

An international journal devoted to basic research into how plants function, ranging from the molecular to the cellular to the whole plant levels, and including the interactions of plants with their biotic and abiotic environments.

Editor-in-Chief

Donald R. Ort

USDA/ARS University of Illinois, Urbana, IL, USA

Associate Editors

Bonnie Bartel Rice University, Houston, TX, USA

Herman Höfte INRA, Versailles, France

Alan Jones University of North Carolina, Chapel Hill, NC, USA

Maarten Koornneef Max Planck Institute, Cologne, Germany

Robert L. Last Michigan State University, East Lansing, MI, USA

Sheila McCormick USDA-ARS University of California, Berkeley, CA, USA

Thomas Mitchell-Olds Duke University, Durham, NC, USA

John Ohlrogge Michigan State University, East Lansing, MI, USA

Gary Stacey University of Missouri, Columbia, MO, USA

Susanne von Caemmerer Australian National University, Canberra City, ACT, Australia

Research Area and Sections

Signal Transduction and Hormone Action

Cell Biology

Development and Hormone Action

Environmental Stress and Adaptation to Stress

Bioinformatics, Breakthrough Technologies, and Genome Analysis

Systems Biology, Molecular Biology, and Gene Regulation

Genetics, Genomics, and Molecular Evolution

Biochemical Processes and Macromolecular Structures

Plants Interacting with Other Organisms

Bioenergetics and Photosynthesis

Whole Plant and Ecophysiology

Feature Editors

Richard Amasino University of Wisconsin, Madison, WI, USA

Joseph J. Kieber University of North Carolina, Chapel Hill, NC, USA

Update and Meeting Report

Update and Meeting Report

International Board of Monitoring Editors

Kozi Asada

Fukuyama, Japan

Antony Bacic

Parkville, VIC, Australia

Julia Bailey-Serres

Riverside, CA, USA

Neil R. Baker

Essex, UK

Philip W. Beecraft

Ames, IA, USA

Malcolm Bennett

Loughborough, UK

C. Robin Buell

Rockville, MD, USA

Daniel R. Bush

Fort Collins, CO, USA

Edgar B. Cahoon

St. Louis, MO, USA

Judy Callis

Davis, CA, USA

Caren Chang

College Park, MD, USA

Xuemei Chen

Riverside, CA, USA

Vitaly Citovsky

Stony Brook, NY, USA

Sacco C. de Vries

Wageningen, The Netherlands

Xinnian Dong

Durham, NC, USA

Natalia Dudareva

West Lafayette, IN, USA

Edward Farmer

Lausanne, Switzerland

Peter Geigenberger

Golm, Germany

Thomas Girke

Riverside, CA, USA

Elzbieta Glaser

Stockholm, Sweden

Jeffrey Harper

Reno, NV, USA

Paul M. Hasegawa

West Lafayette, IN, USA

Martha Hawes

Tucson, AZ, USA

Luis Herrera-Estrella

Irapuato, Mexico

N. Michele Holbrook

Cambridge, MA, USA

Gregg Howe

East Lansing, MI, USA

Dirk Inzé

Gent, Belgium

Georg Jander

Ithaca, NY, USA

Jacques Joyard

Grenoble, France

Elizabeth Kellogg

St. Louis, MO, USA

Anthony Kinney

Wilmington, DE, USA

Leon Kochian

Ithaca, NY, USA

Joachim Kopka

Golm, Germany

Ljerka Kunst

Vancouver, BC, Canada

Norman G. Lewis

Pullman, WA, USA

Hsueh-min Li

Taipei, Taiwan

Chentao Lin

Los Angeles, CA, USA

Elizabeth Lord

Riverside, CA, USA

Francesco Loreto

Monterotondo, Italy

M. David Marks

St. Paul, MN, USA

Susan Martino-Catt

St. Louis, MO, USA

Ron Mittler

Reno, NV, USA

Mark O'Brian

Buffalo, NY, USA

Katherine Osteryoung

East Lansing, MI, USA

Sara Patterson

Madison, WI, USA

Hendrik Poorter

Utrecht, The Netherlands

Seung Rhee

Stanford, CA, USA

Pamela C. Ronald

Davis, CA, USA

David Salt

West Lafayette, IN, USA

Daniel P. Schachtman

St. Louis, MO, USA

Danny J. Schnell

Amherst, MA, USA

Paul Schulze-Lefert

Cologne, Germany

Edgar P. Spalding

Madison, WI, USA

Dina St. Clair

Davis, CA, USA

Tuula Teeri

Stockholm, Sweden

Mary Tierney

Burlington, VT, USA

Aart J.E. van Bel

Giessen, Germany

Carroll P. Vance

St. Paul, MN, USA

Andreas Weber

East Lansing, MI, USA

Mary Wildermuth

Berkeley, CA, USA

Shaul Yalovsky

Tel Aviv, Israel

Kazuko Yamaguchi-Shinozaki

Ibaraki, Japan

Yunde Zhao

La Jolla, CA, USA

Publisher

American Society of Plant Biologists,
Crispin Taylor, Executive Director; ctaylor@aspb.org

Publications Director

Nancy A. Winchester; nancyw@aspb.org

Managing Editor

John Long; jlong@aspb.org

Science Writer

Peter V. Minorsky; peminorsky@aspb.org

Production Manager

Jon Munn; jmunn@aspb.org

Manuscript Manager

Leslie Ash Csikos; lcsikos@aspb.org



Plant Physiology (ISSN 0032-0889, online 1532-2548) is published monthly, in three volumes per year, by the American Society of Plant Biologists, 15501 Monona Drive, Rockville, MD 20855-2768, USA, and is produced by Dartmouth Journal Services, Orford, NH. The institutional price for the print and online versions is based on type of institution; contact institution@aspb.org. A subscription includes both *The Plant Cell* and *Plant Physiology*; single copies may be purchased for \$75 each plus shipping. Members of the American Society of Plant Biologists may subscribe to *Plant Physiology* for \$185. Nonmember individuals may subscribe for \$350. For matters regarding subscriptions, contact Suzanne Cholwek, 15501 Monona Drive, Rockville, MD 20855-2768; telephone 301-251-0560, ext. 141; fax 301-251-6740; e-mail scholwek@aspb.org. Notify ASPB within 3 months (domestic) or 6 months (foreign) of issue date, and defective copies or copies lost in the mail will be replaced. Send all inquiries regarding display advertising to Kelly Taylor, Leonard Media Group, P.O. Box 220, Horsham, PA 19044; telephone 215-675-9133, ext. 226; fax 215-675-9376; e-mail kelly@leonardmedia.com. Periodicals postage paid at Rockville, MD, and at additional mailing offices. **Postmaster:** Send address changes to *Plant Physiology*, American Society of Plant Biologists, 15501 Monona Drive, Rockville, MD 20855-2768. The online version of *Plant Physiology* is available at www.plantphysiol.org. **Permission to Reprint:** Permission to make digital or hard copies of part or all of a work published in *Plant Physiology* is granted without fee for personal or classroom use provided that copies are not made or distributed for profit or commercial advantage and that copies bear the full citation and the following notice on the first page: "Copyright American Society of Plant Biologists." For all other kinds of copying, request permission in writing from Nancy A. Winchester, Publications Director, ASPB headquarters.

© 2006 American Society of Plant Biologists. All rights reserved. Printed on acid-free paper. Printed in the USA.