

Guide for Authors 2023 Revision

The American Journal of Enology and Viticulture (AJEV) is a hybrid journal published by the American Society for Enology and Viticulture (ASEV). Authors need not be ASEV members in order to publish in AJEV. AJEV publishes peer-reviewed research reports, reviews, insights, technical reports, and letters on subjects related to enology and viticulture. Submissions may be text or video-based, and span the disciplines of enology and viticulture and related fields such as biochemistry, biocontrol, chemistry, ecology, economics, engineering, management sociology, microbiology, pest management, plant biology, plant genetics, plant pathology, plant physiology, sensory and consumer sciences, soil science, waste management, and other applicable areas.

Research Reports are full-length communications that present original scientific findings, rigorously test a hypothesis, describe a new principle, or otherwise provide important novel information to the scientific community. Descriptive studies that are hypothesis generating also fit into this category.

Reviews are full-length communications that synthesize and critically evaluate hypotheses and recent developments within a specific research area to stimulate new ideas in that area. They may also discuss new practical or methodological discoveries and procedures to help translate basic knowledge into practice. Reviews include surveys and comparative analyses of production options, wine laboratory methods, winemaking or vineyard management practices, grape variety or rootstock fact sheets, diagnostic guides, vineyard mapping and crop estimation protocols, as well as scientific advancements and their potential impact on industry practices.

Insights are mini-reviews (<5 pages; <3000 words) that may serve as resources for research, extension, and teaching. They provide critical information or a novel perspective on issues or processes including protocol optimization, method development or application, best practices, topical advice, software use and selection, production database development, and management. Insights may include invited contributions on topics presented at the ASEV annual meeting; such invited contributions do not incur article processing fees or other publication charges.

Technical Reports are short communications (<5 pages; <3000 words) that present innovative material or new information that might not be acceptable as a full-length research report but is widely applicable. Examples include research findings, methods, tools, or resources that may be limited in scope, preliminary, or have negative results, but suggest new insights, provide new or improved methods or a comparative analysis of the impact of different methods. Presentation of a new method requires the inclusion of a detailed protocol.

Letters are short communications (<3 pages; <2000 words) without an abstract that serve as a forum for scientific or technical findings or ideas. Letters are highly focused and provide timely, science-based analyses of critical or emerging issues

AJEV has undergone a substantial update

Highlights:

- New article types
- Continuous publication (versus issue-based)
- Online only (with Print-on-Demand available)
- Online submission: <http://ajev.edmgr.com>
- Format and organize submission as explained in [Manuscript Formatting](#)

impacting the grape or wine industries at the regional, national, or international scale. Examples include impending regulatory changes, emerging pests and diseases, or changing consumer perceptions.

Submission of Text-based Manuscripts

The AJEV accepts all submitted contributions online at <http://ajev.edmgr.com>. The corresponding author will submit a cover letter together with the submission that states that all authors have contributed to and approved the submission, and that it is not currently submitted to or in review with another publication. A signed copy of the [AJEV Author Agreement](#), which can be found on both the [AJEV journal](#) and [Editorial Manager submission](#) sites, must be included with the submission (upload, fax, email, or mail to the Journal office). Submissions should be formatted and organized as explained in the [Manuscript Formatting](#) section.

Review Process

All submitted contributions are evaluated by peers on the basis of scientific or technical merit, novelty, and potential for impact.

Manuscripts that are largely descriptive, confirmatory, or that otherwise do not present any new information or novel insights will not be accepted. Any correspondence from the authors should be directed to the managing editor. AJEV does its best to return timely reviews, but reviewers and editors volunteer their time and may often be delayed by other duties. Authors are expected to review other submitted manuscripts when requested by AJEV. The editors reserve the right to edit accepted manuscripts to make them conform with AJEV style and/or to return them to the authors for further clarification. Authors submitting a revision are required to include a point-by-point response to each reviewer comment and indicate the line number in the revised manuscript for any revision that has resulted in text changing location within the manuscript. Authors should submit their revised manuscript with changes highlighted in color and track changes disabled. Revisions that have not been submitted within six months following the date of the initial decision notification letter will be considered withdrawn (with pre-notice communicated to the author by the managing editor). If the authors wish for the manuscript to still be considered by AJEV, the manuscript will be required to be resubmitted and undergo a full review process.

Text-based contributions. Text-based contributions are those in which the bulk of the contribution is written, though articles may contain short, embedded videos in cases where a

video can convey information more clearly than a static figure. See section on video-based contributions for information on appropriate video formatting. The viticulture and enology editors assign each manuscript to an associate editor. Manuscripts then undergo a two-step review process. Manuscripts are first screened to determine whether they meet AJEV standards of scientific rigor and language. A manuscript that passes the initial screening is generally sent to two peer reviewers. Authors are required to suggest at least three peer reviewers who are not members of their institutions or collaborators; they may also note individuals who they prefer not to review their manuscript. Author-recommended reviewers are invited at the discretion of the associate editor. Additional reviewers may be consulted at the associate editor's discretion. AJEV has a single-blind review process in that authors are identified to reviewers, but reviewers are not identified to authors. Review decisions are: Accept, Revise, or Reject (with or without invitation to resubmit), with comments of the reviewers and associate editor supporting the decision provided to the author. The managing editor will forward reviewer comments and the associate editor's decision regarding acceptability of the manuscript to the corresponding author.

Video-based contributions. While text-based contributions may contain short, embedded or supplemental videos to help illustrate key points, video contributions may stand alone, without accompanying text. They present novel information in a structured manner, using the audio-visual medium as an alternative to traditional text-based formats. Stand-alone video contributions are expected to meet similar scientific and technical standards as text-based submissions and will undergo a three-step review process. Using the "Video" submission type in Editorial Manager, authors should initially submit a script of the proposed video that describes the content to be covered and the nature of the visual materials to be filmed (see section on video submission). The associate editor will conduct a screening review of the script to determine if it meets criteria for novelty and impact and is technically sound. If the script passes this initial review, it will be sent to two peer reviewers to provide a more thorough review of the content and the proposed visuals to be used in the filming. The managing editor will forward reviewer comments and the associate editor's decision regarding acceptability of the script to the corresponding author. Review decisions are: Accept, Revise, or Reject. Authors who meet the standards for acceptable video presentation will then be invited to proceed with filming. Once the video filming is complete, the authors should submit the video through Editorial Manager as a revision. The submitted video will then be screened by the associate editor and sent to two peer reviewers to determine if it meets journal standards of quality of presentation. The associate editor will make the final decision to accept/revise/reject the video. The goal of this review process is to provide input to the authors at the conceptual stage of the proposed video so that only those concepts likely to ultimately be accepted are pursued. Multiple styles of video are acceptable (voice, voice-over, live, animation, etc.). The visual and audio components of the video must be of sufficient quality to assure viewers will engage with the material. The audio component must be clearly audible at all times and the visual component should possess sufficient lighting and contrast so that key visual elements are clearly discernable.

Journal Publishing Best Practices

The AJEV does not review or accept articles submitted to or published in other peer-reviewed publications, and it is unacceptable for an author to submit manuscripts that describe the same research to more than one journal. AJEV does not accept manuscripts from commercial vendors and suppliers unless they meet our scientific standards for publication and lack of product promotion. Submitted manuscripts that may overlap with previously published material, for example, conference proceedings or commercial websites, must be accompanied by an electronic version of that published material. Data that were previously published in conference proceedings might be considered suitable for publication in AJEV if the manuscript submitted to AJEV integrates the data from the conference proceedings within a substantially more comprehensive analysis. Authors of manuscripts containing such data must clearly state this in the cover letter, detailing the differences between the conference proceedings manuscript and the manuscript submitted to AJEV. The editors will make the final determination as to the suitability of such manuscripts.

Authorship should be based only on substantial contributions to (1) the conception and design of experiments or analysis and interpretation of data and (2) the drafting of the paper or major revision for important intellectual content. The corresponding author must obtain final approval of the manuscript from all authors. All authors must have agreed to submission of the paper and to take public responsibility for defending its content, and have agreed that the corresponding author act on their behalf on all matters pertaining to publication. It is the corresponding author's responsibility to provide all coauthors with a copy of both the submitted and final manuscripts.

All authors must reveal to the editors any conflict of interest in the research, including financial interest and patent ownership or application, any relationship with a funding source, as well as any financial interest in any entities manufacturing, distributing, or selling any products that are noted in the manuscript. In some cases, publication may be contingent on such disclosure, and the editors may recommend general statements regarding such disclosure be added to the acknowledgments section of the manuscript. For all manuscripts, all funding sources, institutional and corporate, must be cited in the acknowledgments section.

Manuscript Formatting

Format manuscripts for letter-size (8.5 x 11 inch) paper, in Times New Roman font, with numbered pages, and double-spaced lines that are consecutively numbered. All manuscripts must be submitted as a Microsoft Word, or similar (such as Pages), file. Manuscripts written using other programs such as LaTeX must first be converted to a .doc or .docx file before submission to AJEV. There are Word templates for formatting your manuscript on both <http://ajev.edmgr.com> and www.ajevonline.org. All manuscripts must follow American-English standards of spelling and scientific notation (see [abbreviations](#) at the end of this guide and consult [The ACS Style Guide](#) [American Chemical Society] as a reference).

Manuscripts should identify the article type (Research Report, Technical Report, Review, Insight, or Letter) and follow guidelines for that article type (listed below).

- **Research Reports** and **Technical Reports** will contain the following sections: Abstract; Introduction; Materials and Methods; Results; Discussion; Conclusion; References. Some flexibility will be exercised to accommodate papers describing models, surveys, and economic studies
- **Reviews** and **Insights** will also contain an Abstract, Introduction, Conclusion, and References, but are otherwise more flexible in the inclusion of other sections. For example, when describing a best practice, protocol optimization, method development, or topical advice, there will need to be a section describing the protocol, why it is optimal, or how it was optimized
- **Letters** do not contain sections other than References where appropriate, but instead will summarize the main points in the first paragraph

Prepare manuscripts in the following order, as appropriate for each article type:

Title (all article types)

The title must reflect the important aspects of the article as concisely as possible, in no more than 120 characters. Short yet descriptive titles are preferred. Titles should be declarative in nature (reflecting take-home messages) rather than descriptive (covering the scope of the article). Questions are not suitable for titles.

Authorship and byline (all article types)

List the first and last names of all authors. List the authors' current affiliations and the corresponding author's address, email, and/or fax number. If an author's affiliation has changed between the time of submission and publication, please notify the managing editor with the present affiliation and address, which will be included on the manuscript.

Acknowledgments (all article types)

Note the source(s) of funds and materials used to conduct the research and where research was conducted, if applicable, and note any potential or perceived conflicts of interest by any authors. Give personal acknowledgments of assistance and nonauthor contributions.

Abstract (Research Reports, Technical Reports, Reviews, Insights)

The AJEV uses an expanded abstract format divided into sections with the following headings: Background and Goals; Methods and Key Findings; Conclusions and Significance. Abstracts for full-length articles are limited to 250 words; abstracts for short communications are limited to 200 words. No references, figures, or tables should be cited in the abstract.

Key words (all article types)

Include a list of up to six key words related to the major themes or topic of the article.

Introduction (Research Reports, Technical Reports, Reviews, Insights)

Provide a background review of existing knowledge, citing salient literature. Clearly describe the knowledge gap that the research was designed to address and how the research

approach addresses this knowledge gap. Conclude with the hypothesis involved and/or the purpose of the investigation.

Materials and Methods (Research Reports, Technical Reports)

Enough detail must be given so that others may repeat your work. Identify the number of replications of experimental treatments and the number of times individual experiments were repeated. For standard methods, cite the corresponding literature; describe in adequate detail those procedures that have not been fully described in cited publications. List model number and sources (vendor name) of equipment and media. Clearly describe methods of statistical analysis. Specify conditions or variables whose control influences the experimental results (e.g., use of colored lights or glasses in sensory evaluation). Refer to the sections [Reporting Information](#), [Reporting Vineyard Trials](#), [Reporting Winemaking](#), [Reporting Sensory Evaluation](#), and [Reporting Ampelographic and Molecular Marker Data](#) for more detailed requirements.

Results (Research Reports, Technical Reports)

Report the results of your study here; reserve your interpretation of the results for the Discussion section. Present results concisely in the text and any accompanying tables and figures, if necessary. Avoid extensive use of graphs; tables are often more effective. Avoid duplicative presentation of the same results. If specific results are given in tables, then do not repeat that information in the text (e.g., significance values). In short articles, the Results and Discussion sections may be combined.

Discussion (Research Reports, Technical Reports)

Critically evaluate and interpret the results in relation to previous literature, propose explanations for the results observed, and discuss possible limitations and applications. Avoid speculation unsupported by the data obtained.

Conclusion (Research Reports, Technical Reports, Reviews, Insights)

Specify conclusions concerning the original problem/hypothesis and the information given in the article. This final section should complement the Introduction by summarizing how the study findings address the knowledge gap and whether the results support the initial hypothesis. Do not simply summarize the article and do not introduce new information or cite literature sources. The conclusion section should communicate the implications of the findings rather than repeat specific results.

References (all article types)

Authors must ensure the accuracy of all references listed. In the full-text version of www.ajevonline.org, Internet hyperlinks between the listed references and the actual referenced articles will not link if there are errors in the information (author, title, journal title, volume and page numbers). Readers increasingly depend on these hyperlinks, making it imperative that information is accurate and complete. In addition, the Digital Object Identifier (DOI) should be provided for each listed reference if available. Please include the hyperlink for each listed DOI. If reference management software was used to format the references and citations in the manuscript, all field codes (gray shading) must be removed prior to submission.

Reference Formatting

List only published, relevant references that are accessible through an information system: journal articles, books, chapters in books, proceedings, bulletins, reports, patents, theses, dissertations, and in-press articles that have a date, volume, and page numbers. Peer-reviewed references are preferred. All listed references must be cited within the text. The accuracy of any information that the authors provide in the Reference list is the responsibility of the authors.

Do not include the following in the References section:

These should be referred to in parentheses in the text (see examples at the bottom of the next column)

- Unpublished abstracts and oral presentations
- Unpublished data
- Personal communications
- Manuscripts in preparation or submitted for publication
- Letters
- Company publications
- Databases
- Software used for analysis

For personal communication and unpublished data, obtain permission from the person cited and provide the editors with the written permission. Submit unpublished manuscripts and/or data that are essential to the submitted manuscript together with the manuscript to provide enough background for the reviewers and the handling editor.

The AJEV uses the author and date in parentheses system for in-text citations. Consult the sample issue of AJEV posted at ajevoonline.org and the following examples for the correct format. Arrange citations chronologically by date of publication, with the earliest date first. Separate multiple citations with a comma between each citation (example: Boulton et al. 1996, North et al. 2021). All authors of an article must be listed, unless there are more than six authors (if so, list the first six authors and “et al.”). In edited works, if there are three or more editors, list the first editor and “et al.” If a source has no author, list the sponsoring organization or publisher; do not use “Anonymous.”

If more than one work by the same author is cited, list the publications in chronological order; if the year is identical, insert lowercase letters (e.g., 2022a, 2022b, 2022c) after the date according to the order each source is cited in the text. Please note that if reference management software (e.g., EndNote, Mendeley, Reference Manager, etc.) was used, the formatting does not always match AJEV’s style and references may require manual correction. Check formatting of references following building of the PDF in Editorial Manager. The correct order of elements in sources is noted in the following examples.

Journal article

North M, Workmaster BA and Atucha A. 2021. Cold hardiness of cold climate interspecific hybrid grapevines grown in a cold climate region. *Am J Enol Vitic* 72:318-327. DOI: 10.5344/ajev.2021.21001.

In-text citation: (North et al. 2021) [for three or more authors, use “et al.” following the first author’s name]

Book

Boulton RB, Singleton VL, Bisson LF and Kunkel RE. 1996. *Principles and Practices of Winemaking*. Chapman & Hall, New York.

In-text citation: (Boulton et al. 1996)

Chapter in book

Sponholz WR. 1993. Wine spoilage by microorganisms. *In Wine Microbiology and Biotechnology*. Fleet GH (ed.), pp. 395-420. Harwood Academic Publishers, Chur, Switzerland.

In-text citation: (Sponholz 1993)

Conference proceedings

Wample RL and Wolf TK. 1996. Practical considerations that impact vine cold hardiness. *In Proceedings for the Fourth International Symposium on Cool Climate Enology and Viticulture*. Henick-Kling T et al. (eds.), pp. 23-38. New York State Agricultural Experiment Station, Geneva.

In-text citation: (Wample and Wolf 1996)

Thesis

Wolpert JA 1983. Cold acclimation of Concord grapevines. Thesis, Michigan State University, East Lansing.

In-text citation: (Wolpert 1983)

References listed in text

References to unpublished data, personal communication, articles submitted for publication, software, websites, databases, company publications, and unpublished abstracts should be listed in the text in parentheses:

Unpublished data and communications: (A. Reynolds, unpublished data); (G. Creasy, personal communication).

Software: “. . . data were analyzed with SAS statistical software (ver. 8.1; SAS Institute).”

Website: “as found on the ASEV website (www.asev.org).”

Database: “. . . vector sequences were removed by cross-match (www.genome.washington.edu).

AJEV Video Submission Format

The video script and storyboard should use the following format:

AJEV VIDEO SUBMISSION

Title of Video production:

Authors and Affiliations:

ABSTRACT and CONCEPTS (300 word summary of goal and expected content of video):

SCRIPT and STORYBOARD

NAME of Corresponding Author/Videographer:	TYPE OF VIDEO: live, animation, voice, voice-over, combination
Contact information:	PROPOSED LENGTH:
TOPIC: TITLE:	
Visual Style: (Live, Animation, Still Shot) Audio Style: (Natural Sound (NS); Voice-Over Narration (VON); Interview (I); Recorded Voice (RV)	Descriptive Text for storyboard
Visual: Audio:	Scene 1:
Visual: Audio:	Scene 2:

An example of a Video Submission follows.

AJEV VIDEO SUBMISSION EXAMPLE

Title of Video production: Yeast Identification Using Microscopy

Authors and Affiliations: Linda F. Bisson, Department of Viticulture and Enology, University of California Davis, Davis, CA 95616

ABSTRACT and CONCEPTS (300 limit word summary of goal and expected content of video):

The aim of this video is to show how to align and set up a microscope and then show typical photographs of microorganisms as seen through a microscope. This video will serve to train individuals in use of the microscope and in identification of living organisms versus debris and to tentatively identify those organisms as best as can be accomplished by microscopy alone.

SCRIPT and STORYBOARD

NAME of Corresponding Author/Videographer: Linda Bisson	TYPE OF VIDEO: live, animation, voice, voice-over, combination
Contact information: lfbisson@ucdavis.edu	PROPOSED LENGTH: 12 minutes
TOPIC: Use of the common winery lab microscope to monitor microbial populations of grapes, juices and wine. TITLE: Yeast Identification Using Microscopy	
Scene 1: Visual: Live shot of an Active Fermentation Audio: VON, Linda Bisson Duration: 0.5 minute	Bisson will introduce the importance of use of the wine laboratory microscope. “The Microscope is one of the most critical tools in a winery laboratory to assure fermentation progression and the absence of spoilage. Yeast and bacteria may be beneficial to the wine, benign, or agents of aroma or taste deterioration. Although many organisms look alike and DNA sequence analysis is required to make a definitive identification, microscopic analyses can be used to assess relative purity of fermentations, spot emergence of populations in finished wines during aging, and monitor stability post- bottling.”
Scene 2: Visual: Animation: Shot of Microscope that will move as features are pointed out Audio: VON, Bisson Duration: 1 minute	The components of the microscope will be pointed out: oculars, lens, stage. slide holder on stage, coarse adjustment, fine adjustment. Bisson will describe the purpose of each feature of the microscope as it is shown.
Scene 3: Visual: live shot of Bisson placing a slide on the microscope Audio: Live Duration: 0.2 minute	“This is how the slide should be placed on the microscope stage and the appropriate lens then swung into place.”
Scene 4: Visual: image under the microscope Audio VON, Bisson Duration: 0.1 minute	“The image on the slide will likely not be in focus.”
Scene 5: Visual: still shot of the course and Fine adjustment Audio: VON, Bisson Duration:0.2 minute	“While looking at the microscope lens and slide, the coarse adjustment can be used to bring the lens in close proximity with the slide. The fine adjustment knob can be used while viewing the slide through the oculars to focus on the specimen.”
Scene 6: Visual: live shot of Bisson focusing the microscope Audio: NS Duration: 0.2 minutes	Bisson will show proper technique for use of coarse and fine adjustment.

Script and Storyboard will continue for the entire video.

Tables and Figures

Do not repeat data in the text that are given in a table or figure and make sure tables and figures are not redundant. All tables should be included in the main manuscript text file in consecutive order after the References section. Tables should be followed by a consecutive list of figures that each have their corresponding caption included.

Tables

Information presented in a table must be self-explanatory and agree with the text. If only a few values are presented or if the information is simply a list, then place the information in the text rather than in a table.

Table Construction

- Construct tables using a word-processing program, not in Excel or as a fixed object
- They must fit within one (3.5 inches or 8.9 cm) or two columns (7.25 inches or 18.4 cm)
- The table caption should summarize the information in the table without repeating the column headings
- Each column must have a brief heading that names the variable being measured and indicates the unit of measurement within parentheses, such as (mg/L) and (%)
- If significance of value is indicated, use a lowercase letter (not superscript)
- Explain nonstandard abbreviations in footnotes
- Designate footnotes with superscript lowercase letters beginning with ^a (a, b, c)
- Use the same style for all tables
- Cite the first instance of each table in numeric order in the manuscript

Figures

Submitted figures must be high quality and ready for publication. Cite the first instance of each figure in numeric order in the manuscript. Captions must describe the contents so that each illustration is understandable when considered apart from the text. If your artwork is from another source, you will need permission from the copyright holder.

Figure sizes

Figures should be submitted at the size specified for either single- or double-column figures:

- Single-column figure: 3.5 inches (8.9 cm) wide (at least 1050 pixels)
- Double-column figure: 7.25 inches (18.4 cm) wide (at least 2100 pixels)
- Maximum figure height: No more than 9.5 inches (24.5 cm), including space for figure caption underneath

Figure construction

- For line graphs and frame graphs, affix index marks to the vertical axis (y axis, or ordinate) and to the horizontal axis (x axis, or abscissa)
- Use symbols to indicate data points: open circles for the first set of data and filled circles for the second; triangles, open and filled, are next; then squares, open and filled (○●△▲□■). If a graph requires more than six symbols, consider presenting the data in two graphs. Keys to symbols should be set in a small box in

the graph (or next to it); do not place them within the caption

- For a multipanel figure, place a capital A, B, C, etc. in the upper left or right corner of the panels. (Include all panels in the same file.)
- Do not use special effects such as 3-dimensional bar charts or graphs without prior permission from the AJEV managing editor
- Use solid gray shades or color in bar charts; differentiate among the gray levels by at least 20% and be considerate of colorblind readers when using contrasting colors. This may include not relying on color alone to convey information, and instead also using different symbols (for data points) or patterns (for bar charts)
- Include error bars, if appropriate
- Line weights: Use line weights of 0.5 point. For prominent lines, such as graph plot lines, the weight should be approximately 1.0 point
- Fonts: Use Arial, Helvetica, or Symbol fonts for the text in figures. Capitalize only the first letter of the first word in labels. Do not use boldface type, except for the "A," "B," "C" etc., used in designating parts of multipanel graphics

Acceptable file types:

- Microsoft Word, Excel, or PowerPoint files. AJEV can save these files at the correct resolution and make any corrections needed (do not copy/paste images that have already been exported or saved as tiff or jpeg images)
- Export or save figure files as tiff, jpeg, or png. After being exported, figures are composed of pixels rather than text, lines, and fills (these images cannot be corrected or saved at higher resolutions. When choosing this option, you must be sure to export files with the correct resolution [see below], or dots per inch [DPI], at the size they will print)
- AJEV also accepts figure files submitted in svg or eps format

Acceptable resolutions for tiff, jpeg, and png files

The minimum requirements for resolutions in figure files are:

- 600 DPI for monochrome: For images that are purely black and white, such as line graphs
- 300 DPI for halftones (CMYK/RGB/grayscale): For images containing pictures or areas of gray or color shades only—an image not containing any text labeling or lines
- 600 DPI for combination of lines or text with halftones: For images containing pictures or areas of gray or color shades and text labeling and/or thin lines

Saving images as tiff or jpeg

- Crop figures with only a small amount of white space bordering them (this minimizes file size)
- Use the correct resolution (see previous)
- Select grayscale (for black and white) or CMYK and RGB (for color)
- Select LZW Compression (to reduce file size) and Byte Order: IBM PC

If you have additional questions, please email the publications coordinator (raven@asev.org).

Supplemental Data

AJEV is able to publish online supplemental data for some articles. It is intended that the data not be necessary to the understanding of an article, but might be helpful in further consideration or replication of the study. These materials are freely available to all ajeonline.org readers.

Reporting Information

Statistical methods and replication

Report experimental design and statistical methods used in sufficient detail that the results can be judged for validity and that published results may serve as a basis for the design of future experiments. A useful reference is: Gates CE. 1991. A user's guide to misanalyzing planned experiments. *HortScience* 26:1262-1265. Field experiments, such as studies on crop yield and yield components, fruit composition, or pest/disease incidence, that are sensitive to environmental interactions and in which the crop environment is not rigidly controlled or monitored, should be repeated (over time and/or space) to demonstrate that similar results can (or cannot) be obtained in another environmental regime. Chemical analysis and/or sensory evaluation of materials from field experiments should be collected independently from each field replicate. Perform replicate chemical and sensory evaluations to show reproducibility and consistency, respectively, but avoid pseudoreplication resulting from such evaluations.

Trade names

The trade names of materials and the names of manufacturers or suppliers of special (not reagent grade) materials must be given. In experimentation, identify a chemical compound by its common name (if such name exists) or by the chemical name and structural formula.

Nomenclature

Refer to recently published AJEV articles for appropriate nomenclature in American English. For example, AJEV uses "budbreak" rather than "budburst" and "bloom" rather than "flowering" to refer to these distinct developmental stages. The binomial or trinomial (in italics) must be shown for all biological species when first used in the abstract and in the text (for example, *Vitis vinifera*). Thereafter, the genus name is abbreviated to the initial, except when confusion could arise by reference to other genera with the same initial. A collection number or that of a comparable listing should identify algae and microorganisms referred to in the manuscript.

For variety names, the AJEV conforms to spellings listed in the [TTB listing of approved grape names for American wines](#); AJEV uses a lowercase format for adjectives such as noir, blanc, or franc. Do not use single quote marks around variety names. The terminology used to describe the skin color of mature grapes should conform to the [Vitis International Variety Catalogue](#) skin color descriptors. For example, the skin color of mature Cabernet Sauvignon grapes is black (although the color of the wine made from Cabernet Sauvignon grapes may be red) and the skin color of mature Flame Seedless grapes is red.

Chemical identification

Papers reporting on flavor constituents should conform to the recommendations made by the International Organization

of the Flavor Industry (see *J. Agric. Food Chem.* 44:10 [1996]). Any flavoring substance must have its identity confirmed by at least two methods. Otherwise, the identification should be labeled "tentative." Include at least semi-quantitative data on the concentration of an identified component in the original source. Ranges such as <1 µg/L, 1 to 10 µg/L, 10 to 100 µg/L, rather than absolute amounts, are acceptable.

Numerals

Spell out all numbers or fractions that begin a sentence. Do not use a dash or hyphen to replace the preposition "to" between numerals (3 to 10°C) within the text; however, a dash or hyphen may be used in tables and figures.

Write out numerals one through nine when referring to general numbers (e.g., three panelists, five sessions, four training systems). Use numbers with all units of measurement, and always use decimals, not commas (3.56 mL, not 3,56 mL). Write out and hyphenate simple fractions (for example, two-thirds), but in general use decimals instead of fractions.

Units

Units of measurement are treated as collective nouns and take singular verbs (e.g., "2.5 mL bentonite was added to the sample"). The metric system is standard, and the International System of Units (SI) is the only acceptable system. The solidus (/) is preferred to the negative index form (e.g., g/L rather than g L⁻¹). Also observe the following:

- Latitude and longitude: report as (42°31'N; 12°29'E)
- Grape weights: report as grams (g), kilograms (kg), and metric tons (t)
- Wine volume: report as liter (L) or milliliter (mL). Hectoliters are not recommended. Abbreviate liter as a capital L, not lowercase, to avoid confusion with the number 1
- Wine or juice yield: report as liters per 1000 kg (L/1000 kg) or milliliters per kilogram (mL/kg) (equivalent)
- Parts per million (ppm) and parts per billion (ppb) are not recommended. Use the equivalent milligrams per L (mg/L) and micrograms per liter (µg/L)

Significant figures

Report data only to the appropriate number of significant figures (digits) for the precision of the measurement.

Time and dates

When reporting time, use the 24-hour system with four digits (e.g., 0400 hr for 4:00 a.m., 1630 hr for 4:30 p.m.). Report dates as day, month, year (9 Apr 2007).

Abbreviations and symbols

See the accompanying list of abbreviations. Replacement of certain unwieldy names by well-known abbreviations is acceptable (e.g., HPLC, DNA). Standard chemical symbols may be used after an initial definition (Ca, NaOH). With the exception of those standard for international usage (e.g., HPLC, ATP), do not use abbreviations in the title or abstract. Symbols and abbreviations in figures and tables must also conform to guidelines.

Reporting Vineyard Trials

Viticultural field experiments have specific issues that require description to provide context and allow reproducibility. Information regarding the need for replication and repetition of field trials is provided in the section [Statistical methods and replication](#). The following information should be included whenever possible:

- Administrative division of the study site (city, state, American Viticultural Area, or other description of administrative division)
- Geographic coordinates of study site(s) when possible (a less precise description of the location is acceptable if privacy or security concerns prevent sharing coordinates)
- Vineyard elevation, aspect, and slope
- Climate classification
- Soil type(s) and depth(s)

Description of the vineyard

- Year the vines were planted and years when the study was conducted
- Rootstock and scion variety and, when known and applicable, clone
- Row orientation and vine spacing (between and within rows)
- Vine training system and trellis specifications
- Type of irrigation system, if present
- Timing of key phenological stages
- Key weather data (e.g., growing degree days, heat or cold events, precipitation) during the course of the study

Cultural practices employed

- Vineyard floor management (e.g., cover crop, tilling frequency, herbicide use)
- Pruning method, including approximate number of nodes per vine remaining after pruning
- Canopy management practices, if any
- Pest management program
- Irrigation approach (e.g., regulated deficit irrigation) and scheduling basis
- Fertilization approach (type, amount, timing, and delivery method)
- Special management considerations (e.g., freeze or frost protection, hail netting, etc)

Agronomic data

- Pruning weight and number of shoots per vine
- Yield and yield components (including number of clusters per vine, cluster weight, and berry weight)
- Harvest date and harvest method
- Basic fruit composition, including total soluble solids, pH, and titratable acidity, and measurement methods

Experimental procedures

- Completely describe the experimental design and replication of each field trial
- Verify that the same study or a similar study has been repeated in time or space or justify why such repetition was not possible or necessary
- Sufficiently describe the experimental treatments and control(s)

- Describe the sampling strategy and how the samples were processed
- Statistical analysis procedures, including software and models employed, and thresholds for statistical significance

Reporting Winemaking

Winemaking experiments have specific issues that require description to allow reproducibility. While it is understood that some variables cannot be controlled, there are factors that should be reported in each study. Depending on experimental goals and objectives, winemaking experiments may require replication across at least two vintages, locations, or varieties. Authors shall provide justification if this replication is not performed. If an experiment starts with fresh grapes, then report the following data:

- Location for source of grapes
- Species and variety(ies), clone and rootstock, if known
- Harvest date
- Harvesting method
- History of grapes between harvest and crushing (or analysis), including time delay and temperature and disease conditions (e.g., amount of Botrytis, etc.)
- Crushing and pressing devices with settings
- Yield of juice or wine
- Juice or must samples should be analyzed for components under study in the resulting wine. All samples must be replicated

For fermentations, include the following:

- Replicate fermentations. At least duplicate, but preferably triplicate, winemaking procedures must be applied. For field trials, retain field replicates as fermentation replicates, rather than pooling grapes from field replicates and creating separate fermentation replicates. Describe techniques used to reduce replicate variability, especially with red musts. Replicate variability should be assessed within the context of the experiment
- Additions, including amount and time of addition, preparation, and method of mixing. For yeast or bacteria, report source and genus, species, and selection.
- Weight of grapes per fermentation lot, fermentation volume, and container type
- Maceration technique for red musts
- Daily measurements during fermentation: temperatures (separate measure of cap temperature for red musts before maceration) and soluble solids and, if no inoculation is used, microbial populations should be counted at the genus level
- Analysis of these factors before fermentation: soluble solids, pH, titratable acidity, fermentable nitrogen, and any other variable under investigation
- Analysis of these factors after fermentation: pH, titratable acidity, ethanol, residual sugar, free and total sulfites, and, depending upon the study, malic and lactic acid, total phenols, absorbance at 420 and 520 nm, and volatile acidity or acetate, and any other variables under study
- History of samples (time and temperature) between collection and analysis

If an experiment starts with finished wine

- Wines should be analyzed initially for components under study. Describe the sampling technique and the analytical procedures. All samples must be replicated
- Wine composition: pH, residual sugar, TA, ethanol, and free and total sulfites
- Postfermentation storage container size and material and storage temperature
- Vintage year(s) and dates of experiment and analyses
- Replicate analyses should be conducted and statistical treatment of data reported
- Bottling operations or study of bottle closures: visual examination of closures for mechanical defects and testing of wine for dissolved oxygen immediately after bottling

Reporting Sensory Evaluation

Sensory methodology used must demonstrate sound scholarship and meticulous attention to the methodological details expected within the field and be capable of testing what it purports to be testing. All articles reporting a sensory analysis must meet the acceptable analytical standards for this field. Authors must clearly indicate exactly how the test was conducted, at what temperature the wines were stored, for how long the wines were stored, at what temperature the wines were served to the panelists, what type of glassware was used, how much wine was poured in each glass, how many tests the panelists performed, and how many samples were served per session.

Panelists

Trained panelists or “expert” panelists may not be asked to indicate their liking or the acceptability of the sample(s). Only true consumer panelists can give this type of information. Consumer panelists usually should not be asked to score the intensities of specified sensory attributes. However, there may be isolated situations where this would be acceptable.

Discrimination testing

With discrimination testing (such as paired difference, duo-trio, triangle, two-out-of-five), the objective is to determine whether two samples are perceptibly different. In all cases, except the directional paired difference test, that is the only information the test provides.

The major issue with discrimination tests is ensuring that the test had enough power. (Power is defined as the probability of finding a difference that actually exists.) Power is affected by several factors, but the one that the experimenter usually has control over is the number of panelists evaluating the samples.

If a discrimination test shows that two samples are perceived to be significantly different, then the test had enough power (regardless of the number of panelists).

If a discrimination test shows that two samples are not perceived to be significantly different, then the power issue

becomes crucially important and the authors must then indicate the power associated with their test. (This is usually the issue when authors want to show that a new method or variation does not affect the sensory properties of the product—the power of such tests is low when the number of panelists is low.¹)

Using the directional paired difference test with wines can be problematic. The requirement for this test is that the two samples may only differ in a single sensory attribute: for example, a 1% salt-water solution is less salty than a 2% salt-water solution, but it does not differ in any other sensory modality. However, when more complex products are used, this is often not true; for example, a wine with 2% residual sugar is perceived to be less sweet than one with 4% residual sugar, but the first wine may also be perceived to be more sour than the second. In such cases, the paired directional test should not be used.

Descriptive analysis

When authors use descriptive analysis techniques to evaluate their samples, there are three major issues. First, unless the panel was trained by or in direct consultation with the Tragon Corp. (Palo Alto, CA), the technique used was not QDA (Quantitative Descriptive Analysis). QDA is a registered trademark of Tragon. The same is true for the FPA (Flavor Profile Analysis), which is trademarked by A.D. Little Company (Boston, MA), and the SDA (Spectrum Descriptive Analysis) of Sensory Spectrum (East Hanover, NJ). Second, authors typically use variations of the above techniques. They could refer to a variation of the QDA technique as the consensus training method and to variations of the FPA and SDA as ballot training methods. It is also possible to amalgamate the two methodologies as a combination training method. Third, authors must give explicit information on the following: number of panelists, source of panelists, method of training, length of training, assessment of training, attributes used, reference standards/verbal descriptors used for attributes, number of times each panelist evaluated each sample, number of samples per session, number of sessions, duration of sessions, and time between sessions.

Reporting Ampelographic and Molecular Marker Data

The AJEV publishes studies on ampelography and genetic diversity in *Vitis* and Vitaceae. However, unless they are submitted as Technical Reports or present significant phenotypic data, articles must have a broad impact and be of significance to the entire international community. Studies on major collections should strive for comprehensive treatment of a collection, rather than simply address small subsets of cultivars within a collection. For example, one article examined more than 300 accessions in one collection (AJEV 2016, 67: 466-470).

To be considered for review, all submitted manuscripts concerning molecular markers should include the standard set of international markers (VVMD5, VVMD7, VVMD27, VVS2, VrZAG62, VrZAG79). Tables and figures must be limited to

¹Example: Authors want to indicate that using a new fining agent produces a wine that is not perceptibly different from a wine fined with a more traditional agent. Before starting the study, the authors determine that they want a power of 90% (a 90% chance of detecting a difference if it exists), analogous to a type II error (β) of 10%. In addition, the authors use the usual type I error (α) of 5%; they want less than 10% of the population to discriminate between the samples. Given these assumptions, the authors determine that to perform a triangle test they would need at least 342 panelists. Using the same assumptions but a duo-trio test, authors would need 853 panelists.

After completing the study, the authors write a paper stating that they used α at 5%, a duo-trio test, and 50 panelists and found that the two fining agents did not significantly differ in how they affected the sensory quality of the wine. The reviewer determines that assuming that less than 25% of the population can detect a difference; the power of this test is about 55%. If the authors had performed a triangle test, then the power would have been 78%.

significant information only (other data such as allelic fingerprints will be published as supplemental tables or figures with the online published article). When submitting an article, carefully consider whether it should be designated as a Research Report or a Technical Report (see description of each on p. 1).

Publication Information

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AJEV Abbreviations and Symbols

Term	Abbreviation or Symbol
absorbance/ absorbance units (in tables and figures)	abs/AU
active ingredient	a.i.
adenosine 5' triphosphate (adenosine triphosphate)	ATP
ampere	A
et alia (Latin: and others)	et al.
atmosphere (see also standard atmosphere)	Atm
average (abbreviate in tables and equations only)	avg
boiling point	bp
Brix (no degree sign)	Brix
°Celsius	°C
°centigrade	°C
chemically pure	CP
coefficient	coeff.
colony forming unit(s)	cfu
concentration (in tables and figures)	concn
constant	const.
cubic centimeter	cm ³
cultivar (only after species name)	cv.
day, days	day
decibel	dB
degree (angular)	°
dextro (preceding chemical name)	(small cap) d
dextrorotatory (preceding chemical name)	(italic) <i>d</i> (+)
diameter	diam
dry weight (with unit of measurement)	DW
electron volt	eV
equation (reference in text)	(eq)
equivalent	equiv
exponential	exp
for example (in tables and figure captions only)	e.g.
freezing point	fp
fresh weight (with unit of measurement)	FW
gram	g
gravity (gravitation constant)	(italic) <i>g</i>
hectare	ha
hertz	Hz
high-performance liquid chromatography	HPLC
hour	hr
hydrogen ion concentration, negative logarithm of	pH
infrared	IR

Term	Abbreviation or Symbol
inhibitor constant	K ₁
inside diameter	i.d.
joule	J
kelvin	K
kilo (x 10 ³)	k
kilodalton	kDa
kilogram	kg
kilometer	km
kilovolt	kV
kilowatt	kW
levo- (preceding chemical name)	(small cap) l
liter	L
mass	(italic) <i>m</i>
mass-to-charge ratio	(italic) <i>m/z</i>
mass charge on electron	(italic) <i>m/e</i>
maximum	max.
mega (x 10 ⁶)	M
megapascal	MPa
melting point	mp
meta- (preceding chemical name)	(italic) <i>m</i>
meter	m
Michaelis constant	(italic) <i>K_m</i>
micro (x 10 ⁻⁶)	μ
microequivalent	μeq
microgram	μg
microliter	μL
micrometer (micron)	μm
micromole	μmol
milli (x 10 ⁻³)	m
milliamper	mA
milliequivalent	meq
milligram	mg
milliliter	mL
millimeter	mm
millimole	mmol
millivolt	mV
minute (time)	min
mitochondrial deoxyribonucleic acid	mtDNA
molar (concentration)	(italic) <i>M</i>
mole	mol
month	mo
Nephelos turbidity unit	NTU
newton	N
nicotinamide adenine dinucleotide	NAD
nicotinamide adenine dinucleotide, reduced	NADH
nicotinamide adenine dinucleotide phosphate (reduced)	NADP
normal (concentration)	<i>N</i>
normal (preceding chemical name)	<i>n</i>
not significant	ns
nuclear magnetic resonance	NMR
ohm	W
ortho- (position; preceding chemical name)	(italic) <i>o</i>

Term	Abbreviation or Symbol
outside diameter	o.d.
para- (preceding chemical name)	(<i>italic</i>) <i>p</i>
parts per billion	µg/L
parts per million	mg/L
per	/
percent	%
peta (x 10 ¹⁵)	P
pico (x 10 ⁻¹²)	p
polymerase chain reaction	PCR
probability (lowercase italic)	<i>p</i>
racemic (optical configuration, a mixture of dextro-and levo-) (preceding chemical name)	(small caps) dl
revolutions per minute	rpm
second (time)	sec
significant at 0.05 level	*
significant at 0.01 level	**
significant at 0.001 level	***
species (only after generic name)	sp., spp.
species nova (only after specific epithet)	sp. nov.
specific gravity	sp gr
specific heat	sp ht
specific volume	sp vol
square	sq
standard atmosphere	atm
standard deviation	SD
standard error	SE
substrate constant (see Michaelis)	(<i>italic</i>) K_m
surface tension	N/m
tangent	tan
temperature	temp
tera (x 10 ¹²)	T
that is (in tables and figure captions only)	i.e.
tonne (metric ton)	t
ultraviolet	UV
varietas (variety; only after specific epithet)	var.
versus (only in tables and figures; spell out in text)	vs
volt	V
volume	vol
volume ratio (volume per volume)	v/v
watt	W
week	wk
weight	wt
weight per volume	w/v
weight ratio (weight per weight)	w/w
year	yr