animal - open space

INSTRUCTIONS FOR AUTHORS

Last updated 12 October 2026

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BEFORE YOU START

Scope

The scope of the journal, the expected standards of published articles, the article types published by *animal - open space*, the data policy, ethics, the authorship policy, the pre-print policy, plagiarism falsification fabrication and the handling of misconducts, the licences to publish, Open Access and the article processing charge (APC), the evaluation procedures, the peer-review criteria and the post-publication review procedures and obligations, procedures for complaints and appeals, proofs and information on publication of the manuscript are presented in the Publication policies available at https://animal-journal.eu/animal-open-space/instructions-and-policies.

Submitted manuscripts should not have been published previously, except in a limited form (e.g. abstract or short communication to a symposium or part of MSc or PhD theses) and should not be under consideration for publication by another journal. Book reviews are not accepted. Deposition of pre-prints should be declared at submission.

Authorship and Ethics

- Authorship complies with the authorship and other ethics policies described in the Publication policies.
- Research described in the manuscript complies with ethical guidelines available on the website https://animal-journal.eu/instructions-and-policies/
- Authors have obtained permission to use copyrighted material in the manuscript prior to submission.

Article types

animal – open space publishes Data papers, Method articles and Research articles. Specific recommendations for each type of article are presented in Table 1. Data papers, Method and Research articles have no limits in length, number of references and number of illustrations. Concision will be evaluated by reviewers and editors as part of the peer-review process. Articles may deviate from the guidelines provided below if justified by the research. Contact anopenspace@bsas.org.uk for enquiries.

Table 1 *Recommendations for the articles published in* ***animal – open space****.

Article type	Maximum length (all text except figures)	Maximum number of tables plus figures	Maximum number of references	Additional information
Data paper	no limit	no limit	no limit	It is **mandatory to deposit the raw data** in an official data repository before paper submission
Method article	no limit	no limit	no limit	It is **mandatory to deposit the raw data** in an official data repository before article submission
Research article	no limit	no limit	no limit	It is **mandatory to deposit the raw data** in an official data repository before article submission

* for more information on the specific requirements of the 3 article types see the Publication policies available at https://animal-journal.eu/animal-open-space/instructions-and-policies

Style sheet and pre-submission checklist

When preparing their manuscript authors are advised to use the journal's style sheet (https://animal-journal.eu/animal-open-space/instructions-and-policies), and to self-evaluate their manuscript before submission using the Pre-submission Checklist (https://animal-journal.eu/animal-open-space/instructions-and-policies). The checklist is provided as a service to authors to aid them getting their manuscript ready for peer-review.

Initial screening

At submission, manuscripts are viewed by the Editorial Office, the Editor-in-Chief and/or a member of the Editorial Board for compliance with scope, standards and presentation of the manuscript. If the manuscript is incomplete or the quality of the manuscript is insufficient for peer-review, the manuscript will be rejected or rejected with the option to resubmit. If the submission is out of scope or not up to standards, it will be rejected by the Editor-in-Chief and no longer considered. Any deviations from instructions will be at the discretion of the Editor-in-Chief. Note that the quality of the manuscript is under the responsibility of authors. A good quality is expected to facilitate peer-review and ensure that manuscripts are reviewed exclusively on factors like reproducibility and raw data availability (see reviewer evaluation template).

WRITING YOUR ARTICLE – ABOUT CONTENTS

Your article is understandable

Scientific writing

> *A good quality of scientific writing is required. The article must be understandable by the general scientific readership of* animal – open space *and by specialists.*

DATA PAPERS are pure descriptions of datasets. The manuscripts are reviewed based on the following criteria: Do the description and data make sense? Do the authors adequately explain its utility/value to the community? Are the data logically and consistently organised? Is Data Specification Table complete? Are the protocol/references for generating data adequate? Data format (is it standard? potentially re-usable? machine readable? conforming to FAIR principles?) Does the article follow the template? Is the data well documented?

In a **METHOD ARTICLE** authors provide the background information that enables researchers to understand the principles underlying the methods; other helpful sections include comparisons of alternative methods giving the advantages and disadvantages of particular methods, guidance on avoiding potential pitfalls, and suggestions for troubleshooting.

In a **RESEARCH ARTICLE** the take-home message is clearly identified and the structure of the whole text is efficient. The context is briefly presented, the research problem is identified, the existing knowledge relevant to the problem is critically analysed, and the rationale of the study is clearly presented. The reporting is complete. Arguments and evidence are presented in a well organised, clear, logical and balanced way from the most general to the specific point. The points of view of the author(s) connect all results obtained in an organised and proper way with a clear interpretation.

In **all articles**, sentences are simple, short and direct, the style is concise yet informative and precise.

English

> *A good quality of written English (syntax, spelling, grammar) is required to facilitate the peer-review process.*

Spelling may be in British or American English, but must be consistent throughout the article. Care should be exercised in the use of agricultural terminology that is ill-defined or of local familiarity. If the English is not good enough, the manuscript will be sent back to the authors with a recommendation that authors have their manuscripts checked by an English language native speaker or a proficient service before re-submission. Elsevier lists third-party services specialising in language editing and / or translation at http://webshop.elsevier.com/languageediting/ and suggests that authors contact them as appropriate. Use of any of these services is at the author's own expense. The Editor-in-Chief may ask the authors to provide a certificate that confirms that their manuscript has been checked by a proficient editing service.

Presentation

> *Poor presentation may hamper the understandability of the article.*

The responsibility for the preparation of an article in a form suitable for a good understanding of the research lies with the author. Authors should follow the Instructions for Authors (see Presenting your article).

- The format of (sub-) headings is in accordance with recommendations in order to clarify the structure of the text, especially in the Material and methods section
- Tables are clearly presented. Treatments are in columns and variables are in lines, as relevant.

Your article is complete

Main text - Required sections and order

> *All sections are present. A style sheet for each type of article is available for use on our website at https://animal-journal.eu/instructions-and-policies/.*

DATA PAPER: Full title, Authors, Authors' affiliations including department and post/zip codes, Corresponding author, Abstract, Keywords, Specification Table, Value of Data, Data description, Experimental design, Material and methods, Ethics approval, Declaration of Generative artificial intelligence (AI) and AI-assisted technologies in the writing process, Author ORCIDs; Author contributions, Declaration of interest, Acknowledgements, Financial support statement, References, Tables, List of figure captions

RESEARCH ARTICLE and **METHOD ARTICLE**: Full title, Authors, Authors' affiliations including department and post/zip codes, Corresponding author, Abstract, Keywords, Implications, Specification Table, Introduction, Material and methods, Results, Author's point of views, Ethics approval, Declaration of Generative AI and AI-assisted technologies in the writing process, Author ORCIDs, Author contributions, Declaration of interest, Acknowledgements, Financial support statement, References, Tables, List of figure captions

Data repository

> *The authors are free to choose the data repository under the condition that it must be publicly accessible.*

- It is mandatory that authors deposit all relevant raw and pre-treated data in the data repository.
- In the data repository a file named **metadata** (.doc or .txt) needs to be created that contains the following information:
    - list of the names of all files saved in the data repository and deliver a clear explanation of the information included in each file (*e.g. File1: Contains information about growth traits; File2: Contains information about …)*
    - list of all variable names included in each file and description of the parameter and the units e.g.
        - File1:
            - BW1…7 = Body weight at beginning of the experiment and every 7 days until day 49 of the experiment (kg)
            - FI1…7 = Feed intake at beginning of the experiment and every 7 days until day 49 of the experiment (kg)
        - File2
            - xxx = … (..)
            - yyy = … (..)

Figures

Figures are submitted as relevant.

Each section of your main text provides the required information

DATA PAPER

Full title

> *The title provides sufficient information to allow the reader to judge the relevance of an article to his/her interests.*

- Title of a data paper should start with "**Data paper:**"
- Concise and informative; no more than 170 characters including spaces
- Include the animal species on which the study has been carried out
- Exclude Latin names, if there is a common name
- Exclude non-standard abbreviations. Follow the link (page 22) to find the standard abbreviations.

Authors and affiliations

Information, such as author names and affiliations should be presented as below.

Example

J. Smith[a,1], P.E. Jones[b], J.M. Garcia[a,c], P.K. Martin Jr[d] [initials only for first names]
[a]*Department of Animal Nutrition, Scottish Agricultural College, West Main Road, Edinburgh EH9 3JG, UK*
[b]*Animal Science Department, North Carolina State University, Raleigh, NC 27695-7621, USA*
[c]*Laboratorio de Producción Animal, Facultad de Veterinaria, Universidad de Zaragoza, C. Miguel Servet, 177, 50013, Zaragoza, Spain*
[d]*Dairy Science Department, North Carolina State University, Raleigh, NC 27695-7621, USA*

[1]*Present address: Dairy Science Laboratory, AgResearch, Private Bag 11008, Palmerston North, New Zealand* (for any author of the list whose present address differs from that at which the work was done)

Corresponding author: John Smith. E-mail: John.Smith@univ.co.uk.

- Only one corresponding author is indicated in the manuscript.
- The corresponding author who submits and manages the manuscript during the submission/peer-review process must be registered on Editorial Manager. He or she can be different from the corresponding author indicated in the manuscript who will be the correspondent for the published article.

Abstract (max 400 words, single paragraph)

The abstract should be complete and understandable, without reference to the article. It follows the same structure as the text.

- The data, its collection process, analysis and reuse potential are concisely described.
- No conclusions or results are presented.
- Citations and references to tables and figures are not acceptable.
- Abbreviations should be used sparingly and must be defined in the abstract.
- The whole abstract is written as a single paragraph.

Keywords (5 keywords)

Keywords are essential in information retrieval and should not repeat words in the title with respect to indicating the subject of the article.

- Five keywords (no more, no less).
- Keywords should be different from words in the title.
- Keywords should be short and specific.
- The animal species or type can be among the keywords but differently from the title
- The use of non-standard abbreviations in the list of keywords is not allowed. Follow the link to find the standard abbreviations.

Specification Table

The specification table serves as a metadata table and provides readers with information they need to reuse, reproduce or replicate the data.

- The Specification table (see below) is mandatory for all papers submitted to animal-open space. It should be presented after the implications, before the introduction. It should not be assigned a table number, nor referenced in the text. The Specification Table should describe:
    - the specific subject area the data originates from
    - the type of data presented (e.g., table, image, chart, graph, figure, …)
    - how the data were collected (e.g., respiration chamber, metabolic cage, scale, feeder type, gas chromatography, NIR, microscope etc.)
    - the data format (e.g., raw data, analyzed data, filtered data)
    - which conditions were considered and how the data were collected
    - the data source location (e.g., city, town, region or GPS coordinate)
    - the accessibility of the data (e.g., repository name, DOI or direct URL to data)
    - related research article (if applicable)

Specification Table

Subject	**Select one Section for your manuscript from the following list**: *Breeding and Genetics*, *Nutrition*, *Physiology and Functional Biology*, *Welfare, Behaviour and Health Management*, *Livestock Farming Systems*, *Quality of Animal Products*
Specific subject area	**Briefly describe the narrower subject area**. Max 150 characters
Type of data	**List the type(s) of data the article describes**. **Simply delete from this list as appropriate**: Table, Image, Chart, Graph, Figure, … [*specify any other type not listed*]
How data were acquired	**State how the data were acquired**: e.g., respiration chamber, metabolic cage, scale, feeder type, gas chromatography, NIR, microscope etc. State which instruments (hardware), software or program were used [*make and model of the instruments used*]
Data format	**List the data format(s)**. **Note it is mandatory to provide the raw data** (link to the repository). Simply delete from this list as appropriate: Raw, filtered data, pre-treated data. [*any other format not listed- please specify*]
Parameters for data collection	Briefly, provide a **description of which conditions** were considered for data collection. [*max 400 characters*]
Description of data collection	Provide a brief **description of how** the data were collected. [*max 600 characters*]
Data source location	Fill in the information available, and delete from this list as appropriate: Institution: City/Town/Region: Country: Latitude and longitude (and GPS coordinates, if applicable) for collected samples/data:
Data accessibility	The authors are free to select the data repository under the condition that it must be publicly accessible. Here is a list of data repositories we suggest if you do not have a trusted repository: **Dryad**, **Zenodo**, **Open Science Framework (OSF)**, **Mendeley Data**, fig**share**. The following information should be presented: Repository name: *Name repository* Data identification number: *provide number* [*if available*] Direct URL to data: provide the complete working link to the data

	In addition, for data with access controls only: provide a link to any Data Use Agreement (DUA).
Related research article	If your data article is related to a research article, please cite your associated research article here. Authors should only list one article. For example: Ruiz-Ascacibar, I., Stoll, P., Kreuzer, M., Bee, G., 2019. Dietary CP and amino acid restriction has a different impact on the dynamics of protein, amino acid and fat deposition in entire male, castrated and female pigs. Animal, 13, 74-82.

Value of the Data

Briefly explain the value of the dataset, avoiding novelty claims and vague statements

- In bullet points give an answer to the following questions:
  - Why are the data presented useful or important to the research community?
  - Who can use/benefit from the data?
  - How can the data be (re)used for further insights or analysis?

Data Description

Describe each data file included in the article.

- Briefly, describe and refer to each data file included in the article or in the repository (e.g., table 1, table 2, figure 1, dataset, raw data etc.).
- Do not include any background, insights or interpretation.

Experimental Design, Materials and Methods

Provide a detailed description of how the data were acquired and analyzed. Aid data reproduction and reuse by offering a more comprehensive description than any related article or previous articles.

- Offer a complete description of the experimental design and methods used to acquire these data.
- Provide any programs or code files used for filtering and analysing these data.
- No insight, interpretation, or background should be included.

Ethics approval

Where research involves animal experimentation, authors should assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on animal experimentation. This section is mandatory in all article types.

- When relevant, the full reference/number of the committee approval should be provided.
- Due consideration of the 3Rs (Refinement, Reduction, Replacement) is expected.
- When the study did not require approval by an institutional committee, include the following statement: 'Not applicable'.

Declaration of Generative AI and AI-assisted technologies use

Authors must declare the use of generative AI tools in the manuscript preparation process upon submission of the paper.

- Authors preparing a manuscript may use AI tools to support them. However, these tools must never be used as a substitute for human critical thinking, expertise and evaluation. AI tools may only be applied with human oversight and control.

- Please read Elsevier's detailed author policy on the use of AI tools, as stated in Elsevier's generative AI policies for journals at URL Link
- Authors must not list or cite AI tools as an author or co-author on the manuscript since authorship implies responsibilities and tasks that can only be attributed to, and performed by, humans.

Author ORCIDs

This section is mandatory in all article types.

- The first author and the corresponding author must provide their ORCID number with information.
- All co-authors are encouraged to indicate their ORCID number.
- Use full names.
    - John Doe: https://orcid.org/0000-000x-xxxx-xxxx
    - Nick Sampras: https://orcid.org/0000-000x-xxxx-xxxx
    - Sam Federer: https://orcid.org/0000-000x-xxxx-xxxx

Author contributions

The contribution of each co-author should be explained: conception or design of the work, acquisition, analysis and interpretation of data, drafting and critically revising the manuscript. This section is mandatory in all article types.

- Author contributions should be described according to the CRediT taxonomy.
- They have to be formatted by the author's name followed by the relevant credit role(s). Authors name should be abbreviated as follow: John Doe => JD, Nick Sampras => NS, Sam Federer => SF
    - JD: Writing original draft; NS: Conceptualization, Methodology; SF: Conceptualization, Project Administration.
- More details and a sample CRediT author statement is available at https://www.elsevier.com/authors/journal-authors/policies-and-ethics/credit-author-statement.

Changes to authorship

The editors of this journal generally will not consider changes to authorship once a manuscript has been submitted. It is important that authors carefully consider the authorship list and order of authors and provide a definitive author list at submission.

- All authors must be listed in the manuscript and their details entered into the submission system. Changes can only be made prior to acceptance, and only if approved by the journal editor. This includes additions, deletion, or rearrangement of author names.
- Requests to change authorship must be made by the corresponding author using the **Authorship Change Request form** (see LINK). The corresponding author must provide the reason for the request to the journal editor with written confirmation from all authors, including any authors being added or removed, that they agree with the changes. Requests which do not comply with the instructions outlined in the form will not be considered.
- This journal does not allow authorship changes after acceptance. This includes additions, deletions, or the rearrangement of author names, including changes to the corresponding author.
- The review process may be paused while a change in authorship request is being considered.
- Change requests made by the authors without the **Authorship Change Request form** or editor approval may result in the rejection of the manuscript, or retraction if the article has already been published.

Declaration of interest

All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence or bias the work. This section is mandatory in all article types.

- Where no known conflicts of interest exist, include the following statement: "None."
- Examples of potential competing interests include: employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications or registrations, affiliation with the journal as an Editor or Advisory Board Member.
- Authors with a journal affiliation to declare should enter the following text under "Other Activities" within the declarations tool and should inform the journal and publisher prior to completing the submission process:
- For manuscripts authored by individuals holding editorial positions at the journal, the following statement should be included: Given their role as [AUTHOR JOURNAL ROLE TITLE], [AUTHOR NAME] had no involvement in the peer-review of this article and has no access to information regarding its peer-review. Full responsibility for the editorial process for this article was delegated to another journal editor.

Acknowledgements

In this section, the authors may briefly acknowledge individuals or organisations that provided advice, their credits to companies, preliminary publications of the research, etc. This section is mandatory in all article types.

- Individuals who contributed to the article but do not meet the full criteria for authorship should be acknowledged here.
- If the research was conducted as part of a thesis, it should be acknowledged here, and the full reference should be provided.
- If the article was deposited in a pre-print repository, it should be acknowledged here, and the full reference should be provided.
- If there are no acknowledgements, include the following statement: 'None.'

Financial support statement

Please provide details of the sources of financial support for all authors, including grant numbers. This section is mandatory in all article types.

- Example of statement: 'This work was supported by the European Commission (grant number XXXXXX)'
- Grants held by different co-authors should be identified according to individual authors by the author's initials.
- When no specific funding has be provided, you may use the following statement: 'This research received no specific grant from any funding agency, commercial or not-for-profit section'.

References

References from international refereed journals or from national refereed journals with at least an English abstract are preferred.

- References from non-peer-reviewed articles or from national abstracts/conference proceedings, MSc or PhD thesis, institutional/technical reports, documents that cannot be obtained easily by the reader should be minimized.
- If a submitted manuscript has previously been published in a limited form (e.g., abstract or short communication to a symposium or part of MSc or PhD theses), the previous publication form should be cited and the full reference should be provided.
- In general, no more than 3 references can be given for the same statement (except for reviews and meta-analyses).

- The list of references used in a meta-analysis should be deposited together with the raw data in an official data repository.

RESEARCH ARTICLE and METHOD ARTICLE

Full title

> *The title provides sufficient information to allow the reader to judge the relevance of an article to his/her interests.*

- Concise and informative; no more than 170 characters including spaces.
- Include the animal species on which the study has been carried out.
- Exclude Latin names, if there is a common name.
- Exclude non-standard abbreviations. Follow the link to find the standard abbreviations.
- The title of companion manuscripts should reflect it with a Part 1 and a Part 2.
- Title of a Method article should start with "**Method:**".

Authors and affiliations

> *Information, such as author names and affiliations should be presented as below.*

Example

J. Smith[a,1], P.E. Jones[b], J.M. Garcia[a,c], P.K. Martin Jr[d] [initials only for first names]
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[b]*Animal Science Department, North Carolina State University, Raleigh, NC 27695-7621, USA*
[c]*Laboratorio de Producción Animal, Facultad de Veterinaria, Universidad de Zaragoza, C. Miguel Servet, 177, 50013, Zaragoza, Spain*
[d]*Dairy Science Department, North Carolina State University, Raleigh, NC 27695-7621, USA*
[1]Present address: Dairy Science Laboratory, AgResearch, Private Bag 11008, Palmerston North, New Zealand (for any author of the list whose present address differs from that at which the work was done)

Corresponding author: John Smith. E-mail: John.Smith@univ.co.uk.

- Only one corresponding author is indicated in the manuscript.
- The corresponding author who submits and manages the manuscript during the submission/peer-review process must be registered on Editorial Manager. He or she can be different from the corresponding author indicated in the manuscript who will be the correspondent for the published article.

Abstract (max 400 words, single paragraph)

> *The abstract should be complete and understandable, without reference to the article. It follows the same structure as the text.*

- The context and the rationale of the study or method are presented succinctly to support the objectives. Experimental methods and main results are summarised but should not be overburdened by numerical values or probability values. The abstract ends with a short and clear conclusion.
- Citations and references to tables and figures are not acceptable.
- Abbreviations should be used sparingly and must be defined in the abstract.
- The whole abstract is written as a single paragraph.

Keywords (5 keywords)

> *Keywords are essential in information retrieval and should not repeat words in the title with respect to indicating the subject of the article.*

- Five keywords (no more, no less).
- Keywords should be different from words in the title.
- Keywords should be short and specific.
- The animal species or type can be among the keywords but differently from the title
- The use of non-standard abbreviations in the list of keywords is not allowed. Follow the link to find the standard abbreviations.

Implications (max 100 words)

> *Implications must explain the expected impact that the results may have on practice, when they will be applied. Impact may be economic, environmental or social.*

- The Implications section should answer the questions 'What did you learn?', 'Who may benefit from your results and how?'
- The Implications section should stand alone, be clear to non-specialists while being precise enough for specialists
- After a brief description of the context and the scientific question, highlight your main findings, and describe the potential applications of your own results and their field of application for the livestock industry.
- Be careful not to oversell your results.
- Write in simple English suitable for non-specialists or even non-science readers.
- Do not use any non-standard abbreviations.

Specification Table

> *The specification table serves as a metadata table and provides readers with information they need to reuse, reproduce or replicate the data or method.*

- The Specification table is mandatory for all papers submitted to animal-open space. It should be presented after the implications, before the introduction. It should not be assigned a table number, nor referenced in the text. The Specification Table should describe:
    - the specific subject area the data originates from
    - the type of data presented (e.g., table, image, chart, graph, figure)
    - how the data were collected (e.g., respiration chamber, metabolic cage, scale, feeder type, gas chromatography, NIR, microscope etc.)
    - the data format (e.g., raw data, analysed data, filtered data)
    - which conditions were considered and how the data were collected
    - the data source location (e.g., city, town, region or GPS coordinate)
    - the accessibility of the data (e.g., repository name, DOI or direct URL to data)
    - related research article (if applicable)

Specifications Table

Subject	**Select one Section for your manuscript from the following list**: *Breeding and Genetics*, *Nutrition*, *Physiology and Functional Biology*, *Welfare, Behaviour and Health Management*, *Livestock Farming Systems*, *Quality of Animal Products*
Specific subject area	**Briefly describe the narrower subject area**. Max 150 characters

Type of data	**List the type(s) of data the article describes**. **Simply delete from this list as appropriate**: Table, Image, Chart, Graph, Figure, … [*specify any other type not listed*]
How data were acquired	**State how the data were acquired**: e.g., respiration chamber, metabolic cage, scale, feeder type, gas chromatography, NIR, microscope etc. State which instruments (hardware), software or program were used [*make and model of the instruments used*]
Data format	**List the data format(s)**. **Note it is mandatory to provide the raw data** (link to the repository). Simply delete from this list as appropriate: Raw, filtered data, pre-treated data. [*any other format not listed- please specify*]
Parameters for data collection	Briefly, provide a **description of which conditions** were considered for data collection. [*max 400 characters*]
Description of data collection	Provide a brief **description of how** the data were collected. [*max 600 characters*]
Data source location	Fill in the information available, and delete from this list as appropriate: Institution: City/Town/Region: Country: Latitude and longitude (and GPS coordinates, if applicable) for collected samples/data:
Data accessibility	The authors are free to select the data repository under the condition that it must be publicly accessible. Here is a list of data repositories we suggest if you do not have a trusted repository: **Dryad**, **Zenodo**, **Open Science Framework (OSF)**, **Mendeley Data**, fig**share**. The following information should be presented: Repository name: *Name repository* Data identification number: *provide number* [*if available*] Direct URL to data: *provide the complete working link to the data* In addition, for data with access controls only: provide a link to any Data Use Agreement (DUA).
Related research article	If your data article is related to a research article, please cite your associated research article here. Authors should only list one article. For example: Ruiz-Ascacibar, I., Stoll, P., Kreuzer, M., Bee, G., 2019. Dietary CP and amino acid restriction has a different impact on the dynamics of protein, amino acid and fat deposition in entire male, castrated and female pigs. Animal, 13, 74-82.

Introduction

> *The introduction briefly outlines the context of the work, presents the rationale of the scientific issue, and clearly defines the objectives.*

- The context and the scientific question(s) are briefly described.
- If the manuscript is companion to another submission (e.g., animal), the introduction presents the links between manuscripts.
- If preliminary results have been published in an abstract form, it is indicated at the end of the introduction.

Material and methods

> *Material and methods should be described in sufficient detail so that others can reproduce the experiment. References to previously published work may be used to give details of methods, provided that references are readily accessible and in English.*

- ***Reporting.*** Material and methods are reported according to "The ARRIVE Guidelines for Reporting Animal Research" detailed in Kilkenny *et al*. (2010)[1] and summarised at https://doi.org/10.1371/journal.pbio.1000412.t002.
- ***Study design.*** The study design has to be presented in a separate sub-section at the beginning of the "Material and methods" section. It explains and justifies the structure of the experimental units (e.g. individual animal, group/pen of animals) and how the controlled experimental factors were organised in treatments to test the hypothesis or answer the specific questions under study. The known and expected sources of variability in experimental units are identified to address replication, blocking or randomization. Distinction between quantitative and qualitative factors, use of control treatments are presented.
- ***Description of methods.*** For the sake of reproducibility, all methods used for the study, including mathematical equations, must be described in detail.
- ***Validation and Quality Assurance.*** Validation is defined as a comparison of the research predictions with the real world to determine whether the results of the research are suitable for their intended purpose. Validation highlights the strengths and the limits of the results obtained, and their applicability. A wide range of validation techniques can be applied, including: comparison with reference measurements (e.g. recovery rates for markers or gas exchange measurements), robustness of measurements (e.g. intra- and inter-observer reliabilities for observational measurements), statistical tests (e.g. regression analysis of observed vs. predicted data), deviance measures (e.g. Mean Absolute Error, Root Mean Squared Error), visual techniques (e.g. plot of observed vs. predicted data), subjective assessment (e.g. evaluation by experts). For laboratory methods, results of Quality Assurance tests or method validation procedures refer to performance of assays (e.g. intra/inter-assay CV, reportable range, specificity, normalisation…). Validation and/or Assurance quality procedure and output~~,~~ must be reported for the methods used in the study in the Material and methods. Alternatively, they must be addressed in the Author's point of view section.
- ***Statistical analysis of data.*** The statistical analysis of data should be presented in a separate sub-section at the end of the "Material and methods" section. For detail see Reporting your statistics [LINK]. The same rules are applicable as for *animal*.

The publication of Lang and Altman (2013)[2] can also be used as a reference.

- ***Proprietary product.*** If a proprietary product is used as a source of material in experimental comparisons, it should be described using the appropriate chemical name. The functional components should be described and analysed (quantified). If the trade name is helpful to the readers, provide it in parentheses after the first mention.

Results – Author's point of views

> *Separation between Results and Author's point of views is preferred to highlight the interpretation of results.*

- It is mandatory to present the Results and Author's point of view in two separate sections.
- Instead of a "classical" discussion section, in the "**AUTHOR'S POINTS OF VIEW**" section, authors should **share their opinion on the study's outcome**. This section should be presented in bullet points OR alternatively as text and answer the following questions:

---

[1] *Kilkenny C, Browne WJ, Cuthill IC, Emerson M and Altman DG 2010. Improving bioscience research reporting: The ARRIVE guidelines for reporting animal research. PLoS Biology 8, e1000412. doi: 10.1371/journal.pbio.1000412.*
Kilkenny, C., Browne, W.J., Cuthill, I.C., Emerson, M., and Altman, D.G. 2010. Improving Bioscience Research Reporting: The ARRIVE Guidelines for Reporting Animal Research. PLoS Biol. 8: e1000412.

  - What are the main outcomes of the study?
  - Do the results confirm current knowledge or refute it?
  - Are there limitations in the study that might have affected the outcome?
  - Who can use/benefit from the data?
  - How can the data be (re)used for further insights or analysis?
- A short conclusion appears at the end of the text and is merged in a single paragraph.

Ethics approval

> *Where research involves animal experimentation, authors should assert that all procedures contributing to this work comply with the ethical standards of the relevant national and institutional committees on animal experimentation. This section is mandatory in all article types.*

- When relevant, the full reference/number of the committee approval should be provided.
- Due consideration of the 3Rs (Refinement, Reduction, Replacement) is expected.
- When the study did not require approval by an institutional committee, include the following statement: 'Not applicable'.

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Author contributions

> *The contribution of each co-author should be explained: conception or design of the work, acquisition, analysis and interpretation of data, drafting and critically revising the manuscript. This section is mandatory in all article types.*

- Author contributions should be described according to the CRediT taxonomy.
- They have to be formatted by the author's name followed by the relevant credit role(s). Authors name should be abbreviated as follow: John Doe => JD, Nick Sampras => NS, Sam Federer => SF
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Please provide details of the sources of financial support for all authors, including grant numbers. This section is mandatory in all article types.

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References

References from international refereed journals or from national refereed journals with at least an English abstract are preferred.

- References from non-peer-reviewed articles or from national abstracts/conference proceedings, MSc or PhD thesis, institutional/technical reports, documents that cannot be obtained easily by the reader should be minimized.
- If a submitted manuscript has previously been published in a limited form (e.g. abstract or short communication to a symposium or part of MSc or PhD theses), the previous publication form should be cited and the full reference should be provided.
- In general, no more than 3 references can be given for the same statement (except for reviews and meta-analyses).
- The list of references used in a meta-analysis should be deposited together with the raw data in an official data repository.

Tables

Tables should be explicit while concise and should not include details on materials and methods in the captions or footnotes. The reporting of statistical results complies with simple basic rules. See the Statistical Guidelines for Authors for further advice.

- Tables are recommended when exact numerical values are important. The same material should not be presented in tabular and graphical form.
- The animal species and the experimental treatments (or the issue) under study are indicated in each caption.
- Treatment means are reported with meaningful decimals. The number of significant figures given should indicate the precision of the measurement. In practice, quote as meaningful all figures that are certain plus the first uncertain one.
- Uncertainty measures (SE or CI) should be reported along with the means/estimates. When data are analysed by analysis of variance, reporting of the pooled residual SE of the mean (SEM) in a separate column facilitates reading of the table.
- When data are analysed by analysis of variance and an assumption of homogenous variance for all treatments is made, *animal – open space* requests that a residual error term such as the pooled residual SE of the mean is given for each variable in a separate column. Alternatively other uncertainty measures can be reported but authors should be conscious of the readability of the tables.
- The SD/SE should be quoted to one place more than the mean (e.g., for a mean value of 15, SE should be reported as 1.2).
- The degrees of freedom (or number of experimental units per treatment) should be quoted.
- Give the actual P value (to 3 decimal places) in a separate column rather than using the 'coarser' star convention except if $P < 0.001$. If $P > 0.05$, give its value – do not write "NS".
- In tables, differences between treatments (or comparison of mean values) are indicated using superscript letters, e.g., ^{a,b}.

- The number of "decimal places" is different from the number of "significant figures". This is especially important when reporting coefficients in equations. In the equation $Y=a+bX+cX^2$, the number of meaningful decimal places depends on the value of X.

Figures

> *Figures should be explicit while concise and should not include details on materials and methods in the captions or footnotes. See the Statistical Guidelines for Authors for further advice.*

- Figures are recommended to illustrate trends. The same material should not be presented in tabular or graphical form.
- The animal species and the experimental treatments (or the issue) under study are indicated in each caption.
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Manuscript layout

> *Manuscripts should be prepared using a standard word processing program such as Microsoft Word, and presented in a clear, readable format with easily identified sections and headings.*

- Typed with double-line spacing with wide margins (2.5 cm).
- Lines must be continuously numbered; the pages must also be numbered.
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- Use of small paragraphs with less than 6 to 8 lines must be avoided.
- Footnotes in the main text are not allowed.

Title and headings

> *The format of title and headings is in accordance with instructions in order to clarify the structure of the text.*

- Title – use bold, with an initial capital for the first word only and for words that ordinarily take capitals.
    - Title of a data paper should start with "Data paper:"
    - Title of a Method article should start with "Method:".
- Authors' names – use lower case with initials in capitals (e.g. J. Doe).
- Authors' addresses – use italics.
- Headings are left aligned with an initial capital for the first word only, and are not numbered.
- Limit sections to three heading levels – **Heading 1**, ***Heading 2,*** *Heading 3*.
- Examples:
- Material and methods
- Experimental design
- The experiment was designed as…
- Analytical methods
- Feed analyses
- Feeds were analysed…
- Milk fatty acid composition
- The composition of…

Abbreviations

> *Standard abbreviations (Table 2) are not defined.*

- Define non-standard abbreviations at first appearance in the abstract **and** in the main text.
- Use a maximum of 10 non-standard abbreviations.
- No non-standard abbreviation in the title, implications, (sub)headings or in keywords.
- Non-standard abbreviations used in tables and figures must be defined either as footnotes or in the caption (see **Fehler! Verweisquelle konnte nicht gefunden werden.**).
- Do not start a sentence with an abbreviation.

Table 2 Standard abbreviations that do not require definition

Item	Definition
Standard abbreviation	
ACTH	Adrenocorticotropic hormone
ADF	Acid detergent fibre
ADL	Acid detergent lignin
ADP	Adenosine diphosphate
ANOVA	Analysis of variance
ATP	Adenosine triphosphate
BLUP	Best linear unbiased prediction
BW	Body weight
CoA	Coenzyme A
CP	Crude protein
DM	Dry matter
DNA	Deoxyribonucleic acid
ELISA	Enzyme-linked immunosorbent assay
FSH	Follicle-stimulating hormone
GLC	Gas-liquid chromatography
GLM	General Linear Model
HPLC	High performance (pressure) liquid chromatography
IGF	Insulin-like growth factor
IR	Infrared
LH	Luteinising hormone
MS	Mass spectrometry
n	Number of samples
NAD	Nicotinamide adenine dinucleotide
NADP	Nicotinamide adenine dinucleotide phosphate
$NADPH_2$	Reduced nicotinamide adenine dinucleotide phosphate
NDF	Neutral detergent fibre
NIRS	Near infrared spectrophotometry
PAGE	Polyacrylamide gel electrophoresis
PCR	Polymerase chain reaction
PMSG	Pregnant mare serum gonadotropin
RNA	Ribonucleic acid
SDS	Sodium dodecyl sulphate
UV	Ultraviolet
Standard statistical abbreviation	
CV	coefficient of variation
df	degrees of freedom
EMS	expectation of mean square
F	variance ratio
LSD	least significant difference
MS	mean square
P	probability
r	simple correlation coefficient
R	multiple correlation coefficient
R^2	coefficient of determination
RSD	residual standard deviation
RMSE	root mean square error
SD	standard deviation
SE	standard error
SED	standard error of difference
SEM	standard error of mean
$Sy.x$	standard error of estimate
χ^2	chi square

The names of the chemicals do not need to be written in full; chemical symbols are sufficient.

Numbers and units

The format of numbers and units should be consistent.

Numerals

- In the text, use words for numbers zero to nine (if not associated to a standard unit) and numerals for higher numbers. In a series of two or more numbers, use numerals throughout irrespective of their magnitude.
- Do not begin sentences with numerals.
- For values less than unity, 0 is inserted before the decimal point.
- For large numbers in the text, substitute 10^n for part of a number (e.g. 1.6×10^6 for 1 600 000). Similarly, for small numbers, use 10^{-n} for trailing zeros (e.g. 1.6×10^{-3} for 0.0016).
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- Use numerals for dates, page numbers, class designations, fractions, expressions of time, e.g. 1 January 2007; type 2.
- Dates are given with the month written in full and the day in numerals (i.e. 12 January *not* 12th January).
- For time use 24-h clock, e.g. 0905 h, 1320 h.

Units of measurement

The International System of Units (SI) should be used. A list of units is found at http://physics.nist.gov/cuu/Units/units.html. Recommendations for conversions and nomenclature appeared in *Proceedings of the Nutrition Society* (1972) 31, 239-247. Some frequently used units that are not in the SI system are accepted: e.g. l for litre, ha for hectare, eV for electron-volt, Ci for curie. Day, week, month and year are not abbreviated. The international unit for energy (energy value of feeds, etc.) is Joule (or kJ or MJ).

- A product of two units should be represented as N×m and a quotient as N/m (e.g. g/kg and not $g \times kg^{-1}$).
- When there are two quotients, represent as: g/kg per day (not g/kg/day).

Concentration or composition

Composition is expressed as mass per unit mass or mass per unit volume. The term *content* should not be used for concentration or proportion.

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Capitals

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

Italics

Use italics for:

- Authors' addresses (see above).
- Subheadings (see above).

- Most foreign words, especially Latin words, e.g., *ad hoc*, *ad libitum*, *in situ*, *inter alia*, *inter se*, *in vitro*, *per se*, *post mortem*, *post partum*, m. *biceps femoris*.
- but no italics for c.f., corpus luteum, e.g., etc., i.e., NB, via.
- Mathematical unknowns and constants.
- Letters used as symbols for genes or alleles e.g., *HbA, Tf D* (but not chromosomes or phenotypes of blood groups, transferrins or haemoglobins, e.g., HbAA, TfDD).

References

It is the author's responsibility to ensure that all references are cited and accurate.

- All sources must be cited in the text using the author-date system and must have an entry in the reference list.
- Names of organisations used as authors (e.g., Agricultural and Food Research Council) should be written in full in the list of references and on first mention in the text. Subsequent mentions may be abbreviated (e.g., AFRC).

In-text citation conventions

Cite references by name(s) of author(s) and year of publication by chronological order.

- For single authors, use Doe (2014) or (Doe, 2014).
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- For three or more authors, use Doe et al. (2014) or (Doe et al., 2014).
- When multiple references are cited, rank them preferably by chronological order using commas and semicolons: (Doe, 1999; Smith and Doe, 2001; Doe et al., 2014 and 2015; Wright et al., 2018a and 2018b).

List of references

In the reference list, references should be listed in alphabetical order by authors' names. Their formatting and style should be as detailed below.

Authors' information and publication year

Author, A., Author, B., Author, C.D., Author, E., Year.

- Include a comma after every family name and in-between different authors' names.
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- Note that all authors must be listed.

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Publisher, City, State (2-letter abbreviation) for US places, Country

Examples:

- AOCS Press, Champaign, IL, USA.
- Cambridge University Press, Cambridge, UK.
- International Organization for Standardization, Geneva, Switzerland.
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- Cambridge University, Cambridge, UK.

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Author(s), Year. Article title. Full Name of the Journal Volume, first-last page numbers.

- Journal names are given in full, not in abbreviated form.
- Issue numbers are not required.

Examples:

- Martin, C., Morgavi, D.P., Doreau, M., 2010. Methane mitigation in ruminants: from microbe to the farm scale. Animal 4, 351-365.
- Berry, D.P., Wall, E., Pryce, J.E., 2014. Genetics and genomics of reproductive performance in dairy and beef cattle. Animal 8 (suppl. 1), 115–121.
- Knowles, T.G., Kestin, S.C., Haslam, S.M., Brown, S.N., Green, L.E., Butterworth, A., Pope, S.J., Pfeiffer, D., Nicol, C.J., 2008. Leg disorders in broiler chickens: prevalence, risk factors and prevention. PLoS ONE 3, e1545.
- Pérez-Enciso, M., Rincón, J.C., Legarra, A., 2015. Sequence- vs. chip-assisted genomic selection: accurate biological information is advised. Genetics Selection Evolution 47, 43. doi:10.1186/s12711-015-0117-5.
- When the article is online but not yet printed, the right format is:

  Zamaratskaia, G., Squires, E.J., 2008. Biochemical, nutritional and genetic effects on boar taint in entire male pigs. Animal, doi:10.1017/S1751731108003674, Published online by Cambridge University Press 17 December 2008.

Book (or official report)

Author(s)/Editor(s)/Institution, Year. Book title, volume number if more than 1, edition if applicable. Publisher's name, City, State (2-letter abbreviation) for US places, Country.

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- If multiple publishers are listed, it is acceptable to use only the first one.

Examples:

- Association of Official Analytical Chemists (AOAC), 2004. Official methods of analysis, volume 2, 18th edition. AOAC, Arlington, VA, USA.
- Littell, R.C., Milliken, G.A., Stroup, W.W., Wolfinger, R.D., 1996. SAS system for mixed models. Statistical Analysis Systems Institute Inc., Cary, NC, USA.
- Martin, P., Bateson, P., 2007. Measuring behaviour. Cambridge University Press, Cambridge, UK.
- National Research Council (NRC), 2012. Nutrient requirements of swine, 11th edition. National Academy Press, Washington, DC, USA.
- Statistical Analysis Systems Institute, 2002. SAS user's guide, version 9.00. SAS Institute Inc., Cary, NC, USA.

Book chapter (or part of an official report)

Author(s), Year. Chapter title. In Title of book (ed. Editor, A., Editor, B.). Publisher's name, City, State (2-letter abbreviation) for US places, Country, pp. first-last page numbers.

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Example:

- Nozière, P., Hoch, T., 2006. Modelling fluxes of volatile fatty acids from rumen to portal blood. In Nutrient digestion and utilization in farm animals (ed. Kebreab, E., Dijkstra, J., Bannink, A., Gerrits, W.J.J., France, J.). CABI Publishing, Wallingford, UK, pp. 40–47.

Proceedings (or Conference papers)

> *Author(s), Year. Paper title. Proceedings of the (or Paper presented at the) XXth Conference title, date of the conference, location of the conference, pp. first-last page numbers or poster/article number.*

- Conference dates in the form Day Month Year.
- Note – If proceedings are published in a journal, the article should be formatted as for a journal article. If they have been published as chapters in a book, the article should be formatted as for a chapter in a book.

Examples:

- Bispo, E., Franco, D., Monserrat, L., González, L., Pérez, N., Moreno, T., 2007. Economic considerations of cull dairy cows fattened for a special market. Proceedings of the 53rd International Congress of Meat Science and Technology, 5-10 August 2007, Beijing, China, pp. 581–582.
- Martuzzi, F., Summer, A., Malacarne, M., Mariani, P., 2001. Main protein fractions and fatty acids composition of mare milk: some nutritional remarks with reference to woman and cow milk. Paper presented at the 52nd Annual Meeting of the European Association for Animal Production, 26-29 August 2001, Budapest, Hungary.

Website

> *Author(s)/Institution, Year. Document/Page title. Retrieved on DD Month YYYY (i.e. accessed date) from http://www.web-page address (URL).*

Example:

- Bryant, P., 1999. Biodiversity and Conservation. Retrieved on 4 October 1999 from http://darwin.bio.uci.edu/~sustain/bio65/Titlpage.htm

Thesis

> *Author, A.B., Year. Thesis title. Type of thesis, University with English name, City, State (2-letter abbreviation) for US places, Country (i.e. location of the University).*

Example:

- Vlaeminck, B., 2006. Milk odd- and branched-chain fatty acids: indicators of rumen digestion for optimisation of dairy cattle feeding. PhD thesis, Ghent University, Ghent, Belgium.

Illustrations

> *Tables and Figures should be simple. The same material should not be presented in tabular and graphical form.*

Tables

- Each table is on a separate page at the end of the main text (one table per page).
- Tables are numbered consecutively using Arabic numbering. They are referred to as Table 1, Table 2, etc., with capital 'T', no italics.
- Each table has its own explanatory caption. The caption is sufficient to permit the table to be understood without reference to the text but remains concise. The animal species and the experimental treatments or the issue under study are indicated in each caption. No details on material and methods are presented.

- Units are clearly stated either in the caption (only if a limited number of units are used), or for each (sub-)item. Standard abbreviations for units are used.
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- Single spacing is possible for long tables.
- Variables are in rows and treatments in columns.
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- No vertical lines between columns and no horizontal lines between rows of data.
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- Footnotes are referenced using superscript numbers.
- Include as few abbreviations as possible.
- To define non-standard abbreviations, include a footnote such as:
    - Abbreviations: AA, definition; BB, definition etc.
- Treatment means are reported with meaningful decimals. The number of significant figures given should indicate the precision of the experiment. In practice, quote as significant all figures that are certain plus the first uncertain one.
- Indicators of residual variability (e.g. SEM, RSD, RMSE) should be reported with one more digit than mean values or estimates.
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Companion manuscripts should be submitted at the same time.

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Manuscript submission is made electronically through Editorial Manager directly via http://www.editorialmanager.com/animal. Authors should ensure that the email address of the corresponding author is correct.

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- Please see https://www.ariessys.com/wp-content/uploads/EM-Author-English.doc for the author tutorial, including the Logging In details.

Files

Separate files are submitted for the main text, figures, Covering letter, Permissions and responses to reviewers.

You must submit separate files for:

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- The contributions of each author according to the CRediT taxonomy.
- The email address of each co-author.
- The section of the scope which is the most appropriate for their manuscript (https://animal-journal.eu/animal-open-space/instructions-and-policies).
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Eligibility. To request priority handling, both of the following conditions must be met:

- The PhD student is the first author of the manuscript.
- The first author's status is confirmed at submission, either by providing their ORCID identifier, or — if the first author has no ORCID — by a letter signed by the main supervisor confirming that the first author was enrolled as a PhD student at the time of submission.

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What priority handling means. For eligible manuscripts, the handling editor and the Editor-in-Chief monitor the manuscript closely and prioritise the identification of reviewers, with the aim of keeping the time from submission to first decision — whether a desk rejection or the reviewers' comments — as short as possible.

What it does not change. Priority handling concerns only the close monitoring and prioritisation of editorial steps. It does not shorten the time given to reviewers, nor does it alter the review criteria: the quality of peer review remains the journal's foremost priority. Priority handling does not guarantee a faster review or any particular outcome.

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