(Revised January 2018)

Instructions to authors of the South African Journal of Animal Science

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Submission: Submit electronic version of manuscripts through www.sasas.co.za

Scope of the Journal

The South African Society for Animal Science (SASAS) welcomes the submission of manuscripts from SASAS members and scientists from all regions of the world addressing all matters germane to the **science of animal production** for publication in the South African Journal of Animal Science (SAJAS).

The South African Journal of Animal Science is a peer reviewed, open access journal. The scope of the journal includes reports of research dealing with livestock (cattle, sheep, goats, pigs and poultry), as well as pertinent aspects of research on aquatic and wildlife species. The main disciplines covered are nutrition, genetics, physiology and production aspects of animal products. Papers addressing sociological aspects of well-defined livestock production systems are invited, provided they are scientific in nature and have been carried out in a systematic way. Papers dealing with routine, repetitive testing or economic evaluation of specific products, feeds or cultivars, case studies or matters dealing with agricultural extension or consumer issues are discouraged unless the results so derived are used to develop or elaborate scientific concepts in the field of animal science. Papers that form part of a series are discouraged: this includes different aspects of data derived from one particular experiment, or cases in which the analytical techniques, animals or experimental procedures are common to all papers.

Where authors have valid reasons for separation of reports from one trial/experiment into two (or more) manuscripts, all manuscripts must be submitted simultaneously; delayed or staggered submissions will automatically be rejected. In all cases, reports should represent **original** contributions to current scientific knowledge of the **principles** or the **application of principles** governing the functioning of animals, production aspects of their products and their relationship to the social or physical environment.

Publication fee per article published (2017)

SASAS members (at least one of the authors): R 1500.00 for the first 10 pages, and every subsequent page at R 100.00 per page; *(SASAS members may apply for exemption of the publication fee)*;

Non-members in RSA and SADC: R 2400.00

Non-members, rest of Africa and overseas: US$ 250.00 for the first 10 pages, and every subsequent page at US$ 25.00 per page.

This will be levied upon acceptance of manuscript.

No reprints are supplied.

Open access

This journal offers open access. Scientists and readers do not need to pay to access the articles.

Types of articles

All submissions will be subjected to the peer-review process.

Research articles

Contributions should be based on original unpublished experimental data that have been analysed using statistical methods. Multi-part manuscripts derived from a common experiment will not be considered unless submitted simultaneously.

Short communications

Results from a limited investigation, work that is still in progress and new techniques can be submitted as a short communication. It should not exceed five printed pages. (See Instructions below).

Reviews

Reviews should have as their main aim the synthesis or application of new principles, hypotheses or future research directions from re-interpretation and scrutiny of existing published scientific data. It is normal practice for authors to include some of their own new but previously unpublished data in support of the concept that is synthesised. Syntheses and applications from technical reports, surveys and other unpublished but scientifically justifiable sources of information can also be used in support. Reviews aimed at distilling existing published information into a form that will contribute to a clearer understanding of, or more widespread application of research findings by generalist extension officers and non-scientists are also welcomed. Reviews are normally solicited by the editor-in-chief, but suggestions for topics or authors are welcomed. Reviews are subjected to the same peer-review process as is applied to all other submissions.

Electronic publication

The South African Journal of Animal Science is published online, and can be accessed from the following address: http://www.sasas.co.za/journals or through http://www.sasas.co.za.

One volume will be published per year, consisting of at least six issues, published at approximately 2 month intervals. Articles will, however, be placed on the Internet as soon as the copy-ready version has been approved by the submitting author.

Submission and the review process

The data upon which all types of manuscripts are based should be original (except review articles), should not have been published previously in a peer-reviewed scientific journal, and should not be under consideration for publication elsewhere. Submission of a manuscript is understood to imply that these conditions have been met. The context and/or detail of the new findings must be sufficiently different to merit addition to the matrix of knowledge through publication.

Submission also implies that all authors have approved the manuscript and are in agreement with its content.

If figures, tables or parts of other copyright material not owned by the authors are included in articles submitted for publication in the journal, it is the sole responsibility of the authors to obtain permission to republish such items.

A sub-editor with the assistance of reviewers will be requested to review the manuscript and make a recommendation to the editor-in-chief.

Authors may suggest a list of experts whom they consider especially suitable to referee their paper, especially if the subject is highly specialized. The editor-in-chief will advise the corresponding author on the outcome of the review based on the recommendation of the sub-editor.

Resubmitted manuscripts will follow the same process of evaluation as the first submission. Any resubmittal should be accompanied by a summary of the changes made and a brief response to all recommendations and criticisms.

NB: *Initially a paper is accepted provisionally. The final decision to accept or reject manuscripts for publication resides with the editor-in-chief. If the editor-in-chief considers it necessary, the paper may be referred to the journal's editorial sub-committee for a final decision regarding acceptance.*

Post acceptance to publishing

Once the paper has been accepted (provisionally) for publication, further preparations are conducted off the electronic system by the editor and assistants followed by a final evaluation from the editor (and if necessary by the editorial committee). The proof-reader prepares the document and sends it to the corresponding author, together with a copyright agreement between SASAS and the authors (where all authors have to sign) and an invoice of the publication fee. Once the final proof has been returned and the publication fee paid, the article will be published online (www.sasas.co.za). When an issue is completed, a hard copy of the issue will be produced.

Style and Form

Manuscripts will not be admitted to the peer-review process until they are fully compliant with the style and format detailed in the instructions to authors.

Authors are requested to adhere strictly to the following directives and consult the most recent editions of the journal for issues not specifically mentioned here. The manuscript must be written in English, using the UK English spell check (i.e. do not express units in calories, pounds, miles, etc.). It is up to the authors to make sure there are no typographical errors in the manuscript. The manuscript should have continuous line numbers.

Submissions should be typed in MS WORD (or docx files) and submitted electronically through the SASAS website: www.sasas.co.za

• The **title** must be informative and brief, maximum 120 characters, including spaces (if possible in punch-line form to draw attention). The initials and name of the author(s), the address of the institution where the work was done must follow the title. Superscripts (1,2,3) should be used in cases where authors are from different institutions. The superscript # should be appended to the author to whom correspondence should be addressed, and indicated as such together with an e-mail address in the line immediately following the **keywords**. The present postal address of authors, if currently different from that of the institution, should also be superscripted appropriately and inserted in the lines following that of the corresponding author's details.

• An **abstract** should be included next and should contain the following: purpose of study, experimental treatments, results, preferably in quantitative data, significance of findings and the conclusions. This should not exceed 400 words. Significance levels (e.g. P <0.05) should not be included in the abstract.

The abstract is followed by a list of **Keywords: -** Keywords in alphabetical order and preferably ones not used in the title, maximum 6 keywords.

• The **contents** must be arranged in an orderly way with suitable headings for each subsection. The recommended subdivision of contents is as follows:

• **Introduction**: This should include (a) a statement of why the subject under investigation is considered to be of importance, (b) a concise indication of the status quo of published research in this field and (c) why this article is considered to be an **original** contribution to current scientific knowledge of the **principles** or the **application of principles** governing the functioning of animals, production aspects of their products and their relationship to the social or physical environment. The last sentence of the introduction should contain a declaration of the aims of the experiment, i.e. the hypothesis. The introduction should not exceed one page in length.

• **Materials and Methods:** These should be concise but of sufficient detail to enable the experiment to be replicated by an outside party. Statistical methods used must be clearly stated. (See instructions below on "Statistical preparation of response trials).

• **Results and Discussion** may be treated separately or under one heading; do not insert sub-headings. Integrity in reporting requires that no inconsistent data are omitted or fabricated data presented.

• **Conclusions:** This should consist of (a) a short integration of results that refer directly to the stated aims of the experiment and (b) a statement on the practical implications of the results. This section should not exceed one short paragraph. Do not summarise the discussion here.

• **Acknowledgements:** Do not include titles of persons; use only initials and surnames. Acknowledge financial support from the NRF, and include their project GUN number, as required by the NRF. State and acknowledge sponsors, specifically if private companies funded the research.

• **Authors' contributions: Briefly detail the contributions of each author, denoting author's names using initials** as follows: for J.P. Smith use JPS

• **Conflict of interest declaration**

• **Footnotes** are not acceptable.

Main text: Font size 10 pt (Arial). The settings for the paragraph text should be as follows: format > paragraph > indentation: special; first line (1 cm), and the alignment of all paragraphs is set as 'justified' so that there are no ragged edges on the right-hand side of the page.

Do **not** introduce sub-headings into the main heading sections – separate different sections using paragraphs. Do not leave open lines between paragraphs.

Tables are numbered consecutively in bold Arabic numerals (e.g. **Table 1** *note that there is no following colon or full stop*) and should bear a short, yet adequate descriptive caption (i.e. the caption should enable interpretation of the data presented if the table and caption were to be separated from the text). Example: inadequate: "**Table 1** Feed intake effects"; correct: "**Table 1** Mean (± SE) voluntary intake (g/d) of two diets differing in crude protein content by early-weaned (21 d) piglets". (Font size: 10 pt, Arial). Measures of variance (e.g. SE or SD) included in tables should be clearly defined in the caption as in the preceding example. Metric units are to be clearly shown, symbols and abbreviated must be in accordance with international procedure. Explanatory notes to table elements are designated by superscripts, and the explanation should appear on the lines directly below the table. Differences between table means should be designated using superscripts (superscript should follow the mean in the table and not the SE) and the following conventional explanatory note which should appear on the line directly below the table: a,b,c Row means with different superscripts differ significantly at $P < 0.05$". Tables should be centred on the page. Authors should pay special attention to the format for tables regarding lines, i.e. no vertical lines and horizontal lines before and after the heading and the last row of data only (see recent journal articles for examples). Place each entry in a separate cell in the table. Tables should be inserted at the appropriate place in the text (do not append tables at the end of the article). Table contents (including table footnotes) should be typed using Arial 9 point font.

Do not import tables from other packages. Write them in MS WORD! Tables must fit on a single page, according to the Page set-up instructions. Large tables will not be accepted.

Illustrations and **diagrams**. These should be inserted into the text at the appropriate position. Graphs* that have been scanned in **are not acceptable**. Graphs could be constructed using MS Excel and inserted into the text. All lettering and numerals that appear on figures should be set in **Arial 9 point font** in "regular" not "bold". Coloured lines should not be used; sequence differences should be indicated by symbols. Point means should, where possible, be accompanied by standard error bars. Tick marks on axes should face towards the inside of the graph. Figures should be numbered consecutively in bold Arabic numerals (**Figure 1**). Avoid the use of "shading" in illustrations.

Place the title underneath the Figure, but not as part of the inserted section.

Do not "block" the figure with lines/borders surrounding it.

*If graphs, diagrams, etc. are imported from e.g. MS Excel, copy it and then under "Edit", use "Paste Special" and "Picture" to insert in document.

Ensure that lines, including axes and graphs are bright. Faint/thin lines tend to fade when hard copies are printed.

Terminology, abbreviations and **formulae**: Use the SI metric system (US Metric Association) (http://lamar.colostate.edu/~hillger/correct.htm) for units of measurement and use a decimal point. Spell out numbers from one to nine; use numerals for larger numbers, groups of numbers, fractions or units, e.g. four; 8 - 16; 4 kg/ha; 42 ewes, 67%. Note the spacing in the following text: $P < 0.05$ (note *P* in italics); 5 min. For litres, use the abbreviation L or mL. When reporting concentrations of, for instance, the chemical composition of diets, use g/kg and not %; mg/kg and not ppm; mg Cu/kg and not mg/kg Cu; do not use the word "content" when specifying a concentration in terms of, for instance, g/kg or %. Use percent mainly to indicate relative changes.

When abbreviations are used, they must be explained in full the first time the concept is used, also in tales and figures. Do not start a sentence with an abbreviation.

Express nutrient concentrations of feeds preferably on a dry matter (DM) basis and indicate the basis clearly in the table.

Do not use the word 'significantly' where the level of significance is declared: e.g. use 'Treatment A differed ($P < 0.01$) from treatment B' and *not* 'Treatment A differed highly significantly ($P < 0.01$) from treatment B'. Where means do not differ significantly, the appropriate level of probability could be stated e.g. "---did not differ ($P > 0.05$)". Note the following syntax "variables differ between treatments" *not* "variables differ among treatments". For standard error use the abbreviation SE, for standard deviation, use SD and for standard error of the mean, use SEM.

Statistical preparation of Response trials

The objective when conducting a response trial is not to prove that one treatment is significantly better than another but to describe the response, and in most cases, to find the optimum dose (which may be that which produces the maximum response, the minimum response or the optimum economic response), so the number of doses (treatments) becomes more important than the number of replications.

The most common method of analysing data from a dose/response experiment is Duncan's multiple range test (Duncan, 1955), but in all cases this is the incorrect procedure, as the comparison between treatments (doses) by means of a multiple range test is inappropriate when there is a logical structure to the set of treatments, and the use of a conventional 5% level of significance is inappropriate when trying to obtain the best estimate of some end point (Chew, 1976; Morris, 1983; 1999). A response surface must be fitted to the data and used to interpret the results.

The means of all variables measured should be presented in a table, together with the standard error (SE) of the mean or residual mean square, but with no super- or subscripts indicating statistical differences between means. The coefficients of the curve fitted to the data need to be displayed together with their SE's. When graphing the results, the actual means for each level of the factor should be displayed and not the fitted means, and the continuous function fitted to the data should be drawn through these means. It is incorrect to use a bar chart when illustrating a response experiment, as this implies that the factor levels were independent treatments, which they are not.

References

Chew, V., 1976. Uses and abuses of Duncan's multiple range test. Proc. Fla. State Hort. Soc. 89, 251-253.

Duncan, D.B., 1955. Multiple-range and multiple-F tests. Biom. 11, 1-42.

Morris, T.R., 1983. The interpretation of response data from animal feeding trials. In: Recent Advances in Animal Nutrition. Ed: Haresign, W., Butterworths, London. pp. 12-23.

Morris, T.R., 1999. Experimental Design and Analysis in Animal Sciences. CABI Publishing, Wallingford, U.K.

Ethical

Where applicable animal experimentation must be conducted within standard ethical norms. A statement indicating compliance to that **must** be included in the Materials and Methods section. Authors are encouraged to include the ethical clearance number.

References

• The existing relevant literature must be appropriately and fairly cited; in this respect reference efforts are always made to ensure that reference is made to the **original report of a finding** rather than to a later elaboration.

References appearing in the text

• Cite references by name and date in parentheses. In the case of two authors, use an ampersand (&) and not "and". The abbreviation "*et al.*" must be used in all cases where more than two authors are quoted. Personal communications and unpublished work should be cited in the text, giving the initials, name and date; they should not appear in the list of references. All other references in the text should be listed alphabetically by first authors' surnames at the end of the paper under the heading,

"References". Multiple references within parentheses in the text should be cited in chronological order. Examples:

- Apart from the work of Chevallerie & Smith (1971), Veary (1991) and Lewis *et al*. (1997), little data……..
- and has been shown to increase the pH (Chevallerie & Smith, 1971; Veary, 1991; Lewis *et al*., 1997). (note: comma after *et al*., not in italics).
- Do **not** put "Reference (1991, cited by Lewis *et al*., 1997)" in text, but in list of references, viz. Reference, A.B., 1991. Full or available title. Journal name volume and pages (Cited by Lewis *et al*., 1997). (See references of Scott and Tainton in list below).
- Personal communications: According to Brightguy (2005, A.B. Brightguy, Pers. Comm., Centre of Wisdom, P.O. Box 100, Pretoria, 0001) – Enough details so that person could be contacted.

References appearing in the list, "References", at the end of the article:

• Journal names must be abbreviated according to the World List of Scientific Periodicals. Authors should pay special attention to the syntax used in the reference list and check that references in the text correspond completely and exactly with those given in the reference list.

• In all cases, a reference must provide sufficient information to enable the reader to obtain a copy of it; references to unpublished congress presentations are NOT acceptable.

• Reference to internet articles is permissible. Supply full traceable reference in list.

• ***NB: It is the FULL responsibility of the authors to cross-check references in the text of the article with those in the list of references.***

• **Examples of references:** (Hanging indent 1 cm)

AOAC, 1984. Official methods of analysis (14th ed.). Association of Official Analytical Chemists, Inc., Arlington, Virginia, USA.

Hoffman, L.C. & Ferreira, A.V., 2000. pH decline of the *m. longissimus thoracis* of night-cropped grey duiker *(Sylvicapra grimmia)*. S. Afr. J. Anim. Sci. 30, 16-17.

Lawrie, R.A., 1998. Lawrie's Meat Science. 6th ed. Woodhead Publ. Ltd. Cambridge, England. 336 pp.

NRC, 1984. Nutrient Requirements of Beef Cattle (6th ed.). National Academy Press, Washington D.C., USA.

Read, M.V.P., 1984. Animal performance from natural pastures and the effects of phosphorus supplementation. MSc (Agric) thesis, University of Stellenbosch, South Africa.

SAS, 1985. Statistical Analysis Systems user's guide (5th ed.). SAS Institute Inc., Raleigh, North Carolina, USA.

Scott, J.D., 1947. Veld management in South Africa. Bull., Dept. Agric. S. Afr. No. 28. (cited by Tainton, 1999).

Sutton, J.D., 1976. Energy supply from the digestive tract of cattle. In: Principles of Cattle Production. Eds: Swan, H. & Broster, W.H., Butterworths, London. pp. 12-22.

Tainton, N.M., 1999. The ecology of the main grazing lands of South Africa. In: Veld Management in South Africa. Ed: Tainton, N.M., University of Natal Press, Pietermaritzburg, South Africa. pp. 48.

References in the form of the article's DOI can be included

Inclusion of ORCID is encouraged.

Articles in foreign languages:

Yalçın, H., 1997. Central North Anatolian zeolite occurrences related to Eocene submarine volcanism in Turkey. Bull. Eng. Fac. Cumhuriyet Univ. Serie A-Earth Sci. 14, 43-56 (in Turkish, English abstract).

Türkoğlu, M., Arda, M., Yetişir, R., Sarıca, M. & Erensayın, C., 1997. Broiler production. In: Poultry Science, Otak Form-Ofset, Samsun. pp.167-185 (in Turkish).

• **Sequence of references with the same first author and more than one co-author** (i.e. where reference in text is given as *et al*.) Sequence, chronological!

Cloete, S.W.P., Van Schalkwyk, S.J. & Brand, Z., 1998. Ostrich breeding – progress towards a scientifically based strategy. Proc. 2nd Int. Ratite Cong, Oudtshoorn, South Africa. pp. 55-62.

Cloete, S.W.P., Lambrecht, H., Punt, K. & Brand, Z., 2001. Factors related to high levels of ostrich chick mortality from hatching to 90 days of age in an intensive rearing system. J. S. Afr. Vet. Assoc. 72, 197-202.

Cloete, S.W.P., Bunter, K.L., Brand, Z. & Lambrechts, H., 2004. Co-variances for reproduction, egg weight and chick weight in ostriches. S. Afr. J. Anim. Sci. 34, 17-19.

Cloete, S.W.P., Engelbrecht, A., Olivier, J.J. & Bunter, K.L., 2008. Deriving a preliminary breeding objective for commercial ostriches. Aust. J. Exp. Agric. 48, 1247-1256.

Style and format of Short Communications

A short communication should be a maximum of five pages. It contains a very brief abstract followed by a brief introduction, text including tables and figures and a brief conclusion followed by references. **No subheadings** are to be included except for the Abstract. Format, tables and figures must conform to the conventions of the Journal.

Retractions

Procedures as recommended by the Committee on Publication Ethics (COPE) (www.publicationethics.org) will be followed.

SUMMARY OF FORMAT (Font – Arial)

Submissions will **not** be accepted unless formatted as follows:

Page size: A4

Line numbering ON

Page numbering ON - position: top right, font: Arial 9 point

Line spacing: single

No spacing “before” (0 pt) or “after” (0 pt) lines

File > Page Setup> Margins

Top: 3 cm

Bottom: 2.5 cm

Left: 2 cm

Right: 2 cm

Gutter: 0 cm

Header: 1 cm

Footer: 1.4 cm

File > Page Setup>Paper size

210 X 297 mm (A4)

Insert > Page numbers

Position: Top of page (header)

Alignment: outside

For main text (excluding headings) use the following:

Format > Font >

Font: Arial

Style: Regular

Size: 10 pt

Acknowledgements, Authors’ contributions, conflict of interest and references (*Font size 9 pt*)

Format > Paragraph

First line of paragraph: first line indent: 1 cm

Line Spacing: Single

No spacing before and after paragraph

References: hanging indent: 1 cm

Symbols: Whenever possible, use “normal text”.

Title (*Maximum 120 characters*, *Font size Arial 12 pt*, *bold, centred* *(no period)*)

12 pt

S.S. Authors[1,#] & T.T. Co-author[2] (*Font size: 11 pt*, *bold*, *centred (no period)*)

[1] Affiliations, including country (*Font size: 9 pt*, *centred*)

[2] Affiliations, including country (*Font size: 9 pt*, *centred*)

9 pt

9 pt

(submission history) 8pt

Creative commons statement (8 pt)

Headings (e.g. Abstract, Materials) (*Font size: 11 pt*, *bold*)

Keywords: Words not in title (*Font size: 10 pt*), alphabetically

[#] Corresponding author: editor@sasas.co.za (*Font size: 9 pt*)

Introduction