* Kilbourne, 1893. When bisectors is there no comma between the name(s) of the author(s) and the date e.g. *Pasteurella haemolytica* Newsom & Cross 1952. In the case of plants the author's name is often abbreviated, e.g. *Grewia robusta* Harv. The names of authors and dates must not be enclosed in parentheses or brackets at whim. Such signs have precise meanings in taxonomic literature, as do words such as in, ex and sensu when they are used in connection with the names of organisms. See the appropriate code or Jeffery (1977) for further details.

In the zoological, bacteriological and botanical kingdoms the names of taxa above the rank of genus, i.e. phyla, classes, orders and families, and their subdivisions, are not italicized. These names begin with capital letters when they are used scientifically, e.g. "Mammalia", but with lower case letters in common usage, e.g. "mammals".

**Viruses**

The nomenclature of viruses is unique in some respects. Family names all begin with a capital letter and end with the suffix -"viri­dae", e.g. Picornaviridae. Generic names, which also begin with a capital letter, end with the suffix -"virus" and are printed in italics, e.g. *Orbivirus*. Viral nomenclature is not binomial and latinized specific names are not used. A species epithet often consists of a single word, e.g. *reovirus*, *rotavirus*. An epithet derived from the name of a disease, however, is written as 2 or more words, e.g. *bluetongue virus*, *foot-and-mouth disease virus*, and it may be combined with letters, e.g. *influenza* types A and B virus. An epithet derived from a place name begins with a capital letter and is also written as 2 or more words, e.g. *Bun­gamwera virus*, *Nairobi sheep disease virus*.

See Fenner (1976) for further details.

**Geographic names**

The initial letters of geographic names are capitalized, e.g. South Africa, but use southern Africa, south-western Cape Province, eastern Transvaal.

**Units of measurement**

Use metric units (SI, Système International d'Unités) throughout. Exceptions are 1 (litre) and m (millilitre). The symbol is the same for both singular and plural forms.

**Time:** s (second), min (minutes), h (hour), d (day/s), but spell out week, month and year.

---

**Distance and area:** µm, mm, cm, m, km, ha, etc.

**Mass:** µg, g, etc. Note that objects should be "mass-measured", not "weighed".

**Volume:** µl, ml, l (litre), etc.

**Temperature:** °C.

**Geographical co-ordinates:** (34°03'S, 20°30'E).

**Percentage:** %.

**Dates**

Dates in the text should preferably be written as follows: 31 January 1990. Nevertheless, to avoid possible repetitions of the months in long lists of dates, the following style can be used: 01.vii.1994.

In tables the months should, where necessary, be abbreviated to the first 3 or 4 letters, e.g. Sept., Oct.

**Abbreviations**

Abbreviations, e.g. CSF (cerebrospinal fluid), and acronyms should be used only if they have to be repeated frequently. They must be defined the first time they are mentioned, both in the abstract and in the text.

**Numerals**

Use numerals within sentences, but not in the titles of papers and at the beginning of sentences, e.g. Two dogs died and 1 survived; there were 5 ewes and 10 lambs in each experiment; in the 1st survey. Use an n-dash between 2 numerals e.g. 1–35 mice; 5–10 µm. Leave a space between numerals and units, e.g. 5 ml (not 5/mL); 2 h (not 2h); 5 % (not 5%); 5°C (not 5C°).

**Trade names**

**Chemical compounds**

Use the international non-proprietary name for pharmaceuticals, as determined by the World Health Organization (WHO), and the common name for pesticides, as determined by the International Organization for Standardization (ISO). The first time such a name is mentioned in the text, give its South African trade name (in quotation marks and starting with a capital letter), plus the name of the manufacturer or seller, in a footnote on the same page.

The full chemical name should be used only when no non-proprietary or a common name has been given to a compound.

**Equipment**

When referring to equipment by a trade name, give the name of the manufacturer in a footnote on the same page.

**Copyright**

Copyright law requires that you obtain written permission from the copyright holder to reproduce published material. If the author is not the copyright holder it is courteous to request the author's permission also. The source of any material used must be acknowledged in the paper and, where appropriate, the full reference must be included in the list of references.

Further information on this subject is given in O'Connor & Woodford (1976).

**Proofs**

Final page proofs are submitted to the author who should read and correct them meticulously, according to the edited manuscript, using the appropriate symbols in blue ink. No major reconstruction will be accommodated at this stage since it will influence page layout and delay publication of the journal. Particular attention should be paid to illustrations. The reader should sign the first page after the proof has been read.
Aids to writing

Spelling

English usage
ANON, ... *The Oxford writers' dictionary.* Oxford: Clarendon Press.

Writing scientific reports

Biological nomenclature