

Author's Guide for Manuscript Preparation (revised 1990)

GENERAL INSTRUCTIONS

Submit two copies of manuscripts and three sets of figures to: PHYTOPATHOLOGY Editorial Office, The American Phytopathological Society, 3340 Pilot Knob Rd., St. Paul, MN 55121.

Manuscripts must be in English. The original version of the entire manuscript (including abstract, literature cited, tables, and legends) must be typed double-spaced on line-numbered 8¹/₂ × 11 in. (216 × 279 mm) paper, with authors' names, page number, and PHYTOPATHOLOGY in the upper right corner of each page. Tables should be on numbered pages after the literature cited section; legends for figures, on a separate numbered page, should follow the tables. 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 chairman of the committee sponsoring the symposium to contact the editor-in-chief before the symposium is presented.

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.

Page charges: Because of the high cost of publishing articles in PHYTOPATHOLOGY, payment of page charges is mandatory. Page charges are subject to change and will not be finalized until an author receives galley proofs. Current charges are \$100 per printed page for members of the Society and \$165 per printed page for nonmembers, plus \$15 per halftone or composite illustration. Authors who submit manuscripts satisfactorily prepared for electronic processing will receive a decrease of \$25 per printed page. (Guidelines are available from the Editorial Office.) An author will be billed after the article is printed in the journal. A letter confirming that the author or the author's institution, company, or research sponsor will honor the page charges should accompany each manuscript submitted.

FORMAT

Section heading. The section heading under which the article should be listed on the contents page should be typed on the first line of the title page. Section headings are: Letters to the Editor, Cytology and Histology, Disease Control and Pest Management, Disease Detection and Losses, Ecology and Epidemiology, Etiology, Genetics, Molecular Plant Pathology, Mycotoxicology, Physiology and Biochemistry, Postharvest Pathology and Mycotoxins, Resistance, Special Topics, Techniques, and Vector Relations.

Title. The title should reflect the important aspects of the article as concisely as possible, preferably in no more than 100 characters and spaces. Do not include a pathogen name in parentheses after a disease name unless essential for clarity. Do not use both common and scientific names for organisms in the title. When scientific names are used in the title, do not include authorities.

By-line. The author's names should be listed under the title. Affiliations and addresses, acknowledgments, disclaimers, and acceptance date should be given in separate paragraphs beneath the author's name. An author should be someone who contributed to the overall design, execution, and/or writing of the manuscript. (Inclusion of authors' professional titles is optional.)

Abstracts. Abstracts, in English, are required for all manuscripts. Authors may also provide a translation of the abstract in French, German, or Spanish.

The citation for the article should appear between the word ABSTRACT and the text of the abstract. Limit abstracts to one paragraph of 200 words (50–60 words for articles shorter than

two pages). Do not include authorities for Latin binomials in the abstract. Below the abstract, after the subheading *Additional keywords*, list in alphabetic order words or phrases that are not in the title or abstract but are in the text and would be useful in index retrieval systems.

Use a solid line to separate the abstract and additional keywords, if any, from the body of the manuscript.

Text. Organization. Major sections after the introductory statements are: Materials and Methods, Results, Discussion, and Literature Cited. General techniques and methods are best described in Materials and Methods; brief descriptions of experiments and trials may be given in Results. Subheadings may be used, but avoid excessive fragmentation of the text. Footnotes to the text are not permitted.

Editorial style. After acceptance for publication, manuscripts are edited for style, grammar, clarity of presentation, and preciseness and conciseness of statements. Extensive changes will be referred back to the author, via the senior editor, before the manuscript is committed to print. Preferred spellings are used, according to "Webster's Dictionary."

Use SI units of measurement. See the current "Standard Metric Practice Guide" (American Society for Testing Materials, 1916 Race St., Philadelphia, PA 19103). Express fractional units in length, mass, volume, and molarity by the prefixes c (centi), m (milli), μ (micro), n (nanno), and p (pico) where applicable. Abbreviate liter(s) as L when preceded by a number and as lowercase l when preceded by a fractional prefix (e.g., ml). Write out units that are not preceded by a number (e.g., The number of lesions per square centimeter of leaf increased linearly with time).

Use numerals before standard units of measurement; e.g., 1 g, 9 days, 24 h (no longer 24 hr). Otherwise, use words for numbers one through nine and numerals for larger numbers in the text. Because there is still no standard abbreviation for days, no abbreviation should be used.

Authors can facilitate accurate typesetting by distinguishing between certain characters (e.g., between O and zero, a prime sign and an apostrophe, the letter l and the numeral 1, and a multiplication symbol × and the letter X).

For commonly used terms and abbreviations, consult the latest edition of the "CBE [Council of Biology Editors] Style Manual" (American Institute for Biological Science, 1401 Wilson Blvd., Arlington, VA 22209). Nonstandard abbreviations should be avoided.

Names and terms. Underline Latin binomials to indicate italic type. Authority names should not be used for bacteria. Authorities for other organisms should be given only for the primary organisms (pathogens and hosts) in the manuscript, unless failure to include authorities would be ambiguous. For abbreviations of fungal names, see Farr, D. F., Bills, G. F., Chamuris, G. P., and Rossman, A. Y. 1989. *Fungi on Plants and Plant Products in the United States*. APS Press, St. Paul, MN. 1252 pp. (See also "A Guide to the Use of Terms in Plant Pathology," Commonwealth Mycological Institute, Kew, Surrey, England. *Phytopathological Papers*, No. 17, 1973.) When abbreviating taxa below the species level, use, for example, *P. g. tritici*, not *P. g. var. tritici* or Pgt after first introduction.

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.

Papers dealing mainly with taxonomy of bacteria, such as descriptions of new taxa, should be submitted to the *International Journal of Systematic Bacteriology*, but taxonomic papers that deal with classification, identification, and nomenclature below the subspecies level may be submitted to *PHYTOPATHOLOGY*. Bacterial nomenclature in *PHYTOPATHOLOGY* should follow the Approved Lists of Bacterial Names (Int. J. Syst. Bacteriol. 10:225-420, 1980, and later issues). As of 1982, each January issue of the *International Journal of Systematic Bacteriology* is to contain the cumulative list of species validly published the previous year, and additional lists are to be published in individual issues of that journal during the current year. Pathovar names should be presented as outlined by Dye et al in "International standards for naming pathovars of phytopathogenic bacteria and a list of pathovar names and pathotype strains" (Rev. Plant Pathol. 59:153-168, 1980), except when superceded by the *International Journal of Systematic Bacteriology*. Designate strains, where applicable.

Follow genetic terminology recommended by Rieger et al in the most recent edition of the "Glossary of Genetics and Cyto-genetics: Classical and Molecular" (Springer-Verlag, New York). Underline letters but not numerals in gene symbols. Follow usage of plasmid symbols proposed by Novick et al (Bacteriol. Rev. 40:168-169, 1976).

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.

Names of unusual proprietary materials and special apparatus should be followed by the manufacturer's name and address in parentheses. List fungicides by their approved common or generic names. See the current issue of "Farm Chemicals Handbook" (Meister Publishing Co., 37841 Euclid Ave., Willoughby, OH 44094) or the most recent edition of "Acceptable Common Names and Chemical Names for the Ingredient Statement on Pesticide Labels" (Pesticide Regulation Division, Environmental Protection Agency, Washington, DC). Use the chemical name if a common name is not available.

Names of enzymes. Use the enzyme names recommended in the latest issue of "Enzyme Nomenclature: Recommendations of

the Nomenclature Committee of the International Union of Biochemistry on the Nomenclature and Classification of Enzymes" (Academic Press, New York). Give the number (classification) of the enzyme at its first use. (See also the latest edition of "Handbook of Biochemistry and Molecular Biology," The Chemical Rubber Co., Cleveland, OH.)

Disease names. It is recommended but not mandatory that authors use the proposed common names for plant diseases published in *Plant Disease* (69:649, 1985). A pathogen name that is included in a disease name should be in Roman type and the first letter of a generic name should be capitalized (e.g., *Phytophthora* rot of soybean, *Septoria tritici* blotch of wheat).

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 $\pm x$, 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 sub-samples 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 text 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, 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

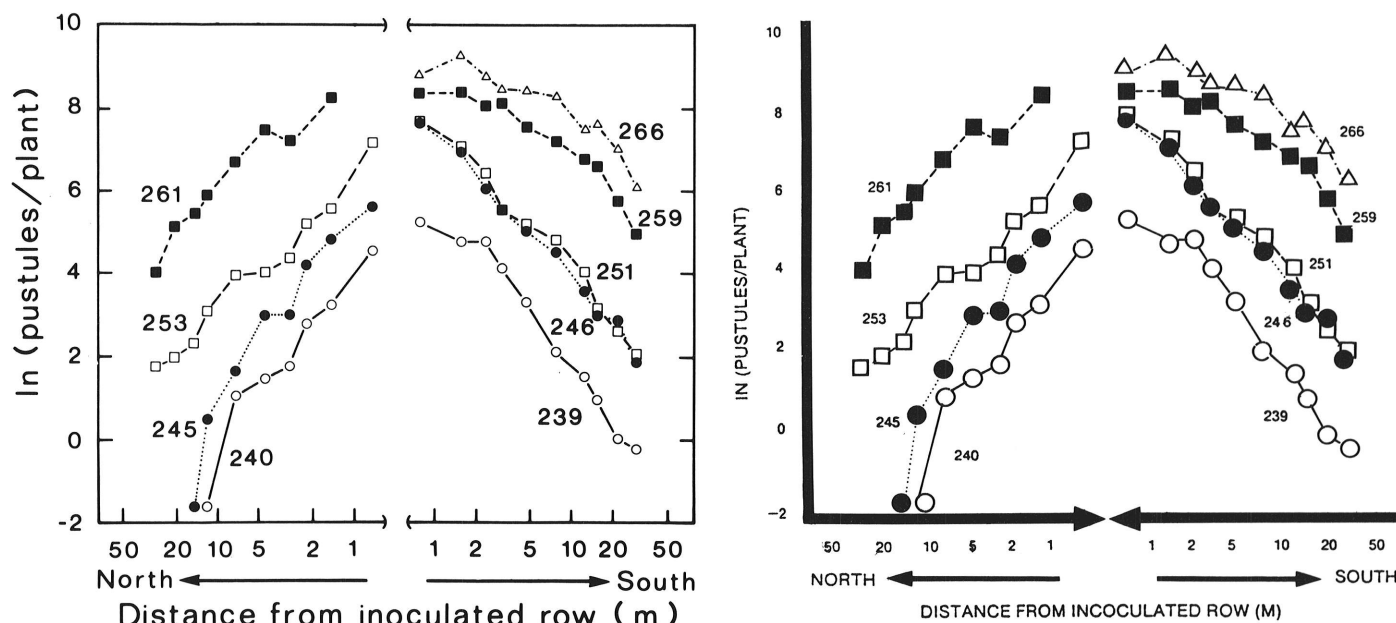


Fig. 1. Desirable and undesirable figure preparation for *PHYTOPATHOLOGY*. **Left**, properly styled graph, one-column wide, submitted camera-ready. Lettering and data-point symbols are in proportion to each other and to the size of printed text. (Used with permission of the authors. Portion of Figure 3 from D. E. Aylor and F. J. Ferrandino. 1989. Temporal and spatial development of bean rust epidemics initiated from an inoculated line source. *Phytopathology* 79:146-151.) **Right**, same data in a graph that depicts many *undesirable features* (axes without index marks, axes too bold, upper and right axes missing, data-point symbols too large, numbers too small, and lettering too small and in all capital letters).

before designing an experiment and also when analyzing the results. The following articles can be consulted for more information: Johnson and Berger, *Phytopathology* 72:1014-1015; Madden et al., *Phytopathology* 72:1015-1017; Swallow, *Plant Disease* 68:919-921; and Gilligan, "Use and misuse of the analysis of variance in plant pathology," in: *Advances in Plant Pathology*, Vol. 5 (Ingram and Williams, etc.), pages 225-261 (1986).

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.

Prints should be clear and of high quality. Poor alignments, blurred lines, or out-of-focus letters and symbols are not acceptable. Prints, except composites, should not be mounted on cardboard.

The CBE manual provides helpful information about reproduction of illustrations. 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 (about 1/8 in.) sans serif type such as Universe 55; figure designations—1, 2, 3, and A, B, C, etc.—should be in 18 point type (about 1/4 in.).

Photographs. Submit one set of original (first-generation) prints for printing and two sets of prints for review. Prints should be cropped at right angles to show only essential details, with scale bars inserted where necessary to indicate magnification. A 1:1 reproduction of halftone photographs maintains maximum detail in printing. If first-generation photographs cannot be cropped for 1:1 printing, the version printed in the journal will be better if it is a reproduction of first-generation prints than if it is a reproduction of a photograph of the original prints.

For composites, match photographs for similarity of contrast, background density, and subject content. Do not combine photographs showing microscopic details with those showing whole plants or plant organs, and do not combine line drawings and photographs. Photographs in a composite should be mounted on hard 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. A cost quotation will be provided, and the author or an institutional officer must formally indicate acceptance of the quoted rate before the illustration will be processed.

Line drawings. Submit original line drawings and two copies of each, or submit three prints sized for 1:1 reproduction since this saves time, labor, and production cost for PHYTOPATHOLOGY.

Affix index marks to ordinates and abscissae (Fig. 1). Avoid too bold lettering, numbers, and lines for coordinate axes and curves. Computer-generated graphs and figures are acceptable if they conform to requirements of line sharpness and boldness and of type size.

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. Titles should be 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. Subheadings should be brief. Abbreviations are acceptable; nonstandard ones should be explained in footnotes. Footnotes are designated with superscript lowercase letters. 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 presented in tables should not be repeated in the text, but any information presented in a table should agree with that in the text.

Cite tables in numeric order in the manuscript. An extra charge is made for tables that exceed 30% of the length of the text.

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 last), and if necessary, by the page numbers of articles published in the same journal. Underline Latin binomials, capitalize German nouns, and insert diacritical marks. List total pages of bulletins and specific pages of books. Refer to the BIOSIS List of Serials with Title Abbreviations (Biosciences Information Service of Biological Abstracts, 2100 Arch St., Philadelphia, PA 19102) for accepted abbreviations of journal names. Do not abbreviate one-word titles of journals and publications.

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 submitting 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, as such data cannot be evaluated by reviewers or readers.

Electronic Processing of Manuscripts. Authors are encouraged to have the final version of a manuscript prepared for electronic processing. Several options are available, but an ASCII file on diskette is preferable. Guidelines for electronic processing are available from the APS Editorial Office.

REVIEW OF MANUSCRIPTS

Authors are encouraged to have colleagues review a manuscript before submitting it for publication. Each manuscript submitted to PHYTOPATHOLOGY 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 or 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

A reviewer is asked to review the manuscript and to transmit his recommendation to the assigned senior editor within 2 weeks. Senior editors are responsible for judging the suitability of manuscripts for publication in PHYTOPATHOLOGY.

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. Articles that relate primarily to the solution of specific disease problems will be more appropriate for an applied journal. Articles based on unrepeated experiments generally are not acceptable.