

# NATIVEPLANTS

JOURNAL

## EDITOR-IN-CHIEF

### R Kasten Dumroese

USDA Forest Service, Southern Research Station, 1221 South Main Street, Moscow, ID 83843-4211. [kdumroese@fs.fed.us](mailto:kdumroese@fs.fed.us)

## CONTRIBUTING EDITORS

### Carol C Baskin

School of Biological Sciences and Department of Agronomy, University of Kentucky, Lexington, KY 40506-0225

### Jerry M Baskin

School of Biological Sciences, University of Kentucky, Lexington, KY 40506-0225

### Susan Buis

Sound Ecological Services/Sound Native Plants Inc, PO Box 7505, Olympia, WA 98507-7505

### Tom Jones

USDA Agricultural Research Service, Forage and Range, Utah State University, Logan, UT 84322-6300

### Jennifer Kujawski

formerly, USDA Natural Resources Conservation Service, National Plant Materials Center, BARC-East, Building 509, Beltsville, MD 20705

### Scott Lambert

USDI Bureau of Land Management, 1387 South Vinnell Way, Boise, ID 83709-1657

### Thomas D Landis

USDA Forest Service (retired), JH Stone Nursery, 2606 Old Stage Road, Central Point, OR 97502-1300

### J Dan Pittillo

Department of Biology, Western Carolina University, Cullowhee, NC 28723

### Steven E Smith

Rangeland and Forest Resources Program, School of Renewable Natural Resources, 301 Biological Sciences East, University of Arizona, Tucson, AZ 85721

### S Ray Smith

Crop and Soil Environmental Sciences, 424 Smyth Hall (0403), Virginia Tech, Blacksburg, VA 24061

## BOOK REVIEW EDITOR

### Thomas G Barnes

Department of Forestry, University of Kentucky, Lexington, KY 40546-0073. Telephone: 859.257.8633. [tbarnes@uky.edu](mailto:tbarnes@uky.edu)

*An eclectic forum*

*for dispersing practical information*

*about planting and growing native plants.*

*Native Plants Journal* (ISSN 1522-8339) is published 3 times a year by Indiana University Press, 601 North Morton Street, Bloomington, Indiana 47404-3797 USA. All views and conclusions are those of the authors of the articles and not necessarily those of the editorial staff or Indiana University Press.

*Native Plants Journal* solicits papers that are useful and understandable to growers and planters of North American plants and that make a significant contribution to the scientific literature. Contributions from scientists and workers in the field are welcome. Please see <http://iupjournals.org/npj> for submission guidelines.

## SUBSCRIPTION, BUSINESS, AND ADVERTISING INQUIRIES

Journals Department, Indiana University Press  
601 North Morton Street, Bloomington, Indiana 47404-3797 USA

Notice of nonreceipt of an issue must be received within 4 weeks after the receipt of the subsequent issue. Please notify the Press of any change of address; the post office does not forward third class mail. Issues missed because of out-of-date addresses will not be replaced free of charge.

## BACK ISSUES AND BULK ORDERS

Information on back issues and bulk order discounts is available by calling 1.800.842.6796 or visiting our website at <http://iupjournals.org/npj>.

## SUBSCRIPTION PRICES

Individuals: US\$42.50  
Students: US\$35.00 (with copy of a valid ID)  
Institutions: US\$82.50  
Foreign orders add US\$11.50 for surface postage or \$23.00 for air mail.

No part of this publication may be reproduced, stored in a retrieval system, transmitted, or distributed, in any form, by any means electronic, mechanical, photographic, or otherwise, without the prior permission of Indiana University Press. For educational reprinting, please contact the Copyright Clearance Center (1.508.744.3350). For all other permissions, please visit <http://iupress.indiana.edu/rights>.

GST No. R126496330  
Copyright © 2004 Friends of Native Plants, LLC.

## PARTNERS

Partners with *Native Plants Journal* provide annual support of US\$ 25 000. Sponsors provide annual support of US\$ 5000.



Partner: USDA Forest Service, through State and Private Forestry, National Forest System, and the Southern Research Station.

*On the Cover:* Okay, corn (*Zea mays* L.) probably isn't the first species to come to mind when discussing native plants, but see page 105 for why it could. Photo R Kasten Dumroese



## FROM THE EDITOR

**Yes, we're open for business.** I'm glad I can still say that. It's been a rough year to stay focused on the actual editorial content of the journal. The abrupt closure of the University of Idaho Press left a tangle of loose threads to deal with, but fortunately the team at Indiana University Press is enthusiastic about the journal, supportive, and organized—I look forward to a rewarding relationship with them.

This issue has an emphasis on genetics. I don't know about you, but at times genetics seems like a foreign language to me. I'm sure we can all agree, however, that a basic understanding is paramount to our business of growing and planting native species. So, with this issue, we'll ease some of you into the topic with a genetics primer that helps define some of the basic terminology, and then provide all of you with some manuscripts that deal with important genetic issues. In an attempt to be pragmatic, we're also publishing some seed transfer guidelines to show that genetic research is making a difference on the ground. The Spring 2005 issue will have a second installment of genetics articles dealing with more terminology and associated practical aspects, seed transfer guidelines, and speciation.

In addition to the genetics articles, this issue contains a broad representation of other topics gathered from across North America. You can read about using native legumes in the central US, revegetating the Sonoran Desert with container stock and drip irrigation, using compost to grow Florida natives, making compost and inoculating it with beneficial microorganisms in Mexico, storing acorns, and propagation protocols for sagebrush and oak. And, a couple of books are reviewed as well.

The Native Plant Network website has a new look at <http://www.nativeplantnetwork.org>. Articles from the first 10 issues of this journal are available in a searchable database, as well as roughly 2000 propagation protocols for North American native plants.

I send a hearty thank you to Rob Kalmbacher and Sandra Wilson who managed to send me important information about their manuscripts even as their lives were disrupted by the hurricanes in Florida. A special thank you to Gabriela Buamscha for her translation work. And finally, a well-deserved thank you to the following individuals for reviewing manuscripts. Their efforts are most appreciated.

Joseph Albano	Nabil Khadduri	Christopher Richards
John Brissette	L Katherine Kirkman	John Rutter
Rodney Busby	Pamela Kittelson	James C Sellmer
Michelle Cram	Sherry Kitto	Jeff Sibley
Douglass F Jacobs	Jay Kitzmiller	Tim L Springer
Robert L James	David Kolotelo	Mack Thetford
Thomas A Jones	Ross E Koning	Robert R Tripepi
Stuart Hardegree	Douglas D McCreary	Raymond Wallace
John T Harrington	Cynthia McKenney	Barbara Wilson
Valerie Hipkins	Jeff G Norcini	Truman P Young
Greg Hoss	Anh Phan	
Rita L Hummel	Gerry L Posler	

**R Kasten Dumroese**

*Have a great idea for an article but don't have time or need help writing? Please e-mail. We can help.*

### Two types of manuscripts are welcome:

*General articles* include articles that are not research per se (lack strict experimental design and statistical analysis), but have important information for growers and planters of native plants. Articles could include new planting techniques, useful equipment, cultural techniques, habitat restoration, restoration techniques, production trends, technical information, descriptions of new species or cultivars entering nursery production, and so on. Propagation protocols are short, concise general articles detailing the specific methods used to propagate a particular plant.

*Refereed research articles* (and scientific reviews) must have sound application of scientific method, appropriate statistical analysis, and state how the research is important to growers and planters of native plants. Accepted papers will be published with a "Refereed Research Article" designation.

All submitted manuscripts will be double-blind peer-reviewed by 2 reviewers to ensure the objective of *Native Plants Journal* is met.

### MANUSCRIPT PREPARATION

#### Format and style

Include a cover letter indicating what type of manuscript is being submitted (refereed research or general). Refrain from special formatting. Use of active voice is encouraged. All text except tables and figure captions should be double-spaced. The first page of the manuscript should have the title and author information (include full names of authors, their professional titles and affiliations, mailing and electronic addresses, and specify the corresponding author). Please print an abbreviated title and page number in the upper right corner of each subsequent page. Line numbering is not mandatory but appreciated. The second page should contain the title, abstract, and keywords but not author names. Abstracts should be double-spaced and brief (100 to 150 words or less) and emphasize results, usefulness, and practicality to growers and planters of North American (Canada, Mexico, and US) native plants. Include 3 to 7 key words not in the title. Include the reference you use for nomenclature (see below).

Follow the second page with the "Introduction, Materials and Methods, Results, Discussion, Conclusion, References," or some other logical system as headings, followed by figure captions and tables. For matters of style, we follow *Scientific Style and Format, The Council of Biology Editors Manual for Authors, Editors, and Publishers*, 6th ed. (ISBN 0-521-47154-0). Use metric (SI) units with US units in parentheses and abbreviate all units, except those without numerical value (for example, "we measured parts per million and found 250 ppm nitrogen"). Use numerals for any countable amount (for example, 3 replicates, 2 populations).

### REFERENCES

In the text, please list citations by date, and then alphabetically by author (for example, Smith 1986, 1997; Jones and Smith 1992; Smith and Jones 1992; Doe and others 1998). In the references section, list references alphabetically by author(s) and please do not abbreviate the name of the referenced journal. Examples:

*Journal article:* Arnold MA, Struve DK. 1989. Growing green ash and red oak in CuCO<sub>3</sub>-treated containers increases root regeneration and shoot growth following transplant. *Journal of the American Society for Horticultural Science* 114:402–406.

*Entire book:* Davidson H, Mecklenburg R. 1981. *Nursery management: administration and culture*. 2nd ed. Englewood Cliffs (NJ): Prentice-Hall Inc. 450 p.

*Article in proceedings:* Dumroese RK, Wenny DL. 1997. Fertilizer regimes for container-grown conifers of the Intermountain West. In: Haase DL, Rose R, coordinators and editors. *Symposium proceedings, forest seedling nutrition from the nursery to the field; 1997 Oct 28–29; Corvallis, OR*. Corvallis (OR): Oregon State University Nursery Technology Cooperative. p 17–26.

*Internet source:* USDA NRCS. 2002. The PLANTS database, version 3.5. URL: <http://plants.usda.gov> (accessed 20 Aug 2003). Baton Rouge (LA): National Plant Data Center.

*Government article:* Barnett JP, Brissette JC. 1986. Producing southern pine seedlings in containers. New Orleans (LA): USDA Forest Service, Southern Forest Experiment Station. General Technical Report SO-59. 71 p.

*Thesis or dissertation:* Wang Z. 1990. Effects of cupric carbonate on container-grown seedlings of ponderosa pine during greenhouse production [MSc thesis]. Moscow (ID): University of Idaho. 67 p.

*Personal communication:* Hoss GA. 2002. Personal communication. Licking (MO): Missouri Department of Conservation, George O White State Forest Nursery. Nursery Superintendent.

### NOMENCLATURE

Use common names with scientific names (including family names) in parentheses the first time used in the abstract and body of the paper, then use either the common or scientific name. Example with common name: whitebark pine (*Pinus albicaulis* Engelm. [Pinaceae]). Example without common name: *Phacelia rattanii* Gray. (Hydrophyl-

laceae). Please use the Integrated Taxonomic Information System (<http://www.its.usda.gov>), the PLANTS database (<http://plants.usda.gov>), or other suitable references. Please cite the reference you use for nomenclature.

### MANUSCRIPT SUBMISSION

Manuscripts should be submitted electronically either as e-mail attachments or on a diskette or CD. In addition, please mail a single hard copy to the editor-in-chief.

Text and tables must be saved in Rich Text Format, Corel WordPerfect, or Microsoft Word. Graphics (graphs, drawings) should be in black and white and saved as individual jpg, tif, eps (preferred), SigmaPlot (preferred), or Adobe Photoshop files. Excel files embedded in manuscripts are unacceptable. Color slides are the preferred medium; images may also be provided as high-quality color photographs or digital images saved at a minimum resolution of 300 dpi at a minimum width of 10 cm (4 in), although larger-sized images are preferred. Include photo credits.

Please send manuscripts to:

Kas Dumroese, Editor, *Native Plants Journal*  
USDA Forest Service, SRS  
1221 South Main Street  
Moscow, Idaho 83843–4211  
telephone 208.883.2324 fax 208.883.2318  
[kumroese@fs.fed.us](mailto:kumroese@fs.fed.us)

Please include the names and contact information for 2 potential reviewers of your manuscript.

Status of submitted manuscripts can be checked at <http://www.nativeplantnetwork.org>

**Disclaimers:** Individual authors are responsible for accuracy of their articles. Trade names are used for the information and convenience of the reader, and do not imply endorsement or preferential treatment by Indiana University, the US Department of Agriculture or its specific agencies, or any other public agency. Indiana University is an equal opportunity and affirmative action employer and educational institution. *Native Plants Journal* publishes research involving pesticides, but such pesticides are not recommended. All uses of pesticides must be registered by appropriate state and/or federal agencies before they can be recommended. CAUTION: This publication discusses the use of pesticides. Pesticides can injure humans, domestic animals, desirable plants, and fish or other wildlife if they are not handled or applied appropriately. Read the pesticide label before purchasing and using. Use all pesticides selectively and carefully. Follow the label directions for the disposal of surplus pesticides and pesticide containers.