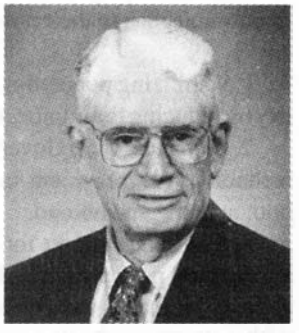
Miracle rice shows billions can be fed

by Marcia Merry Baker



Dr. Henry Beachell

On Oct. 18, in Des Moines, Iowa, the World Food Prize was awarded to two researchers, Dr. Henry Beachell and Dr. Gurdev Khush, for their work, beginning in the 1960s, in developing new genetic lines of rice, called miracle rice, which has more than doubled the world's rice production over the last 30 years. The research was done at the International Rice Research Institute (IRRI) in the Philippines, part of the Consultative Group on International Agricultural Reserach (CGIAR).

The award was the occasion for a symposium on Oct. 19 in Des Moines, on the theme "Food Security: New Solutions for the 21st Century." Participating were Robert McNamara, former president of the World Bank; Ismail Serageldin, a World Bank official and chairman of CGIAR; Norman Borlaug; and Jacques Diouf, director general of the UN Food and Agriculture Organization.

The examples of the award-winners in achieving food increases, provided the context for remarks by McNamara on the feasibility of feeding what he projected would be a world population increase of 2 billion people, to reach 8 billion in 25 years (a low projection, in fact). McNamara said that hunger stalks 750 million people today, and could affect 1 billion people in 25 years, unless "food optimists" are right, that agricultural technologies and "economic policy reforms" will be enacted.

McNamara said "food optimists" and "food pessimists" are clashing over whether the world will be able to feed itself, and that he tends to side with the "optimists."

In fact, the World Bank, in practice, serves the "pessimists." Closely allied with the International Monetary Fund anti-development policy of imposing harsh conditionalities on countries, the World Bank has opposed the kinds of agricultural infrastructure development (water, power, transport, chemical industry) that would expand nations' food output productivity.

Thus, while the World Bank-connected research centers, and sponsorship of science, produces specific advances of great potential, the economic policies of the Bank, the IMF, and allied agencies, including the World Trade Organization, are thwarting the practical applications, and suppressing food output.

McNamara called for more funding for World Bank-connected agricultural research centers, in particular the CGIAR network. He said that the U.S. government reduced its donations to international agricultural research by almost 50% over 1992-94, resulting in cuts at agricultural research centers around the world.

McNamara also criticized the U.S. government for cutting its funding for family planning, saying that the United States was reneging on its pledge made at the UN Cairo Population Conference, to increase spending on reducing world fertility rates.

"The trend [on the lack of support by the United States for combatting hunger] is not very encouraging," said McNamara. "U.S. national policy in recent years has often moved in directions opposite to what is required to advance food security both here and abroad."

Another 25% increase in yields

Dr. Gurdev Khush

The potential for vast new sources of food supplies was raised at the World Food Prize award ceremony on Oct. 18 by the recipients. Dr. Khush, in accepting his award, described the recent new breakthroughs in rice, called "super rice," which are expected to increase yields by 25% in a few years.

This new "super rice," and the 1960s "miracle rice," illustrate the principle that scientific breakthroughs and applications can alter nature to provide the basis for continuous expansion of food supplies in the future. Apparently fixed resources are not constraints. The means exist to feed billions more people on the planet.

The prize has been awarded 12 times since 1987. The idea was conceived by Dr. Norman Borlaug, 1970 Nobel laureate for "Green Revolution" grains. The World Food Prize secretariat is in Ames, Iowa, at the Iowa State University, College of Agriculture. Among the past recipients of the World Food Prize are:

1993: He Kang, former minister of agriculture in China, who provided leadership for programs resulting in large increases in agricultural output in China in the early 1980s, giving China self-sufficiency in basic foods.

1987: Dr. M.S. Swaminathan, architect of India's "Green Revolution," who led the introduction of high-yielding wheat and rice varieties to Indian farmers.

1988: Dr. Robert Chandler, Jr., the founding director of IRRI in the Philippines, where his leadership helped spur an international network of similar research centers.