



ASABE Guide for Authors

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General Information

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 and print version of these publications, and also move the material into the [ASABE Technical Library](#) in a form that is readily indexed and searchable.

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 the [ASABE Technical Library](#) in a form that is readily indexed and searchable.

Please use this Guide along with an ASABE template for your publication type. If you have questions about style, technical terms, or reference citations, please email Publications@asabe.org.

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 *Journal of Agricultural Safety and Health*, make each figure no wider than the page width (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.
 - The Word drawing canvas is best avoided. Only use it when absolutely necessary, namely, to constrain floating pieces, such as arrows, within a figure.
 - 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. Word’s Compress Figures tool can delete cropped areas, but do not compress the images.
 - 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 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.
 - Use boldface only for x- and y-axis labels. Use all capitals only when necessary (e.g., for acronyms).
 - If a figure contains multiple elements, label them (a), (b), etc., either outside the figure or as part of the figure using eight point, bold, Times New Roman. 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 wide to reproduce in print and be distinct.
 - Color figures will display in color in the web version but are printed in grayscale. Please print your color figures as grayscale and verify that they can be interpreted correctly, since the loss of color may make lines and gradients indistinguishable, particularly in images such as rainfall distribution maps.
 - For digital camera images, use the medium or large file setting, not the small file (low quality) setting. For scans and other images, 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. Higher resolution will not increase the quality of the published image.
 - At production, we may ask you to provide JPG or TIF files of photographs.
- If you have questions about preparing figures, please contact Publications@asabe.org.

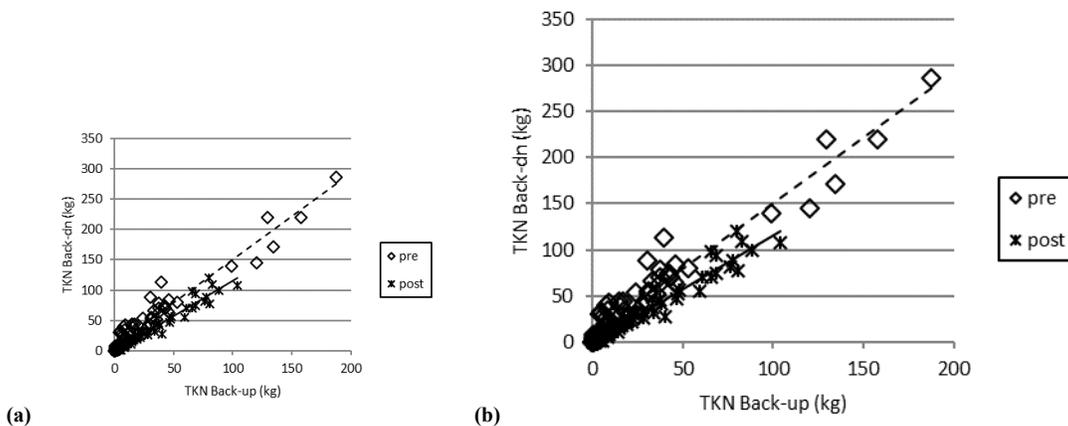


Figure 1. Example figures that are (a) too small and (b) the right size. Put the (a) and (b) where you like.

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 the *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, please contact Publications@asabe.org.

Sample table and caption:

Table 2. Comparison of measured and simulated TGI values.

Value	Measured		Simulated	
	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 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 its 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 *Journal of Agricultural Safety and Health*, make each equation no wider than the page width (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 separate equations are numbered consecutively. Refer to numbered equations as equation 1, equation 2, etc., or abbreviated in parentheses as (eq. 1).
- Prepare expressions by using ordinary type (including superscripts, subscripts, and the Symbol font) or [Microsoft Equation 3.0](#) (go to Insert/Object) or MathType, not the built-in [Word equation editor](#). 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 variables.
- 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 below):

The mass transfer coefficient is calculated as follows:

$$h_D = \frac{h}{\rho_a c_a} \quad (1)$$

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).

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 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. Abbreviations are used in journal names and the titles of conferences, etc.

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

For the titles of journals and conferences in references:

- Omit minor words (the, of, and, etc.) from the title unless surrounded by entire words.
- For U.S. states and Canadian provinces, use the two-letter postal codes.
- For familiar organizations, use the initials: ASABE, ASAE, ASRAE, ASTM, CDC, CSA, CSSA, FAO, IEEE, ISO, JAWRA, JEQ, SAE, SSSA, SSSAJ, USDA, USDA-ARS, USDA-NASS, USDA-NRCS, USEPA, USGS, etc.

Use the abbreviations below for words that commonly appear in the titles of journals and conference proceedings. For others, consult [the ISO abbreviation list](#).

Advances, Advanced	Adv.	International	Int.
Agriculture, Agricultural	Agric.	Irrigation	Irrig.
Agronomy	Agron.	Journal	J.
American	Am.	Literature	Lit.
Annals	Ann.	Management	Manag.
Annual	Annu.	Mathematics	Math.
Applied, Applications	Appl.	Mechanics, Mechanical	Mech.
Association	Assoc.	Medicine, Medical	Med.
Biology, Biological	Biol.	Modelling, Modeling	Model.
Biosystems	Biosyst.	National	Natl.
Chemistry, Chemical	Chem.	Occupational	Occup.
Communications	Commun.	Physical, Physics	Phys.
Computers, Computing	Comput.	Proceedings	Proc.
Conference	Conf.	Processing, Processes	Process.
Congress	Congr.	Product, Production	Prod.
Conservation	Conserv.	Professional	Prof.
Cooperative	Coop.	Psychology	Psychol.
Department	Dep.	Publication, Publishing	Publ.
Division	Div.	Quality	Qual.
Drainage	Drain.	Quarterly	Q.
Ecology, Ecological	Ecol.	Research	Res.
Electrical	Electr.	Resource	Resour.
Electronic	Electron.	Review	Rev.
Engineers, Engineering	Eng.	Safety	Saf.
Environment, Environmental	Environ.	Science	Sci.
Experiment, Experimental	Exp.	Society	Soc.
Extension	Ext.	Software	Softw.
Federation, Federal	Fed.	Statistics	Stat.
Fundamentals	Fundam.	Supplement	Suppl.
Geographical, Geography	Geogr.	Symposium	Symp.
Geological, Geology	Geol.	System	Syst.
Government	Gov.	Technical	Tech.
Horticulture	Hortic.	Technology	Technol.
Hydrology, Hydrological	Hydrol.	Transactions	Trans.
Industry, Industrial	Ind.	US, United States	U.S.
Institute	Inst.		

References

There are two different formats for reference citations:

- For citations in the text, use the “name (year)” system. Do not use APA 6th format.
Example:
Brown (2016) stated that... while others (Smith, 2011; Smith and Jones, 2013; Jones et al., 2014) found that....
- For the bibliography in the “References” section, use APA 6th format.

List all cited references in the “References” section, after the body of your paper. Be sure that all citations are in the “References” section and that all citations in the “References” section are being used so there are no extras.

For the “References” section, we encourage the use of [Endnote](#) (preferred) or the [Microsoft Word References tool](#) in Word 2007 and later. For in-text citations, please simply type the citation since our format varies slightly from APA in some cases. For Endnote, see this [video](#) or this [video](#). For Word, see this [video](#) or [these instructions](#). Choose *APA 6th* style and the [ISO abbreviations for journal names](#) (LTWA). [JabRef](#) can [automate](#) journal abbreviations for the ISO standard. JabRef can [export references](#) to “MS Office 2007 (*.xml)” that can easily be imported into Word References. You can also use [Endnote](#) or [JabRef](#) (then import into Word References).

If you use the Word References tool or EndNote and select APA 6, all of the details of format described below will be done for you automatically when you create a bibliography. Make it the “Ref Listing” style to create the hanging indents.

For those of you NOT using EndNote or Word References tool, please compose your reference entries following the examples below, which follow the APA 6 style. Make it the “Ref Listing” style to create the hanging indents.

Please observed the following points:

- Don’t use a period after a URL.
- List author names with last name first, then initials. List up to seven authors per author group; for sources with more than seven authors list the first six names, then an ellipsis (periods and spaces, . . .), then the name of the last author, as in the first example.
- 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.
- Put the references in alphabetical order (Word will do this with the Paragraph function).
- For all titles, capitalize the only the first word, the first word after a colon or dash, and proper nouns. Titles of books and journals are italicized; other titles (book chapters, journal articles, papers from a meeting, reports, standards) are not italicized.
- If you have the doi number, please include it.
- Don’t use a period after a URL.

Journal Article

Firstauthor, A. B., Second-Author, E., Thirdauthor, F. G., Fourth, H. I., Fifthauthor, J., Sixthauthor, K.L., . . . Lastauthor, Z. (2014). Title of journal article: Capitalize after colon. *Appl. Eng. Agric.*, 578(12), 5-10. <http://dx.doi.org/10.1111/11111>

Book

Lastname, A. B., & Jones Jr., C. D. (2014). *Book title*. Location of publisher: Publisher.
Surname, X. B., Author, C. D., & Jones Jr., E. (2014). *Book title* (2nd ed., Vol. 3). St. Joseph, MI: ASABE.

Section of a Book

Author, A., & Secondauthor, B. C. (2017). Section or chapter title. In *Book title* (pp. 17-34). Washington, DC: USEPA. Retrieved from www.epa.abcdefg.gov
Chapterauthor, A. (1987). Section or chapter title. In B. Bookeditor & C. Bookbinder (Eds.), *Book title* (2nd ed., Vol. 3, pp. 17-34). Rome, Italy: FAO.

Paper from a Meeting, Conference Proceedings Include the name and location of the publisher, but not the location or dates where the meeting was held. Abbreviate Conf., Int., Proc., Symp.

Author, A. B. (2015). Title of paper. In B. Editor (Ed.), *Proc. 10th Int. Conf. Agricultural Engineering. 2*, pp. 655-766. Washington, DC: USDA-ARS.

<http://dx.doi.org/10.12/4x.57>

Author, A. B., & Name, C. D. (2014). Title of paper [in Chinese]. *Proc. 10th Symp. Agricultural Engineering*. Publisher location: Publisher.

Author, A. B., & Name, C. D. (2016). Title of paper. ASABE Paper No. 1601234. St. Joseph, MI: ASABE.

Standard

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

ASTM. (2014) 12343: Standard name. West Conshohocken, PA: ASTM Int.

Dissertation or Thesis

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

Miscellaneous If no author listed, use the name or abbreviation of the organization.

ABCD. (2014).Title. Association of BioCropsDiversity. Retrieved from <http://bcd.org/report.pdf>

Author, A. B. (2014). Patent title. U.S. Patent No. 123,456.

SAS. (1990). SAS User's Guide: Statistics. Ver. 6a. Cary, NC: SAS Institute.

USDA-NASS. (2004). Report title. Bulletin 1234. Washington, DC: USDA-NASS. Retrieved from www.usda.nass.gov/x1234.pdf

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 2016).