

# Livestock, Poultry, and Dairy Around the World

By John E. Riesz, *director, Dairy,  
Livestock and Poultry Division,  
Foreign Agricultural Service*

Livestock and poultry production, international trade; and consumption affect the social, economic, and nutritional standards of the world's population. Generally, as the purchasing power of the world's population increases, so does the per capita consumption of livestock and poultry meat products. The consumption level for each type of meat is affected by the traditional supply and demand situation, particularly in countries where a free market system operates, such as the United States. In addition, government policies often result in artificially high prices through domestic price supports or import barriers, or both, such as those in Japan and the European Community (EC) as well as in periodic shortages because of price controls or subsidized prices, or both, as in most of the centrally controlled economies. Cultural and social customs, where because of tradition, one type of meat product has a higher level of consumer preference, and religious customs that discourage or forbid eating certain meat products (e.g. Moslems and Hebrews do not consume pork, and Hindus restrict bovine slaughter) also

may be factors in determining consumption levels.

**Consumption**

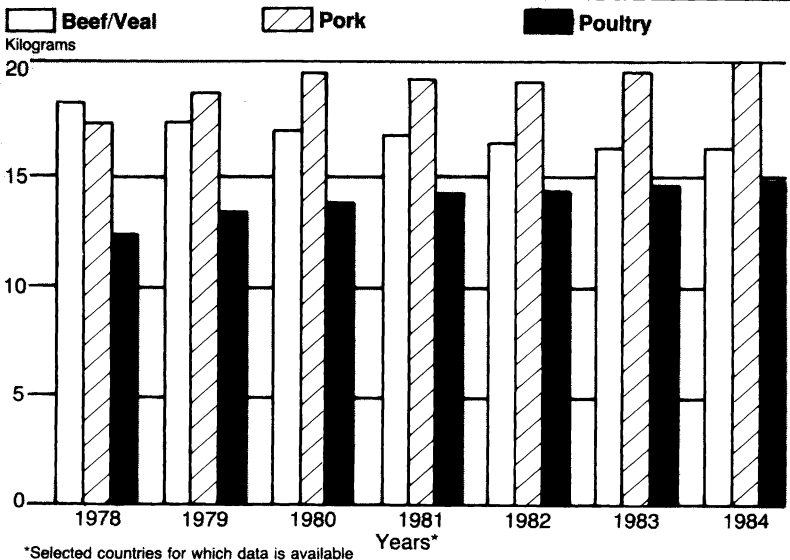
Worldwide per capita consumption of beef and veal, pork, and poultry—has gone up, on the whole, at a relatively modest rate since 1979, despite a downward trend in beef and veal.

**Beef and Veal.** Countries with the highest per capita beef and veal consumption are Argentina, Uruguay, New Zealand, the United States, and Australia. The range in 1984

was from a high of about 169 pounds to a low of 88 pounds. Countries with the lowest consumption rate include India, less than 1.1 pounds, followed by Taiwan, the Philippines, South Korea, Hong Kong, and Japan, where consumption is in the 3.3- to 13.2-pound range.

**Pork.** Per capita pork consumption is highest in selected European countries—Hungary, German Democratic Republic, Czechoslovakia, Belgium, Denmark, and West Germany—ranging from a high of 207

**Global Average Per Capita Meat Consumption, Calendar Years 1978-84**





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pounds down to 103 pounds in 1984. South American countries averaged 15 pounds or less.

**Poultry.** Poultry meat per capita consumption had a much narrower range. In 1984, Israel had the highest rate, more than 88 pounds, followed by Saudi Arabia and the United States, at 77 and 66 pounds, respectively. South Korea appeared to have the lowest level, less than 9 pounds.

## Cattle and Hog Population

**Cattle.** Based on data from 50 countries, cattle numbers have been fairly stable in recent years. During 1981–84,

*The U.S.S.R. has the largest cattle population (excluding India because of religious policies) followed by the United States in second place. (U.S.S.R. cattle-breeding complex.)*

they ranged from 943 to 947 million head and are expected to remain near the midpoint of that range in 1985.

India continues to account for about one-fourth of the total. Because of religious policies that restrict cattle slaughter, however, India contributes less than 1 percent to the world's beef supply. Of the remaining 49 countries, the U.S.S.R., beginning in 1981, had the largest number of animals, followed by the United States, Brazil, the EC, Argen-

tina, Mexico, Colombia, Australia, Turkey, and South Africa.

Excluding India, the top 10 countries account for 60 percent of total cattle population and over 80 percent of total beef and veal production. Production volume of beef and veal, however, does not always correlate with the size of the cattle population, even when there are no religious barriers. For example, in 1984, the United States produced 54 percent more beef and veal from fewer than 114 million head than the U.S.S.R. produced from 120 million cattle. Productivity varied substantially, ranging from a high of 96 metric tons per million head in the United States to a low of 13 tons in Turkey. The others included the EC at 93 tons per million head, followed by the U.S.S.R., 59; Australia, 57; Argentina, 44; Mexico, 39; Colombia, 26; Brazil, 24; and South Africa, 23.

The reasons for the variations in productivity include breed type, climate, age at slaughter, type of feed, management practices such as range vs. confinement, and pest and disease control. Factors contributing to the lack of growth in the size of cattle

herds are related to: 1) climatic conditions in the major producing countries; 2) poor economic conditions resulting in low returns or negative returns to producers; 3) a general decline in per capita consumption of beef in developed countries; 4) economic stagnation in the developing countries; and 5) governmental policies.

**Hogs.** From a recent low of 693 million in 1982, the world's total hog population has shown a slight but steady increase in the 35 countries for which data are available. This trend is projected to continue during 1985 and is expected to reach nearly 708 million. China has, by far, the highest number ranging from 294 million to 300 million head, nearly 43 percent of the recorded total. The EC is second, ranging from 73 to 79 million head, followed by the U.S.S.R., 68-79 million; the United States, 54-64 million; and Brazil, 33-37 million head. In 1984, these five hog-producing countries accounted for nearly 78 percent of the more than 703 million hogs.

Like beef, the productivity rate for pork also varied greatly. China, with the largest hog population, had the lowest productivity rate at 47 tons per



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million head, followed by the U.S.S.R. at 75 and Poland at 80. The highest productivity rates were in Japan, the EC, the United States, and Hungary, which averaged two and one-half to three times China's productivity rate. Some of the same factors that affect beef productivity also apply to pork productivity, e.g., breed types, type of feed, management practices, and pest and disease control.

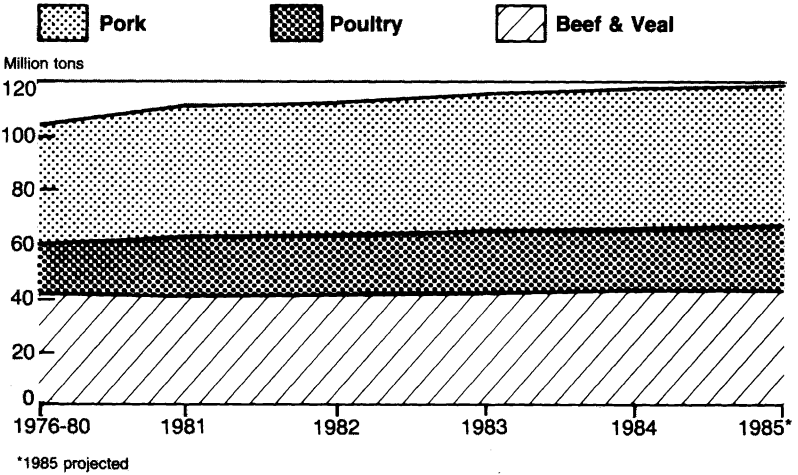
## Production

**Beef and Veal.** From an average of 41.7 million metric tons in 50 countries during 1976-80, production declined

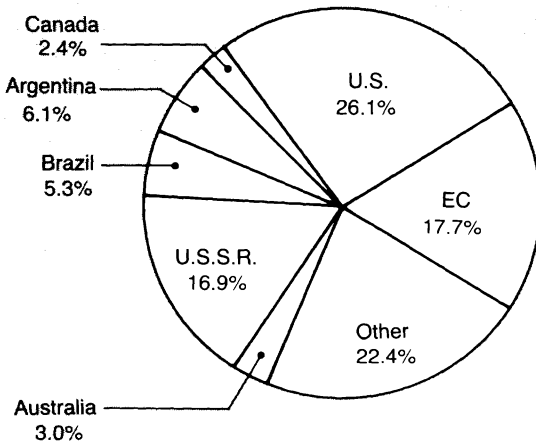
*China has by far the highest number of hogs ranging annually from 294 to 300 million head. (China, communal hog farm.)*

to 40.7 million tons in 1981, then reached a recent peak of over 41.8 million tons in 1984. It is expected to decline slightly in 1985 to 41.7 million tons. In 1984, eight of the top producing countries accounted for nearly 80 percent of the world beef and veal production. The United States was the leading producer with 26 percent, followed by the EC and the U.S.S.R. at 18 and 17 percent, respectively. The others in the top eight with their percentage of production were: Ar-

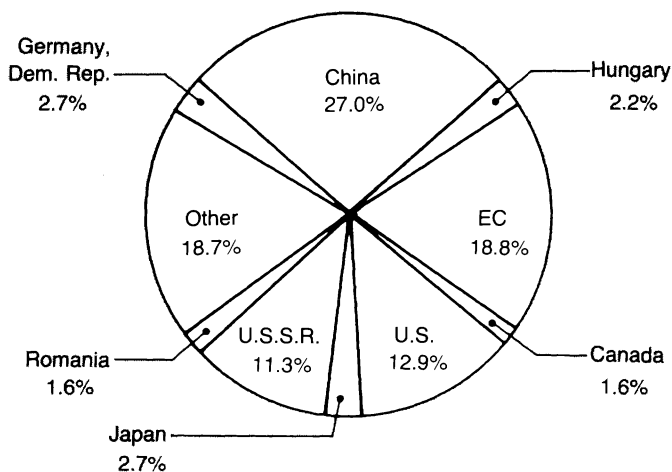
**Global Meat Production, 1976-80 and 1981-85**



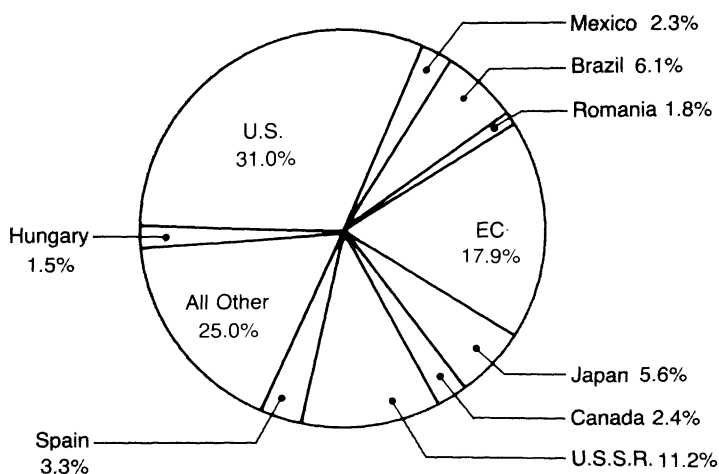
**Global Beef and Veal Production — CY 1984**



**Global Pork Production — CY 1984**



**Global Poultry Meat Production — CY 1984**





Murray Lemmon

gentina (6.1); Brazil (5.3); Australia (3.0); Canada (2.4), and New Zealand (1.1).

**Pork.** The trend has been gradually upward from an annual average of 42.6 million tons during 1976–80 to 52.7 million tons projected for 1985. In 1984, four of the major producing countries accounted for over 70 percent of the world's pork production, which totaled more than 52 million tons. China was the leading producer with 27 percent, followed by the EC, United States, and Soviet Union at 18.8, 12.9, and 11.3 percent, respectively. Other countries that accounted for 2 percent or more were Japan, the German Democratic Republic, Poland, and Hungary.

*Five major producing countries account for 72 percent of the world's poultry meat production. The United States is the leading producer with 31 percent. (Indiana, poultry processing.)*

**Poultry.** Poultry meat production in the 44 countries for which data are available has shown considerable growth. From an average of 18.7 million tons during 1976–80, it has grown 33 percent to a projected 24.9 million tons for 1985. In 1984, five of the major producing countries accounted for nearly 72 percent of the world's poultry meat. The United States was the leading producer with 31 percent followed by the EC, the U.S.S.R., Brazil, and Japan at



17.9, 11.2, 6.1, and 5.6 percent, respectively. Other countries that accounted for 2 percent or more were Spain, Canada, and Mexico.

## **Imports**

**Beef and Veal.** These imports have been declining since the recent high of 2.6 million tons in 1982. Annual imports declined 1 percent in 1983 and 4 percent in 1984 from the previous year with the downward trend continuing in 1985. In 1984, five of the major markets accounted for nearly 80 percent of the imports. The United States was the leading importer, taking one-third of the total, followed by the U.S.S.R., EC, Japan, and Canada with a market share of 20.0, 11.3, 8.4, and 4.7 percent, respectively. The U.S.S.R. showed the largest gains from an annual average of less than 250,000 tons in 1976-80 to the current rate of 500,000 tons. Japan also showed measurable gains. Performance by EC countries showed just the reverse—imports declined from an annual average of nearly 400,000 tons in 1976-80 to less than 300,000 tons currently. Canada and the United States also showed a slight decline.

**Pork.** Total import trade in pork has shown a cyclical pattern. The most recent peak occurred in 1984 and was slightly over 1.1 million tons, more than 22 percent above the 1976-80 annual average. Four of the major markets accounted for over 80 percent of the import trade. The United States was the leading importer, taking over 38 percent, followed by Japan, the EC, and the U.S.S.R. with a market share of 25, 11 and 8 percent, respectively. The United States showed the largest gain, nearly 100 percent, from the 1976-80 period followed by Japan with a 69-percent gain, while the market share by the EC declined nearly 50 percent. The forecast for 1985 projects import trade under 1 million tons.

**Poultry Meat.** Total import trade in poultry meat has remained fairly stable in the 1.1-million-ton range, after a 73-percent rise in 1981 from the 1976-80 annual average of 670,000 tons. In 1984, four of the major markets accounted for nearly 60 percent of the import trade. The U.S.S.R. and Saudi Arabia were the top two markets with nearly a 19-percent market share each, followed by Egypt and Japan at 11.4 and 10.2 percent, respec-

tively. Kuwait, Iraq, and Hong Kong each with about a 7-percent market share also were important markets. All of the major markets showed substantial import gains in 1984 from the 1976–80 annual average (Egypt more than 400 percent followed by Iraq, the U.S.S.R., Japan, and Saudi Arabia with 133, 90, 86, and 63 percent gains, respectively).

**Dairy Products.** Many countries import dairy products but only a few are major factors in the international dairy product market. In 1983 about 4.2 million metric tons of manufactured dairy products were imported worldwide (excluding EC intra-trade). Food aid from

the United States, EC, Australia and a few other nations accounted for 0.4 million tons with more than half the remaining 3.8 million tons bought by Algeria, the U.S.S.R., the EC, United States, Japan, Saudi Arabia, Iran, Mexico, Nigeria, and Venezuela.

In 1983, U.S. imports of manufactured dairy products—mostly cheese and casein—amounted to 205,000 tons with nearly 60 percent of the total under quota. Quota and non-quota, at 130,000 tons, represented 6 percent of U.S. cheese production. Casein, a nonquota milk protein, has not been manufactured in the

**Dairy Products and Their Importers, 1983**

<b>Product</b>	<b>Million Metric Tons</b>	<b>Leading Importers</b>
Cheese and Curd	0.9	U.S., EC, Japan, and Iran
Butter and Anhydrous Milkfat <sup>1</sup>	0.8	U.S.S.R., EC, Algeria, and Iran
Dry Milk Powders	1.7	Mexico, Japan, Venezuela, and Algeria
Condensed and Evaporated Milk	0.7	Algeria, Nigeria, Libya, and Saudi Arabia
Casein	0.1	U.S. and Japan
Total	4.2	Worldwide

<sup>1</sup>Anhydrous milkfat: butter oil and ghee

United States since 1968. With the establishment of the dairy price support program in 1949, it became more economical to import it. Over the years, cas-  
 ein imports have grown rapidly, reaching 72,000 tons in 1983.

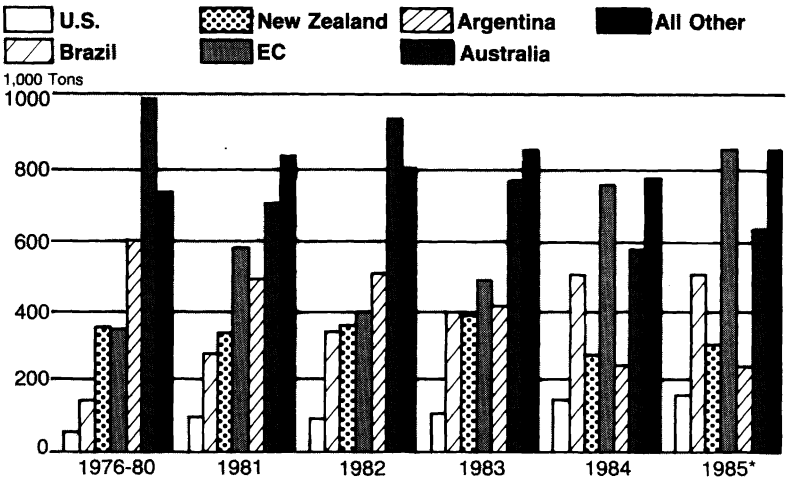
**Exports**

**Beef and Veal.** These exports have shown a slightly cyclical pattern with an upward trend. The most recent peak, in 1982, was slightly over 4.5 million tons, more than 8 percent over the 1976-80 annual average. In 1983 and 1984, exports de-

clined 3 and 4 percent, respectively, from the previous year's level. The 1985 forecast projects an 8-percent increase.

In 1984, six of the major exporters accounted for three-fourths of the exports. Brazil more than tripled and the EC more than doubled their respective percentages of market share in 1984 over the 1976-80 annual average. The United States also more than doubled its market share but at a much lower volume. Most of the gains occurred at the expense of Australia and Argentina.

**Major Exporters of Beef**



\*1985 projected

Their shares declined from 30.6 percent and 18.5 percent, respectively, in 1976–80 to 17.5 percent and 7.5 percent in 1984.

As a result of these shifts, the EC became the No. 1 exporter in 1984 with a market share of 23 percent, a rapid rise from fourth position, at 11 percent, during 1976–80 followed by Australia with a market share of 17.5 percent; Brazil at 15.2 percent; New Zealand at 8.8 percent; Argentina at 7.5 percent; and the United States at 4.6 percent. For 1985, the projections indicate continued expansion for the EC, Australia, New Zealand, and the United States—while Argentina and Brazil are expected to remain near their 1984 performance levels.

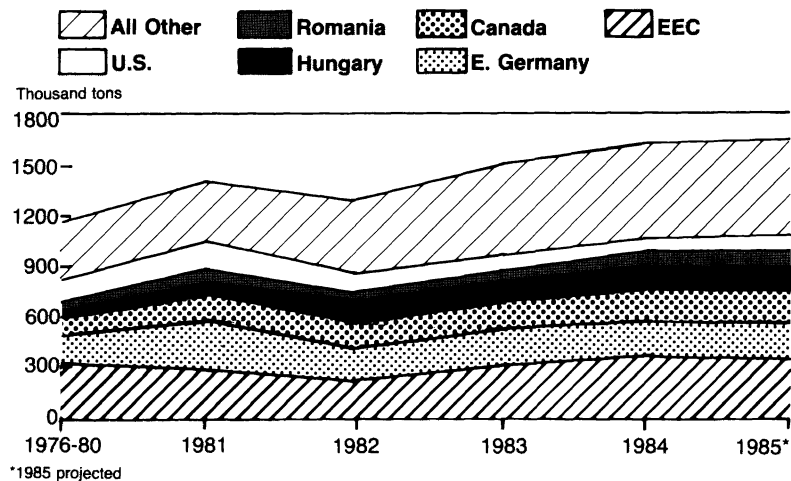
The EC's rise to the No. 1 exporter in 1984 was a phenomenal achievement considering that only a decade earlier it was a net importer of beef and veal. It achieved that position in such a short period because of an overly generous Common Agricultural Policy (CAP) which resulted in: 1) a 22-percent rise in beef and veal production between 1973 and 1984; 2) a near-stagnant consumer demand due to high retail prices; 3) a growing stock-

pile that reached 813,000 tons by the end of 1984, up nearly 120 percent from the 374,000 tons on hand in 1976; and 4) a highly subsidized export policy. EC-subsidized prices undercut world export beef prices by 30 percent.

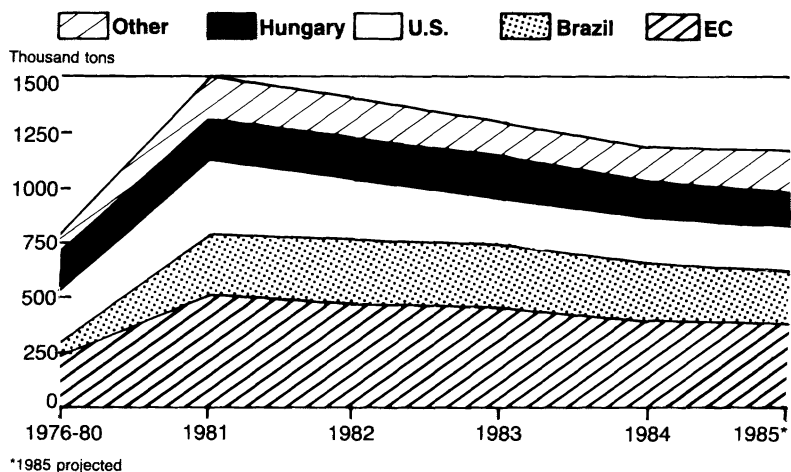
**Pork.** Total export trade in pork increased every year since 1980 except 1982. During 1984, six of the major markets accounted for nearly two-thirds of the export trade. The EC was the leading exporter, with 24 percent, followed by the German Democratic Republic, Canada, Hungary, Romania, and the United States with 12.8, 10.4, 9.2, 4.6, and 4.5 percent, respectively. The German Democratic Republic, Hungary, and Canada showed increases in export volume between the annual 1976–80 percentage and 1984, ranging from 180 to 150 percent, while U.S. exports declined nearly 50 percent.

**Poultry Meat.** Total export trade in poultry meat has declined since the peak in 1981 of nearly 1.5 million tons, which was almost double the 1976–80 annual average of 765,000 tons. One reason for the decline is that several importing countries expanded their domestic production, re-

## Global Exports of Pork, 1976-80 and 1981-85



## Global Exports of Poultry, 1976-80 and 1981-85



ducing reliance on imports. Another factor may have been the downturn in the importing countries' economies and abilities to buy. The EC, as the No. 1 exporter, accounted for around one-third of the export trade each year in the 1980's. Four producers accounted for over 86 percent of the export trade in 1984. Following the EC, which had a market share of one-third, were Brazil, the United States, and Hungary with 21.4, 18.1, and 13.4 percent, respectively. EC-subsidized prices were nearly 20 percent lower than Brazil's subsidized poultry export prices.

**Dairy Products.** In 1983 exports of milk, cream, butter, and cheese were valued at \$11.5 billion—5½ percent of world trade for all agricultural products. Although trade in dairy products is relatively small compared to grains and certain other products, dairy sales are important sources of income for several Western European nations and New Zealand.

The EC is the world's largest dairy product manufacturer and exporter, accounting for about 40 percent of the major dairy products exported. This excludes trade between EC member nations. Oceania sup-

plies another 25 percent (17 percent for New Zealand and 8 percent for Australia); the United States about 10 percent, and Austria, Finland, Sweden, and Switzerland about 9 percent of the world total.

The dairy policies of the EC have a major impact on world trade. The EC's dairy industry supplies its 270 million inhabitants and produces a substantial surplus. Excess milk is processed into exportable products (primarily butter and nonfat dry milk) which are then purchased by the governments of member nations. The EC also provides export refunds (subsidies) to allow its exporters to successfully compete for international dairy markets. This costly process helps the EC remove its surplus milk output.

In April 1984, the EC adopted a 5-year program to reduce surplus milk production. Quotas in milk deliveries were established at 99.6 million tons or about 1 percent more than 1981 deliveries for most EC members. Milk production declined about 2 percent in 1984 from 1983 levels, and another 2 percent drop is projected for 1985. Even with the reduction, the milk surplus is about 15 million tons. Large stocks of butter and nonfat dry milk will

## Dairy Products: Value and Percentage of World Farm Trade, 1983

Country	All Products	Dairy	Dairy as a Percentage of Farm Trade
	Million dollars		Percent
New Zealand	3,452	866	25
Switzerland	991	283	29
Finland	659	169	26
European Community	66,427	8,531	13
Australia	6,949	302	4
United States	37,537	328	1
<b>World</b>	<b>207,537</b>	<b>11,483</b>	<b>5½</b>

SOURCE: Food and Agricultural Organization of the U.N. Values include EC intra-trade and donations.

remain, and the EC will be forced to continue to move these stocks by subsidizing exports.

The EC also controls imports to help protect its dairy industry. Variable levies are imposed on dairy products to offset differences between domestic EC prices and the lower world market prices. A license is required to import milk or milk products from third countries.

These restrictions have effectively closed the EC import market for dairy products except for special arrangements with certain third countries. New Zealand butter is imported by the United Kingdom at a reduced levy under a special quota (89,000 tons in 1985) which is gradually being phased out. There also are several bilateral agreements—

mostly for certain categories of cheeses—with Finland, Norway, Switzerland, Austria, Canada, Australia, New Zealand, and Spain. Total 1983 EC imports of manufactured dairy products from third countries amounted to somewhat over 0.2 million tons or 6 percent of the commercial world trade.

**New Zealand** is one of the few countries that produces milk to sell on the international market. About 80 percent of its 7.6 million tons of milk produced in 1984 was manufactured into dairy products and exported. New Zealand can compete on world dairy markets because of lower production costs. With a climate that encourages year-round grass growth, feed costs are minimal. Capital investment also is low because cattle are kept outside

year-round. Only a milking shed is needed on a typical New Zealand dairy farm.

The New Zealand Government does not provide export subsidies, and only limited assistance to the industry. The New Zealand Dairy Board, a cooperative owned by dairy farmers, is the single centralized buyer of products for export. The Board sells directly to world markets through its international network of agents. Since domestic prices are close to export levels, dairy product exports into New Zealand are limited.

**Australia** produces a milk surplus and exports about 25 percent of its milk as dairy products. Prices in international markets are much lower than the fixed domestic levels. Australia has an intricate equalization scheme to average returns from domestic and export sales to ensure that all dairy farmers share equally in sales of milk for manufacturing.

Separate pools operate for butter, certain cheese, casein, skim milk powder, and whole milk powder. The Government underwrites minimum gross pool returns for each product but has not had to finance the pools since 1979/80. Levies are assessed on products sold do-

mestically (the difference between domestic wholesale prices and assessed export prices) and go into the pools to be distributed to producers. Like New Zealand dairy producers, Australians also benefit from a relatively low cost of producing milk because of the moderate climate.

Although general tariffs, ad valorem duties, and strict sanitary controls are imposed on dairy product imports, there are no quantity restrictions. Australia imports about 20,000 tons of cheese annually, about 20 percent of its cheese consumption, and limited quantities of other dairy products.

**U.S. exports** are largely government donations of non-fat dry milk and a few special government-to-government sales of surplus dairy products. The United States does not compete on the world commercial dairy market because domestic prices are two to three times higher than world levels and exports would require considerable government subsidization. To protect its price support programs from cheaper foreign imports, the United States has import quotas on many dairy products including cow's milk cheeses, nonfat dry milk, and butter.