

Andrea Warnke on Norman Borlaug

There are many ways to describe Norman Borlaug. Over his 95 years, he was as much a humble Iowa farm boy as a distinguished Nobel Peace Prize laureate. He was a father and a husband to his family as well as the Father of the Green Revolution that fed the world's starving populations.

He is a little-known but tremendous humanitarian figure. Norman Borlaug was awarded the Nobel Peace Prize, the Presidential Medal of Freedom, and the Congressional Gold Medal – a combination of awards which has been won by only four other people: Nelson Mandela, Mother Theresa, Elie Wiesel, and Dr. Martin Luther King Jr.

Norman Borlaug's story unfolds against the backdrop of close-knit family, the Great Depression, determination for education, an unexpected career in plant pathology, and population growth that sent many of the world's populations wobbling towards starvation and famine.

Major accomplishments

Jimmy Carter states that Norman Borlaug "...has accomplished more than any other one individual in history in the battle to end world hunger...[his] scientific achievements have saved hundreds of millions of lives."[\[1\]](#) Borlaug's scientific achievements center on developing a disease-resistant, globally adaptable, and fertilizer-responsive wheat plant. This high-yield variety of wheat and Borlaug's recommended cultivation techniques resulted in previously unheard-of yields.

Borlaug's biographer, Leon Hesser, puts this in perspective using Pakistan as an example. "In the early to mid-1960s, even while importing millions of tons of donated food grains from the US, Canada, and Australia, Pakistan was on the verge of starvation. Based on Borlaug's "miracle" wheats as the catalyst, Pakistan doubled wheat production and achieved self-sufficiency in food grains by 1968."[\[2\]](#) Borlaug catalyzed this revolution in countries throughout Asia, the Middle East, Latin America, and Africa, helping countries gain self-sufficiency in grain production whereas they were near starvation before. States is New York Times obituary, "his breeding of high-yielding crop varieties helped to avert mass famines that were widely predicted in the 1960s, altering the course of history."[\[3\]](#)

Brief biography

Borlaug was born in rural northeastern Iowa into a Norwegian-American family and community in 1914. He spent his childhood on his family's farm, in close proximity to his grandparents who imparted spiritual values and perseverance. He completed grade school in a one-room country school house, and although it was rare for young men at the time he also completed high school in nearby Cresco, Iowa, graduating in 1932.

Norman's grandfather encouraged him to pursue a college degree, even though the Great Depression overshadowed the family farms. After "flunking the entrance exam beautifully," Norman persisted and gained admission to the University of Minnesota, where he both met his wife Margaret and completed his bachelor's degree in 1937.

After his job offer from the US Forest Service fell through, Borlaug's wife Margaret persuaded him to begin his master's degree. With her support, Borlaug completed it in 1939 and went on to earn a doctorate in plant pathology in 1942. Leading a research laboratory focused on agricultural chemicals at DuPont during World War II led to an offer from the Rockefeller Foundation for a job with a project helping to conquer hunger in Mexico.

Twenty years of innovative, pragmatic field research in Mexico allowed Borlaug to develop a new wheat variety that thrived in the countries that most needed to feed hungry, burgeoning populations. With this scientific achievement, he tackled the political and humanitarian challenge of putting this wheat in fields around the world “and thus providing, as he says, “a temporary success in man's war against hunger and deprivation,” a breathing space in which to deal with the “Population Monster,” and the subsequent environmental and social ills that too often lead to conflict between men and between nations.”[\[4\]](#)

He continued his work for many years, especially his endeavors training young scientists. Borlaug described the importance of this challenge: “If I have done something, it’s been a leader of a team. I couldn’t have done anything alone. Those who were my students who pass this on, this is an ongoing thing. If the people of the affluent nations want to hope to have tranquility and peace for their children and grandchildren, it won’t be based on human misery and poverty – starting with hunger – lack of education, lack of medical service.”[\[5\]](#) Norman Borlaug passed away at 95 years of age on September 12, 2009.

Integrating the different parts of life for mutual gain

Borlaug’s clearest four-way win lies in his life’s work of feeding the “hungry bellies” in so many nations:

Home: It’s clear that he involved his wife and children in his professional work, and that they supported him. His wife had initially persuaded him to seek his master’s degree, and he includes this attribution in the preface to his biography: “Above all, I owe deep gratitude to my family for tolerating the habits of their vagabond husband and father as he carried on his work in distant corners of the Earth. Without their steadfast support, I would have faltered.”[\[6\]](#)

Admittedly, his wife suffered from loneliness and travel weariness as he pursued his career, and his children grew up in Mexico leading a far different childhood than they would have had growing up in the United States. Part of the way in which Borlaug countered this was by starting Mexico’s own Little League for both expatriate children and Mexican children, who won the Little League world championship in 1958.

Work: Borlaug achieved professional success far beyond what his early education in a one-room schoolhouse and obscure beginnings in rural Iowa would seemingly predict. His high school wrestling coached urged him to “give the best that God gave you. If you won’t do that, don’t bother to compete.”[\[7\]](#) This code for life animated Borlaug, both in science and in his youthful pursuits in wrestling for which he was inducted into the Minnesota Athletic Hall of Fame, the Iowa Wrestling Hall of Fame, and the National Wrestling Hall of Fame. Along with science and technology, he brought this competitive spirit to the fields.

Community: his professional work clearly and tangibly benefited families, communities, and nations. Mexico, India, Pakistan, Canada, Norway, and the United States bestowed extensive recognition on his achievements. However, one of his proudest honors was received in 1968, “when the people of Ciudad Obregon, Sonora, Mexico, in whose area he did some of his first experimenting, named a street in his honor.”[\[8\]](#)

Self: It’s easy to infer that Borlaug both believed in his work, and felt fulfilled by it. His grandfather had advised him early in life that “some people look up to the sky in search of God. I say, look at the soil and the growing things. That’s where you’ll find God.”[\[9\]](#) Borlaug’s humility, personified by his working in the field side-by-side with researchers and local farmers, indicates that he was in his line of work in order to contribute to something greater than himself.

Applying lessons learned from this leader's example

I draw three key lessons learned from Norman Borlaug’s total leadership:

1. Make your passion your work, and make your work your passion
Before long, it became difficult to separate Borlaug's work from his passion – or even to tell which came first and led the other. I consider this a pinnacle four-way win – when work means giving back in a way that creates self-fulfillment and unifies the support of one's family. I aspire to apply this lesson learned by continuing to pursue a concentrated combination of passion and work on larger and larger stages with greater and greater impact.
2. Persevere in experimenting
I am struck by the fact that his first major breakthrough came after TWENTY years of experimenting. It can take a long time for an experiment, or a cumulative set of experiments, to bear fruit. I intend to stick with my experiments, adjusting as necessary, until they yield breakthrough results.
3. Enroll others in your experiments and develop others around you
Whether we refer to mobilizing support among heads of state for new agricultural economic policies, convincing local subsistence farmers to plant his wheat varieties, or building and training his research team, Norman Borlaug's work provides literal examples of conducting experiments and enrolling others in supporting those experiments. He took his work one step further by developing those around him to conduct their own experiments and carry on in service of his overarching goal of eradicating hunger around the world. In this way, he created something bigger than himself for others to contribute to, and his work and his impact continue even though he is no longer with us. Beginning in a very small way with my "Divide and Delegate Responsibilities" experiment, I hope to follow Borlaug's example of achieving great impact over the course of my career and my lifetime.

Key references:

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[2] Hesser, Leon. *The Man Who Fed the World: Nobel Peace Prize Laureate Norman Borlaug and His Battle to End World Hunger*. 2006

[3] Gillis, Justin; Jonas, Gerald and Wheaton, Sarah. New York Times: "Norman Borlaug, Plant Scientist Who Fought Famine, Dies at 95." September 13, 2009. <http://www.nytimes.com/2009/09/14/business/energy-environment/14borlaug.html?pagewanted=1>

[4] Nobelprize.org – The Official Web Site of the Nobel Prize.

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[6] Hesser, Leon. *The Man Who Fed the World: Nobel Peace Prize Laureate Norman Borlaug and His Battle to End World Hunger*. 2006

[7] Ibid.

[8] Nobelprize.org – The Official Web Site of the Nobel Prize.

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[9] Hesser, Leon. *The Man Who Fed the World: Nobel Peace Prize Laureate Norman Borlaug and His Battle to End World Hunger*. 2006