‘Green Revolution’ Has Sharply Increased Grain Yields but May Cause Problems

By ISRAEL SHENKER

Until recently the world's food experts were wondering how to drive off the specter of hunger and frustration the predictions of Malnutrition, which warned in 1968 that population was outrunning food supply.

Today many experts are concerned about the specter of food surpluses, famine and a single phrase—"the green revolution"—signals the new attitude and the growing vogue.

In giving the 1970 Nobel Peace Prize to Dr. Norman E. Borlaug, one of the (green) revolutionaries, the Nobel Prize Committee all but insinuated that the banner of revolution will fly even more proudly and win even more converts.

Higher Grain Yields

The green revolution is the postwar development and application, largely in the developing countries, of new high-yield cereals—wheat, rice and maize, and also sorghums, millets, potatoes and grain legumes.

The results have been dramatic, transforming one nation after another from food importer to exporter and, in the process, enriching some and distorting the precarious tranquility of many in established cereal producing countries—lord relations in the equilbrium between urban and rural areas.

In great part as a result of the application of new plant varieties, India and Pakistan have raised their wheat production 50 per cent, India, which expects to be self-sufficient in rice by 1972, had a food output 11 million tons larger in 1969-70 than the record 89 million tons of 1964-65. Last year Pakistan began exporting rice.

The Philippines, after 65 years of dependence on rice imports, now have achieved self-sufficiency. Ceylon increased rice production a third in two years. Indonesia exports corn to Japan. Afghanistan was so impressed by the green revolution that the Government assessed the budget of each ministry to get money to launch a new wheat program.

About 60 per cent of the world's workers are in agriculture, and—if the revolution can be extended and broadened to cover other crops and other countries—hundreds of millions could shift from the land. Even before that, vast resources expended in producing food could go to other crops.

The roots of this revolution go back to nineteen-forties. Dr. Borlaug then a member of the Rockefeller Foundation, arrived in Mexico City. He and his associates began with three varieties of wheat—Japanese "Norin" dwarfs; Gains, a Pacific Northwest wheat that had produced enormous yields, and local Mexican wheat.

Dr. Borlaug lost his first crop; rust. But he had a few kernels of Norin dwarfs left in paper sacks, and when he planted these they took hold. "We crossed them on everything we had," he recalled later.

Eventually Dr. Borlaug used breeding materials from Minnesota, and Philippine centers—reliance on a particular strain (top-heaviness) and high yield, as well as that of the Interna international Institute of Tropical Agriculture in Colombia—are litigious and social problems financed in large part by the Ford, W. K. Kellogg and Rockefeller Foundations in Canada and selling their rice? What will the United States Agency be done about the Indian ten- for International Development, when farmers who have become

The benefits have been enormous; how can bene- but there has also been fits be generalized without land and of inferior taste. Develop- ing countries are short of stor- ity, the green revolution may mean less employment in Asia...