



TABLE OF CONTENTS

●	Description	p.1
●	Editorial Board	p.1
●	Guide for Authors	p.3



ISSN: 2452-316X

DESCRIPTION

Agriculture and Natural Resources is a peer reviewed international scientific journal which publishes papers in the categories of review articles, research articles and short communications and technical notes from all areas related to agriculture disciplines. It covers original, previously unpublished research regarding any theories and practices that are related to agricultural applications. Submitted articles will be examined by a scientific committee and anonymous evaluators and published every two months in HTML and PDF formats (January, March, May, July, September, and November). Agriculture and Natural Resources is produced and hosted by Elsevier on behalf of Kasetsart University. The following areas are covered in the journal: Agricultural science Animal science and aquaculture Biodiversity and evolution Environment and ecology Food science Forestry Genetics and breeding Microbiology and Biotechnology Plant science Soil science Veterinary science Agricultural applications in physical science, engineering and computational science

EDITORIAL BOARD

Editor-in-Chief

Arinthip Thamchaipenet, Department of Genetics, Faculty of Science, Kasetsart University, Bangkok, Thailand

Associate Editors

Teerasak E-kobon, Department of Genetics, Faculty of Science, Kasetsart University, Bangkok, Thailand

Kornsorn Srikulnath, Department of Genetics, Faculty of Science, Kasetsart University, Bangkok, Thailand

Advisory Board

Saichol Ketsa, Faculty of Agriculture, Department of Horticulture, Kasetsart University, Bangkok, Thailand

Punpiti Piamsa-nga, Faculty of Engineering, Department of Computer Engineering, Kasetsart University, Bangkok, Thailand

Peerasak Srinives, Department of Agronomy, Faculty of Agriculture, Kasetsart University, Bangkok, Thailand

Thongchai Suwannasichon, Faculty of Agro-Industry, Department of Product Development, Kasetsart University, Bangkok, Thailand

Editorial Board

M.J. Bangs, Public Health and Malaria Control, International SOS, Jakarta, Indonesia

Verawat Champreda, Enzyme Technology Laboratory, National Center for Genetic Engineering and Biotechnology (BIOTEC), Bangkok, Thailand

Theeraphap Chareonviriyaphap, Department of Entomology, Kasetsart University, Bangkok, Thailand

Chart Chiemchaisri, Department of Environmental Engineering, Faculty of Engineering, Kasetsart University, Thailand

Sena S. De Silva, School of Life & Environmental Sciences, Deakin University, Victoria, Australia

Sapit Diloksumpun, Department of Silviculture, Kasetsart University, Bangkok, Thailand
Mauricio Elzo, Dept. of Animal Sciences, University of Florida, Gainesville, Florida, USA
Chatchawan Jantasuriyarat, Department of Genetics, Faculty of Science, Kasetsart University, Bangkok, Thailand
Pongphen Jitareerat, Posthavest Technology, School of Bioresources and Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand
Skorn Koonawootrittriron, Department of Animal Science, Faculty of Agriculture, Kasetsart University, Bangkok, Thailand
Suk-Ha Lee, College of Agriculture and Life Sciences, Seoul National University (SNU), Seoul, The Republic of Korea
Savitree Limtong, Department of Microbiology, Kasetsart University, Bangkok, Thailand
Sylvie Manguin, Health Department, Institut de Recherche pour le Développement (IRD), Montpellier, France
Kazumi Matsubara, School of Science and Technology, Kwansai Gakuin University
Ramakrishnan Nair, ICRISAT Campus, AVRDC-South Asia, Hyderabad, AP, India
Uthairat Na-Nakorn, Fac. of Fisheries, Kasetsart University, Bangkok, Thailand
Takuya Nihira, International Center for Biotechnology, Osaka University, Osaka, Japan
Katsuyoshi Nishinari, Dept. Food & Pharmaceutical Engineering, , Hubei University of Technology, Wuhan, China
Rungnaphar Pongsawatmanit, Department of Product Development, Faculty of Agro-Industry, Kasetsart University, Bangkok, Thailand
Witoon Prinyawiwatkul, School of Nutrition and Food Sciences, Louisiana State University
Prakit Somta, Department of Agronomy, Faculty of Agriculture, Kasetsart University, Bangkok, Thailand
Apisit Songssasen, Department of Chemistry, Faculty of Science, Kasetsart University, Bangkok, Thailand
Amnat Suwanarit, Department of Soil Science, Faculty of Agriculture, Kasetsart University, Bangkok, Thailand
Neung Teaumroong, School of Biotechnology, Institute of Agricultural Technology, Suranaree University of Technology, Bangkok, Thailand
Norihiko Tomooka, Genetic Resources Center, Tokyo University of Agriculture and Technology, Tokyo, Japan
Yongyut Trisurat, Department of Forest Biology, Faculty of Forestry, Kasetsart University, Bangkok, Thailand
W. Zhou, Department of Chemistry, National University of Singapore, Lower Kent Ridge, Singapore

GUIDE FOR AUTHORS

INTRODUCTION

Types of paper

Contributions falling into the following categories will be considered for publication: [example: Original research papers, reviews] Please ensure that you select the appropriate article type from the list of options when making your submission

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)
- Relevant declarations of interest have been made
- 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 conflicts of interest include employment, consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. If there are no conflicts of interest then please state this: 'Conflicts of interest: none'. [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 or as part of a published lecture or academic thesis or as an electronic preprint, see '[Multiple, redundant or concurrent publication](#)' section of our ethics policy 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 [CrossCheck](#).

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

[example: Upon acceptance of an article, authors will be asked to complete a 'Journal Publishing Agreement'. Acceptance of the agreement will ensure the widest possible dissemination of information. 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. Permission of the society is required for resale or distribution outside the institution and for all other derivative works, including compilations and translations (please consult ANReditoff@ku.ac.th). 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 supports responsible sharing

Find out how you can [share your research](#) published in Elsevier journals.

Open access

This is an open access journal: all articles will be immediately and permanently free for everyone to read and download. To provide open access, this journal has an open access fee (also known as an article publishing charge APC) which needs to be paid by the authors or on their behalf e.g. by their research funder or institution. Permitted third party (re)use is defined by the following [Creative Commons user licenses](#):

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.

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

Submission to this journal proceeds totally online. Use the following guidelines to prepare your article. Via the homepage of this journal (http://www.eviser.com/eviser/faces/pages/navigation/NavController.jspx?JRNL_ACR=ANRES) you will be guided stepwise through the creation and uploading of the various files. The system automatically converts source files to a single Adobe Acrobat PDF version of the article, which is used in the peer-review process. Please note that even though manuscript source files are converted to PDF at submission for the review process, these source files are needed for further processing after acceptance. All correspondence, including notification of the Editor's decision and requests for revision, takes place by e-mail and via the author's homepage, removing the need for a hard-copy paper trail. If you are unable to provide an electronic version, please contact the editorial office prior to submission [e-mail: ANReditoff@ku.ac.th; telephone: +662 579 5548; or fax: +662 561 1474].

Additional Information

Tables and figures may be presented with captions within the main body of the manuscript; if so, figures should additionally be uploaded as high resolution files.

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.

LaTeX

You are recommended to use the Elsevier article class [elsarticle.cls](#) to prepare your manuscript and [BibTeX](#) to generate your bibliography.

Our [LaTeX site](#) has detailed submission instructions, templates and other information.

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 detail to allow the work to be reproduced. Methods already published should be indicated by a reference: only relevant modifications should 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.

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. Present the authors' affiliation addresses (where the actual work was done) below the names. Indicate all affiliations with a lower-case 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. **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.

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

Immediately after the abstract, provide a maximum of 6 keywords, using American spelling and avoiding general and plural terms and multiple concepts (avoid, for example, 'and', 'of'). Be sparing with abbreviations: only abbreviations firmly established in the field may be eligible. These keywords will be used for indexing purposes.

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.).

Nomenclature and units

Follow internationally accepted rules and conventions: use the international system of units (SI). If other quantities are mentioned, give their equivalent in SI. You are urged to consult [IUPAC: Nomenclature of Organic Chemistry](#) for further information.

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

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.

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](#) and [Zotero](#), as well as [EndNote](#). Using the word processor 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.

Reference style

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. Examples: Reference to a journal publication: Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2000. The art of writing a scientific article. *J. Sci. Commun.* 163:, 51-59. Reference to a book: Strunk Jr., W., White, E.B., 1979. *The Elements of Style*, 3rd ed. Macmillan, New York. Reference to a chapter in an edited book: Mettam, G.R., Adams, L.B., 1999. How to prepare an electronic version of your article., In: Jones, B.S., Smith, R.Z. (Eds.), *Introduction to the Electronic Age*. E-Publishing Inc., New York, pp. 281-304.

Journal abbreviations source

Journal names should be abbreviated according to the [List of Title Word Abbreviations](#).

Journal abbreviation source

Journal names should be abbreviated according to the Index Medicus journal abbreviations: <http://www.nlm.nih.gov/tsd/serials/lji.html>; List of title word abbreviations: <http://www.issn.org/2-22661-LTWA-online.php>; CAS (Chemical Abstracts Service): <http://www.cas.org>.

AFTER ACCEPTANCE

Proofs

One set of page proofs (as PDF files) will be sent by e-mail to the corresponding author (if we do not have an e-mail address then paper proofs will be sent by post) or, a link will be provided in the e-mail so that authors can download the files themselves. Elsevier now provides authors with PDF

proofs which can be annotated; for this you will need to [download the free Adobe Reader](#), version 9 (or higher). Instructions on how to annotate PDF files will accompany the proofs (also given online). The exact system requirements are given at the [Adobe site](#).

If you do not wish to use the PDF annotations function, you may list the corrections (including replies to the Query Form) and return them to Elsevier in an e-mail. Please list your corrections quoting line number. If, for any reason, this is not possible, then mark the corrections and any other comments (including replies to the Query Form) on a printout of your proof and scan the pages and return via e-mail. 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. We will do everything possible to get your article published quickly and accurately. 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 be notified and receive a link to the published version of the open access article on [ScienceDirect](#). This link is in the form of an article DOI link which can be shared via email and social networks. 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](#). Authors requiring printed copies of multiple articles may use Elsevier Webshop's 'Create Your Own Book' service to collate multiple articles within a single cover.

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](#).

© Copyright 2014 Elsevier | <http://www.elsevier.com>