

Barton Bernstein and Howard Zinn in seeing the New Deal as a lost opportunity for restructuring the American economy and establishing more far-reaching social welfare programs. But how real this opportunity was seems doubtful. Much of Poppendieck's analysis, in fact, points out the great obstacles to such changes in American society.

This point notwithstanding, *Breadlines Knee-Deep in Wheat* should be of much interest to anyone interested in the 1930s, in agricultural and social welfare policies, or in the antecedents of more recent food relief programs such as food stamps.

Corn and Its Early Fathers, by Henry A. Wallace and William L. Brown. Henry A. Wallace Series on Agricultural History and World Studies. Revised Edition. Ames: Iowa State University Press, 1988. 158 pp. Illustrations, notes, bibliographical essay, index. \$18.95.

REVIEWED BY SARA R. PETERSON AND PETER A. PETERSON, IOWA STATE UNIVERSITY

Corn and Its Early Fathers was first published in 1956 by Henry A. Wallace and William L. Brown to elucidate the significance and accomplishments of the individuals responsible for the development of hybrid corn. The story of this unique and economically valuable plant was, however, incomplete in the junior author's view. He therefore issued this revised edition, which includes a chapter on Henry A. Wallace, who played such a vital role in the promotion of hybrid corn in the Midwest. Henry A. Wallace, a 1910 graduate of Iowa State College, editor of *Wallaces' Farmer* from 1921 to 1933, founder of the Hi-Bred Corn Company (now Pioneer Hi-Bred International), Secretary of Agriculture from 1933 to 1940, and vice-president of the United States from 1941 to 1945, was one of the most important leaders in American agriculture. His many-faceted life is ably described by William A. Brown, former president and chairman of Pioneer Hi-Bred International and noted geneticist, cytologist, and authority on the evolution of maize.

In the preface to the first edition of *Corn and Its Early Fathers*, the authors stated that "the history behind the corn which went into modern hybrid corn is as dramatic and important as the history of the automobile." After reading about the development of corn during the relatively short span of fifty years from a crop yielding 24.1 bushels per acre in 1931 to one yielding more than 109 bushels per acre in 1981, one has to agree with the authors' assessment. They trace the history of this remarkable plant from the earliest known tiny cobs found in caves and rock shelters in the Tehuacán Valley of Mexico

dating back more than sixty-five hundred years. By 1492 the cultivation of corn had spread over a large part of North, South, and Central America, and its adoption by the early settlers of the American colonies included the maintenance of pure varieties of corn which were later to become so important to hybrid seed development.

It is interesting to note that Charles Darwin conducted a greenhouse experiment on corn in 1871 which he reported in his book, *Effects of Cross- and Self-Fertilization in the Vegetable Kingdom* (1876). He noted that the crossed plants grew 20 percent taller than the self-fertilized plants, an observation that led to the scientific development of today's hybrid corn. The full significance of hybrid vigor awaited the discovery of the science of genetics, which began with Gregor Mendel's description of the breeding behavior of garden peas in 1866. The authors described W. J. Beal's original contributions in 1877 using controlled crosses between differing varieties of corn which improved yield by 25 percent. Beal's work set the stage for hybridization experiments by other individuals over the next twenty-five years that made corn America's most important crop. By the early part of the twentieth century a number of high-yielding, inbred lines were established through recurrent selection, and Henry A. Wallace began vigorously promoting the development and adoption of these hybrids.

Corn and Its Early Fathers is both a fascinating history and an absorbing and very readable biography, a significant volume in Iowa State University Press's Henry A. Wallace Series on Agricultural History and Rural Studies. It should appeal to a diverse audience, mid-westerners and plant scientists in particular, and all those interested in the history and economics of agriculture. As the editor of the series points out, the authors believe hybrid corn to be "the world's greatest agricultural accomplishment of modern time."

Toward a Well-Fed World, by Don Paarlberg. Henry A. Wallace Series on Agricultural History and Rural Studies. Ames: Iowa State University Press, 1988. xviii, 270 pp. References, index. \$24.95 cloth.

REVIEWED BY ROY V. SCOTT, MISSISSIPPI STATE UNIVERSITY

This book by one of the nation's leaders in agricultural economics and the shaping of farm policy in the last thirty years or so must have been a labor of love. Don Paarlberg devoted much of his life to improving the lot of farmers and consumers of food and fiber in the United States and abroad. It is only appropriate that as an elder statesman in the field he produce a book the thesis of which is that "the world is on its way toward overcoming hunger" (253). It is also appropriate that

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