

IOWA STATE UNIVERSITY
Seed Science Center
BIGMAP

Manjit K. Misra

Deans Chair of Distinction in Agriculture & Life Sciences
Director, Seed Science Center
Director, Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP)
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Education

PhD, University of Missouri, Columbia, Agricultural Engineering, 1978
M.S., University of Missouri, Columbia, Agricultural Engineering, 1973
B.Sc., University of Agriculture & Technology, Orissa, India. (Agricultural Engineering), 1971

Research Interests

To develop/apply new and emerging technologies (ultrasound, computer vision, microelectronics and molecular techniques etc.) for quality evaluation and protection of biological products. To analyze the risks and benefits associated with modified plant and animal products for food and non-food applications.

Professional Experience

—Dean's Chair of Distinction in Agriculture & Life Sciences, 2008 to present
—Director, Seed Science Center, Iowa State University (ISU), 1991 to present
—Founding Director, Biosafety Institute for Genetically Modified Agricultural Products (BIGMAP), ISU, 2002-present
—Director, Institute for Food safety and Security, ISU, 2005-2008
—Professor, Associate Professor, and Assistant Professor, (Research and Extension), ISU, 1979-present
—Research Associate, University of Missouri, Columbia, Missouri, 1978-79
—Research Assistant, University of Missouri, Columbia, Missouri, 1971-78

Professional Service

—Scientific Advisory Council, American Seed Research Foundation, 1991-present
—Board of Directors, Iowa Seed Association (1991-Present), Iowa Crop Improvement Association (1993-present), First the Seed Foundation (2008-present)
—Editorial Board, "Seed World," 2002-06
—Moderator Farmer-to-Farmer Roundtable, World Food Prize Symposium, 2006, 2007



Program Emphases(s):

Seed Science, Technology, and Systems
Biosafety and Biosecurity
Global Food Safety
Traceability
Food and Fuel Issues
Risk Analysis
Curriculum Development
Distance Education
Agricultural Extension

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Selected Publications (Total 136)

1. Krueger, N.A., C.J. Bern, M.K. Misra, K.M. Adam. 2007. "Gravity Table Sorting of Commodity Corn. *Applied Engineering in Agriculture* Vol. 23(3), 319-325.
2. Wolt, J.D., Y Shyy, P. Christensen, K.S. Dormin, and M. Misra. 2005. Quantitative Exposure Assessment for Confinement of Maize Biogenic Systems. *Environmental Biosafety Research*, EDP Sciences <http://www.edp-sciences.org/10.1051/ebr:2005004>.
3. Rukunudin, I.H., C.J. Bern, M.K. Misra, and T.B. Bailey. 2004. Carbon Dioxide Evolution from Fresh and Preserved Soybeans. *Transactions of the ASAE*, Vol. 47(3):827-833.
4. Steenhoek, L., M. Misra, W. Batchelor, J. Davidson. 2001. Probabilistic Neural Network for Segmentation of Features in Corn Kernel Images. *Applied Engineering in Agriculture*, Vol. 17(2): 225-234.
5. Walcott, R., M. Misra, and D. McGee. 1998. Detection of asymptomatic fungal infections of soybean seeds using ultrasound analysis. *Plant Disease*, Vol. 82, #5, pp 584-589.

Selected U.S. Patents (Total 6)

- Y, Shyy and M. Misra, "Method of measuring flow rate of particulate material under continuous flow conditions, and an in-line continuous flow meter." US patent # 10/336,256, 2004.
- Misra, M. and Y. Shyy. "Acoustic and video imaging system for quality determination of agricultural products." U.S. patent #5,309,374, May, 1994.

Selected Invited Presentations (Total 73)

1. "Service: The Legacy of Dr. George Washington Carver." 2007. Presented at the National Black Caucus of State Legislators Conference, Little Rock, AR.
2. "Biotechnology Opportunities and Challenge." 2005. The World Food Prize International Symposium. Speaker and panel member.
3. Panel Moderator: "Land Grant Universities Prospective: Success Stories and the Principal Obstacles in Working With USAID." 2004. Board on International Food and Agricultural Development (BIFAD). Des Moines, IA.

Awards, Honors, Recognitions

- Dean's Chair of Distinction in Agriculture & Life Sciences
- Order of the Knoll Faculty and Staff Award
- Distinguished Service Award, American Seed Trade Association, for Leadership, Vision, and Exemplary Service to the U.S. Seed Industry
- Honorary Member, Iowa Seed Association, 2007
- Plaque of appreciation for contribution to the formation of the National Seed Health System, American Seed Trade Association
- Plaque of appreciation and \$25,000 for graduate student support for acting as Program Chair of Soybean Seed Research Conference, American Seed Trade Association Convention
- "Manjit Misra Outstanding Senior Award in Seed Science" established by a donor
- Certificate of Excellence from the American Society of Agronomy and four blue ribbons from the American Society of Agricultural Engineers for "Development of Outstanding Educational Materials Contest"
- Superior Engineering Extension Award, College of Engineering, ISU
- Engineer of the Year, Iowa Section, American Society of Agricultural Engineers
- Excellence in Research and Extension Award, Iowa State University