

# JOURNAL OF SWINE HEALTH & PRODUCTION

**AUTHOR GUIDELINES**

Revised June 2022

## Author Guidelines

### Journal description

The *Journal of Swine Health and Production* (JSHAP) is published bi-monthly by the American Association of Swine Veterinarians (AASV) and is freely available online. The journal accepts manuscripts for peer review that encompass the many domains of applied swine health and production, ie, the diagnosis, treatment, management, prevention, and eradication of swine diseases, swine welfare and behavior, nutrition, public health, epidemiology, food safety, biosecurity, pharmaceuticals, antimicrobial use and resistance, reproduction, growth, systems flow, economics, and facility design.

The JSHAP editorial policies are established by the executive editor, associate editor, and editorial board and subject to review by the AASV Board of Directors. Scientific manuscripts published in the *Journal of Swine Health and Production* are peer reviewed. However, information on medications, feed, and management techniques may be specific to the research or commercial situation presented in the manuscript. It is the responsibility of the reader to use information responsibly and in accordance with the rules and regulations governing research or the practice of veterinary medicine in their country or region. Views expressed in papers published in JSHAP represent the opinions of the author(s) and do not necessarily reflect the official policy of the institution with which the author is affiliated, AASV, or the executive editor.

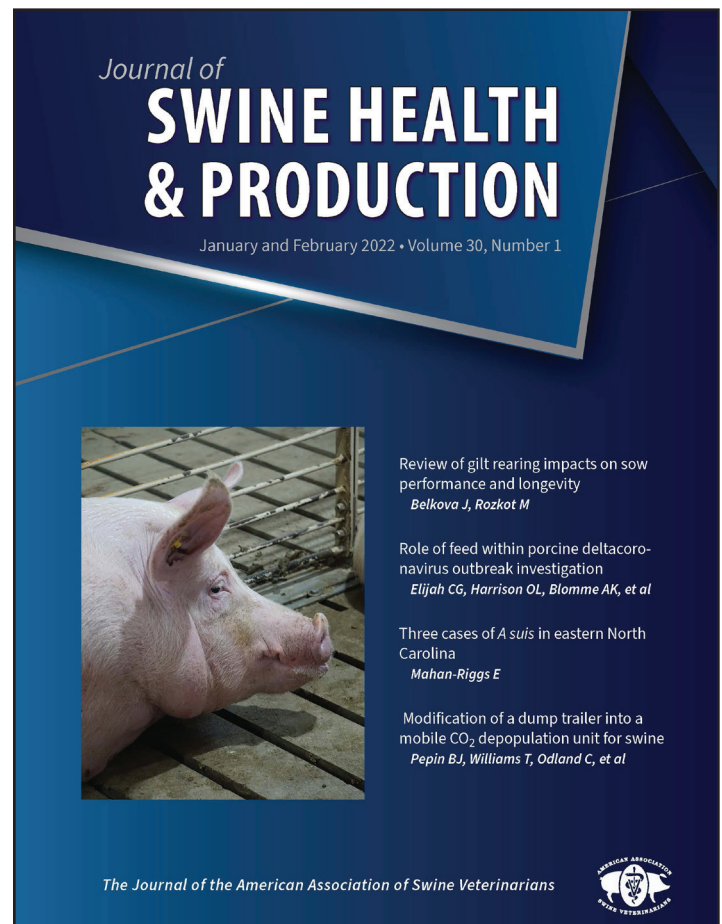
### Types of papers

The *Journal of Swine Health and Production* currently accepts manuscripts that meet the descriptions and formatting requirements defined in Table 1.

### Policies and procedures

#### Animal care and welfare

For animal experiments performed in research facilities or on commercial farms, include a statement indicating that the studies were reviewed and approved by an institutional animal care and use committee or equivalent. For case reports and studies performed under field conditions, in which animals are not manipulated beyond what would be required for diagnostic purposes, it must be clear that housing was adequate and that the animals were humanely cared for. If the study is exempt from animal care and use approval (eg, use of diagnostic records), authors need to clearly state the reasons in the manuscript. Place animal care and use statements in a separate section labeled with an "Animal care and use" heading. This section should immediately precede the "Materials and methods" heading or equivalent position depending on genre.



*Journal of*  
**SWINE HEALTH  
& PRODUCTION**

January and February 2022 • Volume 30, Number 1


Review of gilt rearing impacts on sow performance and longevity  
*Belkova J, Rozkot M*

Role of feed within porcine deltacoronavirus outbreak investigation  
*Elijah CG, Harrison OL, Blomme AK, et al*

Three cases of *A suis* in eastern North Carolina  
*Mahan-Riggs E*

Modification of a dump trailer into a mobile CO<sub>2</sub> depopulation unit for swine  
*Pepin BJ, Williams T, Odland C, et al*

The Journal of the American Association of Swine Veterinarians



### Authorship

According to the International Committee of Medical Journal Editors, all listed authors must have participated sufficiently to take public responsibility for the work. Individuals should only be listed as authors if contributions have been made in each of the following areas<sup>1</sup>:

- 1) Conception and design, acquisition of data, or analysis and interpretation of the data,
- 2) Drafting the manuscript or revising it critically for important intellectual content,
- 3) Approval of the version of the manuscript to be published, and
- 4) Agreement to be accountable for all aspects for the work, ensuring questions related to accuracy and integrity are investigated and resolved.



**THE JOURNAL OF THE AMERICAN ASSOCIATION OF SWINE VETERINARIANS**

**Table 1:** Manuscript genres and formatting requirements currently accepted by the *Journal of Swine Health and Production*

Genre	Description	Maximum words		Maximum No.		Other requirements*
		Abstract	Manuscript Body	Figures and Tables	References	
Original Research	Reports the results of original research on topics that are within journal scope.	250	4000	As needed	35	–
Brief Communication	Documents observations made in a narrowly defined research area or a mini-review of a subject area.	50	2000	2	15	–
Case Report	Describes an unusual or interesting case.	100	3000	As needed	As needed	Manuscript should not exceed 20 pages including figures, tables, and references.
Case Study	Describes unusual or interesting cases occurring on two or more farms.	100	3000	As needed	As needed	Manuscript should not exceed 20 pages including figures, tables, and references.
Literature Review	Review of the published scientific literature about a specific topic area in which important advances have been made in the past five years and is of current interest.	200	5000	As needed	As needed but most references should be recent (within 5 yrs) and avoid use of non-refereed references and personal communications.	Manuscript should not exceed 30 pages including figures, tables, and references.
Production Tool	Describes a practical, state-of-the-art technique for improving an individual swine enterprise or the swine industry at large.	100	3000	As needed	As needed	Manuscript should not exceed 20 pages including figures, tables, and references.
Diagnostic Note	Describes methods of diagnosis for swine diseases. A brief literature review may be included and use of non-refereed references and personal communications is not restricted.	100	3000	As needed	As needed	Manuscript should not exceed 20 pages including figures, tables, and references.
Practice Tip	Describes new technological methods likely to be of use to swine practitioners.	100	3000	As needed	As needed	Manuscript should not exceed 20 pages including figures, tables, and references.

**Table 1:** Continued

Genre	Description	Maximum words		Maximum No.		Other requirements*
		Abstract	Manuscript	Figures and Tables	References	
Peer-Reviewed Commentary	Commentary on diagnostic, research, or production techniques used in the field of swine health and production.	100	3000	As needed	As needed	Manuscript should not exceed 20 pages including figures, tables, and references.
Letter to the Editor (LTE)	Offers comment or useful critique on materials published in the journal.	-	500	0	5	The decision to publish an LTE rests solely with the executive editor. Letters referring to a published article will be forwarded to the author of the article, and both the original letter and the response will be published in the same issue if possible. Letters to the Editor are not peer-reviewed but are subject to editorial changes.

\* Page limits are for Microsoft Word documents using 1-inch margins, Times New Roman 12-point font (unless otherwise specified), and left justification with double-spacing throughout.

## Ethics

Authors are expected to observe high standards with respect to research and publication ethics. Fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results is considered research misconduct.<sup>2</sup> All cases of research misconduct will be investigated and addressed accordingly.

## Conflict of interest

Authors are required to declare the presence of any personal, professional, or financial relationships that could potentially be construed as a conflict of interest for the submitted manuscript, regardless of genre. This declaration is placed just before the reference section, and provides information concerning authors who profit in some way from publication of the paper. For example, one or more of the authors may be employed by a pharmaceutical company that manufactures a drug or vaccine tested in the study reported. Other examples include consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. If there is no conflict of interest to declare, the statement under the "Conflict of interest" heading is "None reported."

## Copyright transfer

When a manuscript is submitted to the JSHAP, a pre-review copyright agreement and disclosure statement must be signed by all authors. It is the responsibility of the corresponding author to secure these signatures. This form is available from the publications

manager. Scan and email signed copies to Karen Richardson at [jshap@aaav.org](mailto:jshap@aaav.org). When the manuscript is accepted for publication, the corresponding author will be required to transfer copyright to the AASV, with the exceptions of US government employees whose work is in the public domain, and portions of manuscripts used by permission of another copyright holder. Anyone acknowledged by name in the manuscript will need to sign an acknowledgment permission form.

## Prior publication

We do not republish materials previously published in refereed journals. Sections of theses and extension publications that may be of value to our readership will be considered. Prior publication of an abstract only (eg, in a proceedings book) is generally acceptable.

## Permissions

If copyrighted material is used, advise the editors of this at the time of manuscript submission. Authors are responsible for securing permission to use copyrighted art or text, including the payment of fees.

## Publication fees

There is no fee for publication of manuscripts in the JSHAP.



## Manuscript preparation

### File types

All manuscripts must be submitted as a Microsoft Word document using 1-inch margins, Times New Roman 12-point font (unless otherwise specified), and left justification with double-spacing throughout. Include continuous page and line numbers. Do not use numbered or bulleted lists in the summary or the text. Do not include tables or figures in this file, but do include table and figure references, such as (Table 1) or (Figure 1), within the text. Software programs that automatically create endnotes, footnotes, and references should be avoided in the final submitted version of the manuscript as the embedded formatting cannot be read by the publication software.

If the manuscript includes tables, create and submit them in a second Microsoft Word document titled "Art". Multiple tables can be submitted in a single Word document.

If the manuscript includes figures (graphs or images), submit each figure in a separate file titled as the respective figure number. Graphs created in Microsoft Excel should be submitted in the original .xls file(s). A graph created in statistics software can be submitted as a .pdf file. Photographs and images need to be high resolution .jpg files. Figure caption and legend texts should be submitted in a Microsoft Word file titled "Art" (included with Tables if applicable).

Sample templates have been created for each genre to assist authors in formatting their manuscript and can be accessed at [www.aasv.org/shap/guidelines](http://www.aasv.org/shap/guidelines).

### Supplementary materials

Supplementary materials are additional materials that are not essential to the understanding of the manuscript but provide important context to the manuscript and may be submitted for only online publication. Examples of materials accepted include extended descriptions of experimental methods or statistical analysis, extended bibliographies, additional supporting tables and figures, reporting checklists, copies of surveys or questionnaires, handouts, and forms.

For supplementary materials that are too large or in a format not consistent with JSHAP publication (eg, data sheets, presentations, audio, or video), authors are encouraged to upload and publish these files to a repository, such as FigShare, and reference the DOI within the manuscript.

Supplementary materials must be formatted according to the JSHAP Author Guidelines. There is no word or page limit for supplementary materials, but they should be succinctly presented to facilitate peer review. Acceptance of supplementary materials for publication is at the discretion of the editor. All JSHAP published supplementary materials are subject to copyright.

### General style

Manuscripts must be written in English and use American spelling and usage. The JSHAP uses the *AMA Manual of Style* for guidance on general style and form.<sup>3</sup> Specific style guidelines are as follows:

**Abbreviations.** The Summary, Tables, Figures, and body of the manuscript are considered independent sections of each other and therefore, all abbreviations must be defined at the first mention of the term being abbreviated within each respective section. Abbreviations should not be introduced in titles, headings, or sub-headings. Minimize the use of abbreviations in the manuscript and only introduce abbreviations if they are used again in the manuscript. When a term is abbreviated, the abbreviation should be used in place of the term throughout the manuscript except at the beginning of a sentence or as the sole term in headings and subheadings.

**Biological nomenclature.** The binomial name should be used for bacteria (eg, *Staphylococcus aureus*). The genus should be capitalized, and both genus and species should be italicized. After first mention, the genus portion of the name can be abbreviated (eg, *S aureus*). Use the common vernacular name for viruses unless indicating a taxonomic group, then use the formal name. Vernacular virus names are not capitalized unless a proper noun is part of the name (eg, African swine fever virus). When abbreviating, capitalize all letters including the "V" to represent virus (eg, porcine epidemic diarrhea virus [PEDV]).

**Commercial products.** The use of proprietary commercial product names should be avoided in titles and minimized in the manuscript. The use of generic or non-proprietary names is preferred. When a commercial product is used as part of an experiment, the manufacturer name should be provided in parentheses at the first mention in text, tables, and figures. The *AMA Style Guide* no longer requires the manufacturer's location be provided because this information is readily accessible online. The generic name should be used thereafter. Trademarked or registered names should be capitalized, but no <sup>TM</sup>, ©, or ® symbols should be used.

**Headings.** The JSHAP utilizes 3 levels of headings for publication. Major headings are bold, 14-point font and are dictated by the genre of the manuscript. The first level sub-headings are bold, 12-point font. The second level sub-headings are bold, 12-point font on the first line of the new paragraph and ending with a period. Sub-headings are meant to divide a primary part into secondary parts so there should be a minimum of 2 in a section where sub-headings are used. Heading format examples can be found in the templates for each genre ([www.aasv.org/shap/guidelines](http://www.aasv.org/shap/guidelines)).

**Numbers.** Numerals are used to express numbers in most circumstances. Exceptions are numbers that begin a sentence, title, subtitle, or heading, common fractions, numbers used as pronouns, ordinals *first* through *ninth*, and numbers spelled out in quotes or published titles.

**P values.** The JSHAP uses AMA style for *P* values. The *P* is capitalized and italicized and do not use a zero before the decimal point of a *P* value. The actual *P* value should be reported ( $P = .03$ ), rather than as a statement of inequality ( $P < .05$ ), unless  $P < .001$ . For  $P \geq .01$ , express values to 2 decimal places unless rounding would make a significant value appear nonsignificant, eg,  $P = .049$  would not be rounded. If  $P < .01$ , it should be expressed to 3 digits.

**Units of measure.** The JSHAP adheres, with a few exceptions, to the style of the American Medical Association, described in the *AMA Manual of Style*.<sup>3</sup> This includes use of the Système International (SI) for all measurements. Weights must be converted to kilograms. Exceptions may be made when measurements have a

precision that cannot be accurately converted to SI units, or when complex calculations or statistics have already been performed using non-SI units. Degrees Celsius are used rather than Kelvin (the standard for temperature in SI units), and calories are acceptable for referring to energy in diets. Report time and dates using conventional form (ie, 5:30 PM on February 26, 2016). The standard abbreviations for units of measure may be used without definition. Units of measure not accompanied by a numeric value or a numeric value that must be spelled out (eg, numbers that begin a sentence) should not be abbreviated. A conversion chart is included in Appendix A and in most issues of the printed journal.

## Other general style considerations:

- When listing items, use commas to separate all parts of the series (eg, green, red, and yellow).
- Do not use numbered or bulleted lists in the manuscript.
- Use brackets to indicate a parenthetical expression within a parenthetical expression: ([ ])
- Avoid use of jargon unfamiliar to scientists from other disciplines.
- Include spaces around mathematical signs of operation (+, <, >, =, etc).
- The use of “and/or” creates ambiguity and should not be used. It should be replaced with “and”, “or”, or “or both” (eg, one and two; one or two; or one, two, or both).

## Title page

The title page should include the following elements:

**Short title.** Provide a short title of 90 characters or less (including spaces) to be used on the journal cover. This short title should be a compressed version of the manuscript’s full title yet still convey the general topic of the manuscript. Common abbreviations may be used in the short title. Capitalize only the first word and any proper nouns.

**Genre.** Include the genre name that best describes the manuscript being submitted for review. The genre is bold and 14-point font.

**Title.** The manuscript title is bold and 14-point font with the first word only and any proper nouns capitalized. The title must be concise, specific, and informative without using abbreviations. Avoid titles that are overly general or phrased as a question. When possible, the title should be a statement of the main result or conclusion presented in the manuscript. Phrases such as “Role of,” “Effects of,” “Treatment of,” and “Use of” can often be omitted.

**Author byline.** List the names of authors along with their highest level of degree or professional certification. Additional degrees may be listed for an author if they denote a different field of study or a specialty degree, license, certification, or credentials. Fellowship and honorary degrees are omitted. Author names and degrees should be formatted as follows: “Alpha B. Charlie, degree; Julieta K. Lima, degree, degree; Mike N. Oscar, degree”. Author affiliations are provided separately so do not include any superscript symbols, letters, or numbers with author names.

**Author affiliations.** Provide the institutions, including location, with which each author is professionally affiliated. Affiliations are given by author initials in the order listed in the author line and then by institution. For example:

ABC, MNO: department, college, institution, City, State or Country. (State only if in the United States)

JKL: company name, City, State or Country. (State only if in the United States)

**Corresponding author.** Provide contact information for the author designated to receive all correspondence regarding manuscript submission and reader inquiries. Contact information should include name, complete mailing address, telephone number, and email. Please indicate at submission whether the email address can be published. For example:

**Corresponding author:** Dr Alpha B. Charlie, street address, City, State Zip; Tel: 515-555-5555; Email: **email@email.com**.

## Summary

The summary, or abstract, summarizes the main points of the full manuscript. The summary is considered independent of the manuscript body and therefore should provide appropriate detail of the study methodology, pertinent results, and statistical evidence. Abbreviations can be used in the summary but must be defined at the first mention of the term. Minimize the use of abbreviations and only introduce abbreviations if they are used again in the summary. When a term is abbreviated, the abbreviation should be used in place of the term throughout the summary except at the beginning of a sentence. Do not cite references in the summary.

**Word limit and format.** Authors must adhere to the summary word limit and format specific to the genre:

- Original research – 250 words including the following sub-headings: Objective(s), Materials and methods, Results, and Implication(s).
- Literature review – 200 words, in paragraph form with no sub-headings.
- Case report, case study, production tool, diagnostic note, practice tip, or peer-reviewed commentary – 100 words, in paragraph form with no sub-headings.
- Brief communication – 50 words, in paragraph form with no sub-headings.

**Keywords.** Keywords represent the key topics presented in the article. Authors must include “swine” as the first keyword with up to 4 additional words or phrases for a total of 5 keywords. The first letter of each keyword is lowercase, unless it is a proper noun, and no abbreviations should be used.

## Manuscript body – original research and brief communication

Original research and brief communication manuscripts should follow the traditional structure of research articles, including sections for introduction, materials and methods, results, and discussion.

**Introduction.** This section has no heading or sub-headings. The introduction provides context and justification for the research and how the work fills in gaps in the literature. The introduction should end with a clear statement of the objectives of the study and the hypothesis or research question. It should generally not exceed 2 or 3 paragraphs.

**Animal care and use.** For animal experiments performed in research facilities or on commercial farms, include a statement indicating that the studies were reviewed and approved by an institutional animal care and use committee or equivalent. For studies performed under field conditions, in which animals are not manipulated beyond what would be required for diagnostic purposes, it must be clear that housing was adequate and that the animals were humanely cared for. If the study is exempt from animal care and use approval (eg, use of diagnostic records), authors need to clearly state the reasons in the manuscript.

**Materials and methods.** Sub-headings may be used in this section but are not required. This section should include sufficient detail to enable the reader to repeat the study. This includes, as appropriate, a detailed description of the study design; date and location of study; condition, factors, or disease studied; sample population, including inclusion and exclusion criteria and treatment allocation; interventions or treatments and how and when they were applied; outcomes measured or observations made; and statistical analysis used with a statement on the level of significance used for hypothesis testing.

**Results.** Sub-headings may be used in this section but are not required. The results section should include a description of the major findings that are simply stated without discussion or conclusions. Data should be presented in the form of tables or figures when feasible and referenced parenthetically in the text. This section should explain or elaborate on the data presented in tables and figures but do not repeat numbers from the tables and figures in the text. Do not present the same data in both a table and a figure. Reporting the *P* value is preferred to the use of the terms significant and not significant to allow readers to decide what to reject.

**Discussion.** This section should have no sub-headings. The discussion should provide comments on or explanation of the results, but lengthy reiteration of the results should be avoided. Do not include *P* values, unless citing from other research, or introduce data that has not been previously presented in the Results section (ie, no new data). Do address the research question or hypothesis and compare the results with those reported in other studies. Provide explanation for unexpected results or results that differ from those previously reported. Discuss any limitations of the study, the generalizability of the results, and what further research may be needed. The discussion must be consistent with the data from the research and authors should limit speculation.

### Manuscript body – case report and case study

**Introduction.** This section has no heading or sub-headings. The introduction includes history and review of similar cases to provide context and justification for the case report or study. The introduction should end with a clear statement of the objectives of the study. It should generally not exceed 2 or 3 paragraphs.

**Case description.** Sub-headings may be used but are not required. This section should include a detailed description of the case(s) including but not limited to symptoms at presentation, physical exams, and laboratory results.

**Discussion.** This section should have no sub-headings. The discussion should provide commentary on the case findings including comparing the results with those reported in other studies and providing explanation for unexpected results or results that differ from those previously reported. Discuss diagnosis and treatment, the generalizability of the results, and what further research may be needed.

### Manuscript body – literature review, production tool, diagnostic note, practice tip, and peer-reviewed commentary

The body of literature review, production tool, diagnostic note, practice tip, and peer-reviewed commentary manuscripts are organized as required by the content. Inclusion of major headings and sub-headings should guide the reader with the progression of the manuscript making it easier to read. Note that the introduction does not have headings or sub-headings.

### Implications

Note: literature review and practice tip manuscripts are exempt from providing implications.

Implications outline the practical application or impact of the study results or the “take-home” messages for readers. Implications should be presented as provisional to the parameters and conditions of the study and should not over-generalize the results. Some questions that may be answered by the implications include:

- How do the results of this study connect with what has been previously published?
- What new ideas have been generated by this research?
- What are the limitations of the data, methods, or results of this study?
- What are the consequences of the most significant findings of this research?
- How do the outcomes of this research impact the question or situation presented in the introduction of the manuscript?

No new information or concepts should be introduced in this section and implications should not simply repeat the context, objectives, or results of the study (ie, be a summary of the summary). Manuscripts are limited to 3 bulleted implications, each with a maximum of 80 characters including spaces.

### Acknowledgments

Authors should acknowledge specific colleagues, institutions, or agencies that have made substantial contributions to the work but do not qualify for authorship, and persons who have contributed their skills to the preparation of the manuscript. Individuals named in the acknowledgments must have given their permission to the authors and, upon acceptance for publication, signed the Acknowledgment permissions form to be listed. Authors should also acknowledge sources of funding and support for the work presented in the manuscript.

**Conflict of interest.** Authors must declare whether the submitted work was carried out in the presence of any personal, professional, or financial relationships that could potentially be construed as a conflict of interest. This declaration provides information concerning authors who profit in some way from publication of the paper. For example, one or more of the authors may be employed by a pharmaceutical company that manufactures a drug or vaccine tested in the study reported. Other examples include consultancies, stock ownership, honoraria, paid expert testimony, patent applications/registrations, and grants or other funding. If there is no conflict of interest to declare, the statement under the “Conflict of interest” heading is “None reported.”

**Disclaimer.** The following disclaimer statement is required in all JSHAP manuscripts. Authors are also required to discuss issues specific to their manuscript.

“Scientific manuscripts published in the *Journal of Swine Health and Production* are peer reviewed. However, information on medications, feed, and management techniques may be specific to the research or commercial situation presented in the manuscript. It is the responsibility of the reader to use information responsibly and in accordance with the rules and regulations governing research or the practice of veterinary medicine in their country or region.”

## References

Authors are responsible for the accuracy of their references. References must be cited in the text using consecutive superscript numbers and listed at the end of the text in numerical order. For 2 or more references cited at a given place, use commas with no space to separate numbers and use hyphens to join the first and last numbers of a closed series (eg, citation<sup>1,3</sup> or citation<sup>1-3</sup>). Place superscript numerals outside periods and commas and inside colons and semicolons (ie, Citation.<sup>3</sup> Citation,<sup>3</sup> citation<sup>3</sup>: citation<sup>3</sup>). Do not place a superscript reference immediately after a number or abbreviated unit of measure. Do not use field codes to link the superscript reference numbers in the text to the reference list. Non-refereed references are marked with an asterisk to the left of the reference number in the reference list and the following notation “\*Non-refereed references.” is placed at the end of the reference list. Only personal communications may remain in the text in parentheses. Format references according to the *AMA Manual of Style*.<sup>3</sup> Specific examples can be found in Table 2. For all references, please remember to:

- list all authors, do not use “et al”
- retain the spelling and abbreviations of the original title,
- provide English translations in brackets following non-English-language titles,
- remove all spaces between numbers and punctuation from the year onward,
- include the issue number only if the journal is paginated by issue,
- write out the page numbers separated with a hyphen (eg, 120-128, not 120-8), and
- italicize and abbreviate all journal titles according to the US National Library of Medicine rules ([www.nlm.nih.gov/pubs/factsheets/constructitle.html](http://www.nlm.nih.gov/pubs/factsheets/constructitle.html)) and catalog ([www.ncbi.nlm.nih.gov/nlmcatalog/journals](http://www.ncbi.nlm.nih.gov/nlmcatalog/journals)). Do not use periods within the abbreviation (eg, *Vet Rec.*, not *Vet. Rec.*).

## Tables

Reference all tables in the manuscript text, citing them in consecutive order. Tables must be created so they can be understood without referencing information in the body of the manuscript. Tables must be created using the table function in Microsoft Word and saved in a second file titled “Art” separate from the manuscript (may also include figure legends).

Each table should have a brief title formatted in sentence case with only the first word and proper nouns capitalized. The title should not end with a period.

Each table column must have a heading. Units should be separated from headings by a comma, rather than being shown in parentheses. Parentheses should be used instead of the  $\pm$  symbol throughout the table and the number defined in the column heading. For example:

Treatment	Age, mean (SD), mo	Female, No. (%)	Weight, mean (SD), kg
Group 1	2.9 (0.2)	107 (53)	9.5 (1.2)

Tables should not have missing data fields. Use the numeral “0” to indicate the value of the data is zero. Use the abbreviation “NA” to denote not available, not analyzed, or not applicable and define the abbreviation accordingly in the abbreviations footnote. Lowercase, superscript letters are used to indicate significant differences among means within a row or column.

Use footnotes to explain data in the body of the table, identifying each footnote with a symbol. Symbols should be used in this order: \*†‡§¶. Double the symbols in the same order if more are needed. Footnotes should appear below the table with each footnote beginning on a new line. The manufacturer name must be provided for any proprietary product appearing in a table. When appropriate, include a footnote to provide the name of the statistical method used for reported *P* values. This footnote is designated by a symbol or by lowercase, superscript letters if used in the body of the table.

The final footnote should define all abbreviations used in the table. No symbol is used for this footnote. Abbreviations are not limited to those terms abbreviated in the manuscript but do ensure that table abbreviations are consistent with any abbreviations used in the manuscript.

## Figures

Reference all figures in the manuscript text, citing them in consecutive order. Figures must be created so they can be understood without referencing information in the body of the manuscript. Figure legends should be created in Microsoft Word and saved in a second file titled “Art” separate from the manuscript (may also include tables). Figures (images and graphs) should each be submitted in a separate file titled as the respective figure number. Graphs created in Microsoft Excel should be submitted in the original .xls file(s). A graph created in statistics software can be submitted as a .pdf file. Photographs and images need to be high resolution .jpg files.



**Table 2:** Reference examples per the AMA Style Guide<sup>3</sup>

Citation type	Format	Example
Journal article	Author(s). Title. <i>Journal name</i> . Year;Volume(Issue):Page number(s) or e-locator. doi:# (if supplied)	Henao-Diaz A, Ji J, Giménez-Lirola L, Baum DH, Zimmerman J. Understanding and interpreting PRRSV diagnostics in the context of “disease transition stages”. <i>Res Vet Sci</i> . 2020;131:173-176. <a href="https://doi.org/10.1016/j.rvsc.2020.04.023">https://doi.org/10.1016/j.rvsc.2020.04.023</a>
Book chapter (print)	Chapter author(s). Chapter title. In: editor(s). <i>Book title</i> . Edition number (do not indicate 1 <sup>st</sup> edition). Publisher; Year:Page number(s).	Chang C-C. Bunyaviruses. In: Zimmerman JJ, Karriker LA, Ramirez A, Schwartz KJ, Stevenson GW, Zhang J, eds. <i>Diseases of Swine</i> . 11 <sup>th</sup> ed. Wiley Blackwell; 2019:461-463.
Book chapter (online)	Chapter author(s). Chapter title. In: Book author(s) or editor(s). <i>Book title</i> . Edition number (do not indicate 1 <sup>st</sup> edition). Publisher; Year:Page number(s). Accessed date. URL	Neumann EJ, Ramirez A, Schwartz KJ. African swine fever. In: Neumann EJ, Ramirez A, Schwartz KJ, eds. <i>Swine Disease manual</i> . 5 <sup>th</sup> ed. American Association of Swine Veterinarians. 2020:63-64. Accessed December 21, 2020. <a href="https://www.aasv.org/library/swineinfo/item.php?25306">https://www.aasv.org/library/swineinfo/item.php?25306</a>
Book (print)	Author(s) or editors(s). <i>Book title</i> . Edition number (do not indicate 1 <sup>st</sup> edition). Name of publisher; Year.	Zimmerman JJ, Karriker LA, Ramirez A, Schwartz KJ, Stevenson GW, eds. <i>Diseases of Swine</i> . 11 <sup>th</sup> ed. Wiley-Blackwell; 2019.
Website	Author(s). Title. Name of website. Date published. Updated date. Accessed date. URL	* Holtkamp D. Economic impact of <i>Mycoplasma hyopneumoniae</i> on pig farms. Pig 333. September 19, 2014. Accessed December 21, 2020. <a href="https://www.pig333.com/articles/economic-impact-of-mycoplasma-hyopneumoniae-on-pig-farms_8936/">https://www.pig333.com/articles/economic-impact-of-mycoplasma-hyopneumoniae-on-pig-farms_8936/</a>
Government/ Organization reports	Author(s). Title. Year. Page(s)/publication/series numbers. Accessed date (if online). URL (if online)	* United States Department of Agriculture Animal and Plant Health Inspection Service. Procedure manual for classical swine fever (CSF) surveillance. 2007. Accessed May 3, 2020. <a href="https://www.aphis.usda.gov/vs/nahss/swine/csf/CSF_procedure_manual_2007.pdf">https://www.aphis.usda.gov/vs/nahss/swine/csf/CSF_procedure_manual_2007.pdf</a> .
Conference presentation	Author(s). Title. Poster/Paper presented at: Meeting name; Meeting Date; Meeting Location.	* Boyle L. Interrelationship between pig health and welfare and implications for antibiotic use. Paper presented at: Pig Welfare Symposium; November 13-15, 2019; Minneapolis, MN.
Conference proceedings	Author(s). Title. In: <i>Conference Proceedings Title</i> . Publisher; Year:page(s).	* Marsh BD. Trust the people. In: <i>Proceedings of the 51<sup>st</sup> AASV Annual Meeting</i> . American Association of Swine Veterinarians; 2020:1-6.
Thesis or dissertation	Author. Title. Dissertation or Thesis. Institution name; Year.	Casey D. <i>The use of electronic feeders in genetic improvement programs for swine</i> . Dissertation. Iowa State University; 2003.
Personal communications	Cited in the manuscript text instead of reference list.	Personal communications references should be used judiciously and must include name, academic degree(s), date of communication, and how the communication was documented (eg, letter, email, document).

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**Figure title and legend.** Each figure must have a title that is descriptive and brief in sentence case with only the first word and proper nouns capitalized. This is followed by the legend and abbreviation definitions in paragraph form. The legend includes a brief description of treatments, level of significance, *P* values, and the statistical method used. The manufacturer name must be provided for any proprietary product appearing in the figure or described in the figure legend. For figure with more than one panel, panels should be clearly indicated using labels (A), (B), (C), (D), etc. All abbreviations used in the figure are defined.

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# Appendix A

## CONVERSION TABLES

Weights and measures conversions			
Common (US)	Metric	To convert	Multiply by
1 oz	28.35 g	oz to g	28.35
1 lb (16 oz)	0.45 kg	lb to kg	0.45
2.2 lb	1 kg	kg to lb	2.2
1 in	2.54 cm	in to cm	2.54
0.39 in	1 cm	cm to in	0.39
1 ft (12 in)	0.3 m	ft to m	0.3
3.28 ft	1 m	m to ft	3.28
1 mi	1.6 km	mi to km	1.6
0.62 mi	1 km	km to mi	0.62
1 in <sup>2</sup>	6.45 cm <sup>2</sup>	in <sup>2</sup> to cm <sup>2</sup>	6.45
0.16 in <sup>2</sup>	1 cm <sup>2</sup>	cm <sup>2</sup> to in <sup>2</sup>	0.16
1 ft <sup>2</sup>	0.09 m <sup>2</sup>	ft <sup>2</sup> to m <sup>2</sup>	0.09
10.76 ft <sup>2</sup>	1 m <sup>2</sup>	m <sup>2</sup> to ft <sup>2</sup>	10.8
1 ft <sup>3</sup>	0.03 m <sup>3</sup>	ft <sup>3</sup> to m <sup>3</sup>	0.03
35.3 ft <sup>3</sup>	1 m <sup>3</sup>	m <sup>3</sup> to ft <sup>3</sup>	35.3
1 gal (128 fl oz)	3.8 L	gal to L	3.8
0.26 gal	1 L	L to gal	0.26
1 qt (32 fl oz)	0.95 L	qt to L	0.95
1.06 qt	1 L	L to qt	1.06

Temperature equivalents (approx)	
°F	°C
32	0
50	10.0
60	15.5
61	16.1
65	18.3
70	21.1
75	23.8
80	26.6
82	27.7
85	29.4
90	32.2
102	38.8
103	39.4
104	40.0
105	40.5
106	41.1
212	100.0

$$^{\circ}\text{F} = (^{\circ}\text{C} \times 9/5) + 32$$

$$^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times 5/9$$

Conversion calculator available at:  
[amamanualofstyle.com/page/si-conversion-calculator](http://amamanualofstyle.com/page/si-conversion-calculator)

Conversion chart, kg to lb (approx)		
Pig size	Lb	Kg
Birth	3.3-4.4	1.5-2.0
Weaning	7.7	3.5
	11	5
	22	10
Nursery	33	15
	44	20
	55	25
	66	30
Grower	99	45
	110	50
	132	60
Finisher	198	90
	220	100
	231	105
	242	110
	253	115
Sow	300	136
	661	300
Boar	794	360
	800	363

1 tonne = 1000 kg

1 ppm = 0.0001% = 1 mg/kg = 1 g/tonne

1 ppm = 1 mg/L