ASABE Guide for Authors

Style Guide for ASABE Technical Publications

All material should be written in clear, correct American English. All ASABE technical publications use the same editorial style. The best way to become familiar with the general style of ASABE technical publications is to review a recent issue of an ASABE journal.

Journal articles and books are edited and prepared for publication by ASABE staff. The ASABE templates provide a manuscript format that is suitable for review and later input into the ASABE production system. ASABE staff will do the layout for the PDF files of these publications, and also move the material into XML for the ASABE Technical Library.

Papers from meetings and conferences are not edited by ASABE staff. The ASABE templates for these publications help authors provide a uniform, professional appearance for the PDF file of these publications, and also facilitate moving the material into XML for the ASABE Technical Library.

Please use this Style Guide along with an ASABE template for your publication type. If you have questions about style, usage, technical terms, or reference citations, please contact Glenn Laing at laing@asabe.org or 269-932-7014.

Numbers

In general, use words for numbers one through nine, and use digits for 10 and over. For a series of numbers, any of which are over 10, use digits for all. Use digits for values followed by abbreviated units. For example:

There were five hens in the pen.
Use 5 mL of water.
The component consisted of 231 parts.
The mixture contained 2 parts magnesium, 12 parts copper, and 8 parts lead.

When two numbers occur as adjacent adjectives, spell out the first one:

There were thirty 9 mm holes in the first section.

When a number begins a sentence, spell it out or rewrite the sentence:

Fifty samples were prepared.
We prepared 50 samples.

Units of Measurement

Express all units of measure in SI (metric) units. You may include U.S. Customary units in parentheses in special instances, such as for specifications that were originally supplied in non-metric units. For a further explanation of units and conversions, refer to ASAE Standard EP285.7: "Use of SI (Metric) Units."

Use a space (not a hyphen) between the number and the unit:

5 g
20 ha

except for percentages and degrees:

37%
27°C

In a series of measurements, indicate the unit at the end:

3, 6, and 8 cm.

except for percentages and degrees:

2°C to 10°C (not 2 to 10°C)
15% to 25% (not 15 to 20%)

Precede fractional decimal values with a zero:

0.0125 (not .0125)

A comma is optional for four-digit numbers:

1000 kg or 1,000 kg

Use a comma for five-digit and larger numbers:

10,000 kg (not 10000 kg)

For publications other than journals, authors may use a space, e.g., 10 000 kg, if they prefer.

Express derived units in exponent form with spaces between the elements of the derived unit:

12 kg m^{-2}
32 MJ m^{-2} d^{-1}

Time

Use 24-hour clock notation, in which hours are numbered consecutively 1 through 24. The day begins at midnight (00:00 h), and the last minute of the day is at 23:59 h. The notation "24:00 h on 14 January" is the same time as "00:00 h on 15 January." The use of "a.m." and "p.m." is also acceptable, but note that these terms do not apply to noon and midnight:

4:00 a.m. = 04:00 h
12:00 noon = 12:00 h
10:43 p.m. = 22:43 h

Dates

Write all dates in day-month-year format, with no punctuation and with names, rather than numbers, for the months:

12 January 2002
4 to 16 August

In tables, the names of months may be abbreviated to save space:

Jan., Feb., Mar., Apr., Aug., Sept., Oct., Nov., Dec.

Abbreviations in Text

In general, spell out abbreviations that that might be unfamiliar to the ASABE audience. Such abbreviations only need to be spelled out at their first occurrence.

Spell out the scientific name of an organism at its first occurrence in the text. After the first occurrence, you may use the first letter of the genus and spell out the specific epithet.

Form plurals for abbreviations without an apostrophe:

PCs, CVs, PhDs

Omit periods after abbreviated units (except "in." for inch):

5 m, 3.5 in., 30 cm

Abbreviate units only after a numeric value:

24 h
Several hours later

The following abbreviations are widely used in material published by ASABE:

alternating current	AC	kilo-	k (as in kV)
ampere	A	liter	L
bushel	bu	micro-	μ (as in μV)
coefficient of variation	CV	milli-	m (as in mL)
cultivar	cv	minute	min
direct current	DC	outside diameter	o.d.
dry basis	d.b.	pound	lb
hectare	ha	second	s
hour	h	standard deviation	SD
inch	in.	volt	V
inside diameter	i.d.	watt	W
joule	J	wet basis	w.b.

For more examples of abbreviations of units, see ASAE Standard EP285.7: "Use of SI (Metric) Units."

Abbreviations in References

Do not abbreviate any words in titles of articles, chapters, books, or dissertations.

Use conventional abbreviations (not postal abbreviations) for the names of U.S. states.

The titles of ASABE journals are abbreviated as *Trans. ASABE, Appl. Eng. Agric., J. Agric. Safety and Health,* and *Biol. Eng. Trans.*

For the titles of other journals and conference proceedings that appear in bibliographic references:

- Omit minor words (the, of, and, etc.) from the title unless their omission would cause confusion.
- Do not abbreviate geographic names (for example, use "American" instead of "Amer.").
- Abbreviate similar words consistently. Use the abbreviations below for words that commonly appear in the titles of journals and conference proceedings:

Agriculture, Agricultural	Agric.	International	Intl.
Agronomy	Agron.	Irrigation	Irrig.
Annals, Annual	Ann.	Journal	J.
Applications	Applic.	Literature	Lit.
Applied	Appl.	Management	Mgmt.
Association	Assoc.	Mathematics	Math.
Biology, Biological	Biol.	Mechanics, Mechanical	Mech.
Chemistry, Chemical	Chem.	Medicine	Med.
Communications	Comm.	National	Natl.
Conference	Conf.	Occupational	Occup.
Conservation	Cons.	Proceedings	Proc.
Cooperative	Coop.	Processing	Proc.
Division	Div.	Product, Production	Prod.
Ecology, Ecological	Ecol.	Publication, Publishing	Publ.
Engineers, Engineering	Eng.	Research	Res.
Entomology	Entomol.	Review	Rev.
Environment, Environmental	Environ.	Science (except the journal *Science*)	
Experiment, Experimental	Exp.		Sci.
Extension	Ext.	Society	Soc.
Federation	Fed.	Statistics	Stat.
Fundamentals	Fund.	Supplement	Supp.
Government	Gov.	Symposium	Symp.
Horticulture	Hort.	System	Syst.
Industry, Industrial	Ind.	Technical, Technology	Tech.
Institute	Inst.	Transactions	Trans.

Abbreviations of State Names

Spell out the full names of states in the text of the article, for example:

The study was conducted on an experimental farm in Alabama.

Use the following conventional abbreviations in bibliographic references. Use the postal abbreviations only in mailing addresses:

Full name	Conventional	Postal	Full name	Conventional	Postal
Alabama	Ala.	AL	Montana	Mont.	MT
Alaska	Alaska	AK	Nebraska	Neb.	NE
Arizona	Ariz.	AZ	Nevada	Nev.	NV
Arkansas	Ark.	AR	New Hampshire	N.H.	NH
California	Cal.	CA	New Jersey	N.J.	NJ
Colorado	Colo.	CO	New Mexico	N.M.	NM
Connecticut	Conn.	CT	New York	N.Y.	NY
Delaware	Del.	DE	North Carolina	N.C.	NC
District of Columbia	D.C.	DC	North Dakota	N.D.	ND
Florida	Fla.	FL	Ohio	Ohio	OH
Georgia	Ga.	GA	Oklahoma	Okla.	OK
Hawaii	Hawaii	HI	Oregon	Oreg.	OR
Idaho	Idaho	ID	Pennsylvania	Pa.	PA
Illinois	Ill.	IL	Rhode Island	R.I.	RI
Indiana	Ind.	IN	South Carolina	S.C.	SC
Iowa	Iowa	IA	South Dakota	S.D.	SD
Kansas	Kans.	KS	Tennessee	Tenn.	TN
Kentucky	Ky.	KY	Texas	Texas	TX
Louisiana	La.	LA	United States	U.S.	--
Maine	Maine	ME	Utah	Utah	UT
Maryland	Md.	MD	Vermont	Vt.	VT
Massachusetts	Mass.	MA	Virginia	Va.	VA
Michigan	Mich.	MI	Washington	Wash.	WA
Minnesota	Minn.	MN	West Virginia	W.Va.	WV
Mississippi	Miss.	MS	Wisconsin	Wisc.	WI
Missouri	Mo.	MO	Wyoming	Wyo.	WY

Figures

ASABE applies the term “figure” to all types of illustration, including line drawings, graphs and charts, photographs, computer screen captures, etc. Include figures to emphasize points made in the text, not merely to illustrate tabular material graphically.

Make your figures the size you prefer. Design them to make efficient use of space, keeping in mind that large figures increase page charges. For *Applied Engineering in Agriculture* and *Transactions of the ASABE* figures are generally the width of a column (20 picas, ~8.5 cm), but may be as wide as a page (41 picas, ~17.4 cm). For the other publications, make each figure no wider than the page width (for *Journal of Agricultural Safety and Health* and *Biological Engineering Transactions*, this is 30 picas, ~12.7 cm).

Please observe the following points:

- Place each figure into your manuscript after the paragraph that first mentions it. Every figure must be explicitly mentioned in the text of the article. Number figures in order of their citation in the text and refer to them as figure 1, figure 2, etc. Abbreviate the word “figure” only in parentheses, e.g., (fig. 1). Lowercase is used.
- Type a descriptive caption below each figure. The caption may be a sentence fragment or a few sentences long.
- Figures should not have titles.

- A figure may contain a legend, such as to define symbols. Place the legend either directly below the figure or within it.
- It is generally not necessary to show all the data points and coordinate rulings.
- If a point represents the mean of a number of observations, indicate the magnitude of the variability by a vertical line at each point.
- Use boldface only for x- and y-axis titles. Use all capitals only when necessary (e.g., for acronyms).
- Use a sans serif font, such as Arial, for all lettering in figures, except for the (a), (b), noted below. The type size within the figure should be six to eight points.
- If a figure contains multiple elements, label them (a), (b), etc., using eight point, bold, Times New Roman (as in the sample figure), and identify them in the caption.
- You may use horizontal or vertical type, but please avoid other angles.
- All lines must be at least one-half point to reproduce in print, and distinct from each other in appearance.
- Color figures will display in color in the web version, but will be printed in grayscale. Please choose colors that reproduce as distinct gray values. Do not use yellow. Choose distinct line types (dashed, dotted, etc.) as well as different colors. Check by printing in grayscale.
- To remove unwanted material, do not simply place a text box over it or crop it in Word, as the unwanted material will become exposed during production. Instead, open the graphic and delete the unwanted elements.
- Please provide .jpg or .tif files of photographs in case we need to enhance the images. When using a digital camera for your photos, use at least a medium setting for quality/file size.
- For scans or in Photoshop, use 600 dpi for black and white line art, and 300 dpi for color or grayscale (including photos). Higher resolution will not increase the quality of the published image.
- For Excel charts, size to the finished size in Excel. Sizing later presents problems.

If you have questions about preparing figures for submission, please contact Pat Howard, 269-932-7008 or pfhoward@asabe.org.

Sample figure and caption:

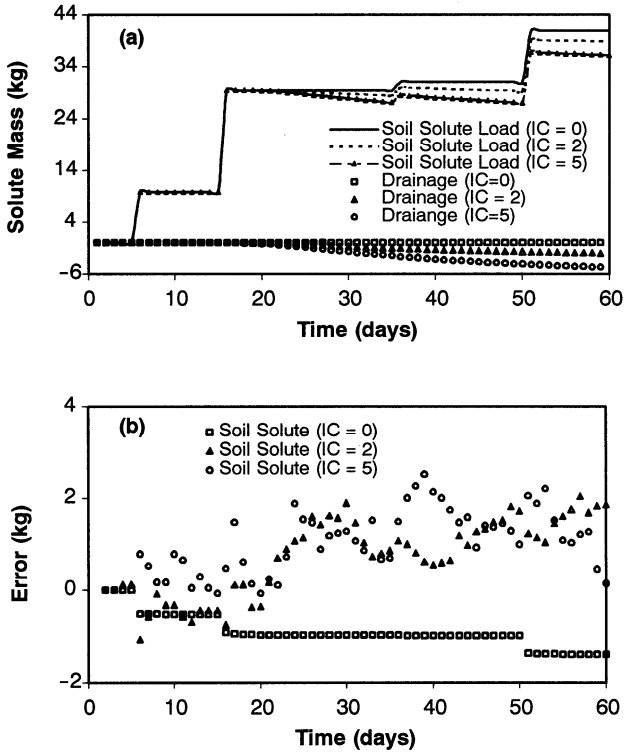

Figure 6. Sensitivity to initial solute concentration shown in terms of (a) soil solute mass and drainage and (b) error in soil solute balance. Irrigation water concentration is 2 kg/m^3. Negative values indicate loss of mass from control volume.

Tables

Tables are used for reporting extensive numerical data in an organized manner. The data presented in tables should neither be duplicated in figures nor reviewed extensively in the text.

Design your tables to make efficient use of space, because large tables increase page charges. For *Transactions of the ASABE* and *Applied Engineering in Agriculture*, prepare each table to fit either one column (20 picas, ~8.5 cm) or the page width (41 picas, ~17.4 cm). Tables in *Biological Engineering Transactions* and *Journal of Agricultural Safety and Health* should be no wider than 30 picas, ~12.7 cm. For meeting and conference papers, make them no wider than the page size in the template. If necessary, tables may be placed sideways on the page.

Please observe the following points:

- Number the tables consecutively and refer to them in the text as table 1, table 2, etc.
- Supply a descriptive caption for each table. The caption may be a sentence fragment or a few sentences long.
- Please make your table in MS Word or Excel. Do not submit tables in a graphic format. Do not make columns with tabs or spaces.
- Do not include excessive text in the column headings. Place explanatory information in the table caption, in the manuscript text, or in a footnote at the bottom of the table.
- Do not include columns of data that can be easily calculated from other columns.
- Use horizontal rules to separate elements within a table. You may place additional rules under subheads or under heads that span two or more columns, and you may need to insert blank columns to achieve this (as in the sample table).
- Use bracketed superscripted letters ([a], [b], [c], etc.) for explanatory footnotes within the table (as in the sample table). Assign footnotes to elements within a table in a left-to-right, top-to-bottom sequence.
- Use asterisks (*, **) to indicate statistical significance, and explain in a footnote.
- Use lowercase letters (a, b, c, etc.) to indicate statistical relationships among elements within a table, and explain the relationships in a footnote.

If you have questions about preparing tables for submission, contact Pat Howard at pfhoward @asabe.org or 269-932-7008.

Sample table and caption:

Table 2. Comparison of measured and simulated TGI values.

	Measured		Simulated	
Value	R^2	CV[a]	R^2	CV[a]
TGI initial	0.04	9.77	0.07	9.53
TGI final[b]	0.02	5.43	0.06	8.57
TGI average	0.03	7.64	0.65	8.02

[a] CV = coefficient of variation.
[b] Based on partial data.

Equations

Do not derive or reproduce recognized equations; rather, cite a reference to a source and refer to the equation by its standard name. State only those assumptions and initial boundary conditions needed to understand the development of the equation.

For new equations, state all assumptions and initial boundary conditions and give sufficient derivation for the reader to understand the development. Show only those mathematical steps

required for comprehension. Interpret the significance of the mathematics, and indicate the accuracy and range of usefulness of the equations.

For *Transactions of the ASABE* and *Applied Engineering in Agriculture*, prepare each equation to fit within the width of a column (20 picas, ~8.5 cm). For the other publication types, make each equation no wider than the page width (for *Journal of Agricultural Safety and Health* and *Biological Engineering Transactions*, this is 30 picas, ~12.7 cm). When necessary, break an equation before an operational sign or at a major bracket.

Please observe the following points:

- Insert each equation into your manuscript at the point where you would like it to appear in the published article. Small equations may be incorporated in the text. Equations that are separate from the text are introduced by the preceding text and a colon (see the sample equation). These equations are numbered consecutively. Refer to numbered equations as equation 1, equation 2, etc., or in parentheses as, e.g., (eq. 1).
- Prepare expressions by using ordinary type (including superscripts, subscripts, and the Symbol font) or by using equation-editing software such as Equation Editor or MathType. Do not use equations that become graphic elements in Word as these cannot be edited.
- The type style in the equation must match the type style in the corresponding text. Italicize lowercase variables. Do not italicize Greek letters.
- Supply the equation number, in parentheses, to the right of the equation, by using a tab. Type the equation number outside of the equation editor box.
- Define variables and supply SI units. If there are more than two such elements in an equation, then list them individually after the equation (as in the sample equation).

Sample equation and equation number:

The mass transfer coefficient is calculated as follows:

$$h_{\mathrm{D}} = \frac{h}{\rho_a c_a} \qquad (1)$$

where

h_{D} = mass transfer coefficient (m s^{-1})
h = convection heat transfer coefficient (W m^{-2} K^{-1})
ρ_a = material density (kg m^{-3})
c_a = material specific heat (J kg^{-1} K^{-1}).

References

List all cited references at the end of the text in the References section. Arrange the list alphabetically by the name of the first author; for references with more than one author, further arrange the list alphabetically by the names of the second author, third author, etc.

- List two or more references by the same author (or authors) chronologically from oldest to most recent.
- Indicate two or more references by the same author(s) in the same year by adding letters after the year of publication, e.g., 2014a, 2014b.
- For use of abbreviations in references, see above.
- Compose your reference entries following the examples below or by referring to recent (2014 or later) issues of ASABE journals. ASABE journals use the APA style 6th edition (no longer the unique ASABE style). We encourage you to use the reference management sys-

tem in MSWord. You may also use EndNote or any reference manager system that displays in Word.

- If you have the doi number, please include it.

Journal Article

Lastname, A. B., Author, C. D., & Jones, E. (2014). Title of journal article. *Appl. Eng. Agric., 78*(12),5-10. doi:http://dx.doi.org/10.1234/4x.567.

Book, Part of a Book

Author, A. B. (2014). *Book Title.* City, state or nation if not U.S.: Publisher.

Author, A. B. (2014). *Book Title* (2nd ed., Vol. 3). St. Joseph, Mich.: Publisher.

Author, A., & Twoauthor, B. C. (1987). Section or chapter title. In *Book Title*, (pp. 34-56). City, State: Publisher. Retrieved from http://ccc.org/ch4.pdf.

Chapterauthor, A. (1987). Section or chapter title. In B. Bookeditor (Ed.), *Book Title*, (2nd ed., Vol. 3, pp. 17-34). London, U.K.: Publisher.

Standard

ASABE Standards. (2008). S358.2: Moisture measurement—Forages. St. Joseph, Mich.: ASABE.

ABCD. (2014) 12343: Standard name. City, State: All Bio Crops Diversity.

Bulletin or Report—Do not use "Anonymous"; use the name or abbreviation of the organization.

ABCC. (2004). Report title. Bulletin 1234. City, state or nation if not U.S. : All Bio Crops Commission. Retrieved from www.abcc.gov/x1234.pdf.

Paper from a Meeting, Conference Proceedings—Include the name and location of the publisher, but not the location where the meeting was held.

Author, A. B., & Name, C. D. (2014a). Title of paper. ASABE Paper No. 1401234. St. Joseph, Mich.: ASABE.

Author, A. B., & Name, C. D. (2014b). Title of paper. *Proc. 10th Symp. Assoc. Agricultural Engineering*. St. Joseph, Mich.: ASABE.

Author, A. B. (2014b). Title of paper. In B. Editor (Ed.), *Proc. 10th Intl. Conf. Agricultural Engineering.* Vol. 2, pp. 55-66. St. Joseph, Mich.: ASABE. doi:http://dx.doi.org/10.1234/4x.567.

Software

SAS. 1990. *SAS User's Guide: Statistics.* Ver. 6a. Cary, N.C.: SAS Institute, Inc.

Online Source

ABCD. (2014).Title. Assoc. BioCropsDiversity. Retrieved from http://bcd.org/report.pdf.

Dissertation or Thesis

Author, A. (2014). Title of dissertation. PhD diss.[or MS thesis.] City, state or nation: University Name, Department Name.

Patent

Author, A. B. (2014). Patent title. U.S. Patent No. 123456.

Translations add [in Chinese] after title, if the title is translated.

Unpublished Material—Do not list such material in the References section because it is not available to the reader. Put useful information in the text of your manuscript, e.g., "... this was rare (Charles Brown, USDA-ARS, personal communication, 23 May 2014).

ASABE Format for Journal Articles and Meeting and Conference Papers

Please use this guide along with the template for your publication type. Templates are available at the ASABE website.

The best way to become familiar with the format and style of an ASABE publication is to review recent examples. If you have questions about style, usage, technical terms, or reference citations, please contact Glenn Laing at laing@asabe.org or 269-932-7014.

Title

The title should briefly identify the subject and indicate the purpose of the document. A multipart article should use a main title for the series and a unique subtitle for each part, even if the combination exceeds 10 words. Capitalize the first word of the title and the first letter of each word in the title except articles, prepositions, and conjunctions (the, beyond, about, and, etc.).

Authors, Affiliations, etc.

Follow the template for your publication type. Journal articles use the authors' initials and last names directly below the title, with the authors' full names and affiliations (either current or at the time the work was done) in a following section called the Article Notes. Meeting and conference papers may have each author's full name followed by their affiliation, or have the author's full information in a footnote. Article Notes or footnotes are also used to:

- Indicate if the information contained in the article was previously presented at a conference or meeting.
- Indicate manuscript approval by your sponsoring organization or employer, if necessary, and list any disclaimers.
- List the current contact information for the corresponding author, including the full mailing address, phone number, and e-mail address.

Abstract

The abstract should provide a clear and concise (aim for <250 words) summary of the article.

- State the purpose of the research. What was studied? What hypothesis was tested?
- Briefly tell the general approach used, to provide a context for the results.
- Include the major trends and the most important results of the study. Data may be given to emphasize the results, but group size, P values, etc., should not be included.
- Provide a concise statement of the conclusions. Provide perspective by stating whether the research confirms or extends the findings of previous researchers.
- Do not include literature citations or references to tables, figures, or equations, because the Abstract often is seen alone.

Keywords

This short list of keywords and/or phrases reflecting the content of your article is used for searches. ASABE maintains a keyword list for terms that occur frequently in technical material related to agricultural and biological engineering, but you are not limited to this list. Note that words in the title are not searchable as keywords unless they are also included in the keyword list.

Body of the Article

Indicate subdivisions of the main body with headings and sub-headings. Below are typical, but not mandatory, main headings used in ASABE technical publications.

The introductory section of the text should include a brief statement of why the research was conducted. It should also define the problem and present objectives (including a description of the subject, scope, and purpose) along with a plan of development of the subject matter. The introductory section also usually includes a brief survey of the relevant literature on the topic.

To cite a reference in the text, use the name-year system. For references with three or more authors, use the form Smith et al. (2008). Note that "et al." is not italicized and includes a period. The order of citing multiple references is up to you.

For example:

as described by Smith (2010)
as described earlier (Jones et al., 2007; Brown and Smith, 2010; Brown, 1995)

Materials and Methods—Provide sufficient detail so that the work may be repeated. Do not give details of methods described in readily available sources. Instead, cite the source and describe any modification. Figures that illustrate test apparatus and tables of treatment parameters or equipment specifications are appropriate here.

Results and Discussion (may be separate sections)—Here describe the solution to the problem stated in the introductory section. Use figures and tables to supplement the presentation of your results. The text must refer explicitly to all tables and figures. Present and discuss the evidence on which your conclusions are based. Do not omit important negative results.

In addition, relate your findings to previous findings by identifying how and why there are differences and where there is agreement. Speculation is encouraged, but it must be identified. Any controversies should also be presented clearly and fairly.

Conclusions (may be a subsection of the Discussion section)—In this section, summarize your results and state any conclusions that can be drawn from them. You may also include suggestions for future research. Do not introduce new information in the Conclusion section; everything here must have been stated previously in the article.

Acknowledgements—Acknowledgements are optional and short. Use them to thank individuals or organizations that provided assistance in materials, expertise, or financing.

References

All sources cited in the text must be listed in the References section, and all documents listed in the References must be cited in the text. Click here for sample References.

Appendix (optional)

Use an appendix for material that is too long to include in the main part of the article.

Nomenclature (optional)

A Nomenclature section is used to list and define the terms used in equations in manuscripts where they are so numerous that a list would be helpful to readers.