

POSITION ANNOUNCEMENT
Assistant Professor – Cereal Science: Processing and Health
Department of Food Science and Human Nutrition
Michigan State University

Position description: The Department of Food Science and Human Nutrition (FSHN) in the College of Agriculture and Natural Resources (CANR) at Michigan State University (MSU) invites applications for a full-time, 9-month tenure system Assistant Professor to conduct research and teach in the general area of cereal science processing and health. The assignment would be 50% research, 45% teaching, and 5% service. The anticipated start date for this position may be as soon as January 1, 2025. It is preferable that the candidate start by July 1, 2025.

The successful candidate must hold a Ph.D. in Food Science, or equivalent, and have demonstrated expertise in cereal science / grain science / food chemistry. The successful candidate is expected to develop a nationally recognized research program. Preference will be given to those with expertise in areas that complement, contribute to, and expand existing faculty expertise and ongoing research programs in the department, college, and university. These areas include value-added food processing, characterization and health effects of bioactive plant compounds, food allergens, food safety, and dietary effects on the human microbiome and health, among others. Excellent collaborative research and partnership opportunities in these areas are available in the department and on campus.



DEPARTMENT OF
**FOOD SCIENCE AND
HUMAN NUTRITION**

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The successful candidate is expected to build research collaborations, as appropriate, with colleagues within the FSHN department, other CANR units (e.g., Biosystems & Agricultural Engineering; Plant, Soil and Microbial Sciences) and departments in other MSU colleges. The successful candidate will be expected to generate support for their research program through federal, state, and industry grants and partnerships. The successful candidate will be expected to work closely with stakeholders, including cereal milling companies. The candidate will be expected to teach in the undergraduate and graduate food science programs which would include courses in cereal foods processing (FSC 431) and food chemistry (e.g. FSC 401, FSC 803), as well as to advise graduate students. The successful candidate will conduct annual testing to evaluate the quality of wheat varieties produced in Michigan and report these findings to the relevant industry stakeholders, including the Michigan wheat industry.

Potential research areas could include:

1. Identification of nutritional and functional components in cereals, with emphasis on wheat, for novel applications.

2. Reduction/elimination of allergenic components in wheat products for human consumption.
3. Utilization of cereal products, with emphasis on the resistant starch and bran components of wheat, to improve health via the gut microbiome.
4. Improvement of the nutritional value of cereals and pulses via fermentation technology.
5. Modification of cereal components (e.g., bran, resistant starch, proteins, antinutritional compounds, etc.) via extrusion technology.

Required qualifications: An earned Ph.D. in Food Science, or equivalent, with demonstrated expertise in cereal science / grain science and food chemistry. The successful candidate should be well-versed in extrusion technology; chemical and/or processing modifications of starch and proteins in food; and wheat quality testing evaluations, including the knowledge and hands-on ability to operate necessary instruments, develop new assays and methods as needed, and to interpret the data obtained for a comprehensive wheat quality evaluation program. These evaluations include wheat grain properties (flour milling yield via the Buhler Experimental Mill), flour properties (protein, ash, sprouting via Falling Number, pasting properties via Rapid Visco Analyzer), dough properties (via Alveograph, Farinograph, and Mixograph), and flour baking potential (cakes, cookies, crackers, and breads).

Applicants should have a clear record of scholarly activities in their field as demonstrated by peer-reviewed publications. Applicants should have demonstrated the capability to contribute to the teaching mission of the FSHN department particularly in the areas of cereal processing (classification and composition of cereals; milling processes; cereal product manufacture) and food chemistry (purification, structural characterization, chemical reactions, and functional properties of proteins, lipids and carbohydrates). Successful stakeholder engagement is an expectation of this position.

Desired qualifications: Highly qualified candidates will also have industry and/or post-doctoral research experience. Evidence of research funding from national and/or international agencies and stakeholders. Experience in developing interdisciplinary collaborations is also desired.

The Department of Food Science and Human Nutrition is home to three undergraduate majors (Dietetics, Food Science, and Nutritional Sciences) and three graduate programs (Food Science, Human Nutrition, and a combined Master of Science in Human Nutrition / Dietetic Internship program). The department has strong programs in food and health and is committed to describing the mechanistic connections among food, the environment, and human health. Its highly collaborative and productive faculty provide a positive environment for professional growth and program expansion.

Location: The position will be based at Michigan State University in East Lansing, MI, USA. Michigan State University (MSU) is one of the top research universities in the world and home to nationally ranked and recognized academic, residential college, and service-learning programs. MSU is a diverse community of dedicated students and scholars, athletes and artists, and scientists that provide regional, national, and international leadership in basic and applied research and excellence in teaching. In addition, consistent with its Land Grant origins, the MSU community pursues international engagement and provides strong extension programs that partner with diverse stakeholders to provide much needed research in the areas of food, energy, water and the environment. MSU enjoys a park-like campus with outlying research facilities and natural areas. The campus is located in the city of East Lansing, adjacent to the capital city of Lansing. The Lansing metropolitan area has a diverse population of >500,000. Local communities have excellent school systems and place a high value on education. The University is proactive about its obligations under the ADA, and provides individual accessibility plans to students and employees with disabilities. Michigan State University is also proactive in exploring opportunities for employment for dual career families, both inside and outside the University, and respects all family forms. Information about MSU's dual career support and other types of support for balancing work and personal lives at MSU can be found at <http://worklife.msu.edu/>

Commitment to Creating a Sense of Belonging:

Michigan State University occupies the ancestral, traditional, and contemporary Lands of the Anishinaabeg – Three Fires Confederacy of Ojibwe, Odawa and Potawatomi people. The University resides on Land ceded in the 1819 Treaty of Saginaw.

The College of Agriculture and Natural Resources at Michigan State University is committed to achieving excellence by creating and sustaining an accessible and inclusive culture that values cultural and academic diversity. We are an equal opportunity / affirmative action employer. The CANR is particularly interested in candidates of all backgrounds who are committed to the principle that academic excellence is achieved through open access and proactive inclusion. Candidates are invited to view Food Science and Human Nutrition norms at https://www.canr.msu.edu/fshn/Diversity_Equity_Inclusion/

Equal Employment Opportunity Statement:

Michigan State University is committed to the principles of equal opportunity, nondiscrimination and, in the context of employment, affirmative action. All qualified applicants will receive consideration for employment without regard to race, color, gender, gender identity, religion, national origin, political persuasion, sexual orientation, marital status, disability, height, weight, veteran status, age or familial status.

Salary and Benefits: Salary will be commensurate with qualifications. MSU offers a generous benefits package (details at <https://hr.msu.edu/benefits/index.html>).

To Apply: For consideration, submit your application online at <http://careers.msu.edu> to job number **997060**. Upload the following required documents: a) letter of interest that includes i) qualifications for the position, specifically stating ability and knowledge of wheat quality assessment, ii) a statement of your teaching and mentorship philosophy highlighting how your experiences align with the position (2-page maximum); b) current curriculum vitae; c) a description of how you will contribute to our creating a sense of belonging goals (1 page); and d) contact information for three professional references. Incomplete applications will not be considered.

Review of Applications: The search committee will begin reviewing applications on November 15, 2024 and continue until a suitable candidate is selected.

Questions regarding this position can be addressed to the Search Committee Chair: Dr. Sarah Comstock, Department of Food Science and Human Nutrition, Michigan State University, East Lansing, MI 48824, USA, comsto37@msu.edu; 517-353-3415.

MSU is an affirmative action, equal opportunity employer, committed to achieving excellence through a diverse workforce and an inclusive culture that encourages all people to reach their full potential. We actively encourage applications from, and nominations of, women, persons of color, veterans, persons with disabilities and other individuals who can contribute to the intellectual diversity and cultural richness at Michigan State University. MSU is committed to providing a work environment that supports employees' work and personal life, and offers employment assistance to the spouse or partner of candidates for faculty and academic staff positions.