



Dr. MS Swaminathan: Father of India's Green Revolution

Monkombu Sambasivan Swaminathan is a well-known Indian agricultural [scientist](#). He was born in Kumbakonam, Tamil Nadu on August 7, 1925. His father was a surgeon and he is the second of four sons. Dr. Swaminathan is popularly called the father of India's Green Revolution, for his contributions to the development of high-yielding varieties of wheat. He founded the MS Swaminathan Research Foundation, the pioneer organization behind the "evergreen revolution".



Throughout his life Dr. Swaminathan worked consistently toward a vision of a world in which there were no hungry or poor populations. He also did great work with the concept of [sustainable development](#), especially with eco-friendly techniques of agriculture, food availability, and biodiversity conservation.

As a child Swaminathan grew up in a warm, loving household, where his parents instilled strong ethical and moral character in their children. Swaminathan lost his father at the age of 11. He then found a surrogate father in his uncle, who was a scholar and professor of English Literature, Tamil, and Sanskrit at Madras University. His early years of schooling were completed at Native High School and Little Flower Catholic High School in Kumbakonam. In 1940, at the age is 15, he completed high school. He then went to Maharajas College, Ernakulam. He graduated with a bachelor's degree in zoology.

In a time of general mayhem and food shortages, Swaminathan enrolled in the Coimbatore Agricultural College, this time getting a second bachelor's degree in [agricultural science](#). During this period he worked in the fields and learned the most important lessons of his life. It was there that he learned to trust the judgment and instincts of the farmers.

The year India gained independence Swaminathan enrolled in the Indian Agricultural Research Institute (IARI) in New Delhi. There he studied [genetics](#) and [plant breeding](#). At the end of the course, he had found his calling. He excelled in cytogenetics, which is a branch of genetics that is concerned with study of chromosomes and cell division.

Thereafter Swaminathan became involved with the United Nations Educational Cultural and Scientific Organization (UNESCO). He got a [fellowship](#) to further work on potato genetics, which he had started at IARI. To do this he went to Wageningen Agricultural University's Institute of Genetics in the Netherlands. This opportunity brought great success in Swaminathan's endeavors. He managed to chalk out a

standard specified procedure for relocating genes from a wide range of wild species into the customary cultivated potato.



Swaminathan then went to the School of Agriculture at the University of Cambridge. It was there that he was awarded a doctorate for his thesis titled "Species Differentiation and the Nature of Polyploidy in Certain Species of the genus Solanum — section Tuberaarium". His work proved to be very important in helping to formulate interrelationships between different species of the genus Solanum.

After that, he accepted a doctorship at the University of Wisconsin in the Department of Genetics to help set up a potato research department. He was eventually offered a permanent position in Wisconsin, which he declined. The main aim behind acquiring experience and technical prowess from all these places was to be able to serve his own nation. In 1954 he returned to India.

In 2006 Swaminathan was invited to speak at the Norman E. Borlaug International Symposium in Iowa. There Swaminathan presented his paper titled "The Green Revolution Redux: Can we replicate the single greatest period of food production in human history?" He made an attempt to circumvent the causes and effects of the green revolution in India and the respective roles of the various socio-political leaders like Mahatma Gandhi, who called for rigorous action for relief from poverty and hunger. He also attempted to chart a series of interconnections between the lives of Mahatma Gandhi and George Washington Carver, the great scientist from Iowa.

For the significance of the work he has accomplished throughout his career Swaminathan has been honored with numerous awards and prizes, such as the Four Freedoms Award and the Planet and Humanity medal of the International Geographical Union. Swaminathan, more often than not, used the prize money to forward his research.



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Due to the international nature of his scholarship, Swaminathan has also been praised by many international

organizations for spreading the benefits of his research work across geographical boundaries.

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