

INSTRUCTIONS TO AUTHORS

SCOPE

GRAIN SCIENCE

GENETICS • BIOTECHNOLOGY • COMPOSITION • NUTRITION
PROCESSING • UTILIZATION • SAFETY • METHODS

CEREAL CHEMISTRY® publishes high-quality papers reporting novel research and significant conceptual advances in genetics, biotechnology, composition, processing, and utilization of cereal grains (barley, maize, millet, oats, rice, rye, sorghum, triticale, and wheat), pulses (beans, lentils, peas, etc.), oilseeds, and specialty crops (amaranth, flax, quinoa, etc.). Papers advancing grain science in relation to health, nutrition, pet and animal food, and safety, along with new methodologies, instrumentation, and analysis relating to these areas are welcome, as are research notes and topical review papers.

The journal generally does not accept papers that focus solely on food product formulations, nongrain ingredients, or technology of a commercial or proprietary nature. Papers that essentially confirm previous research without extending knowledge are not accepted.

SUBMISSIONS

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.

The management of the review and the final decision with regard to acceptance reside with the Editor-in-Chief, Les Copeland.

For more information, contact:

Les Copeland
Editor-in-Chief
CEREAL CHEMISTRY
E-mail: lcopeland.cerealchemistry@scisoc.org

TYPES OF PAPERS

Research Articles report complete and scientifically sound original research that contributes new knowledge. These papers must be organized as described later under “Text.” Related papers can be submitted together and, upon acceptance, can be published together (back-to-back). Please contact the editorial office for assistance.

Reviews provide a comprehensive analysis and interpretation of a specific area of grain genetics, composition, processing, or utilization. Authors considering the preparation of a review article should contact the Editor-in-Chief to discuss the topic, define its scope, and provide an outline in the form of major headings and a summary statement.

Notes are brief reports of scientifically sound research of limited scope that contribute new knowledge. Notes should not be more than 2,000 words and contain no more than four figures and tables (in any combination).

Views & Opinions are short communications that advance the scientific dialog among researchers. Acceptance is at the sole discretion of the Editor-in-Chief. Peer review may be conducted and revisions requested. The Editor-in-Chief may solicit rebuttals or further commentary.

ONLINE PUBLICATION UPON ACCEPTANCE

“Accepted Articles” have been accepted for publication and

undergone full peer review but have not been through the copyediting, typesetting, pagination, and proofreading process. Accepted Articles are published online a few days after final acceptance, appear in PDF format only, and are given a Digital Object Identifier (DOI), which allows them to be cited and tracked. The DOI remains unique to a given article in perpetuity. Given that Accepted Articles are not considered to be final, please note that changes will be made to an article after Accepted Article online publication, which may lead to differences between this version and the Version of Record.

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If you are aware that your institution is interested in covering your article in a press release, please contact the Editorial Office as soon as you are aware, and immediately upon acceptance.

ELECTRONIC MANUSCRIPT SUBMISSION

CEREAL CHEMISTRY® requires all manuscripts to be submitted electronically through an internet service called “Manuscript Central” to be considered for publication in the journal. Electronic submission speeds the handling of your manuscript and allows you to monitor the status of your papers at any time during the review process.

Type <http://mc.manuscriptcentral.com/CerealChemistry> in an internet browser to bring up the log-in screen. First-time users must create an account. Follow the on-screen directions to create your account and submit your manuscript. Text files can be in Word, WordPerfect, Rich Text, or most common word processing programs. Figures can be submitted in most common graphics formats (.tif, .eps, or .jpg preferred). If high-resolution images cannot be provided in the formats listed above, original image files generated with MS Office programs (such as Word, PowerPoint, or Excel) can be submitted. Images should be clear and of high quality. Poor alignment, blurred lines, or out-of-focus letters and symbols are not acceptable. Detailed guidelines for figures appear later in the instructions.

Technical Problems

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An author receiving reviews and editorial recommendations for revision of a manuscript has three months to complete the revision and return the manuscript to the Associate Editor. Suggested revisions that substantially change the author’s intent or appear to be in error may be rebutted with a documented explanation in a cover letter when the revised manuscript is returned. Unless authors have permission from the Associate Editor for a brief delay, manuscripts requiring more than three months for revision should be submitted as a new manuscripts.

After the manuscript has been accepted for publication, the final version of the manuscript submitted through Manuscript Central will be used for editorial production. Submission implies

nonsubmission elsewhere and (if accepted) no publication elsewhere in the same form without consent.

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After a manuscript has been accepted for publication, the final version of the manuscript submitted through Manuscript Central will be used for production. Accepted manuscripts should be submitted for final processing as word processing files, not as PDF files.

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Authors can facilitate review and processing of their manuscripts by reading this guide carefully and completing the checklist on the final page of these instructions before submitting their papers.

Online Article Enhancements

All figures submitted in color appear **in color online** free of charge and in black and white in print. **Supporting Information materials**, such as additional tables, figures, videos, or data sets, will only be available online and will not be typeset with the printed article.

Supporting Information files are subject to review and must be included in the original submission. Accepted materials can be provided in the following formats: MS Word, WordPerfect, MS Excel, .jpg, .tif, .mov, .avi, .mpg, and .mpeg formats.

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GENERAL INSTRUCTIONS

Manuscripts should be prepared using common computer word processing software. Formatting should include double-spaced text with line numbers running continuously throughout. Margins should be 1 inch (2.5 cm); font should be 12 pt for the body of the text; no font should exceed 14 pt. Main headings are bold and in all capital letters with Arabic numbers (e.g., 1, 2, 3, etc.); subheadings are bold with initial letters capitalized and Arabic numbers (e.g., 1.1, 1.2, 2.1, etc.). Refer to a recent issue of CEREAL CHEMISTRY® for other style points and conventions. CEREAL CHEMISTRY® uses spellings in *Webster's New World Dictionary*. Submissions are expected to conform to high standards of written English including spelling, grammar, and punctuation. If errors of this type are excessive, the paper may be returned without review.

Good research deserves to be presented well for publication. CEREAL CHEMISTRY® asks all of its authors to give attention to the quality of their text and formatting of figures and tables. The use of

an editing service is recommended if authors feel their manuscript would benefit from such additional assistance. The cost of such services is relatively minor compared to the expense of doing the research. Wiley works with several editing services, which can be accessed at <http://wileyeditingservices.com/en>. Authors should also give careful consideration to the choice of keywords, both for discoverability of the article and for selecting the most appropriate and knowledgeable peer-reviewers.

Supplementary materials should be referenced sequentially in the text as "Table S1" or "Figure S1." Include only material that directly provides for a more detailed analysis or understanding of the research.

CEREAL CHEMISTRY® uses the SI system (often referred to as International Units) for reporting most units of measurement. Commonly used empirical units are permissible. The following list may be helpful.

| | | | |
|----|---------------------|-----|----------------------|
| hl | hectoliter | min | minute |
| L | liter | mol | mole |
| μl | microliter | ml | milliliter |
| μm | micrometer (micron) | % | designate w/v or v/v |

Cited methods should include the AACC International Approved Method number, if applicable. Use current versions of methods and include all pertinent publication information in the References section.

When reporting protein content, the method used (e.g., total nitrogen, NIR, colorimetric) should be given under "Materials and Methods."

Crop cultivars can be identified by single quotation marks when first mentioned in connection with the full Latin name (e.g., *Medicago sativa* L. 'Vernal'). Do not use the word *cultivar* and single quotation marks at the same time. After the first use, the cultivar name alone or preceded by the abbreviation cv. is sufficient. Variety refers to botanical varieties, not cultivars.

Do not use daltons (Da) to express molecular weights (which are dimensionless numbers) because they are the ratio of the mass of one molecule of a substance to 1/12 the mass of an atom of carbon-12. Therefore, the proper way to express molecular weights is to state the number in thousands with no unit (e.g., the molecular weight of the protein was 30,000). A dalton is a unit of mass equal to 1/12 the mass of an atom of carbon-12. It is used for particles for which the term "molecular weight" is inappropriate (e.g., "the mass of the ribosome was 2.6×10^6 Da").

In general, follow usage and editorial style as outlined in the *Publication Manual of the American Psychological Association* (APA), 6th edition.

Some specifics not included in the guide are use of lowercase for such items as farinograph unless the exact trade name is used, use of "i" in extensigram and extensigraph unless the exact trade name is used, and use of absorbance (not optical density) in accordance with terminology of the American Optical Society.

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Statistics

Describe the statistical design of the experiment. Indicate the validity/reproducibility of results by reasonable approaches, usually the use of replicates and statistical analysis. In tables, use lowercase letters to indicate whether treatment means are significantly different. The number of figures given should be consistent with the precision of the analysis, as indicated by the standard deviations or least significant difference; the penultimate figure given is certain,

whereas the last figure has a degree of uncertainty.

The following statistical symbols should be italicized as shown: F , variance ratio; n , sample number; N , population number; p , probability; r , simple correlation coefficient; s , sample variance; R , coefficient of determination; and t , Student's t .

Abbreviations

The following abbreviations may be used without definition. For other abbreviations or acronyms, spell out the words at first use and give the abbreviation in parentheses.

| | |
|-------|--|
| A | absorbance |
| AA | atomic absorption |
| ANOVA | analysis of variance |
| BU | Brabender unit |
| db | dry basis |
| DSC | differential scanning calorimetry |
| FID | flame ionization detector |
| FTIR | Fourier transform infrared |
| GC | gas chromatography |
| HMW | high molecular weight |
| HPLC | high-performance liquid chromatography |
| i.d. | inside diameter |
| IR | infrared |
| LC | liquid chromatography |
| LMW | low molecular weight |
| LS | least squares |
| LSD | least significant difference |
| MS | mass spectrometry |
| MW | molecular weight |
| n | number of samples |
| NIR | near infrared |
| NMR | nuclear magnetic resonance |
| o.d. | outside diameter |
| PAGE | polyacrylamide gel electrophoresis |
| PCA | principal component analysis |
| PLS | partial least squares |
| R_f | ratio of spot to front in TLC |
| rh | relative humidity |
| RI | refractive index |
| SD | standard deviation |
| SDS | sodium dodecyl sulfate |
| SE | standard error |
| SEM | standard error of the mean |
| SPE | solid phase extraction |
| TLC | thin layer chromatography |
| UV | ultraviolet |
| VIS | visible |
| wb | wet basis |

Abstract

The abstract must precede the text, highlight the significance and novelty of the research, and briefly summarize the objectives, major findings, and conclusions. Do not use such statements as "Results are discussed." Abstracts must be no longer than 200 words and must be structured into sections for 1) background and objectives, 2) findings, 3) conclusions, and 4) significance and novelty. A list of no more than six keywords in alphabetic order should accompany the abstract.

Text

Organize reports of original research sections titled "Introduction," "Materials and Methods," "Results," "Discussion," and "Conclusions." Keep the use of subheadings to a minimum. Do not create more than two levels beyond the section heading. In the first paragraphs (introduction) briefly review important previous publications and state the reasons for the investigation. Under "Materials and Methods," describe materials used and the details and conditions of experimental procedures with sufficient clarity for qualified operators to repeat the work. All materials must be

made available for reasonable requests for other researchers to corroborate findings. Intellectual property should be clearly identified. "Results and Discussion" may be combined in one section. Statistical evaluations should be presented in the "Results" section when appropriate. In the "Conclusions" section, summarize important and novel aspects of what has been done. The "Conclusions" section is often used by readers to decide whether they will read the entire article; it should not simply repeat the abstract.

Figures

Cite all figures in numerical order, using Arabic numerals. Captions should describe the contents and define the abbreviations used so that each illustration is understandable when considered apart from the text. Include legends within the figure itself rather than in the caption, especially if color, shading, or a nonstandard character is required. Standard characters in black (boxes, circles, triangles) may appear in the caption. Each illustration should be labeled with the figure number and author name.

So that your article will look its best in print, it is important to submit your clearest version of the figures with your manuscript for review, because production will begin immediately upon acceptance. The figures that accompany the accepted submission will appear in the final printed article.

Especially for multipart figures, design the image to fit compactly on the page. Relatively tall, narrow figures that require more than one column width to reproduce might increase the page count of the final article while leaving unused white space on the page.

A 1:1 (same-size) reproduction maintains maximum detail in printing. Therefore, if possible, prepare computer images to fit within the printed area of a page. A page is 9½ in. or 241 mm deep. One-column width is 3½ in. or 88.9 mm; two-column width is 7¼ in. or 184.2 mm. It is also acceptable to send images larger than they will appear in the final printed version.

Numbers and lettering (upper and lowercase) on illustrations should be in a sans-serif type such as Helvetica or Arial and should be large enough to read easily at the final image size (10 point, ≈1/8 in. is recommended). Figure designations (A, B, C, etc.) should be in 18 point (≈¼ in.) sans-serif type (Helvetica preferred). The *Publication Manual of the American Psychological Association* (APA), 6th ed., contains a detailed discussion of the production and use of figures.

Image resolution must be at least 300 ppi at final printed image size. If the final printed image size is unknown, size the image at a larger than final print size, maintaining at least 300 ppi resolution, and we will reduce the image to fit the final print dimensions (we cannot enlarge a digitized image). Minimum image sizes are 2,175 pixels wide for a two-column image; 975 pixels wide for a one-column image.

Important note: Newer versions of Microsoft Office programs automatically reduce the resolution of embedded images when a file is saved. To change this default setting, go to the File menu, select Options and choose Advanced. In the Advanced options list, scroll down to the Image Size and Quality section and select the box next to "Do not compress images in file." This default setting **MUST** be changed **BEFORE** the file is saved. (This setting cannot be undone, so if the box was unchecked and the file saved, the images have been compromised, and the original images must be reinserted into the file before saving again.)

Digital image file specifications. Digital files can be in a wide range of formats, provided the images themselves appear clear. View detailed figure instructions online at https://authorservices.wiley.com/asset/photos/electronic_artwork_guidelines.pdf. The CEREAL CHEMISTRY® production staff will let you know if they encounter significant difficulties with a

particular figure and will request a replacement figure file if necessary after acceptance.

Line drawings and charts. Avoid excessively light type and lines. Avoid extremely narrow lines. Show experimental points. Do not extend explanatory wording beyond the width of the graph. Terms and abbreviations on figures must be consistent with the usage in the text. If possible, solid colors (black and white) and simple patterns (e.g., dots or stripes) should be used in charts, because they reproduce well in print. Colors or intermediate shades of gray sometimes do not reproduce satisfactorily. For example, a reader might be able to distinguish easily between light gray, dark gray, and black in a graph, but they might not be able to distinguish between four shades of gray.

Photographs. Photographs should be cropped to show essential details. Scale bars should be used to indicate magnification. Images should be clear and of high quality. Poor alignment, blurred lines, or out-of-focus letters and symbols are not acceptable.

Color. CEREAL CHEMISTRY® encourages authors to submit their figures in color, formatted so that it is possible to interpret the figures in grayscale in the printed version of the journal. Figures will appear online in color at no cost. Authors who desire color in print will have the option to arrange for color printing for a fee (\$500 each for the first and second figures, and \$250 for each subsequent figure).

Tables

Cite tables in numerical order. Submit each table on a separate page in its most original format (do not paste into text as a graphic object). Construct tables using the table function in word processing software. Do not upload or embed tables in image formats. Do not use tabs to separate information in a table.

Tables should fit on one page (maximum 7¼ in. or 184.2 mm wide). Use the following style: Arabic numerals in the title and sequential lower-case superscript letters in footnotes. Do not draw or type any vertical rules. Arrange data to facilitate comparisons that readers must make. Limit the number of tables to the minimum that can explain the results.

Omit all nonessential information such as laboratory numbers and columns of data that show no significant variation. Tables with only a few values should be written into the text. Do not include data that are not discussed in the text. Round off numbers to significant digits. Keep headings short. Avoid repeating table titles in the headings. Explain abbreviations in footnotes. Provide relevant units of measure. Tables should be comprehensible without excessive reference to the text.

References

Indicate any personal communications and other unpublished work parenthetically in text. Indicate all procedures and operations manuals and commercial software versions parenthetically in text.

Use the author-year method of citing publications. For example, “Various investigators (Smith, 1990; Smith, Anderson, Johnson, & Jones, 1994; Smith et al., 1988, 1995) have reported

similar findings.” Arrange citations in alphabetical order. Separate each listing with “;”. For works with 2 authors, include both authors for all citations; for works with 3 to 5 authors, include all authors on the first citation, and use the first author’s name with “et al.” on subsequent citations; for works with 6 or more authors, use the first author’s name with “et al.” on all citations.

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AACC International/Cereal & Grains Association Annual Meeting abstracts are published online as supplements to *Cereal Foods World* and can be cited as such.

Examples:

AACC International. n.d. *Approved methods of analysis* (11th Ed.). St. Paul, MN: Author.
Citation: (AACC International, n.d., Method 44-19.01).

Autran, J.-C., Laignelet, B., & Morel, M.-H. (1987). Characterization and quantification of low-molecular-weight glutenins in durum wheats. In R. Lasztity and F. Bekes (Eds.), *Proceedings of the 3rd International Workshop on Gluten Proteins* (pp. 266–283). Singapore: World Scientific.

Council for Agricultural Science and Technology (CAST). (1989). *Mycotoxins: Economic and health risks* (Rep. No. 116). Ames, IA: Author.

Fulcher, R. G., and Wong, S. I. (1980). Inside cereals—A fluorescence microchemical view. In G. E. Inglett and L. Munck (Eds.), *Cereals for food and beverages* (pp. 1–25). New York, NY: Academic Press.

Lin, S. D., and Lee, C. C. (2005). Qualities of chiffon cake prepared with indigestible dextrin and sucralose as replacement for sucrose. *Cereal Chemistry*, 82, 405–413.

Sissons, M., Sestili, F., & Lafiandra, D. (2019). Effect of Glu-D1 introgression on dough and pasta making quality of durum wheat lines with different glutenin composition and amylose content. *Cereal Chemistry*. Advance online publication. <https://doi.org/10.1002/cche.10137>

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Content:

- Significance and originality of work are shown.
- Reproducibility of results is illustrated.
- Objectives are clearly stated at the end of the introduction.
- Introduction includes a succinct evaluation of the topic, including all relevant literature citations. Experimental design and methodology are fully explained.
- Discussion relates work to other published material and addresses strengths and weaknesses of research.
- Major conclusions are supported by results from repeated experiments and appropriate statistics.
- Manuscripts are reviewed critically before submission.

Format:

- Line-numbered text, double-spaced (including tables and figures).
- Title does not exceed 100 characters and spaces. Uses a phrase rather than a complete sentence. Avoid starting with “The” or “A”.
- Corresponding author name(s), affiliations, author titles, and addresses given in footnotes.
- Indicate public domain material and give disclaimer information.
- Organization of text. Major sections: Introduction, Materials and Methods, Results, Discussion, Conclusions, and Literature Cited. General techniques and methods are best described in Materials and Methods; give brief descriptions of experimental activities in Results.

- Keep subheadings to a minimum and do not create more than two levels beyond the section heading. Footnotes in text are not permitted.
- Acknowledgments and disclaimers are provided after the text.
- Figures are prepared for same-size reproduction with a minimum of 300 ppi at the desired size (600 ppi is preferred). One-column images must have a minimum of 975 pixels, and two-column images must have a minimum of 2,175 pixels. Consistent style and sizing is used for all figures.
- Follow the detailed figure instructions available online.

Accepted Articles Publication:

- Accepted Articles are unedited, preprint manuscripts that are published online a few days after final acceptance. Accepted Articles are citable using their DOI. The Accepted Articles service has been designed to ensure the earliest possible circulation of research papers after acceptance. If you are aware that your institution is interested in covering your article in a press release, please contact the Editorial Office as soon as you are aware, and immediately upon Acceptance.

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