







# THE WORLD FOOD PRIZE



1991 Laureate

Nevin S. Scrimshaw  
International Nutritionist





## A PRIZE FOR THE WORLD

The World Food Prize is the foremost international award recognizing outstanding individual achievement in improving the quality, quantity, or availability of food in the world.

The prize recognizes contributions in any field involved in the world food supply — food and agricultural science and technology, manufacturing, marketing, nutrition, economics, political leadership, and the social sciences.

The World Food Prize emphasizes the importance of a nutritious and sustainable food supply for all people. By honoring those who have worked successfully toward this goal, the prize calls attention to what has been done to improve the world food supply, and to what can be accomplished in the future.

The laureate receives \$200,000 and a sculpture created by world-renowned designer Saul Bass. The prize is awarded solely on the basis of individual achievement with no consideration of nationality, ethnic origin, political persuasion, religious beliefs, sex, or age.

### WHY THE PRIZE WAS CREATED

Norman E. Borlaug, winner of the Nobel Peace Prize for his work in world agriculture, envisioned a prize that would honor individuals who have made significant and measurable contributions to improving the world's food supply. Beyond recognizing these people for their personal accomplishments, he saw the prize as a means of establishing role models who would inspire others. His vision was realized when The World Food Prize was created.

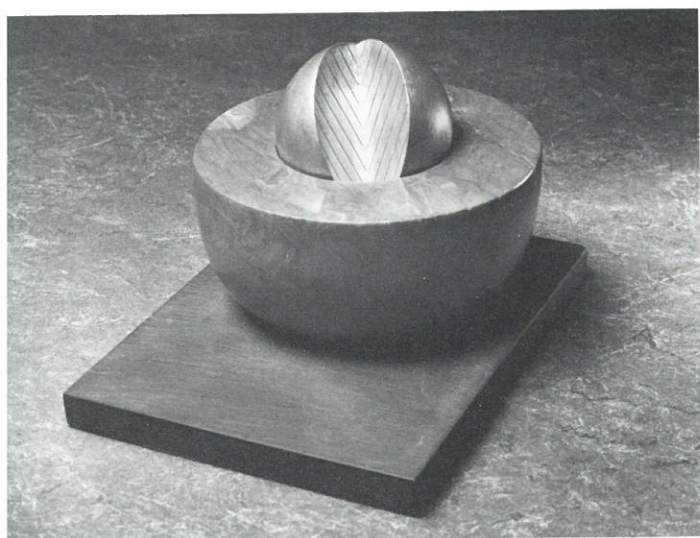
### PREVIOUS LAUREATES

Dr. John S. Niederhauser (1990) discovered and utilized a durable resistance to the potato late blight disease which has boosted the food supply and improved nutrition for the peoples of many nations, including Bangladesh, Turkey and Colombia. In Mexico, potato production increased sixfold as a direct result of Dr. Niederhauser's role in developing a strong national program involving both scientists and farmers.

Dr. Verghese Kurien (1989), chairman of India's National Dairy Development Board, founded India's "Operation Flood." Dr. Kurien turned the milksheds of India into cooperatives that produce, process, and market milk in urban centers of the country. More than six million dairy producers in 50,000 cooperatives currently are marketing milk in 500 cities and towns throughout India.

Dr. Robert F. Chandler, Jr. (1988), was founding director of the International Rice Research Institute (IRRI) in Los Baños, the Philippines. Under Dr. Chandler's guidance, IRRI developed and distributed new varieties of rice with double and triple the yield potential of traditional rice. Largely because of his efforts, famine in Asia was averted in the 1970s.

Dr. M. S. Swaminathan (1987) was the architect of India's "green revolution." Dr. Swaminathan led the introduction of the high-yielding "miracle grains" of wheat and rice to Indian farmers. Today, India is self-sufficient in cereal production.



## THE FRUITS OF HIS LABOR

Dr. Nevin S. Scrimshaw of the United States is the 1991 laureate of The World Food Prize.

Dr. Scrimshaw is being honored for his lifelong dedication to alleviating hunger and malnutrition in developing nations. His revolutionary accomplishments over five decades have made a substantial improvement in the lives of millions of people — in dozens of countries around the globe.

### EARLY CAREER

Before starting his professional career as a public health doctor and international nutritionist, Scrimshaw earned his bachelor's degree (1938) from Ohio Wesleyan University, a master's degree in biology (1939) and a doctorate in physiology (1941) from Harvard University, and a medical degree (1945) from the University of Rochester.

Dr. Scrimshaw's contributions to human nutrition began with his studies of nutrition and pregnancy while training in Panama and in Rochester, New York. Due to international recognition of his earliest nutrition work, Scrimshaw was asked to become the founding director of the Institute of Nutrition of Central America and Panama (INCAP) in 1949. In that role, he led the early development of this institution, which today remains a major center for research and training in nutrition and food science and their application.

In the 1950s, in association with INCAP, Scrimshaw worked toward solutions for *kwashiorkor*, a deadly disease attacking young children lacking adequate protein in their diet. Characterized by apathy, anorexia, swelling, blackening of the skin, and rapid hair loss, *kwashiorkor* affected children in developing countries of Latin America, Africa and Asia. Typically, children would die of the disease within weeks of diagnosis.

Recognizing from studies at INCAP and elsewhere that the problem was one of protein deficiency caused when breast milk was no longer the sole source of food, Scrimshaw searched to find an affordable native protein source. At the time, the cost of one protein-rich egg was equivalent to that of a meal for an entire family.

Using mainly a mixture of cotton-seed flour and maize, Dr. Scrimshaw was responsible for the development of INCAPARINA, which could be purchased at one-fifth the cost of milk. Today, INCAPARINA is given to 80 percent of Guatemalan children in their first year of age to combat protein deficiency.

During the 1967 famine in India, Dr. Scrimshaw guided the development of a similar food, BALAHAR, adapted to peanut flour and wheat. Scrimshaw's principle is still the basis of locally produced, lower-cost foods as a preventative of malnutrition in many developing countries.

### ENDEMIC GOITER

While at INCAP, Scrimshaw focused his attention on another serious disease — endemic goiter.

This is a swelling of the thyroid gland due to iodine deficiency.



"Famines associated with war, civil disturbances and natural disasters are tragic and shameful. Even more widespread, however, is the hidden hunger due to chronic energy and micro-nutrient deficiencies that afflict a majority of the population in most developing countries."

Dr. Nevin S. Scrimshaw



In pregnant women, it can lead to mental retardation, deafness and dwarfism in the newborn child.

Scrimshaw was unable to use the method of iodization employed for the control of endemic goiter in the United States and Europe. The North American technique of iodizing salt with water soluble potassium iodide is not effective in developing countries, where salt is a crude product typically sold moist on a palm leaf.

After testing several other compounds, Dr. Scrimshaw developed a method of iodizing the moist, local salt with non-soluble potassium iodate, and he set up trials of this compound among school children.

Initially, the children had a goiter prevalence of approximately 60 percent. However, following treatment with either iodide or iodate, most of their goiters disappeared.

These results prompted Dr. Scrimshaw to work with governments of the region to require iodation of all salt for human consumption. At the time of its introduction in Guatemala, national prevalence of endemic goiter was 38 percent. Within two years, it had dropped to 14 percent, and by the third year it had virtually disappeared. This advancement in nutrition has alleviated endemic goiters in many countries throughout Central America, Latin America and the world.

### OTHER ACCOMPLISHMENTS

In 1961, two years after earning his master of public health degree from Harvard, Dr. Scrimshaw established the new Department of Nutrition and Food Science at Massachusetts Institute of Technology.

As chairman of the U.S. Malnutrition Panel of the United States-Japan Medical Science Program in 1964-74, Scrimshaw was instrumental in the development of a broad program of U.S. support for research on high-priority nutrition problems in Southeast Asia and the Indian subcontinent. After visiting Bangladesh in 1971, he helped initiate a program called "Operation Beta" for reducing the high prevalence of severely malnourished children in refugee camps.

In 1975, he initiated and directed the World Hunger Program during the early development of the United Nations University in Tokyo. Since 1981, he has directed its successor, the Food, Nutrition, Human and Social Development Programme at UNU. Dr. Scrimshaw has created extensive educational and training programs in food and nutrition for more than 500 scientists from developing countries. This process has strengthened the research capabilities of developing countries and helped them become nutritionally more self-sufficient.

In 1980, as Institute Professor at MIT, Scrimshaw initiated research on the functional consequences of iron deficiency, a field of study that continues to occupy him. Today, Dr. Scrimshaw remains one of the principal advisors to international and national organizations in the field of food and nutrition.

He is an author or editor of 19 books, monographs, and more than 600 articles on various aspects of human and clinical nutrition, nutrition and infection, agricultural and food chemistry, food science, food and nutrition policy, and public health.



Dr. Scrimshaw meets with a colleague during the Latin American Congress of Nutrition held in Chile (1988).



Dr. Scrimshaw worked to develop INCAPARINA, an affordable native protein source given to young children to combat protein deficiency (1955).



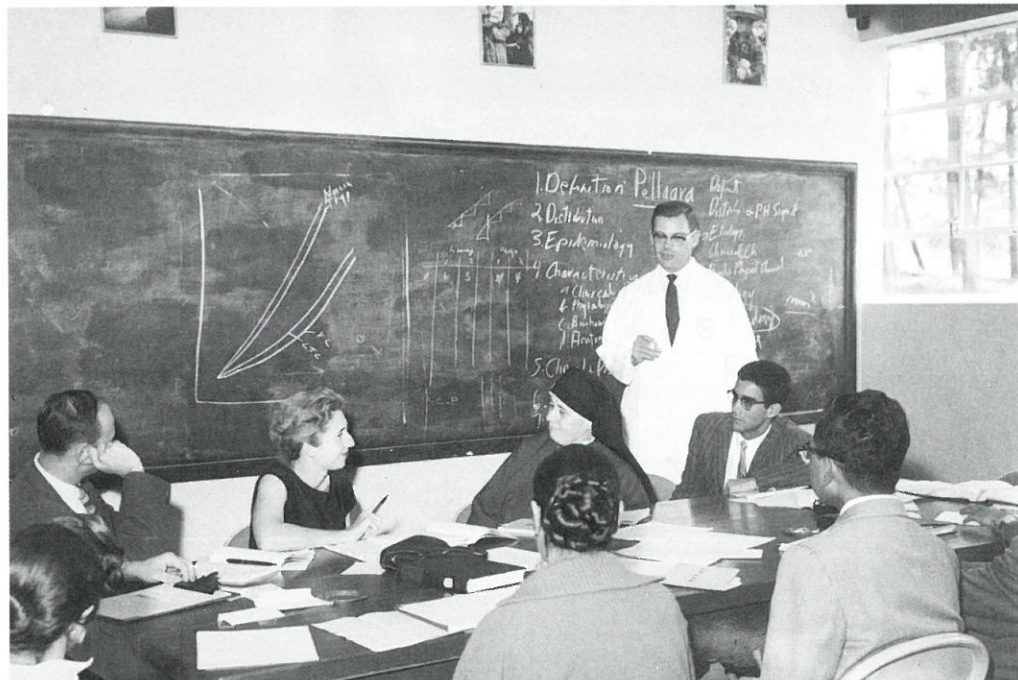
Examining a Guatemalan child for endemic goiter. Dr. Scrimshaw developed a method of iodizing salt with potassium iodate to combat goiter, caused by a mother's iodine deficiency (1954).



Dr. Scrimshaw and other representatives of United Nations University, on UNU's first visit to China (1979).



Throughout his career, Scrimshaw has promoted the training of nutritionists who can work to help make their homelands nutritionally self-sufficient (1957).





# CURRICULUM VITAE

NEVIN STEWART SCRIMSHAW

Born in Milwaukee, Wisconsin, January 20, 1918

## Academic Degrees

B.A. — Ohio Wesleyan University	1938
M.A. (Biology) — Harvard University	1939
Ph.D. (Physiology) — Harvard University	1941
M.D. — University of Rochester	1945
M.P.H. — Harvard University	1959

## Honorary Degrees

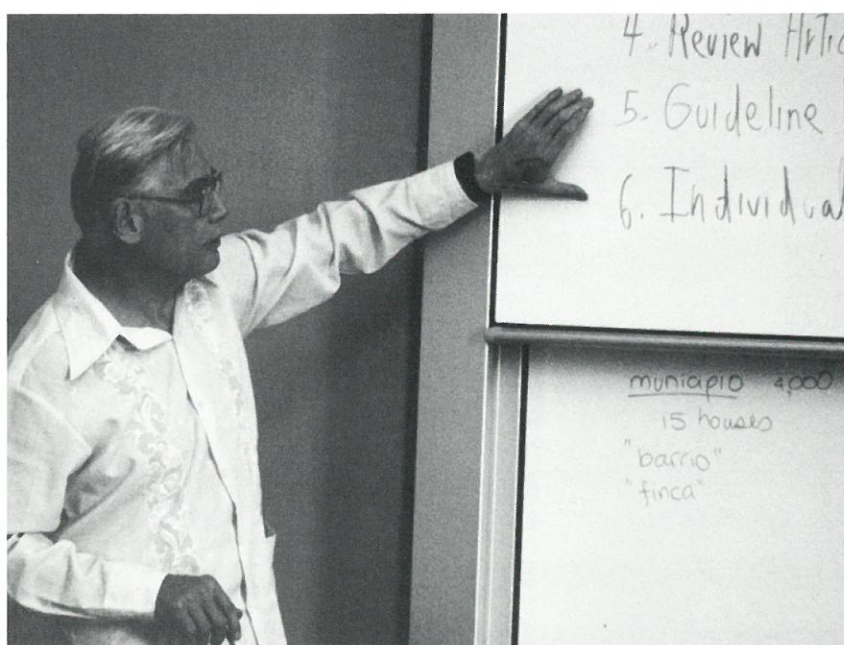
Ohio Wesleyan University	1961
University of Rochester	1974
University of Tokushima, Japan	1979
Mahidol University, Bangkok, Thailand	1982

## Professional Profile

Massachusetts Institute of Technology  
 Professor of Human Nutrition, 1961-76;  
 Institute Professor, 1976-88  
 Head, Department of Nutrition and Food  
 Science, 1961-79  
 Director, International Food and Nutrition  
 Program, 1976-89  
 Director, Clinical Research Center, 1962-66;  
 1979-85  
 INSTITUTE PROFESSOR EMERITUS,  
 1988-  
 United Nations University  
 Senior Advisor, World Hunger Programme,  
 1975-80  
 Director, Development Studies Division,  
 1985-86  
 DIRECTOR, FOOD, NUTRITION,  
 HUMAN AND SOCIAL DEVELOP-  
 MENT PROGRAMME, 1981-  
 Harvard University  
 Visiting Lecturer on Tropical Public Health,  
 1968-86  
 Member, Center for Population Studies, 1989-  
 Tufts University  
 Visiting Professor, 1987-  
 Columbia University  
 Adjunct Professor, Public Health Nutrition,  
 1959-61  
 Visiting Lecturer, Public Health and  
 Administrative Medicine, 1961-66  
 Pan American Health Organization/  
 World Health Organization  
 Institute of Nutrition of Central America and  
 Panama (INCAP), Guatemala, Director,  
 1949-61; Consulting Director, 1961-65;  
 Consultant, 1965-  
 University of Rochester and Strong Memorial &  
 Genesee Hospitals, Rochester, NY  
 Rockefeller Foundation Postdoctoral Fellow,  
 1946-47  
 Merck National Research Council Fellow in  
 Natural Sciences, 1947-49  
 Assistant Resident Physician, Obstetrics and  
 Gynecology, 1948-49

## Medical Boards and Registrations

National Board of Medical Examiners,  
 Diplomate  
 Registered Physician: Commonwealth of  
 Massachusetts, State of New York  
 American Board of Nutrition, Diplomate  
 Board of Directors, 1963-68; Secretary-  
 Treasurer, 1965-68



Dr. Nevin Scrimshaw is consultant and advisor to national and international organizations in the field of food and nutrition (1983).

## Membership in Professional Societies

### United States

American Association for the Advancement of Science (Fellow)  
American College of Nutrition (Fellow)  
American College of Preventive Medicine  
American Epidemiological Society (Fellow)  
American Institute of Nutrition  
American Physiological Society  
American Public Health Association  
Chairman, Food and Nutrition Section, 1963;  
Research Committee, 1964  
American Society for Clinical Nutrition  
Institute of Food Technology (Lectureship  
Programme, 1969-70)  
Massachusetts Medical Society  
Committee on Nutrition, 1976-  
National Council for International Health  
Others

### International

Group of European Nutritionists (Corresponding  
Member)  
International Epidemiological Association  
International Union of Nutritional Sciences,  
President, 1978-81; Vice-President, 1972-78  
National Academy of Medicine, Argentina  
(Foreign Corresponding Member), 1989-  
North-South Roundtable  
Nutrition Foundation of Italy, International  
Committee, 1977-80  
Royal Society of Health, Great Britain (Fellow)  
Sociedad Latinoamericana de Nutricion  
Others

### Foundations

Nutrition Foundation, Research Advisory  
Committee, 1960-75  
Williams-Waterman Fund for the Combat of  
Deficiency Diseases (Scientific Advisory  
Committee, 1962-76)  
American Freedom from Hunger Foundation,  
Council Member, 1965-70  
Rockefeller Foundation, Consultant, 1966-71;  
Trustee, 1971-83  
Nutrition Foundation of Italy, International  
Committee, 1977-  
Neurosciences Research Foundation, Trustee,  
1978-84  
International Nutrition Foundation for  
Developing Countries, President, 1982-  
Pan American Health and Education Foundation,  
Board Member, 1986-90; Secretary, 1988-90

## Honors

B.A., M.D., and M.P.H. with honors  
Phi Beta Kappa  
Mead Johnson Prize, Rochester Academy of  
Medicine, 1947  
Osborne-Mendel Award, American Institute of  
Nutrition, 1960  
Order of Rodolfo Robles, Government of  
Guatemala, 1961  
Divisa de Esmalte, Sociedad Protectora del Nino,  
Guatemala, 1961  
International Award, Institute of Food  
Technologists, 1969  
University Alumni Citation, University of  
Rochester, 1969  
Joseph Goldberger Award in Clinical Nutrition,  
American Medical Association, 1969  
First James R. Killian, Jr. Faculty Achievement  
Award, MIT, 1972  
Award for Excellence in Promoting and  
Protecting the Health of People, American  
Public Health Association, 1974  
McCullum Award, American Society for Clinical  
Nutrition, 1975  
Bolton L. Corson Medal, The Franklin Institute,  
1976  
Institute Professorship, MIT, 1976  
Medal of Honor, Fundacion F. Cuenca Villoro,  
Zaragoza, Spain, 1978  
Commonwealth of Massachusetts, Governors  
Citation, 1980  
Distinguished Achievement Citation, Ohio  
Wesleyan University, 1983  
American Institute of Nutrition, Fellow, 1985  
Bristol Myers Prize in Nutrition, 1988  
Alan Shawn Feinstein Research and Education  
Award, Brown University, 1991

### National Academy of Sciences

Member, 1971-  
Committee on International Nutrition  
Programs, 1964-70 (Chairman)  
Chairman, Committee on the Inter-American  
Conference on Food Protection, 1985-86  
Chairman, Applied Biology Section, 1973-78,  
1988-90

### American Academy of Arts and Sciences

Member, 1971-

### Institute of Medicine

Member, 1971-81; Senior Member, 1981-



## THE PRIZE PROGRAM

The World Food Prize is sponsored by The World Food Prize Foundation, established by John Ruan, and is located in Des Moines, Iowa, USA.

The prize is guided by a Council of Advisors in the establishment of prize policy and in the annual review of the prize.

The Iowa State University College of Agriculture serves as secretariat for the prize. Each year, more than 3,000 institutions and organizations around the world are invited to nominate candidates for the prize.

The secretariat reviews all nominations for

appropriateness and completeness and forwards them to the selection committee, which selects the candidate deemed most worthy of the award according to the prize's objectives.

The selection committee is composed of nine distinguished individuals who are knowledgeable about various aspects of nutrition and food production, processing and distribution, including research, policy development, and business management.

Members of the selection committee remain anonymous, except for Dr. Norman E. Borlaug, the group's chairman.

## COUNCIL OF ADVISORS

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Des Moines, Iowa, USA

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International Centre of Insect Physiology  
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Nairobi, Kenya

