## In Memoriam: Dr. Norman Borlaug, 1914-2009

he International Plant Nutrition Institute (IPNI) Board of Directors issued a brief statement honoring the legacy of Dr. Norman Borlaug, who passed away on September 12 in Dallas, Texas, at the age of 95.

The message of the IPNI Board of Directors states: We join with millions of people around the world in expressing appreciation and admiration for the great achievements of Dr. Norman Borlaug. His dedication to science in agriculture is responsible for improving the lives of individuals around the world over the past 50 years and into the future. In an amazing journey from his Iowa farm roots to world recognition as a Nobel Peace Prize laureate, he never lost sight of the importance of global food security and the power of science through agriculture. Dr. Borlaug was considered by many as the father of the 'Green Revolution' as his early work in plant breeding led to great increases in harvests of cereal crops in Mexico, India, Pakistan, and other countries. His phenomenal success in breeding high-yielding varieties of wheat, rice, and other crops evolved into broader ini-



Dr. Borlaug in field plots.

tiatives in training young agricultural scientists, educating audiences around the globe, and furthering important humanitarian causes. The International Plant Nutrition Institute extends its condolences to the Borlaug family and to his many friends and colleagues. While we are saddened by the loss of this innovative scientist and beloved leader, we believe his vision and accomplishments will serve as inspiration to future generations to continue the quest for world food security.

"Dr. Borlaug was one

of those rare individuals who made the most of his fame and influence to champion the cause of applying science for humanitarian benefits," noted IPNI President Dr. Terry Roberts. "He recognized the role of fertilizer in producing the world's food and took every opportunity to remind policymakers and the public that fertilizer is a critical component of global food security. He was just as much at ease sharing that message with a small farmer as he was with a scientist or the leader of a country. Dr. Borlaug was truly a unique man who did much for mankind."

The Nobel committee honored Dr. Borlaug in 1970, when he was 56 years old, for his work in developing high-yield crop varieties and bringing other agricultural innovations to the developing world. Many experts credit the Green Revolution with averting global famine during the second half of the 20th century and saving perhaps 1 billion lives. World food production more than doubled between 1960 and 1990, and grain yields in Pakistan and India more than quadrupled.

Considered equal parts scientist and humanitarian, Dr.

Borlaug realized improved crop varieties were just part of the answer and pressed governments for farmer-friendly economic policies and improved infrastructure to make markets accessible. A 2006 book about him is titled "The Man Who Fed the World."

Dr. Borlaug was born March 25, 1914, on a farm near Cresco, Iowa. He was educated through the



**Dr. Norman Borlaug** 

eighth grade in a one-room schoolhouse. He left home during the Great Depression to study at the University of Minnesota. He worked briefly for the U.S. Forest Service, then returned to the university for a doctoral degree in plant pathology. Dr. Borlaug worked as a microbiologist in industry for a short time, then joined the Rockefeller Foundation. Between 1944 and 1960, he dedicated himself to increasing Mexico's wheat



Bringing the Green revolution to Africa was one of Dr. Borlaug's goals.

production. He developed high-yielding, short-strawed, disease resistant varieties that thrived in Mexico, and later in India, Pakistan, Turkey, and other countries as well. In 1963, he was named head of the newly formed International Maize and Wheat Improvement Center (CIMMYT) in Mexico, where he trained thousands of young scientists. His plant-breeding methods were also successful in developing improved lines of rice and other crops.

After retiring as head of the center in 1979, Dr. Borlaug turned to university teaching, first at Cornell University and then at Texas A&M, which presented him with an honorary doctorate in December 2007. In 1986, Dr. Borlaug established the Des Moines, Iowa-based World Food Prize, a \$250,000 award given each year to a person whose work improves the world's food supply. He also helped found and served as president of the Sasakawa Africa Foundation, an organization intended to introduce the Green Revolution to sub-Saharan Africa.

In July 2007, Dr. Borlaug received the Congressional Gold Medal, the highest honor given by Congress.

A public memorial at Texas A&M University on October 6, 2009, celebrated the life and work of Dr. Borlaug. About 1,000 people attended the service. To learn more about his vision and legacy, visit the website of the Norman Borlaug Institute for International Agriculture: >http://borlaug.tamu.edu<.