

# The World Food Situation

Earl L. Butz

## Abstract

*The world food situation is examined in detail, and there are concrete suggestions for developed and developing countries in meeting the world's food needs in the future.*

We hear so much about the world's food and population problems that we sometimes lose sight of the very positive side of the global food outlook.

The world food situation has actually improved substantially over the last 20 years. The problems beginning in 1972 followed 20 years in which total world food production rose 70 percent and per capita food production rose 22 percent. Moreover, the world has the capacity to make further large increases in food production.

In 1972 we had record farm production in the United States. However, poor growing weather affected crops in the Soviet Union, Africa, Australia, the People's Republic of China, certain other Asian countries, and parts of Latin America. The protein supply was diminished by fishing failures off the coast of Peru. There was also a strong increase in demand around the world. Consequently, stocks were reduced.

In 1973, world food production resumed its upward curve. World output hit an all-time high, partly as a result of record grain and soybean crops in the United States. In 1974, however, the United States had its worst growing season in a generation. Late spring plantings, the worst summer drought since 1936, and early frosts in the Midwest all brought trouble for U.S. farmers. Canada and southern Asia also had poor crops.

The resulting disappointment was in part a measure of the growth in demand and in expectations. In historical terms, the 1974 crops were large. The wheat crop was a record. The soybean crop was the third largest in history. Although the corn crop was disappointing, it was equal to crops harvested during the mid-1960s. Crops were better than average in the Soviet Union; reasonably good in Europe, Latin America, and the People's Republic of China; and definitely improved in most of Africa.

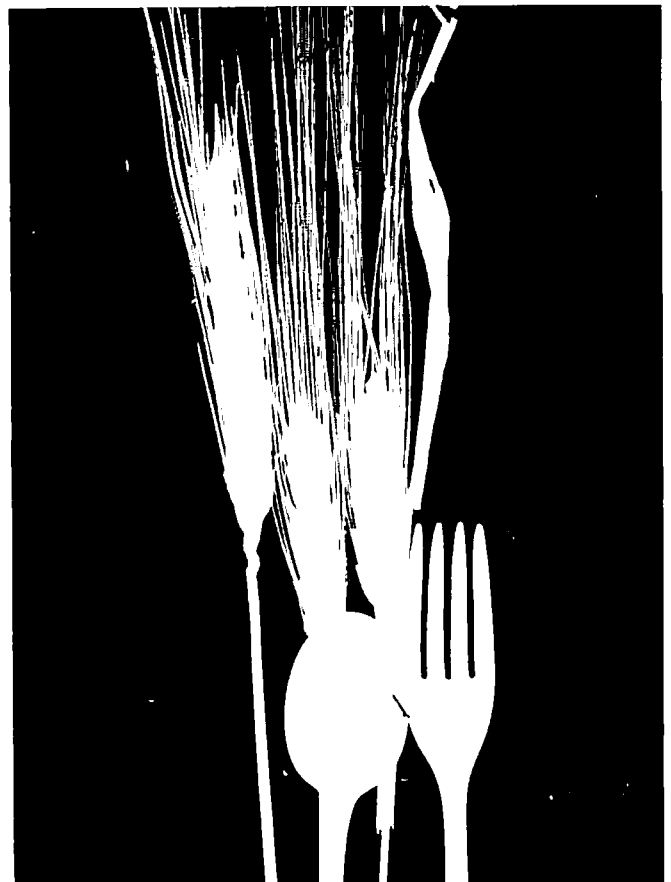
Overall, however, world food production was well below the 1973 record. World grain stocks, reduced by 1972 crop failures, moved still lower. The U.S. Department of Agriculture calculates that we will close out the 1975 crop year for the various grains with a total carry-over of 90 million metric tons, compared with 148 million three years ago.

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On an index of 1961-65 equaling 100, world per capita food production was 106 in 1974, 109 in 1973, and 105 in 1972. The largest increases were in developed countries, however. Production in less developed countries was 102 in 1974 compared with 104 in 1973 and 101 in 1972. (See Table 1.)

The reduction in world supplies was small as a percentage of world production, but it created hardships in some countries. This focused world attention on food problems. The Sahel region of Africa — the five or six nations in western Africa below the Sahara desert — experienced its fifth year of drought and poor crops. The Indian subcontinent, notably India and Bangladesh, had short crops. Other nations were hard-pressed to import enough food because of rising prices — and higher costs, especially for petroleum.

The developed nations did their best to respond to the most critical food needs. To help ensure that requirements were kept in balance, the United States initiated a monitoring system for exports of wheat, feed grains, and soybeans. Where nations were unable to cover their



needs in the commercial market, concessional sales and food donations helped relieve the shortages. In cooperation with other donor nations, the United States continued to pledge food aid to the Sahel and Bangladesh. After first coming to the United States for food supplies through commercial channels, India signed an agreement for concessional sales of wheat through the "Food for Peace" Public Law 480 program.

The P.L. 480 program, as in years past, was the major instrument of U.S. food assistance. After operating for several years with a budget of about \$1 billion annually, its budget for the fiscal year 1975 program was increased to \$1.6 billion, providing for about 5.5 million tons of U.S. commodities. The program operates through two titles — Title I provides for government-to-government agreements for long-term, low-interest commodity loans; and Title II provides for commodity donations through multilateral, bilateral, and U.S. volunteer agencies. Title II programs fill the gap in emergency situations and in basic nutrition programs in the developing regions. Title I includes self-help provisions that help recipient nations improve their own agricultural productivity and economic development. Even the short-term programs designed to fill an immediate need recognize the importance of long-range development in increasing the world's capacity to feed itself.

## Needed: Better Weather, Better Crops

While we are holding the fort through food aid programs such as P.L. 480, what we really need are a couple of good crop years. The U.S. policy has been to encourage U.S. production, and other nations are responding in a similar way. American farmers indicate they will increase acreages of wheat and soybeans in 1975 and hold feed grain acreages at about the same level as 1974. With normal planting, growing, and harvesting seasons, this would give us appreciably larger crops than last year.

Crop projections for U.S. wheat range from 2.025 to 2.225 billion bushels, compared with the 1974 all-time record of 1.793 billion bushels. Soybean production could range between 1.45 billion bushels and 1.55 billion bushels, compared with 1.233 billion bushels in 1974. This year's feed grain crop could total in the range of 205 to 229 million tons, up sharply from the short 165 million tons harvested in 1974.

With U.S. trade accounting for over half of the world trade in these commodities, such a harvest would be a welcome addition to world food supplies.

However, it would be a tragic error to believe that the solution to the world's food problems lies in the U.S. Corn Belt and Great Plains, or in a world system of emergency grain reserves.

Table 1 Indices of World Population and Food Production, 1954-1974<sup>1</sup>

Calendar Year	World			Developed Countries			Developing Countries		
	Population	Food Production		Population	Food Production		Population	Food Production	
		Total	Per Capita		Total	Per Capita		Total	Per Capita
				(Index: 1961-65 = 100)					
1954	84.2	77	91	89.1	77	86	80.6	77	96
1955	85.7	80	93	90.3	81	90	82.5	78	95
1956	87.3	84	96	91.5	85	93	84.4	82	97
1957	89.0	85	96	92.7	86	93	86.3	83	96
1958	90.7	90	99	93.9	91	97	88.4	87	98
1959	92.4	91	98	95.1	92	97	90.5	89	98
1960	94.2	94	100	96.3	96	100	92.8	92	99
1961	96.1	95	99	97.5	95	97	95.1	94	99
1962	98.0	98	100	98.9	98	99	97.5	97	100
1963	100.0	100	100	100.1	99	99	99.9	100	100
1964	101.9	103	101	101.2	103	102	102.4	104	102
1965	103.9	104	100	102.3	104	102	105.0	104	99
1966	105.9	109	103	103.4	111	107	107.7	106	98
1967	107.9	114	106	104.3	115	110	110.4	111	101
1968	109.9	118	107	105.3	119	113	113.2	115	102
1969	112.0	118	105	106.3	117	110	116.1	121	104
1970	114.2	121	106	107.3	119	111	119.0	127	107
1971	116.4	126	108	108.3	125	115	122.1	129	106
1972	118.7	125	105	109.3	124	113	125.3	126	101
1973	120.9	132	109	110.3	131	119	128.5	133	104
1974	123.1	131	106	111.3	129	116	131.7	134	102

<sup>1</sup>World excluding communist Asia.

Source: Economic Research Service, U.S. Department of Agriculture.

The answer—and the challenge—is to increase food production in the less developed countries. There is no other way when only one-tenth of the food produced in the world moves between countries as trade or aid and the other 90 percent is consumed in the countries where it is produced.

There are many restraints on food production in most of the developing countries. These include inadequate research, shortages and high cost of fuel and fertilizer, inadequate storage and distribution methods, and lack of credit and capital. But standing at the top of the list is the lack of incentive for the farmer to produce more — the chance to make a profit by investing his time, effort, and what little money he might have with the thought of an economic reward.

Where, for example, is the incentive for the Thai farmer to produce more rice when his government buys his crop at one-fifth of the world price? Where is the incentive for a palm producer in Zaire to expand his groves when he knows that half his total output of palm oil must be sold domestically at a loss?

### Help Others Help Themselves

Our task is to help the developing countries overcome these obstacles. We must help them learn to farm better; we must show them how to use technology; we must assist them in developing research to address their own problems; and we can try to persuade their governments that they can increase their production with more incentives for producers.

This will require the best efforts of all countries, developed and developing, but the potential is great.

Some agricultural economists in India, for example, feel that India can double food production within years with modest acreage expansion, a doubling of multiple cropping, and an increase of five times in fertilizer use and four times in the number of farm tractors.

In other parts of the world, there are big opportunities to expand production by doing more research and developing the indigenous crops raised by local farmers.

Hybrid corn varieties have been developed in low-income countries, but seed production methods and distribution systems preclude the widespread use of corn hybrids. Yields of sorghum are five times higher in the developed countries than in the less developed countries. Potatoes — the fourth most important crop in the world behind rice, wheat, and corn — are grown chiefly in the developed, temperate-zone countries and have never been fully exploited in the hungry countries. These anomalies must be eliminated from an undernourished world.

Livestock production also has great potential in tropical areas. Calving rates of beef cows in South America are only 40 to 50 percent — they are 80 to 90 percent in North America. Tropical Africa has around 300 million head of cattle, sheep, and goats — far below the potential production. Livestock can use large quantities of forage which otherwise would not be harvested.

There is an enormous opportunity to increase food production around the world, but it will take better use of technology, better farm management, improved marketing and storage, and above all, more effective incentives for the farmers themselves.

The key question in solving the food problem is not how to get more food to more people in emergencies — it is how to increase food production in the world, particularly in the developing world. Nor can we overlook the "population time bomb." There are probably adequate resources to handle world population through this century, but there comes a time when the food production potential of the earth will not sustain yet another doubling of consumers. This has to be considered along with long-term agricultural needs.

These longer-term needs were what Secretary of State Henry Kissinger had in mind when he proposed the World Food Conference for late 1974. And, despite the publicity sideshows that grew out of the conference, most of the 133 national delegations left Rome with the feeling that much of long-term value had been accomplished. Proposed in September 1973 at a time of record world harvests, the World Food Conference was intended to chart a long-term course for world food programs. With new production deficits occurring in 1974 — most importantly in the United States — the conference, by keynote time, had assumed a new air of urgency.

Secretary Kissinger, in his opening address, spoke of hunger as it has existed throughout history and said: "Our presence here is recognition that this eternal problem has now taken on unprecedented scale and urgency and that it can only be dealt with by concerted worldwide action."

At the end of 12 days of day and night sessions, delegates to the United Nations-sponsored conference had agreed upon 19 resolutions. They had issued a declaration, pledging national energies and resources to accelerate production growth in developing areas, improved distribution between countries, and to strengthen international mechanisms to coordinate and implement these efforts. Among its resolutions, the World Food Conference:

1. Recommended a goal of 10 million tons of grain per year, beginning in 1975, to serve as food aid, and scheduled a subsequent meeting in Rome to deal with more immediate problems.

2. Endorsed a Food and Agriculture Organization (FAO) proposal for a new "undertaking" to establish a world network of national grain reserves, beginning with upcoming discussions of a proposed reserves coordinating group.

3. Decided to establish a Global Information and Early Warning System on Food and Agriculture, and agreed that FAO is the most appropriate organization to supervise this system.

4. Approved establishment of a World Food Council, with member countries to be nominated by the United Nations Economic and Social Council and elected by the U.N. General Assembly.

In addition, the conference agreed with the proposition, stressed by the U.S. delegation, that the world must

move to a higher level of food production. I personally emphasized that: "We are not here to talk about what to do with less food. We are here to talk about what to do with more food."

### **Making Things Happen**

Hungry people cannot, of course, eat resolutions. So it is fair to ask: "Just what is happening in response to the resolutions that came out of the World Food Conference?" The fact is that much is happening, and there is good reason to be encouraged over the speed with which follow-up actions are getting underway. I might mention some of the follow-up machinery that is being developed to implement the World Food Conference resolutions.

**World Food Council.** About 35 countries will be meeting soon to establish a World Food Council to be located in Rome. Dr. John Hannah, distinguished U.S. educator and agriculturalist, was designated by the UN Secretary General to head the work for the next six months and he will coordinate the efforts of the various UN family organizations.

**Consultative Group on Food Production and Investment.** This Group will concentrate on agricultural investment and increased food production to narrow the food gap in developing countries. Retired U.S. Ambassador Edwin Martin has been appointed chairman. He will have a staff drawn from FAO, the UN Development Program, and the World Bank.

**Grain Reserves.** An ad hoc grain reserves group met in London in February in conjunction with the International Wheat Council. All invited producing and exporting countries attended, and discussions were started on (1) what size food reserves are needed to give the world a reasonable degree of protection from production shortfalls, and (2) how the acquisition, the carrying, and the release of these stocks can be equitably shared.

Thus sincere efforts are under way to give meaning to the resolutions that came out of the World Food Conference. Whether the conference failed or succeeded can really be measured only after 5 to 10 years. If, by then, we have a better nourished, less hungry world, the conference will have served a useful purpose in focusing on one of the most important problems facing mankind and in bringing about international cooperation to cope with it.

A major conclusion of the World Food Conference was that international trade in food will play an important role in meeting the world food challenge, particularly in developing countries. Trade rather than aid accounts for over 90 percent of the movement of agricultural commodities.

The conference stressed the need for distributing food more effectively through elimination of barriers and trade restrictions by means of negotiations under the General Agreement on Tariffs and Trade (GATT). It was recognized that the extent to which trade barriers can be reduced and eliminated will largely determine the degree to which trade can contribute to meeting the world food challenge.

In the past, because of internal politics, governments often have been unwilling to consider substantive trade liberalization for fear that this would endanger domestic objectives such as maintaining income and stabilizing food prices. Events have now demonstrated, however, that no government can, over a long period of time, isolate its internal markets from external forces. Today most nations recognize the need to develop understandings on the use of trade measures during periods of excessive or inadequate food production throughout the world.

### **Stimulus of World Trade**

For American producers, world trade is the essential stimulus to expanded production and increased farm income. Foreign markets take more than half of the rice produced in the United States, nearly three-fourths of the wheat, half the soybeans, and as much as one-fourth to one-third of the feed grains. Farmers from Florida to Washington State depend upon foreign customers for their margin of profit.

For some countries, trade liberalization will mean greater dependence on imports. These countries want to be assured of access to supplies even when the situation is tight. On the other hand, supplying countries such as the United States cannot turn agricultural production on and off in response to stop-and-go actions by other countries, and they cannot promise full production without steady and secure access to foreign markets.

These are the highlights of the discussions that are now under way in Geneva, Switzerland, as the world's major importers and exporters gather to discuss world trade liberalization under the GATT. This negotiation, the first since the completion of the so-called "Kennedy Round" in 1967, involves more countries and a broader range of issues than any previous negotiations. The outcome may well set world trading patterns for the rest of the century.

The U.S. effort will be to improve market access for its producers, and to ensure importers of the reliability of the U.S. market. For U.S. farmers, with a \$22 billion overseas market, the success of the multilateral trade negotiations in Geneva is a major necessity.

The challenge of feeding the world creates career opportunities of many kinds — in research, production, management, export-import, market development, distribution, information, and on down the line. Those who prepare today for careers in food and agriculture must keep in mind that the worldwide food situation will demand much from them. Agriculture is our nation's major renewable resource, and will likely play an even more important role in the future of this nation, especially in relations with other countries. American farmers will continue to feed not only this country, but millions overseas.

The American farmer and food are not isolationist; more than most other elements, those in American agriculture are a vital part of the world economy.