TABLE OF CONTENTS

- Description p.1
- Impact Factor p.2
- Abstracting and Indexing p.2
- Editorial Board p.2
- Guide for Authors p.4

DESCRIPTION

The Journal of Cereal Science was established in 1983 to provide an International forum for the publication of original research papers of high standing covering all aspects of cereal science related to the functional and nutritional quality of cereal grains and their products, in relation to the cereals used.

The journal also publishes concise and critical review articles appraising the status and future directions of specific areas of cereal science and short rapid communications that present news of important advances in research. The journal aims at topicality and at providing comprehensive coverage of progress in the field.

Papers submitted to Journal of Cereal Science should not be purely descriptive or confirmatory in nature, but should be innovative, novel and offer new insights into cereal science research.

Note

The Journal of Cereal Science exists to advance scientific concepts in cereal science, and the content of papers published within it must be consistent with this goal. Manuscripts dealing with topics of only restricted, local interest will not be sent for review unless the information presented can be demonstrated to be of general applicability.

Research Areas Include: Composition and analysis of cereal grains in relation to quality in end use. Morphology, biochemistry, and biophysics of cereal grains relevant to functional and nutritional characteristics. Structure and physicochemical properties of functionally and nutritionally important components of cereal grains such as polysaccharides, proteins, oils, enzymes, vitamins, and minerals. Storage of cereal grains and derivatives and effects on nutritional and functional quality. Genetics, agronomy, and pathology of cereal crops if there is a substantive relationship to end-use properties of cereal grains. Functional and nutritional aspects of cereal-based foods and beverages, whether baked, fermented, or extruded. Industrial products (e.g., starch derivatives, syrups, protein concentrates, and isolates) from cereal grains, and their science functional genomics as it relates to end-use quality.

Benefits to authors

We also provide many author benefits, such as free PDFs, a liberal copyright policy, special discounts on Elsevier publications and much more. Please click here for more information on our author services.
Author Information (1 September 2018)

Please see our Guide for Authors for information on article submission. If you require any further information or help, please visit our Support Center

IMPACT FACTOR

2017: 2.302 © Clarivate Analytics Journal Citation Reports 2018

ABSTRACTING AND INDEXING

Scopus  
EMBiology  
AGRICOLA  
Biological Abstracts  
Chemical Abstracts  
Current Contents  
FSTA (Food Science and Technology Abstracts)  
Science Citation Index

EDITORIAL BOARD

Editor-in-Chief  
J.R.N. Taylor, University of Pretoria, Pretoria, South Africa  
• Sorghum, millets and maize and their proteins (including enzymes), starch chemistry and functionality  
  • Cereal grain structure and cereal food structure  
  • Cereal protein, starch and micronutrient nutritional quality and biofortification  
  • Phenolics and antinutrients  
  • Non-wheat milling and breadmaking,  
  • Malting, brewing, fermentation and bioethanol production  
  • Cereal bioplastic materials.

Editors  
J. Awika, Texas A&M University, Texas, USA  
• Polyphenol chemistry, analysis, and bioactive and functional properties  
  • Polyphenol interaction with starch and proteins and implications on food quality and health  
  • Bioactive compounds in grain  
  • Wheat protein functionality  
  • Grain processing and quality  
  • Whole grains in health and disease prevention  
  • Sorghum, millets and wheat  

G. M. Campbell, University of Huddersfield, Huddersfield, England, UK  
• Process engineering of cereals  
  • Wheat milling  
  • Breadmaking (particularly physical aspects), bread dough mixing, aeration and rheology  
  • Cereal biorefineries  
  • Arabinoxylans  

H. Corke, Shanghai Jiao Tong University, Shanghai, China  
• Starch, properties, processing and chemistry  
  • Bioactives from grains, particularly antioxidants  
  • Genetic resources, minor and specialty grains  
  • Food safety management  
  • General food processing – industry problems and problem-solving  
  • Sensory science, particularly related to texture  

D. Lafiandra, Università degli Studi della Tuscia, Viterbo, Italy  
• Quality breeding  
  • Mutagenesis  
  • Starch composition and nutritional value  
  • Proteins, structure function relationships, end products quality  
  • Proteomics  
  • Biofortification  

C.M. Rosell, Institute of Agrochemistry and Food Technology, Paterna, Valencia, Spain  
• Wheat and rice  
  • Cereal proteins (including enzymes), non-starch carbohydrates and starch chemistry and functionality  
  • Cereal grain structure and cereal food structure  
  • Breadmaking, dough and batter rheology, bread quality  
  • Cereal nutritional quality  
  • Wheat Milling  
  • Commercial enzyme application technologies

Review Editor  
P.R. Shewry, University of Reading, England, UK; Rothamsted Research, England, UK  
• Grain structure, development and composition  
  • Grain proteins: structure, properties, functionality  
  • Grain fibre: non-starch polysaccharides, fructans, FODMAPs  
  • Determining and exploiting genetic diversity in grain composition including comparative studies of ancient, traditional and modern types.
• Wheat (and barley) biotechnology: transformation, mutagenesis, gene editing • Realities and myths about the role of cereals in diet and health

**Founding Editors**
T. Galliard
J.D. Schofield

**Editorial Board Members**
E.K Arendt, University College Cork, Cork, Ireland
J. Bao, College of Agriculture and Biotechnology, Zhejiang University, Hangzhou, China
S. Bean, U.S. Department of Agriculture (USDA), Agricultural Research Service (ARS), MANHATTAN, Kansas, USA
L.A. Bello-Perez, Instituto Politécnico Nacional, Morelos, Mexico
L. Cattivelli, CRA Genomics Research Centre, Fiorenzuola d’Arda, Italy
S.R. Delwiche, ARS USDA, Beltsville, Maryland, USA
M. Gidley, University of Queensland, St Lucia, Queensland, Australia
Z. He, International Maize and Wheat Improvement Center, Beijing, China
J.L. Kokini, Purdue University, West Lafayette, Indiana, USA
M.T Labuschagne, University of the Free State, Bloemfontein, South Africa
W. Ma, Murdoch University, Perth, Western Australia, Australia
K. Poutanen, VTT Technical Research Centre of Finland, Finland
M. Rakszegi, Centre for Agricultural Research, Hungarian Academy of Sciences, Martonvasar, Hungary
D. J. Rose, University of Nebraska at Lincoln, Lincoln, Nebraska, USA
R. Schoenlechner, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria
S. Serna Saldivar, ITESM, Monterrey, Mexico
B.O. Svensson, Danmarks Tekniske Universitet (DTU), Kgs Lyngby, Denmark
K. Trafford, National Institute of Agricultural Botany, Cambridge, England, UK
P. Yu, University of Saskatchewan, Saskatoon, Saskatchewan, Canada
GUIDE FOR AUTHORS

INTRODUCTION
The *Journal of Cereal Science* was established in 1983 to provide an International forum for the publication of original research papers of high standing covering all aspects of cereal science related to the functional and nutritional quality of cereal grains and their products. The journal also publishes concise and critical review articles appraising the status and future directions of specific areas of cereal science and short rapid communications that present news of important advances in research. The journal aims at topicality and at providing comprehensive coverage of progress in the field. Papers submitted to *Journal of Cereal Science* should not be purely descriptive or confirmatory in nature, but should be innovative and offer new insights into cereal science research.

Research Areas Include:

Composition and analysis of cereal grains in relation to quality in end use Morphology, biochemistry, and biophysics of cereal grains relevant to functional and nutritional characteristics Structure and physicochemical properties of functionally and nutritionally important components of cereal grains such as polysaccharides, proteins, oils, enzymes, vitamins, and minerals Storage of cereal grains and derivatives and effects on nutritional and functional quality Genetics, agronomy, and pathology of cereal crops if there is a substantive relationship to end-use properties of cereal grains Functional and nutritional aspects of cereal-based foods and beverages, whether baked, fermented, or extruded Industrial products (e.g., starch derivatives, syrups, protein concentrates, and isolates) from cereal grains, and their technology functional genomics as it relates to end-use quality.

The *Journal of Cereal Science* publishes papers originating in any country. Papers dealing with topics of only restricted local interest will not be accepted, however, unless the information presented can be demonstrated to be of general applicability.

The Journal exists to advance scientific concepts in cereal science, and the content of papers published within it must be consistent with this goal.

Types of paper
Research papers:
The main activity of the Journal in fulfilling its mission is the publication of original and innovative research papers of a high scientific standard. These papers should: (a) report a specific identifiable advance in knowledge that has not been published elsewhere; (b) claim no more than can be substantiated by the results; (c) be logically consistent both within themselves and within the existing body of knowledge; (d) give enough information to allow the research to be tested and repeated by competent researchers elsewhere; and (e) give due reference to previously published work relevant to the research described. Papers must contain a maximum of 6000 words of text, no more than six tables or figures and up to 30 references. The second page of the manuscript should contain the Abstract only. The text should then follow the sequence: Introduction, Experimental, Results, Discussion, Acknowledgements, References, Tables, Figure Captions and, finally, Figures. Please number the pages, and each section should also be numbered.

Critical reviews:
These should present critical appraisals of the current status and future directions of specific areas of topical interest. They are not intended as exhaustive, archival literature surveys over a broad front. They give balanced, objective assessments by giving due reference to relevant published work and not merely represent the prejudices of individual authors or summarize only work carried out by the authors or by those with whom the authors agree. They should also avoid undue speculation. They may contain a maximum of 10000 words of text and no more than 60 references.

Research notes:
These are intended as a means of publishing the results of studies of limited size that do not merit high-priority treatment.

We have now renamed the Article Type "Research notes" as "Short communication". If you want to submit a paper for "Research notes", please select the appropriate section category while submitting the paper using the article type "Short communication".
Short communications:
These are intended as vehicles for conveying news of advances in cereal science, the scientific importance of which merits preferential treatment. Scientific importance and novelty of the information will be the key criteria in judging their acceptability.

The format for Short Communications and Research Notes is flexible. No Abstract is required, and there is no specification as to number of tables, figures or references. The paper should not be split into sections, although it should begin with a few sentences to introduce the subject area and to indicate the nature of the problem being examined. Likewise, at the end of the paper the conclusions drawn from the work should be summarised.

Short Communications and Research Notes will be strictly limited to two printed pages in the journal (equivalent of approx. 2000 words) in total, i.e. including title, references, tables and figures, etc. Where figures or tables are used, the number of words must be reduced to compensate for these, giving due regard to the size of such tables and figures. Other details on preparation are as for conventional research papers.

Correspondence:
Letter to the Editor concerned with issues raised by articles recently published in the journal or by recent developments in cereal science are welcomed. These may be submitted informally to the Editor at any time. Letters should not exceed 750 words.

Book reviews:
Please contact the Editor-in-Chief if you wish to submit a book review.

Review System
Papers are peer-reviewed by independent reviewers with appropriate expertise in the subject area of the paper. The review process is anonymous, although the reviewers' recommendations and comments are usually transmitted to the authors to help them in revising their manuscripts (which is almost invariably required). The Editors and reviewers attempt to make the review system as constructive and sympathetic as possible, although they must, at the same time, attempt to ensure that only papers of a high standard are published. Many contributors acknowledge the help they receive from the review process in improving their papers. No revision of Rapid Communications will be allowed in order to ensure rapid publication.

As well as advising on the paper's acceptability, the reviewers are also asked to give a priority rating, which will help to give the highest priority to papers that represent important new advances. Papers recommended for publication will be categorised as: (a) being of outstanding scientific standard and representing an important advance in the particular subject area; (b) being of high scientific standard but representing a logical or predictable extension of previous research; (c) presenting necessary information and of good scientific standard but being essentially confirmatory in nature.

Please note: authors may suggest the name of appropriate reviewers for their papers or may identify individual reviewers whom they would prefer not to review the manuscript; provided that valid reasons are given in the latter case the Editors will respect the author's wishes.

Resubmission of Revised Manuscripts
If a manuscript returned to the author for revision is not resubmitted within 6 weeks (making due allowance for postage times), it may on re-submission be deemed a new paper and the date of receipt altered accordingly.

Preparation of Manuscripts
The standard of preparation of the manuscript determines to a considerable extent the speed of processing and publication. Authors are advised in their own interests to read these notes carefully and to ensure that their manuscript meets the requirements; they are also urged to ensure that the manuscript does not contain superfluous material.

Contact details for submission
Submission for all types of manuscripts to Journal of Cereal Science proceeds totally online. Via EVISE website for this journal, https://www.evise.com/profile/api/navigate/YJCRS you will be guided step-by-step through the creation and uploading of the various files.
Submission checklist
You can use this list to carry out a final check of your submission before you send it to the journal for review. Please check the relevant section in this Guide for Authors for more details.

Ensure that the following items are present:

One author has been designated as the corresponding author with contact details:
- E-mail address
- Full postal address

All necessary files have been uploaded:
Manuscript:
- Include keywords
- All figures (include relevant captions)
- All tables (including titles, description, footnotes)
- Ensure all figure and table citations in the text match the files provided
- Indicate clearly if color should be used for any figures in print
Graphical Abstracts / Highlights files (where applicable)
Supplemental files (where applicable)

Further considerations
- Manuscript has been 'spell checked' and 'grammar checked'
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
- Journal policies detailed in this guide have been reviewed
- Referee suggestions and contact details provided, based on journal requirements

For further information, visit our Support Center.

BEFORE YOU BEGIN

Ethics in publishing
Please see our information pages on Ethics in publishing and Ethical guidelines for journal publication.

Declaration of interest
All authors must disclose any financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work. Examples of potential competing interests include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. Authors must disclose any interests in two places: 1. A summary declaration of interest statement in the title page file (if double-blind) or the manuscript file (if single-blind). If there are no interests to declare then please state this: 'Declarations of interest: none'. This summary statement will be ultimately published if the article is accepted.
2. Detailed disclosures as part of a separate Declaration of Interest form, which forms part of the journal's official records. It is important for potential interests to be declared in both places and that the information matches. More information.

Submission declaration and verification
Submission of an article implies that the work described has not been published previously (except in the form of an abstract, a published lecture or academic thesis, see 'Multiple, redundant or concurrent publication' for more information), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language, including electronically without the written consent of the copyright-holder. To verify originality, your article may be checked by the originality detection service Crossref Similarity Check.
Preprints
Please note that preprints can be shared anywhere at any time, in line with Elsevier's sharing policy. Sharing your preprints e.g. on a preprint server will not count as prior publication (see 'Multiple, redundant or concurrent publication' for more information).

Use of inclusive language
Inclusive language acknowledges diversity, conveys respect to all people, is sensitive to differences, and promotes equal opportunities. Articles should make no assumptions about the beliefs or commitments of any reader, should contain nothing which might imply that one individual is superior to another on the grounds of race, sex, culture or any other characteristic, and should use inclusive language throughout. Authors should ensure that writing is free from bias, for instance by using 'he or she', 'his/her' instead of 'he' or 'his', and by making use of job titles that are free of stereotyping (e.g. 'chairperson' instead of 'chairman' and 'flight attendant' instead of 'stewardess').

Changes to authorship
Authors are expected to consider carefully the list and order of authors before submitting their manuscript and provide the definitive list of authors at the time of the original submission. Any addition, deletion or rearrangement of author names in the authorship list should be made only before the manuscript has been accepted and only if approved by the journal Editor. To request such a change, the Editor must receive the following from the corresponding author: (a) the reason for the change in author list and (b) written confirmation (e-mail, letter) from all authors that they agree with the addition, removal or rearrangement. In the case of addition or removal of authors, this includes confirmation from the author being added or removed. Only in exceptional circumstances will the Editor consider the addition, deletion or rearrangement of authors after the manuscript has been accepted. While the Editor considers the request, publication of the manuscript will be suspended. If the manuscript has already been published in an online issue, any requests approved by the Editor will result in a corrigendum.

Copyright
Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement' (see more information on this). An e-mail will be sent to the corresponding author confirming receipt of the manuscript together with a 'Journal Publishing Agreement' form or a link to the online version of this agreement.

Subscribers may reproduce tables of contents or prepare lists of articles including abstracts for internal circulation within their institutions. Permission of the Publisher is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations. If excerpts from other copyrighted works are included, the author(s) must obtain written permission from the copyright owners and credit the source(s) in the article. Elsevier has preprinted forms for use by authors in these cases.

For gold open access articles: Upon acceptance of an article, authors will be asked to complete an 'Exclusive License Agreement' (more information). Permitted third party reuse of gold open access articles is determined by the author's choice of user license.

Author rights
As an author you (or your employer or institution) have certain rights to reuse your work. More information.

Elsevier supports responsible sharing
Find out how you can share your research published in Elsevier journals.

Role of the funding source
You are requested to identify who provided financial support for the conduct of the research and/or preparation of the article and to briefly describe the role of the sponsor(s), if any, in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the article for publication. If the funding source(s) had no such involvement then this should be stated.

Funding body agreements and policies
Elsevier has established a number of agreements with funding bodies which allow authors to comply with their funder's open access policies. Some funding bodies will reimburse the author for the gold open access publication fee. Details of existing agreements are available online.
Open access
This journal offers authors a choice in publishing their research:

Subscription
- Articles are made available to subscribers as well as developing countries and patient groups through our universal access programs.
- No open access publication fee payable by authors.
- The Author is entitled to post the accepted manuscript in their institution's repository and make this public after an embargo period (known as green Open Access). The published journal article cannot be shared publicly, for example on ResearchGate or Academia.edu, to ensure the sustainability of peer-reviewed research in journal publications. The embargo period for this journal can be found below.

Gold open access
- Articles are freely available to both subscribers and the wider public with permitted reuse.
- A gold open access publication fee is payable by authors or on their behalf, e.g. by their research funder or institution.

Regardless of how you choose to publish your article, the journal will apply the same peer review criteria and acceptance standards.

For gold open access articles, permitted third party (re)use is defined by the following Creative Commons user licenses:

Creative Commons Attribution (CC BY)
Lets others distribute and copy the article, create extracts, abstracts, and other revised versions, adaptations or derivative works of or from an article (such as a translation), include in a collective work (such as an anthology), text or data mine the article, even for commercial purposes, as long as they credit the author(s), do not represent the author as endorsing their adaptation of the article, and do not modify the article in such a way as to damage the author's honor or reputation.

Creative Commons Attribution-NonCommercial-NoDerivs (CC BY-NC-ND)
For non-commercial purposes, lets others distribute and copy the article, and to include in a collective work (such as an anthology), as long as they credit the author(s) and provided they do not alter or modify the article.

The gold open access publication fee for this journal is USD 3300, excluding taxes. Learn more about Elsevier's pricing policy: https://www.elsevier.com/openaccesspricing.

Green open access
Authors can share their research in a variety of different ways and Elsevier has a number of green open access options available. We recommend authors see our open access page for further information. Authors can also self-archive their manuscripts immediately and enable public access from their institution's repository after an embargo period. This is the version that has been accepted for publication and which typically includes author-incorporated changes suggested during submission, peer review and in editor-author communications. Embargo period: For subscription articles, an appropriate amount of time is needed for journals to deliver value to subscribing customers before an article becomes freely available to the public. This is the embargo period and it begins from the date the article is formally published online in its final and fully citable form. Find out more.

This journal has an embargo period of 12 months.

Elsevier Researcher Academy
Researcher Academy is a free e-learning platform designed to support early and mid-career researchers throughout their research journey. The "Learn" environment at Researcher Academy offers several interactive modules, webinars, downloadable guides and resources to guide you through the process of writing for research and going through peer review. Feel free to use these free resources to improve your submission and navigate the publication process with ease.

Language (usage and editing services)
Please write your text in good English (American or British usage is accepted, but not a mixture of these). Authors who feel their English language manuscript may require editing to eliminate possible grammatical or spelling errors and to conform to correct scientific English may wish to use the English Language Editing service available from Elsevier's WebShop.
Submission
Our online submission system guides you stepwise through the process of entering your article details and uploading your files. The system converts your article files to a single PDF file used in the peer-review process. Editable files (e.g., Word, LaTeX) are required to typeset your article for final publication. All correspondence, including notification of the Editor's decision and requests for revision, is sent by e-mail.

Authors must provide and use an email address unique to themselves and not shared with another author registered in EES, or a department.

PREPARATION

Peer review
This journal operates a single blind review process. All contributions will be initially assessed by the editor for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor is responsible for the final decision regarding acceptance or rejection of articles. The Editor's decision is final. More information on types of peer review.

Use of word processing software
It is important that the file be saved in the native format of the word processor used. The text should be in single-column format. Keep the layout of the text as simple as possible. Most formatting codes will be removed and replaced on processing the article. In particular, do not use the word processor's options to justify text or to hyphenate words. However, do use bold face, italics, subscripts, superscripts etc. When preparing tables, if you are using a table grid, use only one grid for each individual table and not a grid for each row. If no grid is used, use tabs, not spaces, to align columns. The electronic text should be prepared in a way very similar to that of conventional manuscripts (see also the Guide to Publishing with Elsevier). Note that source files of figures, tables and text graphics will be required whether or not you embed your figures in the text. See also the section on Electronic artwork.

To avoid unnecessary errors you are strongly advised to use the 'spell-check' and 'grammar-check' functions of your word processor.

Pages must be numbered, and lines should be numbered consecutively throughout the manuscript.

Article structure
Subdivision - numbered sections
Divide your article into clearly defined and numbered sections. Subsections should be numbered 1.1 (then 1.1.1, 1.1.2, ...), 1.2, etc. (the abstract is not included in section numbering). Use this numbering also for internal cross-referencing: do not just refer to 'the text'. Any subsection may be given a brief heading. Each heading should appear on its own separate line.

Introduction
State the objectives of the work and provide an adequate background, avoiding a detailed literature survey or a summary of the results.

Material and methods
Provide sufficient details to allow the work to be reproduced by an independent researcher. Methods that are already published should be summarized, and indicated by a reference. If quoting directly from a previously published method, use quotation marks and also cite the source. Any modifications to existing methods should also be described.

Results
Results should be clear and concise.

Discussion
This should explore the significance of the results of the work, not repeat them. A combined Results and Discussion section is often appropriate. Avoid extensive citations and discussion of published literature.

Conclusions
The main conclusions of the study may be presented in a short Conclusions section, which may stand alone or form a subsection of a Discussion or Results and Discussion section.
Appendices
If there is more than one appendix, they should be identified as A, B, etc. Formulae and equations in appendices should be given separate numbering: Eq. (A.1), Eq. (A.2), etc.; in a subsequent appendix, Eq. (B.1) and so on. Similarly for tables and figures: Table A.1; Fig. A.1, etc.

Essential title page information
• **Title.** Concise and informative. Titles are often used in information-retrieval systems. Avoid abbreviations and formulae where possible.
• **Author names and affiliations.** Please clearly indicate the given name(s) and family name(s) of each author and check that all names are accurately spelled. You can add your name between parentheses in your own script behind the English transliteration. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lowercase superscript letter immediately after the author's name and in front of the appropriate address. Provide the full postal address of each affiliation, including the country name and, if available, the e-mail address of each author.
• **Corresponding author.** Clearly indicate who will handle correspondence at all stages of refereeing and publication, also post-publication. This responsibility includes answering any future queries about Methodology and Materials. **Ensure that the e-mail address is given and that contact details are kept up to date by the corresponding author.**
• **Present/permanent address.** If an author has moved since the work described in the article was done, or was visiting at the time, a 'Present address' (or 'Permanent address') may be indicated as a footnote to that author's name. The address at which the author actually did the work must be retained as the main, affiliation address. Superscript Arabic numerals are used for such footnotes.

Highlights
Highlights are mandatory for this journal. They consist of a short collection of bullet points that convey the core findings of the article and should be submitted in a separate editable file in the online submission system. Please use 'Highlights' in the file name and include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point). You can view example Highlights on our information site.

Abstract
A concise and factual abstract is required. The abstract should state briefly the purpose of the research, the principal results and major conclusions. An abstract is often presented separately from the article, so it must be able to stand alone. For this reason, References should be avoided, but if essential, then cite the author(s) and year(s). Also, non-standard or uncommon abbreviations should be avoided, but if essential they must be defined at their first mention in the abstract itself.

Keywords
To assist in the preparation of a key word index, authors should provide a list of up to four key words on the title page of the manuscript

Abbreviations
Define abbreviations that are not standard in this field in a footnote to be placed on the first page of the article. Such abbreviations that are unavoidable in the abstract must be defined at their first mention there, as well as in the footnote. Ensure consistency of abbreviations throughout the article.

Acknowledgements
Collate acknowledgements in a separate section at the end of the article before the references and do not, therefore, include them on the title page, as a footnote to the title or otherwise. List here those individuals who provided help during the research (e.g., providing language help, writing assistance or proof reading the article, etc.).

Formatting of funding sources
List funding sources in this standard way to facilitate compliance to funder's requirements:

Funding: This work was supported by the National Institutes of Health [grant numbers xxxx, yyyy]; the Bill & Melinda Gates Foundation, Seattle, WA [grant number zzzz]; and the United States Institutes of Peace [grant number aaaa].

It is not necessary to include detailed descriptions on the program or type of grants and awards. When funding is from a block grant or other resources available to a university, college, or other research institution, submit the name of the institute or organization that provided the funding.
If no funding has been provided for the research, please include the following sentence:

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

**Nomenclature and units**

Abbreviations and symbols should, wherever possible, follow the IUBMB recommendations on Biochemical and Organic Nomenclature, Symbols and Terminology, at [http://www.chem.qmul.ac.uk/iubmb/](http://www.chem.qmul.ac.uk/iubmb/).

Non-standard abbreviations should be kept to a minimum. The words to be abbreviated should be spelled out in full on the first citation and the abbreviation given in parentheses. All abbreviations used should be listed and their meanings given on the title page (this list will be included on the front page of the published article). Enzyme nomenclature should follow the IUBMB Enzyme Commission recommendations ([http://www.chem.qmul.ac.uk/enzyme/](http://www.chem.qmul.ac.uk/enzyme/)) (relevant EC numbers should be given).


Non-standard, but conventional, units may be accepted if unambiguous and where there is no SI unit. Non-standard, but conventional, units may be accepted if unambiguous and where there is no SI unit.

**Math formulae**

Please submit math equations as editable text and not as images. Present simple formulae in line with normal text where possible and use the solidus (/) instead of a horizontal line for small fractional terms, e.g., X/Y. In principle, variables are to be presented in italics. Powers of e are often more conveniently denoted by exp. Number consecutively any equations that have to be displayed separately from the text (if referred to explicitly in the text).

**Footnotes**

Footnotes should be used sparingly. Number them consecutively throughout the article. Many word processors can build footnotes into the text, and this feature may be used. Otherwise, please indicate the position of footnotes in the text and list the footnotes themselves separately at the end of the article. Do not include footnotes in the Reference list.

**Artwork**

**Electronic artwork**

**General points**

- Make sure you use uniform lettering and sizing of your original artwork.
- Embed the used fonts if the application provides that option.
- Aim to use the following fonts in your illustrations: Arial, Courier, Times New Roman, Symbol, or use fonts that look similar.
- Number the illustrations according to their sequence in the text.
- Use a logical naming convention for your artwork files.
- Provide captions to illustrations separately.
- Size the illustrations close to the desired dimensions of the published version.
- Submit each illustration as a separate file.

A detailed guide on electronic artwork is available.

**You are urged to visit this site; some excerpts from the detailed information are given here.**

**Formats**

If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is' in the native document format.

Regardless of the application used other than Microsoft Office, when your electronic artwork is finalized, please 'Save as' or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):

- EPS (or PDF): Vector drawings, embed all used fonts.
- TIFF (or JPEG): Color or grayscale photographs (halftones), keep to a minimum of 300 dpi.
- TIFF (or JPEG): Bitmapped (pure black & white pixels) line drawings, keep to a minimum of 1000 dpi.
TIFF (or JPEG): Combinations bitmapped line/half-tone (color or grayscale), keep to a minimum of 500 dpi.

Please do not:
- Supply files that are optimized for screen use (e.g., GIF, BMP, PICT, WPG); these typically have a low number of pixels and limited set of colors;
- Supply files that are too low in resolution;
- Submit graphics that are disproportionately large for the content.

Color artwork
Please make sure that artwork files are in an acceptable format (TIFF (or JPEG), EPS (or PDF), or MS Office files) and with the correct resolution. If, together with your accepted article, you submit usable color figures then Elsevier will ensure, at no additional charge, that these figures will appear in color online (e.g., ScienceDirect and other sites) regardless of whether or not these illustrations are reproduced in color in the printed version. For color reproduction in print, you will receive information regarding the costs from Elsevier after receipt of your accepted article. Please indicate your preference for color: in print or online only. Further information on the preparation of electronic artwork.

Figure captions
Ensure that each illustration has a caption. Supply captions separately, not attached to the figure. A caption should comprise a brief title (not on the figure itself) and a description of the illustration. Keep text in the illustrations themselves to a minimum but explain all symbols and abbreviations used.

Tables
Please submit tables as editable text and not as images. Tables can be placed either next to the relevant text in the article, or on separate page(s) at the end. Number tables consecutively in accordance with their appearance in the text and place any table notes below the table body. Be sparing in the use of tables and ensure that the data presented in them do not duplicate results described elsewhere in the article. Please avoid using vertical rules and shading in table cells.

References
Citation in text
Please ensure that every reference cited in the text is also present in the reference list (and vice versa). Any references cited in the abstract must be given in full. Unpublished results and personal communications are not recommended in the reference list, but may be mentioned in the text. If these references are included in the reference list they should follow the standard reference style of the journal and should include a substitution of the publication date with either 'Unpublished results' or 'Personal communication'. Citation of a reference as 'in press' implies that the item has been accepted for publication.

Web references
As a minimum, the full URL should be given and the date when the reference was last accessed. Any further information, if known (DOI, author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Data references

Data references
This journal encourages you to cite underlying or relevant datasets in your manuscript by citing them in your text and including a data reference in your Reference List. Data references should include the following elements: author name(s), dataset title, data repository, version (where available), year, and global persistent identifier. Add [dataset] immediately before the reference so we can properly identify it as a data reference. The [dataset] identifier will not appear in your published article.

References in a special issue
Please ensure that the words 'this issue' are added to any references in the list (and any citations in the text) to other articles in the same Special Issue.
Reference management software

Most Elsevier journals have their reference template available in many of the most popular reference management software products. These include all products that support Citation Style Language styles, such as Mendeley. Using citation plug-ins from these products, authors only need to select the appropriate journal template when preparing their article, after which citations and bibliographies will be automatically formatted in the journal's style. If no template is yet available for this journal, please follow the format of the sample references and citations as shown in this Guide. If you use reference management software, please ensure that you remove all field codes before submitting the electronic manuscript. More information on how to remove field codes from different reference management software.

Users of Mendeley Desktop can easily install the reference style for this journal by clicking the following link:
http://open.mendeley.com/use-citation-style/journal-of-cereal-science

When preparing your manuscript, you will then be able to select this style using the Mendeley plug-ins for Microsoft Word or LibreOffice.

Reference style

Reference Text: All citations in the text should refer to:
1. Single author: the author's name (without initials, unless there is ambiguity) and the year of publication;
2. Two authors: both authors' names and the year of publication;
3. Three or more authors: first author's name followed by 'et al.' and the year of publication.

Citations may be made directly (or parenthetically). Groups of references should be listed first alphabetically, then chronologically.

Examples: "as demonstrated (Allan, 1996a, 1996b, 1999; Allan and Jones, 1995). Kramer et al. (2000) have recently shown ...."

List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication. Journal titles should be given in full.

Examples:

Reference to a journal publication:

Reference to a book:

Reference to a chapter in an edited book:

It is important that the references cited should be accessible to the general reader. References to unpublished materials should not appear in the reference list. References to papers `in press' or in obscure sources should also be avoided, as should references to proceedings of conferences/ conference abstracts available only to the conference attendees. References to papers in private publications, e.g. a report appearing in a publication directed to the membership of a private research organisation, must not be used.

Citing and listing of web references. As a minimum, the full URL should be given. Any further information, if known (author names, dates, reference to a source publication, etc.), should also be given. Web references can be listed separately (e.g., after the reference list) under a different heading if desired, or can be included in the reference list.

Please ensure that no more than 30 references are included in submitted research papers.
**Video**

Elsevier accepts video material and animation sequences to support and enhance your scientific research. Authors who have video or animation files that they wish to submit with their article are strongly encouraged to include links to these within the body of the article. This can be done in the same way as a figure or table by referring to the video or animation content and noting in the body text where it should be placed. All submitted files should be properly labeled so that they directly relate to the video file's content. In order to ensure that your video or animation material is directly usable, please provide the file in one of our recommended file formats with a preferred maximum size of 150 MB per file, 1 GB in total. Video and animation files supplied will be published online in the electronic version of your article in Elsevier Web products, including ScienceDirect. Please supply 'stills' with your files: you can choose any frame from the video or animation or make a separate image. These will be used instead of standard icons and will personalize the link to your video data. For more detailed instructions please visit our video instruction pages. Note: since video and animation cannot be embedded in the print version of the journal, please provide text for both the electronic and the print version for the portions of the article that refer to this content.

**Data visualization**

Include interactive data visualizations in your publication and let your readers interact and engage more closely with your research. Follow the instructions [here](#) to find out about available data visualization options and how to include them with your article.

**Supplementary material**

Supplementary material such as applications, images and sound clips, can be published with your article to enhance it. Submitted supplementary items are published exactly as they are received (Excel or PowerPoint files will appear as such online). Please submit your material together with the article and supply a concise, descriptive caption for each supplementary file. If you wish to make changes to supplementary material during any stage of the process, please make sure to provide an updated file. Do not annotate any corrections on a previous version. Please switch off the 'Track Changes' option in Microsoft Office files as these will appear in the published version.

**Research data**

This journal encourages and enables you to share data that supports your research publication where appropriate, and enables you to interlink the data with your published articles. Research data refers to the results of observations or experimentation that validate research findings. To facilitate reproducibility and data reuse, this journal also encourages you to share your software, code, models, algorithms, protocols, methods and other useful materials related to the project.

Below are a number of ways in which you can associate data with your article or make a statement about the availability of your data when submitting your manuscript. If you are sharing data in one of these ways, you are encouraged to cite the data in your manuscript and reference list. Please refer to the "References" section for more information about data citation. For more information on depositing, sharing and using research data and other relevant research materials, visit the [research data page](#).

**Data linking**

If you have made your research data available in a data repository, you can link your article directly to the dataset. Elsevier collaborates with a number of repositories to link articles on ScienceDirect with relevant repositories, giving readers access to underlying data that gives them a better understanding of the research described.

There are different ways to link your datasets to your article. When available, you can directly link your dataset to your article by providing the relevant information in the submission system. For more information, visit the [database linking page](#).

For [supported data repositories](#) a repository banner will automatically appear next to your published article on ScienceDirect.

In addition, you can link to relevant data or entities through identifiers within the text of your manuscript, using the following format: Database: xxxx (e.g., TAIR: AT1G01020; CCDC: 734053; PDB: 1XFN).
**Mendeley Data**
This journal supports Mendeley Data, enabling you to deposit any research data (including raw and processed data, video, code, software, algorithms, protocols, and methods) associated with your manuscript in a free-to-use, open access repository. During the submission process, after uploading your manuscript, you will have the opportunity to upload your relevant datasets directly to Mendeley Data. The datasets will be listed and directly accessible to readers next to your published article online.

For more information, visit the Mendeley Data for journals page.

**Data statement**
To foster transparency, we encourage you to state the availability of your data in your submission. This may be a requirement of your funding body or institution. If your data is unavailable to access or unsuitable to post, you will have the opportunity to indicate why during the submission process, for example by stating that the research data is confidential. The statement will appear with your published article on ScienceDirect. For more information, visit the Data Statement page.

**Submission checklist**
The following list will be useful during the final checking of an article prior to sending it to the journal for review. Please consult this Guide for Authors for further details of any item.

**Ensure that the following items are present:**
One author has been designated as the corresponding author with contact details:
- E-mail address
- Full postal address
- Telephone and fax numbers
All necessary files have been uploaded, and contain:
- Keywords
- All figure captions
- All tables (including title, description, footnotes)
Further considerations
- Manuscript has been 'spell-checked' and 'grammar-checked'
- No more than 30 references uses; References are in the correct format for this journal
- All references mentioned in the Reference list are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Web)
- Color figures are clearly marked as being intended for color reproduction on the Web (free of charge) and in print, or to be reproduced in color on the Web (free of charge) and in black-and-white in print
- If only color on the Web is required, black-and-white versions of the figures are also supplied for printing purposes
For any further information please visit our customer support site at http://service.elsevier.com.

**Additional information**
**Research Papers**
Papers must contain a maximum of 6000 words of text, no more than six tables or figures and NO MORE THAN 30 references. The second page of the manuscript should contain the Abstract only. The text should then follow the sequence: Introduction, Experimental, Results, Discussion, Acknowledgements, References, Tables, Figure Captions and, finally, Figures. Please number the pages, and each section should also be numbered.

The Abstract should be clear and concise with a maximum of 200 words. When submitting your article, please ensure that the abstract is included in your manuscript text as well as supplying the manuscript online when requested.

**Reviews**
The layout for reviews is flexible, and will be dictated to a large extent by the points that the author is attempting to discuss. An Abstract should be included, however, and the background should be contained in an Introduction. Details on citation and listing of references, preparation of figures and tables, abbreviations and units, etc., are as for conventional research papers.

**Rapid Communications and Research Notes**
The format for these papers is flexible. No Abstract is required, and there is no specification as to number of tables, figures or references. The paper should not be split into sections, although it should begin with a few sentences to introduce the subject area and to indicate the nature of the problem being examined. Likewise, at the end of the paper the conclusions drawn from the work should be summarised.
Rapid Communications and Research Notes will be strictly limited to two printed pages in the journal (equivalent of approx. 2000 words) in total, i.e. including title, references, tables and figures, etc. Where figures or tables are used, the number of words must be reduced to compensate for these, giving due regard to the size of such tables and figures. Other details on preparation are as for conventional research papers.

For Rapid Communications, authors are required to justify in a covering letter why the paper should be accorded priority treatment.

**AFTER ACCEPTANCE**

**Online proof correction**

Corresponding authors will receive an e-mail with a link to our online proofing system, allowing annotation and correction of proofs online. The environment is similar to MS Word: in addition to editing text, you can also comment on figures/tables and answer questions from the Copy Editor. Web-based proofing provides a faster and less error-prone process by allowing you to directly type your corrections, eliminating the potential introduction of errors.

If preferred, you can still choose to annotate and upload your edits on the PDF version. All instructions for proofing will be given in the e-mail we send to authors, including alternative methods to the online version and PDF.

We will do everything possible to get your article published quickly and accurately. Please use this proof only for checking the typesetting, editing, completeness and correctness of the text, tables and figures. Significant changes to the article as accepted for publication will only be considered at this stage with permission from the Editor. It is important to ensure that all corrections are sent back to us in one communication. Please check carefully before replying, as inclusion of any subsequent corrections cannot be guaranteed. Proofreading is solely your responsibility.

**Offprints**

The corresponding author will, at no cost, receive a customized Share Link providing 50 days free access to the final published version of the article on ScienceDirect. The Share Link can be used for sharing the article via any communication channel, including email and social media. For an extra charge, paper offprints can be ordered via the offprint order form which is sent once the article is accepted for publication. Both corresponding and co-authors may order offprints at any time via Elsevier's Webshop. Corresponding authors who have published their article gold open access do not receive a Share Link as their final published version of the article is available open access on ScienceDirect and can be shared through the article DOI link.

**AUTHOR INQUIRIES**

Visit the Elsevier Support Center to find the answers you need. Here you will find everything from Frequently Asked Questions to ways to get in touch.

You can also check the status of your submitted article or find out when your accepted article will be published.