

# Instructions to Authors

## *Journal of Natural Resources and Life Sciences Education*

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**Scope of Contributions.** The Editorial Board will review articles presenting original teaching methods in such areas as natural resources, life sciences, agriculture, K–16 education, and other biological sciences: (1) reports of original research pertaining to concepts of resident, graduate, extension, and industrial education; (2) analyses and syntheses of existing knowledge or research, instructional techniques and methodology, surveys of instruction, and other studies that contribute to the development or better understanding of educational efforts; (3) reviews or digests of a comprehensive and well-defined scope; (4) case studies; (5) computer software papers; (6) newsfeatures; and (7) K–12, undergraduate, and graduate education.

Articles may confirm and strengthen the findings of others, revise established ideas or practices, or challenge accepted theory, providing the evidence presented is significant and convincing. Manuscripts based chiefly on personal philosophy or opinion are acceptable if they conform to the above criteria. The editor solicits media reviews and profiles, or they may be volunteered. The journal encourages “Letters to the Editor,” including comments and criticisms of published articles and editorials, suggestions for journal improvement, and other educational concerns or viewpoints.

**Publication Fee and Other Charges.** All authors (members and nonmembers) pay a \$350 flat publishing fee per manuscript; \$150 per web lesson. The cost for tables and non-color figures is \$10 each. There is an extra cost for printing color figures (call for pricing information); there is no extra charge for color figures on the website. Author alterations are \$5 per line. Authors may purchase reprints of their articles.

**Open Access Optional Fee.** An author has the option of paying an additional \$800 fee, above the usual publication fee, to make the article open access (freely available without subscription) at the time of publication on the website.

**Prior Publication.** Manuscripts published in *Journal of Natural Resources and Life Sciences Education* must be original reports. They may not have been published previously or simultaneously submitted to another scientific or technical journal.

**Changes in Author Byline.** From time to time, authors are added or deleted from a manuscript between the time of submission and publication. In situations such as this the ethical and responsible way to handle this type of change is for the lead author to advise the author being added or deleted of the change and to notify, in writing, the Editor and Managing Editor of the journal.

### Creating the Manuscript File

**Notice for Word 2007 users:** If you have equations, they must be composed using the Microsoft Equation 3.0 editor found under INSERT OBJECT, or with another MathML format such as MathType. Do not use INSERT EQUATION, which creates images (when converted) that cannot be used for typesetting. Regrettably, we will need to return any files created with Word 2007 that contain equations created with INSERT EQUATION to the authors for resetting.

The *Publications Handbook & Style Manual* ([www.agronomy.org/publications/style](http://www.agronomy.org/publications/style)) is the official guide for preparing and editing papers.

Although manuscript review is done with PDF files, accepted manuscripts are prepared for typesetting with a word-processing file. Therefore, authors should compose the manuscript in Word; TEX files are not acceptable. The file must be double-spaced and line-numbered, with at least 2.5-cm (1-inch) margins. The file should contain the following elements:

- Title page
- Abstract
- Text
- References list
- Figure captions
- Tables

**Title Page.** The title page should include:

- A short (<12 words) title that accurately identifies and describes the manuscript content.
- An author-paper documentation list, with author name(s) and complete address(es).
- An abbreviations list, with key abbreviations that are used repeatedly throughout the manuscript. The list should not include SI units or elemental abbreviations.
- The corresponding author’s phone and fax numbers and email address.

**Abstract.** Include an informative, self-explanatory abstract, not exceeding 250 words. It should be specific, telling why and how the study was made, what the results were, and why they were important. Use quantitative terms where possible.

**Text.** The main text of the manuscript typically includes an introduction, Materials and Methods, Results, Discussion, and Conclusions. Other descriptive headings are acceptable.

**References.** When preparing the references list, authors must refer to a recent issue of JNRLSE and/or the *Publications Handbook & Style Manual* and note the general style for reference list entries, in addition to following these guidelines:

- Do not number the references list.
- Arrange the list alphabetically by the surnames of the first authors and then by the second and third authors.
- Single-authored articles should precede multiple-authored articles for which the individual is senior author.
- Two or more articles by the same author(s) are listed chronologically; two or more in the same year are indicated by the letters a, b, c, etc.
- Only literature that is available through libraries can be cited. Material that does not meet this standard should be cited as personal communications or unpublished data.
- Examples of References:

#### *Journal article*

Weil, R.R. 2002. Soil and environmental quality: A course for nonmajors. *J. Nat. Resour. Life Sci. Educ.* 31:117–122.

#### *Online source*

University of Minnesota. 1998. Golf facilities and turf systems. Available at [www.crk.umn.edu/academics/golf/Careers/](http://www.crk.umn.edu/academics/golf/Careers/) (accessed 25 Nov. 2003; verified 5 Feb. 2004). Univ. of Minnesota, Crookston, MN.

## Book

Howell, P.P., and J.A. Allan. 1994. The Nile sharing a scarce resource. Cambridge Univ. Press, London.

## Chapter in a book

Svinicki, M.D., A.S. Hagen, and D.K. Meyer. 1996. How research on learning strengthens instruction. p. 257–288. In R.J. Menges and M. Weimer (ed.) Teaching on solid ground. Jossey Bass Publ., San Francisco, CA.

## Chapter in a proceedings

Power, J.F., and V.O. Biederbeck. 1991. Role of cover crops in integrated crop production systems. p. 167–174. In W.L. Hargrove (ed.) Cover crops for clean water. Proc. Int. Conf., Jackson, TN. 9–11 Apr. 1991. Soil and Water Conserv. Soc., Ankeny, IA.

**Figure Captions.** If the manuscript has figures, insert the text for the captions in the file following the references list. Spell out abbreviations on first mention in figure captions, even if they have already been defined in the text. (The reader should be able to understand the figure content without referring back to the text).

**Tables.** Compose tables using the word processor's table feature (i.e., the table should have defined cells—do not create tables by using the space bar and/or tab key). Tables should not duplicate matter that is presented in figures. Use the following symbols for footnotes in the order shown: †, ‡, §, ¶, #, ††, ‡‡, etc. The symbols \*, \*\*, and \*\*\* are always used to indicate statistical significance at the 0.05, 0.01, and 0.001 probability levels, respectively, and are not used for other footnotes. As with figure captions, spell out abbreviations on first mention.

## Creating the Figures

Authors who are including figures in the manuscript may use any software to create figures, so long as they can provide high-resolution PDF files for review and print. High resolution TIF files are accepted as well. Authors should save figure files and be prepared to make changes if necessary.

Label each figure with author name, article title, and figure number. Use a minimum line weight of 1/2 point (thinner lines will not reproduce well). Screening and/or shaded patterns often do not reproduce well; whenever possible, use black lines on a white background in place of shaded patterns.

Authors can shorten manuscript length by supplying figures that can be reduced to fit in a single journal column. Letters and numbers in the final printed figure (i.e., after reduction) should range from 8- to 12-point type. As an example, a 16-cm-wide figure should have 16-point type, so that when the figure is reduced to fit in a single column (approximately 8 cm), the type is reduced to 8-point size.

Authors may publish color figures. Call for pricing information. There is no extra charge for color figures on the website.

## Consent and Permissions

Authors and their institutions are responsible for obtaining IRB approval for survey information presented in manuscripts (i.e., human subjects research).

The submitting author should have sent each living co-author a draft copy of the manuscript and have obtained the co-author's assent to co-authorship of it.

Authors are responsible for obtaining all permissions for use of figures from other publishers and should supply these releases at the time the accepted manuscript is forwarded for production. Authors are also responsible for obtaining permission from individuals whose images are included in photographs. Please note that ASA-CSSA-SSSA reserves the right to publish and republish any images you submit with a manuscript.

To obtain permission to reprint content from JNRLSE, send an email to the Managing Editor. Include a clear description of how and where you intend to use the materials.

## Style

- Use a comma before the final item in a list of three or more items. For example: "Students collect the data, summarize the results, and write a report..."
- Both the common and chemical name of pesticides must be given when first mentioned. For example: "Atrazine (2-chloro-4-ethylamino-6-isopropylamino-1,3,5-triazine) was used..."
- The Latin binomial or trinomial and authority must be shown for all plants, insects, pathogens, and animals at first listing. For example: "Mapping data are presented for three of the barley (*Hordeum vulgare* L.) traits..."
- Manufacturer information must be included after first mention of a commercially available product. For example: "Samples were analyzed with a graphite furnace (HGA 600; PerkinElmer, Wellesley, MA)..."
- Software and software manuals must include a references list entry. For example: "SAS Institute. 1990. SAS user's guide: Statistics. SAS Inst., Cary, NC."
- SI units must be used in all manuscripts. Non-SI units may be added in parentheses.

## Sources

- Spelling: Webster's New Collegiate Dictionary
- Plant scientific names: USDA-ARS GRIN Taxonomy ([www.ars-grin.gov/cgi-bin/npgs/html/taxgenform.pl](http://www.ars-grin.gov/cgi-bin/npgs/html/taxgenform.pl))
- Chemical names: ChemFinder.com (<http://chemfinder.cambridgesoft.com/>)
- Soil series descriptions: USDA-NRCS Official Soil Series Descriptions (<http://soils.usda.gov/technical/classification/osd/>)
- Fungal nomenclature: Fungi on Plants and Plant Products in the United States (APS Press)
- Journal abbreviations: Chemical Abstracts Service Source Index (CASSI; American Chemical Society, revised yearly)

## Submitting Manuscripts

Submit manuscripts as PDF files at: [www.manuscripttracker.com/jnrlse/](http://www.manuscripttracker.com/jnrlse/). Instructions for converting to PDF files are available at that site.

## Questions?

Contact Susan Ernst, Managing Editor, JNRLSE ([sernst@agronomy.org](mailto:sernst@agronomy.org)).

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