CEREAL CHEMISTRY.

AN INTERNATIONAL JOURNAL SINCE 1924



Editor-in-Chief R. C. Hoseney

Senior Editors
J. A. Delcour
M. S. Izydorczyk

Board of Editors

D V Daile

| DN. Dalk | P. Noemer |
|----------------|-----------------|
| I. Batey | M. Kweon |
| B. S. Beecher | B. Lamsal |
| M. E. Camire | R. Miller |
| E. Champagne | K. D. Rausch |
| P. Chinachoti | A. S. Ross |
| F. W. Collins | YC. Shi |
| C. M. Courtin | S. Saldivar |
| S. R. Delwiche | K. Spence |
| N. M. Edwards | J. R. N. Taylor |
| J. Faubion | YJ. Wang |
| G. Ganjyal | P. L. Weegels |
| W. Hung | R. W. Welch |
| | |



EDITORIAL POLICY

CEREAL CHEMISTRY® is an international journal publishing high-quality, scientific papers reporting significant, recent research. Acceptable research areas include those dealing with biochemistry, biotechnology, products, processes, and analytical procedures associated with cereals and other grain crops. Papers may be comprehensive reviews or reports of original investigations that make a definite contribution to existing knowledge. The content must not have been published or accepted for publication elsewhere, and papers must not be under consideration by another journal.

Paid advertisements are accepted. However, no endorsement or any statement of claims made in advertisements is assumed by this journal or by AACC International, Inc.

The current processing fees for CEREAL CHEMISTRY are \$300 (for the first five pages) and \$120 each page, or portion thereof, thereafter for members of AACC International, Inc. and \$400 (for the first five pages) and \$150 each page, or portion thereof, thereafter for nonmembers. All fees are subject to change without notice. Reprints are available to authors at a nominal cost; an order form will be provided and must be returned with the proof. A list of recently accepted manuscripts appears online (http://cerealchemistry.aaccnet.org/). For further information on recently accepted manuscripts, contact the Editorial Office.

Direct inquiries on editorial policy and review process to: Dr. R. Carl Hoseney, Editor-in-Chief, 852 Church Ave, Manhattan, KS 6502 U.S.A. (Phone: +1.785.537.5199; Fax: +1.785.537.5199; E-mail: choseney@scisoc.org). Submit manuscripts directly to "Manuscript Central". Further information is provided in the "Instructions to Authors" online (http://cerealchemistry.aaccnet.org/). Direct inquiries to: Editorial Office, AACC International, Inc., 3340 Pilot Knob Rd., St. Paul, MN 55121.

CEREAL CHEMISTRY.

AN INTERNATIONAL JOURNAL SINCE 1924

VOLUME 86, NUMBER 4

July-August 2009

- 369 NOTE: Improved Characterization of Sorghum Tannins Using Size-Exclusion Chromatography. R. C. Kaufman, M. Tilley, S. R. Bean, and M. R. Tuinstra
- 372 Influence of Low Molecular Weight Glutenins on Viscoelastic Properties of Intact Wheat Kernels and Their Relation to Functional Properties of Wheat Dough. T. Maucher, J. D. C. Figueroa, W. Reule, and R. J. Peña
- 376 Effect of Hydrocolloids on Water Absorption of Wheat Flour and Farinograph and Textural Characteristics of Dough. N. E. Linlaud, M. C. Puppo, and C. Ferrero
- 383 Thermal Decomposition of Corn Starch with Different Amylose/Amylopectin Ratios in Open and Sealed Systems. X. Liu, L. Yu, H. Liu, L. Chen, and L. Li
- 386 Breadmaking Use of Andean Crops Quinoa, Kañiwa, Kiwicha, and Tarwi. C. M. Rosell, G. Cortez, and R. Repo-Carrasco
- 393 Effect of Fractionation of Distillers Dried Grains With Solubles (DDGS) on Pelleting Characteristics of Broiler Diets. R. Srinivasan, A. Corzo, K. B. Koch, and M. T. Kidd
- 398 Comparison of Different Types of NIR Instruments in Ability to Measure β-Glucan Content in Naked Barley. J. Schmidt, S. Gergely, R. Schönlechner, H. Grausgruber, S. Tömösközi, A. Salgó, and E. Berghofer
- 405 Effect of Cultural Management Practices on Grain Quality of Two Rice Cultivars. R. J. Bryant, M. Anders, and A. M. McClung
- 410 Cross-Sectional Staining and Surface Properties of DDGS Particles and Their Influence on Flowability. R. Bhadra, K. A. Rosentrater, and K. Muthukumarappan
- 421 NOTE: Oxidative Gelation of Solvent-Accessible Arabinoxylans is the Predominant Consequence of Extensive Chlorination of Soft Wheat Flour. M. Kweon, L. Slade, and H. Levine
- 425 Exploration of Sugar Functionality in Sugar-Snap and Wire-Cut Cookie Baking: Implications for Potential Sucrose Replacement or Reduction. M. Kweon, L. Slade, H. Levine, R. Martin, and E. Souza
- 434 Laboratory Measurement of Yield and Composition of Dry-Milled Corn Fractions Using a Shortened, Single-Stage Tempering Procedure. K. D. Rausch, L. E. Pruiett, P. Wang, L. Xu, R. L. Belyea, and M. E. Tumbleson

Publisher Steven C. Nelson

Director of Publications, Production Karen Cummings

> Technical Editor Phyllis Albertz

Production Supervisor Patti Ek

Journals Records Coordinator Ina Pfefer

Circulation Coordinator
Dawn Wuest

Authorization to photocopy copyrighted material for internal or personal use, or the internal or personal use of specific clients, is granted by AACC International, Inc., for libraries and other users registered with the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$7.00 for per copy of an article is paid directly to CCC, 222 Rosewood Dr., Danvers, MA 01923. Phone: 978-750-8400. 0009-0352/09 \$7.00 + 00

2010 Print Subscriptions: Number of issues per year: 6 (bimonthly). Cost: \$667 U.S.A.; \$712 Elsewhere; Canadian subscribers add 5% GST/HST (Canadian GST #R131584807). Shipping included in yearly subscription rate. No agency discount available.

CURRENT print + ONLINE subscribers: Renewal invoices for 2010 will be mailed with online pricing.

NEW print + ONLINE subscribers: Online access can be added to your Cereal Chemistry print subscription for an additional fee. Fill out price quote form at http://cereal chemistry.aaccnet.org/page/subscribe. For terms of use for Cereal Chemistry journal online, go to http://cereal chemistry.aaccnet.org/page/librarians.jsp

Single Issue Purchases: Current volume year cost: \$117/issue U.S.A.; \$128/issue elsewhere. Other years: \$124/issue U.S.A.; \$135/issue elsewhere.

Single Article Purchases: PDF copies of articles published from 1997 to present may be purchased online. Go to http://cerealchemistry.aaccnet.org/loi/cchem, locate the article, and then click the PDF link.

Payment Information: Prepayment is required. AACC International accepts check payments. Checks must be drawn on U.S. Federal Reserve System Bank. AACC International accepts credit card payments (MasterCard, American Express, and VISA).

Change of Subscription Address: Provide your current mailing label to AACC International U.S.A. Head-quarters with forwarding address information 6 weeks before the change.

Business Offices: AACC International Headquarters, 3340 Pilot Knob Road, St. Paul, MN 55121 U.S.A.; Phone +1.651.454.7250, 1.800.328.7560; Fax +1.651.454.0766; E-mail: aacc@scisoc.org

CEREAL CHEMISTRY® (ISSN: 0009-0352) is published bimonthly by AACC International, Inc., 3340 Pilot Knob Road, St. Paul, MN 55121. Phone: +1.651.454.7250. Periodicals postage paid at St. Paul, MN, and additional mailing offices. Postmaster: Send address changes to Cereal Chemistry, 3340 Pilot Knob Road, St. Paul, MN 55121.

- 439 Particle Size Effects on the Quality of Flour Tortillas Enriched with Whole Grain Waxy Barley. N. Prasopsunwattana, M. B. Omary, E. A. Arndt, P. H. Cooke, R. A. Flores, W. Yokoyama, A. Toma, S. Chongcham, and S. P. Lee
- 452 Impact of Genotype and Environment on the Quality of Amber Durum Wheat Alkaline Noodles. D. W. Hatcher, J. E. Dexter, G. G. Bellido, J. M. Clarke, and M. J. Anderson
- 463 Size-Exclusion HPLC of Protein Using a Narrow-Bore Column for Evaluation of Breadmaking Quality of Hard Spring Wheat Flours. J.-B. Ohm, G. Hareland, S. Simsek, and B. Seabourn
- 470 A Comparative Study Between the McGill #2 Laboratory Mill and Commercial Milling Systems. A. M. Graves, T. J. Siebenmorgen, and M. I. Saleh
- 477 Effects of Flour Extraction Rate, Added Water, and Salt on Color and Texture of Chinese White Noodles. Y. Ye, Y. Zhang, J. Yan, Y. Zhang, Z. He, S. Huang, and K. J. Quail
- 486 Erratum