Chapter 1. Manuscript Preparation

The American Society of Agronomy (ASA), Crop Science Society of America (CSSA), and Soil Science Society of America (SSSA) have a reputation for publishing high-quality papers in their journals, books, and other publications. Authors are strongly urged to have their papers thoroughly reviewed by competent colleagues before submitting those papers for consideration by any ASA, CSSA, and SSSA publication.

The format used in ASA, CSSA, and SSSA journals differs from that used in books, special publications, and other media (see Chapter 9). This chapter deals mainly with journal formats, but the discussion applies broadly to the other formats.

Publications of ASA, CSSA, and SSSA for the most part follow the Publication Manual of the American Psychological Association, 6th edition (APA, 2009). For questions of scientific style and format beyond what is covered in this manual and the APA Publication Manual, consult the style manuals of the American Chemical Society (Coghill & Garson, 2006) and the Council of Science Editors (CSE, 2006). Recent issues of ASA, CSSA, and SSSA journals also provide examples of the desired format. Be consistent in whatever style choices you make.

All manuscripts are critically reviewed before they are published in any ASA, CSSA, or SSSA journal, monograph, book, or special publication. Written guidelines for manuscript submission are published periodically in all ASA, CSSA, and SSSA journals and can be accessed online.

DETAILS OF MANUSCRIPT PREPARATION

Eligibility of Authors

Membership is not required for publishing in ASA, CSSA, or SSSA publications. Some of the journals, however, assess a surcharge to nonmembers. Authors who wish to join a society to avoid this charge should do so before the paper is accepted for publication. For information on membership, visit https://www.agronomy.org/renewals, http://www.crops.org/renewals, or http://www.soils.org/renewals. Eligibility policies, updated as necessary, are summarized in each journal’s author instructions.

Publication Charges

Publication charges vary depending on the journal and whether at least one of the authors is a member of ASA, CSSA, or SSSA. These charges are subject to change. Check the journals’ instructions to authors for current information.

No Prior Publication, No Simultaneous Submission

Except for reviews or timely essays, papers published in the scientific journals of the ASA, CSSA, and SSSA must be original reports of research. Submission of a scientific manuscript for review is understood to imply that the work is original and unpublished and not being considered for publication elsewhere. If portions of the paper have been submitted or published elsewhere, the authors are required to disclose that fact at the time of submission and to provide details of relevant prior publications.

Whether publication in nontechnical outlets constitutes prior publication is decided on a case-by-case basis. In general, publication in nontechnical media will be considered prior publication only if substantially all of the data and conclusions have been published.

Posting of preprints to a preprint server is considered acceptable but requires citing of the preprint. Note the use of a preprint server in the cover letter, and as appropriate,
state how the manuscript has been adjusted/updated between the preprint version and the version submitted to the journal. Failure to alert the journal in your cover letter to any prior publication of your submission may be viewed as an ethical violation.

**Manuscript Handling**

Manuscripts are handled by similar, but not identical, procedures in ASA, CSSA, and SSSA journals. The basic policy is that at least two independent scientists must agree before a paper is accepted for publication or released back to the author (rejected). Release of a paper by a journal does not preclude its resubmission to that same or another ASA, CSSA, SSSA journal after its weaknesses have been eliminated. For example, a paper released because it needed another year of data may be resubmitted after those data have been gathered and the results incorporated into the paper. Such a resubmission must be accompanied by a copy of the original release letter. A manuscript may be released before review, either because it does not conform to acceptable standards or because the subject matter is outside the scope of the journal.

**Manuscript Submission**

Manuscripts are submitted via the journal’s online manuscript submission system. Consult the instructions to authors for details.

Receipt of manuscripts will be acknowledged. Communication from editorial board members and the editing staff at headquarters is usually with the corresponding author only; normally the submitting author is the corresponding author (see Authorship, below). The cover letter or title page should give the corresponding author’s current phone number and email address for use during review and production.

Occasionally, the editor of a journal who receives a submission may determine that the paper’s subject matter is more suitable for a different journal. In those cases, the editor will contact the paper’s author or authors before review of the paper begins to investigate the possibility of a transfer. If the author concurs, the editor of the other journal will also be contacted before the transfer is made.

**Manuscript Processing**

Upon receipt, each paper is assigned a unique manuscript number that identifies both the manuscript and the publication. A typical journal manuscript number is in the form $X$-NNNN-MM-nnnn, where $X$ is a group of letters identifying the journal, NNNN identifies the year, MM identifies the month, and nnnn is the number of the particular manuscript (e.g., jeq-2019-02-0042 is the 42nd manuscript submission received for the Journal of Environmental Quality in 2019). This number is communicated to the corresponding author along with acknowledgment of receipt. Refer to the manuscript number in all subsequent communications. Authors will be informed (and usually asked for additional input) as the manuscript moves through the various steps involved in review, acceptance or release, and production. (See also Chapter 8.)

After a manuscript has been accepted for publication by the designated scientist member of the editorial board, it will be edited for style and grammar and prepared for publication by the headquarters editorial staff.

**Anonymous Review**

All papers submitted to ASA, CSSA, SSSA journals are given an anonymous review—meaning that the names of reviewers are not revealed to the authors of the papers or to the other reviewers.
Most ASA, CSSA, and SSSA journals use a single-blind review process, where the authors do not know the names of the reviewers. Some of our journals use a double-blind process and also withhold the names of the authors from the reviewers. Check the individual journal’s instructions to authors for details on the review process. For journals that use a double-blind process, prepare the manuscript with no identifying information (e.g., no byline, addresses/affiliations, acknowledgments, etc.; these will be added after a manuscript has been accepted). Take care to label tables and figures with reference to the paper’s title, not author names. Any identification in headers or footers should be similarly anonymous. Authorship may also be unintentionally revealed through such software features as document summaries. If this is a concern, consult your local software experts.

When authors submit a manuscript via the online manuscript submission system, they will be asked to enter contact information into the system database, and the editors will have access to this information so that they can contact the authors about the outcome of the review.

**SUBMISSION SPECIFICS**

All accepted manuscript files will be edited in Microsoft Word. Therefore, authors are encouraged to compose manuscripts in Microsoft Word. The manuscript must be double-spaced, with line numbering.

Do not use complicated fonts and features available in Microsoft Word. Limited use of italics, bold, and superscripts and subscripts is acceptable.

Do not use such word-processing features as automatic footnoting and outlining. These features interfere with both electronic editing and typesetting. If you need to place a numbered list in your manuscript, enter the numbers and use appropriate tabs and indents manually instead of using automatic outlining.

**Headings and Subheadings**

Headings guide the reader, but too many headings can be distracting. Keep headings short.

Differentiate between the heading levels in your manuscript. For style, examine recent issues of the publication to which the manuscript will be submitted. In most ASA, CSSA, and SSSA journals, Level 1 headings (the main headings) are used for the main sections, such as Materials and Methods, Results, and Discussion, with Level 2 headings used for subsections. Level 3 and Level 4 headings are allowed, but use them sparingly.

**Estimating Length of Journal Articles and Book Chapters**

The best length estimates are obtained by counting the number of words; most word-processing programs do this quickly and easily. About 1000 words will fill one journal page, and about 500 words will fill one book page.

Space required for figures can be estimated from the size of the originals and the reduction that will be made in preparing the illustrations for production. Figures normally fit between one and two columns (20–42 picas) Space required for tables can be estimated from the number of lines of headings, subheadings, and data rows. Ten lines require about 25 mm (1 inch) of column space. Tables with many columns or complex data typically require the full width of the published page (two-column width), but a table may fit across half the page (one-column width) if row headings are simple and data columns are few or narrow. A rule of thumb is that a table with more than about 60 characters per row requires two-column width in print.
TYPES OF JOURNAL ARTICLES

The most common type of paper to appear in ASA, CSSA, and SSSA journals is the standard research paper. The journals also publish other paper types. Consult the instructions to authors of each journal for a description of all current types of papers.

Review Papers

Review papers are usually less formal than full-length articles. Such papers should provide a synthesis of existing knowledge and give new insights or concepts not previously presented in the literature, or at least not with the same level of detail.

These articles should not be considered exhaustive reviews of the literature (as per Annual Review of Plant Physiology and Molecular Biology) but should include enough literature review to provide a basis for understanding and interpretation of the topic under consideration.

A good review is often one of the most important ways to advance an area of science. Readers expect a review paper to

• deal with an important subject that needs a scholarly review,
• cover the entire spectrum of the subject, not just the segment about which the author of the review paper has published articles,
• present a balanced coverage that is fair to all the work it reviews, and
• add a perspective to the entire subject and contribute significantly to understanding.

Issue Papers

The intent of these papers is to stimulate discussion and possibly a rethinking of current views. They may be provocative and controversial. Our journals use different headings for such papers, such as "Perspectives," "Forum" papers, or "Environmental Issues." Check the individual journal's online About pages for details.

Notes and Short Communications

Notes and Short Communications represent a separate category of scientific manuscripts. Papers in this category typically describe research techniques, apparatus, and observations. Observations usually are limited to studies and reports of unrepeateable phenomena or other unique circumstances. These articles are usually shorter than research papers, normally occupying four or fewer printed pages in the journal.

Occasionally, an editor may determine that a paper submitted as a research paper will better fit this category, or vice versa. If the author agrees, the manuscript can be transferred to or from this category of papers.

The review procedure for these papers is identical to that for research papers.

Letters to the Editor

All our journals publish Letters to the Editor. Letters may contain comments on articles appearing in the journals or general discussions about agronomic research and are limited to one printed page. Letters must be approved by the editor and may be peer reviewed. If a letter discusses a published paper, the author of that paper will be invited to submit a response to the comments; typically, the response is published along with the letter.

Core Ideas

At submission, most journals ask authors to prepare three to five core ideas (up to 85 characters each), which will appear with the accepted article and on the journal's table of contents.
Research Papers

Manuscripts of research papers prepared for ASA, CSSA, and SSSA journals are normally arranged in the following order:

1. Title and byline.
2. Core Ideas.
3. Author–paper documentation (addresses/affiliations, email address of the corresponding author, etc.—see below).
5. Abbreviations.
6. Introduction (including literature review).
7. Materials and Methods.
8. Results. This section is sometimes combined with the discussion section.
9. Discussion. No separate summary section is used because it would duplicate the function of the abstract; a summary statement may, however, be given as a closing paragraph.
10. Conclusions (optional; this may be a titled section or part of the discussion section).
11. Supplemental Material paragraph, if applicable.
12. Data Availability statement (optional)
13. Conflict of Interest statement.
14. Author Contributions (optional).
15. Acknowledgments (optional, but see below).
16. References.
17. Figure captions and tables should be placed in the main text close to where they are first called out.

For journals with a double-blind review process, the byline, author–paper documentation, and acknowledgments should not be included at the time of submission to ensure anonymity—authors will be asked to add these items once the paper has been accepted.

Sometimes a Theory section substitutes for or precedes Materials and Methods. Any section may include subheadings to guide the reader through significantly different aspects of the topic.

Manuscript Format

Title. The title should represent the article’s content and facilitate retrieval in indexes developed by secondary literature services. The terms in the title should be limited to those words that give significant information about the article’s content. It is best to start the title with key words—not with words such as "Effect of" or "Influence of." Many readers peruse titles in a journal’s table of contents to decide whether to read a given paper. A good title briefly identifies the subject, indicates the purpose of the study, and introduces key terms or concepts. The recommended limit is 12 words.

Keep titles free of nonstandard abbreviations, chemical formulas, or proprietary names, and avoid unusual or outdated terminology. Use common names of crops and chemicals. If a crop or microorganism has no common name or if the common name is in dispute, then the scientific name (with authority) may be used in the title.

Series titles are used infrequently in ASA, CSSA, SSSA journals. An author contemplating a series of articles on the same subject should refer to the journal’s current editorial policy. Articles in a series are not discouraged as such, but the editors need to be assured that all papers in the series are available for review and that the reader will be able to obtain earlier and later material in that series.
Titles may be descriptive (e.g., Variables A and B under C Conditions), declarative (A Relates to B in C Manner), or even a question (Does A Do X?). Examples: Soil-Water and Root Dynamics under Hedgerow Intercropping in Semi-arid Kenya (Govindarajan et al., *Agronomy Journal*, 88:513–520); Clipping Foliage Differentially Affects Phytosiderophore Release by Two Wheat Cultivars (Hansen et al., *Agronomy Journal*, 87:1060–1063); Is Soil Temperature Better Than Air Temperature for Predicting Winter Wheat Phenology? (McMaster and Wilhelm, *Agronomy Journal*, 90, 602–607).

**Authorship.** (Added at acceptance for double-blind journals.) We encourage the use of full names in bylines (e.g., Morgan L. Jones or M. Louise Jones instead of M. L. Jones). The first person listed in the title is, by definition, the senior author; the corresponding author deals with proofs and, after publication, with reprint requests. The authors of the paper decide the sequence of author names; the order should be agreed upon by all authors involved.

**Author–Paper Documentation.** (Added at acceptance for double-blind journals.) The author–paper documentation appears on the first page of the published article. The purpose is to give addresses for all authors and an email address for the corresponding author (*author documentation*), as well as the date the paper was received for review, the date the paper was accepted, and any necessary institutional identification such as a grant support, dissertation requirement, or a journal article number (*paper documentation*). In the manuscript, put this paragraph after the byline, on the cover page only. Alternatively, any necessary institutional identification can be placed in the Acknowledgments section.

If all authors are at one address, do not repeat the names in the documentation. Otherwise, group together all authors at a single address in the order they appear in the byline. Do not include professional titles. Following complete addresses for all authors, give any sponsoring institutional information, with brief addresses; and lastly “Corresponding author” immediately followed by corresponding author's email address in parentheses. Example:

Neha Kothari, B. Todd Campbell, Jane K. Dever, and Lori L. Hinze

N. Kothari and J.K. Dever, Texas A&M AgriLife Research, 1102 East FM 1294, Lubbock, TX 79403, USA; B.T. Campbell, USDA–ARS, 2611 W. Lucas St., Florence, SC 29501, USA; L.L. Hinze, USDA–ARS, 2881 F&B Rd., College Station, TX 77845, USA. Corresponding author (lori.hinze@ars.usda.gov).

If an author has moved, the current address can be added, but if the old address is a funder, then it should not be removed. The address where the work was done should go first; the current address normally goes at the end (except SSSAJ):

A. Smith and B. Jones, Univ. of Illinois, 1102 S., Goodwin Ave., Urbana, IL, 61801, USA; A. Smith, current address: Purdue Univ., West Lafayette, IN 47907, USA.

Brief acknowledgment of grant funding can be included in the documentation paragraph, but extensive support information and personal thanks belong in the acknowledgments section at the end of the paper. Any required government or institutional disclaimer in reference to commercial products or trade names mentioned in the text can also be placed in this section.

**Footnotes.** Footnotes are not allowed.

**Abstract.** A journal abstract has two typical uses. Printed at the head of a scientific paper, an abstract helps readers decide whether to delve into the paper; abstracts are also
published via abstracting and indexing services. Because the abstract will be seen and read by many more people than will read the paper, everything that is important in the paper must be reflected in the abstract. The abstract should call attention to new techniques, observations, or data. Be specific.

In essence, an informative abstract (also called a substantive abstract) presents the paper in miniature, complete within itself. It moves from an introductory statement of the rationale and objectives or hypotheses, through materials and methods, to the results and conclusions. (A descriptive abstract is more like a table of contents for the paper and is rarely used in scientific publications except, perhaps, for review or opinion papers.) A number of books and articles offer useful advice on preparing abstracts (e.g., O’Connor & Woodford, 1976; O’Connor, 1979; Day, 1988), and an Internet search for “informative abstract” is likely to have recent course materials on scientific writing among the results.

Because an informative abstract has to stand alone, do not deflect the reader with phrases such as "will be discussed" or "will be explained." For the same reason, do not include reference, figure, or table citations. Equations also are inappropriate in an abstract unless they are the central finding of the study. Limit your use of abbreviations, and define the ones you do use.

At first mention in the abstract, give the complete scientific name (with authority) for plants. In the main text, give scientific names of other organisms, including causal agents of diseases. The scientific names for larger animals (e.g., sheep) do not need to be given unless germane to the article and/or there may be confusion as to what animal is being discussed. The full names of chemicals and complete soil series descriptions should be provided upon first mention in the main text; they do not need to be given in the abstract.

Write the abstract as a single paragraph, with a limit of 250 words (~1500 characters) for full-length papers and 150 words (~900 characters) for notes. Some abstracting services truncate text beyond a certain length; what is lost is most likely the conclusions.

Reproduced below (with permission of the author) is a published abstract with its structure labeled. This example shows both the overall construction of the abstract and the contents of its parts. (From Agronomy Journal, 78, 720–726 [1986], updated to conform to new style guidelines.)

**Introduction.** Use the introduction to review published literature and issues related to your topic. A thorough introduction helps the reader recognize what your research contributes to the current knowledge in your subject area. Begin your article by clearly identifying its subject, and state the hypothesis or definition of the problem the research was designed to solve. To orient readers, give a brief reference to previous concepts and research. Limit literature references to essential information, and do not rely on old references when newer ones are available.

Keep the introduction short, but include (a) a brief statement of the problem that justifies doing the work, or the hypothesis on which it is based; (b) the findings of others that will be further developed or challenged; and (c) an explanation of the general approach and objectives. This last part may indicate the means by which the question was examined, especially if the methods are new.

Abbreviations and acronyms defined in the abstract do not need to be defined again in the main body of the text.

**Materials and Methods.** In the Materials and Methods section, give enough detail to allow a competent scientist to repeat the experiments, mentally or in fact.
Dryland Grain Sorghum Water Use, Light Interception, and Growth Responses to Planting Geometry

J. L. Steiner

ABSTRACT

Rationale

Crop yields are primarily water-limited under dryland production systems in semiarid regions.

Objectives or hypothesis

This study was conducted to determine whether the growing-season water balance could be manipulated through planting geometry.

Methods

The effects of row spacing, row direction, and plant population on the water use, light interception, and growth of grain sorghum \( \text{Sorghum bicolor} \) \( \text{L.} \) Moench were investigated at Bushland, TX, on a Pullman clay loam (fine, mixed, superactive thermic Torrertic Paleustoll).

Results

In 1983, which had a dry growing season, narrow-row spacing and higher population increased seasonal evapotranspiration (ET) by 7 and 9%, respectively, and shifted the partitioning of ET to the vegetative period. Medium population crops yielded 6.2 and 2.3 Mg ha\(^{-1}\) of dry matter and grain, respectively. High population resulted in high dry matter (6.1 Mg ha\(^{-1}\)) and low grain yield (1.6 Mg ha\(^{-1}\)), whereas low population resulted in low dry matter (5.4 Mg ha\(^{-1}\)) and high grain yield (2.3 Mg ha\(^{-1}\)). Row direction did not affect water use or yield. In 1984, dry matter production for a given amount of ET and light interception was higher in the narrow-row crops. Evapotranspiration was less for a given amount of light interception in the narrow-row crops and in the north–south row crops.

Conclusions

Narrow-row planting geometry appears to increase the partitioning of ET to the transpiration component and may improve the efficiency of dryland cropping systems.

In the materials section, describe the preparation method, equipment, and measurements, using SI-acceptable units. Not all materials need to be identified by brand name and manufacturer. Consider first whether the particular product is essential to the outcome of the research, and then how readily available that particular product might be to other researchers. For example, if any standard test tube will work, it is not necessary to state the manufacturer of the tubes you used. If, however, the test tube must be lined with Teflon or be made of Pyrex (or in any other way differ from standard), then say so and, if such a test tube is not readily available, tell where it can be obtained.

When a product must be identified by trade name, add the name of the manufacturer or a major distributor parenthetically after the first mention of the product. Example: “Soil respiration was measured with a CO\(_2\) analyzer (Model LI-6251, LI-COR).” If the particular product is both essential to the research and no longer commercially available, describe a suitable substitute and its source.

In the case of specially procured or proprietary materials, give the pertinent chemical and physical properties (e.g., purity, pH, concentration). Chemical rather than trade names are preferred. Example: “Reference Suwannee River fulvic acid (IHSS-FA) and humic acid (IHSS-HA) were purchased from the International Humic Substance Society (IHSS).”

Plants and other organisms, including viruses, insects, bacteria, and pathogens should be identified accurately at first mention by scientific name (with authority for plants) and cultivar name if applicable. Scientific names for larger animals (e.g., sheep) should be given if relevant to the article and/or there may be confusion as to what animal is being discussed. Identify soils by great group name at least and preferably by soil series name and description.

Cite references for your methods and reference the edition you used. If the techniques are widely familiar, use only their names. If a method is modified, outline the modification.
or cite a reference, unless the modification is trivial. Give details of unusual experimental
designs or statistical methods.

The Materials and Methods section may be arranged chronologically, by a succession
of techniques, or in any other logical manner, such as by experiment or location, and may
include tables and figures.

**Results.** Use tables, graphs, and other illustrations in the Results section to provide
the reader with a clear understanding of representative data obtained from the experiments.
Call attention to significant findings and special features (e.g., one quantity is greater than
another, one result is linear across a range, or a particular value is optimum), but do not
repeat in detailed prose what is already clear from an examination of the graphics.

If you have minimal results, describe them in the text. You may want to summarize
more complicated results in tables or figures.

If you do not have a separate Discussion section, relate the results to your objectives
and to each other.

**Discussion.** Use the Discussion section to interpret your results. Give particular
attention to the problem, question, or hypothesis presented in the introduction. A good
discussion typically covers most or all of the following steps:

1. Relate the results to the original objectives.
2. Explain the principles, relationships, and generalizations that can be supported by
the results.
3. Address any exceptions or lack of correlation that qualify the findings, or difficul-
ties that point to areas for further investigation.
4. Explain how the results relate to previous findings, whether in support, contradic-
tion, or simply as added data.
5. Present conclusions, supported by a summary of the evidence.

Whether combined with the Results section or standing alone, the Discussion section
should focus on the meaning of your findings, not recapitulate them.

Scientific speculation is encouraged, but it should be reasonable, firmly founded
in observation, and subject to tests. It must also be identified as such. Where results dif-
fer from previous results for unexplained reasons, possible explanations should not be
labored. Controversial issues should be discussed clearly and fairly.

**References.** The References section lists only the literature cited in the paper.
Authors are encouraged to cite only significant, published, and up-to-date references.

**Figure Captions, Tables, and Figures.** In the submitted manuscript, tables and fig-
ures (review quality) with captions should be placed into the text document at first mention.
Figures can also be submitted separately as image files in the following acceptable formats:
EPS, TIF, PDF, or JPG.

For accepted manuscripts, figure captions and tables appear after the reference list,
and figures should be submitted as separate high-resolution image files in the following
acceptable formats: EPS, TIF, PDF, or JPG. No separate list of table titles is needed.

To maintain clear contrast, use line patterns instead of shading and avoid thin, light
lines. As feasible, plan for reduction to one-column width (84 mm, or ~3.25 inches). The
original should be one-third to one-half larger than the intended final size. Keep relative
sizes in mind when adding symbols, letters, and numbers.

For book chapters, consult the book editor for the sequence of the final elements.
See Chapter 5 for more information on figures and tables.
SUPPLEMENTAL MATERIAL

Journals of ASA, CSSA, and SSSA accept supplemental material that will enhance and support your research. Supplemental files will appear online and will be accessible from the issue TOC and article-level pages. Authors are encouraged to submit materials that contribute to the content and quality of the article or to use supplemental material as a means to shorten the text of manuscripts. Ancillary information such as some experimental data, including schematics of apparatus and maps of study sites, or material of interest mainly to specialists are examples of potential supplemental material. When using supplemental material to shorten the text of a manuscript, keep in mind that the Materials and Methods section should provide enough detail to allow the reader to determine whether the interpretations are supported by the data.

Supplemental material undergoes peer review and so should be submitted along with the original manuscript. A brief description of the supplemental material should be included in the main manuscript directly preceding the reference list. Supplemental tables and figures should be cited in order in the main manuscript.

Supplemental material should be formatted with a cover sheet listing authors and manuscript title, and the number of pages, figures, and tables. Tables and figures should be numbered Supplemental Table S1, S2, Supplemental Figure S1, S2, etc.

Ideally, the supplement should consist of a single PDF or MS Word file (rather than a series of files with individual images or structures); however, most file types are allowed, including video, spreadsheets, and PowerPoint files. To keep file size down, please compress the files if possible. The following are not allowed: executables (.exe) of any kind or TeX.

CITATION STYLE

Journals of ASA, CSSA, and SSSA follow the APA citation style as found in the Publication Manual of the APA, Sixth Edition (APA, 2009) The author–year notation system is required; do not use numbered notation.

Two authors. For within-text citations of papers with two authors, name both authors.
Murphy and Jones (2018) supported...; (Murphy & Jones, 2018)

Three to five authors. With three to five authors, include the last name of all authors for the first citation:
Murphy, Smith, and Davis (2018); (Murphy, Smith, & Davis, 2018)
For subsequent citations, use the first author's surname plus "et al."
Murphy et al. (2018); (Murphy et al., 2018)
Exception: If two references with the same year shorten to the same form (e.g., Murphy, Smith, Davis, & Xu, 2018, and Murphy, Xu, Smith, Jones, & Davis, 2018; both shorten to Murphy et al., 2018), cite as many of the authors' surnames as needed to distinguish the two references, followed by "et al."
Murphy, Smith, et al. (2018) and Murphy, Xu, et al. (2018)

Six or more authors. Use the first author's name plus et al.
Murphy et al. (2018)
(Murphy et al., 2018)

Two or more works within the same parentheses. Separate citations with a semicolon.
(Murphy, 2001a; Murphy & Wong, 2001; Murphy et al., 2001)
(Murphy, 2001; Murphy et al., 2001, 2002; Murphy & Davis, 2002)
Two or more articles by the same author in the same year. Add a distinguishing lowercase letter (a, b, c, etc.) to the year in both the text and references list. Separate citations with a comma.

(Murphy, 2001a, 2001b)

Authors with the same last name. Use first initials with the last names to help prevent confusion.

(E. Murphy, 2001; C. Murphy, 2011)

See APA (2009) for additional examples.

Citing Quotations

Direct quotations from a book or very long chapter require a page number in the text citation, to spare the reader a tedious hunt for the original wording in context. When practical, the exact page number is preferred for any quotation.

Example: [from Weidenhamer, 1996: Agronomy Journal, 88:867]: Harper (1977, p. 372), who called for a Koch’s postulates type of approach..., remained skeptical about the feasibility of designing “an experiment that conclusively tests the toxin hypothesis of plant interaction.”

Citing Unpublished Sources

Only literature available through libraries or other readily accessible public media may be cited. All other material, such as personal communications (information from someone other than the authors) and unpublished data (information from one or more author named in the byline), is cited in the text as parenthetical matter. Give both the source and the date for the information. Examples:

(R. D. Jackson, personal communication, 4 March 2018)
(unpublished data, 2019) [when all authors are responsible for the data]
(Faribault, unpublished data, 2019) [when only the author Faribault is responsible for the data]

Placing “unpublished data” or “personal communication” between the name and year clearly distinguishes these citations from those in the reference list.

The terms in review and in press are not synonymous. Material that is in press has been accepted for publication but has not yet appeared in print. This material may be listed in reference sections because the reader will eventually be able to locate it. Material submitted for publication but not yet accepted may be included in the reference list of your paper during the review process, but upon your paper’s acceptance these entries must be converted to citations of unpublished data or personal communication. If the change from review status to in press status occurs before or by the proof stage, the citation can be restored and completed.

Reviewers and editors are not expected to verify the accuracy of the literature citations. Authors should check the alphabetical reference list against the citations in the body of the manuscript before submitting the manuscript for publication.

REFERENCES


Preparing the Reference List

Authors are responsible for the completeness and accuracy of all references.
If you have consulted abstracts, theses or dissertations, extension bulletins, in-press articles, or secondary materials during your research or for early drafts of the paper, check again upon acceptance for publication whether this information has been published in a more readily available source.

**Alphabetization**

Arrange the list alphabetically by the surnames of authors. All single-authored articles of a given individual should precede multiple-author articles of which the individual is senior author. Alphabetize entries with the same first author according to surnames of succeeding coauthors and then by year, when the names are repeated exactly. Two or more articles by the same author (or authors) are listed chronologically and then by title. Articles by the same author or authors published within a single year by adding lowercase letters, a, b, c, etc., to the year. Example:


**Authors**

An author can be a person, committee, organization, or other party responsible for the work. Avoid the use of "anonymous." Only when no author can be determined for a document should "anonymous" be used. For web pages, it is most common to use the name of the organization as the author. Similarly, use the organization and location as the publisher of the site. Examples:


The author's name is listed by last name first, followed by initials (Smith, J. R.). For works by more than one author, all authors' names are inverted (Smith, J. R., Jones, M., & Rosen, C.). For works by two authors, use an ampersand (&) between the names. For works by three to seven authors, list all authors, with an ampersand before the final author. For works by more than seven authors, list the first six. After the sixth author, use an ellipsis (...) in place of the author names. Then provide the final author's name. There should be no more than seven names (Miller, F. H., Choi, M. J., Angeli, L. L., Harland, A. A., Stamos, J. A., Thomas, S. T., ... Rubin, L. H.).

**Titles**

Use sentence-style capitalization for titles and subtitles of articles, book chapters, bulletins, and books, capitalizing the first letter of the first word as well as proper nouns and adjectives. Capitalize journal titles. Book and journal titles should be italicized.
Acronyms

Use acronyms or commonly understood abbreviations (e.g., SSSA, USEPA, ICRISAT) for publishers in the reference list and in the text citation. For institutional authors, it is usual to spell out acronyms and abbreviations. As an exception, acronyms are used for IPCC and the international agricultural research centers of the Consultative Group on International Agricultural Research (CGIAR) system (www.cgiar.org). Use postal state abbreviations with publisher locations to identify U.S. states or Canadian provinces (see Table 2–2).

Style of the Reference List

Some common types of references are shown below. Extensive rules and examples for references of all kinds are given in the Publication Manual of the APA, Sixth Edition.

Journal Articles

Each reference to a periodical publication must include, in order, the author(s), year of publication, full title of the article, publication in which it appears, and volume and inclusive page numbers. For publications without consecutive pagination (i.e., each issue within the volume begins with page 1), include the issue number. Example: 11(2):5–10. First author, second author, & third author. (Year). Title of article. Journal Title, Vol(issue no.), page range.


Online Journal Articles

For electronic-only journals, the format is similar to print journal articles. Provide the DOI (Digital Object Identifier) at the end of the citation, instead of the URL, which may change with time.


Article in serial publication.


in Soil Science is no longer published as a serial with volume numbers. Treat listings in later editions as you would a chapter in a book.

**Article not in English with English abstract.**

*Title translated into English*


*Title in original language*


**Article not in English and without English abstract (translated title).**


**Article with known erratum follow-up.**


**Articles in press.**

For an in-press article, use the current year as the date. If the manuscript has been posted online ahead of publication, include the DOI.


**Preprint papers.**

Journal article style is used for references to preprint articles. Include the DOI or other persistent identifier if one is given. For articles without a DOI, include the URL.


**Magazine Article**


**Books (including bulletins, reports, multivolume works, series)**


**Online Books**

Online books usually correspond to printed versions, and the reference style is similar. Use the DOI in place of a URL if available.

Chapter in a Book

The entry for a chapter or article within a larger work must give the author(s), year, chapter title, the word "In," any editors, and the publication title, followed by the volume (for multivolume works), edition (when more than one has been published), page range, place of publication: publisher.

Author. (Year). Chapter title. In Editor name(s) (Ed.), Book title (page range). Place of Publication: Publisher.


Online Chapter in a Book


Conference, Symposium, or Workshop Proceedings and Transactions

An entry for conference proceedings is similar to an entry for a book. Conference proceedings often have two titles: the title of the book of proceedings and the name of the conference or symposium. Capitalize the name of the conference; use sentence style for the name of the book.

Published proceedings.

Editor. (Year). Title of book: Number and Name of Conference. Place of Publication: Publisher.


Chapter in a proceedings volume.

Papers published in a proceedings volume are treated much like a book chapter. If only an abstract of the article appears in the proceedings, insert "[Abstract]" after the article title and before the period.

Assisted Selection in Breeding Varieties for Organic Agriculture (pp. 15–18). Wageningen, the Netherlands: BioExploit Project.


Abstracts.
Cite meeting abstracts only until a more formal publication becomes available.


Papers and poster sessions presented at meetings.
Use this format when citing unpublished conference papers. Include the month of the meeting. When possible, avoid citing conference papers older than two years. If subsequent publication is known, cite the published form.

Author. (Year, Month). Title of paper. Paper [or poster session] presented at Title of conference, Number and Name of the Conference, place of conference.


Miscellaneous

Dissertations and theses.


Software and software documentation.


Map.
Cite a map separately only if it is a stand-alone publication. If there is no author for a map, do not use "Anonymous." In such cases, the name of the map stands in for the author. Author. (Year). Map title [map type, e.g., demographic map]. Map number (if included). Publisher location: Publisher. Notes (e.g., scale).

Patent and plant patent.
In text, cite the patent number and year: (U.S. Patent No. 3,969,523, 1976).

Performance and variety test.

Standard.
Institution. (Year). Title (Rule number). Place of publication: Publisher.


Electronic Sources
Treat electronic sources as you would the same kind of material in print. Start with the author, date, article or web page title, and further information essential to the online reference. When citing an entire website, give the URL in text only.

Some electronic sources are the equivalent of personal communications or unpublished data (e.g., email, an online interview or chat session, or information posted on an individual's home page). Cite these in the text only as personal communication; include the date (F. Li, personal communication, 29 January 2019).

Author. This is the organization or person responsible for the web page. The webmaster or contact person for the page is not usually considered the author. If the page's author is not listed, use the title of page as author.

Date. Three dates are important: (i) the date when the publication was placed on the internet or was copyrighted, (ii) the latest date of any update or revision, and (iii) the date when the person doing the citing accessed the source if the page's content is likely to change over time.
Title. Book and journal titles are usually clearly stated on a website. For original content from online sources, other than formally published documents such as journal articles and books, include as much of the following as can be determined: Author of the content, date, title or description of the page, and the URL. Citations to databases should include the URL or preferably, the DOI if one is given.

For citing an online document that gives no publication date, use n.d.

Author. (Year). Title of document [Format description when necessary]. Retrieved from URL


Electronic, Non-Internet Sources

It is standard practice to indicate a publication is not in print format by placing after the title a word that describes the specific nonprint medium. Use brackets, such as [CD].