



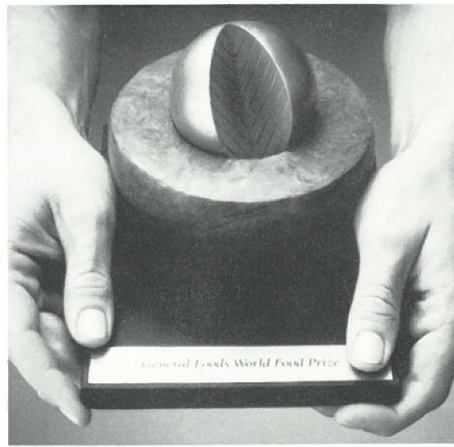
By their fruits the world shall know them.

1987
General Foods
World Food Prize

Dr. M. S. Swaminathan
Director General
International Rice Research Institute
Republic of the Philippines

A prize for the world

The Commemorative of the General Foods World Food Prize was created by world-renowned designer Saul Bass. This basic, sensitive design symbolizes the world, its food and the nourishment of its people.

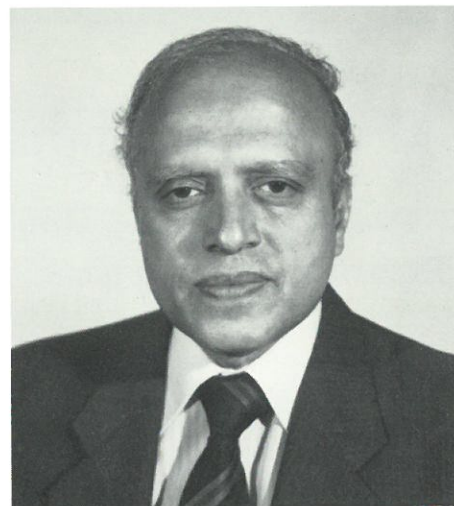


The General Foods World Food Prize is truly an award to benefit all humanity. Given annually, it seeks out the single most outstanding contribution to improving the world food supply – in quality, quantity or availability.

The Prize is not simply international – it is global in scope, seeing our world food

M. S. Swaminathan: Scientist, educator, administrator, humanitarian

M. S. Swaminathan, first laureate of the General Foods World Food Prize.



“The word ‘impossible’ exists mainly in our minds,” his father once told him, “but given the requisite will and effort, great tasks can be accomplished.” In a career dedicated to alleviating human suffering, Dr. Monkombu Sambasivan Swaminathan has completed the work of many lifetimes.

He is widely recognized as the architect of the “Green Revolution” in India, which radically improved agricultural yields through the introduction of genetically superior grain varieties. This work alone

supply as a total system. Feeding the world’s far-flung populations involves a fragile and intricate web that extends across the full breadth of our planet – a web that links the African farmer and the Indian scientist, the Italian merchant and the Chinese statesman.

Awarded for the first time in 1987, the \$200,000 Prize rewards achievement in any field that impacts our food chain: the food and agricultural sciences, food processing and preservation, nutrition and genetics, transportation and distribution, agricultural and economic policy.

It is fitting that the first Prize be awarded to a man whose career has contributed to practically every one of these disciplines – Dr. M. S. Swaminathan of India. His brilliant career and humane philosophy have enriched the lives not only of his countrymen, but also of individuals and entire populations across the globe.

transformed India from a “begging bowl” to a “breadbasket” almost overnight, nearly doubling the total crop yield from 12 million tons to 23 million tons in four crop seasons.

His enthusiasm for passing on knowledge has earned him a reputation as a lucid educator. And his record of community service and political leadership has won him recognition as a profound humanitarian.

The impact of Dr. Swaminathan’s work has reached far beyond the borders of his homeland. His worldwide reputation has made him an apt choice to chair many prestigious international conferences, including the U.N. World Food Congress in Rome in 1974. His foresight and inspiration have led to the establishment of renowned organizations to promote international scientific collaboration, notably the International Union for the Conservation of Nature and Natural Resources (where he currently serves as President), the International Crops Research Institute for the Semi-Arid Tropics, and the International Federation of Agricultural Research Systems for Development – the first significant efforts to promote scientific collaboration in developing countries.

The fruits of his labor

Dr. Swaminathan takes his teaching into the field, enabling small farmers to reap the most benefit from advanced technologies.



India, Dr. Swaminathan’s homeland, is a country whose 780 million people comprise 20% of the Third World population; seven out of ten people live in rural areas. Dr. Swaminathan has long held that the key to enhancing the prosperity of India – and many other nations – is to make agriculture the cornerstone of the economy.

In the ‘60s, as a cytogeneticist and administrator of the Indian Agricultural Research Institute, he made major scientific advances, pioneering solutions to major agricultural problems in Asia. He led the way in introducing high-yielding varieties of wheat and rice to India – starting the “Green Revolution” that subsequently swept Southeast Asia.

By taking this new information to the farmer – at the farmer’s level, with field demonstration plots – Dr. Swaminathan bypassed the stumbling block of illiteracy and converted a generation of Indians to a belief in the effectiveness of modern agriculture.

Dr. Swaminathan is noted for his understanding of the breadth of entire food systems. His service in government is testament to this: in several political leadership positions, he established programs of ecological rehabilitation, rural development and technology transfer. His programs effectively helped subsistence farmers reap their fair share

of credit and income while conserving national resources. “Ultimately,” Swaminathan states, “it is the political will of the country to have policies in place which will stimulate production by small farmers. Without it, all research, technology ... any external advice will go in vain.”

At his side throughout his career has been his wife, Mina, herself a noted author, teacher and community leader.

Today Dr. Swaminathan is Director General of the International Rice Research Institute (IRRI) in Los Baños, The Philippines. Here over 600 researchers from around the world work to increase yields of one of the world’s most important food crops.

IRRI released the first improved rice varieties in the mid-1960s; today farmers grow improved varieties on 55% of the Third World’s ricelands. Their increased production feeds 650 million more people than earlier varieties would have been able to do.

Dr. Swaminathan has proven that he is not only a brilliant scientist, but a capable administrator as well. His infectious enthusiasm and love of humanity have inspired and motivated thousands of others to give wholeheartedly to the cause he has chosen for his life’s work: humbly serving the rural poor.

Curriculum Vitae

Dr. Monkombu Sambasivan Swaminathan

Born on 7 August 1925 in Kumbakonam in Tamil Nadu, India.

Education

B.Sc. from Tranvancore University (1944).
B.Sc. Agriculture from Coimbatore Agricultural College, Madras University (1947).
Associateship of the Indian Agricultural Research Institute, New Delhi, in Genetics and Plant Breeding (1949).
Ph.D. from the School of Agriculture, University of Cambridge (1952).
UNESCO Fellow in Genetics at the Agriculture University at Wageningen, The Netherlands (1949-50).
Research Associate in Genetics at the University of Wisconsin (1952-53).

Honorary Degrees (D. Sc.)

The Sardar Patel University, Vallabh Vidyanagar (1970).
The Andhra University, Waltair (1972).
The Haryana Agricultural University, Hissar (1973).
The Andhra Pradesh Agricultural University, Hyderabad (1973).
G. B. Pant University, Pantnagar (1974).
Jodhpur University, Jodhpur (1975).
Marathwada Krishi Vidyapeeth, Parbhani (1975).
Kumaon University, Nainital (1975).
Burdwan University, Burdwan (1976).
Agra University, Agra (1978).
Kerala Agricultural University, Trichur (1978).
Sri Venkateswara University, Tirupati (1979).
University of Agricultural Sciences, Bangalore (1980).
Banaras Hindu University, Varanasi (1981).
Technical University of Berlin, West Berlin (1981).
Mahatma Phule Agricultural University, Rahuri (1982).
Chandrasekhara Azad Agricultural University, Kanpur (1982).
University of Wisconsin, Madison, Wisconsin (1983).
Delhi University, Delhi (1984).
University of the Philippines, Diliman, Quezon City (1984).
Asian Institute of Technology, Bangkok (1985).
University of Mangalore, Mangalore (1986).
University of Hyderabad, Hyderabad (1987).

Honorary Professorships

Universidad Nacional Agraria-La Molina, Lima (National Agricultural University of Peru).
University of Mangalore, Mangalore.

Professional Profile

Positions held

Teacher, researcher and research administrator at the Central Rice Research Institute, Cuttack and at the Indian Agricultural Research Institute, New Delhi (1954-72).
Director General, Indian Council of Agricultural Research and Secretary to the Government of India, Department of Agricultural Research and Education (1972-79).
Secretary to the Government of India, Ministry of Agriculture and Irrigation (1979-80).
Acting Deputy Chairman, Planning Commission, Government of India (April-June 1980).
Member (Agriculture, Rural Development, Science and Education), Planning Commission, Government of India (June 1980-April 1982).
Director General, International Rice Research Institute (IRRI), Los Baños, Philippines (April 1982-present).

Honorary positions in international organizations

Vice Chairman, Technical Advisory Committee of the Consultative Group on International Agricultural Research (CGIAR) (1971-77).
Vice Chairman, Protein-Calorie Advisory Group, United Nations (1972-77).

Chairman, First Quinquennial Review, International Rice Research Institute (IRRI) (1976).
Chairman, U.N. Advisory Committee on Science and Technology for Development (1980-83).
President, International Federation of Agricultural Research Systems for Development (IFARD) (1976-83).
Chairman and Member, Board of Trustees, International Council for Research in Agroforestry (ICRAF) (1977-82).
President, International Bee Research Association (IBRA) (1978-84).
Independent Council Chairman, U. N. Food and Agriculture Organization (FAO) (1981-85).
Member, Scientific and Technical Advisory Committee, Tropical Diseases Research, World Health Organization (WHO) (1983-85).
Honorary Vice President, World Wildlife Fund (WWF) (1985-present).
President, International Union for the Conservation of Nature and Natural Resources (IUCN) (1984-present).

Recognition by Scientific Academies

Fellow of the Indian National Science Academy (FNA) (1962).
Fellow of the Indian Academy of Sciences (F.A.Sc.) (1957).
Honorary Fellow of the National Academy of Sciences, India (1976).
General President, Indian Science Congress, Waltair (1976).
Honorary Fellow of the Swedish Seed Association, Sweden (1971).
Fellow of the Royal Society of London (FRS) (1973).
Foreign Associate, National Academy of Sciences, USA (1977).
Foreign Member, All-Union Academy of Agricultural Sciences, USSR (1978).
Founding Fellow, Third World Academy of Sciences (1983).
President, XV International Congress of Genetics, New Delhi (1983).
Foreign Member, Royal Swedish Academy of Agriculture & Forestry (1983).
Foreign Honorary Member, National Academy of Arts and Sciences, Massachusetts (1984).
Foreign Fellow, National Academy of Science of Italy (Accademia Nazionale delle Scienze) (1985).
Fellow of the Royal Society of Arts, London (1985).

Scientific Awards

Shanti Swarup Bhatnagar Award for contributions to Biological Sciences (1961).
Mendel Memorial Award of the Czechoslovak Academy of Sciences for contributions to Plant Genetics (1965).
Birbal Sahni Medal of the Indian Botanical Society for contributions to Applied Botany (1966).
Silver Jubilee Commemoration Medal of the Indian National Science Academy for contributions to Genetical and Agricultural Research (1973).
Barclay Medal of the Asiatic Society for contributions to Genetics (1978).
K. L. Moudgill Prize for contributions to Standardization (1978).
Borlaug Award (1979).
Meghnad Saha Medal of the Indian National Science Academy (1981).
Rathindranath Tagore Prize of Visva Bharati University (1981).
R. D. Misra Medal of the Indian Environmental Society (1982).
R. B. Bennett Commonwealth Prize (1984).
Bicentenary Medal of the University of Georgia, USA (1985).
Albert Einstein World Science Award by the World Cultural Council (1986).

Awards by the President of India

Padma Shri (1967).
Padma Bhushan (1972).

Award for Community Leadership

Awarded the Ramon Magsaysay Award for Community Leadership in 1971, in recognition of contributions as "Scientist, educator of both students and farmers and administrator towards generating a new confidence in India's agricultural capabilities."

Award for serving the cause of Women in Development

In 1985, first recipient of the Award instituted by the Association for Women in Development, Washington, D.C., for "outstanding contributions to activities which foster development for women."

"Krishi Ratna" Award

Awarded in 1986 for serving the farming community by the Bharat Krishak Samaj/World Agriculture Fair Memorial Trust Society. This award was made by His Excellency Giani Zail Singh, President of India, for devotion "to the cause of agro-science" and for "being the benefactor of the farming community throughout the world."

Some Major Contributions

Dr. Swaminathan has worked in collaboration with colleagues and students on a wide range of problems in basic and applied plant genetics and agricultural research and development over a period of 30 years. The results of these research studies have been published in about 200 scientific papers in international journals. Among the more important contributions are:

- Elucidation of the origin and differentiation of potato species.
- Understanding the genetic relationships among wheat species.
- Accomplishment of difficult crosses in potato and jute species.
- Standardization of techniques for the induction of polyploidy (i.e., doubling the number of chromosomes) in several economic plants.
- Elucidation of the factors influencing the induction and recovery of mutations in wheat and rice.
- Identification of the barriers to high yields in wheat and the initiation of the wheat breeding program involving the "Norin" dwarfing genes obtained from Mexico.
- Development of the concepts of "crop cafeterias," "mid-season corrections in crop scheduling," risk-distribution agronomy and alternative cropping strategies for different weather conditions.
- Purposeful manipulation of genes in improving the yield, quality and stability of performance of wheat, rice and potato.
- Development of whole-village or watershed operational research projects based on principles of ecology and economics.
- Development of disaster management strategies based on relief and rehabilitation measures in the "most seriously affected areas" and improved crop productivity in the "most favorable areas."
- Management of the disastrous drought of 1979 as Secretary to the Government of India in the Ministry of Agriculture.
- Collection and conservation of plant genetic resources, particularly of rice and wheat.

Contribution to Education

Over 50 students have done their Ph.D. thesis work under the guidance of Dr. Swaminathan. In 1972 he introduced the "Techniracy" concept of imparting training in the latest technical skills entirely through work experience, in order to bypass the problems created by illiteracy.

General Contributions to National Development

During 1980-82, Dr. Swaminathan chaired the following national committees set up by the Government of India:

- Expert Group on programs for alleviation of poverty.
- Task Force for the study of eco-development in the Himalayan Region.
- Task Force for developing an eco-development plan for Goa.
- Committee for the development of the water resources of Western Ghats.
- Expert Group on perishable agricultural commodities.
- Study Group on fuel wood requirements.
- Working Group on control of blindness.
- Working Group on control of leprosy.
- Chairman, Science Advisory Committee to the Cabinet of India.
- Chairman, National Biotechnology Board.
- Member, National Commission on Agriculture (1971-77).

Administrator
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