

producibility comes back to haunt us, in terms of what is meant by “reproducibility.” Dr. Storms cites many experiments in different labs that report positive results within the various classes of phenomena attributed to LENR—for example, excess heat, tritium, radiation emission, etc. But, the reproductions in different labs use different techniques, and what is observed usually varies over wide ranges. Further, differences are frequently observed from one experiment to another within the same laboratory. Thus, the reader who expects to be shown a single experiment which has been precisely replicated in several laboratories around the world will be disappointed.

It must be recognized that this picture has been improving, however, as experimentalists learn more about what the crucial parameters requiring control are and how to measure them. For example, many early experiments were done in haste without even measuring the loading obtained, so it is not surprising to see variable results without any clues about why this may have happened. Consequently, the question of proving LENR is real remains for one’s interpretation of the vast amount of data (facts) gathered over the past 20 years.

Indeed, this book is the best source to date for providing the facts that must be mulled over by anyone wrestling with this issue. By doing this, it provides a much

needed unifying insight to this struggling, but emerging, field.

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The Vision, Determination, and Science to Feed the World

by Gregory Murphy

The Man Who Fed the World: Nobel Peace Prize Laureate Norman Borlaug and His Battle to End World Hunger, an Authorized Biography

by Leon Hesser

Dallas: Durban House Publishing, 2006
Hardcover, 297 pp., \$24.95

This biography of Dr. Norman Borlaug by a friend and agricultural colleague captures the high points and the struggles of Borlaug in his leadership of the wheat program that was set up in Mexico in 1944. The book also highlights Borlaug’s efforts to build an international grouping of institutions for research and training of agricultural scientists that would provide the research and manpower needed for what was called the “Green Revolution” in India and Pakistan. In all, it is refreshing in outlook and conveys the excitement and passion of Borlaug to use his science to feed the world.

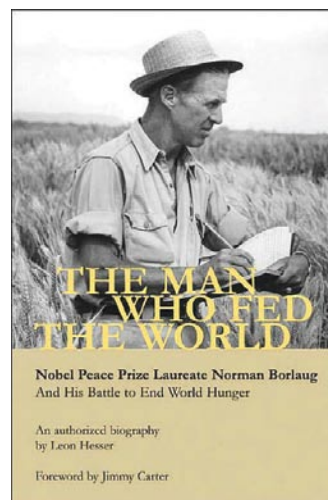
The real story of the book is about how human creativity and scientific progress can solve any problems that arise. The reader will gain a sense of optimism in the face of great challenges, such as fighting world hunger. As the world today is in the greatest financial meltdown in human history and a great crisis in food produc-

tion—caused in part by speculation and the cutting of funds to agricultural research—we need the optimism that Borlaug’s work demonstrates, to give us the hope of finding solutions to our current problems and to the new challenges that we will have to face in the future.

Wheat in Mexico

The wheat program in Mexico was a result of the vision of Henry Wallace, President Franklin Roosevelt’s Vice President. Wallace had the uncanny ability to see beyond the hunger problem in Mexico and envision a future made brighter by focused agricultural research. He envisioned a program that centered on developing technologies for producing more and better food that would guarantee adequate food supplies for all peoples of the world.

With this vision in mind, Wallace approached the Rockefeller Foundation with the idea of setting up a wheat program in Mexico. The Mexican government welcomed the idea, and the Mexican Government-Rockefeller Foundation Cooperative Agricultural Program was then created. This was the first U.S. agricultural assistance program. Mind you that this was being done while the world was at war.



In 1944, Dr. Norman Borlaug, then 30, was recruited to the program by Wallace and Rockefeller Foundation president George Harrar, at the recommendation of the renowned plant biologist E.C. Starkman, who said that Borlaug was the perfect choice to be the program’s plant pathologist because he had shown a keen interest in plant diseases and would not be defeated by difficulties.

He “burns with missionary zeal,” Starkman said.

In the early field trials, Borlaug had the idea of having two planting seasons, one in southern Mexico and another in northern Mexico. When he presented this idea to the Rockefeller Foundation board of directors, there was a lot of resistance to the idea. Even the former head of the wheat program in Mexico said that it would not work—that it had already been considered and rejected because it was deemed that it would fail.

Green Revolution: Changes in Factors of Production in Developing Countries of Asia

	Adoption of Modern varieties		Irrigation million ha	Fertilizer Nutrient Use million t	Tractors millions	Cereal Production million t
	Wheat M ha / % area	Rice M ha / % area				
1965	0 / 0%	0 / 0%	94	5	0.3	368
1970	14 / 20%	15 / 20%	106	10	0.5	463
1980	39 / 49%	55 / 43%	129	29	2.0	618
1990	60 / 70%	85 / 65%	158	54	3.4	858
2000	70 / 84%	100 / 74%	175	70	4.8	962
2005	72 / 87%	102 / 76%	178	77	6.4	1,017

Source: FAOSTAT, March 2006 and author's estimated on modern variety adoption, based on CIMMYT and IRR data.

This table is from a 2006 slide show presentation of Norman Borlaug in Washington, D.C., showing steady increases in wheat and rice yields as the Green Revolution practices took hold in Asia.

But Borlaug persisted and won the approval for the idea from the Rockefeller board members.

As he expected, the first field trials were a success, and as the word got out, and other countries of the developing world started to send their best agriculture students to Mexico to work with Borlaug.

Borlaug's high-yield wheat enabled Mexico to become a net exporter of wheat by 1963, and later it allowed wheat yields in India and Pakistan to double.

Agricultural Training Institutes

In 1960, the International Rice Research Institute (IRRI) was one of the first agricultural training and research institutes to be set up by the Rockefeller Foundation. Located in the Philippines, the institute grew out of the concern of Rockefeller's Harrar with the rice problem. In 1958, Harrar made an offer to the Ford Foundation to join forces to build a research institute that would develop hybrid varieties of rice, drawing on Borlaug's work with hybrid wheat. The IRRI was dedicated in 1962, and its first staff was drawn mainly from the students and others who were trained by Borlaug.

Over the next 13 years, the number of agricultural research institutes grew to the present number of 15. These institutes receive funding through the Consultative Group on International Agricultural Research (CGIAR), which was founded in 1972, after a series of conferences held in

Bellagio, Italy. CGIAR is headquartered at the World Bank in Washington, D.C.

In recent years, the funding to these Green Revolution institutes has been slashed. Now, with the ongoing food crisis, funding to these groups must be restored, coupled with a real drive for development of agricultural infrastructure, such as water management. As Borlaug's work showed, this is the only solution to the crisis.

Wheat Rust

In 1999, a strain of wheat rust was found in Uganda, labeled UG-99. This strain was thought to have been beaten in 1999, but it started to reappear in Kenya and other African countries in 2001. Norman Borlaug was brought in to find the solution to this rust infection. What Borlaug found was that the CGIAR institutes' funding had been slashed, and that without the needed funding there was little if any research progressing, as it had in the past during the days of the Green Revolution. The seed bank was very low, because of the funding cut, and there were almost no seeds that were resistant to this strain of wheat rust.

Borlaug commented on the situation: "The wonderful, cooperative, international, worldwide, multi-location testing network that was in place during the 1960 to 1980 period for evaluating experimental wheats against new races of diseases has broken down, and most of the Mexican-trained wheat scientist in the interna-

Lack of Infrastructure Is Killing Africa



Kilometers of paved roads per million people in selected countries

	Km		Km
USA	20,987	Guinea	637
France	12,673	Ghana	494
Japan	9,102	Nigeria	230
Zimbabwe	1,586	Mozambique	141
South Africa	1,402	Tanzania	114
Brazil	1,064	Uganda	94
India	1,004	Ethiopia	66
China	803	Congo, DR	59

Source: Encyclopedia Britannica, 2003

Another illustration from the Borlaug presentation in 2006 emphasizes the necessity for infrastructure development, along with agricultural advances, to stop the killing in Africa and other developing countries

tional wheat fraternity have died or retired and a new generation has not been trained to replace them. There has not been a serious epidemic of stem rust anywhere in the world since 1954. As a result, administrators, scientists, and those who fund science have become complacent. When everything looks fine, they say, "why do it?"

Green Revolution vs. Malthus

Borlaug's Green Revolution, the main theme of the book, is a solid example of how the application of modern agricultural methods could make it possible to feed billions of people worldwide. Borlaug also always stressed building the necessary infrastructure—roads, schools, health centers, and so on—so that rural communities would have both the necessary nutrition, and the means to make progress.

In 1968, genocidal Malthusian Paul Ehrlich wrote in his book *The Population Bomb* that it was a fantasy that India would "ever" feed itself. But by 1974, India was self-sufficient in the production of all cereals. (This, however, hasn't stopped the still-Malthusian Ehrlich from continuing to "predict.")

How author Leon Hesser writes about the Green Revolution and his personal experience of working with Norman Borlaug recreates for the reader the sense of excitement that the rural farmers in Pakistan and India felt as they were actively working to solve the their countries' food

crisis. It was not only the farmers in India who were excited by the results of Dr. Borlaug's wheat: India's Prime Minister Indira Gandhi turned a flowerbed at her house into a test plot for Borlaug's wheat! She was not alone; most ministers of the government and most college professors did the same.

This should be a lesson to today's youth, that by applying human creativity there is no problem that can not be solved.

Nobel Prize

Norman Borlaug was awarded the Nobel Peace Prize in 1970 for his efforts to

fight world hunger. There is a funny story of how he found out that he had been awarded the Nobel. Borlaug was working in the field, as he did every day, and he was told that he had a phone call from the Nobel Committee. He thought it was a prank and didn't take the call right away. The Committee called back later in the day, and still Norman thought it was a joke. After the third call, his wife finally convinced him that he really had won the Nobel Peace Prize.

In his Nobel acceptance speech, Borlaug voiced concerns that population

might outstrip resources, which was the popular Malthusian line of the time. But, to his credit, now Borlaug tells young people in his speeches at colleges that he was wrong for repeating that line about population outstripping resources, because, as he stresses, it is through human discovery that solutions to problems can be found.

Borlaug goes on to say that the next Green Revolution will be a "Gene Revolution," as increasing advances in biotechnology add to the quality and quantity of the food supply.

Six Degrees of Climate Porn

by Gregory Murphy

Six Degrees: Our Future on a Hotter Planet

Mark Lynas

Washington, D.C.: National Geographic Society, 2008

Hardcover, 335 pp., \$26.00

Six Degrees: Our Future on a Hotter Planet is an extreme example of "climate porn." This term was coined by the Tyndall Center at the University of East Anglia in Norwich, England, itself a promoter of global warming, to describe any overly dramatic and fatalistic scenarios of climate change. This description, inaugurated in a Tyndall Center white paper,¹ would include, for example, the statement from Sir John Houghton, first chairman of the Intergovernmental Panel on Climate Change, that "We have to talk about disasters, or no one will listen."

It would also apply to Stanford University's Stephen Schneider, who said, "... we have to offer up scary scenarios, make simplified, dramatic statements, and make little mention of any doubts we might have..."²

The present work does not let us down on this account. The author of *Six Degrees* is Mark Lynas, the green columnist for the Fabian Society's magazine *The New Statesman*, and a frequent contributor to Teddy Goldsmith's deep ecology magazine, *The Ecologist*. Lynas's scary book is based entirely on the computer models of

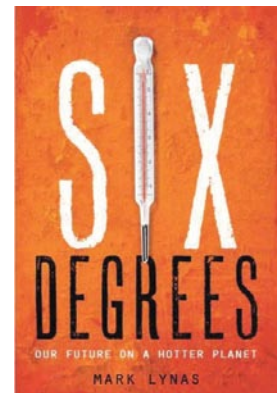
the U.S. chief global warmer, James Hansen, of NASA's Goddard Institute for Space Studies, and the computer models produced by the International Institute of Applied System Analysis in Laxenburg, Austria. (IIASA, it should be noted, is in the cybernetics tradition of denying a role for human creativity.)

These IIASA models are also the basis for the reports of Working Groups 2 and 3 in the Third Assessment Report of the IPCC, released in 2001. Working Group 2 deals with the impacts of global warming, and Working Group 3 covers mitigation and adaptation scenarios.

The IPCC's Working Group 3 concludes in Chapter 2 of the Third Assessment Report, that a doubling of CO₂ in the atmosphere would lead to a temperature rise of between 2° and 6°C, and it gives a scenario for what will happen at each degree of temperature rise.

Lynas uses this outline to give the reader a shock and awe tour of what could happen to the Earth at each and every degree. This same tour is mind-numbing, when one views the companion *Six Degrees* video, which contains computer-generated footage of New York, London, and Venice drowning in 25 feet of water. To make sure viewers don't miss the shock effect, the same computer-generated footage is repeated several times.

In the chapter titled "The Future We Will Choose," Lynas advocates cutting carbon emissions by 80 percent or more.



He also pushes the Middlebury College monster Bill McKibben's local control and fascist model of neo-feudalism, which includes forcing the population to adapt to shopping only at local stores and local farmers markets.

The Mussolini Factor

We agree with the assessment of British climate researcher Richard Courtney, in his paper "Crystal Balls, Virtual Realities, and 'Storylines.'" Working Group 3 begins Chapter 2, stating that it considers "societal visions of the future" that "most share a common goal: to explore how to achieve a more desirable future state." Courtney rightly asks, "Do they mean a more desirable future state like that of Mussolini?"

The conclusion of that same Chapter 2, calls for changes to socio-economic policies that are not climate policies. (At the very least, this IPCC conclusion provides an excuse for such changes.) We can see the sort of changes intended in Lynas's book.

In *Six Degrees*, Lynas calls for cutting back on building infrastructure, and he rules out nuclear power as not needed. The energy needs of the world could be