New! Important changes to look for in these instructions are:

- new directions regarding the appropriateness of nucleotide sequencing and method-type probe and PCR papers for the journal
- new information on editorial style: The “ASM Style Manual” is now the primary source for copyediting (a sidebar shows some of the more common changes)
- new guidelines for “Common Names of Plant Diseases”: APS Council recently ruled that these are the official names of diseases to be used in APS publications
- amended information on “authorship”
- updated instructions on preparation of diskette files that accompany revised manuscripts
- guidelines for citing software, databases, and on-line publications

INSTRUCTIONS FOR INITIAL SUBMISSION

The American Phytopathological Society publishes three journals, each with a prescribed scope that should be considered in determining the more appropriate journal for a manuscript. A description of the emphasis of PHYTOPATHOLOGY can be found in the “General Publication Policies” found in the front of each issue of the journal. Articles that relate primarily to the solution of specific disease problems will be more appropriate for an applied journal.

Submit one copy of the manuscript with original figures to the appropriate senior editor (see Editorial Board) and two copies with figures to The American Phytopathological Society Editorial Office, 3340 Pilot Knob Rd., St. Paul, MN 55121-2097. (A copy of the cover letter to the senior editor should accompany the copies mailed to the Editorial Office). Submit Letters to the Editor, Obituaries, and Mini-Reviews to the editor-in-chief. Submission implies nonsubmission elsewhere and (if accepted) no publication elsewhere in the same form without consent.

Authors can facilitate the review and processing of their manuscripts by reading this guide carefully and by completing the checklist that follows before they submit their papers.

Appropriateness for the journal.

Authors should look at past issues of PHYTOPATHOLOGY to verify that the paper is appropriate to the journal. The paper should fit into one of the sections of the journal: Letters to the Editor, Biochemistry and Cell Biology, Biological Control, Cytology and Histology, Disease Detection and Losses, Ecology and Epidemiology, Genetics, Microbes, Molecular Plant Pathology, Obituaries, Postharvest Pathology and Mycotoxins, Resistance, Special Topics, Techniques, and Vector Relations.

Results of research published in PHYTOPATHOLOGY should be reproducible. Statement(s) to this effect should be included in the appropriate places in the text, tables, or figures. In general, an article in which conclusions are based on unrepeated experiments is unacceptable.

Papers that solely report complete or partial nucleotide sequence of viral nucleic acid are not acceptable for publication unless they relate structure to function and/or demonstrate how the sequence information may advance our understanding of the biology/pathogenesis of the virus. Papers that describe nucleotide sequence data for fungi or bacteria also are required to contain experimental documentation of the functional and evolutionary significance of the sequence.

Manuscripts focusing solely on detection or differentiation of phytopathogens using DNA-based techniques are not appropriate for PHYTOPATHOLOGY. Methods-type probe and PCR papers must meet one of the following two criteria: (i) A report of truly new techniques, or modifications that significantly enhance current techniques or the application of these methods to real-life situations, or (ii) the use of hybridization and PCR techniques to investigate interesting biological questions that contribute to the basic concepts and understanding of plant pathology. Authors are encouraged to contact any of the senior editors prior to submission of a manuscript to receive clarification concerning the suitability of their manuscript for publication in PHYTOPATHOLOGY.

Authors are encouraged to have colleagues review a manuscript before submitting it for publication. Senior editors may find the content of a submitted paper unsuitable for PHYTOPATHOLOGY and return the paper to the author without review. Each manuscript receives two simultaneous reviews. Authors may recommend individuals to review a manuscript and they also may ask that certain individuals not review a manuscript. Reasons for the request should be given in the cover letter. Additional authorities are consulted as necessary to confirm the scientific merit of any part of all of the manuscript, with due consideration for prepublication confidentiality. Each reviewer makes a specific recommendation to the senior editor for the manuscript, based on the following aspects that are applicable:

- Importance of the research
- Originality of the work
- Appropriateness of the approach and experimental design
- Adequacy of experimental techniques
- Soundness of conclusions and interpretations
- Relevance of discussion
- Clarity of presentation and organization of the article
- Demonstration of reproducibility

Symposia from the annual meeting may be published in PHYTOPATHOLOGY, as determined by the editor-in-chief; such manuscripts are subject to the review process and to the policies, procedures, and charges applicable to other articles. It is the responsibility of the chair of the committee sponsoring the symposium to contact the editor-in-chief before the symposium is presented.

Mini-reviews. Mini-reviews are submitted by authors who wish to provide an incisive examination of the latest advances in a topic relevant to plant pathology. They provide a survey of the development of a subject in the previous five years. Unlike basic research articles for PHYTOPATHOLOGY—whose primary audience is specialists in the field—mini-reviews should be written for nonspecialist scientists and for graduate and undergraduate students. If you are interested in submitting a mini-review, you should discuss the topic with the editor-in-chief before you begin to write.

Authorship. Those who submit papers to PHYTOPATHOLOGY should respect the value of the research of their peers by not devaluing authorship. When papers are submitted, the names of the authors provided should meet all of the following criteria: (i) participated in the conception and design or analysis and interpretation of data; (ii) drafted or critically revised the manuscript for intellectual content; and (iii) will approve the final version of article to be published. These guidelines are based on those
established by the International Committee of Medical Journal Editors. In addition to the preceding criteria, each author should be willing to take public responsibility for the content of the article. Those who should not be considered authors are those who participated solely in the collection of the data or solely in general supervision of a research group.

**PREPARING THE MANUSCRIPT**

**Scientific nomenclature and language.**

Scientific language—measurements, specialized vocabulary, and nomenclature—is always in flux. Nevertheless, a manuscript should be prepared such that there is internal consistency and that attention is paid to current standards of usage. Where legitimate differences in language and nomenclature exist that are not specified in these instructions (see sidebar), the preferences of authors will be respected. Following is a brief survey of guidelines and references that authors can consult as they prepare their manuscripts, along with any APS Publications Board policies that may apply to usage.

The “ASM Style Manual for Journals and Books” (3) is the primary source consulted by APS for copyediting style, general scientific language, measurements, and standard abbreviations. For scientific language and measurements not covered in ASM, the “ACS Style Guide” (8) or (ASA, CSA, and SSA) “Publications Handbook and Style Manual” (1) may be helpful.

Although APS publications do not generally follow it for copyediting style, “Scientific Style and Format” (7) issued by the Council of Biology Editors provides an excellent background on the origins of scientific terms and the governing bodies that rule on current nomenclature in a given field.

**Apparatus and materials.** Names of unusual proprietary materials and special apparatus should be followed by the manufacturer's name and address in parentheses (city and state or city and country outside the United States); ASM (3) has a good list of many common suppliers. It is only necessary to cite these materials by specific name if the work cannot otherwise be replicated. Trade names may be used and should be capitalized; trademark symbols should not be used and will be deleted before publication.

**Bacteria.** Spellings should be per “Berger's Manual of Systemic Bacteriology” (16), the “Approved List of Bacterial Names” (22), or the lists of species validly published in the International Journal of Systemic Bacteriology (IJSB). Note that per Berger's style, groups below the level of subspecies should be italicized (this varies from ASM style). Authorities are never needed when citing bacteria. Where applicable, designate strains.

Papers dealing mainly with taxonomy of bacteria, such as descriptions of new taxa, should be submitted to IJSB, but taxonomic papers that deal with classification, identification, and nomenclature below the subspecies level may be submitted to PHYTOPATHOLOGY.

**Common names of plant diseases.** APS has an established committee to develop listings of approved common names for plant diseases—the Committee on Standardization of Common Names for Plant Diseases. These terms are official names for use in listings of plant diseases in journals, proceedings, and other publications. Many names have been officially adopted, and authors should try to use these terms, which are listed in the Committee’s handbook. Names not in the handbook are considered common names, and listings of these names should also be submitted to the Committee on Standardization of Common Names for Plant Diseases. See the instructions for preparing manuscripts on preparation of manuscripts for submitting to APS.

A Quick Guide to Editorial Style

Here is a short list of frequently encountered problems. See the text of the Instructions for more complete references.

**Numbers.** Consult ASM (3), ACS (8), or the short list in this sidebar for the proper way to abbreviate common terms. Authors may coin abbreviations as they write. Spell out the term and place the abbreviation in parentheses at first use; use the abbreviation after that. Limit the use of coined abbreviations to terms used frequently or unusually long terms.

**Abbreviations.** Consult ASM (3), ACS (8), or the short list in this sidebar for the proper way to abbreviate common terms. Authors may coin abbreviations as they write. Spell out the term and place the abbreviation in parentheses at first use; use the abbreviation after that. Limit the use of coined abbreviations to terms used frequently or unusually long terms.

**Some problem abbreviations and terms:**

- aa—amino acids
- anti-rabbit immunoglobulin
- β or beta, not β
- Bq—becquerel
- Carborundum
- Casamino Acids
- Cepheid
- CFU—colony-forming units
- Cheesecloth
- Chloroform
- Class
- c.s.—not D.S.
- cis, trans
- cm—centimeter
- Coomassie brilliant blue
- df—degree of freedom
- et al.—Roman, period
- GLM—general linear model
- Gram stain
- LB broth—Luria-Bertani broth
- LR white resin
- MAb—monoclonal antibody
- p—probability
- Parafilm
- phytoplasma—not MLO or mycoplasma-like organism
- potato dextrose agar
- ppm—parts per million
- R—the retardation factor
- V5 juice agar
in APS journals and publications. Please refer to the publication "Common Names for Plant Disease" (2), available for purchase from APS in hard copy or diskette form (call 1-800-328-7560). It can also be found in its entirety on the free public-access section of APSNet.

Chemicals and chemistry and biochemistry terms. See the "ACS Style Guide" (8) for conventions in chemistry and biochemistry. The "Merck Index" (6) and "Hawley's Chemical Dictionary" (17) are good sources for checking the spellings of chemical terms. List fungicides by their approved common or generic names. See the current issue of "Farm Chemicals Handbook" (4) or the most recent edition of "Acceptable Common Names and Chemical Names for the Ingredient Statement on Pesticide Labels" (9). Use the chemical name if a common name is not available.

Cultures. Indicate the source of cultures. Include designation of cultures obtained from or deposited in recognized collections. Authors are encouraged to deposit voucher cultures and specimens documenting their research at recognized institutions and to cite the place of deposit in the text. In addition, papers are accepted on the condition that recombinant plasmids and bacteriophages, microbe strains, and plant variants developed in the course of the research will be available for distribution to all qualified members of the scientific community, either directly from the investigator(s) or by deposit in national or international collections.

Enzymes. Use the enzyme names recommended in the latest issue of "Enzyme Nomenclature" (13). Give the number (classification) of the enzyme at its first use (e.g., EC 1.1.75.6).

Genetics. Follow ASM style (3) for designations. Rieger et al. (21), Stenersen (23), and King and Stansfield (24) are good sources for genetics and molecular biology dictionaries.

Fungi. The preferred source for common and scientific names and authorities of fungi is "The Fungi on Plants and Plant Products in the United States" (10). "Ainsworth and Bisby's Dictionary of the Fungi" (12) is another good reference. Authorities should be provided at first mention of primary organisms discussed.

Insects. "Common Names of Insects and Related Organisms" (24) can be used to verify insect names. Authorities should be given at first mention of primary organisms discussed.

Nucleotide sequences. See discussion on Databases, below.

Plants. Farr et al. (10) is a good source for spelling of common and scientific names. Other good sources are "Merriam-Webster's Collegiate Dictionary, 10th ed." (28), "A Checklist of Names for 3,000 Vascular Plants of Economic Importance" (26), and "The Plant-Book" (18). Authorities should be provided at first mention of primary organisms discussed. Use the term "cultivar" for agronomic and horticultural varieties. Identify the source of the cultivars and include CI and PI numbers when appropriate. Enclose the name of a cultivar in single quotation marks only when it immediately follows the botanical name.

Software. Software used should be treated as proprietary material or apparatus. Give the manufacturer or developer name in parentheses with location. Software such as that produced by SAS should not be given in Literature Citations.

Statistics. Describe statistical methods with enough detail to enable the knowledgeable reader to verify the reported results. Present results with an appropriate indication of variability or measurement error (e.g., a confidence interval). When means (or medians) are followed by ± x, indicate whether x refers to the standard deviation, standard error, or half the confidence interval. Try to avoid exclusive reliance on hypothesis testing such as "significant or not significant at P = 0.05." Instead, give the achieved significance level for statistical tests (e.g., F was significant at P = 0.03). Give details of randomization and blocking, as well as number of replications, blocks, or observations. Clearly distinguish between true replications and subsamples within a replication/treatment combination. Always specify the experimental design, and indicate if the design was balanced or not. Except for simple procedures (e.g., t tests), cite an appropriate and accessible statistical test and indicate the computer program used. In general, statistical techniques should be described in the Materials and Methods section.

When a quantitative factor (e.g., temperature) is studied, it is often desirable to use regression instead of analysis of variance. When analysis of variance is used for this type of factor, orthogonal polynomials are preferable to multiple comparisons. For qualitative factors (e.g., cultivar), multiple comparisons can be used, but the specific procedure should always be indicated. Do not confuse Duncan's new multiple range test with the Waller-Duncan, Bayesian, or least significant difference test. Even when a multiple comparison procedure is used, it is desirable to specify one of the following: mean square error, standard error of the difference, or the least significant difference value (with specified P).

Whenever possible, researchers should consult with a statistician before designing an experiment and also when analyzing the results. The following articles can be consulted for more information: Johnson and Berger (14), Madden et al. (19), Swallow (25), and Gilligan (11).

Viruses. In formal taxonomic usage, virus family, subfamily, and genus terms should be capitalized and the terms printed in italics. When used in the informal sense, the name of the taxon should precede the term for the taxonomic unit, e.g., "the family Bunyaviridae." In vernacular use, the virus family, subfamily, genus, and species should be lowercase and not printed in italics. The name of the taxon should follow the term for the taxonomic unit, e.g., "the bunyaviridae." The name of the taxon should not include the formal suffix, e.g., "the bunyavirus family," not "the bunyaviridae family." The formal taxonomic usage is preferred when the formal family and genus names have the same root terms, e.g., "Bunyaviridae" and "Bunavirus." These guidelines are derived from the Sixth Report of the International Committee on Taxonomy of Viruses (20); further information can be found there.

General editorial style.

Most of the style guides mentioned have good discussions of English, grammar, and style. Other good general references are "The Chicago Manual of Style" (27) and "Merriam-Webster's Collegiate Dictionary" (28).

Citations. Citation should always be to the original source of publication, whether print or on-line.

Literature cited. List references in alphabetic order by authors' surnames. When citing multiple works by the same author, list articles by one author before those by several authors. Determine the sequence by alphabetizing the first author's surname and junior authors' surnames, by the year of publication (most recent), and if necessary, by the page numbers of articles published in the same journal. Italicize Latin binomials, capitalize German nouns, and insert diacritical marks. List specific pages of books. Refer to the BIOSIS List of Serialis (5) for accepted abbreviations of journal names. Do not abbreviate one-word titles of journals.

Double-check the accuracy of title abbreviations, page and volume numbers, and dates, and check that each reference is cited in the text.

Only references generally available through libraries should be listed in Literature Cited. If work cited is in preparation, submitted but not accepted for publication, or not readily available in libraries, cite the work parenthetically only in the text, e.g., (J. Jones, unpublished) or (J. Jones, personal communication). Obtain the written permission from the person(s) cited as the source of the unpublished information. A copy of the letter from the person supplying information should be included when sub-
mitting a manuscript. To cite an article as in press, you must have a letter of acceptance from a journal or book editor, or have a copy of the galley proof for book chapters, bulletins, etc. Avoid excessive reference to unpublished information.

**Databases.** Accession numbers cited from GenBank, EMBL, and other databases for primary nucleotide or amino acid sequence data should be referenced in text, not in Literature Cited.

**On-line publications.** For on-line references to other sources, the original source should be cited. Sources originating on-line should be cited as "on-line." Citation of on-line material should include author(s), date, title, publication name or the sponsoring organization, and publication number or equivalent identifier, if any. Citations should not reference the electronic address or file-name of the material. Beginning in 1996, every article appearing in APS journals will have a unique publication number assigned to it in anticipation of on-line delivery.

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

Exact widths for same-size reproductions are 88 mm for one column and 183 mm for two columns: maximum height is 250 mm, including the caption. On figures for same-size reproduction, numbers and lettering (upper and lowercase) should be in a 10-point sans serif type such as Helvetica or Arial; composite designations—A, B, C, etc.—should be in 18-point type.

**Photographs.** Submit one set of original prints for the printer. These publication-quality prints (directly from negatives) should have labeling applied directly to the print; figures with extraneous labeling should be mounted and the labeling placed on the mounting material. Two sets of prints for review should also be provided; these may be reproductions of the mounted figure. Same-size reproduction prints are preferred; they should be cropped at right angles to show only essential details; scale bars should be inserted where necessary to indicate magnification. Prints should be clear and of high quality. Poor alignments, blurred lines, or out-of-focus letters and symbols are not acceptable.

For composites, match photographs for similarity of contrast, background density, and subject content. Photographs in a composite should be mounted on cardboard, with the edges in contact; space between photographs will be inserted in printing.

Color illustrations may be used, but the cost of color reproduction must be paid by the authors. Color composite photographs must be mounted on flexible material.

At the present time, APS journals are not equipped to handle computer-generated photographic illustration files. However, some authors are providing figures prepared from image-editing software. The same ethical standards should be applied in material submitted from these programs as with reporting results of research. Inclusion of Common Names for Plant Diseases. APS, St. Paul, MN.
