Science Societies

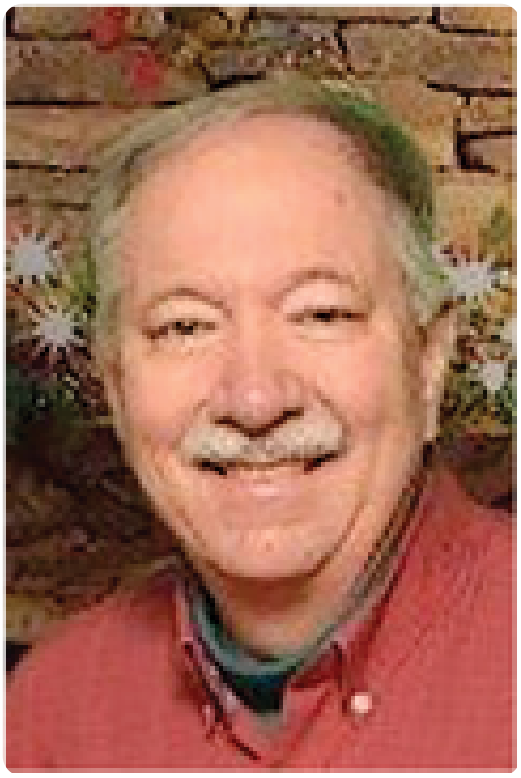
In memoriam

By Gary Bauchan, William Dest, Prem Jauhar, Chakrapani Misra

June 28, 2021



Gary Bauchan



Gary R. Bauchan, a member of ASA and CSSA for more than 40 years, passed away on 12 Jan. 2021 due to complications from COVID. Born in East Grand Rapids and raised in Wyoming, MI, Bauchan received his bachelor's degree from Aquinas College (Grand Rapids, 1976), master's from St. Cloud State University (MN, 1978), and Ph.D. from Michigan State University (MI, 1982).

In 1980, he married Francine, and the couple relocated to Beltsville, MD in 1982 where Bauchan spent 38 years working as a leading research scientist at the USDA. During that time, he has authored and co-authored a total of 253 publications, including 182 peer-reviewed papers, in addition to 71 symposium articles, popular press articles, training videos, book chapters, and conference abstracts. He received more than 70 invitations to give presentations at scientific meetings, at universities, and at national and international conferences.

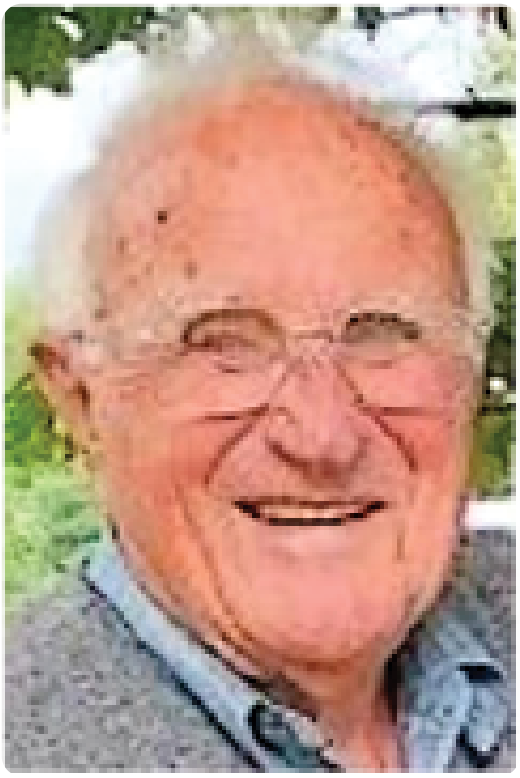
Bauchan spent the first 25 years of his career with USDA-ARS as a plant geneticist conducting research in cytogenetics, and during that time, became recognized as a worldwide expert in alfalfa. His research contributed to genetically improving yields as well as disease and pest resistance for this pivotal plant. He was elected the President of the North American Alfalfa Improvement Conference in 1992, served on the conference executive committee from 1988 until 2008, and received an Honorary Membership from the North American Alfalfa Conference in 2010 for "outstanding contributions to the advancement of alfalfa improvement."

In 2007, Bauchan was selected as the Director of the Electron and Confocal Microscopy Unit (ECMU), which provides collaborative assistance for scientists in need of high-resolution imaging for their research. In 2012, he coordinated the move of the ECMU into a newly renovated space for state-of-the-art electron transmission microscopes where his leadership was the catalyst for increasing production of the unit, evident by 146 peer-reviewed publications plus 60 other publications in the past 12 years.

Bauchan's ability to utilize the unique technology of cryo-scanning electron microscopy has greatly influenced the field of microscopy, particularly the field of acarology (the study of microscopic mites). He supervised a team of researchers who discovered the true feeding source of the Varroa mite on honey bees, which was featured with a colorized cover image and a publication in the *Proceedings of the National Academy of Sciences* (PNAS) in 2019. He loved teaching and mentored many scientists throughout the years, many of whom he and his wife hosted for dinners and holidays.

He is survived by his beloved wife of 40 years, Francine; three sons; two grandchildren; his father Roy G. Bauchan; and four sisters and was preceded in death by his brother Timothy and mother Barbara Ann.

William Dest



William M. Dest, ASA and SSSA member for more than 50 years, passed away on 9 Apr. 2021 at 91 years of age. Dest was born in West Haven, CT on 20 Aug. 1929. It was in New Haven that he met his future wife, Anne. The two were married in 1952.

After his service in the Korean War, he received his bachelor of science degree in plant science in the early 1970s from the University of Connecticut (UCONN) and accepted a research associate position there. He continued with his studies, eventually receiving a master's from UCONN and then a Ph.D. from Rutgers University in 1980 at the age of 50. Dr. Dest served as a professor in UCONN's College of Agriculture/Department of Plant Science for many years until his retirement in 1997. However, he never really did retire, as he continued his research right through 2020 at UCONN and the University of Massachusetts. He also started his own consulting business, working part-time conducting studies for golf courses and athletic fields.

Dest is predeceased by his wife Anne Katherine and daughter Laura. He is survived by his children and their spouses; 11 grandchildren; 8 great-grandchildren; a brother and his wife; four nieces and nephews; and a sister-in-law.

Prem Jauhar



Prem P. Jauhar, retired senior Research Geneticist at the USDA-ARS Northern Crop Science Laboratory in Fargo, ND, and a fellow of the AAAS, ASA, and CSSA, died on 12 March in Hicksville, NY. He was 81.

Jauhar began his research career at the Indian Agricultural Research Institute in New Delhi. He left India in 1972 to work as a Senior Scientific Officer at the Welsh Plant Breeding Station in Aberystwyth where he discovered the regulatory mechanism controlling chromosome pairing in polyploid species of *Festuca*, a finding published in *Nature* in 1975.

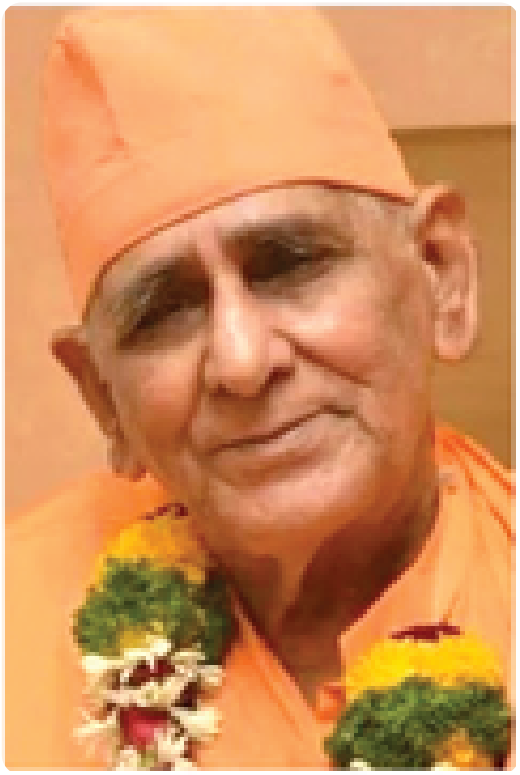
Jauhar moved to the U.S. in 1977. After research stints at the University of Kentucky and the University of California–Riverside, he joined the USDA-ARS in 1985 at the Western Regional Research Center in Berkeley, CA. In 1991, he moved to the Northern Crop Science Laboratory in Fargo where he held a position as Professor of Cytogenetics at North Dakota State University.

Jauhar is widely known for his work in cytogenetics and its relevance to plant breeding and evolution. He authored two books, edited three others, wrote numerous book chapters, and published more than 100 refereed research papers in international journals. He served for many years as the Associate Editor of *The Journal of Heredity*. In 2012, he was elected a Foreign Fellow of the National Academy of Sciences of India.

In his final years, he was eager to help support the education of underprivileged students. To that end, he created five endowed scholarships for disadvantaged undergraduate and graduate students in Fargo and on Long Island.

He was predeceased by his wife, Raj, in 2016. He is survived by a daughter, Suneeta, in Minneapolis, two sons, Rajiv and Sandeep, on Long Island, and six grandchildren.

Chakrapani Misra



Chakrapani Misra, Bhubaneswar, India, passed away on 18 May 2021 following brief illness. Dr. Misra worked as a professor of soil physics and Dean of Research at the Odisha University of Agriculture and Technology (OUAT), Bhubaneswar. Upon retirement in 1995, he left his house to lead a monastic life and was known as Swami Chetanananda Saraswati. He is survived by his wife Amrutamayee (formerly, Arunabala), five sons and two daughters, 12 grandchildren, and thousands of disciples.

Dr. Misra was born in Digapahandi, Odisha on 27 Mar. 1933. He received his undergraduate degree in Agriculture from the Banaras Hindu University, his Associate (equivalent to M.S.) degree in Agriculture from the Indian Agricultural Research Institute in New Delhi in 1957, and his Ph.D. in Soil Physics (under the direction of Professor Donald R. Nielsen) from the University of California–Davis in 1967. Over the next four years, he developed and tested analytical solutions to advection–dispersion

equations with chain reactions describing transformation of ammonium to elemental nitrogen.

Dr. Misra returned to OUAT in 1972. He guided 20 M.S. and 9 Ph.D. students, validating nutrient transport models using field-scale leaching experiments in rice fields. He also experimented with different crop geometry involving pigeon pea and rice to support the nutritional needs of farming communities. He examined geostatistical concepts in describing soil variability as early as 1981. His work on building pedotransfer functions for soil hydraulic properties using statistical modeling approaches were much ahead of his time. His creativity in designing measurement systems in days when experimental facilities in Asian countries were limited was unique. In many of his laboratory-scale leaching experiments, he would use a simple bottle, a few glass tubes, and a narrow bore glass rod to deliver solutions at constant rates, replacing the expensive peristaltic pumps used in such experiments outside of India. He was able to take reproducible measurements of ammonia emissions from rice fields using sulfuric acid-soaked filter papers as ammonia traps. For measuring thermal properties of soils, he and his students fabricated concentric chambers for heat transport studies. Students in his laboratory would often use punch cards in mainframe computer or programmable calculators for solving solute, water, and heat transport equations.

During his monastic life, Professor Misra inspired his disciples to lead a peaceful life filled with love, dedication, and harmony. He also established several schools where both the teachers and students go through value education workshops in addition to their regular academic curricula and authored several spiritual books.

—Submitted by Bhabani S. Das

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