

Geopolitics and the Green Revolution: Wheat, Genes, and the Cold War.

By John H. Perkins. New York, N.Y.: Oxford University Press, 1997. xi + 337 pp. Maps, illustrations, bibliography, index. \$60.00.

Yet another book about the Green Revolution. Surely, by now there must be literally hundreds of volumes on this well-worked subject, yet John H. Perkins, in his new volume, *Geopolitics and the Green Revolution*, has provided by far the most comprehensive, historically grounded, and insightful volume on the subject to date. Using the case of wheat in India, Mexico, Britain and the United States, Perkins builds a convincing case that the Green Revolution was grounded in the development of plant breeding late in the nineteenth century and was not confined to the poor nations of the world. Armed with Darwinian, and later Mendelian, insights, American and European plant breeders sought at once to increase productivity and to transform human behavior. Perkins successfully shows how the early concerns of Progressives in the United States and their British counterparts led them to use plant breeding and its associated technical and institutional forms to increase agricultural productivity. This, they asserted, would free more people to work in the growing industrial economy while improving the living standards of those left on the farm. This theory was supplanted by a new one in the post-World War II period, what Perkins calls the population-national security theory (PNST). The new theory suggested that population growth led in a Malthusian fashion to hunger. This, in turn, led to social unrest, providing opportunities for the growth of communism.

Of particular importance in spreading the gospel of the Green Revolution was the Rockefeller Foundation. Foundation staff and directors were both proponents of and believers in PNST. The foundation's investments in Mexico paved the way for U.S. government officials to use science as a tool of foreign policy in the post-World War II world. It provided both theory and practice for implementation of Truman's Point Four.

Perkins quite properly evaluates the various strands of both theories in light of the empirical evidence he has carefully amassed from statistical tracts, documentary analysis, and interviews. He concludes that humanitarian considerations played a role in extending the Green Revolution to less industrialized nations, but that national security considerations were far more important. He also notes that while the Green Revolution

was a success in the narrow sense-it did raise yields of wheat and rice-it failed to eliminate hunger and poverty since it failed to grapple with distributional questions. Thus, while it increased national security for each of the nations studied, it failed to increase social stability. Finally, Perkins argues that it is not clear that continuing traditional practices would have allowed nations to fare better, especially in light of continuing population growth.

One surprising omission from Perkins's otherwise well-documented account is the impact of wheat improvement on other crops. Critics such as Vandana Shiva (*The Violence of the Green Revolution*, Third World Network, 1991) have argued that increased wheat and rice yields and growing area in India were accompanied by declining area and yields devoted to minor cereals and other crops, especially oilseeds. In addition, there is little doubt that India overinvested in wheat and rice breeding to the detriment of productivity advances in other crops. Nevertheless, this fine volume will for many years to come be the main reference on the Green Revolution.