
Introduction

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Are farmers in the United States losing their ability to compete in international markets? The question would have seemed absurd during the 1970s, when each year brought enormous increases in the value and volume of U.S. grain and oilseed exports. The U.S. share of burgeoning world markets seemed secure; agricultural exports were considered a bright spot in the United States' generally poor trade performance. In 1981, however, exports of wheat, corn, soybeans, and other key U.S. crops fell sharply, while slow but consistent growth in imports of a large variety of agricultural products continued unabated (see figure 1-1). U.S. farmers confronted the possibility that they might begin to face the kinds of trade 'prob-

lems that have plagued steel, automobiles, and other major U.S. production enterprises.

Despite numerous theories about "post industrial" societies, agriculture remains a crucial part of the U.S. economy. Declining agricultural exports confront this country with the prospect of losing an important counter to trade deficits in other areas. Agriculture is among the Nation's most capital- and research-intensive enterprises. It has become a "high-technology" enterprise which, combined with this country's vast wealth of resources, could remain a critical element in the U.S. trade balance.

Figure I-1.—U.S. Trade in Food, Feeds, and Beverages



SOURCE U S Department of Commerce Bureau of Economic Analysis "National Income and Product Accounts table 43, March 1986

This technical memorandum reviews the debate over the future competitiveness of U.S. agriculture—influences on world agricultural trade; trends in production, consumption, and trade of key commodities, including “high-value products”; and the cost competitiveness of U.S. agriculture.

The technical memorandum places special emphasis on the relationship between technology and the United States’ competitive agricultural posi-

tion. New technologies have led to increased yields in virtually every aspect of agriculture and food processing, and there is every indication that such progress will continue. However, the United States faces increasing technological competition from all parts of the world. The rapid pace of technology transfer suggests that unless domestic research and development efforts are continued and strengthened, foreign competitors may develop production capacities that match those of the United States.

FACTORS BEHIND THE DECLINE OF U.S. AGRICULTURAL EXPORTS

The export boom of the 1970s was made possible by a number of factors, including Third World economic growth, China’s entry into world agricultural markets, and the Soviet Union’s decision to import grain in order to increase livestock output. U.S. grain and oilseed producers expanded output rapidly, aided by a favorable exchange rate and by U.S. Government programs like agricultural price and income supports, liberal credit, and a favorable tax code. Other nations increased output to meet growing world demand, but U.S. producers captured a large share of this growth, using the United States’ large stockpiles and enormous, underused areas of arable land to expand production. During the early 1970s, U.S. harvested wheat acreage rose by an amount greater than the total wheat acreage harvested by Canada, and between 1979 and 1981 the United States commanded 39 percent of the volume of all world trade in agriculture—up from 23 percent between 1969 and 1971.¹ In addition, the United States captured 71 percent of world volume trade in coarse grains in 1980, well over 10 times the share of the nearest competitor, Argentina (see table 2-16 of this technical memorandum).

Conditions changed after 1981, when global recession slowed rates of growth in demand. World corn and wheat production, for example, grew nearly 4 percent annually during the 1970s, but slowed to 3 percent per year between 1980

and 1985.² Approximately one-third of U.S. exports during the preceding decade were purchased by developing nations, who were forced to reduce imports after 1981, because their economies were weakened by the global recession. This problem was compounded by debt burdens. Moreover, many developed nations began to subsidize exports while imposing tariffs and quotas on imports. The “variable levy” of the European Economic Community (EEC), for example, has been cited as the single most important barrier to U.S. agricultural exports by the Office of the U.S. Trade Representative.³ The EEC also began to subsidize food exports heavily, through the Common Agriculture Policy (CAP).

Other factors have worked against U.S. exporters. Many developing nations have cut back on imports, relying instead on the growth of domestic production capacity. Others have attempted to boost agricultural exports, in order to meet the crushing burden of foreign loans. In fact, both the U.S. Government and the World Bank have encouraged Latin American nations to increase exports as a method of raising revenue.

At the same time, production capacity in the developed world continued to climb, creating massive surpluses in key export commodities. As a result, prices fell sharply in the early 1980s; exporting nations struggled to maintain market

¹U. S. Department of Agriculture, Economic Research Service, unpublished data.

²See table 2-11 of this technical memorandum.

³“Upcoming World Trade Talks: What’s at Stake for U.S. Agriculture,” *Congressional Research Service Review*, Washington, DC, vol. 7, N-o. 8, September 1986.

share. U.S. producers were hurt by the additional factor of an overvalued dollar. While the recent decline of the dollar may help U.S. producers to compete for Japanese and European markets, the dollar has not changed significantly with respect to Canadian and Australian currencies. Also, many Latin American nations tie their currencies directly to that of the United States.

Despite shrinking world markets, U.S. agricultural production continued to increase in the early 1980s. Profit margins for crop producers narrowed; for some producers, profits disappeared entirely. Government transfer payments, in the form of U.S. Department of Agriculture (USDA) price support loans and direct cash advances, rose sharply, compensating for some of the lost farm income. But the costs of these programs spiraled while stocks of wheat and feed grains—much of it owned by the government—accumulated. The price of maintaining U.S. exports, even at 1985 levels, has been high; the 1985 Farm Bill, which included plans for a 3-year, \$52 billion series of programs to help U.S. farmers, will likely cost nearly \$30 billion for fiscal year 1986 alone and should top the initial ceiling after 1987, according to USDA.

A separate issue, and another potential factor behind the decline of agricultural competitiveness in the United States, is the comparatively low quality of U.S. grain. Recently, there has been a sharp increase in foreign complaints concerning the quality of U.S. grain stocks. This issue deserves comprehensive analysis, and OTA will soon commence a study that focuses on U.S. grain quality.

The Role of Technology Transfer

International trade in agriculture has also been affected by significant improvements in farm production technologies achieved over the past 15 years. Innovations in such areas as biotechnology, fertilizers, weed control, and animal reproduction and nutrition have led to spectacular gains, and this trend should continue. Table I-1 shows net gains in the productivity of wheat, corn, and soybean production. Similar kinds of efficiency improvements occurred and will continue to occur in dairy and livestock production.

While the United States once enjoyed an unchallenged lead in agricultural technology, foreign innovations have grown rapidly. The most significant development has been the upgrading of agricultural research capacity in developing countries, aided by technology transfer from the United States. The U.S. Government has encouraged this development, through a variety of bilateral and multilateral agreements designed to promote economic growth in developing nations and to coordinate scientific research. The establishment of International Agricultural Research Centers has also facilitated technology transfer to the developing world.

Other avenues of transfer exist. Much technological information is freely available in publications. Many foreign students study at U.S. schools. Perhaps most importantly, multinational corporations move technology to foreign subsidiaries with increasing speed, and sometimes—due to domestic regulations—introduce new technologies abroad before they are introduced in the United States.

Relative Costs of Production

The relative impact of new agricultural technology on production costs throughout the world is difficult to document, given the inconsistencies in international statistics, differing patterns of agricultural subsidies, enormous differences in patterns of land ownership and land values, and changing exchange rates. Still, the “green revolution” has clearly allowed countries such as India to increase production and change from net food importers to net food exporters. Many technologies permit significant increases in yields per acre, diminishing the comparative advantage of

Table I-1.—Projected Growth Rates in Crop Yields

	Actual 1970-84	Projected 1984-2000
Wheat	1.5	1.2
Corn	2.1	1.2
Soybeans	0.2	1.2

SOURCE For past growth rates, see tables 24.2-7, and 2-8 of this report. Projections come from U.S. Congress, Office of Technology Assessment, *Technology, Public Policy, and the Changing Structure of American Agriculture* OTA-F-285 (Washington, DC: U.S. Government Printing Office, March 1986), table 3-4. Projections are for “most likely environment.”

large U.S. land areas in a period of surplus production capacity. The surpluses do not, however, mean that technology has eliminated hunger; production increases trailed population growth in Third World nations least able to afford food imports.

Technical advances can allow foreign producers to grow many important crops below average U.S. costs. However, comparisons with average U.S. costs may be misleading. Unlike most manufactured products, U.S. farm production costs vary widely depending on region and farm size. While statistically precise statements cannot be made, it appears that a large percentage of U.S. farms are competitive with the most efficient producing areas in the world. These areas form the basis of U.S. strength in international agricultural markets. On the other hand, it appears that some U.S. farmers are operating at costs above world prices.

Of course, many foreign producers may also be operating with costs above world prices. For example, 1984 soybean yields in Argentina were 37 percent higher than those of the United States, and wheat yields in France were 250 percent higher. It is likely that this resulted from national programs designed to encourage exports, rather than from any advantage in resources or production technology.

U.S. Competitiveness in High-Value Agricultural Products

As total U.S. agricultural exports have declined, U.S. imports have grown at a slow but consistent rate, especially in a variety of "high-value" products (HVPS). HVPS include products that have been processed to some degree before export, as well as certain unprocessed commodities like horticultural crops. World trade value in HVPS now exceeds world trade value in bulk agricultural commodities. USDA estimates that the world high-value product market could rise by 9 to 12 percent per year until 1990, an increase of up to \$20 billion.⁴ Leading U.S. HVP exports

include soybean meal, tobacco, cigarettes, cattle hides, and corn gluten feed.

While many European nations have moved aggressively to profit from the growth of HVP trade, the United States has not performed well in these markets. In fact, while the United States had captured 39 percent of world trade volume in agricultural products between 1979 and 1981, its relatively small share of high-value products meant that it held only an 18 percent share of the value of world agricultural trade. The U.S. share of the HVP market remained at about 10 percent during the 1970s; the United States has experienced a negative balance of trade in processed food since 1983.⁵

Many HVP export markets are highly volatile. Countries which at first import processed products often develop their own processing capabilities, and shift to imports of unprocessed products. In the 1970s, for example, the EEC was a major importer of soybean meal. As it developed its own processing capacity, its import emphasis shifted to raw soybeans, allowing it to reap the economic benefits associated with processing a raw commodity.

Questions for the Future

While it is likely that world demand for food exports will grow in the future, slow growth may occur for traditionally strong U.S. export commodities. For example, recent projections made by Resources For the Future (a Washington, DC, based research institute) point to vigorous growth in Third World economies and diets, but suggest that world demand for cereal grains will grow at about 2 percent per year for the remainder of the century—below the average rates of the past 5 years.⁶ In addition, North American exports of cereals will command a shrinking share of total trade because of growing competition from other producers.⁷

The unfavorable conditions that faced U.S. producers in the early 1980s gave a number of other nations the opportunity to gain export market

⁴U.S. Department of Agriculture, Economic Research Service, "High Value Agricultural Exports: U.S. Opportunities in the 1980s," U.S. Department of Agriculture, Economic Research Service, *Foreign Agricultural Economic Report No. 188*, Washington, DC, 1983.

⁵"Upcoming World Trade Talks," op. cit.

⁶See table 2-17 of this technical memorandum.

⁷See table 2-21 in this technical memorandum.

shares, which they will give up only reluctantly. In the case of the EEC, for example, expanded exports are a part of a larger strategy to protect European agriculture. Other nations have borrowed funds to make significant investments in such areas as land preparation, purchases of agricultural equipment, and construction of port facilities and roads. These activities encourage exports, which will likely be increased in order to repay the initial loan.

U.S. markets could be further eroded by developing nations that continue to absorb agricultural innovations and transfer them to local producers. Crop productivity in these nations may

grow more rapidly, aided by U.S. technologies—many of which boost the productivity of both U.S. agricultural exports and those of our export competitors.

It is important to note that the measure of U.S. agriculture's international competitiveness may not necessarily be whether the peak market shares of the late 1970s can be regained. Rather, the focus for the future may revolve around whether U.S. producers can profit from their exports. If this does not occur, trade may actually decrease the total income available to U.S. farmers, which would tend to have a negative effect on the total number of agricultural jobs.

CONSEQUENCES FOR THE AMERICAN WORKPLACE

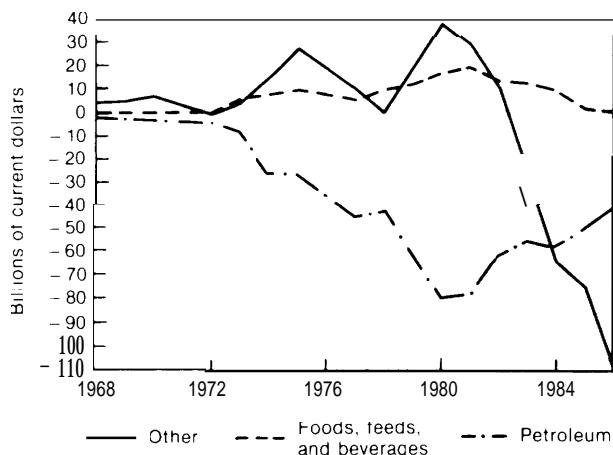
Why should the United States be concerned about balance of trade in agriculture and agricultural products? The most obvious answer is agriculture's historical contribution to net balance of trade. Figure I-2 illustrates the disastrous performance of U.S. merchandise trade during the past 5 years, a situation that would have been worse without the decline of petroleum prices. Agricultural exports constituted one of the few areas where the United States enjoyed positive trade balances that offset deficits occurring in

other areas. However, USDA forecasts a U.S. agricultural trade surplus for **1986** of \$7.5 billion, the lowest such level since **1973**.

Loss of agricultural exports translates into direct and indirect affects throughout the U.S. economy. Table I-2 summarizes how a decrease in agricultural trade could "ripple" through the economy, in comparison with trade in other areas. While agricultural trade could generate a significant amount of employment outside the farm sector, links to the rest of the economy may not be as great as those that result from trade in manufactured products. The table estimates that about 60 percent of the dollars gained or lost in livestock trade and 45 percent of the dollars gained or lost in other agricultural products occur in businesses outside the traditional farming sectors. By comparison, about **60** percent of the income lost from automobile imports would be lost by firms outside the automobile industry.^g

Table I-3 suggests what kinds of jobs might be gained or lost through agricultural trade. It can be seen that the total number of jobs gained or lost through a given volume of trade in grain products or food processing is roughly equivalent

Figure I-2. —U.S. Merchandise Trade Balance
(exports minus imports)



SOURCE U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts table 43, March 1986.

^gU.S. Department of Commerce, Bureau of Economic Analysis, "1977 Input-Output Model," *Survey of Current Business*, vol. 64, No. 5, May 1964.

Table I-2.—If U.S. Trade in Agriculture and Other Products Increases (or Decreases) by a Dollar, Which Business Sectors Benefit From This Gain (or Suffer the Loss)?

<u>\$1 of trade in livestock and livestock products</u>	
Other agricultural products	\$0.21
Livestock and livestock products.	\$0.20
Food and kindred products	\$0.09
Wholesale and retail trade.	\$0.08
Real estate and rental	\$0.07
Transportation and warehousing	\$0.03
Crude petroleum and natural gas.	\$0.03
Business services	\$0.03
Agricultural, forestry, and fishery services, . . .	\$0.03
Finance and insurance.	\$0.03
Other	\$0.19
Total	\$1.00
<u>\$1 of trade in "other agricultural products" (mostly grains)</u>	
Other agricultural products	\$0.55
Real estate and rental	\$0.09
Wholesale and retail trade.	\$0.05
Crude petroleum and natural gas.	\$0.04
Chemicals and selected chemical products	\$0.04
Business services.	\$0.03
Agricultural, forestry, and fishery services . . .	\$0.02
Transportation and warehousing	\$0.02
Finance and insurance.	\$0.02
Electric, gas, water, and sanitary services . . .	\$0.02
Other	\$0.12
Total	\$1.00
<u>\$1 of trade in food and kindred products (mostly food processing)</u>	
Food and kindred products	\$0.35
Other agricultural products	\$0.11
Wholesale and retail trade.	\$0.09
Livestock and livestock products,	\$0.05
Business services.	\$0.04
Real estate and rental	\$0.04
Transportation and warehousing	\$0.04
Crude petroleum and natural gas.	\$0.03
Electric, gas, water, and sanitary services . . .	\$0.02
Chemicals and selected chemical products . . .	\$0.02
Other	\$0.22
Total	\$1.00
<u>\$1 of trade in motor vehicles and equipment</u>	
Motor vehicles and equipment	\$0.39
Wholesale and retail trade.	\$0.07
Primary iron and steel manufacturing	\$0.07
Screw machine products and stampings	\$0.04
Business services	\$0.04
Rubber and miscellaneous plastic products . . .	\$0.03
Transportation and warehousing	\$0.03
Primary nonferrous metals manufacturing . . .	\$0.02
Other fabricated metal products	\$0.02
Crude petroleum and natural gas.	\$0.02
Other	\$0.27
Total	\$1.00

SOURCE U.S. Department of Commerce, Bureau of Economic Analysis, "1977 Input Output Model," *Survey of Current Business*, Vol. 64, No. 5, May 1984

with that of automobile manufacturing. All three enterprises could generate about 25 jobs per \$1 million of output. Livestock products appear to be more labor-intensive, mainly because of the large number of individuals who classify themselves as "self-employed." Of course, all of these estimates must be considered as approximations since statistics on agricultural employment, particularly on part-time and "self-employed" persons, are notoriously inaccurate.⁹ And while more detailed analysis of agricultural trade's impact on the economy as a whole would be a valuable contribution, such depth is beyond the scope of this technical memorandum.

In looking to the future, however, it is also important to recognize that the labor productivity of agriculture and related businesses have been growing at rates significantly faster than the rest of the economy. The kinds of technical progress suggested in table 1-1 will also reduce the number of jobs generated per dollar of output. In fact, if the labor productivity of agricultural sectors grows at the average rate of the last 10 years, total agricultural employment per dollar of output will fall by 22 percent. These trends, however, may be misleading; labor productivity in the "food and feed grains" category grew 6.8 percent per year during the "boom years" of 1973 to 1979, but fell 0.2 percent per year between 1979 and 1984.¹⁰

⁹Figures were calculated using \$1 million of demand for the commodity indicated expressed in 1984 dollars. Estimates of the way this demand translates into business output are made using the 1977 input-output table (see table I-2). Estimates of employment by occupation are made by using estimates of jobs per unit output in each industry prepared by the Bureau of Labor Statistics for the year 1982. Conversions have been made using deflator series appropriate for each industry. The BLS series providing occupation by industry and standard BLS estimates of total national employment do not use the same definition of farmers, farm workers, and laborers. The estimates shown above are prepared by scaling jobs in these categories to make them consistent with employment data maintained in series published in the Monthly Labor Review.

¹⁰U.S. Department of Commerce, Bureau of Labor Statistics, unpublished data ("Employment Requirements"), Washington, DC, June 1985.

Table 1-3—Jobs Produced by a Million Dollars' Worth of Exports (or Jobs Lost by a Million Dollars' Worth of Imports) in the Categories Indicated

\$1 million of livestock and livestock products		\$1 million of other agricultural products-	
Self employed	13	Self employed	10
Farmers and farm workers	8	Farmers and farm workers	7
Clerical workers	3	Clerical workers	2
Laborers, except farm	2	Laborers, except farm	1
Managers, officials, proprietors	1	Managers, officials, proprietors	1
Salesworkers	1	Salesworkers	1
All other operatives	1	Other craft and related workers	1
Transport equipment operatives	1	All other operatives	1
Other craft and related workers	1	Transport equipment operatives	1
Mechanics, repairers, installers	1	Mechanics, repairers, installers	1
Other	4	Other	3
Total	36	Total	28
\$1 million of food and kindred products		\$1 million motor vehicles and equipment	
Self employed	5	Clerical workers	3
Clerical workers	3	Laborers, except farm	2
Laborers, except farm	3	All other operatives	2
Farmers and farmworkers	3	Metalworking operatives	2
All other operatives	2	Other craft and related workers	2
Transport equipment operatives	2	Assembler occupations	2
Managers, officials, proprietors	1	Managers, officials, proprietors	2
Salesworkers	1	Mechanics, repairers, installers	1
Other craft and related workers	1	Metalworking craft workers ^a	1
Mechanics, repairers, installers	1	Salesworkers	1
Other	5	Other	7
Total	27	Total	25

^aExcept mechanics

NOTES Calculated using one million dollars of demand for the commodity indicated expressed in 1984 dollars. Estimates of the way this demand translates into business output are made using the 1977 input-output table (see table 1-2). Estimates of employment by occupation are made by using estimates of jobs per unit output in each industry prepared by the Bureau of Labor Statistics for the year 1982. Conversions have been made using deflator series appropriate for each industry. The BLS series providing occupation by industry and standard BLS estimates of total national employment do not use the same definition of farmers, farmworkers, and laborers. The estimates shown above are prepared by scaling jobs in these categories to make them consistent with employment data maintained in series published in the *Monthly Labor Review*. Estimates have been rounded to the nearest whole job, including jobs that are both full and part time.

SOURCE Office of Technology Assessment 1986

AREAS FOR POLICY ANALYSIS

It is clear that U.S. farmers are facing serious difficulties in international markets. What can be done, however, is subject to debate. While a comprehensive review of policy strategies is not the subject of this technical memorandum, OTA can outline broad areas where changes in policy might lead to improvements in U.S. agricultural competitiveness, and in the ability of U.S. producers to profit from their exports. These categories should be viewed not as specific alternatives, but as starting points for analysis.

Trade Negotiations

World competition for agricultural markets has begun to increase tensions between the United States and its allies, and may soon threaten programs designed to stimulate economic develop-

ment in developing nations. Intensified competition in export subsidies, import tariffs, and other nontariff barriers cannot benefit international trade in agriculture. However, persuading nations to change their strategies regarding agricultural exports is a difficult task, since many policies are tied to domestic programs. Also, success in achieving an improved world position for U.S. agriculture may depend heavily on other areas of trade negotiations. Some possible strategies include:

- Using the General Agreement on Tariffs and Trade (GATT) to organize an international consensus network on issues related to agricultural trade. Goals might include the relaxation of domestic price supports, export subsidies, import quotas, and nontariff barriers

like variable levies, as well as the establishment of voluntary export restraints; in fact, trade ministers from the 92 nations that participate in GATT have placed agricultural trade as a priority item in the next round of GATT talks, scheduled to begin in 1987. This will, of course, require the United States to grant other concessions in programs that are particularly critical for products like peanuts, cotton, milk, and other dairy products.¹¹

- Developing a consensus on reporting production costs and domestic policies. Negotiations about unfair trading practices are extremely difficult, given the complex nature of statistics on production costs and subsidies.
- Establishing binding, bilateral trade agreements with partners like the EEC, Japan, and Canada, and developing a bilateral mechanism for communication and dispute resolution.

Trade Promotion

A variety of techniques can be used to support U.S. agricultural exports. These range from direct subsidies to exporters through "marketing loans" to assistance available through consulates and agricultural attaches in U.S. embassies throughout the world. Many U.S. producers, especially those of high-value products, are not sophisticated in world trade, and need help both in identifying potential markets for their products and in satisfying the often complex procedures required by importing nations. USDA's Agricultural Information and Marketing Service (AIMS), which serves as a liaison between U.S. producers and potential importers of U.S. goods, represents one model for promoting U.S. exports. AIMS maintains a computer database that includes current information on such factors as domestic prices and product availability and foreign market potential.

Addressing the Third World Debt Problem

U.S. strategies for encouraging Third World nations—and Latin American countries in partic-

ular—to reduce their debt by expanding agricultural exports can have the effect of eroding U.S. exports both directly and indirectly, as can those for encouraging Japan to purchase more products from Third World producers. These nations then compete with U.S. producers for markets and drive international prices well below U.S. price support levels, placing tremendous economic pressures on U.S. farm programs. The United States has a clear interest in helping developing nations to expand their domestic economies in a way that would make them better markets for U.S. agricultural exports. Moreover, a policy that allows these nations to manage their debt problems without being forced to compete in tight world agricultural markets would assist all producers.

Research and Development

U.S. producers may find it increasingly difficult to benefit from agricultural research and development for long periods of time, due to the rapid diffusion of agricultural technology. This increases the need for government encouragement of research in agriculture and related biological sciences. Research spending on agriculture is high throughout the world; indeed, the fraction of non-defense research spent on agriculture in Japan, France, and several other nations exceeds that of the United States.¹² Many new technologies, particularly biotechnologies, raise unique problems that require a balance between the benefits of research, development, and fielding of new technologies on the one hand, and the interests of public health and safety on the other. A mechanism for dealing with these issues in a fair and expeditious way would facilitate agricultural research and development.

Given the growing importance of high-value agricultural products, it may also be necessary to increase research in areas not directly related to bulk cereal and soybean production, including technologies for value-added processing.¹³ Technologies that could allow profitable production

¹¹"Upcoming World Trade Talks," op.cit

¹²National Science Board, "Science Indicators 1982" (Washington, DC: U.S. Government Printing Office, 1983).

¹³U.S. Congress, Office of Technology Assessment, *Agricultural Postharvest Technology and Marketing Economics Research*, OTA-TM-F-21 (Washington, DC: U.S. Government Printing Office, April 1983).

of high-value crops in areas with relatively high production costs for bulk commodities would be particularly valuable.

In addition to emphasizing the role of agricultural research in the developed world, it is important to note that despite the transfer of technical innovations, many nations now produce less food per person than they did a generation ago. Per capita grain production in at least 13 African nations is at least **20** percent lower than it was **30** years ago; per capita production in Algeria and Mozambique fell by more than **60** percent during the same period. **Research done by sophisticated agricultural programs has little impact on subsistence farmers working small plots of poor soil.

^{*}U.S. Department of Agriculture, Economic Research Service, *World Indices of Agricultural and Food Production, 1950-1984* (Washington, DC: 1985)

Modification of U.S. Domestic Farm Policies

While there is little doubt that domestic farm programs influence the competitiveness of U.S. products on world markets, there is little agreement about what changes in these programs, if any, could stimulate U.S. exports. There may be an unavoidable tension between the objective of domestic equity—maintaining the profitability of domestic farmers in different production cost categories—and the goal of creating a farm industry that could compete successfully in an international market free of foreign export subsidies. A program designed to achieve both objectives is likely to be expensive.

Of course, most agricultural exporters face similar dilemmas. Domestic programs designed to preserve traditional farm enterprises, both here and abroad, are viewed by other countries as unfair intervention in free trade. Given the many distortions in agricultural trade, there can be no easy resolution of this issue.