

Guide to Authors

American Journal of Enology and Viticulture

The **American Journal of Enology and Viticulture** publishes full length research papers, review papers, Research Notes, and Technical Briefs on all subjects related to enology and viticulture.

The **AJEV** does not accept articles published in or submitted to other publications; however, Technical Briefs may contain material published elsewhere. Authorship of papers in the Journal is not limited to members of the American Society for Enology and Viticulture.

The **AJEV** does not pay authors for their manuscripts.

Publication Rights: The **AJEV** reserves first right of refusal to publish any paper or poster presented at the ASEV Annual Meetings. Papers which may be more appropriate for another publication may be released by the Editor if requested in writing by the author(s). In such cases, Technical Briefs or abstracts may be requested.

Reviews: Each manuscript receives at least two reviews. Additional authorities are consulted as necessary to confirm the scientific merit of any part or all of the manuscript. The reviewers are asked to return their recommendations and comments within three weeks, though it sometimes takes longer. Suggestions and changes required by the referees will be forwarded to the corresponding author.

The Editor and Associate Editors are responsible for judging the suitability of each article for publication. The Editors reserve the right to edit manuscripts to make them conform with the adopted style and/or to return them to the authors for revision.

Corrections: Corrections will be published, if necessary, in the Number 4 issue of each Volume. Authors are requested to call to the attention of the Editor any significant errors in their published work.

Printing Charges: We currently do not charge authors for the printing of manuscripts. However, the **AJEV** reserves the right to charge authors for the extra printing costs of unusual or improperly submitted materials and for extensive author alterations.

Reprints: Reprints may be ordered at the time the galley proofs are sent to the authors. Order sheets, including the cost of reprints, will accompany the proofs.

In cases where the author has access to a more economical method of reproducing the published article, he may do so provided all **AJEV** citations and page numbers are visible.

Publication Release Policy: © All rights re-

served. Written permission to include in other scientific publications reprints of and quotations from articles published in the journal may be granted by the Editor on the condition that full credit be given both the **AJEV** and the author(s) and that the date of publication, volume, number, and page numbers be stated. Neither the **AJEV** nor the ASEV is responsible for statements or opinions printed in its publications; they represent the views of the authors or persons to whom they are credited and are not binding on the society as a whole.

General Information: All full-length manuscripts must be original research, neither simultaneously under consideration or submission nor previously published elsewhere. Research Notes are classified as reports of new applications or interpretations of existing data; Technical Briefs are for the dissemination of information relevant to the interests of the members of the Society and may not necessarily be original research. Research Notes must neither be currently submitted nor previously published elsewhere. Technical Briefs may include previously published material.

All papers submitted must be written in English. Please be sure translations are clear to avoid misinterpretation of data. All manuscripts must be submitted in triplicate to:

The Editor
American Journal of Enology and Viticulture
P.O. Box 700
Lockeford, California 95237-0700
USA

All manuscripts mailed from outside the US should be registered. The **AJEV** office hours are 9 a.m. to 5 p.m. Pacific time, Monday through Friday, and the telephone number is 209-727-3439; FAX 209-727-5004.

Please provide the telephone number and telefax number of the corresponding author whenever possible.

Preparation of Manuscript: Manuscripts should be typewritten double-spaced on line-numbered 8½ × 11 inch (21 × 28 cm) paper with pages numbered. Three copies must be submitted to the Editor. Authors whose primary language is not English should have manuscripts proofread by English-speaking peers before submitting. Tables should be on numbered pages following the Literature Cited section, followed by the legends for figures on a separate numbered page. Two sets of camera-ready figures and three copies should be included (see sections on figures and tables).

Organization of Manuscript: A manuscript should conform to the general form of presentation that follows: **TITLE** reflecting the important aspects of the article as concisely as possible, preferably in no more than 100 characters and spaces. Do not use both common and scientific names in the title; **BY-LINE** listing

author(s) name(s) centered beneath the title. Authors' professional titles and current addresses, where the research was conducted, acknowledgments, and submission date should be given in separate paragraphs below the by-line; an ABSTRACT stating briefly the objectives and results obtained must be included. An INTRODUCTION including the general problem involved, reasons for investigation and prior work; specific MATERIALS AND METHODS used; RESULTS obtained; DISCUSSION of data obtained; and CONCLUSIONS summarizing most important results and salient points.

In MATERIALS AND METHODS, be sure to describe in adequate detail procedures that have not been fully described in cited publications. Specify conditions or variables whose control influences the experimental results (*e.g.*, for sensory evaluation, use of colored lights or glasses).

Concluding the manuscript must be a LITERATURE CITED section, arranged alphabetically by author. Citations of journal articles should be in the following order: senior author's name followed by initials, all other authors, initials preceding last names, title of paper with only the first word capitalized (proper

nouns excepted), journal, volume, issue number (when required), pages, year in parentheses. Titles of publications should be properly abbreviated. (See examples.)

Citations of books should also include the authors' names, title of book, edition, publisher, place of publication, and year of publication.

Unpublished data, personal communications, and articles in preparation are not acceptable as literature citations; they should be referred to parenthetically in the text. Articles that are "in press" may be so designated.

Figures: When submitting figures, glossy prints should be clear and of high quality. Be certain that all symbols and abbreviations conform to those used by the AJEV. Prints with poor alignments, out-of-focus letters and symbols, and blurred lines are not acceptable. Prints, with the exception of composites, should not be mounted on cardboard.

A 1:1 reproduction is best to maintain maximum detail in printing; however, larger figures are acceptable if they are suitable for reduction without loss of detail. Exact sizes for same-size reproductions are 8½ inches (8 cm) wide for one column and 7¼ inches (18 cm) wide for two columns; maximum height is 9½ inches (23 cm) including legend. On photographs, graphs, and line drawings for same-size reproduction, numbers and lettering (upper and lower case) should be in 10 point type (1/8 in *ca*). Computer-generated graphs and figures are acceptable if they conform to requirements of line sharpness and boldness and of type size.

Cite all figures in numeric order in the manuscript. Legends should describe the contents so that each illustration is understandable when considered apart from the text. Each should be labeled with the figure number and author's name on the back.

Photographs submitted should be high-quality glossy prints cropped at right angles to show only essential details. Insert a scale bar when necessary to indicate magnification.

When creating composites, match photographs for subject content, background density, and similarity of contrast. Do not combine line drawings and photographs in a composite figure. Photographs in a composite should be mounted on hard cardboard, with the edges in contact; space between photographs will be inserted in printing. Submit two original composite figures or plates for publication and two prints of equivalent quality for review purposes. Black and white illustrations are preferred, but color illustrations may be considered by the Editor. A cost quotation will be provided, and the author or an institutional officer must indicate acceptance of responsibility for the quoted rate in writing before processing of that illustration will be started.

Submit two originals and two copies of each line drawing or glossy print. Frame graphs and affix index marks to ordinates and abscissae. Avoid too bold letter-

Examples of Literature Citations

Journal article

Sanders, E. M., and C. S. Ough. Determination of free amino acids in wine by HPLC. *Am. J. Enol. Vitic.* 36:43-6 (1985).

Paper accepted for publication

McKenry, M. V. Grape root phenology relative to control of parasitic nematode. *Am. J. Enol. Vitic.* (In press, 1985).

Book

Frost, A. A., and R. G. Pearson. *Kinetics and Mechanism* (2nd ed.). 405 pp. John Wiley and Sons, New York (1965).

Chapter

Beech, F. W., and R. R. Davenport. The role of yeasts in cider making. In: *The Yeasts*. A. H. Rose and J. S. Harrison (Eds.). pp 73-146. Academic Press, London (1970).

Thesis

Wolpert, J. A. Cold acclimation of Concord grapevines. Thesis, Michigan State University (1983).

Paper presented

Noble, A. C., R. Boulton, and M. T. Januik. A method for detection and quantification of volatile sulfur compounds in musts and wine. Presented at the 36th Annual Meeting of the American Society for Enology and Viticulture, Reno, NV (June 1985).

Proceedings

Coombe, B. G., and R. E. Phillips. Development of the grape berry. III. Compositional changes during veraison measured by sequential hypodermic sampling. In: *Proceedings of the University of California, Davis, Grape and Wine Centennial Symposium*. A. D. Webb (Ed.). pp 132-6. University of California Press, Berkeley (1980).

Unpublished data

These references are not included in Literature Cited, but should be cited parenthetically in the text showing name, source of data, and year. (V. L. Singleton, unpublished data, 1984) (L. P. Christensen, personal communication, 1985).

ing, numbers, and lines for coordinate axes and curves.

If line drawings or graphs are to be published as a composite figure, the parts of the composite should be mounted on cardboard in the appropriate positions when the manuscript is submitted.

Tables: Submit tables that are self-explanatory and include enough information so that each table is intelligible without reference to the text or other tables. The title should summarize the information presented in the table without repeating the subheadings. Be sure that the layout of the table presents the data clearly. Subheadings should be brief. Non-standard abbreviations should be explained in footnotes. Footnotes are designated with superscript lower case letters or other appropriate symbols. Ditto marks should never be used.

When only a few values are to be presented, this should be done in the text rather than in a table. Data that are presented in tables should not be repeated in figures.

Cite tables in numeric order in the manuscript. Information presented in a table should agree with that in the text.

Trade Names: The names of manufacturers or suppliers of special materials should be given (including city, state and ZIP). Trade names must be capitalized and followed by ^R or TM. In experimentation, a chemical compound should be identified by its common name (if such name exists) or by the chemical name and structural formula.

Nomenclature: The binomial or trinomial (in italics) and the authority must be shown for plant, insects, and pathogens when first used in the abstract and in the text. Following citation in Materials and Methods, the generic name may be abbreviated to the initial, except when confusion could arise by reference to other genera with the same initial. Algae and microorganisms referred to in the manuscript should be identified by a collection number or that of a comparable listing.

For varietal names, the AJEV conforms to the spellings listed in the BATF publication Working List of US Wine Grape Varieties available from this office.

Numerals: Spell out all numbers or fractions which begin a sentence. Do not use a hyphen to replace the preposition "to" between numerals (13 to 22 min, 3°C to 10°C) within the text; however, hyphens may be used in tables, figures, graphs, and in parentheses.

Write out numerals one through nine, except with units of measure. Write out and hyphenate simple fractions (*e.g.*, two-thirds), with the same exceptions applying as for the use of hyphens. It is usually desirable to use decimals instead of fractions.

Time and Dates: When reporting time, use the 24 hour time system with four digits; the first two for hours and the last two for minutes (*e.g.*, 0400 h for 4:00 a.m., 1630 h for 4:30 p.m.). Dates are reported as day of month, month, and then year (19 April 1985).

Units: *Wine volumes* should be reported as liters (L) or milliliters (mL). Hectoliters are not recommended.

Grape weights should be reported as grams (g), kilograms (kg), and metric tons (t).

Temperature should be reported as degrees Celsius only.

Parts per million (ppm) and parts per billion (ppb) are not recommended. The equivalent milligrams per L (mg/L) and micrograms per liter (µg/L) are preferred.

Wine or juice yield should be reported as liters per 1000 kg (L/1000 kg) or milliliters per kilogram (mL/kg) (equivalent).

Land surface area should be expressed as hectares.

Statistical Methods: Authors must report enough details of their experimental design so that the results can be judged for validity and so that previous experiments may serve as a basis for the design of future experiments.

Multiple comparison procedures such as Duncan's multiple range test are frequently misused. Such misuse may result in incorrect scientific conclusions. Multiple range tests should be used only when the treatment structure is not well understood (*e.g.*, studies to compare cultivars). When treatments have a logical structure, significant differences among treatments should be shown using *t*- or *F*-tests.

Usually field experiments, such as studies on crop yield and yield components, 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. Replicate chemical or sensory evaluations should be done to show reproducibility and consistency, respectively.

Abbreviations and Symbols: Replacement of certain unwieldy chemical names by abbreviations may occur as a convenience, though only well known abbreviations should be used (*e.g.*, ATP, DNA). Standard chemical symbols may be used without definition (Ca, NaOH). If the article uses several abbreviated forms, define them all in a single paragraph where the first abbreviation is used.

With the exception of those standard for international usage (*e.g.*, HPLC, ATP), do not use abbreviations in the title or abstract. The metric system is standard, and SI units should be used (other units may be placed in parenthesis after the SI).

Please note that liter is abbreviated in the AJEV by a capital L, not lower case, to avoid confusion with the number 1 in the typefaces used.

Symbols and abbreviations on figures and tables must also conform.

A list of abbreviations and symbols appears in Vol. 39, No. 4 (1989).

Volume 41 (1990)

Author Index

A

- Adams, D. O., K. E. Franke, and L. P. Christensen. Elevated putrescine levels in grapevine leaves that display symptoms of potassium deficiency. 41:121-5.
- Ambattle-Espunyes, A. See M. C. Vidal-Carou. 41:160-7.
- An, D. See C. S. Ough. 41:68-73.
- Andrews, J. T., H. Heymann, and M. Eilersieck. Sensory and chemical analyses of Missouri Seyval blanc wines. 41:116-20.
- Arnold, R. A., and A. M. Bledsoe. The effect of various leaf removal treatments on the aroma and flavor of Sauvignon blanc wine. 41:74-6.
- Assemi, M. See J. L. Smilanick. 41:131-6.

B

- Barbas, J. I. See J. Mora. 41:156-9.
- Barre, P. See M. Bely. 41:319-24.
- Bartley, C. E. See C. G. Edwards. 41:48-56.
- Bass, A. W. See K. Ophel. 41:325-9.
- Bates, R. P. See C. A. Sims. 41:182-5, 273-6.
- Beelman, R. B. See C. G. Edwards. 41:48-56.
- Bely, M., J. M. Sablayrolles, and P. Barre. Description of the alcoholic fermentation kinetics: Its variability and significance. 41:319-24.
- Ben-Tal, Y. Effects of gibberellin treatments on ripening and berry drop from Thompson Seedless grapes. 41:142-6.
- Bhutani, V. P. See V. K. Joshi. 41:229-31.
- Bianchi, M. See L. P. Christensen. 41:77-83.
- Brillouet, J.-M., C. Bosso, and M. Moutounet. Isolation, purification, and characterization of an arabinogalactan from a red wine. 41:29-36.
- Bisson, L. F. See L. S. Lagace. 41:147-55.
- Blaise, A. See M. Goetghebeur. 41:295-300.
- Bledsoe, A. M. See R. A. Arnold. 41:74-6.
See J. T. English. 41:137-41.
- Boggero, J. See L. P. Christensen. 41:77-83.
- Boone, C., A.-M. Sdicu, J. Wagner, R. Degré, C. Sanchez, and H. Bussey. Integration of the yeast K1 killer toxin gene into the genome of marked wine yeasts and its effect on vinification. 41:37-42.
- Borrull, F. See R. M. Marcé. 41:289-94.
- Bosso, C. See J.-M. Brillouet. 41:29-36.
- Botella, M. A., L. Perez-Rodriguez, B. Domecq, and V. Valpuesta. Amino acid content of fino and oloroso sherry wines. 41:12-15.
- Boyle, T. A., and L. Hsu. Identification and quantitation of ellagic acid in muscadine grape juice. 41:43-7.
- Brun, S. See M. Goetghebeur. 41:295-300.
- Burns, G. See S. Fujinawa. 41:350-4.
- Bussey, H. See C. Boone. 41:37-42.

C

- Cabezudo, M. D. See T. Herraiz. 41:313-18.
- Calull, M. See R. M. Marcé. 41:289-94.

Chambers, K. R. Benzyl alcohol as an inhibitor of the development of *Botrytis cinerea in vitro* and in packed table grapes. 41:265-8.

Charpentier, C. See M. J. LeRoy. 41:21-8.

Charpentier, M. See M. J. LeRoy. 41:21-8.

Cheynier, V., J. Rigaud, J.-M. Souquet, F. Duprat, and M. Moutounet. Must browning in relation to the behavior of phenolic compounds during oxidation. 41:346-9.

Christensen, L. P., J. Boggero, and M. Bianchi. Comparative leaf tissue analysis of potassium deficiency and a disorder resembling potassium deficiency in Thompson Seedless grapevines. 41:77-83.

See J. T. Andrews. 41:116-20.

Cilliers, J. J. L., and V. L. Singleton. Research note. Nonenzymic autoxidative reactions of caffeic acid in wine. 41:84-6.

Cirami, R. M. See M. G. McCarthy. 41:126-30.

Clary, C. D., R. E. Steinhauer, J. E. Frisinger, and T. E. Pepper. Evaluation of machine- vs. hand-harvested Chardonnay. 41:176-81.

Conradie, W. J. Distribution and translocation of nitrogen absorbed during late spring by two-year-old grapevines grown in sand culture. 41:241-50.

Cook, M. K. See T. K. Wolf. 41:330-41.

Correa-Gorospe, I. See R. Rodriguez-Clemente. 41:16-20.

Cottingham, C. K. See T. K. Wolf. 41:330-41.

Cox, D. J., and T. Henick-Kling. A comparison of lactic acid bacteria for energy-yielding (ATP) malolactic enzyme systems. 41:215-18.

D

De Castro, J. J. See R. Rodriguez-Clemente. 41:16-20.

Degré, R. See C. Boone. 41:37-42.

de la Teja, P. See S. Fujinawa. 41:350-4.

Delgado, T., C. Gomez-Cordoves, and B. Villaroya. Relationships between phenolic compounds of low molecular weight as indicators of the aging conditions and quality of brandies. 41:342-5.

Domecq, B. See M. A. Botella. 41:12-15.

Duprat, F. See V. Cheynier. 41:346-9.

Duteurtre, B. See M. J. LeRoy. 41:21-8.

E

Echavarri, J. F. See A. Negueruela. 41:232-40.

Edwards, C. G., R. B. Beelman, C. E. Bartley, and A. L. McConnell. Production of decanoic acid and other volatile compounds and the growth of yeast and malolactic bacteria during vinification. 41:48-56.

Eilersieck, M. See J. T. Andrews. 41:116-20.

English, J. T., A. M. Bledsoe, J. J. Marois, and W. M. Kliever. Influence of grapevine canopy management on evaporative potential in the fruit zone. 41:137-41.

F

Feuillat, M. See M. J. LeRoy. 41:21-8.

Flores, J. H., D. A. Heatherbell, and M. R. McDaniel. Ultrafiltration of wine: Effect of ultrafiltration on White Riesling and

- Gewürztraminer wine composition and stability. 41:207-14.
 Fouse, D. C. See J. L. Smilanick. 41:131-6.
 Franke, K. E. See D. O. Adams 41:121-5.
 Frisinger, J. E. See C. D. Clary. 41:176-81.
 Fujinawa, S., G. Burns, and P. de la Teja. Technical brief. Application of acid urease to reduction of urea in commercial wines. 41:350-4.

G

- Galzy, P. See M. Goetghebeur. 41:295-300.
 Goetghebeur, M., M. Nicolas, A. Blaise, S. Brun, and P. Galzy. Wine benzyl alcohol oxidase: Isolation and characterization. 41:295-300.
 Gomez-Cordoves, C. See T. Delgado. 41:342-5.

H

- Hamman, R. A. Jr., A. R. Renquist, and H. G. Hughes. Pruning effects on cold hardiness and water content during deacclimation of Merlot bud and cane tissues. 41:251-60.
 Harris, C. M. See J. L. Smilanick. 41:131-6.
 Hartsell, P. L. See J. L. Smilanick. 41:131-6.
 Harvey, J. M. See J. L. Smilanick. 41:131-6.
 Heatherbell, D. A. D. J. Cox. 41:215-18.
 See J. H. Flores. 41:207-14.
 Henick-Kling, T. See I.-M. Tegmo-Larsson. 41:189-92, 41:269-72.
 Hensen, D. J. See J. L. Smilanick. 41:131-6.
 Herraiz, T., G. Reglero, M. Herraiz, P. J. Martin-Alvarez, and M. D. Cabezudo. The influence of yeast and type of culture on the volatile composition of wines fermented without sulfur dioxide. 41:313-18.
 Herraiz, M. See T. Herraiz. 41:313-18.
 Heymann, H. 41:116-20.
 Hooper, R. L. See P. D. Scudamore-Smith. 41:57-67.
 Hsu, L. See T. A. Boyle. 41:43-7.
 Huang, A. See C. S. Ough. 41:68-73.
 Hughes, H. G. See R. A. Hamman, Jr. 41:251-60.

IJK

- Iodi, M. See J. C. Morrison. 41:301-5.
 James, D. See P. L. Monette. 41:201-3.
 Jaworski, A. See C. Y. Lee. 41:87-9.
 Johnson, R. P. See C. A. Sims. 41:182-5, 273-6.
 Joshi, V. K., V. P. Bhutani, and R. C. Sharma. The effect of dilution and addition of nitrogen source on chemical, mineral, and sensory qualities of wild apricot wine. 41:229-31.
 Kantz, K., and V. L. Singleton. Isolation and determination of polymeric polyphenols using Sephadex LH-20 and analysis of grape tissue extracts. 41:223-8.
 Kliewer, W. M. See J. T. English 41:137-41.
 See J. Perez. 41:168-75.

L

- Lagace, L. S., and L. F. Bisson. Survey of yeast acid proteases for effectiveness of wine haze reduction. 41:147-55.
 Léauté, R. Distillation in alambic. 41:90-103.
 Lee, C. Y., and A. W. Jaworski. Research note. Identification of some phenolics in white grapes. 41:87-9.
 See J. Oszmianski. 41:204-6.

- LeRoy, M. J., M. Charpentier, B. Duteurtre, M. Feuillat, and C. Charpentier. Yeast autolysis during Champagne aging. 41:21-8.
 Lima, J. L. F. C., and A. O. S. S. Rangel. Determination of metallic cations in wines by flow injection analysis. 41:284-8.
 Los Arcos, M. L. See A. Negueruela. 41:232-40.
 Lopez de Castro, M. P. See A. Negueruela. 41:232-40.
 Loureiro, V. See M. Malfieto-Ferreira. 41:219-22.

M

- Magarey, P. A. See K. Ophel. 41:325-9.
 Malfieto-Ferreira, M., J. P. Miller-Guerra, and V. Loureiro. Proton extrusion as indicator of the adaptive state of yeast starters for the continuous production of sparkling wines. 41:219-22.
 Marcé, R. M., M. Calull, F. Borrull, and F. X. Rius. Determination of the major carboxyl acids in wine by an optimized HPLC method with linear gradient elution. 41:289-94.
 Mariné-Font, A. See M. C. Vidal-Carou. 41:160-7.
 Marois, J. J. See J. T. English 41:137-41.
 Martin-Alvarez, P. J. See T. Herraiz. 41:313-18.
 McCarthy, M. G., and R. M. Ciriame. The effect of rootstocks on the performance of Chardonnay from a nematode-infested Barossa Valley vineyard. 41:126-30.
 McConnell, A. L. See C. G. Edwards. 41:48-56.
 McDaniel, M. R. See J. H. Flores. 41:207-14.
 McLaren, E. D. See P. D. Scudamore-Smith. 41:57-67.
 Miller-Guerra, J. P. See M. Malfieto-Ferreira. 41:219-22.
 Monette, P. L., and D. James. The use of *Nicotiana benthamiana* as an herbaceous receptor host for closteroviruses from leafroll-affected vines. 41:201-3.
 Mora, J., J. I. Barbas, and A. Mulet. Growth of yeast species during the fermentation of musts inoculated with *Kluyveromyces thermotolerans* and *Saccharomyces cerevisiae*. 41:156-9.
 Morrison, J. C., and M. Iodi. The influence of waterberry on the development and composition of Thompson Seedless grapes. 41:301-5.

_____, and A. C. Noble. The effects of leaf and cluster shading on the composition of Cabernet Sauvignon grapes and on fruit and wine sensory properties. 41:193-200.

- See M. W. Silacci. 41:111-15.
 Motomura, Y. Distribution of ¹⁴C-assimilates from individual leaves into clusters and grape shoots. 41:306-12.
 Moutounet, M. See J.-M. Brillouet. 41:29-36.
 See V. Cheyrier. 41:346-9.
 Mulet, A. See J. Mora. 41:156-9.

N

- Negueruela, A. I., J. F. Echavarri, M. L. Los Arcos, and M. P. Lopez de Castro. Study of color of quaternary mixtures of wines by means of the Sheffé design. 41:232-40.
 Nicholas, P. R. See K. Ophel. 41:325-9.
 Nicolas, M. See M. Goetghebeur. 41:295-300.
 Noble, A. C. See J. C. Morrison. 41:193-200.

OPQ

- Ophel, K., P. R. Nicholas, P. A. Magarey, and A. W. Bass. Hot water treatment of dormant grape cuttings reduces crown

- gall incidence in a field nursery. 41:325-9.
- Oszmianski, J., and C. Y. Lee. Isolation and HPLC determination of phenolic compounds in red grapes. 41:204-6.
- Ough, C. S., D. Stevens, T. Sendovski, A. Huang, and D. An. Factors contributing to urea formation in commercially fermented wines. 41:68-73.
- Perez, J., and W. M. Kliewer. Effect of shading on bud necrosis and bud fruitfulness of Thompson Seedless grapevines. 41:168-75.
- Perez-Rodriguez, L. See M. A. Botella. 41:12-15.
- R**
- Radler, F. Possible use of Nisin in winemaking. I. Action of Nisin against lactic acid bacteria and wine yeasts in solid and liquid media. 41:1-6.
- _____. Possible use of Nisin in winemaking. II. Experiment to control lactic acid bacteria in the production of wine. 41:7-11.
- Rangel, A. O. S. S. See J. L. F. C. Lima. 41:284-8.
- Reglero, G. See T. Herraiz. 41:313-18.
- Rius, F. X. See R. M. Marcé. 41:289-94.
- Renquist, A. R. See R. A. Hamman, Jr. 41:251-60.
- Rodriguez-Clemente, R., I. Correa-Gorospe, and J. J. De Castro. A new method for the stabilization of wines with respect to the potassium bitartrate precipitation. 41:16-20.
- Rigaud, J. See V. Cheynier. 41:346-9.
- S**
- Sablayrolles, J. M. See M. Bely. 41:319-24.
- Sanchez, C. See C. Boone. 41:37-42.
- Scudamore-Smith, P. D., R. L. Hooper, and E. D. McLaren. Color and phenolic changes of Cabernet Sauvignon wine made by simultaneous yeast/bacterial fermentation and extended pomace contact. 41:57-67.
- Sdicu, A.-M. See C. Boone. 41:37-42.
- Sefton, M. A. See P. Winterhalter. 41:277-83.
- Sendovski, T. See C. S. Ough. 41:68-73.
- Sharma, R. C. See V. K. Joshi. 41:229-31.
- Silacci, M. W., and J. C. Morrison. Changes in pectin content of Cabernet Sauvignon grape berries during maturation. 41:111-15.
- Sims, C. A., R. P. Bates, and R. P. Johnson. Research note. Comparison of pre- and post-fermentation ultrafiltration on the characteristics of sulfited and non-sulfited white wines. 41:182-5.
- _____, _____, and _____. Effects of mechanical pruning on the yield and quality of muscadine grapes. 41:273-6.
- Singleton, V. L. See K. Kantz. 41:223-8.
See J. J. L. Cilliers. 41:84-6.
- Smilanick, J. L., J. M. Harvey, P. L. Hartsell, D. J. Hensen, C. M. Harris, D. C. Fouse, and M. Assemi. Factors influencing sulfite residues in table grapes after sulfur dioxide fumigation. 41:131-6.
- Souquet, J.-M. See V. Cheynier. 41:346-9.
- Steinhauer, R. E. See C. D. Clary. 41:176-81
- Stevens, D. See C. S. Ough. 41:68-73.
- Stevens, D. See C. S. Ough. 41:68-73.
- T**
- Tegmo-Larsson, I.-M., and T. Henick-Kling. Ethyl carbamate precursors in grape juice and the efficiency of acid urease on their removal. 41:189-92.
- _____, and _____. The effect of fermentation and extended lees contact on ethyl carbamate formation in New York wine. 41:269-72.
- UV**
- Ulla-Ulla, M. C. See M. C. Vidal-Carou. 41:160-7.
- Valpuesta, V. See M. A. Botella. 41:12-15.
- Vidal-Carou, M. C., A. Ambatlle-Espunyes, M. C. Ulla-Ulla, and A. Mariné-Font. Histamine and tyramine in Spanish wines: their formation during the winemaking process. 41:160-7.
- Villaroya, B. See T. Delgado. 41:342-5.
- WXYZ**
- Wagner, J. See C. Boone. 41:37-42.
- Williams, P. J. See P. Winterhalter. 41:277-83.
- Winterhalter, P., M. A. Sefton, and P. J. Williams. Volatile C₁₃-norisoprenoid compounds in Riesling wine are generated from multiple precursors. 41:277-83.
- Wolf, T. K., B. W. Zoecklein, M. K. Cook, and C. K. Cottingham. Shoot topping and ethephon effects on White Riesling grapes and grapevines. 41:330-41.
- Zoeklein, B. W. See T. K. Wolf. 41:330-41.
- urease. for removal of ethyl carbamate precursors. 41:189-92, 350-4.
- Aging. assessment of bottle-aging potential. 41:277-83.
brandy. 41:342-5.
Champagne. 41:21-8.
oak. 41:342-5.
- Aglycons. 41:277-83.
- Agrobacterium tumefaciens*. 41:325-9.
- Alambic distillation. 41:90-103.
- Alcoholic fermentation. See also Fermentation.

Volume 41 (1990) Subject Index

A

- Acid(s). See also specific acid.
amino. See Amino acid.
caffeic. autoxidative reactions of in wine. 41:84-6.
caftaric. autoxidative reactions of in wine. 41:84-6.
carboxylic. 41:289-94.
chlorogenic acid. 41:84-6.
decanoic. production during vinification. 41:48-56.
ellagic. identification and quantification. 41:43-7.
gallic. in muscadine juice. 41:43-7.
hydroxycinnamic. 41:346-9.

- kinetics. 41:319-24.
- Alpha-amino nitrogen. factor in urea accumulation. 41:58-73.
- Amine(s). in Thompson Seedless wines. 41:77-83, 121-5.
biogenic. formation during winemaking. 41:160-7.
- Amino acid(s). in sherry wines. 41:12-15.
- Ammonium. in leaf tissue of Thompson Seedless vines. 41:77-83.
- Analysis. of grape tissue extracts. 41:223-8.
of metallic cations. 41:284-8.
of phenolics in red grapes. 41:204-6.
of phenolics in white grapes. 41:87-9.
of polymeric polyphenols. 41:223-8.
of vitispirane precursors. 41:277-83.
of wine sensory qualities. 41:74-6, 116-20.
- Apricot wine. 41:229-31.
- Arabinogalactan. isolation, purification, and characterization of from a red wine. 41:29-36.
- Aroma, wine. Missouri Seyval blanc sensory and chemical analysis. 41:116-20.
Sauvignon blanc leaf removal effects on. 41:74-6.
- Autolysis, yeast. in Champagne aging. 41:121-8.
- Autoxidation in wine. 41:84-6.
- B**
- Bentonite. alternatives to in wine haze reduction. 41:147-55.
- Benzyl alcohol. *Botrytis cinerea* inhibition by. 41:265-8.
- Benzyl alcohol oxidase. 41:295-300.
- Berry, grape. See also Grape.
drop. gibberellin treatments effects on. 41:142-6.
enlargement. gibberellin treatments effects on. 41:142-6.
gibberellin effects on. 41:142-6.
pectin content changes in during maturation. 41:111-15.
ripening. See also Ripening.
delay in. 41:142-6.
pectin content changes during. 41:111-15.
shading effects on. 41:193-200.
- Biogenic amines. formation of during winemaking. 41:160-7.
- Bitter almond taste in wine. ¹⁴C-assimilates. 41:306-12, 295-300.
- Blending, wine. color study of blends by Sheffé design. 41:232-40.
- Bottle aging. potential assessment. 41:277-83.
- Botrytis cinerea*. benzyl alcohol inhibition of during grape storage. 41:265-8.
control of by canopy management to increase evaporative potential. 41:137-41.
control of by sulfur dioxide fumigation of table grapes. 41:131-6.
- Brandy. alambic distillation. 41:90-103.
- Browning. must. 41:346-9.
wine. caffeic acid effects on. 41:84-6.
- Bud, grapevine. See also Grapevine.
fruitfulness. shading effects on. 41:138-75.
necrosis. shading effects on. 41:168-75.
- Bunch rot. See *Botrytis cinerea*.
- C**
- ¹⁴C-assimilates. 41:306-12.
- C₁₃-norisoprenoid compounds. 41:277-83.
- Cabernet Sauvignon grapevines. See also Grapevine(s).
pectin contact changes in berries. 41:111-15.
shading effects on fruit sensory properties. 41:193-200.
- Cabernet Sauvignon wine. color changes during fermentation and pomace contact. 41:57-67.
leaf and cluster shading effects on sensory qualities. 41:193-200.
phenolic changes during fermentation and pomace contact. 41:57-67.
- Caffeic acid. autoxidative reactions of in wine. 41:84-6.
- Caftaric acid. autoxidative reactions in wine. 41:84-6.
- Canopy management. *Botrytis cinerea* control. 41:137-41.
bud necrosis control. 41:168-75.
Cabernet Sauvignon. shading effects on wine sensory qualities. 41:193-200.
evaporative potential in fruit zone. 41:137-41.
fruitfulness. effects on. 41:168-75.
muscadine. mechanical pruning. 41:273-6.
Riesling vines. 41:330-41.
Sauvignon blanc vines. 41:74-6.
shoot tipping and ethephon treatments effects on Riesling. 41:330-47.
- Carbohydrate(s). colloids in wine. 41:29-36.
- Carbon dioxide production rate in alcoholic fermentation. 41:319-24.
- Carboxylic acids in wine. 41:289-94.
- Catechin-gallates in white grapes. 41:87-9.
- Cava. 41:16-20.
- Champagne. stabilization. 41:16-20.
yeast autolysis during aging. 41:21-8.
- Chardonnay grapevines. harvesting techniques. 41:176-81.
rootstock effects on nematode resistance. 41:156-30.
- Chemiosmotic energy. 41:215-18.
- Chlorogenic acid. 41:84-6.
- Chromatography. affinity. grape polysaccharide identification. 41:29-36.
droplet counter-current (DCCC). vitispirane precursor analysis. 41:277-83.
gel permeation. polysaccharide purification. 41:29-36.
high performance liquid. caffeic acid determination in wine. 41:84-6.
carboxylic acids determinations in wine. 41:289-94.
ellagic acid identification and quantification. 41:43-7.
phenolic acid and aldehyde concentrations. 41:342-5.
phenolic compounds determination in red grapes. 41:204-6.
polymeric polyphenols isolation and determination. 41:223-8.
ion exchange. grape polysaccharides purification. 41:29-36.
- Closteroviruses. 41:201-3.
- Cluster shading effects on Cabernet Sauvignon fruit and wine sensory qualities. 41:193-200.
- Cognac. alambic distillation. 41:90-103.
- Cold hardiness, grapevine. pruning effects on *Vitis vinifera*. 41:251-60.
- Color, wine. changes during simultaneous yeast/bacterial fermentation and extended pomace contact. 41:57-67.
Missouri Seyval blanc. 41:116-20.
Sheffé design to describe color response. 41:232-40.
ultrafiltration effects on. 41:182-5.

Crossflow filtration. 41:182-5.
 Crown gall control. 41:235-9.
 Cuvaion. 41:57-67.

D

Deacclimation, *Vitis vinifera*. pruning effects on cold hardiness and water content. 41:251-60.
 Decanoic acid production during vinification. 41:48-56.
 Descriptive sensory analysis. of Missouri Seyval blanc wines. 41:116-20.
 of Sauvignon blanc wines. 41:74-6.
 of Seyval blanc wines. 41:116-20.
 Dessèchement de la raffle. 41:301-5.
 Disease, grapevine. See also specific disease.
 Botrytis cinerea. 41:137-41.
 ¹⁴C-assimilates. 41:306-12.
 crown gall. 325-9.
 leafroll. 41:201-3.
 virus. 41:201-3.
 Distillation, alambic. 41:90-103.
 Distribution. of ¹⁴C-assimilates. 41:306-12.
 of nitrogen in grapevines. 41:241-50.
 Droplet counter-current chromatography (DCCC). See Chromatography.

E

Electron microscopy. virus identification. 41:201-3.
 Ellagic acid. identification and quantification in muscadine juice. 41:43-7.
 Enzymatic hydrolysis. arabinogalactan. 41:29-36.
 Enzyme(s). malolactic systems. 41:215-18.
 inhibition. 41:295-300.
 purification. 41:295-300.
 Ethephon treatment of Riesling vines. 41:330-41.
 Ethyl carbamate. factors contributing to urea formation. 41:68-73, 350-4.
 fermentation and extended lees contact effects on formation. 41:269-72.
 precursors in grape juice. 41:189-92.
 urea reduction. 41:350-4.
 Evaporation potential in fruit zone of grapevine canopy. 41:167-41.

F

False potassium. 41:77-83.
 Fermentation. alcoholic. biogenic amine formation. 41:160-7.
 kinetic. 41:319-24.
 commercial. urea formation in wine. 41:68-73.
 ethyl carbamate formation during. 41:68-73, 189-92, 269-72.
 histamine formation. 41:160-7.
 malolactic. See also Malolactic fermentation.
 biogenic amines formation. 41:160-7.
 lactic acid bacteria comparisons for energy yielding (ATP) malolactic enzyme systems. 41:215-18.
 simultaneous yeast/bacterial. 41:57-67.
 tyramine formation. 41:160-7.
 without sulfur dioxide. 41:313-18.
 Fino sherry acid content. 41:12-15.
 Flavor, wine. bitter almond taste. 41:295-300.
 Missouri Seyval blanc sensory and chemical analysis. 41:116-20.

precursors. 41:277-83.
 Flow injection analysis of metallic actions in wine. 41:284-8.
 Fruit rot. 41:330-41.
 Fumigation. sulfur dioxide on table grapes. 41:131-6.

G

Genomic integration of yeast K1 killer toxin gene. 41:37-42.
 Gewürztraminer wine. ultrafiltration effects on composition and stability. 41:207-14.
 Gibberellin. effects of ripening and berry drop in Thompson Seedless. 41:142-6.
 Glutathione. 41:346-9.
 Glycoconjugates. 41:277-83.
 Grape(s). arabino-3,6-galactan. 41:29-36.
 berry. See also Berry.
 drop. 41:142-6.
 enlargement. 41:142-6.
 mechanical pruning effects on yield and quality of muscadine. 41:273-6.
 pectin content changes in during maturation. 41:111-15.
 composition. leaf and cluster shading effects on. 41:193-200.
 phenolics identification. 41:87-9, 204-6.
 polysaccharides. 41:29-36.
 Sauvignon blanc. leaf removal treatments. 41:74-6.
 shading effects on bud necrosis and fruitfulness. 41:168-75.
 storage. benzyl alcohol use for *Botrytis cinerea* inhibition. 41:265-8.
 sulfur dioxide fumigation of table grapes. 41:131-6.
 shoots. ¹⁴C-assimilate distribution. 41:306-12.
 table. See also Table grapes.
 storage. 41:131-6.
 tissue extract analysis. 41:223-8.
 variety tissue analysis. 41:223-8.
 waterberry. 41:301-5.
 white. phenolics. 41:87-9.
 Grapevine(s). See also specific varieties.
 bud necrosis and fruitfulness. 41:168-75.
 tissue response to low temperature exotherm. 41:251-60.
 ¹⁴C-assimilate distribution. 41:306-12.
 Cabernet Sauvignon. leaf and cluster shading effects on fruit and wine sensory qualities. 41:193-200.
 pectin content of berries during maturation. 41:111-15.
 cane tissue responses to low temperature exotherm. 41:251-60.
 canopy management. effect on fruit and wine sensory qualities. 41:193-200.
 evaporative potential in fruit zone. 41:137-41.
 Sauvignon blanc vines. 41:74-6.
 shading effects on bud necrosis and fruitfulness. 41:168-75.
 Chardonnay. harvesting techniques. 41:176-81.
 rootstock effects on performance in nematode-infected vineyard. 41:126-30.
 cluster shading. 41:193-200.
 cold hardiness. pruning effects on. 41:251-60.
 crown gall. 41:325-9.
 disease. See Disease.
 ethephon treatments. 41:330-41.
 false potassium. 41:77-83.

- gibberellin treatments. 41:142-6.
 harvesting techniques. 41:176-81.
 leaf removal treatments. 41:74-6.
 leaf shading effects. 41:193-200.
 Merlot. pruning effects on cold hardiness and water content. 41:251-60
 mineral nutrition. 41:77-83,241-50.
 muscadine. mechanical pruning. 41:273-6.
 nematode resistance. 41:126-30.
 nitrogen distribution and translocation. 41:241-50.
 pruning. effects on cold hardiness of Merlot cane and bud tissues. 41:251-60.
 mechanical on muscadine. 41:273-6.
 potassium deficiency. 41:77-83, 121-5.
 putrecine levels. 41:121-5.
 Riesling. shoot tipping and ethephon treatment. 41:330-41.
 Thompson Seedless. bud necrosis and bud fruitfulness. 41:168-75.
 gibberellin treatment of. 41:142-6.
 potassium deficiency. 41:77-83, 121-5.
 virus. *Nicotiana benthamiana* as receptor host. 41:201-3.
Vitis vinifera. pruning effects on cold hardiness and water content. 41:241-60.
- H**
- Harvesting techniques. hand- vs. machine harvesting of Chardonnay. 41:176-81.
 Haze, wine. yeast acid proteases for reduction. 41:147-55.
 Hedging. Riesling vines. 41:330-41.
 Herbaceous receptor host for closteroviruses from leafroll-infected vines. 41:201-3.
 High performance liquid chromatography. See Chromatography.
 Histamine formation during winemaking. 41:160-7.
 Hot water treatment for crown gall. 41:325-9.
 HPLC. See Chromatography.
 Hydroxycinnamic acids. 41:346-9.
- I**
- Identification. of arabinogalactan. 41:29-36.
 of catechin-gallates in white grapes. 41:87-9.
 of ellagic acid. 41:43-7.
 of phenolics in red grapes. 41:223-8.
 of phenolics in white grapes. 41:87-9.
 virus. 41:201-3.
 Immunosorbent electron microscopy (ISEM) for virus identification. 41:201-3.
 Inhibitor(s). of KHT precipitation. 41:16-20.
 Inoculation. of *Kluyveromyces thermotolerans* to must. 41:156-9.
 of *Saccharomyces cerevisiae* to must. 41:156-9.
 Insoluble grape solids. effects on decanoic acid production during vinification. 41:48-56.
 effects on malolactic bacteria during vinification. 41:48-56.
 ISEM. See Immunosorbent electron microscopy.
 Isolation. of phenolic compounds in red grapes. 41:204-6.
 of phenolic compound in white grapes. 41:87-9.
- JK**
- Juice, grape. ellagic acid in. 41:43-7.
 ethyl carbamate precursors in. 41:269-72.
 muscadine. 41:43-7.
 K1 killer toxin gene. 41:37-42.
 K1/K2 double killer strains. 41:37-42.
 Kinetic description of alcoholic fermentation. 41:319-24.
Kloeckera apiculata for wine haze reduction. 41:147-55.
 influence on volatile composition of wine fermented without sulfur dioxide. 41:313-18.
Kluyveromyces thermotolerans. yeast strains growth during fermentation of musts inoculated with. 41:156-9.
- L**
- Lactic acid bacteria. comparison of for energy-yielding (ATP) malolactic enzyme systems. 41:215-18.
 control of in winemaking. 41:7-11.
 Nisin sensitivity. 41:1-6, 7-11.
Lactobacillus. Nisin sensitivity. 41:1-6, 7-11.
 Leaf, grapevine. removal effects on Sauvignon blanc wine sensory qualities. 41:74-6.
 shading effects on Cabernet Sauvignon fruit and wine sensory properties. 41:193-200.
 tissue analysis. 41:77-83, 121-5.
 Leafroll. 41:201-3.
Leuconostoc oenos. insoluble grape solids influence on fermentation. 41:48-56.
 Nisin sensitivity. 41:1-6, 7-11.
 Light intensity effects on bud necrosis and bud fruitfulness of Thompson Seedless. 41:168-75.
 Low temperature exotherm. responses of bud and cane tissues of *Vitis vinifera*. 41:251-60.
- M**
- Malate catabolism. 41:215-18.
 Malolactic bacteria. growth during vinification. 41:43-56.
 Malolactic fermentation. biogenic amine formation during. 41:160-7.
 Cabernet Sauvignon wines. 41:57-67.
 color and phenolic changes. 41:57-67.
 decanoic acid production. 41:48-56.
 energy-yielding (ATP) enzyme systems. 41:215-18.
 Nisin effects on. 41:1-6, 7-11.
 Mechanical harvesting. See also Harvesting.
 of Chardonnay. 41:176-81.
 Mechanical pruning of muscadine. 41:273-6.
 Merlot grapevines. pruning effects on cold hardiness and water content during deacclimation of cane and bud tissue. 41:251-60.
 Metallic cations in wine. 41:284-8.
 Microclimate, grapevine, See also Canopy management.
 Botrytis cinerea control. 41:137-41.
 evaporative potential in the fruit zone. 41:137-41.
 leaf and cluster shading of Cabernet Sauvignon. 41:193-200.
 shading effects on bud necrosis and fruitfulness. 41:168-75.
 Microvinification. color and phenolic changes in Cabernet Sauvignon wine. 41:57-67.
 genomic integration of yeast K1 killer toxin into wine yeasts. 41:37-42.
 Mineral composition of apricot wine. 41:229-31.
 Mineral nutrition, grapevines. nitrogen distribution and translocation. 41:241-50.

- Thompson Seedless. 41:77-84, 121-5.
 Muscadine grapevines. pruning effects on yield and quality. 41:273-6.
 Must oxidation. 41:346-9.

N

- Necrosis. shading effects on in Thompson Seedless. 41:168-75.
 Nematode-resistant rootstock. 41:126-30.
Nicotiana benthamiana as herbaceous receptor host for closteroviruses from leafroll-affected grapevines. 41:201-3.
 Nisin. 41:1-6, 7-11.
 Nitrogen. distribution in vine. 41:241-850.
 in leaf tissue of Thompson Seedless. 41:77-83.
 spring-applied. 41:241-50.
 translocation. 41:241-50.

OPQ

- Oloroso sherry acid content. 41:12-15.
 Oxidation. must. 41:346-9.
 wine. of caffeic acid. 41:84-6.
 Pectin content of maturing Cabernet Sauvignon berries. 41:111-15.
Pediococcus. sensitivity to Nisin. 41:1-6, 7-11.
 Phenolic(s). acids and aldehydes in brandies. 41:342-5.
 behavior during must oxidation. 41:346-9.
 changes in Cabernet Sauvignon wines made by simultaneous yeast/bacterial fermentation and pomace contact. 41:57-67.
 identification in red grapes. 41:204-6.
 in white grapes. 41:87-9.
 Phloem transport. 41:301-5.
 Phyllotaxis. 41:306-12.
 Polyamines in grapevine leaves. 41:77-83, 121-5.
 Polymeric phenols in grape tissue extracts. 41:223-8.
 Polyphenols in grape tissue extracts. 41:223-8.
 Polysaccharides in red wine. 41:29-36.
 Pomace contact effects on color and phenolics in Cabernet Sauvignon wine. 41:57-67.
 Potassium. bitartrate. inhibitors in wine. 41:16-20.
 precipitation in wine stabilization. 41:16-20.
 deficiency. in Thompson Seedless vines. 41:77-83, 121-5.
 false. 41:77-83.
 Precipitation. potassium bitartrate. 41:16-20.
 Precursors of ethyl carbamate. 41:68-73, 189-92, 269-72.
 Proline content in sherry. 41:12-15.
 Propagation material, crown gall control in. 41:235-9.
 Proteases, yeast acid. effectiveness in wine haze reduction. 41:147-55.
 Protein stability. haze formation in wine. 41:147-55.
 Proton extrusion as an indicator of adaptive state if yeast starters for continuous sparkling wine production. 41:219-22.
 Pruning effects on cold hardiness of Merlot. 41:251-60.
 effects on yield and quality of muscadine. 41:273-6.
 Putrecine in grapevines displaying symptoms of potassium deficiency. 41:77-83, 121-5.

R

- Red wine. See Wine.
 Reserve nitrogen, grapevine. See Nitrogen.

- Riesling grapevines. shoot tipping and ethephon treatment. 41:330-41.
 Riesling wine. C₁₃-norisoprenoid compounds in. 41:277-83.
 Ripening, grape. berry pectin content changes during. 41:111-15.
 delay. 41:142-6.
 gibberellin treatments. 41:142-6.
 shading effects on Cabernet Sauvignon. 41:193-200.
 waterberry effects on. 41:301-5.
 Rootstock(s). Chardonnay performance. 41:126-30.
 crown gall control. 41:325-9.
 nematode resistance. 41:126-30.
 non-*vinifera*. 41:126-30.

S

- Saccharomyces cerevisiae*. Champagne aging. 41:21-9.
 growth of yeast species during fermentation of musts inoculated with. 41:156-9.
 influence on volatile composition of wines fermented without sulfur dioxide. 41:313-18.
 insoluble grape solids influence on fermentation. 41:57-56.
 Sauvignon blanc wines. leaf removal treatments effects on aroma and flavor. 41:74-6.
 Sensory. analysis of wine. Missouri Seyval blanc. 41:116-20.
 properties of Cabernet Sauvignon fruit and wine, shading effects on. 41:193-200.
 quality. nitrogen source effect on apricot wine. 41:229-31.
 ultrafiltration effects on. 41:182-5.
 vine leaf removal effects on. 41:74-6.
 Seyval blanc wine. sensory and chemical analysis. 41:116-20.
 Shading. effects on bud necrosis and fruitfulness. 41:168-75.
 effects on Cabernet Sauvignon sensory qualities. 41:193-200.
 Sheffé design for color specification of wines. 41:232-40.
 Sherry. acid content. 41:12-15.
 Shoot positioning and thinning effect of bud necrosis and fruitfulness. 41:168-75.
 Simplex method. 41:289-94.
 Simultaneous distillation extraction. 41:277-83.
 Simultaneous yeast/bacterial fermentation of Cabernet Sauvignon. 41:57-67.
 Softening, grape berry. 41:111-15.
 Sparkling wine. adaptive state of yeast starters for continuous production. 41:219-22.
 stabilization. 41:16-20.
 yeast autolysis during aging. 41:21-8.
 Spring-applied nitrogen. 41:241-50.
 Stable killer phenotype. 41:37-42.
 Stabilization, wine. Champagne. 41:16-20.
 KHT precipitation. 41:16-20.
 Stielähme. 41:301-5.
 Sulfur dioxide. sulfite residues in table grapes after fumigation. 41:131-6.

T

- Table grapes. sulfite residues. 41:131-6.
 Tannin. ellagitannin in muscadine juice. 41:43-7.
 in grape tissue extracts. 41:223-8.
 Thermal analysis of deep supercooling of *Vitis vinifera* dormant bud and cane tissue. 41:251-60.

- Thompson Seedless grapevines, berry drop. 41:142-6.
 bud fruitfulness. 41:168-75.
 bud necrosis. 41:168-75.
 gibberellin treatments. 41:142-6.
 leaf tissue analysis. 41:77-83, 121-5.
 potassium deficiency. 41:77-83, 121-5.
 ripening. 41:142-6.
 waterberry. 41:301-5.
- Torulaspota delbrueckii* influence on volatile composition of wines fermented without sulfur dioxide. 41:313-18.
- Translocation of nitrogen in vines. 41:541-50.
- Trellising. See also Canopy management.
 for increased evaporative potential in the fruit zone. 41:137-41.
 leaf and cluster shading effects on Cabernet Sauvignon fruit and wine sensory qualities. 41:193-200.
- 1,1,6-Trimethyl-1,2-dihydronaphthalene (TDN). 41:277-83.
- Tyramine formation during winemaking. 41:160-7.
- UV**
- Ultrafiltration. 41:182-5, 207-14.
- Urea. formation in commercially fermented wines. 41:68-73.
 in grape juice. 41:189-92.
 reduction by acid urease. 41:350-4.
- Variability of alcoholic fermentation kinetics. 41:319-24.
- Vineyard. nematode resistance. 41:126-30.
 replant. 41:126-30.
- Vinification. decanoic acid production during. 41:48-56.
 genomic integration of yeast K1 killer toxin into wine yeasts. 41:37-42.
 volatile compound production during. 41:48-56.
 yeast growth during. 41:48-56.
- Virus. closteroviruses from leafroll-affected vines. 41:201-3.
- Vitaspiranes. precursors in Riesling wine. 41:277-83.
- Vitis rotundifolia*. mechanical pruning. 41:273-6.
- Vitis vinifera*. pruning effects on cold hardiness and water content. 41:251-6.
- Volatile compound production during vinification. 41:48-56.
 yeast influence on. 41:313-18.
- W**
- Water content of bud and cane tissue. 41:251-60.
- Waterberry. 41:301-5.
- White grapes. See Grapes.
- White Riesling wine ultrafiltration. 41:207-14.
- Wine(s). acid content of sherries. 41:12-15.
 apricot. 41:229-31.
 aroma. leaf removal effects on. 41:74-6.
 Missouri Seyval blanc sensory and chemical analyses. 41:116-20.
 autoxidative reaction of caffeic acid in. 41:84-6.
 benzyl alcohol oxidase isolation and characterization. 41:295-300.
 biogenic amines formation. 41:160-7.
 blending. 41:232-40.
 browning. 41:84-6.
 Cabernet Sauvignon color and phenolic changes. 41:57-67.
 shading effects on sensory properties. 41:193-200.
 caffeic acid in. 41:84-6.
 carbohydrate colloids. 41:29-36.
 Champagne. aging. 41:21-8.
 color. changes during simultaneous yeast/bacterial fermentation and pomace contact. 41:57-67.
 Missouri Seyval blanc. 41:116-20.
 Sheffé design. 41:232-40.
 ultrafiltration effects on. 41:182-5.
 ethyl carbamate. 41:58-73, 189-92, 269-72.
Euvitis. ultrafiltration. 41:182-5.
 fermentation without sulfur dioxide. 41:313-18.
 flavor. See also Flavor and Sensory.
 Missouri Seyval blanc. 41:116-20.
 Sauvignon blanc. 41:74-6.
 precursors. 41:272-83.
 Gewürztraminer. ultrafiltration. 41:207-14.
 haze reduction. 41:147-55.
 histamine formation. 41:160-7.
 insoluble solids effects on sensory qualities. 41:48-56.
 mechanical pruning effects on quality. 41:273-6.
 metallic cation determination by flow injection analysis. 41:284-8.
 muscadine. 41:273-6.
 Nisin use to control lactic acid bacteria. 41:7-11.
 polysaccharides. 41:29-36.
 potassium bitartrate precipitation. 41:16-20.
 protein. wine haze reduction. 41:147-55.
 Riesling. C₁₃-norisoprenoid compounds. 41:277-83.
 Sauvignon blanc. effects of vine leaf removal treatments on aroma and flavor. 41:74-6.
 sensory analysis. See also Descriptive sensory analysis.
 insoluble solids effects on. 41:48-56.
 leaf removal treatments effects on. 41:74-6.
 mechanical pruning effects on. 41:273-6.
 Seyval blanc. 41:116-20.
 ultrafiltration effects on. 41:182-5.
 sherry. 41:12-15.
 simultaneous yeast/bacterial fermentation. 41:57-67.
 sparkling. yeast starters for continuous production. 41:219-22.
 stabilization. potassium bitartrate precipitation. 41:16-20.
 ultrafiltration. 41:207-14.
 Seyval blanc. 41:116-20.
 tyramine formation. 41:160-7.
 ultrafiltration. 41:182-5, 207-14.
 urea formation. 41:68-73.
 volatile composition. 41:313-18.
 White Riesling. 41:207-14.
 yeast. See also Yeast(s).
 autolysis during Champagne aging. 41:21-8.
- XYZ**
- Xylem transport. 41:301-5.
- Yeast acid proteases for wine haze reduction. 41:147-55.
 autolysis during Champagne aging. 41:21-8.
 effect on urea formation. 41:68-73.
 genomic integration of K1 killer toxin gene. 41:37-42.
 ghosts. 41:48-56.
 growth during vinification. 41:48-56, 156-9.
 influence on volatile composition of wines fermented without sulfur dioxide. 41:313-18.
 K1/K2 double killer strains. 41:37-42.
 lees, effect on ethyl carbamate formation. 41:269-72.
Leuconostoc oenos. See *Leuconostoc oenos*.
Saccharomyces cerevisiae. See *Saccharomyces cerevisiae*.
 starters. for sparkling wine production. 41:219-22.
- Yield, grapevine. harvesting techniques. 41:176-81.