

## CHAPTER 2

### THE WEST: SURPLUSES AND PROBLEMS

In the industrialized West, the world's only area of food surplus, a major revolution in agricultural technology began in the 1950's. In North America, the fundamental changes in the process began before World War II; in the other countries of the Western community, the process did not get started until about 1950—after recovery from the effects of the war. The revolution is still underway in both North America, and in the other countries of the Western community. The effects may be illustrated in a number of ways.

For example, in the period 1935-39 to 1959, the production of the main cereals per capita of the Western rural population increased 75 percent. Expressed in another way, the total production of cereal grains increased by over 50 percent while the total acreage declined approximately 7 percent. Table 2 provides the salient statistics on Western supplies of cereal grains.

TABLE 2.—*Cereal grains in the industrialized West*

Year	Population (millions)	Area (million hectares)	Average yield (quintals per hectare)	Total output (million metric tons)	Output per capita (kilograms)	Percent change, output per capita 1935-39
1935-39.....	460	140	13.7	192	417	-----
1950.....	490	137	16.9	233	475	+13
1953.....	509	137	18.3	251	494	+18
1956.....	528	127	20.7	262	497	+19
1959.....	548	131	22.0	289	529	+26

Source: Derived from appendix tables A-1, A-7, A-8, A-9, and A-10.

When the developments in the United States are considered separately, this acceleration in productivity has been such that in two decades, the output per worker has risen much more than in the preceding 70-year period. In 1870, the U.S. farmworker produced enough food to supply 5 persons; in 1940, enough to supply 10.7 persons; in 1950, 14.56 persons; and in 1960, 26.1 persons. On one accounting, U.S. agricultural productivity has tripled since 1940, and doubled since 1950.<sup>1</sup>

Behind these phenomenal advances have been rapid increases in scientific knowledge and technology, efficiently and promptly applied. Application of the new technology has, moreover, required sharp increases in capital investment per worker. Capital investment per farmworker is now considerably larger than capital investment per worker in U.S. manufacturing.

The new technological advances include mechanization, new fertilizing procedures, pesticides, herbicides, irrigation, and major advances in scientific control and development of plant and animal strains,

<sup>1</sup> U.S. Department of Agriculture estimate based on productivity increases of land and labor.