

An International Journal of the American Phytopathological Society

-EDITOR-IN-CHIEF -

Dennis C. Gross

Washington State University, Plant Pathology Department, Pullman, WA 99164-6430 Telephone: 509/335-1187 • Fax 509/335-9581 • E-mail: gross@wsunix.wsu.edu

- SENIOR EDITORS —

Biochemistry and Cell Biology Margaret E. Daub North Carolina State University Department of Plant Pathology Box 7616 Raleigh, NC 27695-7616 Telephone: (919) 515-6986 Fax: (919) 515-7716 E-mail: margaret_daub@ncsu.edu

Plant Virology

Bryce W. Falk Department of Plant Pathology University of California Davis, CA 95616 Telephone: (916)752-0302 Fax: (916)752-5674 E-mail: bwfalk@ucdavis.edu

Epidemiology

Kenneth B. Johnson Oregon State University Cordley Hall 2082 Department of Botany and Plant Pathology Corvallis, OR 97331-2902 Telephone: (503) 737-5249 Fax: (503)-737-3573 E-mail: johnsonk@bcc.orst.edu

Nematology

Ann E. MacGuidwin University of Wisconsin Department of Plant Pathology 1630 Linden Drive Madison, WI 53706-1598 Telephone: (608) 263-6131 Fax: (608) 263-2626 E-mail: aem@plantpath.wisc.edu

Biological Control

Timothy Paulitz Department of Plant Science Macdonald Campus of McGill University 21,111 Lakeshore Road Ste. Anne de Bellevue, QUE CANADA H9X 3V9 Telephone: (514) 398-7851, ext. 7855 Fax: (514) 398-7897 E-mail: paulitz@nrs.mcgill.ca

Phytobacteriology

Timothy Denny University of Georgia Plant Sciences Building Department of Plant Pathology Athens, GA 30602-7274 Telephone: (706) 542-1282 Fax: (706) 542-1262 E-mail: tdenny@uga.cc.uga.edu

Plant Virology

Said Ghabrial University of Kentucky Department of Plant Pathology Lexington, KY 40546-0091 Telephone: (606) 257-5969 Fax: (606) 323-1961 E-mail: saghab00@ukcc.uky.edu

Genetics and Resistance

James Kolmer Agriculture Canada Research Station 195 Dafoe Road Winnipeg, MB CANADA R3T 2M9 Telephone: (204) 983-0771 Fax: (204) 983-4604 E-mail: jkolmer@em.agr.ca

Molecular and Population

Genetics of Fungi Bruce McDonald Texas A&M University Department of Plant Pathology & Microbiology College Station, TX 77843-2132 Telephone: (409) 845-7311 Fax: (409) 845-6483 E-mail: b-mcdonald@tamu.edu

Soilborne Fungi

L. W. Timmer University of Florida IFAS CREC 700 Experiment Station Road Lake Alfred, FL 33850 Telephone: (941) 956-1151 Fax: (941) 956-4631 Bitnet: lwt@IFASGNV Internet: lwt@gnv.ifas.ufl.edu



- ASSOCIATE EDITORS -

Anne M. Alvarez, University of Hawaii Anne J. Anderson, Utah State University Philip H. Berger, University of Idaho Robert L. Bowden, Kansas State University Gil Choi, Human Genome Sciences, Rockville, MD Ralph A. Dean, Clemson University André Drenth, CRCTPP, University of Queensland James A. Duthie, Oklahoma State University James T. English, University of Missouri Robert L. Gilbertson, University of California, Davis Frederick E. Gildow, Pennsylvania State University Stephen B. Goodwin, Purdue University Bradley I. Hillman, Rutgers University Scot H. Hulbert, Kansas State University Linda L. Kinkel, University of Minnesota H. Corby Kistler, University of Florida Wolfram D. Köller, Cornell University Craig M. Liddell, New Mexico State University Rosemary Loria, Cornell University Marco A. Marchetti, USDA/ARS, Beaumont, TX Frank N. Martin, USDA, ARS, Salinas, CA Ulrich K. Melcher, Oklahoma State University Rebecca J. Nelson, Centro Internacional de la Papa, Lima, Peru G. B. Ouellette, Centr. de Res. For. des Laur. Bonnie H. Ownley, University of Tennessee Randy C. Ploetz, IFAS, University of Florida, Homestead Jack B. Rasmussen, North Dakota State University Katherine L. Reynolds, University of Georgia Jean B. Ristaino, North Carolina State University Erich Seemüller, Biologische Bundesantalt, Dossenheim Barbara B. Shew, North Carolina State University Krishna V. Subbarao, University of California, Davis David M. Weller, USDA/ARS, Washington State University

-EDITORIAL AND BUSINESS STAFF -

Publisher and Business Manager:	Steven C. Nelson
Director of Publications:	Miles Wimer
Production Manager:	Steve Kronmiller
Production Coordinator:	Patti Ek
Editorial Supervisor:	Jean Rice
Technical Editors:	Jordana Anker Susan Figueroa Paul Hintz Diana Roeder
Journals Assistant:	Ina Pfefer
Circulation Coordinator:	Janice Sampson

General Publication Policies

Manuscripts may be submitted for consideration of publication in PHYTOPATHOLOGY by members of The American Phytopathological Society and by nonmembers. Membership in the Society is not a prerequisite for publication in the journal, but page charges are higher for nonmembers than for members.

Submission of manuscripts: 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 Road, 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.

Content: Contributions should fall into the following categories: 1) Original research on some aspect of plant pathology. Subject matter is not a criterion for judging an article for publication in PHYTOPATHOLOGY. It is, however, the author's duty to establish relevancy to the science of plant pathology. 2) Obituaries. 3) Letters to the Editor: These may explain, amplify, or otherwise comment on research published in the journal or elsewhere. Letters to the Editorial Board reserves the right to reject or publish letters of rebuttal when appropriate. If possible, the opportunity will be provided for a letter of rebuttal to appear in the same issue as the letter to which it is directed. 4) Mini-Reviews: These will focus on current literature and work on a specific area of research.

Authors are encouraged to include with *revised* manuscripts an illustration or illustrations (photographs, drawings, or diagrams) from an article or related to an article that they would like to have considered for the cover. Such figures should be labeled.

The emphasis in PHYTOPATHOLOGY is on research that advances understanding of the nature of plant diseases, their spread, the losses they cause, and measures that can be used to control them. Acceptance depends on the originality of the work, soundness of organization of the manuscript, reliability of the methods in terms of their adequacy to support conclusions, clarity of presentation, validity of the reasoning in deriving the conclusions, and the possibility of alternative interpretations. Authors should display an awareness of previously published information on the same subject and relate their findings to it. Appropriate statistical analyses should be included. In general, an article in which the 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 without notice. Current charges are \$80 per printed page for members of The American Phytopathological Society and \$130 per printed page for nonmembers, plus \$15 per halftone or composite illustration. Cost of color: one page of color containing one figure, \$1,300; each additional page of color containing one figure each, \$600; each additional figure on any one page, \$200. Manuscripts not submitted for final processing on computer diskette are subject to a \$50 per article surcharge to cover the costs of copy input. The author is billed after the article is printed in the journal.

Separates: No free copies are supplied. Reprints are available to authors at a nominal cost; an order form will be provided and must be returned with the proof.

Use of material from this journal: PHYTOPATHOLOGY is copyrighted, and those who wish to use illustrations or data appearing in PHYTOPATHOLOGY in other publications should obtain the permission of The American Phytopathological Society and the author of the paper and provide a line crediting PHYTOPATH-OLOGY as the source of the material.

Authorization to photocopy copyrighted material for internal or personal use, or internal or personal use of specific clients, is granted by The American Phytopathological Society for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that a base fee of \$3.00 per copy of an article is paid directly to CCC, 222 Rosewood Drive, Danvers, MA 01923; tel.: 508/750-8400. 0031-949X/94 \$3.00 + .00. **Subscriptions**

Communications should be addressed to The American Phytopathological Society, 3340 Pilot Knob Road, St. Paul, MN 55121-2097. Nonmember subscription price: \$270 per year domestic, \$320 elsewhere. Canadian subscribers, please add 7% GST to the elsewhere price. (Canadian GST #R 12988129.) Subscription price includes expedited mailing. All payments must be made in U.S. funds, through a member bank of the U.S. Federal Reserve System. Single current issues (within 60 days of publication) \$30. (Prices of other single issues on request).

Journals On-Line

The American Phytopathological Society provides up-to-date information on-line about articles published in its three journals, *Molecular Plant-Microbe Interactions*, *Plant Disease*, and *Phytopathology*. On-line access is via APSnet, an Internet server located on the World Wide Web at URL address http://www.scisoc.org/. Current offerings include tables of contents of recent issues, abstracts of articles, and listings of recently accepted but not yet published manuscripts. In 1996, on-line publication of the *Plant Disease* section "Disease Notes" constitutes first publication, with notes subsequently printed in the paper journal. Future plans call for publication of fulltext research articles on-line as well.

Advertisements

No endorsement or any statement of claims made in advertise-ments is assumed by this journal or The American Phytopathological Society. **Membership in APS**

Information concerning membership in The American Phytopathological Society and special publication rates for members is available from the membership services of the Society.

Articles on Demand. Beginning with the January 1996 issues of APS journals, each item will contain a publication number (e.g., P-1996-1201-01R), found in the bottom left corner of the first page, used to identify items that can be purchased for a fee on demand by interested readers. To order call 1-800-328-7560.

PHYTOPATHOLOGY (ISSN 0331-949X) is published monthly at The American Phytopathological Society, 3340 Pilot Knob Road, St. Paul, MN 55121-2097 (612/454-7250). Periodicals postage paid at St. Paul, MN, and at additional offices. USPS 431-540. CPC Int'l. Pub. Mail #0969184.

POSTMASTER: Send address changes to Phytopathology, 3340 Pilot Knob Road, St. Paul, MN 55121-2097.

PHYTAJ: 86 (11):1149-1284

PHYTOPATHOLOGY for October (1005-1148) was issued 24 September 1996.