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Number 9612

## **Long Term Projections for International Agriculture to 2005**

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### Abstract

This report provides long-term projections for international supply, demand, and trade for major agricultural commodities to 2005. It is intended as a companion report to *Long-term Agricultural Projections to 2005* (WAOB-96-1), by providing the foreign country detail supporting those projections. Projections of strong global economic growth, particularly in developing countries, combined with freer foreign markets and the emergence of China as a major bulk commodity market, support strong projected gains in U.S. farm exports. The value of total U.S. agricultural exports is projected to rise from \$54.2 billion in FY 1995 to nearly \$80 billion in 2005. The projections are a conditional scenario, assuming the continuation of 1990 U.S. farm legislation, no shocks, average weather, and specific macroeconomic and foreign country policy assumptions. The projections were completed based on information available as of January 1996 and reflect a composite of model results and analyst judgment.

**Keywords:** Agriculture, commodities, international, projections, supply, use, trade.

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## A Note to Users of USDA International Long-Term Projections

Long-term international projections presented in this report are consistent with the USDA consensus long-run scenario for U.S. agriculture and trade published in *Long-term Agricultural Projections to 2005* (Staff Report WAOB-96-1) released in February 1996. The projections are based on a continuation of 1990 farm legislation, as amended.

This report is the second release of detailed, international long-term projections. The report includes a review of international macroeconomic, population, and policy assumptions, as well as tables and analysis of supply, demand, and trade projections for major foreign countries. Commodities covered are: wheat, rice, corn, coarse grains, soybeans, soybean meal, soybean oil, cotton, beef, pork, and poultry. Long-term international projections are typically made in conjunction with the detailed U.S. sector analysis and the President's Budget analysis. Future international long-term projections reports are planned to be released annually following each year's President's Budget analysis. The next annual international projections report is planned for the winter of 1997.

The scenario presented in this report is not a USDA forecast about the future. Instead, it is a conditional, long run scenario about what would be expected to happen under an extension of 1990 agricultural law, as amended, and specific assumptions about external conditions. Critical assumptions include:

- U.S. and international macroeconomic conditions;
- U.S. agricultural and trade policies;
- Funding for U.S. agricultural export programs;
- Foreign economic, agricultural, and trade policies;
- Growth rates of agricultural productivity, both in the U.S. and abroad; and
- Normal (average) weather.

Changes in any of the assumptions can significantly affect the projections, and actual conditions that emerge will alter the outcomes.

The long-term projections analysis was conducted by interagency committees in USDA and reflects a composite of model results and judgmental analysis. The projections and this report were reviewed and cleared by the Interagency Agricultural Projections Committee, chaired by the World Agricultural Outlook Board (WAOB). The major USDA participants in the trade analysis and review include the WAOB, the Economic Research Service, and the Foreign Agricultural Service.

Historical data through 1995/96 used in this report are current as of April 1996. All projections for 1997/98-2005/06 were completed in February 1996, based on January 1996 USDA data.

Questions regarding these projections may be directed to Rip Landes, ERS, Room 1008, 1301 New York Avenue, N.W., Washington, D.C. 20005-4788, Phone: (202) 501-8549; Internet: mlandes@econ.ag.gov.

## Contributors

### Coordinators

R. Landes

P. Westcott

### Commodity Analysis

T. Capehart (U.S. imports)  
J. Greene (U.S. exports)  
M. Haley (Pork)  
S. MacDonald (Cotton)  
M. Simone (Wheat)

J. Castaneda (Oilseeds)  
R. Gustafson (Beef)  
D. Harvey (Poultry)  
S. Reed (Meats)  
C. Whitton (Rice; coarse grains)

### Africa and Middle East Regional Analysis

A. Dommen (Algeria, Morocco, Algeria)  
M. Missiaen (S. S. Africa)  
F. Taha (Egypt)

M. Kurtzig (Iran, Iraq, Turkey, S. Arabia)  
S. Shapouri (S. S. Africa, S. Africa)

### Asia Regional Analysis

L. Bailey (Australia & N. Zealand)  
F. Crook (China)  
A. Hoque (S. Asia)  
S. Huang (Taiwan)

H. Colby (China)  
J. Dyck (Japan; Korea)  
H. Hsu (Malaysia; Philippines)  
G. Vocke (Indonesia; Thailand)

### Europe Regional Analysis

D. Batkova (E. Europe)  
C. Foster (FSU)  
M. Madell (EU-15)  
D. Sedik (FSU)

N. Cochrane (E. Europe)  
P. Liapis (E. Europe)  
M. Normile (EU-15)  
S. Sheffield (FSU)

### Western Hemisphere Regional Analysis

L. Cesal (Chile)  
D. Plunkett (Mexico)  
E. Tsigas (Brazil)

T. Disney (Argentina)  
J. Stout (Canada)  
J. Wainio (L. America)

### Macroeconomic Projections

T. Baxter  
A. Jerardo

D. Torgerson

### Modeling Support

D. Batkova  
J. Wainio

R. Seeley  
M. Price (U.S.)



# Long Term Projections for International Agriculture to 2005

Commercial Agriculture Division  
Economic Research Service

## Introduction

This publication of long-term projections for international agriculture is a companion to *Long-term Agricultural Projections to 2005* (Staff Report WAOB-96-1) released in February 1996. It is intended to provide users of USDA projections with detailed foreign supply, use, and trade projections that support the outlook for U.S. agriculture and trade. Accordingly, this report includes a review of macroeconomic and major country policy assumptions, along with tables and analysis of the supply, demand and trade projections for major countries for wheat, rice, coarse grain, corn, soybeans and products, cotton, beef, pork, and poultry. These commodities accounted for about 59 percent of U.S. agricultural export value in FY1995.

As is the case with USDA's domestic long-term projections, the non-U.S. projections presented in this report should not be interpreted as forecasts of future events. Rather, they indicate the expected outcomes given specific assumptions on future macroeconomic, climatic, and policy assumptions. All assumptions are designed to provide a neutral backdrop to the projections, making them useful for the analysis of the impacts of alternate assumptions.

Macroeconomic assumptions represent expected future trends in key variables, but exclude any variations due to business cycles. Supply projections assume average weather conditions in each year. Foreign country economic and agricultural policies are assumed to continue to evolve along recent trends based on analyst judgment. U.S. domestic farm policy assumptions are based on the continuation of 1990 legislation, and assumptions on bilateral and multilateral policies affecting agriculture and trade are based on formal agreements as of January 1996. Although new U.S. farm legislation has been enacted since these projections were completed, the long-term outlook for non-U.S. supply, demand, and trade remains largely unchanged by the new U.S. legislation.

The non-U.S. supply, use, and trade projections in this report are the product of model output and analyst judgment. The principal model used in the foreign projections is the multi-region, multi-commodity, Country-Link System maintained and used by regional and commodity trade analysts in the Commercial Agriculture Division of the Economic Research Service. Analyst judgment is provided by ERS regional and commodity analysts, as well as by analysts from the World Agricultural Outlook Board and the Foreign Agricultural Service.

## Summary of Trade Projections

World trade in most major bulk agricultural commodities is projected to expand more rapidly during 1995-2005 than during the 1980s or early 1990s. Trade in grains, particularly coarse grains, is expected to show the most significant recovery and fastest growth among bulk commodities, driven primarily by prospects for relatively strong economic growth in China and other developing countries. Combined trade in soybeans and meal is also expected to strengthen, benefiting from the same expansion of developing country feed-livestock sectors that will push up coarse grain trade. Trade in soybean oil, however, is projected to slow from the early 1990s as its price rises relative to competing oils. Raw cotton demand and trade is projected stronger than in the early 1990s, but slower than the 1980s when there was increased substitution of cotton for synthetic fibers.

U.S. export growth is also expected to strengthen for most bulk commodities. U.S. wheat and coarse grain exports are projected to expand fastest during 1995-2000, with wheat export growth slowing after 2000 due to slower U.S. area growth and anticipated unsubsidized competition from the European Union (EU) as world prices rise. U.S. rice export volume is expected to continue to decline because of little expansion of U.S. rice area and steady increases in U.S. demand. Exports of U.S. soybeans and products are projected to rise faster than in the 1980s, but foreign competition and slowing U.S. acreage gains are likely to constrain export growth relative to competitors. In contrast, U.S. raw cotton exports are projected to strengthen throughout the 1995-2005 period, benefiting from rising demand and reduced competition.

Projected U.S. crop market shares generally follow historical trends. U.S. wheat is projected to earn a larger share of world trade during 1995-2002, but show a decline roughly consistent with historical trends after 2002 because of anticipated unsubsidized EU competition. Reduced competition is expected to lead to a continued rise in the U.S. share of world coarse grain and cotton trade, although the emergence of nontraditional competitors could limit U.S. gains in coarse grains after 2000. U.S. rice market share, however, is projected to decline as exportable surpluses dwindle. U.S. market shares in soybeans and products are also projected to continue to decline as a result of competition from South American producers, as well as anticipated U.S. acreage constraints.

The generally favorable world macroeconomic outlook is expected to spur growth in meat demand and trade during 1995-2005. In addition, less restrictive trade barriers will create new opportunities for exporters. In particular, several countries in the Pacific Rim, Central and South America, and Middle East are expected to expand meat consumption.

Recent declines in meat consumption in the Former Soviet Union (FSU) and parts of Central and Eastern Europe (CEE) are projected to slow and turn upward by the end of the forecast period. Increased domestic meat production is also expected in these regions, with some impact on U.S. meat exports. U.S. exports to the FSU of both red meat and poultry products grew sharply in 1995 due to reduced livestock inventories, declining production, and the competitive price of imports. However, in the longer term, growth in import demand is expected to be limited in both the FSU and CEE, with the CEE also likely to increase exports of beef and pork.

Table 1. Summary of U.S. and world export growth

Years	Wheat	Rice	Coarse grains	Soybeans	Soybean meal	Soybean oil	Cotton
World Trade Growth 2/							
1960 to 1970 3/	1.1	2.9	4.9	11.4	14.4	11.3	0.8
1970 to 1980	4.7	4.9	8.7	8.2	11.7	12.8	1.2
1980 to 1990	-0.3	2.0	-1.0	-0.4	2.9	0.5	2.5
1990 to 2000	0.0	1.8	0.9	2.4	2.2	3.3	0.6
1995 to 2000	2.3	0.8	3.3	2.1	1.3	0.6	1.9
2000 to 2005	2.2	2.4	2.8	1.6	2.3	1.4	1.8
1995 to 2005	2.2	1.9	3.2	1.9	1.8	1.1	1.8
U.S. Export Growth							
1960 to 1970 3/	-0.8	6.5	3.8	12.6	13.0	5.3	-5.4
1970 to 1980	6.4	6.5	12.7	7.2	5.8	5.4	6.1
1980 to 1990	-3.3	-0.7	-0.7	-3.7	-1.8	-5.5	2.3
1990 to 2000	1.8	2.3	3.9	2.5	-0.7	5.6	1.2
1995 to 2000	4.3	-0.3	3.8	0.0	-0.2	-0.8	1.5
2000 to 2005	1.2	-0.9	2.4	1.5	1.8	2.1	2.5
1995 to 2005	2.9	-0.6	3.3	1.0	1.2	0.7	2.0
U.S. Share of World Trade, Average 2/							
1960 to 1970 3/	37.6	18.6	50.0	90.6	65.6	66.6	18.3
1970 to 1980	43.0	21.3	59.4	82.6	43.5	37.5	19.8
1980 to 1990	37.3	20.5	59.4	72.6	23.7	19.3	21.5
1990 to 2000	33.2	16.6	62.3	66.1	17.6	15.9	25.6
1995 to 2000	34.4	16.9	67.5	66.5	16.1	16.4	25.6
2000 to 2005	35.5	14.8	68.0	63.6	15.7	16.0	25.8
1995 to 2005	34.8	15.8	67.7	65.1	15.9	16.2	25.8

Note: Growth rates are log-linear regression rates over time series indicated.

1/ Years refer to the first year of the commodity marketing year.

2/ Trade and trade shares include intra-FSU trade for periods starting in 1990 and later; intra-FSU trade for cotton also is included in the 1980 to 1990 and the 1970 to 1980 periods.

3/ Data for soybeans, soybean meal, and soybean oil begin in 1964.

The value of U.S. meat exports is projected to grow 5.6 percent annually during 1995-2005. Projected growth is slower than the rapid ascent of the past several years, in part because the largest recent gains in meat export volume have been in lower valued products. Thus, despite likely continued gains in export volume, the increasing share of lower valued meat products may slow growth in export revenue.

### U.S. Agricultural Trade Projections

The value of total U.S. agricultural exports is projected to rise substantially, approaching \$80 billion by 2005. U.S. agricultural import values are also projected higher, but with exports increasing more, net agricultural export value is expected to be up more than \$15 billion over the next 10 years. High-value products gain a larger share of total agricultural exports, rising from 57 percent in 1995 to 64 percent in 2005.

Table 2. Summary of U.S. agricultural trade projections, fiscal years

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
-----												
Agricultural exports:	\$ billion											
Animals and products	8.7	10.6	12.1	12.4	13.4	14.2	14.9	15.7	16.3	17.0	17.7	18.3
Grains, feeds, and products	13.1	17.3	19.3	17.2	17.4	18.3	19.3	20.4	21.4	22.1	22.7	23.0
Oilseeds and products	6.9	9.0	9.9	9.6	9.4	9.5	9.8	10.2	10.5	10.9	11.3	11.7
Horticultural products	8.4	9.4	10.3	10.4	11.1	11.8	12.5	13.3	14.0	14.8	15.6	16.4
Tobacco, unmanufactured	1.3	1.3	1.3	1.3	1.2	1.2	1.2	1.1	1.1	1.1	1.0	1.0
Cotton and linters	2.3	3.5	2.6	2.5	2.6	2.7	2.7	2.8	2.9	3.1	3.2	3.3
Other exports	2.8	3.0	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	5.0	5.2
Total agricultural exports	43.4	54.2	58.6	56.8	58.7	61.6	64.5	67.8	70.8	73.7	76.4	78.8
Bulk commodities exports	17.2	23.5	25.2	22.5	22.3	22.8	23.8	25.0	26.1	26.9	27.7	28.1
High-value product exports	26.2	30.7	33.4	34.3	36.4	38.8	40.7	42.8	44.7	46.8	48.7	50.7
Agricultural imports:												
Animals and products	5.8	5.9	5.4	5.6	6.1	6.2	6.3	6.4	6.5	6.5	6.6	6.7
Grains, feeds, and products	2.3	2.3	2.4	2.5	2.5	2.7	2.8	3.0	3.1	3.1	3.0	3.0
Oilseeds and products	1.5	1.8	1.8	1.9	2.1	2.2	2.4	2.5	2.7	2.8	2.9	3.1
Horticultural products	9.1	9.9	10.1	10.4	10.8	11.3	11.7	12.2	12.7	13.2	13.7	14.2
Tobacco, unmanufactured	0.9	0.6	0.5	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8
Sugar	1.1	1.2	1.3	1.2	1.2	1.3	1.3	1.4	1.4	1.5	1.5	1.6
Other imports	5.7	7.9	7.6	7.5	7.4	7.7	7.9	8.2	8.3	8.8	9.0	9.2
Total agricultural imports	26.4	29.5	29.1	29.6	30.8	32.0	33.0	34.2	35.3	36.6	37.6	38.6
Net agricultural trade balance	17.1	24.7	29.5	27.2	27.9	29.6	31.5	33.5	35.5	37.1	38.8	40.1

Note: Other exports include essential oils, seeds, sugar and tropical products, and beverages and preparations. Bulk commodities include wheat, rice, feed grains, soybeans, cotton, and tobacco. High-value products (total exports less bulk commodities) include semi-processed and processed grains and oilseeds, animals and products, horticultural products, and sugar and tropical products. Other imports include coffee, cocoa, rubber, seeds, beverages except beer and wine, and miscellaneous commodities.

U.S. exports are projected to rise 3.6 percent annually from 1995 to 2000, with growth accelerating to 4.1 percent through 2005. The high-value product (HVP) share of exports dipped from 60 percent in 1994 to 57 percent in 1995 and 1996 because of strong bulk exports. The HVP share is expected to recover to about 60 percent in 1997 and then increase steadily thereafter. The value of bulk exports are expected to decline from the 1996 high through 1998. Bulk exports are then expected to rise, but not return to the 1995 level until after 2001. Bulk commodity export growth is projected to improve to 3.4 percent annually during 2000-2005.

U.S. imports are expected to rise 2.3 percent annually from 1995 to 2000, and 3.2 percent from 2000 to 2005. Horticultural products account for more than a third of imports, and are expected to increase about 4 percent annually through 2005. Oilseed imports are projected to rise the fastest, at nearly 6 percent annually. Animal product import growth is projected to moderate to about 1.2 percent annually.

## **Major Uncertainties**

The trade projections are particularly sensitive to assumptions regarding uncertain future supply, demand, and policy developments in China, the EU, and the FSU. The projections for the huge China market are a major area of uncertainty because rapid growth and reform have greatly complicated assessment of future policies and technical supply and demand coefficients. The EU trade projections depend on assumptions regarding the nature of policy adjustments that may be undertaken to comply with the Uruguay Round Agreement, and on future supply response. And, although the FSU is projected to have a reduced role in world grain trade, it is inherently difficult to accurately assess future policies and economic relationships in this large transition economy.

## **Macroeconomic and Population Assumptions**

Estimates for macroeconomic variables through 1996 were the most likely short-term forecasts of economic growth, inflation, and financial market behavior at the time the macroeconomic baseline projections were prepared in October 1995. The projection for 1997 is a transition between the short-term forecast and the long-term projections.

The long-term baseline projections for the macroeconomy for 1998-2005 reflect trend assumptions for some indicators combined with standard relationships between major macroeconomic variables. The absence of business cycles beyond the first or second year of the forecast reflects a conviction that business cycles, as well as shocks to the macroeconomy like large oil price increases, cannot be accurately forecast. This macroeconomic setting avoids distorting the long-term baseline for agriculture that would result from introducing unpredictable swings in macroeconomic variables.

### **U.S. Macroeconomic Assumptions**

In the near term, the U.S. economy is assumed to be in the process of a soft landing from the unsustainable 4.1 percent GDP growth of 1994. GDP growth slowed to about 3.0 percent in 1995, and is expected to slow further to 2 to 2.5 percent in 1996. For 1996, interest rates and inflation are projected to remain relatively low and stable. Strong export growth will continue because of a modest recovery for some of our trading partners such as Canada and a continued weak dollar. Consumer spending growth will be slower because of slower growth in disposable income and employment and a higher savings rate as consumers retrench after the large increase of consumer debt in 1995. Slower spending growth will slow import growth, making for a moderate improvement in the trade deficit. A decline in inventory buildups, a slowdown in the growth in business fixed investment, and slower growth of Government spending will also contribute to smaller GDP growth. The CPI should rise at about the same rate as in 1995.

In the longer term, the U.S. macroeconomic projections show a recovery from the below-trend growth of the late 1980s and early 1990s. From 1998 to 2005, the economy is expected to grow about 2.8 percent annually, consistent with the productivity and labor

force growth assumptions. Growth rates for real compensation and disposable income fall somewhat below recent history as real wages rise less rapidly than productivity.

Major assumptions underlying the long-term U.S. macroeconomic projections are:

- Labor productivity growth will be in the 1.5 to 1.6 percent range from 1998 to 2005. This represents a moderate improvement in productivity over the previous 15 years, and is consistent with an increasing share of GDP devoted to investment as the budget deficit declines and interest rates drop below what they would be without deficit reduction. Further, it is consistent with the demographic trend of an aging work force and modestly higher savings rates.
- The labor force is assumed to grow about 1.2 percent per year, which follows Bureau of Labor Statistics projections.
- Fiscal policy is assumed to be very tight, conforming to the broad outlines of a 7-year path to deficit reduction. Even with larger local Government spending picking up some of the Federal cuts, Government spending averages only about 0.5 percent growth in real terms from 1999 through 2005. As a result, by 2005 real government purchases of goods and services slip from second to third place among the components of GDP, behind consumption and investment.
- The Federal Reserve is assumed to continue its commitment to containing inflation. Money supply growth averages 3.9 percent annually between 1996 and 2005, reflecting tight monetary policy and trend GDP growth.
- The OECD, minus the United States, will grow at about 2.5 percent.
- Lower interest rate differentials from U.S. budget deficit reduction has the dollar remaining undervalued relative to a purchasing power parity rate until the end of the decade, but the gap gradually closes. Beyond 1999, the real trade-weighted exchange value of the dollar is assumed to be essentially constant. There are no imbalances in the terms of trade that would tend to change the value of the dollar. Inflation in the United States is somewhat above the rates expected in Canada and Japan, but very similar to those of the EU-4 countries (Germany, France, Italy, and the United Kingdom).
- Real international crude oil prices are projected to rise at about 2.2-percent per year from 1999 to 2005. This is consistent with Department of Energy projections.

#### **International Macroeconomic Assumptions: Developed Countries**

World economic growth is projected to average about 3 percent annually over the next decade, well above growth during the first half of the 1990s. While there are regional differences, and some areas of concern (near-term, Japan and Latin America; longer term, Africa), the overall outlook is positive.

**Europe.** Up to the middle years of the outlook, Germany, France, Italy, the United Kingdom (U.K.), along with the other countries of Western Europe are projected to have relatively slow economic growth, but no recession. With modest growth, unemployment is likely to remain at about 10 percent of the labor force, keeping wage pressures modest and inflation low. Low inflation, currently below 2 percent, provides Germany with the latitude to lower interest rates if needed. Such an action by the Bundesbank would take the pressure off other European interest rates, which are above what domestic considerations require because of monetary union commitments.

By 2000, European economic growth is projected at 2.6 to 2.8 percent, while inflation stays around 3.0 to 3.5 percent. Unemployment remains in double digits in many countries, holding down wage growth and consumption spending. Additionally, tax increases to narrow fiscal deficits will further dampen consumption growth. Investment will be the strength of many European economies, but will be below what is found in a normal recovery because of high real interest rates. In the final years of the projection period, these factors do not change significantly and European growth will slow somewhat, averaging 2.6 percent.

In the longer term, progress on monetary union is critical to the macroeconomic outlook. The projections assume that the EU-15 implements monetary union. This means that governments pursue fiscal policies that move government spending and tax policies in the direction of satisfying the Maastricht requirement limiting the budget deficit to 3 percent of GDP. Monetary policy will focus on stabilizing currency values against the Mark. With these assumptions, the ECU is expected to depreciate slightly against the dollar during the first half of the projection period, tending to make EU commodities somewhat more competitive in world markets.

**Japan.** Japan's economy is weak, with 1995 the fourth consecutive year of near or below 1.0-percent growth. The highly valued yen has led to declining net trade, which has held down economic growth. Domestic demand, particularly private consumption and, to a lesser degree residential investment, has been very weak or declining. The uncertainties rising out of what may be a growing bank crisis have reinforced the residue of negative consumer sentiments left from a lingering recession. The result has been an increase in personal savings. Additionally, unemployment remains historically high, with companies yet to expand hiring. A third major factor is the banking crisis, which has curtailed lending. These factors will restrain Japan's economy, limiting growth to a weak 1.5 to 2.0 percent annually through the end of the decade.

Although fiscal policy has recently been stimulatory, the government over the long term will have to show restraint as it seeks to lower the recession era deficit. Low inflation expectations, however, will allow long-term monetary policy to be accommodating, with real interest rates in the 1- to 2-percent range. Overall, fiscal and monetary policy will be slightly stimulatory, but Japanese trend growth will still be lower than previously seen. The expectation is for trend growth to be around 2 percent beyond 2000, in part because of Japan's aging population. Investment growth, too, will be slower than previously seen. Low capacity utilization, a leftover from the investment boom of the late 1980s and the early 1990s, higher costs of investment, and lower corporate profits are the main reasons.

Also, high unit labor costs, partly the result of lifetime employment policies, will push some investment offshore. With an inflation outlook that is low relative to other major economies, the yen will continue strong, providing another growth-dampening factor. The strong yen will mean that import growth will outstrip export growth by 1 percent annually in the later years of the projections.

**Canada.** Although the Canadian economy is closely tied to that of the United States, distinctly Canadian factors will dominate its outlook for the near- and mid-term. Canada will maintain a very restrained fiscal stance, brought about by the high level of debt that is the residue from the 1990-92 recession. This suggests that government spending will be decreasing for the next several years and will grow only modestly thereafter. This adds to the short run slowdown now underway. High debt levels and the accompanying burdensome interest payments also mean that real interest rates will remain high. Longer term, however, monetary policy will be able to partially counterbalance fiscal restraints as Canadian inflation remains low and U.S. interest rates decline. Additionally, uncertainty about the Canadian dollar should be somewhat reduced by the failure of the Quebec independence vote, indicating less need to defend the currency and allowing more room for lower interest rates.

Over the next year, Canada's economy is expected to grow at about 2.5 percent as continued high unemployment slows consumption growth and limits wage gains. High real interest rates also slow investment. As these conditions improve, and with a strong net-trade performance, the pace of economic activity should pick up to nearly 4 percent in the medium term.

Over the longer term, NAFTA and declining interest rates should stimulate investment spending and exports. Continued undervaluation of the Canadian dollar should also support export expansion. Unemployment and wage growth will improve as productive capacity and capacity utilization rise. With the steady improvement in Canada's economic environment, growth is expected to average 3.3 percent for the later years of the forecast.

#### **International Macroeconomic Assumptions: Transition Economies**

**Former Soviet Union.** Present policies focusing on market reform are expected to continue, but the transition to a market economy is likely to be slow. Positive, but slow, rates of economic growth are expected to occur in the FSU as a whole by 1998, even though recovery is expected to occur sooner in Russia. Annual growth in the FSU as a whole is expected to average about 3.4 percent through 2005. Inflation is projected to stabilize around 50 percent per year beginning in 1998. The real exchange rate is assumed to be relatively stable over the projection period, slight depreciation of the ruble early in the period followed by a slight appreciation after positive economic growth is established.

**Central and East Europe.** For the CEE's taken together, real GDP growth is projected at 4.3 percent in 1997, declining gradually to average 3.0 percent annually during 2000-2005. Growth is projected slightly higher in Poland, Slovakia, and the Czech Republic, but the outlook for Bulgaria, Romania, and the former Yugoslav Republics is less optimistic. Bulgaria has been held back by continuing inflation, poor harvests, difficulty attracting



Table 3. Foreign real GDP growth assumptions

Region/country	1994	1995	1996	1997	1998	1999	2000	Average			
								1990-95	1996-2000	2001-05	
	Percent change										
World	2.8	2.6	2.7	3.1	3.2	3.2	3.3	1.9	3.1	3.2	
less U.S.	2.2	2.5	2.9	3.3	3.3	3.4	3.5	1.7	3.3	3.3	
Developed Economies	2.8	2.4	2.3	2.5	2.5	2.6	2.6	1.8	2.5	2.5	
less U.S.	2.0	2.0	2.3	2.5	2.3	2.4	2.5	1.6	2.4	2.4	
United States	4.1	3.0	2.3	2.5	2.8	2.8	2.8	2.2	2.6	2.8	
Canada	4.1	2.5	2.2	3.8	3.8	3.8	3.6	1.2	3.4	3.3	
Japan	0.5	0.4	1.6	2.2	1.4	1.5	1.9	1.9	1.7	2.0	
Australia	5.4	3.4	2.8	2.9	2.2	2.7	2.9	2.6	2.7	2.8	
New Zealand	3.8	4.5	2.9	3.0	2.2	2.2	2.6	2.5	2.6	2.4	
European Union	2.6	2.7	2.8	2.8	2.8	2.8	2.6	2.1	2.8	2.6	
France	2.4	2.9	2.7	2.3	2.4	3.0	2.8	1.4	2.6	2.8	
Germany	2.4	2.7	2.5	2.6	2.8	2.9	3.0	4.2	2.8	2.6	
Italy	2.2	2.8	2.5	2.6	2.5	2.6	2.6	1.4	2.6	2.4	
Spain	2.0	3.0	3.1	2.8	2.9	2.8	3.1	1.8	2.9	2.8	
United Kingdom	3.8	2.7	2.6	2.3	2.6	2.8	2.6	1.1	2.6	2.5	
Central Europe	3.3	3.9	4.6	5.1	4.7	4.4	4.3	-2.6	4.6	4.2	
Czech Republic	2.6	3.5	4.7	5.6	4.8	4.1	3.7	-3.3	4.6	4.5	
Hungary	2.0	1.6	2.5	3.6	3.8	3.8	3.7	-2.7	3.5	3.7	
Poland	5.0	4.9	4.9	5.3	4.7	4.4	4.1	-0.4	4.7	3.6	
Romania	3.4	4.7	5.3	5.3	5.2	5.3	5.6	-4.1	5.3	5.0	
Former Soviet Union	-16.3	-6.3	-2.9	0.0	1.9	2.7	2.8	-11.1	0.9	3.4	
Developing Countries	5.4	4.5	4.9	5.5	5.8	5.6	5.6	4.7	5.5	5.4	
Asia	7.9	7.5	6.8	6.9	6.8	6.7	6.6	7.2	6.8	6.3	
East & Southeast Asia	8.9	8.2	7.4	7.3	7.1	7.0	6.9	8.1	7.2	6.5	
China	11.8	9.8	8.9	9.2	8.9	8.6	8.4	10.4	8.8	7.5	
Indonesia	6.8	6.6	6.2	6.7	6.8	6.7	6.8	6.7	6.6	6.8	
Korea	8.2	8.5	6.8	6.2	6.1	6.1	5.9	7.7	6.2	5.6	
Malaysia	8.7	8.5	8.0	7.6	7.6	7.6	7.6	8.6	7.7	7.5	
Burma	6.4	6.0	6.0	6.0	6.0	6.0	6.0	4.9	6.0	5.8	
Philippines	5.3	5.0	5.5	4.1	4.2	4.2	4.3	2.5	4.5	4.3	
Taiwan	6.2	6.7	6.4	5.8	5.8	5.8	5.7	6.3	5.9	5.6	
Thailand	8.5	8.2	7.2	7.1	6.9	6.7	6.6	8.6	6.9	6.3	
Vietnam	8.5	8.0	6.5	6.5	6.5	6.5	6.5	8.7	6.5	6.5	
South Asia	4.9	5.3	4.9	5.7	5.6	5.6	5.5	4.1	5.5	5.5	
India	5.1	5.5	5.1	5.8	5.7	5.7	5.6	4.0	5.6	5.5	
Pakistan	4.0	4.0	4.1	5.8	5.8	5.8	5.8	4.6	5.5	5.8	
Bangladesh	4.5	4.2	4.2	4.3	4.3	4.3	4.3	4.6	4.3	4.3	
Latin America	4.1	0.9	2.9	4.0	5.2	4.7	4.7	2.5	4.3	4.8	
C. America & Caribbean	2.4	2.6	2.8	3.0	3.1	3.2	3.3	2.7	3.1	3.3	
Mexico	3.5	-5.6	2.4	5.4	5.7	5.8	5.8	1.5	5.0	5.5	
South America	4.5	2.4	3.0	3.9	5.4	4.7	4.7	2.7	4.3	4.8	
Argentina	6.0	1.0	3.2	4.5	4.6	4.7	4.7	5.1	4.4	5.1	
Brazil	4.9	2.6	3.3	3.4	6.3	4.8	4.9	1.3	4.5	5.1	
Chile	4.2	5.1	5.1	5.7	5.5	5.6	5.8	6.2	5.5	5.4	
Venezuela	-3.3	-1.7	-2.4	2.4	3.4	3.1	3.5	2.9	2.0	3.4	
Middle East	1.1	2.2	2.6	4.6	4.5	4.4	4.2	3.2	4.1	4.4	
Iran	0.7	1.8	2.6	2.9	3.1	3.4	3.7	5.4	3.1	4.5	
Iraq	4.9	5.5	6.0	30.0	20.0	15.0	10.0	-11.9	16.2	7.0	
Israel	4.9	3.9	3.7	4.7	5.7	5.6	5.3	5.7	5.0	4.5	
Saudi Arabia	-1.7	1.1	1.3	3.6	3.6	3.5	3.7	3.9	3.1	4.1	
Turkey	-4.8	0.9	4.8	4.8	4.7	4.7	4.6	3.3	4.7	4.6	
Mid-East & North Africa	1.5	1.9	2.7	4.3	4.3	4.3	4.1	2.6	3.9	4.1	
Africa	1.9	1.8	2.6	2.8	3.2	3.4	3.3	1.2	3.1	3.3	
North Africa	2.4	1.2	3.0	3.7	4.0	4.1	3.9	1.4	3.7	3.7	
Algeria	-0.3	1.8	2.1	2.8	2.8	2.8	2.8	-0.1	2.7	2.8	
Egypt	1.9	2.5	3.3	4.9	5.9	5.9	5.0	1.6	5.0	4.2	
Morocco	10.8	-4.2	4.6	4.8	5.0	5.1	5.1	1.9	4.9	5.1	
Tunisia	4.5	3.0	5.2	5.6	5.6	5.6	5.6	4.8	5.5	5.6	
Sub-Saharan Africa	1.6	2.2	2.3	2.3	2.7	3.0	3.0	1.1	2.7	3.0	
Nigeria	1.9	1.4	2.1	2.4	2.3	2.1	2.1	3.5	2.2	2.4	
South Africa	1.6	2.6	2.4	3.4	3.3	3.3	3.3	0.3	3.1	3.3	

Sources: DRI; Project LINK; Economic Research Service, U.S. Dept. of Agriculture.

Note: Macroeconomic data and assumptions are based on information available as of January 1996.

foreign investment, and slowness of privatization. Romania's impressive growth of 1995 could be short lived if the National Bank succumbs to recent pressures to relax its tight money policies. With the assumption of continued peace in the Former Yugoslav Republics, a resumption of positive growth is expected in Serbia and Croatia.

Inflation has been falling in most of the region and, for the region as a whole, is projected to fall to near single-digit rates by 2005. Exchange rates in most of the countries are expected to appreciate slowly. The exception is Poland, where a slow but steady real depreciation of the zloty is projected because of continuing double-digit inflation.

The improved macroeconomic climate in the region is expected to boost consumer demand for farm products, particularly livestock products, strengthening farm prices and stimulating increased production. Falling interest rates, and lower inflation in the price of farm inputs may also help improve the terms of trade for agriculture.

### **International Macroeconomic Assumptions: Developing Countries**

As markets and competitors for U.S. agricultural exports, the growth of developing countries can significantly influence global agricultural trade. Led by Asia, aggregate growth over the next 10 years is projected to average about 5.5 percent, somewhat faster growth than over the past decade. While Asian growth may slow somewhat, growth prospects in other developing regions are improving. Freer markets, characterized by less price control and fewer trade barriers, more stringent fiscal and monetary policies, and the phaseout of artificially controlled exchange rates, are assumed for many of these economies.

**Mexico.** Despite the deep recession in 1995 and a protracted recovery, Mexico is expected to resume its previous path toward potential growth of about 5.8 percent per year by the end of the decade. This optimistic mid-term outlook presumes the return to the full employment growth and to the consumption and investment patterns that held before the December 1994 peso devaluation. This means a gradual appreciation of the real exchange rate, moderate inflation rates of less than 10 percent, and domestic investment growing at more than twice the pace of private consumption. NAFTA will generate or enhance the chances for expanded trade volume, the return of previous levels of foreign direct investment, and restored purchasing power in Mexico. All of these are part of the scenario adopted here.

Beyond 2000, the projections assume sustaining previous gains, with exports of goods and services growing slightly faster than imports. The terms of trade for the projections are favorable, although the current account balance remains in deficit, reflecting the continued importation of foreign financial capital. The gradual appreciation of the real exchange rate (in pesos per dollar) means that the nominal pace of depreciation will not keep up with the domestic rate of inflation. This is largely the reason for the slowly increasing trade deficit through the forecast period. Thus, since the United States is Mexico's largest trading partner, Mexico will likely continue to run a trade deficit with the United States.

Realizing this scenario will require appropriate policies. The economy's basic problem is a low savings rate. The previous dependence on foreign capital left the peso and interest rates vulnerable and volatile. Growth and increasing productive capacity will be difficult in this situation because the government will have to run a budget surplus to help raise national savings, and keep monetary policy tight to reduce domestic demand and to discourage an outflow of funds. Only prudent macroeconomic policies can keep the peso close to equilibrium, avoiding sharp depreciations which would further hamper growth since they push up the cost of servicing foreign debts and raise capital import costs.

**China.** The Chinese economy will maintain the strongest growth in Asia over the next 10 years, averaging almost 9 percent per year in the next 5 years and 7.5 percent per year in 2001-2005. With population growth slowing to an average 0.8 percent annually, per capita GDP growth will be at least 6.5 percent per year. Inflation will remain in double digits throughout the projection period and, with the nominal exchange rate depreciating at a slower pace, the real exchange rate should appreciate. Trade volume is likely to grow even more as the yuan becomes convertible before the end of the century and as past direct investments slowly saturate internal demand and graduate toward export orientation. Trade competition with its fast-developing neighbors also implies a broadening of industrial technology and lesser dependence on labor-intensive industries.

**East and Southeast Asia.** Although growth in South Korea and Taiwan during 1995-2005 is expected to be somewhat slower than during the last 10 years, these and neighboring Southeast Asian economies are expected to maintain relatively high rates of income growth during 1995-2005. The economies of this region are more integrated by intra-regional trade and investment than those of other developing countries; they are also aided by large direct investments from Japan. Industrial development is expected to remain rapid, and, in some, the level of development will begin to approach that of the developed economies. The region's trade competitiveness is maintained as higher-technology products are exported by the newly industrializing economies and as lower-value production moves to China and Southeast Asia. Trade liberalization through ASEAN and APEC has replaced nontariff import barriers and undervalued exchange rates in gaining export advantages.

**South Asia.** While projected growth is not as impressive as that for East and Southeast Asia, output expansion will nonetheless result in overall per capita gains of about 3.6 percent per year through the next decade. Greater trade and investment inflows will fuel the region's growth, but because of the region's sizable population, internal demand will sustain healthy economic activity, much like China's growth pattern. While India's growth is strong, double-digit growth like that in China is unlikely. Nevertheless, given the size of potential market demand among India's neighbors as well as proximity to the oil producers of the Middle East, the outlook for India's export growth is bright.

**Africa and the Middle East.** Countries in this region are projected to start achieving positive per capita GDP growth, after contracting in the first half of the 1990s. Increases in the real price of crude oil will help in the region's advance. An increasing flow of trade and investment stemming from integration agreements with the EU may also be an impetus for growth. However, per capita real GDP gains in Sub-Saharan Africa will be close to

zero. The two largest economies in Sub-Saharan Africa, Nigeria and South Africa, will have contrasting per capita growth paths--negative and positive, respectively.

**South America.** Strong growth is projected for the area, led by the MERCOSUR core countries of Brazil and Argentina. Freer trade will further integrate these countries' economies as they gear up for eventual hemispheric free trade with NAFTA countries by 2005. Behind the strong growth is reduced debt, more market-oriented economic policies, growing intra-regional trade, and heavier foreign direct investment. The past environment of overvalued currencies, large trade deficits, fiscal deficits, and low internal investment due to low savings is gone in the outlook. New macroeconomic policies now permit lower inflation and more competitive industries as import barriers fall.

### **Population Growth Assumptions**

The domestic and foreign population assumptions are based on unpublished projections made available to ERS by the U.S. Department of Commerce, Bureau of the Census. These projections are updated every 2 years, with the most current update completed in 1995. The population growth rates for major countries and regions are summarized in table 4. They show slowing rates of population growth in virtually all countries and regions during the 1996-2005 projection period. The highest rates of population growth are expected to be in North Africa, the Middle East, and Sub-Saharan Africa. Population growth is expected to be slowest in the relatively developed regions of Europe, North America, the Former Soviet Union, and East Asia.

### **Income Growth and Dietary Change**

Per capita income and income growth are principal determinants of the pattern of import demand across countries and commodities. While other factors, such as variations in trade or price policies, consumer preferences, and comparative advantage in production, are also important, there is often a strong correspondence between national per capita income and import demand for food grains, feeds, and meats in the long run. Further, projections of global trade across commodities are often shaped by the pattern of expected income growth across higher and lower income countries.

Four stages in the development of agricultural import demand can be identified for descriptive purposes. Because other factors--such as those noted above--also affect imports, the income ranges for each category are not tightly defined, but are instead representative of the pattern of agricultural demand. Definition of the stages is also hampered by inability to precisely measure the purchasing power associated with per capita income, and by sometimes sharp differences across countries in the distribution of income. Thus, the ranges used are generalizations that may not hold in all cases.

**Stage 1: Lowest Income Countries.** In the lowest income countries, with per capita incomes of less than about \$500, national average per capita use of food staples--food grains or tubers--is generally still rising. There is typically very limited effective demand for higher-valued goods, notably livestock products. In this and higher stages, as incomes and urbanization increase, consumer preferences are likely to begin shifting toward preferred

Table 4. Population growth assumptions

Region/country	1994	1995	1996	1997	1998	1999	2000	Average		
								1990-95	1996-2000	2001-05
Percent change										
World	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.6	1.5	1.4
less U.S.	1.6	1.6	1.6	1.5	1.5	1.5	1.4	1.6	1.5	1.4
Developed Economies	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.7	0.6	0.5
less U.S.	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.5	0.4	0.3
United States	1.1	1.0	1.0	1.0	0.9	0.9	0.9	1.1	1.0	0.9
Canada	1.2	1.1	1.1	1.0	1.0	0.9	0.9	1.3	1.0	0.8
Japan	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Australia	1.4	1.4	1.3	1.2	1.1	1.1	1.0	1.4	1.1	0.9
New Zealand	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.6	0.4	0.2
European Union	0.4	0.3	0.3	0.3	0.3	0.3	0.2	0.4	0.3	0.2
France	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.5	0.4	0.3
Germany	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.6	0.2	0.1
Italy	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Spain	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2
United Kingdom	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.1
Central Europe	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3
Czech Republic	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.1	0.3	0.3
Hungary	-0.0	-0.0	0.0	0.1	0.1	0.1	0.1	-0.1	0.1	0.1
Poland	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Romania	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.2	0.2
Former Soviet Union	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5
Developing Countries	1.8	1.8	1.8	1.7	1.7	1.7	1.6	1.9	1.7	1.6
Asia	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.6	1.4	1.3
East & Southeast Asia	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.4	1.1	0.9
China	1.1	1.1	1.0	1.0	0.9	0.9	0.8	1.2	0.9	0.7
Indonesia	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.5	1.4
Korea	1.1	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	0.8
Malaysia	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.4	2.2	2.0
Burma	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.9	1.8	1.7
Philippines	2.3	2.3	2.2	2.2	2.2	2.1	2.1	2.4	2.2	2.0
Taiwan	1.0	0.9	0.9	0.9	0.9	0.8	0.8	1.0	0.9	0.8
Thailand	1.3	1.3	1.2	1.2	1.1	1.0	1.0	1.4	1.1	0.5
Vietnam	1.8	1.8	1.7	1.7	1.6	1.5	1.5	1.9	1.6	1.4
South Asia	2.0	1.9	1.8	1.9	1.9	1.8	1.8	2.1	1.8	1.7
India	1.9	1.8	1.8	1.7	1.7	1.6	1.6	1.9	1.7	1.5
Pakistan	2.9	2.1	1.9	2.6	2.6	2.6	2.7	2.8	2.6	2.8
Bangladesh	2.4	2.4	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.2
Latin America	1.6	1.6	1.6	1.5	1.5	1.4	1.4	1.7	1.5	1.3
C. America & Caribbean	1.7	1.7	1.7	1.6	1.6	1.6	1.5	1.9	1.6	1.5
Mexico	2.0	1.9	1.9	1.9	1.8	1.8	1.8	2.0	1.8	1.6
South America	1.5	1.5	1.4	1.4	1.3	1.3	1.2	1.6	1.3	1.2
Argentina	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.0
Brazil	1.3	1.3	1.2	1.1	1.1	1.0	0.9	1.4	1.1	0.9
Chile	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.6	1.4	1.3
Venezuela	2.2	2.2	2.1	2.1	2.0	2.0	1.9	2.3	2.0	1.8
Middle East	3.0	3.2	3.1	3.0	2.9	2.9	2.9	3.2	3.0	2.9
Iran	1.8	2.4	2.3	2.2	2.1	2.0	2.2	2.8	2.2	2.2
Iraq	3.8	3.8	3.8	3.7	3.7	3.6	3.6	2.6	3.7	3.5
Israel	2.7	1.8	1.4	1.4	1.4	1.4	1.4	3.7	1.4	1.3
Saudi Arabia	3.8	3.8	3.6	3.5	3.5	3.5	3.4	3.0	3.5	3.4
Turkey	2.1	2.0	2.0	1.9	1.9	1.8	1.8	2.1	1.9	1.7
Middle East & North Africa	2.6	2.7	2.6	2.6	2.5	2.5	2.5	2.8	2.5	2.4
Africa	2.8	2.8	2.8	2.8	2.7	2.7	2.6	2.9	2.7	2.6
North Africa	2.2	2.2	2.1	2.1	2.0	2.0	2.0	2.3	2.0	1.9
Algeria	2.4	2.3	2.3	2.2	2.2	2.1	2.1	2.4	2.2	2.0
Egypt	2.0	2.0	1.9	1.9	1.9	1.8	1.8	2.2	1.9	1.7
Morocco	2.2	2.1	2.1	2.1	2.0	2.0	1.9	2.2	2.0	1.8
Tunisia	1.8	1.7	1.7	1.6	1.6	1.6	1.5	1.9	1.6	1.4
Sub-Saharan Africa	3.0	3.0	3.0	2.9	2.9	2.8	2.8	3.0	2.9	2.7
Nigeria	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
South Africa	2.7	2.7	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6

Source: U.S. Bureau of the Census, 1995.

Note: Population data and assumptions are based on information available as of January 1996.

food staples, such as wheat and higher quality rice, and away from less preferred traditional staples, such as tubers or coarse grains.

In the lowest income countries, food staples often account for a relatively large share of consumer expenditure. If the price of food staples--or so-called "wage goods"--rises faster than wages, then nutrition and consumer welfare can deteriorate quickly. As a result, the governments of these countries often give priority to any food staple import needs when allocating scarce foreign exchange. Examples of countries at this stage of demand are Bangladesh, India, and many Sub-Saharan African countries.

**Stage 2: Moderate-Income Countries.** As national per capita income rises through a range of roughly \$500-\$1,000, an important transition in food demand often begins. Demand for staples generally slows, and may begin to decline, although the shift toward preferred staples continues. In addition, the number of higher income consumers becomes sufficient to stimulate growth in demand for livestock and other higher valued products at the national level. The emergence of significant effective demand for meats and other livestock products generates derived demand for feed grains and proteins--demand that can expand rapidly because it typically takes 2-4 units of feed to produce 1 unit of product.

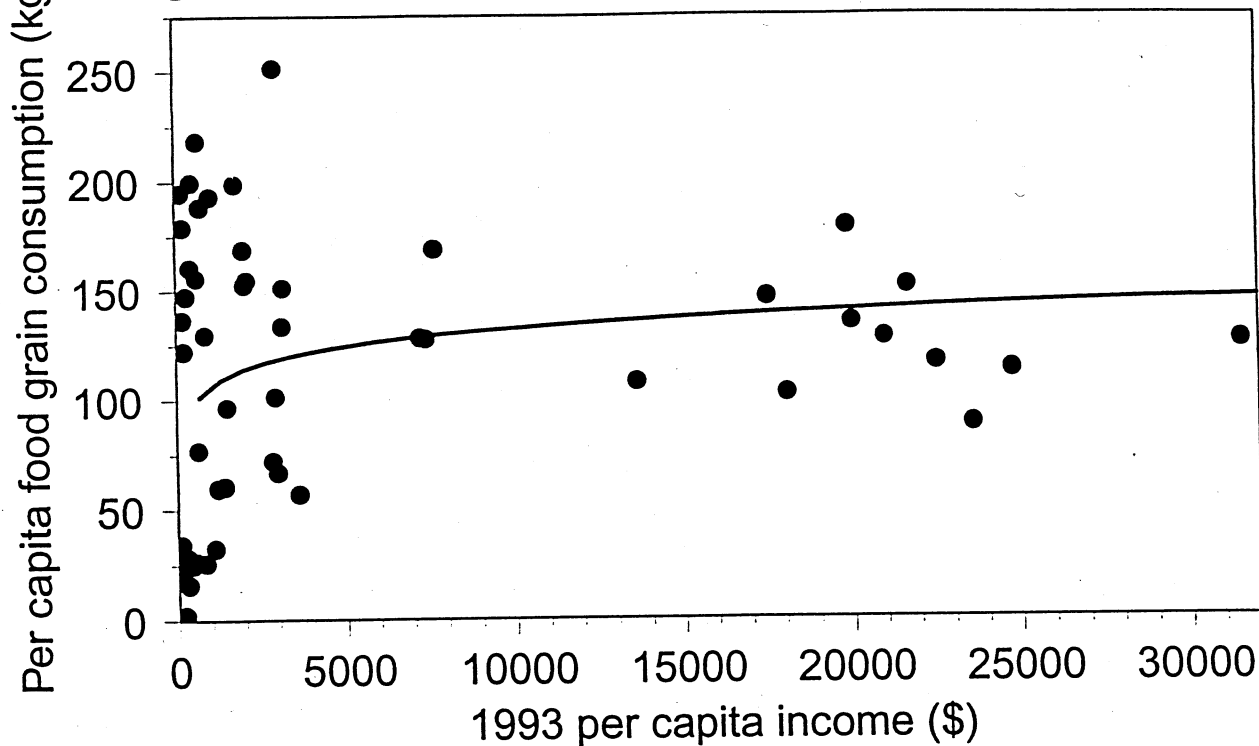
A country's "takeoff" point for meat demand is complicated by the role of factors such as income distribution, dietary customs, local production costs, and marketing infrastructure. The type of meat preferred is affected by cultural preferences, with pork and beef facing limited acceptance in some societies. It is, however, common for poultry meat and egg demand to show the fastest initial growth because of relatively widespread acceptance and low production costs. The takeoff point for feed import demand is affected not only by meat demand, but by local supply potential for both commercial and residual feeds, feeding efficiency, and trade policies. Major countries at this stage of demand are China, Egypt, Indonesia, Pakistan, and the Philippines.

**Stage 3: Moderate-to-High Income Countries.** When per capita income is in the range of roughly \$1,000-\$10,000, per capita demand for food staples is generally declining. The strongest consumption growth occurs in livestock products and feeds, and other higher-valued food products. In addition to rising effective demand for more diverse diets, urbanization and higher labor force participation, and incomes spur demand for more processed and more convenient foods.

At this stage, the takeoff point for feed grain and protein imports has likely been reached, unless there is capacity for sufficient local feed production, or financial or trade policy constraints curb both feed trade and meat output. Although most countries at this stage choose to produce meat locally, meat rather than feed may be imported if the conditions do not exist for efficient local meat production. In a similar fashion, rising demand is likely to lead to the emergence of imports of other high-valued foods, depending on local production capacity, financial conditions, and trade policies.

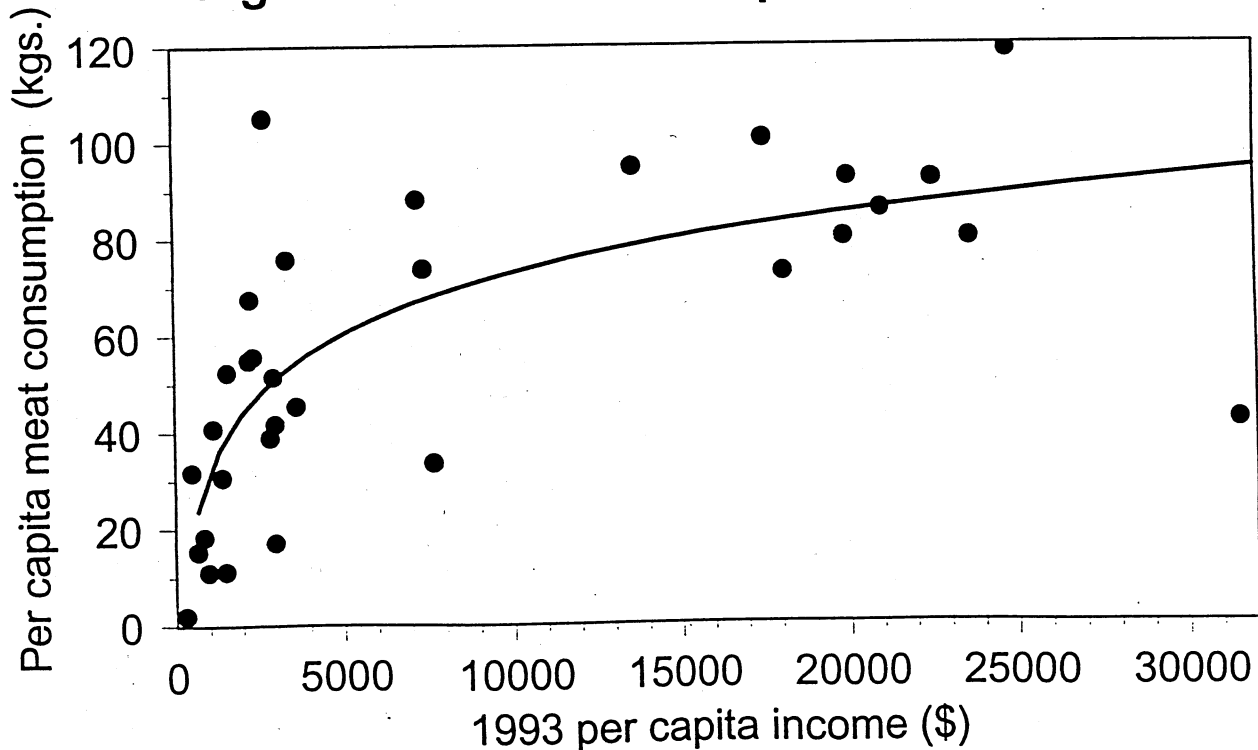
A large number of countries, including many in North Africa, the Middle East, Southeast Asia, Central Europe, and Central and South America, are at this stage of demand and typically show the fastest growth in agricultural import demand.

**Figure 1. Food Grain Consumption & Income**



Note: Food grain consumption includes wheat and rice.

**Figure 2. Meat Consumption & Income**



Note: Meat consumption includes beef, pork, poultry & lamb.

**Stage 4: High-Income Countries.** Countries with per capita incomes of above roughly \$10,000 typically are "mature" markets that may exhibit high levels of agricultural import demand, but relatively slow growth. Per capita use of food staples is normally stable or declining, while demand for livestock and other high-valued goods is growing at a moderate, but steady, rate. Per capita meat demand often continues growing up to average income levels of about \$15,000 before stabilizing. At this stage, demand for higher quality goods may increasingly affect the choice of goods and supplier, and demand for environmental quality may begin to limit intensive local production of meats and other products. All of the major developed countries, including Australia, Canada, Japan, the EU and the United States are at this stage of demand.

### **U.S. Agricultural Policy Assumptions**

U.S. policy assumptions used for these projections are based on a continuation of 1990 agricultural legislation, as amended, and policy decisions as of January 1996. Policy assumptions reflect provisions of the Agricultural Act of 1949, as amended by the Food, Agriculture, Conservation, and Trade Act of 1990 (FACT), the Omnibus Budget Reconciliation Act of 1990, the FACT Act Amendments of 1991, the Omnibus Budget Reconciliation Act of 1993, and the National Wool Act Amendments of 1993. Provisions of the 1996 Farm Act are not included. The projections also incorporate the policy provisions of both NAFTA and the Uruguay Round of the GATT.

With these assumptions, the basic structure of agricultural commodity programs of the early 1990s remains unchanged. This agricultural policy setting continues a gradual phase-down of the role of Government commodity programs. Assumptions regarding program provisions do not indicate future USDA policy decisions. Where legislation authorizes discretion, program provisions are based on the judgment of commodity analysts, guided by farm legislation where appropriate. Key U.S. agricultural policy assumptions are summarized below:

- Annual commodity program provisions are set so that carryover stocks or stocks-to-use ratios are maintained at levels determined or guided by current legislation. ARP's are set at zero for the projection period, except for upland cotton.
- Income support is provided through deficiency payments, with target prices assumed to continue at 1995 levels, the minimum levels permitted by the 1990 farm legislation.
- Payment yields for program crops remain fixed.
- Planting flexibility and payment acreage provisions remain as in effect in the early 1990s.
- Marketing loan programs, with loan rates determined as in recent years, are in effect for wheat, feed grains, rice, upland cotton, and oilseeds.
- The Conservation Reserve Program (CRP) is assumed to fall from current levels of about 36.4 million acres to about 27.5 million in 2005. The CRP assumptions reflect a combination of assumptions for early termination of contracts expiring in 1996, a new enrollment in 1997 to add approximately 1.6 million acres, and contract extensions and modifications at maturity.



- Annual quantity and expenditure levels for the Export Enhancement Program (EEP) are assumed to be in compliance with GATT reductions, which require that by 2000 subsidized exports be reduced by 21 percent in volume and 36 percent in budget outlays from 1986-1990 levels. Credit assistance funding provided by the GSM program is assumed to continue with program levels of \$5.5 billion annually, consisting of \$5.0 billion for short-term guarantees and \$0.5 billion for intermediate-term guarantees.

### **Major Foreign Agricultural Policy Assumptions**

Policy assumptions underlying both U.S. and foreign projections are based on full compliance with all bilateral and multilateral agreements affecting agriculture and agricultural trade as of January 1996. Bilateral agreements affecting agricultural trade between the United States and Canada, the United States and Mexico, the United States and Japan, and the United States and Korea are examples of recent agreements for which full compliance is assumed. In contrast, no compliance is assumed for any agreements under discussion or not formally ratified by January 1996.

In the multilateral sphere, the projections assume full compliance with the internal support, market access, and export subsidy provisions of the Uruguay Round Agreement on Agriculture by all parties to the agreement. Key to the projections is the assumption that, except in years where available supplies can be exported without subsidy, both the United States and the EU will utilize export subsidies to the full extent permitted under the Uruguay Round agreement. Several potential multilateral agreements that could have a significant impact on agricultural trade are now under consideration, but are assumed *not* to occur in these projections. These include:

- No accession to the World Trade Organization (WTO) by the FSU, China, or Taiwan;
- No enlargement of the EU-15 to add one or more Central or East European countries;
- No implementation of more liberalized trade among the Asia-Pacific Economic Cooperation (APEC) countries, and;
- No expansion of NAFTA to include additional countries.

Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current path, based on the consensus judgment of regional and commodity analysts. In particular, the process of liberalizing economic and trade reform underway in many developing countries is assumed to continue. Similarly, the development and use of agricultural technology and changes in consumer preferences are assumed to continue to evolve based on past performance and analyst judgment regarding future developments. Key assumptions underlying the projections for major foreign countries are summarized below.

#### **European Union-15 (EU-15)**

The projections incorporate policy changes adopted as part of the 1992-93 CAP reform, as well as EU commitments under the Uruguay Round (UR) agreement that limit subsidized exports and improve market access. The final step of planned price cuts under CAP reform took place during 1995/96. Basic support prices are assumed to remain at 1995/96 nominal levels for most commodities, but internal market prices may be driven below support levels

in order to clear domestic markets. If Uruguay Round limits on subsidized exports are binding, excess supplies will have to be absorbed on the internal market, driving market prices down. The annual set-aside program instituted for grains, oilseeds, and protein crops is assumed to remain in effect, with the set-aside rate used as a policy instrument to adjust production to market conditions.

It is assumed that the EU's UR commitment on internal support is not a binding constraint, since many policies resulting from CAP reform meet the WTO "production-limiting" criteria and are exempt from reduction commitments. Tariffication of nontariff barriers and tariff reductions are assumed to have little impact because the high tariff equivalents established for most products are unlikely to permit significant additional imports. Continued high levels of import protection mean that price transmission from the world market will be negligible for all baseline commodities except oilseeds and products. The most important UR commitments for the baseline are the limits on subsidized exports and the minimum import levels agreed under the market access provisions.

Major uncertainties include what measures the EU will use to meet its subsidized export and minimum import commitments. It is assumed for the baseline that the EU will use current policy mechanisms to meet its UR limits on subsidized exports. For grains, it is assumed that any production in excess of domestic use that cannot be exported will depress the internal market price and thereby dampen output. The EU could also increase the set-aside rate to constrain surplus production. We assume that, in the longer term, the EU will not increase intervention purchases and accumulate stocks beyond the historical average level (accumulation of intervention stocks is viewed as a short-term strategy for dealing with excess grain supplies). It is assumed that the EU will export grain without subsidy only when the world price is equal to or greater than the average EU price. Accounting for regional variations in the cost of producing grains would require better data, but could result in somewhat higher EU grain exports. For pork and poultry, we assume that market prices adjust to clear the internal market. Continued limited intervention for beef, a shrinking dairy herd, and measures to encourage less intensive production methods are assumed to limit beef production.

These baseline projections are for the EU-15, including the three new members: Sweden, Austria, and Finland. New commitments for the EU-15 are being negotiated under the WTO, but are not yet known. For most commodities, it is assumed that the negotiated EU-15 limits on export subsidies, internal support, and market access will not vary greatly from the EU-12 levels. For wheat, adjustment of subsidized export allowances to reflect historical exports by the three new members could raise EU-15 subsidized exports by about 1 million tons. Further EU enlargement is not assumed, although some Central and Eastern European countries could become members during the baseline period. Accession of the large agricultural-producing CEE countries could cause serious problems for the CAP in its current form and require policy changes that are difficult to foresee.

## China

China's economy is assumed to continue to grow at a rapid but declining rate over the baseline period. Average real GDP growth is forecast to slow from more than 10 percent in recent years to 7.4 percent in 2005. This forecast assumes China will continue its gradual reform of the remaining areas of the economy where there continues to be a substantial degree of government intervention and control. Major reform initiatives will focus on the industrial sector and the political, social, and economic difficulties involved in reducing and restructuring the state-owned sector. Continued rapid growth in domestic and foreign

investment is expected to allow the development of port, rail, road, and power generation infrastructure to keep pace with increased trade flows and energy demand to 2005.

Agricultural policy is expected to continue to move gradually and incrementally toward greater liberalization, increasing the role of market forces in China's production, consumption, prices, and trade. Central government planning is assumed to decline for most crops, with a growing share of farm gate and retail purchases occurring at market rather than government-set prices. Intermittent government intervention as a market-stabilizing force is expected to occur, but with less and less frequency over the course of the projection period.

Agricultural trade is assumed to become more liberalized, with tariffs gradually reduced and non-state trade companies increasingly important. While central government control over trade in key commodities is assumed to continue, the share of trade handled by private (or joint private-public) trade companies is assumed to grow. The projections do not take into account the possibility that China will become a member of the WTO because negotiations are ongoing and it is impossible to predict either a date of entry or provisions of the final agreement.

Production of all major crops (except rice) is projected to increase as rising domestic prices raise yields through increased use of improved varieties, fertilizer, and other cultural practices. Total agricultural land is expected to continue its current decline under pressure from nonagricultural uses, but the rate of decline is expected to slow because of more effective land use policy. Income growth that will drive demand for meats and edible oils will be the key factor in China's future agricultural trade patterns. Based on a recent change in thinking among top policy makers in China, it is expected that the traditional emphasis on self-sufficiency will no longer be the central factor influencing government agricultural production and trade policy. The principles of comparative advantage and relative economic benefit are expected to be increasingly important determinants of future policies.

### **Former Soviet Union**

Policies focusing on market reform are expected to continue, but the transition to a market economy in the agricultural sector is likely to be slow. The most important factors affecting the long-term agricultural trade outlook of the FSU include: Russian import policy for livestock products and procurement price policy for grains, productivity changes for crops and livestock products, the degree of land reform (breaking up the former collective and state farms) achieved, and the extent to which the former state and collective farms continue to be subsidized. For the purpose of the baseline, it is assumed that import duties on livestock products and sugar will remain constant at current levels. Other agricultural trade barriers within Russia and the FSU are projected to continue, with only gradual reduction likely. Grain procurement prices are expected to gradually approach import prices. Internal wheat prices are expected to match world prices by 2000, while coarse grain prices remain somewhat below world prices. The share of grains marketed that is procured by the state is assumed to decrease from about 20 percent currently to 10 percent in 1999. Crop productivity gains are expected to be small, and no progress in land reform that could lead to major productivity gains is anticipated.

FSU livestock production is assumed to recover very slowly, at least until the process of economic reform reduces production costs and increases the competitiveness of the sector. The current high cost of meat production in the FSU suggests that livestock inventory declines of recent years will not be fully recouped in the foreseeable future and some meat

needs will continue to be satisfied by imports. It is also anticipated that state grain imports will be minimal over the projection period because continued livestock declines will limit demand. Other FSU countries (Central Asia) are expected to meet their grain needs primarily from Kazakhstan and Ukraine, rather than from imports from abroad.

## Mexico

The economic crisis triggered by the peso devaluation in December 1994 does not fundamentally change the long-term outlook for Mexican agriculture. The economy is expected to bounce back relatively quickly, with annual real GDP growth reaching 4.4 percent in 1997 and averaging more than 5 percent through 2005.

Agricultural policy is expected to continue to be driven by the PROCAMPO program and NAFTA. Under PROCAMPO, the government will continue to reduce its role in supporting grain prices. Intervention in domestic corn and wheat prices is expected to end and, with lower duties on corn, sorghum, and wheat, there will be more price transmission between the world and domestic grain markets. PROCAMPO direct payments, which require planting but are otherwise decoupled, will continue to be phased out. Under NAFTA, all tariffs on baseline commodities will be eliminated over the projection period. In light of the price-competitiveness and quality of U.S. corn, pork, poultry, and eggs, particularly to the border areas, it is assumed that Mexico will import at least the quantity specified by the tariff-rate quota. Mexico continues to reduce consumer subsidies, and the main subsidies expected to continue will be those on tortillas and milk. Feed compounders will now procure corn directly from farmers, thus eliminating CONASUPO subsidies for animal feed.

## Canada

A major factor affecting the Canadian outlook is the shift, over the past several years, into the production of canola (rapeseed). Encouraged by development of new varieties, canola area has risen from 2.5-3.5 million hectares during 1984-93, to 5.3-5.75 million during 1994-95. Canola plantings significantly affect area and production of other crops, particularly wheat and barley. Wheat acreage, for example, was below 11.3 million hectares in 1994 and 1995 after remaining well above 13 million hectares over the 1984-92 period. For the near term, strength in grain prices is expected to encourage substitution back out of canola. In later years, it is assumed that rotational constraints on canola plantings will limit area to a maximum of approximately 5.8 million hectares.

Canada's 1995/96 budget called for elimination of the C\$561 million Western Grain Transportation Act (WGTA) freight subsidy for prairie grains and oilseeds, and a reduction in annual domestic support programs for agriculture from C\$854 million to C\$600 million in 2 years. The elimination of the WGTA freight subsidy meets Canada's commitment under the WTO's export subsidy reduction requirements. Elimination of the subsidy means that the cost of transporting prairie province crops (wheat, barley, canola, etc.) to export positions has increased by about C\$17 per ton. The increase in transportation costs reduces farmer incentives to produce grains and oilseeds. At the same time, prairie processing and livestock sectors are expected to benefit from reduced local prices, further reducing the tendency for Canadian grains and oilseeds to reach export markets.

Canada is currently in the process of redesigning its agricultural support programs to meet the new budget restrictions. The emphasis is on reducing budgetary costs while providing whole-farm insurance, as is achieved with the recent whole-farm savings plan program--the Net Income Stabilization Account (NISA)--rather than crop-specific and production-distorting subsidies. For the baseline, it is assumed that the few remaining government subsidies to

crop and revenue insurance programs will be eliminated and that Canadian grains and oilseed production will fully respond to market forces.

Increases in Canadian wheat exports to the United States during 1990-94 led to the negotiation of a bilateral agreement to govern wheat trade (a tariff-rate quota) for 1 year, from September 12, 1994, to September 11, 1995. The agreement also established a joint commission to study all aspects of U.S. and Canadian grain marketing systems. With expiration of the Tariff Rate Quota (TRQ) in September of 1995, USTR and USDA announced U.S. plans to "monitor" imports of Canadian wheat using the expired TRQ as a benchmark for comparison, and to ask for consultations with the Canadian Government if there is a surge in imports. For the baseline, it is assumed that these provisions will prove sufficient, and no new restrictions on U.S. grain imports from Canada will be imposed.

## Wheat

World wheat trade (including the wheat equivalent of wheat flour) is projected to grow 2.2 percent annually during 1995-2005. Projected growth is well above that of the 1980s, but is less than that of the 1970s. Most world import growth is expected to occur in developing countries and China. Developing economies (excluding China and the FSU) are projected to account for two-thirds of the gain in world wheat imports through 2005. The developing economies' share of imports is expected to rise from the 1990-95 average of 60 percent to more than 65 percent by 2005. This increase is driven by population growth and rising per capita incomes. Larger imports are projected in most developing regions, including Latin America, North Africa/Middle East, and Asia.

In the past, the developing countries have benefited from exporter subsidies, credit, and food aid. Under the UR agreement, subsidized exports are expected to fall from about 40 percent of world trade in 1994 to about 25 percent by 2000. Many of the developing countries will face significantly higher wheat prices as subsidies decline, and some will also be affected by the outlook for no increase in the nominal value of credit and food aid during the baseline. Wheat imports by the least developed countries, particularly the Sub-Saharan Africa region, are likely to decline relative to imports by the higher income developing countries. Another key trend in the post-UR wheat outlook is expected to be a significant decline in the use and trade of feed wheat, as wheat prices rise relative to feed grains.

U.S. wheat exports are expected to grow faster than world trade until 2002 for several reasons. First, EU wheat exports are constrained by UR limits on subsidized exports until after 2001, when world wheat prices are projected to be high enough to enable the EU to export without subsidies. Second, price incentives are not sufficient for Argentina, Australia, and Canada to significantly increase exports until after 2000. Finally, fewer wheat acres are assumed to remain in the U.S. Conservation Reserve Program (CRP) beginning in 1997, allowing the U.S. to expand production relative to competitors. As nominal world prices rise after 2000, however, the EU is expected to begin exporting without subsidy, and Argentina, Australia, and Canada are likely to find it increasingly profitable to increase wheat production and exports.

Wheat area is projected to expand, reversing the trend since the early 1990s when foreign area dropped, particularly in the FSU. Higher world prices are expected to encourage this area expansion. Foreign consumption growth for wheat is projected at 1.6 percent annually. Food demand will account for virtually all consumption growth. Per capita wheat feed use is expected to fall in most regions as wheat prices rise relative to other feed grains. Wheat food use per capita, however, is projected to rise, with growing demand in the higher income developing countries and China offsetting declines in the poorest nations, particularly in Africa.

### Highlights for Major Importers

Developing countries and China provide most of the gains in world wheat imports projected for next decade, fueled by higher incomes, urbanization, and population growth. Gains in incomes and urbanization will continue to shift consumer preferences away from coarse grains (for food use), rice, and tubers, and toward wheat-based foods. China is the largest source of uncertainty regarding wheat import prospects. FSU imports are expected to increase slightly between 1995 and 2005, with most FSU import demand being met by trade among FSU countries.

Table 5. Wheat trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exporters</b>														
United States	36,838	33,414	32,340	34,700	34,323	34,020	36,061	38,102	39,463	40,143	40,823	40,823	41,504	42,184
Argentina	5,850	4,996	7,300	4,300	5,612	6,700	6,900	7,000	7,275	7,400	7,600	8,000	8,400	8,700
Australia	9,853	13,700	6,343	13,000	10,724	11,225	12,000	12,200	12,500	12,700	13,100	13,500	13,800	14,200
Canada	19,709	19,100	21,500	18,400	19,677	18,400	18,500	18,550	18,800	18,800	19,300	19,500	19,800	20,100
Central/East Europe	1,253	328	2,240	4,660	2,120	3,126	3,451	3,751	4,010	4,469	5,105	5,592	5,771	6,075
European Union-15 1/	23,700	20,100	16,800	13,000	18,400	19,296	18,309	17,323	16,336	17,492	17,330	18,516	18,144	19,044
Former Soviet Union 2/	6,800	6,500	5,255	3,600	5,539	5,864	6,485	6,671	6,998	6,995	6,996	6,999	7,040	6,972
India	31	28	100	700	215	951	825	800	1,000	950	1,150	1,575	1,775	2,000
Saudi Arabia	2,490	2,019	1,700	70	1,570	29	20	18	17	15	13	12	11	10
Turkey	2,000	1,042	1,761	1,300	1,526	1,442	1,438	1,433	1,429	1,425	1,382	1,341	1,300	1,261
Other	1,038	991	877	1,400	1,077	874	859	809	805	816	807	818	821	806
<b>Total</b>	<b>109,562</b>	<b>102,218</b>	<b>96,216</b>	<b>95,130</b>	<b>100,782</b>	<b>101,927</b>	<b>104,848</b>	<b>106,657</b>	<b>108,633</b>	<b>111,205</b>	<b>113,606</b>	<b>116,676</b>	<b>118,366</b>	<b>121,352</b>
<b>Importers</b>														
United States	1,905	2,962	2,502	1,905	2,319	2,994	3,130	3,266	3,402	3,402	3,266	3,130	2,994	2,994
Algeria	3,800	4,813	4,500	3,500	4,153	4,431	4,890	4,818	4,976	5,094	5,242	5,399	5,573	5,717
Brazil	5,825	5,700	6,300	6,600	6,106	6,478	6,696	6,800	6,678	6,752	6,884	6,941	7,006	7,062
C. Amer. & Carib.	2,646	3,018	2,765	2,705	2,784	2,911	2,922	2,929	2,916	2,947	2,965	2,992	3,015	3,034
China	6,719	4,310	10,235	13,000	8,566	13,777	14,440	14,800	15,100	15,400	15,818	16,624	17,212	18,154
Central/East Europe	3,482	2,444	1,235	968	2,032	2,091	2,485	2,316	2,121	1,756	1,390	1,175	1,115	1,016
European Union-15 1/	1,400	1,300	2,100	2,300	1,775	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Egypt	6,004	5,900	6,000	6,000	5,976	6,500	6,594	6,752	6,789	6,968	7,124	7,250	7,377	7,462
Former Soviet Union 2/	24,103	13,520	8,877	9,230	13,933	7,700	7,292	7,374	7,585	7,840	8,109	8,352	8,487	8,613
India	2,500	500	30	25	764	50	50	50	50	50	50	50	50	50
Indonesia	2,600	2,568	3,645	4,000	3,203	4,250	4,393	4,622	4,924	5,281	5,601	5,900	6,100	6,400
Iran	3,000	3,500	3,200	3,500	3,300	3,350	3,515	3,745	3,958	4,303	4,533	4,788	4,991	5,199
Japan	5,919	6,095	6,309	6,300	6,156	6,327	6,303	6,312	6,350	6,354	6,364	6,371	6,376	6,380
Malaysia	942	1,327	1,100	1,200	1,142	1,311	1,400	1,448	1,493	1,541	1,592	1,634	1,679	1,723
Mexico	1,350	1,828	1,370	1,200	1,437	1,613	1,638	1,658	1,648	1,646	1,626	1,583	1,509	1,398
Morocco	2,811	2,403	1,200	3,000	2,354	1,901	2,018	2,127	2,096	2,178	2,377	2,436	2,518	2,611
Sub-Saharan Africa	4,683	5,102	4,350	4,120	4,564	4,413	4,424	4,297	4,072	4,045	4,000	3,993	3,946	3,902
Pakistan	2,862	1,617	2,082	1,800	2,090	2,700	2,800	2,850	2,875	3,077	3,336	3,589	3,732	3,928
Philippines	1,992	2,217	2,050	2,300	2,140	2,485	2,550	2,698	2,800	2,894	3,019	3,165	3,312	3,467
Saudi Arabia	218	53	50	50	93	0	27	47	18	63	107	154	201	251
South Africa	1,050	275	900	400	656	600	650	744	764	786	801	816	833	849
South Korea	3,994	5,647	4,293	2,500	4,109	2,412	2,378	2,354	2,340	2,334	2,333	2,336	2,342	2,351
Taiwan	929	916	900	900	911	919	927	934	940	950	952	959	968	974
Thailand	630	719	700	700	687	794	906	962	1,021	1,083	1,147	1,215	1,286	1,360
Tunisia	615	806	1,400	1,250	1,018	1,047	1,068	1,075	1,073	1,102	1,135	1,170	1,201	1,234
Turkey	900	725	474	1,350	862	1,050	1,106	1,212	1,342	1,460	1,496	1,556	1,617	1,689
Other	15,203	16,787	16,053	15,695	15,935	18,323	18,746	18,967	19,802	20,399	20,839	21,598	21,426	22,034
<b>Total</b>	<b>108,082</b>	<b>97,052</b>	<b>94,620</b>	<b>96,498</b>	<b>99,063</b>	<b>101,927</b>	<b>104,848</b>	<b>106,657</b>	<b>108,633</b>	<b>111,205</b>	<b>113,606</b>	<b>116,676</b>	<b>118,366</b>	<b>121,352</b>
Exports - Imports	1,480	5,166	1,596	(1,368)	1,719	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade.  
2/ Includes FSU intratrade.

Figure 3. Wheat: Historical & Projected World Area & Yield

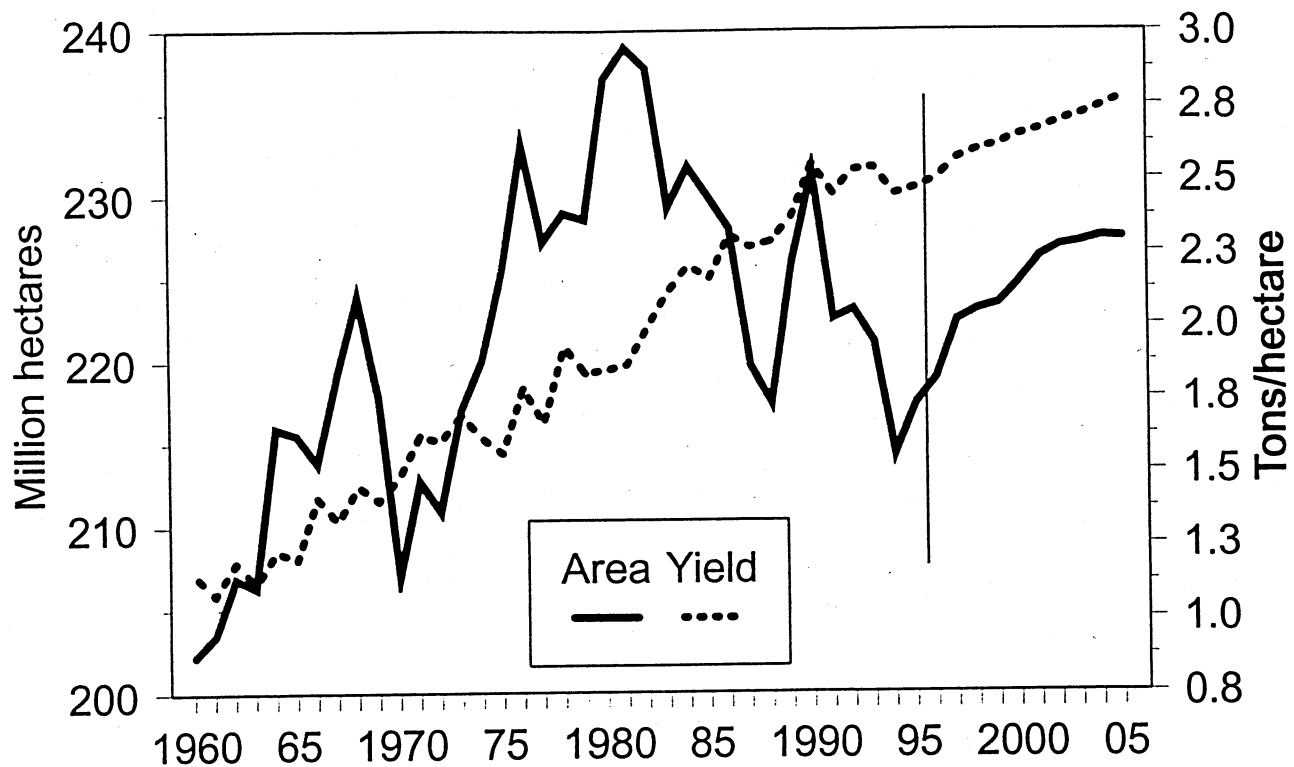


Figure 4. Wheat: Historical & Projected World Supply & Use

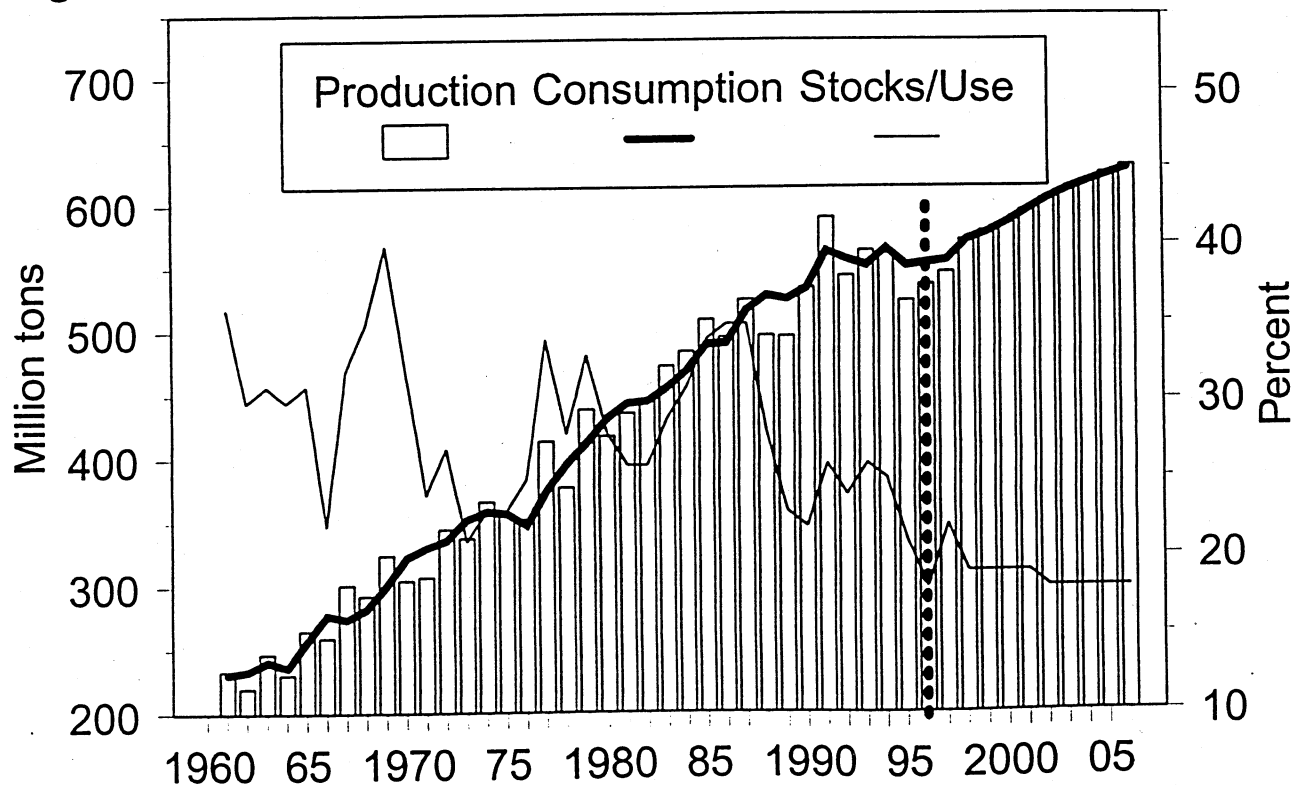




Figure 5. Wheat: Historical & Projected Real Prices

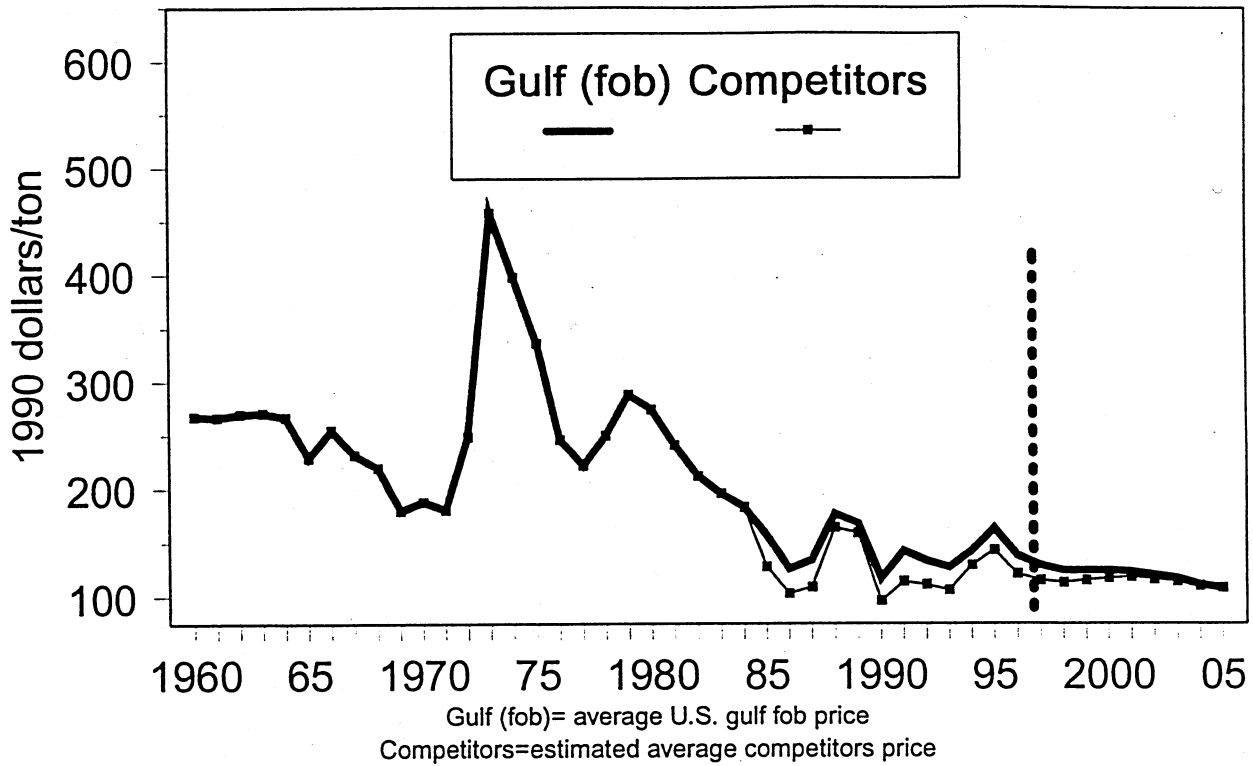
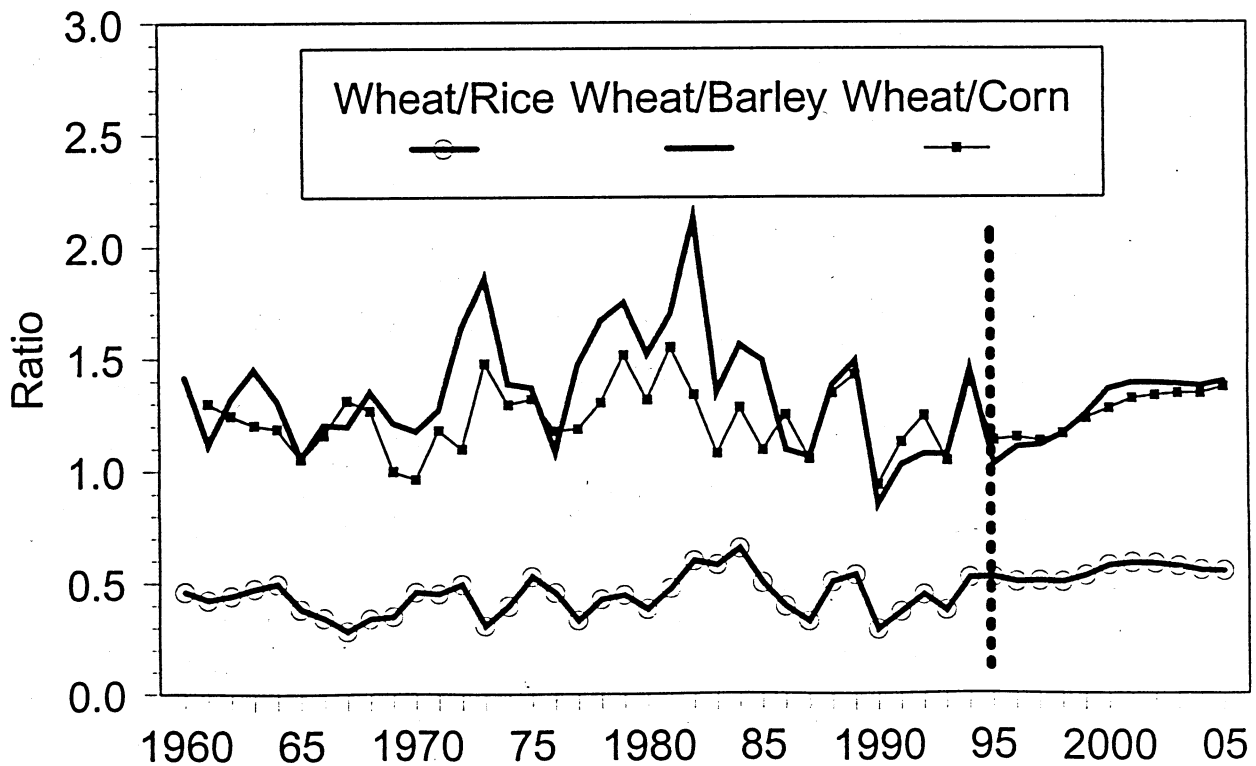


Figure 6. Wheat: Historical & Projected Price Ratios



- **China's** imports of wheat are projected to rise during 1996-2005, reaching 18.2 million tons by 2005 in response to rapid income growth, population increases, and the outlook for higher relative prices for competing crops to limit expansion in wheat area. Also, China's policymakers have recently deemphasized the importance of food self-sufficiency, and it is now expected that China's future wheat imports will be based more on economic factors than self-sufficiency goals.

The projections of China's future trade create, perhaps, the greatest amount of uncertainty in the wheat trade outlook. There is considerable uncertainty regarding such factors as water constraints and future yield improvements, foreign exchange earnings, the pace of dietary shifts toward meats, the impacts of China's potential accession to the WTO, and the pace of market liberalization. The baseline projections represent what is considered the most likely path of future trade, but uncertainty surrounding each of these variables suggests that a wide range of trade outcomes is plausible.

- In the **FSU**, restructuring of the agricultural sector will keep imports low compared with the 1980s and early 1990s. The FSU is expected to be nearly self-sufficient in wheat, importing some wheat for blending purposes and exporting feed wheat when there is excess production. The continued consolidation of livestock inventories and low economic growth cause both food and feed use of wheat to stagnate until economic growth strengthens during 2000-2005. FSU net imports of wheat are projected at 1.6 million tons by 2005, with only relatively small imports from outside the FSU.

Future developments in the FSU are an important source of uncertainty in the wheat market outlook. Key uncertainties include the pace of future economic growth, and the extent to which farm sector reforms that stimulate productivity growth are achieved.

- The Southeast Asian region (**Indonesia, Malaysia, the Philippines, and Thailand**) is expected to show strong growth in wheat imports as rising per capita incomes and urbanization bolster food demand and lead to dietary shifts from rice, coarse grains (for food use), and tubers to wheat-based foods. Per capita wheat consumption is expected to continue to increase relative to rice. Wheat imports by these four countries are projected to reach 13 million tons in 2005.
- **Brazil's** import growth is projected to continue over the next decade, with limited production prospects, strong population growth, and economic recovery driving import demand. Brazil's wheat imports will likely be increasingly met by Argentina as a result of the MERCOSUR trade agreement between Argentina, Brazil, Paraguay, and Uruguay providing duty-free access between these four countries.
- Wheat imports will compose a larger proportion of wheat supplies in **Egypt** and the North African countries of **Algeria, Morocco, and Tunisia** during the projection period. Resource constraints and population growth will make it exceedingly difficult for wheat self-sufficiency to be attained in this region. In addition, import access has been improved in Egypt and Tunisia since private traders, rather than state monopolies, are permitted to import wheat.

## Highlights for Major Exporters

Compared with the 1980's and early 1990's, the EU is expected to be a less significant competitor in world wheat trade, particularly during 1996-2000, because of internal policy reforms and the Uruguay Round agreement. Australia, Argentina, CEE, and the United States all gain market share as a result of reduced EU exports.

- **EU** policy changes implemented in 1992-93 CAP reform and the Uruguay Round commitments on reductions in subsidized exports mean that the EU can be expected to be less prominent in wheat trade until after 2000. Lower internal wheat prices from CAP reform are expected to cause increased feed use of wheat, while area remains constrained under the CAP reform set-aside requirement. The set-aside rate is assumed to rise from 10 percent in 1996/97 to 12 percent for 1997/98-1999/2000, and 15 percent after 1999/2000 to avoid building stocks. Subsidized EU wheat and flour exports (excluding food aid) will fall from 19.1 million tons in 1995 to 13.4 million tons in 2000. The EU is projected to export wheat without subsidy when projected world wheat prices exceed the fob equivalent of the EU internal price after 2000. However, the timing of when the EU will be able to export wheat without subsidy is a major uncertainty in projections of U.S. wheat trade.
- **Australian** wheat exports are projected to rise as a result of export subsidy disciplines affecting competitors under the Uruguay Round agreement, and strong import growth by China, Indonesia, and Egypt--three major markets for Australian wheat. However, exportable supplies will be somewhat restricted as domestic feed use of wheat is expected to rise with more cattle feeding. Wheat area growth will also be limited during the next few years as higher relative returns to wool are forecast.
- Wheat exports by **Argentina** are projected higher as stronger world prices cause area to expand beginning in 2000. Argentina's market share is expected to rise from its 1990-95 average of 6 percent to 7 percent by 2005, expanding in growing markets in Brazil and other Latin American countries.
- **Canada's** share of world wheat trade is expected to fall to 17 percent in 2005 from the 1990-95 average of 20 percent. Although wheat area is expected to increase compared with recent levels, future supplies are likely to be constrained by area competition with higher-valued crops such as canola and specialty crops. Canadian farmers also now face significantly higher transportation costs with the removal of the Western Grain Transportation Act rail subsidy in 1995/96. This is expected to induce exports of higher-valued crops and livestock products at the expense of lower valued crops, such as wheat and barley.
- The **Central and Eastern Europe** region is projected to become a significant wheat exporter, with net exports reaching 6 million tons by 2005. Production is expected to expand in response to higher world prices and productivity gains. Wheat demand is expected to remain level, with income-driven gains in food use of wheat roughly offsetting reduced feed use as wheat prices rise relative to other feeds. Although livestock production is expected to expand in the region, feeding efficiency is likely to improve and more feed demand is expected to be met by corn and barley.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
						1,000 tons	Kgs.	1,000 tons		
	1,000 ha	Tons/ha			1,000 tons		Kgs.		1,000 tons	
<b>WORLD</b>										
1992	223,067	2.52	561,793	108,082	109,562	549,899	414,242	74.5	110,585	144,784
1993	221,066	2.53	559,342	97,052	102,218	558,077	428,059	75.8	110,162	140,883
1994	214,321	2.44	522,135	94,620	96,216	547,775	425,280	74.2	99,069	113,647
1995	217,362	2.46	534,601	96,498	95,130	552,914	434,136	74.6	92,388	96,702
1992-95 ave.	218,954	2.49	544,468	99,063	100,782	552,166	425,429	74.8	103,051	124,004
1997	222,411	2.56	569,850	101,926	101,926	569,649	447,797	74.7	98,774	109,650
1998	223,081	2.59	576,730	104,848	104,848	575,168	453,223	74.5	97,869	111,212
1999	223,434	2.61	583,089	106,657	106,657	583,498	460,930	74.7	97,839	110,803
2000	224,780	2.64	593,078	108,632	108,632	593,031	469,167	75.0	97,656	110,850
2001	226,270	2.66	602,294	111,204	111,204	602,464	480,028	75.7	95,418	110,680
2002	226,978	2.69	609,601	113,607	113,607	609,616	488,178	76.0	94,625	110,665
2003	227,216	2.71	616,654	116,676	116,676	615,844	496,189	76.2	93,718	111,475
2004	227,565	2.74	623,259	118,365	118,365	621,427	502,563	76.2	93,584	113,307
2005	227,500	2.77	629,209	121,352	121,352	626,727	509,576	76.2	92,085	115,789
<b>UNITED STATES</b>										
1992	25,399	2.64	67,135	1,905	36,838	30,688	22,720	88.0	5,270	14,442
1993	25,379	2.57	65,220	2,962	33,414	33,738	23,724	90.9	7,394	15,472
1994	24,998	2.53	63,167	2,502	32,340	35,014	23,201	87.9	9,383	13,787
1995	24,674	2.41	59,481	1,905	34,700	31,053	23,405	87.8	4,763	9,420
1992-95 ave.	25,113	2.54	63,751	2,319	34,323	32,623	23,262	88.6	6,703	13,280
1997	25,911	2.59	67,059	2,994	34,020	34,972	24,086	88.7	8,165	13,744
1998	25,951	2.60	67,522	3,130	36,061	34,836	24,358	88.8	7,756	13,499
1999	26,073	2.61	68,175	3,266	38,102	34,292	24,766	89.5	6,804	12,546
2000	26,235	2.63	68,964	3,402	39,463	33,882	25,038	89.7	6,123	11,567
2001	26,478	2.65	70,134	3,402	40,143	33,883	25,447	90.4	5,715	11,077
2002	26,721	2.67	71,305	3,266	40,823	34,157	25,719	90.6	5,715	10,668
2003	26,883	2.69	72,285	3,130	40,823	34,700	26,127	91.3	5,851	10,560
2004	27,247	2.71	73,809	2,994	41,504	34,973	26,399	91.5	5,851	10,886
2005	27,247	2.73	74,353	2,994	42,184	35,244	26,807	92.1	5,715	10,805
<b>ALGERIA</b>										
1992	1,700	1.03	1,750	3,800	0	5,400	5,250	192.6	150	850
1993	1,300	0.85	1,100	4,813	0	5,313	5,163	185.1	150	1,450
1994	900	0.83	750	4,500	0	5,500	5,400	189.2	100	1,200
1995	1,500	0.87	1,300	3,500	0	5,500	5,400	185.0	100	500
1992-95 ave.	1,350	0.91	1,225	4,153	0	5,428	5,303	187.9	125	1,000
1997	1,538	0.86	1,318	4,431	0	5,738	5,629	184.7	109	710
1998	1,546	0.86	1,331	4,890	0	6,168	6,057	194.6	111	763
1999	1,553	0.87	1,344	4,818	0	6,163	6,050	190.3	113	762
2000	1,569	0.87	1,365	4,976	0	6,321	6,205	191.2	116	782
2001	1,585	0.87	1,385	5,094	0	6,462	6,344	191.6	118	799
2002	1,600	0.88	1,406	5,242	0	6,627	6,507	192.7	120	820
2003	1,616	0.88	1,427	5,399	0	6,804	6,679	193.9	125	842
2004	1,633	0.89	1,449	5,573	0	6,998	6,871	195.7	127	866
2005	1,649	0.89	1,470	5,717	0	7,167	7,038	196.6	129	886
<b>ARGENTINA</b>										
1992	4,200	2.33	9,800	15	5,850	4,265	4,215	125.7	50	45
1993	4,800	2.02	9,700	4	4,996	4,304	4,054	119.5	250	449
1994	5,100	2.22	11,300	15	7,300	4,315	4,165	121.5	150	149
1995	4,500	1.91	8,600	0	4,300	4,300	4,200	121.1	100	149
1992-95 ave.	4,650	2.12	9,850	9	5,612	4,296	4,159	121.9	138	198
1997	5,206	2.14	11,141	0	6,700	4,439	4,182	118.0	258	142
1998	5,260	2.16	11,342	0	6,900	4,439	4,181	116.7	258	145
1999	5,241	2.18	11,428	0	7,000	4,427	4,174	115.3	253	146
2000	5,283	2.21	11,699	0	7,275	4,421	4,168	113.9	253	149
2001	5,257	2.25	11,816	0	7,400	4,415	4,163	112.6	252	150
2002	5,273	2.28	12,021	0	7,600	4,418	4,162	111.4	256	153
2003	5,387	2.30	12,417	0	8,000	4,412	4,156	110.2	256	158
2004	5,484	2.34	12,808	0	8,400	4,403	4,151	108.9	252	163
2005	5,535	2.37	13,098	0	8,700	4,394	4,145	107.7	249	167

Note: Food category includes other uses in some countries.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>AUSTRALIA</b>										
1992	9,101	1.78	16,184	16	9,853	4,200	2,306	129.4	1,894	5,017
1993	8,383	1.97	16,479	15	13,700	4,100	2,340	129.4	1,760	3,711
1994	8,003	1.11	8,903	1	6,343	3,905	2,272	124.0	1,633	2,367
1995	9,850	1.73	17,000	20	13,000	4,350	2,350	126.6	2,000	2,037
1992-95 ave.	8,834	1.66	14,642	13	10,724	4,139	2,317	127.3	1,822	3,283
1997	9,299	1.68	16,298	30	11,225	4,514	2,425	127.7	2,089	2,589
1998	9,899	1.68	16,786	31	12,000	4,605	2,449	127.6	2,155	2,618
1999	9,961	1.69	17,121	32	12,200	4,687	2,473	127.6	2,214	2,594
2000	10,141	1.70	17,539	33	12,500	4,792	2,497	127.5	2,295	2,575
2001	10,248	1.71	17,914	34	12,700	4,888	2,520	127.5	2,368	2,557
2002	10,521	1.72	18,239	35	13,100	4,979	2,543	127.5	2,436	2,574
2003	10,778	1.72	18,393	36	13,500	5,068	2,564	127.4	2,503	2,595
2004	10,992	1.72	18,795	37	13,800	5,134	2,584	127.3	2,550	2,645
2005	11,180	1.73	19,444	37	14,200	5,165	2,605	127.2	2,560	2,657
<b>BRAZIL</b>										
1992	1,997	1.37	2,739	5,825	0	7,839	7,839	50.0	0	869
1993	1,408	1.50	2,107	5,700	0	8,000	8,000	50.4	0	676
1994	1,365	1.60	2,185	6,300	0	8,300	8,300	51.6	0	861
1995	1,034	1.46	1,511	6,600	0	8,311	8,311	51.1	0	661
1992-95 ave.	1,451	1.47	2,136	6,106	0	8,113	8,113	50.8	0	767
1997	1,075	1.53	1,647	6,478	0	8,128	8,128	48.9	0	697
1998	1,091	1.58	1,723	6,696	0	8,395	8,395	50.0	0	721
1999	1,111	1.63	1,813	6,800	0	8,597	8,597	50.7	0	737
2000	1,150	1.69	1,943	6,678	0	8,619	8,619	50.4	0	739
2001	1,192	1.75	2,086	6,752	0	8,822	8,822	51.1	0	755
2002	1,234	1.81	2,234	6,884	0	9,093	9,093	52.2	0	780
2003	1,268	1.87	2,370	6,941	0	9,293	9,293	52.9	0	798
2004	1,294	1.93	2,496	7,006	0	9,484	9,484	53.6	0	816
2005	1,314	1.99	2,609	7,062	0	9,655	9,655	54.1	0	832
<b>CANADA</b>										
1992	13,830	2.16	29,871	100	19,709	8,135	3,700	133.2	4,435	12,193
1993	12,377	2.20	27,232	132	19,100	9,340	3,608	128.3	5,732	11,117
1994	10,838	2.13	23,122	125	21,500	6,922	3,750	131.9	3,172	5,942
1995	11,250	2.26	25,430	125	18,400	7,230	3,730	129.8	3,500	5,867
1992-95 ave.	12,074	2.19	26,414	121	19,677	7,907	3,697	130.8	4,210	8,780
1997	12,018	2.14	25,708	100	18,400	7,387	3,784	129.1	3,603	6,910
1998	12,096	2.15	25,958	101	18,500	7,479	3,815	128.9	3,664	6,990
1999	12,172	2.15	26,183	102	18,550	7,616	3,846	128.8	3,770	7,109
2000	12,278	2.16	26,483	103	18,800	7,708	3,881	128.8	3,827	7,187
2001	12,282	2.16	26,560	104	18,800	7,791	3,913	128.8	3,878	7,260
2002	12,470	2.17	27,054	105	19,300	7,827	3,946	128.8	3,881	7,292
2003	12,544	2.18	27,302	106	19,500	7,870	3,978	128.8	3,892	7,330
2004	12,619	2.18	27,567	107	19,800	7,873	4,012	128.9	3,861	7,331
2005	12,754	2.19	27,950	108	20,100	7,918	4,043	129.0	3,875	7,371
<b>CENTRAL AM. &amp; CARIBBEAN</b>										
1992	21	1.52	32	2,646	0	2,679	2,587	41.7	92	208
1993	17	1.47	25	3,018	0	3,048	2,880	45.6	168	203
1994	14	1.57	22	2,765	0	2,795	2,635	41.0	160	195
1995	14	1.57	22	2,705	0	2,735	2,575	39.3	160	187
1992-95 ave.	17	1.53	25	2,784	0	2,814	2,669	41.9	145	198
1997	15	1.55	23	2,911	0	2,931	2,767	40.9	164	194
1998	15	1.56	23	2,922	0	2,945	2,780	40.4	164	194
1999	15	1.56	24	2,929	0	2,952	2,788	39.9	164	195
2000	15	1.57	24	2,916	0	2,941	2,778	39.1	163	193
2001	15	1.57	24	2,947	0	2,969	2,805	38.9	164	195
2002	15	1.58	24	2,965	0	2,988	2,822	38.5	166	197
2003	15	1.58	24	2,992	0	3,014	2,846	38.2	168	199
2004	15	1.58	24	3,015	0	3,037	2,867	38.0	170	200
2005	15	1.58	24	3,034	0	3,056	2,884	37.6	172	202

Note: Food category includes other uses in some countries.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption								
						1,000 ha	Tons/ha	-----	1,000 tons	-----	Kgs.	-----	1,000 tons	-----
<b>CENTRAL &amp; EASTERN EUROPE</b>														
1992	8,152	3.24	26,420	3,482	1,253	30,935	17,870	145.3	12,217	3,504				
1993	9,965	3.07	30,620	2,444	328	31,058	19,061	154.7	10,855	5,182				
1994	10,078	3.37	33,951	1,235	2,240	32,573	19,619	158.8	11,920	5,555				
1995	9,698	3.66	35,520	968	4,660	31,988	20,193	162.9	11,300	5,395				
1992-95 ave.	9,473	3.34	31,628	2,032	2,120	31,634	19,186	155.4	11,573	4,910				
1997	9,876	3.50	34,600	2,091	3,126	33,535	20,138	161.4	12,342	5,010				
1998	9,931	3.51	34,903	2,485	3,451	33,953	20,292	162.1	12,055	4,994				
1999	10,025	3.54	35,508	2,316	3,751	34,061	20,380	162.3	11,689	5,006				
2000	10,180	3.56	36,231	2,121	4,010	34,283	20,440	162.2	11,232	5,065				
2001	10,411	3.56	37,104	1,756	4,469	34,353	20,466	161.8	10,928	5,103				
2002	10,508	3.58	37,593	1,390	5,105	33,895	20,521	161.6	10,489	5,086				
2003	10,544	3.60	37,915	1,175	5,592	33,539	20,654	162.1	10,207	5,045				
2004	10,520	3.61	37,998	1,115	5,771	33,404	20,967	163.9	9,990	4,983				
2005	10,480	3.64	38,111	1,016	6,075	33,055	21,033	163.9	9,715	4,980				
<b>CHINA</b>														
1992	30,500	3.33	101,590	6,719	92	109,054	106,304	90.3	2,750	22,853				
1993	30,240	3.52	106,390	4,310	177	110,646	107,946	90.7	2,700	22,730				
1994	28,981	3.43	99,300	10,235	25	110,525	107,525	89.4	3,000	21,715				
1995	28,900	3.46	100,000	13,000	0	113,000	109,800	90.3	3,200	21,715				
1992-95 ave.	29,655	3.43	101,820	8,566	74	110,806	107,893	90.2	2,913	22,253				
1997	28,802	3.41	98,220	13,777	0	112,282	108,867	87.9	3,415	18,965				
1998	28,775	3.43	98,639	14,440	0	113,174	109,670	87.7	3,504	18,870				
1999	28,816	3.46	99,740	14,800	0	114,555	110,965	88.1	3,590	18,855				
2000	29,076	3.51	102,083	15,100	0	117,025	113,367	89.3	3,658	19,013				
2001	29,558	3.55	104,938	15,400	0	120,090	116,330	90.9	3,760	19,261				
2002	29,519	3.57	105,329	15,818	0	121,217	117,357	91.1	3,860	19,191				
2003	29,422	3.58	105,399	16,624	0	122,127	118,167	91.1	3,960	19,087				
2004	29,311	3.59	105,275	17,212	0	122,652	118,582	90.8	4,070	18,922				
2005	29,089	3.60	104,813	18,154	0	123,137	118,972	90.5	4,165	18,752				
<b>EU-15</b>														
1992	17,431	5.03	87,719	1,400	23,700	65,270	34,164	92.2	24,537	24,134				
1993	15,742	5.27	82,930	1,300	20,100	72,046	33,606	90.3	30,337	16,218				
1994	15,725	5.39	84,718	2,100	16,800	73,820	34,156	91.5	32,194	12,416				
1995	16,019	5.38	86,115	2,300	13,000	77,745	33,873	90.5	34,615	10,086				
1992-95 ave.	16,229	5.26	85,371	1,775	18,400	71,620	33,950	91.1	30,421	15,714				
1997	17,166	5.53	94,853	1,500	19,296	76,989	34,760	92.3	34,390	12,098				
1998	17,104	5.62	96,071	1,500	18,309	77,752	35,101	93.0	34,719	13,608				
1999	16,642	5.69	94,635	1,500	17,323	78,965	35,486	93.8	35,574	13,455				
2000	16,441	5.76	94,686	1,500	16,336	80,004	35,843	94.5	35,742	13,301				
2001	16,003	5.84	93,475	1,500	17,492	78,421	36,139	95.1	33,856	12,363				
2002	15,817	5.92	93,656	1,500	17,330	78,099	36,464	95.7	33,506	12,090				
2003	15,808	6.01	94,964	1,500	18,516	77,581	36,784	96.4	32,968	12,457				
2004	15,874	6.09	96,626	1,500	18,144	78,382	37,123	97.1	33,324	14,057				
2005	15,945	6.17	98,445	1,500	19,044	78,355	37,419	97.8	32,349	16,603				
<b>EGYPT</b>														
1992	878	5.26	4,617	6,004	0	10,421	9,721	162.2	700	700				
1993	894	5.35	4,780	5,900	0	10,550	10,200	166.8	350	830				
1994	730	5.62	4,100	6,000	0	10,100	9,850	158.0	250	830				
1995	950	5.26	5,000	6,000	0	11,000	10,940	172.1	60	830				
1992-95 ave.	863	5.36	4,624	5,976	0	10,518	10,178	164.8	340	798				
1997	862	5.43	4,682	6,500	0	11,217	11,010	166.8	207	918				
1998	864	5.43	4,694	6,594	0	11,390	11,181	166.3	209	816				
1999	871	5.43	4,729	6,752	0	11,363	11,153	163.0	210	934				
2000	888	5.44	4,824	6,789	0	11,409	11,198	160.8	211	1,138				
2001	886	5.44	4,822	6,968	0	11,481	11,269	159.0	212	1,447				
2002	880	5.45	4,792	7,124	0	11,663	11,450	158.8	213	1,700				
2003	873	5.45	4,761	7,250	0	11,819	11,605	158.3	214	1,892				
2004	867	5.46	4,731	7,377	0	12,280	12,064	161.8	216	1,720				
2005	866	5.46	4,733	7,462	0	12,420	12,203	161.0	217	1,495				

Note: Food category includes other uses in some countries.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
<b>FORMER SOVIET UNION</b>										
1992	47,119	1.90	89,714	24,103	6,800	102,024	49,480	168.0	52,544	30,568
1993	45,159	1.84	83,289	13,520	6,500	90,103	48,062	162.4	42,041	30,774
1994	42,265	1.43	60,238	8,877	5,255	76,686	46,370	155.9	30,316	17,948
1995	44,535	1.34	59,735	9,230	3,600	74,605	46,343	155.0	28,262	8,708
1992-95 ave.	44,770	1.64	73,244	13,933	5,539	85,855	47,564	160.3	38,291	22,000
1997	43,759	1.69	74,094	7,700	5,864	75,764	46,814	155.1	28,950	16,717
1998	43,563	1.72	74,748	7,292	6,485	75,588	47,241	155.7	28,347	16,684
1999	43,474	1.73	75,264	7,374	6,671	75,913	47,281	155.1	28,632	16,738
2000	43,493	1.74	75,618	7,585	6,998	76,077	46,687	152.4	29,390	16,866
2001	43,642	1.74	76,042	7,840	6,995	76,776	47,152	153.2	29,624	16,977
2002	43,381	1.76	76,254	8,109	6,996	77,289	47,792	154.5	29,497	17,055
2003	43,023	1.77	76,365	8,352	6,999	77,664	48,531	156.1	29,133	17,109
2004	42,662	1.79	76,439	8,487	7,040	77,863	49,118	157.2	28,745	17,132
2005	42,294	1.81	76,424	8,613	6,972	78,044	49,597	157.9	28,447	17,153
<b>INDIA</b>										
1992	23,260	2.39	55,690	2,500	31	55,559	48,314	53.5	300	7,600
1993	24,589	2.33	57,210	500	28	56,482	49,246	53.5	200	8,800
1994	24,915	2.37	59,130	30	100	57,160	49,833	53.2	200	10,700
1995	24,970	2.61	65,200	25	700	61,200	50,500	53.0	300	14,025
1992-95 ave.	24,434	2.43	59,308	764	215	57,600	49,473	53.3	250	10,281
1997	25,406	2.54	64,443	50	951	64,961	57,484	58.3	292	11,381
1998	25,213	2.61	65,772	50	825	64,917	57,451	57.3	284	11,461
1999	25,338	2.70	68,404	50	800	67,575	59,820	58.8	277	11,540
2000	25,568	2.78	71,185	50	1,000	70,156	62,121	60.1	270	11,619
2001	25,802	2.86	73,849	50	950	72,871	64,539	61.5	264	11,697
2002	25,952	2.92	75,907	50	1,150	74,664	66,139	62.1	257	11,840
2003	26,125	2.99	78,046	50	1,575	76,378	67,669	62.6	250	11,983
2004	26,217	3.03	79,565	50	1,775	77,696	68,848	62.8	242	12,127
2005	26,405	3.09	81,608	50	2,000	79,515	70,472	63.4	234	12,270
<b>INDONESIA</b>										
1992	0	0.00	0	2,600	0	2,650	2,520	12.8	130	270
1993	0	0.00	0	2,568	0	2,688	2,548	12.7	140	150
1994	0	0.00	0	3,645	0	3,645	3,505	17.2	140	150
1995	0	0.00	0	4,000	0	4,000	3,860	18.7	140	150
1992-95 ave.	0	0.00	0	3,203	0	3,246	3,109	15.4	138	180
1997	0	0.00	0	4,250	0	4,228	4,088	19.2	141	211
1998	0	0.00	0	4,393	0	4,385	4,244	19.6	141	219
1999	0	0.00	0	4,622	0	4,611	4,469	20.4	142	231
2000	0	0.00	0	4,924	0	4,909	4,767	21.4	143	245
2001	0	0.00	0	5,281	0	5,263	5,120	22.7	143	263
2002	0	0.00	0	5,601	0	5,585	5,441	23.8	144	279
2003	0	0.00	0	5,900	0	5,885	5,740	24.7	145	294
2004	0	0.00	0	6,100	0	6,090	5,943	25.3	147	305
2005	0	0.00	0	6,400	0	6,385	6,236	26.2	149	319
<b>IRAN</b>										
1992	7,200	1.42	10,200	3,000	0	12,600	12,100	195.1	500	4,200
1993	7,500	1.45	10,900	3,500	0	13,800	13,300	210.7	500	4,800
1994	7,600	1.45	11,000	3,200	0	14,700	14,100	218.2	500	4,300
1995	7,600	1.45	11,000	3,500	0	15,500	15,000	226.9	500	3,300
1992-95 ave.	7,475	1.44	10,775	3,300	0	14,150	13,625	213.0	500	4,150
1997	7,400	1.52	11,257	3,350	0	14,478	13,622	197.5	533	3,363
1998	7,473	1.48	11,046	3,515	0	14,897	13,991	198.9	540	3,027
1999	7,472	1.47	11,008	3,745	0	15,056	14,295	198.9	545	2,724
2000	7,470	1.49	11,133	3,958	0	15,227	14,498	197.1	549	2,588
2001	7,468	1.49	11,128	4,303	0	15,560	14,870	197.7	553	2,459
2002	7,458	1.51	11,279	4,533	0	16,034	15,313	199.2	558	2,237
2003	7,448	1.53	11,404	4,788	0	16,393	15,644	199.2	562	2,036
2004	7,583	1.53	11,569	4,991	0	16,784	16,005	199.7	567	1,812
2005	7,729	1.50	11,600	5,199	0	17,053	16,390	200.5	572	1,558

Note: Food category includes other uses in some countries.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
						1,000 tons	Kgs.	1,000 tons		
1,000 ha	Tons/ha		1,000 tons							
<b>JAPAN</b>										
1992	215	3.53	759	5,919	432	6,400	6,155	49.4	245	1,414
1993	184	3.47	638	6,095	424	6,471	6,231	49.8	240	1,252
1994	152	3.72	565	6,309	452	6,509	6,274	50.0	235	1,165
1995	160	3.63	580	6,300	400	6,650	6,420	51.0	230	995
1992-95 ave.	178	3.58	636	6,156	427	6,508	6,271	50.0	238	1,207
1997	188	3.66	688	6,327	400	6,570	6,175	48.7	395	1,137
1998	189	3.68	695	6,303	400	6,593	6,194	48.7	399	1,142
1999	190	3.70	702	6,312	400	6,612	6,217	48.7	396	1,144
2000	191	3.72	708	6,350	400	6,651	6,260	48.9	391	1,151
2001	191	3.73	714	6,354	400	6,665	6,278	48.9	387	1,154
2002	192	3.75	721	6,364	400	6,682	6,297	49.0	386	1,157
2003	193	3.78	728	6,371	400	6,697	6,313	49.0	384	1,159
2004	194	3.79	734	6,376	400	6,708	6,325	49.0	383	1,161
2005	194	3.81	741	6,380	400	6,719	6,336	49.0	383	1,163
<b>MALAYSIA</b>										
1992	0	0.00	0	942	103	969	839	44.5	130	100
1993	0	0.00	0	1,327	130	1,067	957	49.6	110	230
1994	0	0.00	0	1,100	140	1,010	950	48.2	60	180
1995	0	0.00	0	1,200	150	1,050	1,000	49.6	50	180
1992-95 ave.	0	0.00	0	1,142	131	1,024	937	48.0	88	173
1997	0	0.00	0	1,311	146	1,159	1,086	51.6	73	186
1998	0	0.00	0	1,400	152	1,236	1,160	54.0	76	198
1999	0	0.00	0	1,448	157	1,283	1,205	54.9	79	205
2000	0	0.00	0	1,493	161	1,325	1,243	55.5	82	212
2001	0	0.00	0	1,541	165	1,369	1,284	56.2	85	219
2002	0	0.00	0	1,592	167	1,417	1,328	57.0	89	227
2003	0	0.00	0	1,634	169	1,458	1,366	57.5	92	233
2004	0	0.00	0	1,679	170	1,502	1,406	58.0	96	240
2005	0	0.00	0	1,723	170	1,546	1,446	58.6	100	247
<b>MEXICO</b>										
1992	947	3.30	3,127	1,350	0	4,402	4,002	44.3	400	450
1993	884	4.07	3,596	1,828	0	5,424	4,865	52.8	559	450
1994	950	4.21	4,000	1,370	0	5,370	5,070	53.9	300	450
1995	850	4.24	3,600	1,200	100	4,825	4,625	48.3	200	325
1992-95 ave.	908	3.94	3,581	1,437	25	5,005	4,640	49.8	365	419
1997	932	4.15	3,864	1,613	54	5,415	5,155	51.9	260	409
1998	959	4.22	4,050	1,638	54	5,619	5,356	53.0	263	425
1999	988	4.30	4,244	1,658	54	5,832	5,565	54.1	267	441
2000	1,024	4.37	4,479	1,648	54	6,057	5,786	55.3	271	458
2001	1,058	4.45	4,707	1,646	54	6,282	6,007	56.4	275	475
2002	1,098	4.53	4,971	1,626	54	6,525	6,247	57.7	278	493
2003	1,146	4.61	5,281	1,583	54	6,790	6,508	59.2	282	513
2004	1,202	4.70	5,646	1,509	54	7,079	6,794	60.9	285	535
2005	1,271	4.78	6,081	1,398	54	7,401	7,112	62.7	289	560
<b>MOROCCO</b>										
1992	2,228	0.70	1,562	2,811	0	5,100	4,950	177.1	150	1,073
1993	2,310	0.68	1,573	2,403	0	4,956	4,826	169.0	100	93
1994	3,050	1.81	5,523	1,200	0	5,300	5,100	174.8	200	1,516
1995	1,700	0.65	1,100	3,000	0	5,256	5,256	176.5	0	360
1992-95 ave.	2,322	1.05	2,440	2,354	0	5,153	5,033	174.4	113	761
1997	2,519	1.51	3,816	1,901	0	5,696	5,338	172.2	158	570
1998	2,519	1.53	3,855	2,018	0	5,857	5,498	173.9	159	586
1999	2,527	1.55	3,905	2,127	0	6,016	5,556	172.4	160	602
2000	2,541	1.56	3,966	2,096	0	6,058	5,595	170.4	164	606
2001	2,540	1.58	4,004	2,178	0	6,125	5,661	169.2	165	663
2002	2,534	1.59	4,035	2,377	0	6,386	5,916	173.6	170	689
2003	2,528	1.61	4,065	2,436	0	6,536	6,064	174.8	172	654
2004	2,518	1.62	4,090	2,518	0	6,602	6,223	176.2	178	660
2005	2,513	1.64	4,123	2,611	0	6,722	6,342	176.5	180	672

Note: Food category includes other uses in some countries.



Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
						1,000 ha	Tons/ha	1,000 tons		
<b>PAKISTAN</b>										
1992	7,878	1.99	15,684	2,862	50	17,405	17,005	135.8	400	3,834
1993	8,300	1.95	16,157	1,617	0	17,900	17,500	135.8	400	3,708
1994	8,034	1.88	15,114	2,082	0	18,100	17,650	134.2	450	2,804
1995	8,176	2.07	16,948	1,800	0	18,800	18,400	137.2	400	2,752
1992-95 ave.	8,097	1.97	15,976	2,090	13	18,051	17,639	135.8	413	3,275
1997	8,289	2.07	17,173	2,700	0	19,950	19,546	138.6	404	2,394
1998	8,386	2.11	17,660	2,800	0	20,405	19,997	138.3	408	2,449
1999	8,438	2.14	18,021	2,850	0	20,822	20,410	137.4	412	2,498
2000	8,496	2.17	18,410	2,875	0	21,235	20,820	136.3	415	2,548
2001	8,544	2.20	18,781	3,077	0	21,791	21,373	136.1	418	2,615
2002	8,599	2.23	19,161	3,336	0	22,421	22,000	136.3	421	2,691
2003	8,657	2.26	19,573	3,589	0	23,083	22,660	136.6	423	2,770
2004	8,719	2.30	20,030	3,732	0	23,689	23,263	136.4	426	2,843
2005	8,783	2.34	20,569	3,928	0	24,411	23,982	136.9	429	2,929
<b>PHILIPPINES</b>										
1992	0	0.00	0	1,992	0	1,992	1,692	24.2	300	145
1993	0	0.00	0	2,217	0	2,217	1,767	24.7	450	145
1994	0	0.00	0	2,050	0	2,050	1,550	21.2	500	145
1995	0	0.00	0	2,300	0	2,300	1,900	25.4	400	145
1992-95 ave.	0	0.00	0	2,140	0	2,140	1,728	23.8	413	145
1997	0	0.00	0	2,485	0	2,484	2,146	27.4	338	146
1998	0	0.00	0	2,550	0	2,549	2,247	28.1	302	147
1999	0	0.00	0	2,698	0	2,696	2,433	29.8	263	149
2000	0	0.00	0	2,800	0	2,798	2,567	30.8	232	151
2001	0	0.00	0	2,894	0	2,893	2,694	31.7	199	152
2002	0	0.00	0	3,019	0	3,017	2,843	32.8	175	154
2003	0	0.00	0	3,165	0	3,164	3,013	34.1	151	155
2004	0	0.00	0	3,312	0	3,311	3,183	35.3	128	156
2005	0	0.00	0	3,467	0	3,466	3,359	36.6	106	158
<b>SAUDI ARABIA</b>										
1992	907	4.49	4,070	218	2,490	1,689	1,614	92.8	75	2,150
1993	795	4.53	3,600	53	2,019	1,734	1,634	90.5	100	2,050
1994	580	4.31	2,500	50	1,700	1,800	1,650	88.1	150	1,100
1995	465	4.30	2,000	50	70	1,880	1,580	81.4	300	1,200
1992-95 ave.	687	4.43	3,043	93	1,570	1,793	1,637	89.0	156	1,625
1997	464	4.31	1,999	0	29	1,982	1,782	85.7	200	1,157
1998	464	4.30	1,997	27	20	2,016	1,866	86.8	150	1,145
1999	464	4.31	2,001	47	18	2,041	1,916	86.1	125	1,134
2000	464	4.33	2,007	18	17	2,020	1,960	85.2	60	1,122
2001	464	4.34	2,015	63	15	2,074	2,024	85.0	50	1,111
2002	464	4.36	2,022	107	13	2,127	2,077	84.4	50	1,100
2003	463	4.38	2,029	154	12	2,182	2,132	83.7	50	1,089
2004	463	4.40	2,035	201	11	2,236	2,186	83.0	50	1,078
2005	463	4.42	2,042	251	10	2,294	2,244	82.4	50	1,067
<b>SOUTH AFRICA</b>										
1992	743	1.77	1,318	1,050	190	2,198	2,148	50.2	50	380
1993	1,065	1.85	1,975	275	109	2,236	2,176	49.5	60	285
1994	1,035	1.77	1,832	900	110	2,474	2,464	54.6	10	433
1995	1,363	1.56	2,125	400	100	2,500	2,490	53.8	10	358
1992-95 ave.	1,052	1.72	1,813	656	127	2,352	2,320	52.1	33	364
1997	1,124	1.90	2,140	600	110	2,634	2,598	53.3	36	363
1998	1,142	1.93	2,201	650	110	2,730	2,694	53.8	36	374
1999	1,164	1.95	2,272	744	110	2,886	2,849	55.5	37	394
2000	1,190	1.98	2,355	764	110	3,000	2,963	56.3	37	403
2001	1,207	2.00	2,420	786	110	3,085	3,048	56.4	37	414
2002	1,222	2.03	2,480	801	110	3,158	3,120	56.3	38	427
2003	1,236	2.06	2,541	816	110	3,234	3,196	56.2	38	440
2004	1,248	2.08	2,600	833	110	3,308	3,270	56.1	38	455
2005	1,264	2.11	2,667	849	110	3,393	3,354	56.1	39	468

Note: Food category includes other uses in some countries.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.	1,000 tons		
<b>SOUTH KOREA</b>										
1992	1	1.00	1	3,994	0	3,519	2,087	46.8	1,432	744
1993	1	1.00	1	5,647	0	5,645	2,045	45.4	3,600	747
1994	1	1.00	1	4,293	0	4,293	2,093	45.9	2,200	748
1995	1	1.00	1	2,500	0	2,500	2,100	45.6	400	749
1992-95 ave.	1	1.00	1	4,109	0	3,989	2,081	45.9	1,908	747
1997	1	3.79	2	2,412	0	2,418	2,044	43.5	374	201
1998	1	3.79	2	2,378	0	2,384	2,085	44.0	299	197
1999	1	3.79	2	2,354	0	2,356	2,080	43.5	276	197
2000	1	3.79	2	2,340	0	2,346	2,134	44.2	212	194
2001	1	3.79	2	2,334	0	2,338	2,175	44.6	163	191
2002	1	3.79	2	2,333	0	2,337	2,214	45.1	123	190
2003	1	3.79	2	2,336	0	2,339	2,246	45.3	93	189
2004	1	3.79	2	2,342	0	2,344	2,274	45.6	70	189
2005	1	3.79	2	2,351	0	2,345	2,222	44.2	123	197
<b>SUB-SAHARAN AFRICA</b>										
1992	1,265	1.75	2,220	4,683	0	6,946	6,943	13.6	3	281
1993	1,255	1.69	2,127	5,102	0	6,989	6,986	13.3	3	521
1994	1,247	1.80	2,248	4,350	0	6,769	6,766	12.5	3	350
1995	1,252	1.71	2,138	4,120	0	6,318	6,318	11.4	0	290
1992-95 ave.	1,255	1.74	2,183	4,564	0	6,756	6,754	12.7	2	361
1997	1,329	1.88	2,500	4,413	0	6,886	6,883	11.7	3	411
1998	1,339	1.91	2,564	4,424	0	6,984	6,981	11.5	3	415
1999	1,381	1.95	2,689	4,297	0	6,983	6,980	11.2	3	418
2000	1,426	1.98	2,825	4,072	0	6,900	6,897	10.8	3	415
2001	1,435	2.02	2,893	4,045	0	6,941	6,938	10.5	3	412
2002	1,449	2.05	2,973	4,000	0	6,971	6,968	10.3	3	414
2003	1,447	2.09	3,020	3,993	0	7,009	7,006	10.1	3	419
2004	1,437	2.12	3,052	3,946	0	7,003	7,000	9.8	3	414
2005	1,454	2.16	3,142	3,902	0	7,038	7,035	9.6	3	420
<b>TAIWAN</b>										
1992	1	4.00	4	929	0	928	883	41.9	45	102
1993	1	4.00	4	916	0	922	879	41.3	43	100
1994	1	4.00	4	900	0	904	861	40.0	43	100
1995	1	3.00	3	900	0	900	857	39.5	43	103
1992-95 ave.	1	3.75	4	911	0	914	870	40.7	44	101
1997	1	4.00	4	919	0	922	880	39.8	43	111
1998	1	4.00	4	927	0	930	888	39.9	42	112
1999	1	4.00	4	934	0	937	895	39.9	42	112
2000	1	4.00	4	940	0	943	902	39.9	41	113
2001	1	4.00	4	950	0	950	909	39.8	41	118
2002	1	4.00	4	952	0	957	916	39.9	41	117
2003	1	4.00	4	959	0	964	924	39.9	40	116
2004	1	4.00	4	968	0	971	932	39.9	39	117
2005	1	4.00	4	974	0	977	939	40.0	39	117
<b>THAILAND</b>										
1992	0	0.00	0	630	0	620	460	7.8	160	50
1993	0	0.00	0	719	0	719	529	8.9	190	50
1994	0	0.00	0	700	0	700	600	10.0	100	50
1995	0	0.00	0	700	0	700	480	7.9	220	50
1992-95 ave.	0	0.00	0	687	0	685	518	8.6	168	50
1997	0	0.00	0	794	0	794	512	8.2	282	50
1998	0	0.00	0	906	0	899	603	9.6	297	57
1999	0	0.00	0	962	0	958	647	10.2	311	61
2000	0	0.00	0	1,021	0	1,017	690	10.8	327	64
2001	0	0.00	0	1,083	0	1,079	736	11.4	343	68
2002	0	0.00	0	1,147	0	1,143	783	12.1	360	72
2003	0	0.00	0	1,215	0	1,211	832	12.8	378	77
2004	0	0.00	0	1,286	0	1,282	884	13.5	397	81
2005	0	0.00	0	1,360	0	1,355	938	14.4	417	86

Note: Food category includes other uses in some countries.

Table 6. Wheat supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
						1,000 tons	Kgs.	1,000 tons		
	1,000 ha	Tons/ha			1,000 tons				1,000 tons	
<b>TUNISIA</b>										
1992	981	1.61	1,584	615	0	2,199	2,199	256.6	0	750
1993	1,030	1.36	1,400	806	0	2,256	2,256	258.5	0	700
1994	470	1.06	500	1,400	0	2,100	2,100	236.5	0	500
1995	600	1.00	600	1,250	0	2,100	2,100	232.6	0	250
1992-95 ave.	770	1.33	1,021	1,018	0	2,164	2,164	245.9	0	550
1997	990	1.18	1,168	1,047	0	2,144	2,144	229.9	0	611
1998	993	1.19	1,178	1,068	0	2,237	2,237	236.2	0	620
1999	1,000	1.19	1,192	1,075	0	2,264	2,264	235.4	0	623
2000	1,019	1.20	1,221	1,073	0	2,293	2,293	235.0	0	624
2001	1,020	1.20	1,228	1,102	0	2,325	2,325	234.8	0	630
2002	1,015	1.21	1,228	1,135	0	2,351	2,351	234.1	0	641
2003	1,010	1.22	1,229	1,170	0	2,387	2,387	234.3	0	653
2004	1,007	1.22	1,231	1,201	0	2,418	2,418	234.1	0	667
2005	1,007	1.23	1,236	1,234	0	2,458	2,458	234.7	0	679
<b>TURKEY</b>										
1992	8,800	1.76	15,500	900	2,000	15,000	14,400	236.5	600	1,520
1993	8,850	1.86	16,500	725	1,042	15,200	14,600	234.9	600	2,503
1994	8,600	1.71	14,700	474	1,761	15,213	14,613	230.5	600	703
1995	8,550	1.81	15,500	1,350	1,300	15,500	14,900	230.5	600	753
1992-95 ave.	8,700	1.79	15,550	862	1,526	15,228	14,628	233.0	600	1,370
1997	8,878	1.86	16,501	1,050	1,442	15,533	14,901	221.9	632	1,709
1998	8,849	1.86	16,497	1,106	1,438	15,828	15,176	221.9	652	2,046
1999	8,864	1.87	16,573	1,212	1,433	16,014	15,346	220.4	668	2,384
2000	8,870	1.88	16,635	1,342	1,429	16,339	15,661	221.0	678	2,593
2001	8,872	1.88	16,688	1,460	1,425	16,672	15,985	221.8	687	2,644
2002	8,853	1.89	16,703	1,496	1,382	16,786	16,088	219.4	698	2,675
2003	8,833	1.89	16,715	1,556	1,341	16,900	16,191	217.2	709	2,705
2004	8,786	1.90	16,677	1,617	1,300	16,958	16,234	214.3	724	2,741
2005	8,767	1.90	16,689	1,689	1,261	17,085	16,345	212.4	740	2,773

Note: Food category includes other uses in some countries.

## Rice

Rice trade is projected to grow 1.9 percent annually during 1995-2005, with growth strengthening after 2000. Anticipated growth is about the same as in the 1980s and the early 1990s, but slower than in the 1970s. World trade is projected at 17.4 million tons by 2000 and 19.6 million tons by 2005. Trade is expected to continue to consist predominantly of long grain varieties, despite anticipated gains in medium-grain (japonica) rice imports by Japan and South Korea under the UR agreement. Nominal prices are expected to rise throughout the projection period, while real prices continue to fall, although less rapidly than in the past. Global medium-grain prices are expected to rise relative to long-grain prices due to limited world export supplies of high-quality japonica rice.

Foreign production is forecast to rise gradually, growing about 1.3 percent per year. Growth in the 1990s is expected to slow relative to the 1970s and 1980s when irrigation expanded more rapidly in Asia, and Green Revolution technology was widely adopted. Slower production growth stems primarily from a projected slowdown in yield increases. Global acreage growth is expected to remain negligible, as it has since 1975.

Foreign consumption also is projected to rise about 1.2 percent per year, markedly slower than during the 1980s. Consumption in higher income Asian countries has been declining (and is expected to continue to decline) as larger portions of the population achieve middle class incomes and consumption of rice declines in favor of other foods, such as wheat products and meat. Per capita rice use in other countries, including China and India, is projected to reach the stage where it flattens or declines during the coming decade as consumers primarily shift from lower-quality to higher-quality rice varieties and some begin to diversify their diets in response to higher incomes. These developments are expected to offset consumption gains in other regions, primarily lower income rice-producing countries and higher income nonproducing countries, where per capita rice use is still rising.

The rice export market share for the United States between 1990 and 1995 varied from 15 to 18 percent. It is projected to average about 17 percent during 1996-1999 and then decline gradually to about 14 percent by 2005. Minimal U.S. production gains, strong domestic use, and high prices relative to competitors are expected to limit the volume of U.S. rice exports. Total U.S. exports are projected at 2.7 million tons, while total imports rise to 0.6 million tons, leaving net U.S. exports of 2.1 million tons in 2005.

As a major exporter of medium-grain rice, the United States will benefit significantly from the UR agreement. But, despite significant market access gains in East Asian medium-grain markets under the UR agreement, total U.S. rice exports do not expand in the baseline. The extent of U.S. gains in medium-grain markets depends on U.S. capacity to expand production and exports on a sustainable basis. California, the most efficient U.S. producer of japonica rice, faces environmental restrictions on expanding acreage and yields. The outlook for a widening long-grain export price premium implies that the United States will lose some of its long-grain exports in the more "price-sensitive" markets. Further, under fixed budget levels, higher domestic prices imply lower program-assisted exports.

Historically, rice trade and prices have exhibited greater volatility than those of other cereals. This volatility stems from the dependence of many large producers and traders, including Burma, India, Thailand, and Vietnam, on rainfall during the Asian monsoon season, and from the fact that only a small share (less than 5 percent) of world rice production is traded. These factors will continue to affect the world rice market during 1995-2005, with the

potential to create dramatic annual swings in trade and prices that could deviate significantly from the trends projected in this baseline.

### Highlights for Major Importers

Rice import growth will be fueled by the needs of China, Indonesia, the Middle East, and Central America and the Caribbean. Indonesia is expected to be a steady net rice importer, but its imports are projected to decrease over time as consumption growth slows and yields continue to rise. China is also projected to become a small net rice importer. Developing countries, particularly in Asia, continue to account for the bulk of the gains in import demand.

- After a period of self-sufficiency in the late 1980s, Indonesia became a net rice importer in 1993/94, when population and income growth increased rice demand faster than output. Imports of 0.8-1.3 million tons per year are projected through 2001, as supply growth slows and population and incomes continue to rise. However, the Indonesian Government maintains a goal of rice self-sufficiency and plans an expansion of rice cultivation in areas off the major island of Java. Such an expansion, along with increased diet diversification, is expected to curb import demand after 2002.

Indonesian rice trade has historically been volatile, ranging from the world's leading importer during the 1970s, to self-sufficiency in the late 1980s, and back to significant imports in recent years. Significant imports are projected to continue, but the outlook is heavily dependent on government trade and producer policies, and the progress of rice technology off Java.

- In 1994/95, China also became a net rice importer, and annual net imports of 450,000-700,000 tons are projected to continue through 2005. Rice area is forecast to continue to fall, as demand growth slows, prices for competing crops rise, and other uses absorb more agricultural land. Southern China's lower-quality indica rice will likely account for much of the area decline because imports from Vietnam or Thailand are an attractive option in this region. At the same time, demand will likely strengthen for higher-quality japonica rice produced in northern China, even as rice land in this region is also pressured by competing uses. Japonica demand is expected to be driven by increased quality consciousness among higher income Chinese consumers and the lucrative Japanese and Korean export markets.

China's future rice trade will be affected by policy and technology factors. The extent to which China becomes a net importer of low-cost Southeast Asian rice depends on whether future policies are guided by self-sufficiency or comparative advantage goals. Further, because of China's size and the fact that its rice trade is a very small portion of production or consumption, only small adjustments in supply or demand projections can yield globally significant changes in trade.

- Other Asian countries are projected to lead the gains in developing-country rice imports during the next decade. In the Philippines, production growth is expected to continue to fail to keep pace with even small income-generated gains in consumption. Malaysia's rice imports are projected to rise as declines in rice area more than offset productivity gains due to mechanization and irrigation. In these countries, however,

Table 7. Rice trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exports</b>														
United States	2,558	2,523	3,341	2,743	2,791	2,832	2,826	2,807	2,781	2,759	2,734	2,708	2,683	2,658
Argentina	276	175	350	425	307	443	473	507	516	533	554	577	596	606
Australia	525	600	550	575	563	583	586	594	604	612	619	616	614	621
Burma	223	619	645	700	547	841	874	955	1,045	1,249	1,479	1,630	1,841	2,026
China	1,374	1,519	50	200	786	390	395	393	393	394	392	395	394	390
European Union-15 1/	376	153	185	250	241	255	258	260	263	265	268	271	273	276
Egypt	133	262	150	50	149	284	212	158	107	74	25	17	0	0
India	560	625	4,000	2,500	1,921	928	956	1,145	1,356	1,475	1,576	1,675	1,804	2,005
Japan	0	0	410	200	153	0	0	0	0	0	0	0	0	0
Other Asia	659	326	317	150	363	48	40	32	28	21	15	0	0	1
Oth. C. & S. America	719	747	915	800	795	754	760	764	769	774	778	784	788	791
Pakistan	918	1,232	1,500	1,400	1,263	1,366	1,388	1,414	1,473	1,510	1,555	1,592	1,652	1,699
Thailand	4,798	4,738	5,950	5,500	5,247	5,589	5,749	5,913	6,151	6,235	6,291	6,353	6,540	6,743
Vietnam	1,765	2,000	1,950	2,000	1,929	1,982	1,976	1,933	1,923	1,900	1,893	1,864	1,822	1,813
Other	48	41	22	30	35	9	9	9	9	9	9	9	9	9
<b>Total</b>	<b>14,932</b>	<b>15,560</b>	<b>20,335</b>	<b>17,523</b>	<b>17,088</b>	<b>16,304</b>	<b>16,502</b>	<b>16,884</b>	<b>17,418</b>	<b>17,810</b>	<b>18,188</b>	<b>18,491</b>	<b>19,016</b>	<b>19,638</b>
<b>Imports</b>														
United States	194	219	223	238	219	308	333	359	387	419	451	489	527	568
Algeria	45	25	30	30	33	32	33	34	35	36	37	38	39	40
Australia	26	32	35	35	32	38	38	38	38	38	38	38	38	38
Bangladesh	10	100	575	1,225	478	252	234	220	220	226	235	250	281	273
Brazil	716	975	1,000	1,250	985	1,045	932	927	920	907	914	883	890	962
Canada	182	190	200	210	196	208	211	215	218	222	225	228	232	235
C. Amer. & Carib.	743	689	805	745	746	757	799	855	913	969	1,028	1,083	1,149	1,223
China	112	700	1,700	750	816	912	921	942	962	979	1,002	1,016	1,038	1,066
Central/East Europe	226	160	105	175	167	171	178	180	185	190	195	199	203	207
European Union-15 1/	480	444	725	550	550	624	637	649	656	663	669	676	683	689
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	20	108
Former Soviet Union 2/	326	70	190	210	199	192	219	265	346	361	374	384	401	434
Hong Kong	398	400	400	420	405	390	389	387	386	385	383	382	380	379
Indonesia	22	950	3,000	1,500	1,368	1,305	913	891	884	805	658	542	468	404
Iran	1,037	475	1,400	800	928	1,025	1,071	1,129	1,192	1,260	1,336	1,407	1,487	1,575
Iraq	655	200	200	250	326	288	319	344	371	398	423	450	472	494
Japan	18	2,623	150	425	804	607	683	758	758	758	758	758	758	758
Malaysia	468	370	400	400	410	392	407	425	442	461	481	502	523	545
Mexico	275	275	275	400	306	374	396	420	424	437	451	462	474	484
Other Asia	1,154	760	1,273	985	1,043	938	1,000	1,054	1,094	1,125	1,168	1,211	1,280	1,356
Oth. N. A. & M. East	695	758	651	736	710	945	982	1,023	1,066	1,108	1,155	1,200	1,249	1,304
Oth. C. & S. America	522	381	461	426	448	433	431	441	453	466	480	495	526	558
Sub-Saharan Africa	2,889	2,480	2,485	2,562	2,604	3,050	3,122	3,198	3,181	3,160	3,168	3,159	3,145	3,133
Philippines	0	215	220	975	353	246	247	283	337	380	416	429	465	527
Saudi Arabia	760	869	700	800	782	768	795	824	854	885	918	950	985	1,022
South Africa	360	431	450	400	410	436	449	465	479	495	511	526	544	563
South Korea	1	1	50	65	29	190	403	203	228	254	280	305	305	205
Turkey	285	243	375	200	276	278	287	300	302	329	349	360	376	395
Other	55	60	60	65	60	101	72	55	86	95	86	70	79	92
<b>Total</b>	<b>12,654</b>	<b>15,095</b>	<b>18,138</b>	<b>16,827</b>	<b>15,679</b>	<b>16,304</b>	<b>16,502</b>	<b>16,884</b>	<b>17,418</b>	<b>17,810</b>	<b>18,188</b>	<b>18,491</b>	<b>19,016</b>	<b>19,638</b>
<b>Exports - Imports</b>	<b>2,278</b>	<b>465</b>	<b>2,197</b>	<b>696</b>	<b>1,409</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

1/ Excludes EU-15 intratrade.

2/ Includes FSU intratrade.

Figure 7. Rice: Historical & Projected World Area & Yield

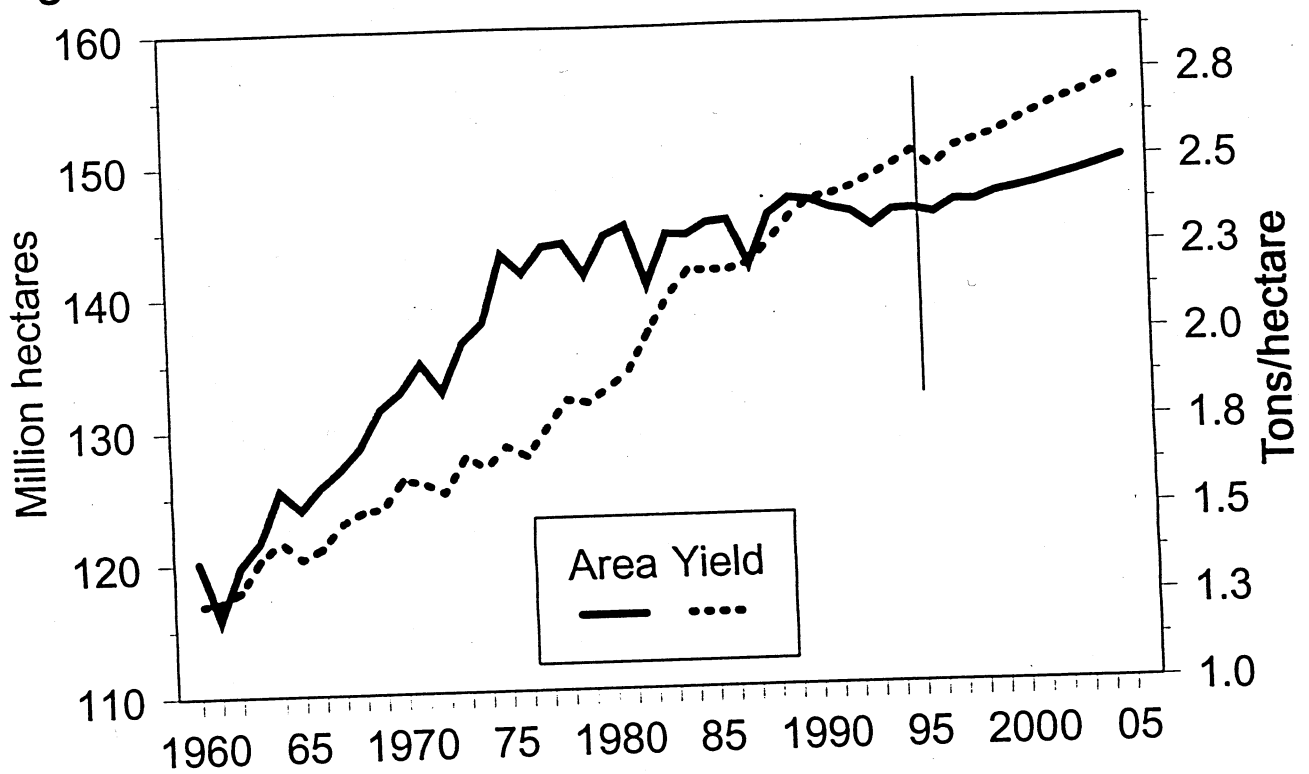


Figure 8. Rice: Historical & Projected World Supply & Use

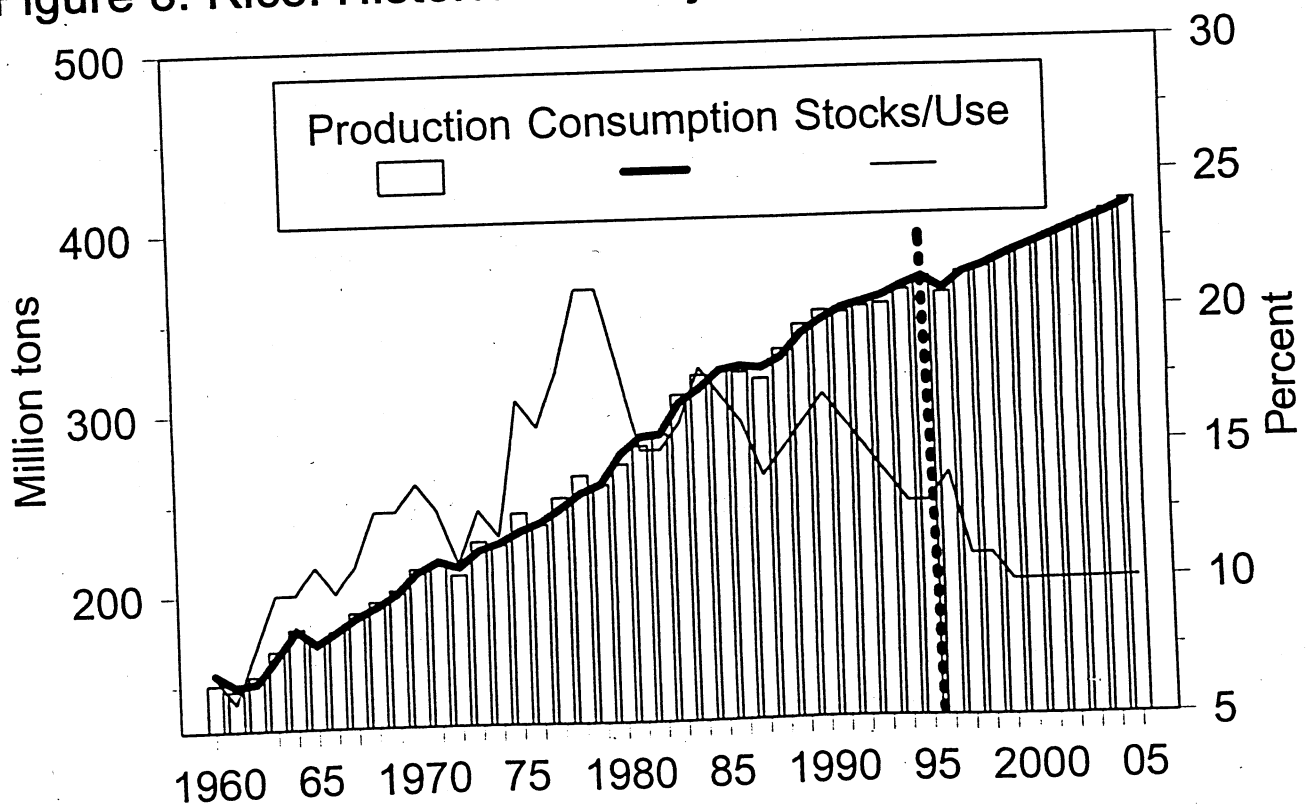


Figure 9. Rice: Historical & Projected Real Prices

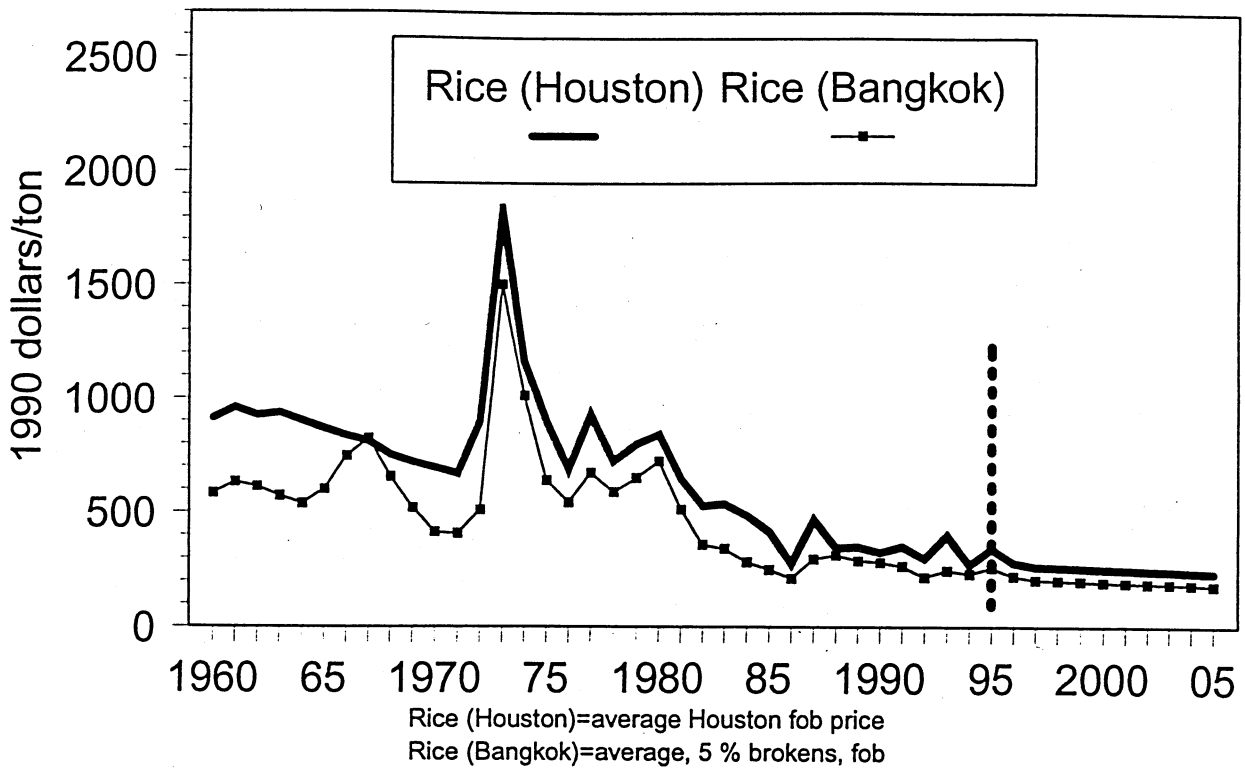
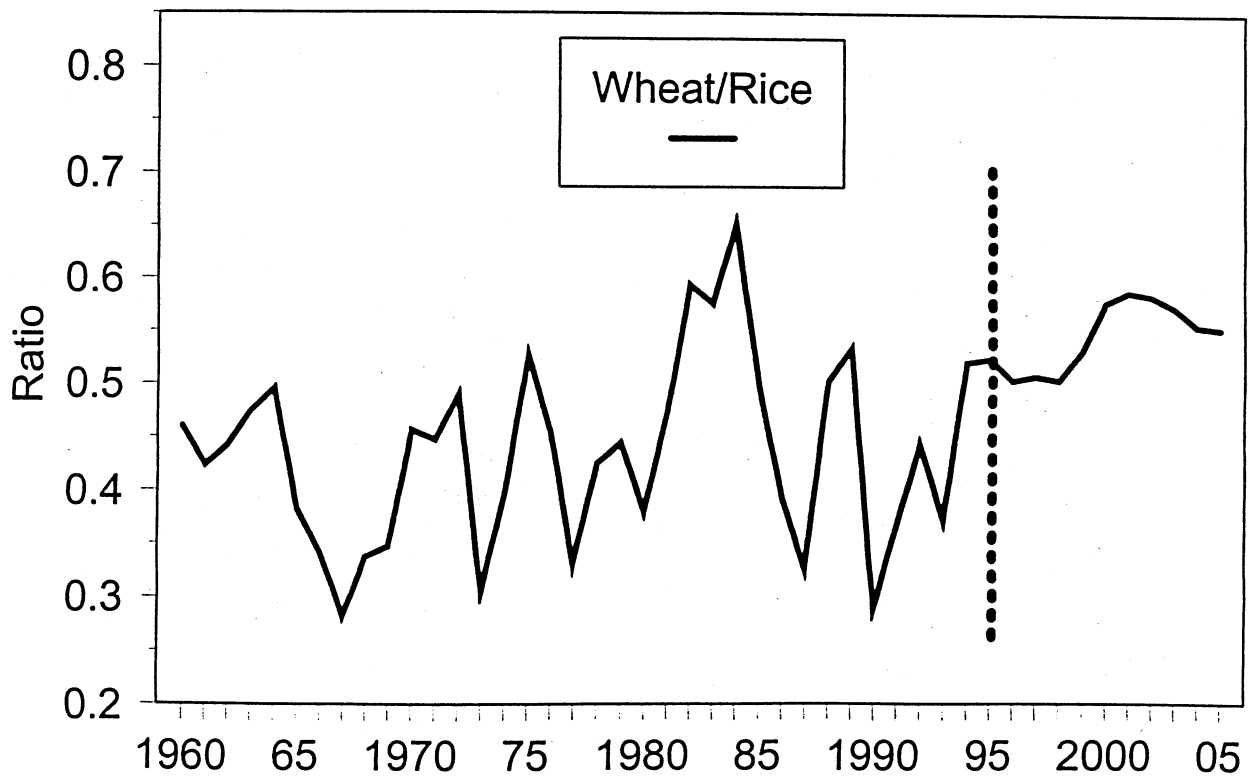


Figure 10. Rice: Historical & Projected Price Ratios





potential import gains are likely to be moderated as diet diversification begins to lead to declining per capita rice use.

- Under the terms of the UR agreement, minimum access in the high-valued japonica markets of **Japan** and **South Korea** will grow from an initial 490,000 tons in 1995 to 963,000 tons by 2005, straining the world's japonica supplies. Judging from Japan's 1994 experience, there is very limited consumer acceptance of substitute long-grain rice varieties for food use in these countries.
- Already large **Middle Eastern** import demand is projected to grow steadily, driven by per capita income growth and steady or rising per capita consumption levels. Income growth in most Middle Eastern countries is expected to be faster than during the 1980s and early 1990s.
- **Central American and Caribbean** consumption growth is expected to outpace the slipping production, resulting in strong import gains through 2005. Imports are projected to rise from 0.7 million tons to 1.2 million tons.
- **Brazil's** import demand is projected to remain steady near 1 million tons through 2005. Growth in domestic production is expected to offset a rapid increase in consumption driven by population growth and an improving economy.
- Total import demand for rice in **Canada**, the **EU**, **Other Western Europe**, and **Eastern Europe** is projected to expand from 1 to 1.2 million tons during the decade, a slow, but steady, average annual rate of growth of just over 1 percent.
- Annual **FSU** rice imports, mainly into Central Asian republics, are projected to recover to about 400,000 tons during 2000-2005, but remain well below their 1978-81 peak.
- Relatively high prices are expected to dampen growth of commercial sales of rice to developing markets with limited resources, preventing conversion of all of their potential demand into actual imports. Limited import growth by **Sub-Saharan African** countries, as well as some central Asian republics of the **FSU**, stem largely from limited commercial import capacity. Growth in consumption and imports for these and other low-income countries often depends on availability of credit or food aid, particularly from the United States. Given the outlook for U.S. rice to sell at an increasing premium in the world market, U.S. market share could decline further if the availability of U.S. credit and food aid is less than assumed.

#### **Highlights for Major Exporters**

Exports from many of the major rice producers are projected to increase as demand for rice rises and prices strengthen. Thailand is projected to remain the largest exporter, but with slow export growth. India is expected to consolidate its recent export gains and rank as the world's third largest exporter in 2005. Although Burma and Pakistan are expected to expand exports, they slip slightly in importance as India rises. While Vietnam is likely to remain a large exporter, more of its rice is expected to be consumed domestically. Only Australia, China, and the United States are likely to be viable long run sources of supply for japonica rice for Japan and South Korea's UR market openings.

- **Thailand's** production growth is expected to exceed consumption growth, enabling exports to rise slightly. While rice area is projected stable, yield growth is projected above trend in response to stronger prices. Thai exports are projected to keep pace with gains in world trade, keeping Thailand's share of world trade at about one-third.
- **India** has been a net exporter of rice most years since the mid-1970s, with exports of more than a million tons on several occasions when domestic and world market conditions permitted. India's annual rice exports are projected at 1.4 million tons in 2000 and 2.0 million tons, or 10 percent of world exports, by 2005. Exports in most years are expected to remain below the high levels achieved in 1995 and 1996, when abnormally high stocks and a tight world market pushed up exports. Although exports of aromatic basmati rice, which typically account for about half of rice exports, will continue, non-basmati varieties are expected to account for most of India's export gains through 2005.

India's ability to supply the projected level of exports is dependent on two key factors. First, government policy must be consistently supportive of an export orientation by maintaining producer incentives and promoting improved standards and grading. Second, it is uncertain how rice consumption will respond to the relatively high sustained growth in incomes that is projected for India during 1995-2005, and the extent to which the government will use subsidized public distribution to moderate domestic rice prices.

- **Burma's** second-crop rice harvest, principally destined for export markets, has been revived and exports have increased in recent years. But, in 1995, exports occurred before domestic production was assured, causing unrest. In the near future, as problems with the second crop are ironed out, it is expected that rice will be exported only after domestic needs are filled. However, exports are expected to expand rapidly and reach 2.0 million tons by 2005, with most of the gains occurring between 2000 and 2005.

Burma's agricultural policy is not market-oriented and future developments are highly dependent on domestic policy developments. While it is assumed that policies will continue to promote both expanded production of the irrigated second-crop and rice exports, actual policies could result in rice exports that are significantly higher or lower than projected.

- **Pakistan's** rice exports are projected to rise to 1.7 million tons by 2005. Yield growth is expected to be slowed by the expansion of area of higher-priced, but lower-yielding, basmati rice. Basmati's share of rice exports is projected to rise.
- In **Vietnam**, exportable surpluses are expected to be eroded by rising consumption generated by population and income growth. Limited increases in arable land, combined with already high levels of input use, are projected to prevent rice production from maintaining the same pace of growth achieved from 1989 to 1992. Rice exports are projected to drop from recent levels to 1.8 million tons by 2005, but better milling facilities are expected to raise export quality.
- Higher production is expected to generate more exports by **South American** countries. However, most of these exports are intra-Latin American, going to Brazil, Peru, and

Mexico from Uruguay, Argentina, Paraguay, and other producers. Guyana is the principal exception, exporting rice to Central America, the Caribbean, and the EU.

- Despite the poor acceptance of **China's** japonica rice in Japan in 1993/94, China is still expected to be a small, but important supplier of japonica rice to Japan and South Korea. While China's disadvantages in this market are numerous, including inadequate infrastructure for reliable delivery and poor-quality processing, its advantage is the proximity of north China production to the Japanese and South Korean markets.
- In **Australia**, increases in exportable supplies of japonica rice are expected to be determined by increases in yields. As a result, Australia will likely be forced to shift exports away from existing markets in order to respond to the high prices offered by Japan and South Korea.

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha	-----	-----	1,000 tons	-----	Kgs.	-----	1,000 tons	-----
<b>WORLD</b>										
1992	145,527	2.42	352,474	12,654	14,932	354,853	354,853	63.8	0	54,281
1993	144,442	2.45	353,507	15,095	15,560	357,344	357,344	63.3	0	49,979
1994	145,590	2.48	360,888	18,138	20,335	360,873	360,873	62.9	0	47,797
1995	145,642	2.52	367,669	16,827	17,523	366,837	366,837	63.0	0	47,933
1992-95 ave.	145,300	2.47	358,635	15,679	17,088	359,977	359,977	63.3	0	49,998
1997	145,326	2.55	370,030	16,304	16,304	369,646	369,646	61.6	0	41,070
1998	145,341	2.56	372,201	16,502	16,502	373,294	373,294	61.4	0	39,977
1999	146,034	2.59	377,924	16,884	16,884	378,403	378,403	61.3	0	39,498
2000	146,382	2.62	382,789	17,418	17,418	383,386	383,386	61.3	0	38,901
2001	146,784	2.64	387,818	17,810	17,810	388,133	388,133	61.2	0	38,586
2002	147,332	2.67	392,946	18,188	18,188	392,713	392,713	61.1	0	38,819
2003	147,841	2.69	398,148	18,491	18,491	397,441	397,441	61.0	0	39,526
2004	148,380	2.72	403,099	19,016	19,016	401,805	401,805	60.9	0	40,820
2005	148,996	2.74	408,374	19,638	19,638	406,767	406,767	60.9	0	42,427
<b>UNITED STATES</b>										
1992	1,267	4.50	5,704	194	2,558	2,964	2,964	11.5	0	1,252
1993	1,146	4.57	5,240	219	2,523	3,323	3,323	12.7	0	865
1994	1,342	4.88	6,549	223	3,341	3,256	3,256	12.3	0	1,040
1995	1,252	4.54	5,678	238	2,743	3,410	3,410	12.8	0	803
1992-95 ave.	1,252	4.63	5,793	219	2,791	3,238	3,238	12.3	0	990
1997	1,332	4.73	6,302	308	2,832	3,654	3,654	13.5	0	1,052
1998	1,337	4.75	6,352	333	2,826	3,844	3,844	14.0	0	1,068
1999	1,341	4.78	6,406	359	2,807	3,945	3,945	14.3	0	1,081
2000	1,346	4.80	6,457	387	2,781	4,049	4,049	14.5	0	1,095
2001	1,350	4.82	6,512	419	2,759	4,159	4,159	14.8	0	1,108
2002	1,355	4.84	6,564	451	2,734	4,266	4,266	15.0	0	1,123
2003	1,360	4.87	6,620	489	2,708	4,386	4,386	15.3	0	1,138
2004	1,364	4.89	6,669	527	2,683	4,500	4,500	15.6	0	1,151
2005	1,369	4.91	6,728	568	2,658	4,622	4,622	15.9	0	1,168
<b>ALGERIA</b>										
1992	1	1.00	1	45	0	46	46	1.7	0	0
1993	1	1.00	1	25	0	26	26	0.9	0	0
1994	1	1.00	1	30	0	31	31	1.1	0	0
1995	1	1.00	1	30	0	31	31	1.1	0	0
1992-95 ave.	1	1.00	1	33	0	34	34	1.2	0	0
1997	1	1.00	1	32	0	33	33	1.1	0	0
1998	1	1.00	1	33	0	34	34	1.1	0	0
1999	1	1.00	1	34	0	35	35	1.1	0	0
2000	1	1.00	1	35	0	36	36	1.1	0	0
2001	1	1.00	1	36	0	37	37	1.1	0	0
2002	1	1.00	1	37	0	38	38	1.1	0	0
2003	1	1.00	1	38	0	39	39	1.1	0	0
2004	1	1.00	1	39	0	40	40	1.1	0	0
2005	1	1.00	1	40	0	41	41	1.1	0	0
<b>ARGENTINA</b>										
1992	140	2.84	398	1	276	175	175	5.2	0	41
1993	140	2.79	390	1	175	180	180	5.3	0	77
1994	180	3.40	612	1	350	185	185	5.4	0	155
1995	195	3.08	600	1	425	190	190	5.5	0	141
1992-95 ave.	164	3.05	500	1	307	183	183	5.4	0	104
1997	201	3.21	646	0	443	201	201	5.7	0	52
1998	209	3.26	680	0	473	205	205	5.7	0	55
1999	216	3.33	720	0	507	210	210	5.8	0	58
2000	214	3.40	730	0	516	213	213	5.8	0	59
2001	216	3.48	751	0	533	217	217	5.9	0	61
2002	219	3.56	778	0	554	222	222	6.0	0	63
2003	222	3.63	807	0	577	228	228	6.0	0	66
2004	225	3.71	832	0	596	234	234	6.1	0	68
2005	224	3.78	846	0	606	238	238	6.2	0	69

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>AUSTRALIA</b>										
1992	125	5.46	683	26	525	265	265	14.9	0	198
1993	132	5.86	774	32	600	281	281	15.5	0	123
1994	128	6.35	813	35	550	293	293	16.0	0	128
1995	137	6.28	860	35	575	310	310	16.7	0	138
1992-95 ave.	131	6.00	783	32	563	287	287	15.8	0	147
1997	139	6.21	865	38	583	319	319	16.8	0	125
1998	142	6.24	887	38	586	333	333	17.4	0	131
1999	146	6.27	913	38	594	351	351	18.1	0	138
2000	147	6.31	927	38	604	358	358	18.3	0	141
2001	149	6.36	950	38	612	371	371	18.8	0	146
2002	152	6.41	975	38	619	388	388	19.5	0	152
2003	155	6.47	1,000	38	616	413	413	20.5	0	162
2004	156	6.54	1,023	38	614	439	439	21.6	0	171
2005	158	6.62	1,046	38	621	457	457	22.3	0	178
<b>BANGLADESH</b>										
1992	10,160	1.81	18,340	10	0	18,586	18,586	152.0	0	443
1993	9,980	1.81	18,041	100	0	18,300	18,300	146.2	0	284
1994	9,863	1.71	16,833	575	0	17,542	17,542	136.9	0	150
1995	10,000	1.85	18,500	1,225	0	18,550	18,550	141.5	0	1,325
1992-95 ave.	10,001	1.79	17,929	478	0	18,245	18,245	144.1	0	551
1997	10,080	1.86	18,749	252	0	18,998	18,998	138.4	0	190
1998	10,120	1.89	19,128	234	0	19,358	19,358	137.9	0	194
1999	10,161	1.92	19,509	220	0	19,726	19,726	137.4	0	197
2000	10,197	1.95	19,883	220	0	20,099	20,099	136.9	0	201
2001	10,232	1.98	20,260	226	0	20,482	20,482	136.5	0	205
2002	10,268	2.01	20,639	235	0	20,870	20,870	136.1	0	209
2003	10,304	2.04	21,020	250	0	21,266	21,266	135.7	0	213
2004	10,335	2.07	21,393	281	0	21,670	21,670	135.4	0	217
2005	10,366	2.10	21,768	273	0	22,038	22,038	134.9	0	220
<b>BRAZIL</b>										
1992	4,384	1.54	6,733	716	0	7,750	7,750	49.5	0	820
1993	4,390	1.63	7,150	975	0	7,900	7,900	49.8	0	1,045
1994	4,242	1.74	7,402	1,000	0	8,100	8,100	50.4	0	1,347
1995	4,000	1.68	6,700	1,250	0	8,250	8,250	50.7	0	1,047
1992-95 ave.	4,254	1.64	6,996	985	0	8,000	8,000	50.1	0	1,065
1997	4,064	1.75	7,116	1,045	0	8,134	8,134	48.9	0	1,179
1998	4,003	1.80	7,219	932	0	8,147	8,147	48.5	0	1,183
1999	4,014	1.84	7,405	927	0	8,307	8,307	49.0	0	1,208
2000	4,010	1.89	7,577	920	0	8,471	8,471	49.5	0	1,234
2001	3,993	1.94	7,736	907	0	8,620	8,620	49.9	0	1,257
2002	3,991	1.98	7,907	914	0	8,794	8,794	50.5	0	1,284
2003	3,980	2.03	8,068	883	0	8,929	8,929	50.9	0	1,306
2004	3,980	2.07	8,238	890	0	9,101	9,101	51.4	0	1,333
2005	3,987	2.11	8,411	962	0	9,336	9,336	52.3	0	1,370
<b>BURMA</b>										
1992	4,855	1.60	7,772	0	223	8,050	8,050	289.9	0	856
1993	5,443	1.61	8,750	0	619	8,300	8,300	295.2	0	687
1994	5,500	1.69	9,300	0	645	8,675	8,675	305.1	0	667
1995	5,700	1.75	10,000	0	700	9,175	9,175	319.3	0	792
1992-95 ave.	5,375	1.67	8,956	0	547	8,550	8,550	302.5	0	751
1997	5,575	1.73	9,649	0	841	8,789	8,789	299.8	0	908
1998	5,585	1.75	9,782	0	874	8,897	8,897	300.6	0	919
1999	5,638	1.78	10,025	0	955	9,053	9,053	303.1	0	936
2000	5,696	1.81	10,284	0	1,045	9,222	9,222	306.1	0	953
2001	5,789	1.84	10,649	0	1,249	9,383	9,383	308.8	0	970
2002	5,892	1.87	11,047	0	1,479	9,551	9,551	311.8	0	987
2003	5,971	1.90	11,371	0	1,630	9,723	9,723	314.9	0	1,005
2004	6,078	1.93	11,749	0	1,841	9,891	9,891	317.9	0	1,022
2005	6,152	1.96	12,029	0	2,026	9,992	9,992	318.7	0	1,033

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption							
						1,000 ha	Tons/ha	1,000 tons	Total	Food	Food/cap	Feed	Ending stocks
CANADA													
1992	0	0.00	0	182	0	182	182	2.9	0	0			
1993	0	0.00	0	190	0	190	190	3.0	0	0			
1994	0	0.00	0	200	0	200	200	3.1	0	0			
1995	0	0.00	0	210	0	210	210	3.2	0	0			
1992-95 ave.	0	0.00	0	196	0	196	196	3.1	0	0			
1997	0	0.00	0	208	0	208	208	3.1	0	0			
1998	0	0.00	0	212	0	212	212	3.1	0	0			
1999	0	0.00	0	215	0	215	215	3.1	0	0			
2000	0	0.00	0	218	0	218	218	3.1	0	0			
2001	0	0.00	0	222	0	222	222	3.1	0	0			
2002	0	0.00	0	225	0	225	225	3.1	0	0			
2003	0	0.00	0	228	0	228	228	3.1	0	0			
2004	0	0.00	0	232	0	232	232	3.1	0	0			
2005	0	0.00	0	235	0	235	235	3.1	0	0			
CENTRAL AM. & CARIBBEAN													
1992	515	2.03	1,046	743	5	1,808	1,808	14.7	0	173			
1993	470	2.07	975	689	10	1,671	1,671	13.6	0	156			
1994	482	1.99	958	805	0	1,738	1,738	14.1	0	181			
1995	487	2.04	994	745	0	1,771	1,771	14.3	0	149			
1992-95 ave.	489	2.03	993	746	4	1,747	1,747	14.2	0	165			
1997	476	2.03	968	757	0	1,725	1,725	13.8	0	156			
1998	471	2.03	954	799	0	1,751	1,751	14.0	0	158			
1999	469	2.02	950	855	0	1,800	1,800	14.3	0	162			
2000	468	2.02	945	913	0	1,853	1,853	14.7	0	167			
2001	465	2.02	939	969	0	1,904	1,904	15.0	0	172			
2002	463	2.02	933	1,028	0	1,956	1,956	15.4	0	176			
2003	460	2.02	927	1,083	0	2,006	2,006	15.7	0	181			
2004	457	2.01	920	1,149	0	2,064	2,064	16.1	0	186			
2005	455	2.01	914	1,223	0	2,131	2,131	16.6	0	192			
CENTRAL & EASTERN EUROPE													
1992	35	1.77	62	226	6	282	282	0.2	0	0			
1993	30	1.67	50	160	0	210	210	0.2	0	0			
1994	30	1.83	55	105	0	160	160	0.1	0	0			
1995	18	2.06	37	175	0	212	212	0.2	0	0			
1992-95 ave.	28	1.81	51	167	2	216	216	0.2	0	0			
1997	31	1.83	57	171	0	231	231	0.2	0	7			
1998	31	1.77	55	178	0	233	233	0.2	0	7			
1999	31	1.74	54	180	0	234	234	0.2	0	7			
2000	31	1.71	53	185	0	238	238	0.2	0	7			
2001	31	1.68	52	190	0	242	242	0.2	0	7			
2002	31	1.65	51	195	0	246	246	0.2	0	8			
2003	31	1.63	50	199	0	249	249	0.2	0	8			
2004	31	1.60	50	203	0	253	253	0.2	0	8			
2005	31	1.58	49	207	0	256	256	0.2	0	8			
CHINA													
1992	32,090	4.06	130,354	112	1,374	127,000	127,000	342.7	0	29,602			
1993	30,360	4.10	124,390	700	1,519	128,000	128,000	344.1	0	25,173			
1994	30,171	4.08	123,151	1,700	50	129,000	129,000	345.7	0	20,974			
1995	30,700	4.33	133,000	750	200	131,000	131,000	349.9	0	23,524			
1992-95 ave.	30,830	4.14	127,724	816	786	128,750	128,750	345.6	0	24,818			
1997	30,468	4.22	128,693	912	390	128,293	128,293	340.7	0	18,751			
1998	30,091	4.23	127,142	921	395	128,839	128,839	341.2	0	17,580			
1999	30,111	4.25	127,877	942	393	128,925	128,925	340.6	0	17,081			
2000	29,921	4.28	128,068	962	393	129,457	129,457	341.2	0	16,261			
2001	29,758	4.31	128,239	979	394	129,085	129,085	339.6	0	16,000			
2002	29,635	4.34	128,589	1,002	392	129,113	129,113	339.0	0	16,086			
2003	29,529	4.37	128,991	1,016	395	129,121	129,121	338.4	0	16,577			
2004	29,441	4.40	129,462	1,038	394	129,060	129,060	337.7	0	17,623			
2005	29,365	4.43	129,986	1,066	390	129,254	129,254	337.8	0	19,031			

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks			
						1,000 ha	Tons/ha	1,000 tons			Total	Food	Food/cap
											Kgs.		
<b>EU-15</b>													
1992	364	3.84	1,397	480	376	1,774	1,774	29.6	0	259			
1993	346	3.69	1,278	444	153	1,627	1,627	26.6	0	201			
1994	363	3.70	1,343	725	185	1,850	1,850	29.7	0	234			
1995	350	3.70	1,295	550	250	1,590	1,590	25.0	0	239			
1992-95 ave.	356	3.73	1,328	550	241	1,792	1,792	29.0	0	233			
1997	344	4.19	1,439	624	255	1,879	1,879	28.5	0	195			
1998	346	4.22	1,459	637	258	1,819	1,819	27.1	0	214			
1999	348	4.25	1,480	649	260	1,848	1,848	27.0	0	235			
2000	350	4.29	1,501	656	263	1,870	1,870	26.8	0	260			
2001	352	4.33	1,523	663	265	2,048	2,048	28.9	0	132			
2002	354	4.36	1,545	669	268	1,945	1,945	27.0	0	134			
2003	356	4.40	1,568	676	271	1,972	1,972	26.9	0	135			
2004	359	4.44	1,592	683	273	2,000	2,000	26.8	0	136			
2005	361	4.48	1,616	689	276	2,028	2,028	26.8	0	137			
<b>EGYPT</b>													
1992	510	4.76	2,427	0	133	2,291	2,291	7.8	0	203			
1993	538	4.72	2,540	0	262	2,378	2,378	8.0	0	103			
1994	575	4.92	2,830	0	150	2,500	2,500	8.4	0	283			
1995	420	5.00	2,100	0	50	2,100	2,100	7.0	0	233			
1992-95 ave.	511	4.84	2,474	0	149	2,317	2,317	7.8	0	206			
1997	549	4.74	2,602	0	284	2,559	2,559	8.5	0	154			
1998	550	4.76	2,615	0	212	2,399	2,399	7.9	0	158			
1999	551	4.77	2,626	0	158	2,464	2,464	8.1	0	161			
2000	551	4.78	2,637	0	107	2,526	2,526	8.2	0	166			
2001	552	4.80	2,649	0	74	2,572	2,572	8.4	0	168			
2002	553	4.81	2,660	0	25	2,631	2,631	8.5	0	172			
2003	554	4.83	2,673	0	17	2,654	2,654	8.5	0	174			
2004	555	4.84	2,686	20	0	2,705	2,705	8.7	0	175			
2005	555	4.86	2,697	108	0	2,800	2,800	8.9	0	180			
<b>FORMER SOVIET UNION</b>													
1992	616	1.99	1,225	326	25	1,526	1,526	274.8	0	0			
1993	617	2.05	1,265	70	10	1,325	1,325	238.8	0	0			
1994	546	1.83	998	190	0	1,188	1,188	214.3	0	0			
1995	541	1.75	948	210	0	1,158	1,158	209.2	0	0			
1992-95 ave.	580	1.91	1,109	199	9	1,299	1,299	234.3	0	0			
1997	533	1.98	1,056	192	0	1,248	1,248	225.5	0	0			
1998	527	2.02	1,064	219	0	1,283	1,283	230.7	0	0			
1999	522	2.05	1,069	265	0	1,334	1,334	238.8	0	0			
2000	515	2.06	1,063	346	0	1,409	1,409	251.2	0	0			
2001	506	2.08	1,052	361	0	1,413	1,413	250.9	0	0			
2002	502	2.10	1,052	374	0	1,426	1,426	252.4	0	0			
2003	498	2.11	1,052	384	0	1,436	1,436	253.4	0	0			
2004	496	2.12	1,053	401	0	1,454	1,454	255.9	0	0			
2005	494	2.14	1,056	434	0	1,490	1,490	261.6	0	0			
<b>HONG KONG</b>													
1992	0	0.00	0	398	0	398	398	0.4	0	0			
1993	0	0.00	0	400	0	400	400	0.4	0	0			
1994	0	0.00	0	400	0	400	400	0.4	0	0			
1995	0	0.00	0	420	0	420	420	0.4	0	0			
1992-95 ave.	0	0.00	0	405	0	405	405	0.4	0	0			
1997	0	0.00	0	390	0	390	390	0.4	0	0			
1998	0	0.00	0	389	0	389	389	0.4	0	0			
1999	0	0.00	0	387	0	387	387	0.4	0	0			
2000	0	0.00	0	386	0	386	386	0.4	0	0			
2001	0	0.00	0	385	0	385	385	0.4	0	0			
2002	0	0.00	0	383	0	383	383	0.4	0	0			
2003	0	0.00	0	382	0	382	382	0.4	0	0			
2004	0	0.00	0	380	0	380	380	0.3	0	0			
2005	0	0.00	0	379	0	379	379	0.3	0	0			

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.		1,000 tons	
<b>INDIA</b>										
1992	41,775	1.74	72,868	160	560	75,368	75,368	382.1	0	10,600
1993	42,034	1.88	78,970	0	625	76,045	76,045	379.4	0	12,900
1994	42,500	1.91	81,257	0	4,000	77,307	77,307	379.7	0	12,850
1995	42,300	1.87	79,000	0	2,500	79,300	79,300	383.5	0	10,050
1992-95 ave.	42,152	1.85	78,024	40	1,921	77,005	77,005	381.2	0	11,600
1997	42,749	1.93	82,668	0	928	82,540	82,540	387.3	0	8,500
1998	43,011	1.97	84,772	0	956	83,816	83,816	387.5	0	8,500
1999	43,306	2.02	87,464	0	1,145	86,319	86,319	393.3	0	8,500
2000	43,579	2.07	90,046	0	1,356	88,690	88,690	398.3	0	8,500
2001	43,847	2.11	92,551	0	1,475	91,076	91,076	403.3	0	8,500
2002	44,095	2.15	94,737	0	1,576	93,161	93,161	406.9	0	8,500
2003	44,357	2.19	97,026	0	1,675	95,351	95,351	410.8	0	8,500
2004	44,595	2.22	98,985	0	1,804	97,181	97,181	413.2	0	8,500
2005	44,860	2.26	101,201	0	2,005	99,196	99,196	416.4	0	8,500
<b>INDONESIA</b>										
1992	11,103	2.82	31,350	22	469	31,376	31,376	506.0	0	1,592
1993	11,012	2.84	31,318	950	225	33,110	33,110	524.6	0	525
1994	10,735	2.82	30,315	3,000	0	32,340	32,340	500.4	0	1,500
1995	10,700	2.79	29,900	1,500	0	31,900	31,900	482.6	0	1,000
1992-95 ave.	10,888	2.82	30,721	1,368	174	32,182	32,182	503.1	0	1,154
1997	11,274	2.91	32,842	1,305	0	33,494	33,494	485.7	0	1,793
1998	11,318	2.92	33,075	913	0	33,977	33,977	483.0	0	1,804
1999	11,360	2.95	33,476	891	0	34,362	34,362	478.1	0	1,809
2000	11,379	2.97	33,825	884	0	34,707	34,707	471.9	0	1,811
2001	11,434	3.00	34,315	805	0	35,115	35,115	466.8	0	1,816
2002	11,513	3.03	34,867	658	0	35,520	35,520	462.0	0	1,821
2003	11,598	3.05	35,431	542	0	35,966	35,966	458.1	0	1,828
2004	11,683	3.08	35,982	468	0	36,441	36,441	454.7	0	1,837
2005	11,777	3.10	36,559	404	0	36,954	36,954	452.0	0	1,846
<b>IRAN</b>										
1992	600	2.50	1,500	1,037	0	2,400	2,400	125.2	0	337
1993	600	2.83	1,700	475	0	2,400	2,400	120.7	0	112
1994	620	2.90	1,800	1,400	0	2,700	2,700	130.8	0	612
1995	620	2.90	1,800	800	0	2,700	2,700	126.0	0	512
1992-95 ave.	610	2.79	1,700	928	0	2,550	2,550	125.7	0	393
1997	631	2.96	1,870	1,025	0	2,926	2,926	127.0	0	341
1998	634	2.99	1,896	1,071	0	2,970	2,970	124.4	0	337
1999	643	3.02	1,942	1,129	0	3,074	3,074	124.3	0	334
2000	642	3.05	1,959	1,192	0	3,154	3,154	123.2	0	330
2001	641	3.08	1,976	1,260	0	3,239	3,239	122.2	0	327
2002	654	3.11	2,034	1,336	0	3,373	3,373	122.9	0	324
2003	666	3.14	2,094	1,407	0	3,504	3,504	123.4	0	321
2004	666	3.18	2,113	1,487	0	3,603	3,603	122.7	0	317
2005	665	3.21	2,131	1,575	0	3,709	3,709	122.2	0	314
<b>IRAQ</b>										
1992	95	1.37	130	655	0	780	780	6.3	0	30
1993	100	1.50	150	200	0	370	370	3.0	0	10
1994	150	1.67	250	200	0	455	455	3.6	0	5
1995	150	1.33	200	250	0	450	450	3.6	0	5
1992-95 ave.	124	1.47	183	326	0	514	514	4.1	0	13
1997	42	1.32	56	288	0	317	317	2.5	0	16
1998	43	1.37	59	319	0	377	377	3.0	0	18
1999	45	1.40	63	344	0	406	406	3.2	0	19
2000	46	1.45	67	371	0	436	436	3.4	0	20
2001	47	1.49	71	398	0	467	467	3.6	0	22
2002	49	1.54	75	423	0	497	497	3.9	0	23
2003	50	1.58	79	450	0	528	528	4.1	0	25
2004	52	1.63	84	472	0	555	555	4.3	0	26
2005	53	1.68	89	494	0	582	582	4.5	0	28



Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
						1,000 tons	Kgs.	1,000 tons		
<b>JAPAN</b>										
1992	2,106	4.57	9,621	18	0	9,500	9,500	504.1	0	379
1993	2,139	3.33	7,129	2,623	0	9,400	9,400	487.5	0	731
1994	2,200	4.95	10,900	150	410	9,350	9,350	474.1	0	2,021
1995	2,110	4.62	9,755	425	200	9,300	9,300	461.2	0	2,701
1992-95 ave.	2,139	4.37	9,351	804	153	9,388	9,388	481.3	0	1,458
1997	1,825	4.68	8,532	607	0	9,489	9,489	450.6	0	2,056
1998	1,814	4.70	8,532	683	0	9,306	9,306	432.7	0	1,965
1999	1,804	4.73	8,532	758	0	9,320	9,320	424.5	0	1,935
2000	1,794	4.76	8,532	758	0	9,327	9,327	416.4	0	1,898
2001	1,784	4.78	8,532	758	0	9,329	9,329	408.2	0	1,859
2002	1,774	4.81	8,532	758	0	9,330	9,330	400.3	0	1,819
2003	1,764	4.84	8,532	758	0	9,327	9,327	392.5	0	1,782
2004	1,755	4.86	8,532	758	0	9,318	9,318	384.7	0	1,754
2005	1,745	4.89	8,532	758	0	9,305	9,305	377.0	0	1,739
<b>MALAYSIA</b>										
1992	660	1.80	1,190	468	0	1,585	1,585	17.5	0	298
1993	668	1.95	1,300	370	0	1,625	1,625	17.6	0	343
1994	665	1.99	1,325	400	0	1,695	1,695	18.0	0	373
1995	660	1.97	1,300	400	0	1,750	1,750	18.3	0	323
1992-95 ave.	663	1.93	1,279	410	0	1,664	1,664	17.9	0	334
1997	667	1.96	1,306	392	0	1,698	1,698	17.1	0	276
1998	666	1.97	1,308	407	0	1,712	1,712	16.9	0	278
1999	674	1.97	1,331	425	0	1,750	1,750	17.0	0	284
2000	676	1.98	1,340	442	0	1,777	1,777	17.0	0	288
2001	673	1.99	1,339	461	0	1,797	1,797	16.9	0	292
2002	670	2.00	1,337	481	0	1,815	1,815	16.8	0	295
2003	662	2.01	1,328	502	0	1,828	1,828	16.6	0	297
2004	654	2.01	1,317	523	0	1,838	1,838	16.5	0	298
2005	643	2.02	1,299	545	0	1,843	1,843	16.3	0	299
<b>MEXICO</b>										
1992	70	2.86	200	275	0	480	480	11.0	0	166
1993	50	2.80	140	275	0	490	490	11.1	0	91
1994	60	2.83	170	275	0	495	495	11.0	0	41
1995	50	3.00	150	400	0	505	505	11.0	0	86
1992-95 ave.	58	2.87	165	306	0	493	493	11.0	0	96
1997	51	3.05	156	374	0	528	528	11.1	0	157
1998	49	3.07	150	396	0	542	542	11.2	0	161
1999	47	3.08	144	420	0	559	559	11.3	0	166
2000	50	3.10	155	424	0	575	575	11.5	0	171
2001	49	3.12	154	437	0	588	588	11.5	0	175
2002	49	3.15	154	451	0	601	601	11.6	0	179
2003	49	3.17	155	462	0	613	613	11.6	0	183
2004	49	3.21	157	474	0	627	627	11.7	0	187
2005	50	3.24	161	484	0	641	641	11.8	0	191
<b>PAKISTAN</b>										
1992	1,974	1.58	3,116	0	918	2,250	2,250	18.0	0	861
1993	2,188	1.83	3,995	0	1,232	2,300	2,300	17.8	0	1,324
1994	2,107	1.64	3,447	0	1,500	2,400	2,400	18.2	0	871
1995	2,090	1.82	3,800	0	1,400	2,500	2,500	18.6	0	771
1992-95 ave.	2,090	1.72	3,590	0	1,263	2,363	2,363	18.2	0	957
1997	2,167	1.70	3,682	0	1,366	2,379	2,379	16.9	0	1,242
1998	2,188	1.69	3,687	0	1,388	2,335	2,335	16.1	0	1,206
1999	2,195	1.69	3,704	0	1,414	2,311	2,311	15.6	0	1,185
2000	2,199	1.68	3,695	0	1,473	2,255	2,255	14.8	0	1,152
2001	2,195	1.69	3,719	0	1,510	2,232	2,232	14.2	0	1,129
2002	2,186	1.72	3,758	0	1,555	2,217	2,217	13.7	0	1,115
2003	2,200	1.74	3,832	0	1,592	2,243	2,243	13.5	0	1,112
2004	2,221	1.76	3,917	0	1,652	2,267	2,267	13.3	0	1,110
2005	2,241	1.79	4,005	0	1,699	2,303	2,303	13.1	0	1,113

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.		1,000 tons	
<b>PHILIPPINES</b>										
1992	3,237	1.91	6,190	0	0	6,350	6,350	90.7	0	1,334
1993	3,445	1.87	6,450	215	0	6,725	6,725	93.9	0	1,274
1994	3,668	1.86	6,809	220	0	7,375	7,375	100.7	0	928
1995	3,700	1.84	6,825	975	0	7,500	7,500	100.1	0	1,228
1992-95 ave.	3,513	1.87	6,569	353	0	6,933	6,933	95.7	0	1,191
1997	3,691	1.89	6,991	246	0	7,232	7,232	92.4	0	1,099
1998	3,700	1.92	7,109	247	0	7,339	7,339	91.8	0	1,116
1999	3,718	1.95	7,235	283	0	7,495	7,495	91.9	0	1,139
2000	3,731	1.97	7,338	338	0	7,652	7,652	91.9	0	1,163
2001	3,741	1.99	7,459	380	0	7,814	7,814	91.9	0	1,188
2002	3,761	2.01	7,574	416	0	7,967	7,967	91.9	0	1,211
2003	3,769	2.04	7,696	429	0	8,104	8,104	91.7	0	1,232
2004	3,783	2.07	7,816	465	0	8,258	8,258	91.6	0	1,255
2005	3,794	2.09	7,935	527	0	8,435	8,435	91.8	0	1,282
<b>SAUDI ARABIA</b>										
1992	0	0.00	0	760	15	745	745	42.9	0	0
1993	0	0.00	0	869	30	775	775	42.9	0	64
1994	0	0.00	0	700	20	744	744	39.7	0	0
1995	0	0.00	0	800	30	770	770	39.7	0	0
1992-95 ave.	0	0.00	0	782	24	759	759	41.3	0	16
1997	0	0.00	0	768	8	774	774	37.2	0	0
1998	0	0.00	0	795	8	788	788	36.6	0	0
1999	0	0.00	0	824	8	817	817	36.7	0	0
2000	0	0.00	0	854	8	847	847	36.8	0	0
2001	0	0.00	0	885	8	878	878	36.9	0	0
2002	0	0.00	0	918	8	911	911	37.0	0	0
2003	0	0.00	0	950	8	943	943	37.0	0	0
2004	0	0.00	0	985	8	978	978	37.1	0	0
2005	0	0.00	0	1,022	8	1,015	1,015	37.2	0	0
<b>SOUTH AFRICA, REPUBLIC</b>										
1992	0	0.00	0	360	0	360	360	8.4	0	10
1993	0	0.00	0	431	0	396	396	9.0	0	45
1994	0	0.00	0	450	0	410	410	9.1	0	85
1995	0	0.00	0	400	0	420	420	9.1	0	65
1992-95 ave.	0	0.00	0	410	0	397	397	8.9	0	51
1997	0	0.00	0	436	0	457	457	9.4	0	20
1998	0	0.00	0	449	0	449	449	9.0	0	20
1999	0	0.00	0	465	0	465	465	9.0	0	20
2000	0	0.00	0	479	0	479	479	9.1	0	20
2001	0	0.00	0	495	0	495	495	9.2	0	20
2002	0	0.00	0	511	0	511	511	9.2	0	20
2003	0	0.00	0	526	0	526	526	9.3	0	20
2004	0	0.00	0	544	0	544	544	9.3	0	20
2005	0	0.00	0	563	0	563	563	9.4	0	20
<b>SOUTH KOREA</b>										
1992	1,157	4.61	5,331	1	2	5,400	5,400	121.0	0	1,939
1993	1,136	4.18	4,750	1	0	5,300	5,300	117.6	0	1,390
1994	1,102	4.59	5,060	50	150	5,300	5,300	116.3	0	1,050
1995	1,056	4.45	4,694	65	0	5,200	5,200	113.0	0	609
1992-95 ave.	1,113	4.46	4,959	29	38	5,300	5,300	116.9	0	1,247
1997	1,049	4.64	4,870	190	0	5,190	5,190	110.5	0	374
1998	1,038	4.69	4,870	403	0	5,168	5,168	109.0	0	479
1999	1,028	4.74	4,869	203	0	5,149	5,149	107.6	0	402
2000	1,018	4.78	4,869	228	0	5,130	5,130	106.2	0	369
2001	1,007	4.83	4,868	254	0	5,111	5,111	104.9	0	380
2002	997	4.88	4,868	280	0	5,089	5,089	103.6	0	439
2003	987	4.93	4,867	305	0	5,065	5,065	102.2	0	546
2004	977	4.98	4,867	305	0	5,039	5,039	100.9	0	679
2005	968	5.03	4,866	205	0	5,015	5,015	99.7	0	735

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.	1,000 tons		
<b>SUB-SAHARAN AFRICA</b>										
1992	5,079	0.94	4,758	2,889	0	7,712	7,712	15.1	0	249
1993	5,193	0.97	5,044	2,480	0	7,508	7,508	14.3	0	265
1994	5,143	0.98	5,065	2,485	0	7,522	7,522	13.9	0	293
1995	5,207	0.98	5,080	2,562	0	7,682	7,682	13.8	0	253
1992-95 ave.	5,156	0.97	4,987	2,604	0	7,606	7,606	14.3	0	265
1997	5,367	1.01	5,435	3,050	0	8,454	8,454	14.3	0	298
1998	5,412	1.03	5,590	3,122	0	8,703	8,703	14.4	0	306
1999	5,502	1.05	5,774	3,198	0	8,963	8,963	14.4	0	316
2000	5,544	1.07	5,910	3,181	0	9,087	9,087	14.2	0	320
2001	5,585	1.08	6,050	3,160	0	9,206	9,206	14.0	0	324
2002	5,678	1.10	6,249	3,168	0	9,410	9,410	13.9	0	331
2003	5,720	1.12	6,396	3,159	0	9,550	9,550	13.8	0	336
2004	5,763	1.14	6,547	3,145	0	9,687	9,687	13.6	0	341
2005	5,858	1.15	6,762	3,133	0	9,888	9,888	13.5	0	348
<b>THAILAND</b>										
1992	9,177	1.43	13,145	0	4,798	8,500	8,500	144.7	0	976
1993	8,482	1.49	12,672	0	4,738	8,500	8,500	142.8	0	410
1994	9,216	1.53	14,098	0	5,950	8,400	8,400	139.4	0	158
1995	9,200	1.54	14,200	0	5,500	8,500	8,500	139.3	0	358
1992-95 ave.	9,019	1.50	13,529	0	5,247	8,475	8,475	141.5	0	476
1997	9,207	1.56	14,372	0	5,589	8,773	8,773	140.6	0	737
1998	9,153	1.57	14,351	0	5,749	8,615	8,615	136.7	0	724
1999	9,149	1.58	14,492	0	5,913	8,582	8,582	134.9	0	721
2000	9,143	1.60	14,629	0	6,151	8,486	8,486	132.3	0	713
2001	9,135	1.62	14,766	0	6,235	8,528	8,528	132.0	0	716
2002	9,127	1.63	14,902	0	6,291	8,604	8,604	132.5	0	723
2003	9,116	1.65	15,033	0	6,353	8,674	8,674	133.1	0	729
2004	9,109	1.67	15,174	0	6,540	8,637	8,637	132.3	0	726
2005	9,105	1.68	15,319	0	6,743	8,581	8,581	131.4	0	721
<b>TURKEY</b>										
1992	65	2.23	145	285	2	365	365	6.0	0	96
1993	45	3.24	146	243	1	380	380	6.1	0	104
1994	41	3.17	130	375	2	425	425	6.7	0	182
1995	80	3.25	260	200	0	450	450	7.0	0	192
1996	58	2.97	170	276	1	405	405	6.5	0	144
1997	74	2.22	164	278	1	484	484	7.2	0	116
1998	75	2.25	168	287	1	459	459	6.7	0	110
1999	76	2.27	173	300	1	479	479	6.9	0	104
2000	78	2.29	179	302	1	498	498	7.0	0	86
2001	80	2.32	185	329	1	516	516	7.2	0	84
2002	82	2.34	192	349	1	537	537	7.3	0	87
2003	84	2.36	199	360	1	555	555	7.4	0	90
2004	86	2.38	205	376	1	578	578	7.6	0	93
2005	88	2.41	213	395	1	603	603	7.8	0	96
<b>VIETNAM</b>										
1992	6,512	2.20	14,324	0	1,765	12,559	12,559	174.9	0	0
1993	6,643	2.42	16,048	0	2,000	14,048	14,048	192.2	0	0
1994	6,680	2.38	15,900	0	1,950	13,950	13,950	187.5	0	0
1995	6,750	2.46	16,600	0	2,000	14,600	14,600	193.0	0	0
1996	6,646	2.36	15,718	0	1,929	13,789	13,789	187.0	0	0
1997	6,424	2.42	15,530	0	1,982	13,554	13,554	173.4	0	0
1998	6,420	2.45	15,728	0	1,976	13,752	13,752	173.3	0	0
1999	6,414	2.48	15,923	0	1,933	13,990	13,990	173.7	0	0
2000	6,411	2.52	16,123	0	1,923	14,200	14,200	173.8	0	0
2001	6,405	2.55	16,317	0	1,900	14,417	14,417	174.0	0	0
2002	6,401	2.58	16,515	0	1,893	14,622	14,622	174.1	0	0
2003	6,397	2.61	16,712	0	1,864	14,848	14,848	174.4	0	0
2004	6,391	2.64	16,904	0	1,822	15,082	15,082	174.9	0	0
2005	6,387	2.68	17,100	0	1,813	15,287	15,287	175.0	0	0

Table 8. Rice supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
						1,000 ha	Tons/ha	1,000 tons		
<b>OTHER ASIA</b>										
1992	5,463	1.63	8,885	1,154	659	9,818	9,818	91.6	0	994
1993	5,638	1.62	9,118	760	326	9,631	9,631	87.2	0	1,140
1994	5,719	1.61	9,230	1,273	317	10,514	10,514	92.0	0	962
1995	5,628	1.67	9,383	985	150	10,354	10,354	87.4	0	826
1992-95 ave.	5,612	1.63	9,155	1,043	363	10,080	10,080	82.7	0	981
1997	5,698	1.65	9,385	938	48	10,272	10,272	82.0	0	799
1998	5,720	1.66	9,512	1,000	40	10,464	10,464	81.3	0	807
1999	5,748	1.68	9,641	1,054	32	10,654	10,654	80.8	0	816
2000	5,771	1.69	9,762	1,094	28	10,821	10,821	80.4	0	823
2001	5,790	1.71	9,875	1,125	21	10,972	10,972	79.8	0	829
2002	5,810	1.72	9,985	1,168	15	11,132	11,132	79.4	0	835
2003	5,832	1.73	10,102	1,211	0	11,295	11,295	78.9	0	853
2004	5,851	1.75	10,212	1,280	0	11,474	11,474	78.6	0	871
2005	5,873	1.76	10,322	1,356	1	11,663	11,663	78.3	0	886
<b>OTH. N. AFRICA &amp; MID. EAST</b>										
1992	8	3.75	30	695	0	728	728	13.7	0	2
1993	5	5.00	25	758	0	758	758	13.8	0	27
1994	8	5.00	40	651	0	701	701	12.3	0	17
1995	6	3.33	20	736	0	746	746	12.6	0	27
1992-95 ave.	7	4.26	29	710	0	733	733	13.1	0	18
1997	6	4.44	28	945	0	971	971	15.3	0	43
1998	6	4.44	28	982	0	1,008	1,008	15.4	0	45
1999	6	4.44	28	1,023	0	1,049	1,049	15.5	0	46
2000	6	4.44	28	1,066	0	1,092	1,092	15.6	0	48
2001	6	4.44	28	1,108	0	1,134	1,134	15.7	0	50
2002	6	4.44	28	1,155	0	1,181	1,181	15.8	0	52
2003	6	4.44	28	1,200	0	1,226	1,226	15.9	0	54
2004	6	4.45	28	1,249	0	1,274	1,274	16.0	0	56
2005	6	4.45	28	1,304	0	1,329	1,329	16.2	0	59
<b>OTHER SOUTH AMERICA</b>										
1992	1,384	2.56	3,549	522	714	3,347	3,347	41.6	0	554
1993	1,471	2.52	3,708	381	737	3,412	3,412	41.6	0	493
1994	1,553	2.73	4,247	461	915	3,607	3,607	43.2	0	678
1995	1,534	2.60	3,989	426	800	3,768	3,768	44.4	0	524
1992-95 ave.	1,486	2.61	3,873	448	792	3,534	3,534	42.7	0	562
1997	1,550	2.61	4,043	433	754	3,717	3,717	42.3	0	427
1998	1,565	2.62	4,103	431	760	3,771	3,771	42.2	0	430
1999	1,588	2.63	4,184	441	764	3,857	3,857	42.5	0	434
2000	1,611	2.65	4,266	453	769	3,946	3,946	42.8	0	437
2001	1,636	2.66	4,349	466	774	4,038	4,038	43.2	0	440
2002	1,660	2.67	4,434	480	778	4,133	4,133	43.5	0	443
2003	1,685	2.68	4,518	495	784	4,226	4,226	43.9	0	445
2004	1,710	2.69	4,602	526	788	4,337	4,337	44.4	0	448
2005	1,737	2.70	4,690	558	791	4,455	4,455	45.0	0	450

## Coarse Grains

Reversing a decline that began in the early 1980s, world import demand for coarse grains is projected to strengthen through 2005, with annual growth averaging 3.2 percent. Global coarse grain trade is projected to grow to near 117 million tons by the year 2005, exceeding the record of 107.9 million tons reached in 1980/81. Higher coarse grain imports by China and developing countries in Asia, North Africa, and Latin America are expected, along with modest import growth for the FSU--one of the world's largest importers during the 1980s. The limited availabilities of competitively priced feed wheat will add to coarse grain imports during the projection period.

Corn trade is expected to show the most growth among the coarse grains, with trade expanding to 87.5 million tons by 2005. The largest gains in corn imports are expected to occur in China and Southeast Asia, where demand for feed for livestock is expected to continue expanding rapidly. Although Argentina's corn exports are expected to rise by about 5 million tons, the United States will be the major beneficiary of robust import demand for corn. U.S. exports of coarse grains are projected to grow 3.8 percent annually over the projection period. By 2000, U.S. exports are likely to reach 70 million tons with corn exports accounting for 61.6 million tons. By 2005, U.S. coarse grain exports are projected to increase to 79 million tons, well above the record 71 million tons of 1979/80, with corn accounting for 69.9 million.

Barley trade is projected to remain virtually unchanged, while trade in sorghum and other coarse grains is projected to rise by 3 million tons during the projection period. Barley use and trade are expected to be constrained by tight supplies, as Canada and Australia expand area of wheat, canola, and malting barley at the expense of feed barley. In addition, the UR agreement limits on EU coarse grain exports also will reduce exportable supplies of feed barley. Growth in demand by barley importers, particularly in North Africa and the Middle East, is expected to be slowed by tight supplies and substitution of other feeds. Future responses by barley exporters to expected higher relative prices for competing crops (wheat and canola), and by barley importers to tight barley supplies, will be major factors in the outlook for coarse grain trade.

The U.S. share of the world coarse grain market is projected to maintain its recent high levels, 67-68 percent throughout the projection period. Projected market share is only slightly below the 1979/80 record of 72 percent and well above the 58 percent average of 1990-95. The U.S. share of the world corn market in 2005 is projected at 80 percent, compared with the 1990-1995 average of 72 percent.

Foreign coarse grain production is projected to rise through 2005, as higher yields and small gains in area reverse the downward trend of the 1980s and early 1990s. Foreign corn and barley production, in particular, are expected to respond to higher prices after 2000. However, projected annual coarse grain yield growth of 1.4 percent is slower than the nearly 2 percent rate achieved during the previous decade. Foreign corn production is projected up about 1.8 percent per year during the projection period, just below the growth expected for foreign corn consumption.

Annual growth in foreign coarse grain consumption is projected at 1.8 percent through 2005, stronger than during the 1980s, but below the 2.4 percent rate observed in the 1970s. Corn is expected to account for most of the growth, with foreign consumption projected to grow 2.5 percent annually. Most consumption growth is expected to be in

China and in developing countries in Latin America and Asia where livestock output and feed demand are expanding rapidly as incomes rise. Growth in foreign barley use is expected to be constrained by tight supplies.

Competitor coarse grain exports have dropped sharply since the early 1990s, as lower foreign production and sharply lower Chinese exports pulled down foreign market share from a recent high of 53 percent in 1993 to only 31 percent in 1995. Foreign coarse grain exports are projected to rise, particularly after 2000 when import demand and prices strengthen, but remain below the highs of the early 1990's.

### Highlights for Major Importers

About two-thirds of global coarse grain supplies are used as animal feed, and coarse grain that is traded is primarily used as feed. Thus, projected gains in coarse grain use and trade are linked closely to higher incomes that stimulate more meat consumption, along with population growth. Industrial uses, such as starch production and malting, are relatively small but growing. Food use of coarse grains is concentrated in parts of Latin America, Africa, and Asia, and has generally declined over time as consumers tend to increase consumption of wheat or rice as their incomes rise. However, the decline in coarse grain food use will have little effect on trade.

Imports of coarse grains for livestock feeding are projected to strengthen dramatically in the baseline, fueled by strong per capita income growth in developing countries, such as China, Southeast Asia, Mexico and South America, and the Middle East and North Africa. Korea and Taiwan are also expected to remain important importers, but import growth is projected to slow. Japan's imports are likely to wane as increasing meat imports reduce domestic demand for feed grains; but Japan is expected to remain the largest single importer of coarse grains.

- **Japan's** coarse grain imports are expected to decline because of a contraction in feed use as meat imports increase. The projected drop in feed demand is expected to be only partially offset by rising imports of industrial-use corn in response to minimum access requirements under the UR agreement. Projected imports in 2005 are 19.5 million tons.
- **China** shifted to a net corn import position in 1994/95 and net imports are expected to continue to rise through 2005. China is expected to overtake Korea as the second largest importer of coarse grain in about 2004. Strong economic growth is expected to raise meat demand and push up corn imports to support growth in meat production and moderate the pressure of rising demand on domestic meat prices. In 2005, China's net corn imports are projected at 10.7 million tons. Substantial growth in malting barley imports to produce beer is also anticipated, with barley imports reaching 2.1 million tons in 2005.

The expected emergence of China as a large and growing corn importer is the key development in the projections for U.S. and global coarse grain trade: However, the size and pace of China's future imports is very uncertain because they are dependent on policy developments and supply and demand uncertainties.

- **South Korea** is projected to sustain moderate growth in coarse grain imports, reflecting continued rapid income growth, a growing livestock sector, and strong feed



Table 10. Corn trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
1,000 tons														
<b>Exports</b>														
United States	42,249	33,741	55,311	55,883	46,796	53,978	56,518	58,423	61,598	64,138	66,043	67,313	68,583	69,853
Argentina	4,749	4,200	6,100	5,800	5,212	6,289	6,908	7,930	7,800	8,668	9,495	10,222	10,465	10,710
Canada	200	523	346	350	355	315	318	322	325	328	331	335	338	341
China	12,623	11,796	1,500	1,000	6,730	1,000	1,195	1,346	1,308	1,260	1,216	1,188	1,172	1,149
Central/East Europe	619	225	725	2,275	961	724	1,010	1,435	1,210	1,400	1,668	2,564	3,334	3,990
European Union-15 1/	1,249	1,750	250	200	862	275	300	300	300	300	300	300	300	300
Former Soviet Union 2/	220	150	40	900	328	450	500	550	600	650	700	450	445	400
Sub-Saharan Africa	257	735	316	425	433	401	401	401	401	401	401	401	401	401
South Africa	1,200	4,450	125	1,500	1,819	400	400	350	350	300	300	300	300	300
Thailand	147	118	110	100	119	0	0	0	0	0	0	0	0	0
Other	310	562	548	360	445	109	108	107	108	107	108	107	107	105
Total	63,823	58,250	65,371	68,793	64,059	63,941	67,658	71,164	74,000	77,552	80,562	83,180	85,445	87,549
<b>Imports</b>														
United States	180	529	243	254	302	254	254	254	254	254	254	254	254	254
Algeria	1,100	1,225	1,100	1,000	1,106	1,389	1,407	1,441	1,478	1,514	1,550	1,591	1,630	1,669
Brazil	1,220	1,304	1,407	1,500	1,358	1,504	1,774	1,788	1,845	1,912	1,967	1,966	1,970	1,856
Canada	1,255	552	925	500	808	639	720	812	943	977	1,129	1,142	1,184	1,251
C. Amer. & Carib.	1,687	1,774	2,188	1,750	1,850	1,940	1,993	2,072	2,134	2,228	2,316	2,374	2,399	2,446
Chile	454	381	585	600	505	692	724	771	813	864	914	959	995	1,035
China	0	0	4,287	2,500	1,697	2,092	4,167	5,355	6,548	7,931	8,988	9,993	10,985	11,816
Central/East Europe	1,569	360	384	250	641	633	600	524	432	367	361	358	342	336
European Union-15 1/	1,611	2,615	3,400	2,600	2,557	2,100	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Egypt	1,742	2,135	2,600	2,500	2,244	2,822	2,939	3,089	3,180	3,330	3,475	3,552	3,612	3,687
Former Soviet Union 2/	6,160	4,195	591	1,180	3,032	200	209	423	482	678	771	1,033	1,508	1,974
Indonesia	357	962	1,738	2,000	1,264	2,036	2,112	2,347	2,478	2,716	3,013	3,193	3,279	3,468
Iran	1,160	503	1,092	700	864	676	701	714	719	727	735	746	751	756
Iraq	0	0	0	0	0	44	63	82	99	111	125	141	156	173
Japan	16,760	16,165	16,481	16,000	16,352	15,040	14,952	14,907	14,856	14,902	14,837	14,747	14,648	14,491
Malaysia	1,957	1,977	2,400	2,300	2,159	2,512	2,613	2,717	2,830	2,948	3,070	3,195	3,324	3,455
Mexico	396	1,691	3,166	3,250	2,126	3,296	3,282	3,538	3,833	3,979	4,237	4,523	4,825	5,124
Morocco	350	375	543	300	392	289	297	294	286	286	286	287	289	292
Oth. N.A. & M. East	1,911	1,413	2,066	1,725	1,779	1,720	1,757	1,891	1,905	1,918	1,921	1,946	1,979	2,017
Oth. S. America	2,185	2,789	3,443	3,050	2,867	2,783	2,791	2,900	2,974	3,026	3,113	3,177	3,219	3,283
Sub-Saharan Africa	1,686	1,885	2,088	865	1,631	1,309	1,349	1,411	1,471	1,501	1,552	1,537	1,513	1,497
Pakistan	0	0	25	55	20	118	144	171	205	234	266	298	334	372
Philippines	0	1	136	500	159	296	378	552	683	912	1,108	1,211	1,264	1,323
Saudi Arabia	844	1,073	933	1,000	963	1,594	1,640	1,784	1,847	1,804	1,651	1,575	1,513	1,294
South Africa	0	20	600	400	255	28	74	111	146	227	325	368	346	375
South Korea	6,544	5,696	8,223	9,000	7,366	10,300	10,701	11,034	11,349	11,713	11,834	12,022	12,005	12,030
Taiwan	5,629	5,316	6,300	6,000	5,811	6,299	6,382	6,386	6,515	6,630	6,720	6,829	6,918	7,012
Thailand	197	8	200	400	201	27	214	296	382	417	561	650	701	686
Tunisia	283	275	224	275	264	317	333	349	366	384	403	423	443	465
Turkey	160	10	465	400	259	483	537	579	588	562	598	631	674	720
Other	764	492	417	400	518	509	551	572	359	500	482	459	385	392
Total	58,161	55,721	68,250	63,254	61,347	63,941	67,658	71,164	74,000	77,552	80,562	83,180	85,445	87,549
Exports - Imports	5,662	2,529	(2,879)	5,539	2,713	0	0	0	0	0	0	0	0	0

1/ Excludes EU-15 intratrade.

2/ Includes FSU intratrade.



Figure 11. C. Grain: Historical & Projected World Area & Yield

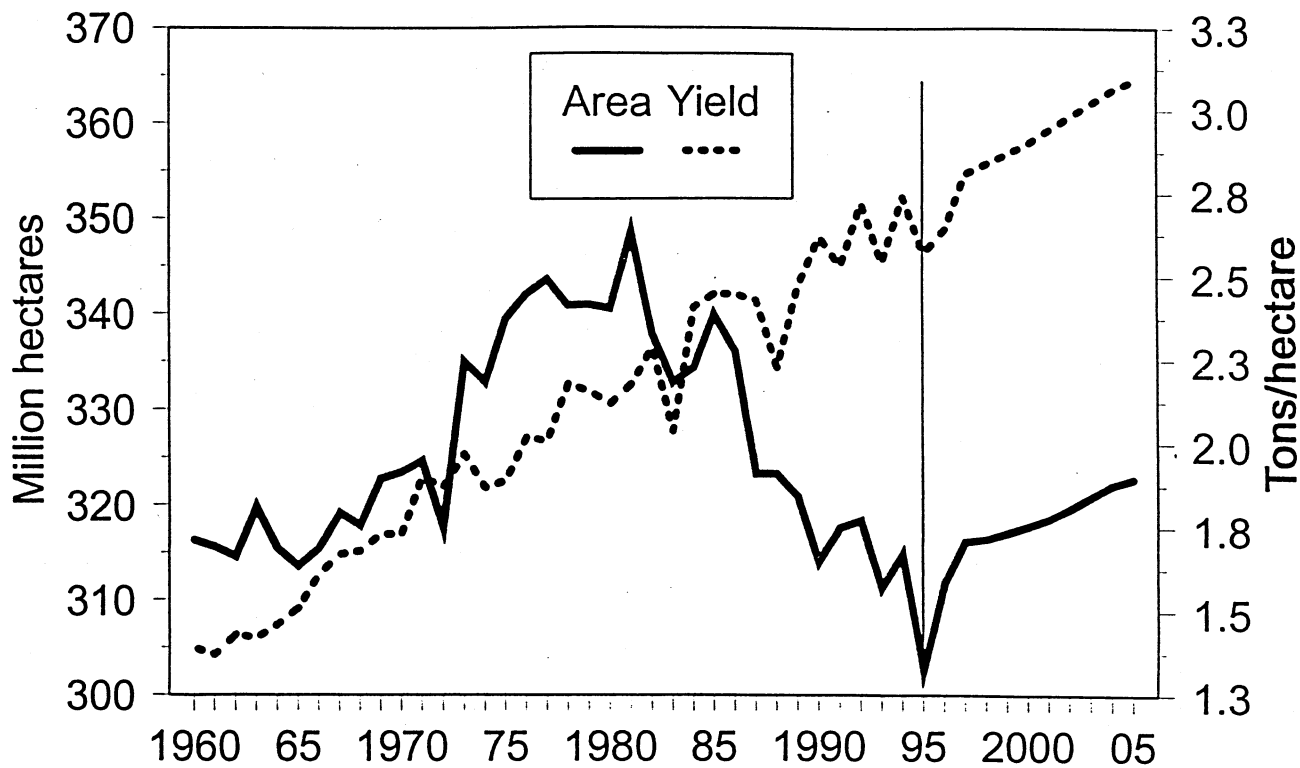


Figure 12. C. Grain: Historical & Projected World Supply & Use

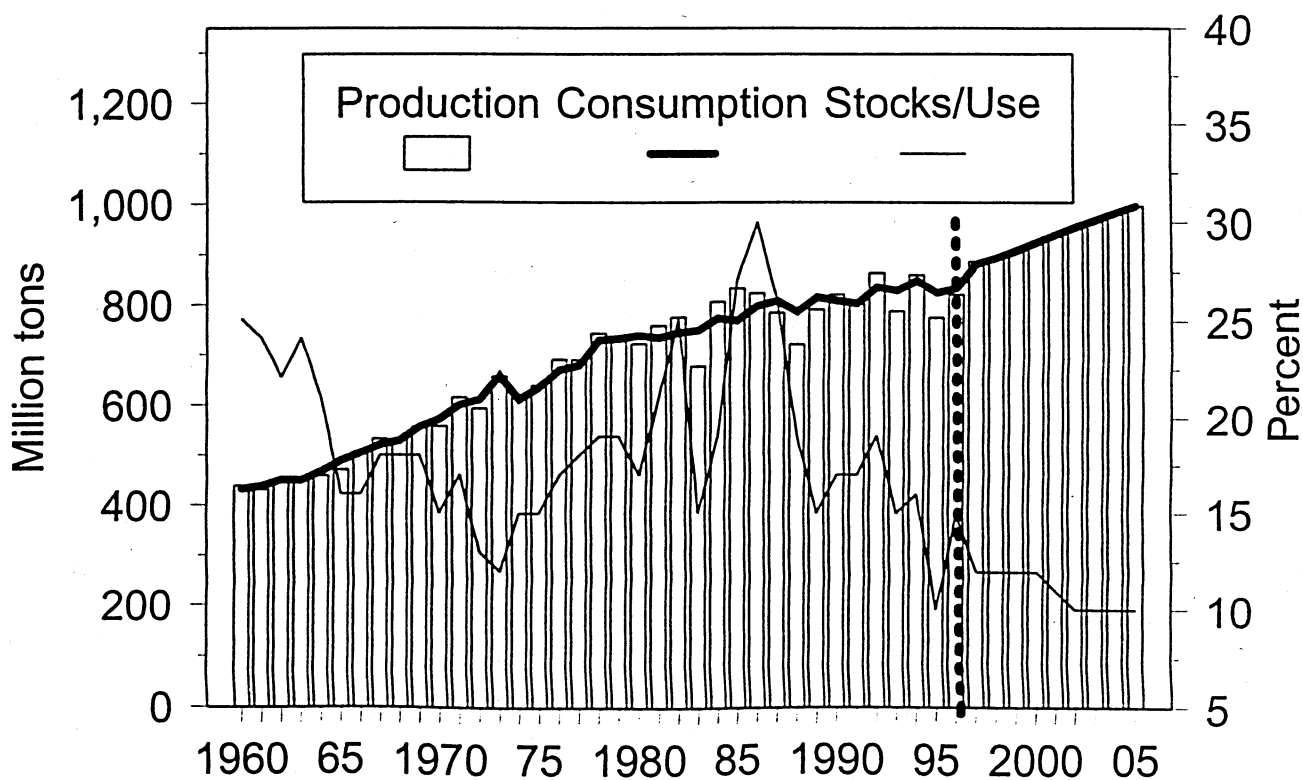


Figure 13. Corn: Historical & Projected World Area & Yield

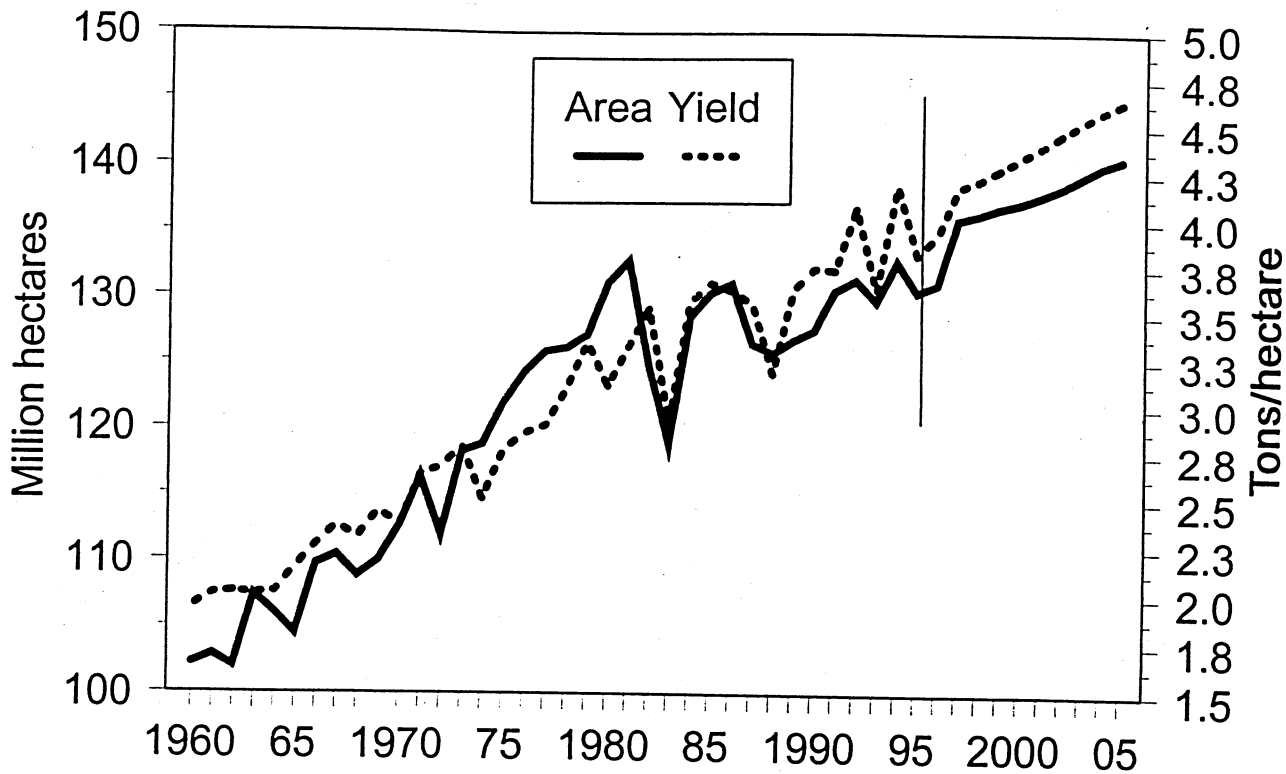


Figure 14. Corn: Historical & Projected World Supply & Use

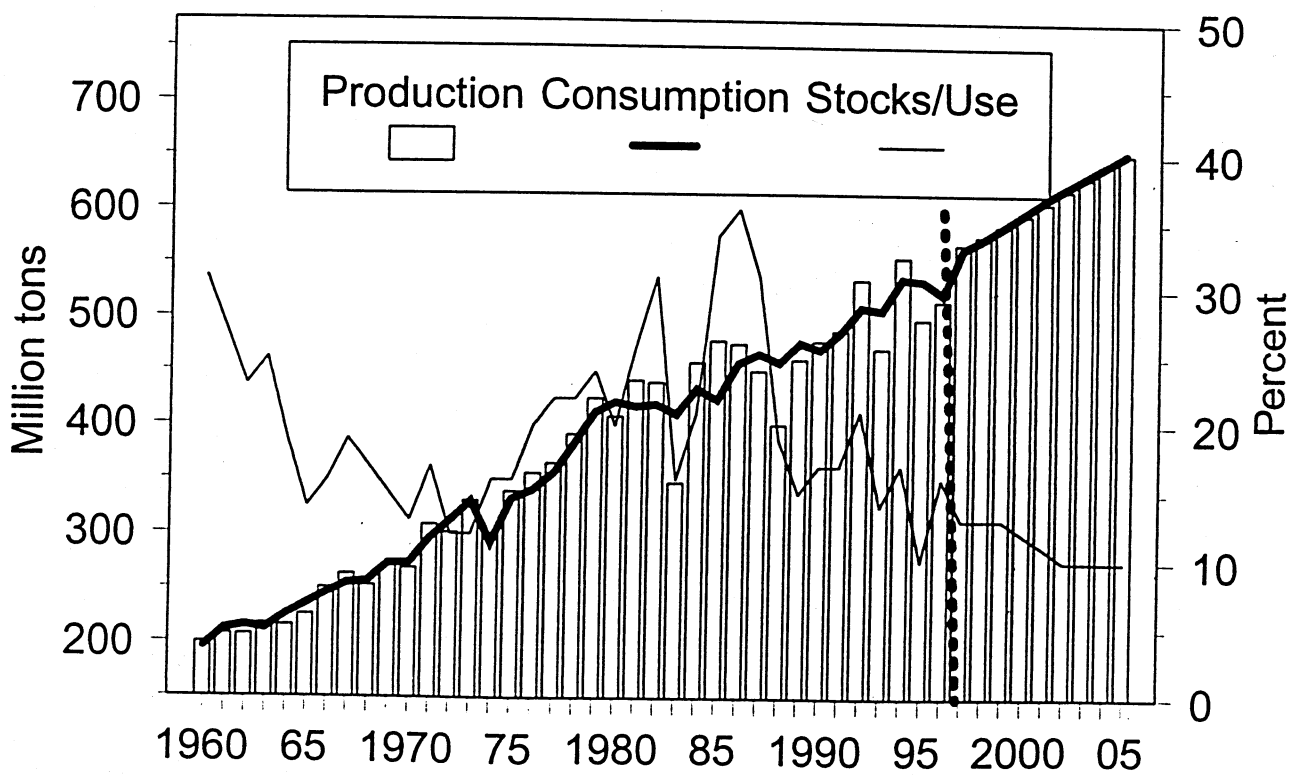


Figure 15. C. Grain: Historical & Projected Real Prices

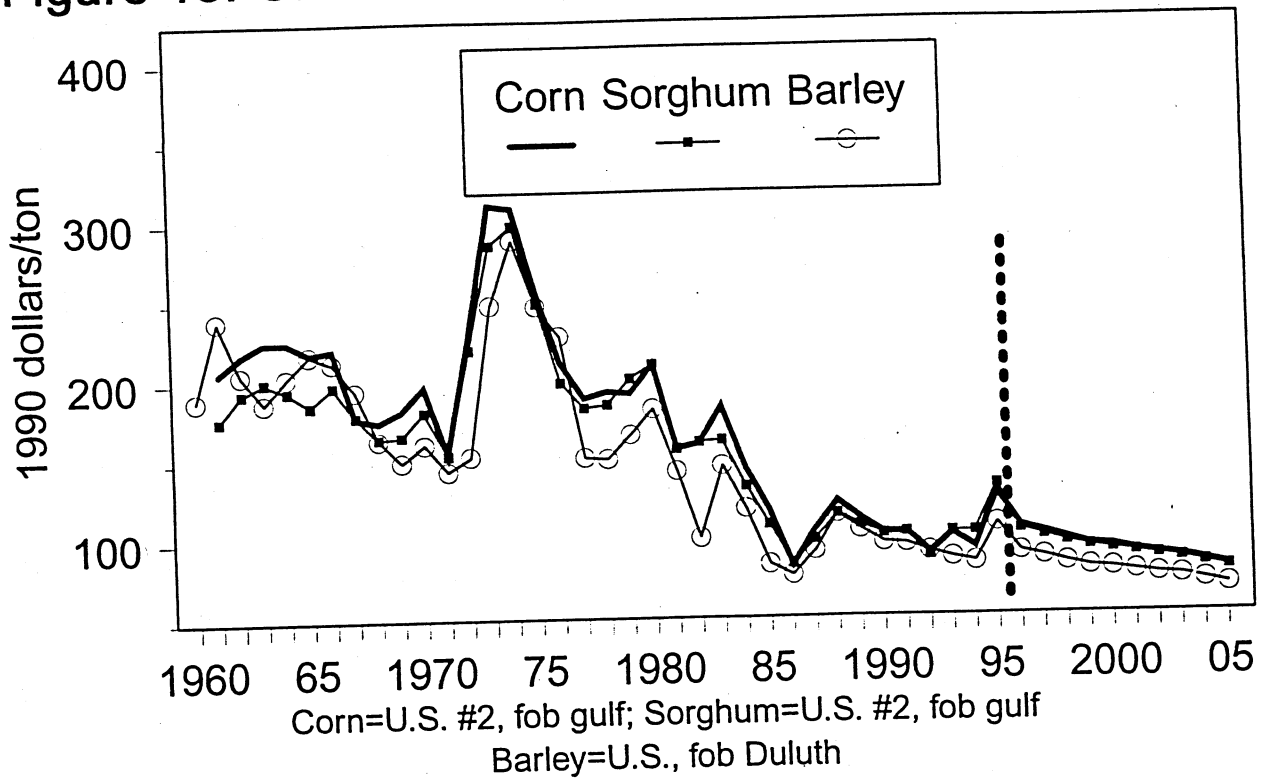
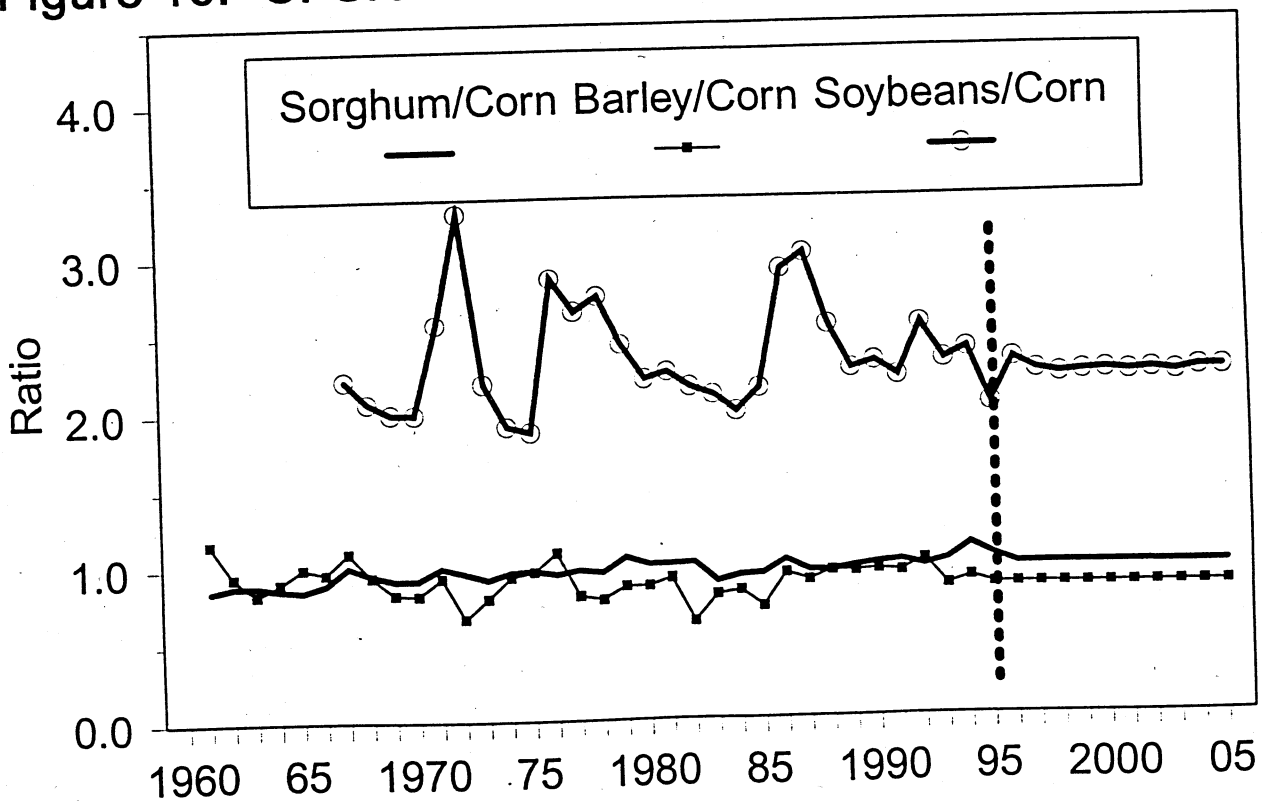


Figure 16. C. Grain: Historical & Projected Price Ratios



demand. By 2005, South Korean corn imports are expected to reach 12 million tons, up about 80 percent from the 1990-94 average. Limited availability of competitively priced feed wheat contributes to this strengthening demand for corn.

- **Mexico's** corn and sorghum imports are projected to grow sharply, reaching more than 10 million tons by 2005, as rising incomes boost demand for meats. Corn imports are projected at 5.2 million tons and sorghum at 4.6 million tons in 2005. Mexico is expected to continue to allow duty-free corn imports above the NAFTA TRQ level (3.46 million tons in 2005). Sorghum imports are projected to expand more rapidly between 1996 and 2000, despite gains in Mexican sorghum area under PROCAMPO. Growth in corn imports is expected to strengthen after 2000, when growth in demand will begin to outstrip production gains. Total and per capita corn food use are also projected higher, reflecting both population and income gains among the poorest consumers.
- **Taiwan's** coarse grain imports are projected to rise to 7.5 million tons by 2005, making it the world's fifth largest importer of coarse grains, down from third largest during 1992-95. Efforts to raise domestic coarse grain production will have little impact on trade. Growth in meat production in order to keep pace with continued strong growth in meat demand will be the key factor driving coarse grain imports.
- **North Africa and the Middle East, South America, Central America and the Caribbean, and Southeast Asia** are just beginning to expand livestock production, following the pattern of East Asia during the 1980s. Income growth through 2005 is projected to be stronger than during the 1980s in North Africa, the Middle East, and much of Latin America. Continued strong economic growth in Southeast Asian countries, such as Malaysia, the Philippines, Indonesia, and Thailand is projected to push up meat production and feed grain demand.
- The **FSU** is responsible for most of the drop in global coarse grain trade in recent years. Coarse grain imports by the countries of the FSU are projected to rise only modestly through 2005, constrained by lower than historical livestock inventories, the impact of higher consumer meat prices on meat and feed demand, and limited foreign exchange and credit. FSU imports, which ranged between 11 and 28 million tons in the 1980s and early 1990s, are projected to continue to decline through 1997, then respond to resumed economic growth and rise to 3.8 million tons by 2005.

The timing and extent of any recovery in coarse grain imports by the FSU are uncertain because they are dependent on the pace of economic and farm sector reform, and on the availability of financial assistance from exporters. Changes in the outlook for economic growth or gains in farm productivity could alter the trade projections significantly.

- **Saudi Arabia**, the world's largest barley importer, is projected to maintain annual imports of 3.1-3.4 million tons through 2005, as import growth is constrained by limited global feed barley supplies. Current Saudi policy reforms are also expected to sharply reduce producer subsidies and limit growth in barley production. Constrained global and domestic barley supplies and higher feed grain prices may require restructuring in the Saudi livestock sector, with a rising share of feed demand met by imported corn.

The response of barley importers, including Saudi Arabia and other North Africa and Middle East countries, to tight global supplies and rising prices relative to other feed grains is an important area of uncertainty in the coarse grain projections. Slowed growth in feed demand and more substitution of corn and other feeds is expected, but the relative size of these adjustments is difficult to assess.

### Highlights for Major Exporters

Coarse grain exports are also projected to rise sharply through 2005, with corn accounting for the bulk of the gains. Increases in sorghum and other coarse grain exports are expected to be relatively small, and virtually no growth is projected for barley exports. The United States, Argentina, and Eastern Europe are expected to expand corn exports, with Argentina becoming the largest competitor, as exports by China, South Africa, and Thailand decline. U.S. sorghum is projected to meet nearly all growth in sorghum trade, mostly by Mexico and Japan. The FSU and Eastern Europe are expected to export as much barley as possible in response to higher prices. EU barley exports are expected to remain below levels required by UR limits on subsidized coarse grain exports due to limited supplies. Canadian and Australian barley exports are also expected to show little growth.

- **Argentina**, with an abundance of good crop land, is expected to respond to higher coarse grain prices, and increasing returns to coarse grains relative to soybeans, by sharply increasing corn area. Strong production gains are projected to push corn exports to 10.7 million tons by 2005, keeping Argentina the world's second largest exporter of coarse grains. In addition to gains in area planted, production growth is expected to be driven by improved yields aided by lower input prices that have already contributed to more use of fertilizer and chemicals. Input prices are expected to continue to fall relative to output prices as domestic inflation eases and the government continues to support a fixed exchange rate. With even higher prices, additional land could be brought into production. However, major area expansion beyond the reach of existing marketing channels may require more investment in marketing infrastructure.
- Significant coarse grain export gains also are projected for **Eastern Europe** in response to higher world corn and barley prices. Corn exports are projected to rise to 4.0 million tons in 2005 and barley exports are projected to rise to 1.9 million, making the region the world's fourth largest exporter of coarse grains by 2005. Despite the expected recovery in consumer incomes, growth in domestic feed demand is expected to be relatively slow as higher meat and feed prices resulting from market reforms both dampen demand for meat products and stimulate gains in feeding efficiency. Export growth will, however, depend on prices remaining firm because several of these countries support domestic prices at relatively high levels.

With gains in barley exports by other suppliers expected to be small, the potential for exports of both corn and barley from Eastern Europe and barley from the FSU is an important factor in the outlook. Exports from Eastern Europe are expected to emerge more rapidly than from the FSU because market reforms are more advanced and the region has a history of exporting significant amounts of coarse grain, including recent exports in response to higher world prices. While the projections incorporate the expected growth of future trade, actual exports could be significantly higher or lower depending on domestic supply response to world market prices.

- **China's** coarse grain exports are projected to decline through 2005 as strong internal corn demand limits export availabilities. As noted above, however, the rate of decline of China's corn exports is a key uncertainty in the projections.
- Exports from **South Africa** and **Thailand** are already significantly less than historical levels and are projected to nearly cease. Both countries are projected to be net corn importers throughout the projections. Thailand's domestic feed use of corn is expected to maintain rapid growth. South Africa is not expected to increase corn area, in part because of reduced producer subsidies, and demand is likely to eventually overtake supply as per capita income and feed demand rise.
- The **EU** is projected to remain the world's third largest exporter of coarse grains with exports of 8 million tons, including 6.1 million of barley, in 2005. EU feed demand is expected to increase in response to lower internal grain prices. Exports reflect limits specified for EU coarse grains under the UR agreement. However, tight supplies and higher feed use are expected to hold coarse grain exports below the UR subsidized export limits during the first few years of the projection period. No unsubsidized EU coarse grain exports are projected.

Despite higher world prices, EU barley exports are projected to remain in the 6-7 million ton range through 2005. Even though world prices are expected to rise, they are projected to remain below the barley support price and, thus, not be transmitted to the EU market. Barley area is expected to be limited by competition with the relatively high returns to wheat and oilseeds, and higher internal feed use to limit the amount available for export. However, the magnitude of future area and yield response in the EU to changing prices is a key uncertainty in the coarse grain projections.

- **Canada's** barley production is projected to remain relatively unchanged because of area competition with wheat and canola, and domestic barley demand is expected to show little growth. Annual barley exports are projected to remain under 3 million tons.
- **Australian** coarse grain output is dominated by barley. Little growth is projected for barley area because of competition from other crops, and most production gains will come from increasing yields. Exports of feed barley, are projected to decline because of limited output gains and rising domestic feed demand. However, with the rapid expansion of beer consumption in Asia, malting barley exports are likely to continue to grow.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>WORLD</b>										
1992	318,220	2.72	864,842	87,237	93,172	836,427	248,564	44.7	554,531	162,935
1993	311,195	2.54	789,500	83,745	86,811	827,287	249,565	44.2	547,456	122,082
1994	314,670	2.74	861,611	92,999	91,066	852,052	246,271	42.9	570,516	133,574
1995	302,616	2.57	776,914	85,550	89,714	821,877	244,584	42.0	548,125	84,447
1992-95 ave.	311,675	2.64	823,217	87,383	90,191	834,411	247,246	43.5	555,157	125,760
1997	316,064	2.81	888,781	90,698	90,698	883,392	251,054	41.9	597,958	106,626
1998	316,331	2.84	897,670	95,265	95,265	895,367	255,716	42.0	606,111	108,929
1999	317,003	2.87	910,206	99,044	99,044	909,814	260,512	42.2	616,477	109,321
2000	317,652	2.90	922,596	102,258	102,258	925,182	265,363	42.4	627,509	106,735
2001	318,386	2.94	936,778	105,950	105,950	940,728	268,783	42.4	638,829	102,785
2002	319,493	2.98	952,723	109,324	109,324	955,523	272,027	42.3	650,015	99,985
2003	320,692	3.02	967,986	112,252	112,252	969,023	275,535	42.3	660,335	98,948
2004	321,925	3.06	983,731	114,773	114,773	982,644	279,077	42.3	670,686	100,035
2005	322,628	3.09	996,763	117,364	117,364	996,788	283,099	42.4	681,554	100,010
<b>UNITED STATES</b>										
1992	38,970	7.12	277,416	1,455	51,121	198,650	43,076	166.8	154,309	63,092
1993	33,497	5.57	186,453	4,043	40,343	185,862	45,135	172.9	139,493	27,383
1994	37,591	7.58	284,886	3,394	62,425	207,900	47,862	181.4	158,875	45,338
1995	33,543	6.24	209,419	2,985	61,809	180,513	47,101	176.8	131,691	15,420
1992-95 ave.	35,900	6.67	239,544	2,969	53,925	193,231	45,793	174.5	146,092	37,808
1997	37,895	7.07	267,747	3,356	61,466	205,328	50,403	185.6	153,423	29,426
1998	37,814	7.16	270,649	3,481	64,416	207,311	51,751	188.8	154,058	31,829
1999	37,976	7.24	274,968	3,356	66,691	210,846	53,143	192.1	156,199	32,616
2000	38,097	7.32	278,923	3,231	69,991	214,079	54,164	194.1	158,413	30,700
2001	38,178	7.41	282,842	3,231	72,666	216,775	54,918	195.1	160,354	27,332
2002	38,421	7.49	287,832	3,231	74,816	218,616	55,562	195.7	161,552	24,963
2003	38,623	7.58	292,676	3,231	76,241	220,530	56,169	196.2	162,858	24,099
2004	38,866	7.66	297,629	3,231	77,616	222,293	56,953	197.3	163,838	25,050
2005	38,907	7.73	300,895	3,231	79,016	224,540	57,713	198.3	165,325	25,620
<b>ALGERIA</b>										
1992	1,411	1.13	1,597	1,500	0	3,097	70	2.6	3,027	180
1993	751	0.62	462	1,899	0	2,441	200	7.2	2,242	100
1994	362	0.67	243	1,425	0	1,668	200	7.0	1,468	100
1995	1,201	0.63	752	1,100	0	1,852	200	6.9	1,652	100
1992-95 ave.	931	0.82	764	1,481	0	2,265	168	5.9	2,097	120
1997	1,097	0.80	879	2,044	0	2,904	155	5.1	2,748	141
1998	1,091	0.80	874	2,084	0	2,954	159	5.1	2,796	144
1999	1,086	0.80	870	2,124	0	2,992	162	5.1	2,830	146
2000	1,080	0.80	866	2,166	0	3,029	165	5.1	2,864	149
2001	1,075	0.80	861	2,211	0	3,070	169	5.1	2,901	152
2002	1,070	0.80	857	2,237	0	3,092	172	5.1	2,919	154
2003	1,064	0.80	853	2,302	0	3,151	176	5.1	2,975	158
2004	1,059	0.80	848	2,344	0	3,189	179	5.1	3,011	161
2005	1,054	0.80	844	2,388	0	3,230	182	5.1	3,047	164
<b>ARGENTINA</b>										
1992	3,840	3.67	14,079	0	6,027	7,687	1,863	55.6	5,824	1,457
1993	3,714	3.58	13,289	0	4,825	8,519	1,905	56.2	6,614	1,402
1994	3,508	3.81	13,368	10	6,525	7,468	1,818	53.0	5,650	787
1995	3,900	3.49	13,625	0	6,225	7,425	1,835	52.9	5,590	762
1992-95 ave.	3,741	3.63	13,590	3	5,901	7,775	1,855	54.4	5,920	1,102
1997	3,802	3.90	14,831	0	6,750	8,092	1,865	52.6	6,226	850
1998	3,832	4.03	15,456	0	7,350	8,078	1,896	52.9	6,182	878
1999	3,963	4.17	16,538	0	8,418	8,068	1,925	53.2	6,143	930
2000	3,847	4.28	16,485	0	8,428	8,064	1,952	53.4	6,112	923
2001	3,913	4.44	17,363	0	9,240	8,078	1,981	53.6	6,097	968
2002	3,975	4.59	18,237	(0)	10,082	8,115	2,010	53.8	6,105	1,008
2003	4,017	4.74	19,030	(0)	10,823	8,171	2,041	54.1	6,130	1,044
2004	3,966	4.88	19,335	(0)	11,097	8,224	2,077	54.5	6,148	1,058
2005	3,923	5.00	19,632	(0)	11,360	8,257	2,112	54.9	6,145	1,073

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>AUSTRALIA</b>										
1992	4,707	1.75	8,251	5	2,862	5,348	1,155	64.8	4,193	1,223
1993	5,027	1.96	9,842	273	5,165	5,437	1,129	62.5	4,308	736
1994	4,067	1.23	5,017	189	1,240	4,314	1,154	63.0	3,160	388
1995	5,085	1.83	9,295	25	3,460	5,595	1,087	58.6	4,508	653
1992-95 ave.	4,722	1.72	8,101	123	3,182	5,174	1,132	62.2	4,042	750
1997	4,753	1.73	8,239	21	2,472	5,879	980	51.6	4,900	755
1998	4,717	1.76	8,291	21	2,225	6,068	985	51.3	5,083	775
1999	4,707	1.78	8,380	21	2,192	6,236	990	51.1	5,246	748
2000	4,645	1.81	8,394	21	2,142	6,239	995	50.8	5,244	782
2001	4,675	1.83	8,563	21	2,175	6,493	1,000	50.6	5,493	698
2002	4,706	1.86	8,737	21	2,181	6,631	1,005	50.4	5,626	644
2003	4,710	1.88	8,864	21	2,167	6,680	1,010	50.2	5,670	682
2004	4,715	1.91	8,986	21	2,153	6,738	1,015	50.0	5,723	798
2005	4,672	1.93	9,027	21	2,173	6,730	1,020	49.8	5,710	943
<b>BRAZIL</b>										
1992	12,825	2.33	29,856	1,387	0	31,023	4,018	25.6	27,005	3,616
1993	14,247	2.37	33,760	1,469	0	34,259	5,524	34.8	28,735	4,586
1994	14,735	2.56	37,719	1,572	0	37,641	5,466	34.0	32,175	6,236
1995	14,165	2.24	31,756	1,675	0	37,431	5,506	33.8	31,925	2,236
1992-95 ave.	13,993	2.38	33,273	1,526	0	35,089	5,129	32.1	29,960	4,169
1997	14,829	2.48	36,750	1,681	0	38,408	3,392	20.4	35,016	2,336
1998	14,977	2.53	37,845	1,958	0	39,716	3,403	20.3	36,313	2,423
1999	15,093	2.58	38,881	1,976	0	40,784	3,428	20.2	37,356	2,496
2000	15,142	2.63	39,777	2,035	0	41,747	3,436	20.1	38,311	2,561
2001	15,173	2.68	40,686	2,101	0	42,726	3,446	20.0	39,280	2,622
2002	15,222	2.74	41,647	2,161	0	43,735	3,441	19.8	40,294	2,695
2003	15,248	2.79	42,564	2,159	0	44,660	3,435	19.6	41,225	2,758
2004	15,303	2.85	43,579	2,161	0	45,668	3,428	19.4	42,240	2,830
2005	15,312	2.90	44,426	2,043	0	46,432	3,432	19.2	43,000	2,867
<b>CANADA</b>										
1992	6,234	3.15	19,626	1,258	3,626	16,836	2,449	88.2	14,387	5,291
1993	6,897	3.49	24,041	553	5,387	19,427	2,653	94.4	16,774	5,071
1994	6,955	3.36	23,391	930	4,705	21,311	2,821	99.2	18,490	3,376
1995	6,955	3.46	24,090	500	3,975	20,707	2,677	93.1	18,030	3,284
1992-95 ave.	6,760	3.37	22,787	810	4,423	19,570	2,650	93.8	16,920	4,256
1997	6,771	3.45	23,372	689	4,054	19,976	2,669	91.0	17,307	3,853
1998	6,729	3.48	23,421	770	4,138	20,041	2,692	91.0	17,350	3,865
1999	6,712	3.50	23,488	862	4,369	19,991	2,715	90.9	17,277	3,855
2000	6,665	3.52	23,451	993	4,452	19,993	2,739	90.9	17,253	3,854
2001	6,619	3.55	23,482	1,027	4,508	20,000	2,764	91.0	17,236	3,855
2002	6,567	3.57	23,428	1,179	4,539	20,058	2,787	91.0	17,270	3,865
2003	6,552	3.59	23,539	1,192	4,604	20,116	2,810	91.0	17,306	3,876
2004	6,584	3.62	23,828	1,234	4,821	20,222	2,833	91.0	17,388	3,895
2005	6,565	3.64	23,929	1,301	4,937	20,282	2,856	91.1	17,426	3,906
<b>CENTRAL AM. &amp; CARIBBEAN</b>										
1992	2,602	1.46	3,796	1,688	20	5,449	2,783	44.8	2,666	336
1993	2,600	1.42	3,695	1,775	3	5,488	2,752	43.5	2,736	315
1994	2,514	1.28	3,230	2,189	16	5,488	2,872	44.6	2,616	230
1995	2,652	1.42	3,771	1,750	5	5,513	2,898	44.3	2,615	233
1992-95 ave.	2,592	1.40	3,623	1,851	11	5,485	2,827	44.3	2,658	279
1997	2,656	1.40	3,723	1,940	9	5,655	2,850	42.1	2,805	249
1998	2,677	1.40	3,756	1,993	8	5,737	2,884	41.9	2,853	253
1999	2,695	1.41	3,788	2,072	7	5,848	2,918	41.7	2,930	257
2000	2,714	1.41	3,827	2,134	7	5,950	2,949	41.5	3,001	261
2001	2,733	1.41	3,865	2,228	6	6,082	2,975	41.2	3,107	266
2002	2,752	1.42	3,904	2,316	6	6,210	2,998	40.9	3,211	271
2003	2,771	1.42	3,943	2,374	5	6,308	3,021	40.6	3,286	275
2004	2,791	1.42	3,977	2,399	5	6,369	3,047	40.3	3,322	277
2005	2,810	1.43	4,012	2,446	4	6,450	3,075	40.1	3,375	280

Note: Food category includes other uses in some countries.



Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>CENTRAL &amp; EASTERN EUROPE</b>										
1992	16,852	2.57	43,372	3,742	1,550	49,073	9,140	74.3	38,970	3,882
1993	16,688	2.66	44,465	2,396	362	46,111	9,127	74.1	35,113	4,270
1994	16,672	2.78	46,296	1,240	825	47,614	8,735	70.7	37,238	3,367
1995	16,258	3.14	51,062	345	2,605	48,555	8,642	69.7	37,907	3,614
1992-95 ave.	16,617	2.79	46,301	1,931	1,336	47,810	8,912	72.2	37,309	3,784
1997	16,326	3.21	52,468	986	2,039	51,397	9,255	74.2	40,042	4,939
1998	16,261	3.23	52,524	926	2,584	50,952	9,380	74.9	39,960	4,853
1999	16,133	3.27	52,828	843	3,200	50,511	9,498	75.6	40,017	4,813
2000	16,007	3.33	53,368	768	3,330	50,759	9,680	76.8	40,302	4,860
2001	15,823	3.41	53,964	696	3,341	51,302	9,757	77.1	40,640	4,877
2002	15,732	3.47	54,564	687	3,585	51,651	9,829	77.4	40,669	4,892
2003	15,672	3.53	55,325	676	4,875	51,134	9,873	77.5	40,112	4,884
2004	15,740	3.59	56,430	638	6,566	50,553	9,909	77.5	39,359	4,833
2005	15,716	3.64	57,145	628	7,346	50,196	9,980	77.8	38,608	5,064
<b>CHILE</b>										
1992	218	5.65	1,232	464	2	1,619	326	23.7	1,283	275
1993	217	5.85	1,269	396	0	1,686	490	35.1	1,185	254
1994	214	5.90	1,262	595	0	1,841	479	33.8	1,340	270
1995	214	5.89	1,260	610	0	1,890	490	34.1	1,390	250
1992-95 ave.	216	5.82	1,256	516	1	1,759	446	31.8	1,300	262
1997	216	5.89	1,271	714	5	1,968	512	34.6	1,457	237
1998	215	6.06	1,303	742	7	2,030	524	34.9	1,506	245
1999	215	6.16	1,327	795	9	2,104	540	35.5	1,564	254
2000	214	6.32	1,353	828	10	2,163	555	36.0	1,607	261
2001	214	6.46	1,382	870	13	2,231	571	36.6	1,659	270
2002	214	6.60	1,409	906	15	2,292	587	37.1	1,706	278
2003	213	6.75	1,439	951	20	2,361	603	37.6	1,758	286
2004	213	6.87	1,463	1,002	24	2,432	620	38.2	1,812	295
2005	213	7.00	1,489	1,054	29	2,505	636	38.7	1,869	304
<b>CHINA</b>										
1992	25,997	4.17	108,360	648	13,002	99,400	33,540	28.5	65,860	28,331
1993	25,805	4.52	116,740	1,239	12,040	108,089	36,429	30.6	71,660	26,181
1994	26,302	4.29	112,880	6,336	1,640	115,794	36,653	30.5	79,141	27,963
1995	27,840	4.37	121,640	4,600	1,100	124,740	32,520	26.8	92,220	28,363
1992-95 ave.	26,486	4.34	114,905	3,206	6,946	112,006	34,786	29.1	77,220	27,710
1997	27,623	4.52	124,819	4,284	1,085	128,190	31,648	25.5	96,542	27,226
1998	27,666	4.57	126,468	6,512	1,279	132,191	31,871	25.5	100,321	26,736
1999	27,785	4.65	129,237	7,721	1,429	136,418	31,952	25.4	104,466	25,847
2000	27,793	4.74	131,757	8,930	1,391	140,519	32,146	25.3	108,373	24,624
2001	27,856	4.83	134,561	10,325	1,342	144,714	32,047	25.0	112,668	23,454
2002	27,972	4.92	137,636	11,396	1,297	148,896	32,072	24.9	116,824	22,293
2003	28,105	5.01	140,780	12,437	1,269	153,054	32,126	24.8	120,928	21,187
2004	28,235	5.10	143,887	13,453	1,254	157,423	32,187	24.6	125,235	19,850
2005	28,342	5.18	146,853	14,307	1,231	161,707	32,339	24.6	129,368	18,072
<b>EU-15</b>										
1992	20,376	4.44	90,443	2,100	8,900	82,365	5,699	15.4	60,004	20,729
1993	18,923	4.88	92,429	3,000	10,000	87,790	5,657	15.2	64,801	18,368
1994	18,710	4.64	86,815	3,900	8,800	87,042	6,084	16.3	64,022	13,241
1995	18,523	4.78	88,550	3,700	5,400	89,411	6,216	16.6	65,269	10,680
1992-95 ave.	19,133	4.68	89,559	3,175	8,275	86,312	5,914	15.9	63,524	15,755
1997	19,604	4.76	93,278	2,699	7,220	87,913	6,308	16.8	64,944	7,417
1998	19,311	4.82	92,999	2,557	7,788	87,790	6,341	16.8	64,787	7,395
1999	19,214	4.85	93,278	2,516	7,892	87,899	6,374	16.8	64,727	7,398
2000	19,209	4.90	94,063	2,524	7,934	88,597	6,410	16.9	65,290	7,454
2001	19,430	4.93	95,750	2,538	8,612	89,593	6,443	16.9	65,953	7,537
2002	19,572	4.97	97,323	2,547	8,918	90,865	6,472	17.0	66,571	7,624
2003	19,548	5.02	98,042	2,546	8,878	91,643	6,502	17.0	67,090	7,691
2004	19,439	5.06	98,434	2,537	7,992	92,263	6,527	17.1	67,606	8,407
2005	19,322	5.10	98,630	2,545	8,021	93,085	6,561	17.1	68,254	8,476

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>EGYPT</b>										
1992	935	5.65	5,285	1,757	0	7,042	1,716	28.6	5,326	100
1993	1,007	5.84	5,885	2,188	0	7,928	1,586	25.9	6,335	245
1994	1,105	5.95	6,580	2,650	0	8,930	1,720	27.6	7,210	545
1995	1,050	6.10	6,400	2,550	0	9,250	1,700	26.7	7,550	245
1992-95 ave.	1,024	5.90	6,038	2,286	0	8,288	1,681	27.2	6,605	284
1997	1,043	6.18	6,442	2,873	0	9,305	1,794	27.2	7,511	342
1998	1,046	6.23	6,514	2,999	0	9,505	1,828	27.2	7,677	350
1999	1,049	6.28	6,586	3,148	0	9,677	1,862	27.2	7,815	407
2000	1,051	6.33	6,654	3,307	0	9,841	1,894	27.2	7,947	527
2001	1,052	6.38	6,708	3,378	0	10,026	1,927	27.2	8,099	587
2002	1,053	6.42	6,764	3,563	0	10,195	1,960	27.2	8,235	719
2003	1,053	6.48	6,820	3,665	0	10,366	1,992	27.2	8,374	838
2004	1,053	6.53	6,871	3,698	0	10,553	2,026	27.2	8,527	854
2005	1,053	6.57	6,922	3,755	0	10,756	2,060	27.2	8,696	775
<b>FORMER SOVIET UNION</b>										
1992	53,046	1.80	95,286	12,207	2,880	101,941	15,696	53.3	77,645	10,476
1993	53,685	1.78	95,328	6,099	1,491	97,795	15,497	52.4	73,881	12,617
1994	50,720	1.62	82,216	2,066	1,905	82,794	15,990	53.7	59,553	12,200
1995	46,015	1.30	59,815	2,135	1,425	67,043	16,376	54.8	45,982	5,682
1992-95 ave.	50,867	1.63	83,161	5,627	1,925	87,393	15,890	53.5	64,265	10,244
1997	46,630	1.74	80,948	1,300	3,379	79,072	16,651	55.2	55,523	11,054
1998	46,452	1.74	80,714	1,514	3,279	78,965	17,381	57.3	54,704	11,038
1999	46,252	1.74	80,562	1,718	2,722	79,496	18,140	59.5	54,497	11,100
2000	46,057	1.75	80,385	1,844	2,483	79,708	19,389	63.3	53,471	11,138
2001	45,776	1.76	80,357	1,934	2,032	80,196	19,680	63.9	53,660	11,201
2002	45,581	1.78	80,933	2,004	1,894	80,929	19,877	64.3	54,272	11,315
2003	45,428	1.79	81,219	2,445	1,402	82,062	20,215	65.0	55,080	11,515
2004	45,194	1.80	81,383	3,110	1,300	83,017	20,754	66.4	55,505	11,691
2005	44,936	1.82	81,810	3,779	1,325	84,081	21,380	68.1	55,960	11,874
<b>INDONESIA</b>										
1992	3,050	1.85	5,650	357	81	5,900	3,100	15.7	2,800	189
1993	2,950	1.83	5,400	962	35	6,151	3,101	15.5	3,050	365
1994	3,000	1.73	5,200	1,738	40	6,863	3,100	15.2	3,763	400
1995	2,950	1.80	5,300	2,000	30	7,270	3,200	15.5	4,070	400
1992-95 ave.	2,988	1.80	5,388	1,264	47	6,546	3,125	15.5	3,421	339
1997	2,906	1.86	5,401	2,036	0	7,400	3,427	16.1	3,973	303
1998	2,898	1.86	5,398	2,112	0	7,506	3,342	15.4	4,164	308
1999	2,896	1.87	5,427	2,347	0	7,764	3,283	15.0	4,481	318
2000	2,900	1.90	5,514	2,478	0	7,983	3,232	14.5	4,750	327
2001	2,913	1.92	5,597	2,716	0	8,300	3,174	14.1	5,126	340
2002	2,913	1.94	5,655	3,013	0	8,654	3,108	13.6	5,545	355
2003	2,911	1.96	5,707	3,193	0	8,890	3,038	13.1	5,852	365
2004	2,907	1.96	5,707	3,279	0	8,982	2,963	12.6	6,020	368
2005	2,893	1.97	5,685	3,468	0	9,146	2,891	12.1	6,256	375
<b>IRAN</b>										
1992	2,655	1.42	3,770	1,335	0	4,905	1,340	21.6	3,565	1,135
1993	2,655	1.54	4,085	504	0	4,824	1,409	22.3	3,415	900
1994	2,660	1.42	3,790	1,392	0	5,140	1,520	23.5	3,620	942
1995	2,660	1.42	3,790	1,200	0	5,320	1,470	22.2	3,800	612
1992-95 ave.	2,658	1.45	3,859	1,108	0	5,047	1,435	22.4	3,600	897
1997	2,734	1.44	3,930	1,508	0	5,430	1,560	22.6	3,871	581
1998	2,725	1.44	3,937	1,637	0	5,496	1,584	22.5	3,912	659
1999	2,717	1.45	3,945	1,639	0	5,576	1,611	22.4	3,965	667
2000	2,713	1.46	3,959	1,582	0	5,630	1,639	22.3	3,991	578
2001	2,681	1.47	3,931	1,600	0	5,541	1,667	22.2	3,874	568
2002	2,650	1.47	3,904	1,616	0	5,564	1,696	22.1	3,868	524
2003	2,673	1.48	3,957	1,681	0	5,634	1,724	22.0	3,910	528
2004	2,693	1.49	4,007	1,680	0	5,728	1,754	21.9	3,974	487
2005	2,714	1.50	4,058	1,709	0	5,666	1,784	21.8	3,882	588

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>IRAQ</b>										
1992	1,429	1.10	1,569	0	0	1,569	714	37.3	855	0
1993	1,539	1.10	1,689	0	0	1,689	697	35.0	992	0
1994	1,499	1.07	1,609	1	0	1,610	674	32.6	935	0
1995	1,499	1.07	1,609	0	0	1,609	674	31.5	935	0
1992-95 ave.	1,492	1.09	1,619	0	0	1,619	690	34.0	929	0
1997	1,468	1.17	1,722	261	0	1,979	789	34.3	1,190	77
1998	1,490	1.19	1,780	307	0	2,083	834	34.9	1,249	81
1999	1,514	1.22	1,841	341	0	2,179	875	35.4	1,304	84
2000	1,540	1.24	1,907	365	0	2,269	916	35.8	1,353	87
2001	1,566	1.26	1,975	383	0	2,355	957	36.1	1,398	90
2002	1,592	1.28	2,045	399	0	2,441	998	36.4	1,443	94
2003	1,620	1.31	2,119	417	0	2,533	1,039	36.6	1,494	97
2004	1,647	1.33	2,194	439	0	2,630	1,079	36.7	1,550	100
2005	1,674	1.36	2,272	461	0	2,730	1,120	36.9	1,609	104
<b>JAPAN</b>										
1992	87	3.34	291	22,103	0	22,468	336	2.7	18,186	2,879
1993	77	3.58	276	21,213	0	21,914	300	2.4	17,830	2,454
1994	63	3.41	215	21,094	0	21,385	300	2.4	17,210	2,378
1995	64	3.22	206	20,435	0	21,089	300	2.4	16,935	1,930
1992-95 ave.	73	3.38	247	21,211	0	21,714	309	2.5	17,540	2,410
1997	77	3.29	253	19,574	0	19,843	300	2.4	15,416	1,997
1998	77	3.32	256	19,722	0	20,080	300	2.4	15,570	1,895
1999	78	3.32	259	19,752	0	20,017	300	2.4	15,423	1,889
2000	78	3.36	262	19,659	0	19,929	300	2.3	15,252	1,881
2001	79	3.35	265	19,616	0	19,885	300	2.3	15,078	1,877
2002	79	3.39	268	19,581	0	19,851	300	2.3	15,035	1,875
2003	80	3.39	271	19,520	0	19,796	300	2.3	14,970	1,870
2004	80	3.43	274	19,484	0	19,761	300	2.3	14,927	1,867
2005	81	3.42	277	19,494	0	19,771	300	2.3	14,930	1,867
<b>MALAYSIA</b>										
1992	21	1.71	36	1,957	0	1,960	95	5.0	1,865	175
1993	20	1.90	38	1,977	0	2,030	110	5.7	1,920	160
1994	20	2.00	40	2,400	0	2,300	40	2.0	2,225	300
1995	20	2.00	40	2,300	0	2,490	40	2.0	2,410	150
1992-95 ave.	20	1.90	39	2,159	0	2,195	71	3.7	2,105	196
1997	21	2.02	41	2,512	0	2,547	62	3.0	2,484	107
1998	21	2.03	43	2,613	0	2,651	64	3.0	2,588	111
1999	22	2.04	44	2,717	0	2,757	65	3.0	2,692	115
2000	22	2.05	45	2,830	0	2,871	66	3.0	2,804	120
2001	23	2.06	47	2,948	0	2,990	67	2.9	2,922	125
2002	23	2.07	48	3,070	0	3,113	69	3.0	3,044	130
2003	24	2.08	50	3,195	0	3,239	70	3.0	3,169	136
2004	24	2.09	51	3,324	0	3,370	72	3.0	3,298	141
2005	25	2.10	53	3,455	0	3,502	73	3.0	3,429	147
<b>MEXICO</b>										
1992	8,906	2.50	22,269	4,441	26	26,440	15,311	169.3	11,129	2,236
1993	9,939	2.28	22,709	4,872	60	27,479	15,457	167.6	12,022	2,278
1994	9,450	2.31	21,800	5,847	50	27,831	15,212	161.9	12,619	2,044
1995	9,250	2.24	20,700	5,780	25	27,485	15,210	158.8	12,275	1,014
1992-95 ave.	9,386	2.33	21,870	5,235	40	27,309	15,298	164.3	12,011	1,893
1997	9,525	2.47	23,506	6,989	0	30,407	15,516	156.2	14,891	913
1998	9,434	2.57	24,211	7,065	0	31,238	15,737	155.6	15,501	951
1999	9,350	2.64	24,693	7,626	0	32,267	15,948	155.0	16,320	1,003
2000	9,264	2.72	25,195	8,193	0	33,335	16,168	154.5	17,167	1,056
2001	9,266	2.79	25,889	8,572	0	34,407	16,402	154.1	18,006	1,110
2002	9,286	2.85	26,510	8,987	0	35,444	16,651	153.9	18,792	1,163
2003	9,322	2.92	27,205	9,370	0	36,519	16,925	154.0	19,594	1,219
2004	9,373	2.99	28,022	9,741	0	37,701	17,230	154.3	20,471	1,281
2005	9,444	3.07	28,964	10,050	0	38,945	17,531	154.6	21,414	1,350

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
						1,000 tons	Kgs.	1,000 tons		
1,000 ha	Tons/ha	1,000 tons	Kgs.	1,000 tons						
<b>MOROCCO</b>										
1992	2,763	0.49	1,341	965	0	2,503	1,259	45.0	1,244	727
1993	2,526	0.46	1,155	627	0	2,415	1,119	39.2	1,296	94
1994	2,982	1.33	3,967	643	0	3,492	1,406	48.2	2,086	1,212
1995	1,805	0.54	980	500	0	2,580	1,350	45.3	1,230	112
1992-95 ave.	2,519	0.74	1,861	684	0	2,748	1,284	44.5	1,464	536
1997	2,901	0.97	2,807	809	0	3,609	1,383	44.6	2,226	560
1998	2,905	0.97	2,830	847	0	3,670	1,407	44.5	2,263	567
1999	2,909	0.98	2,854	851	0	3,699	1,430	44.4	2,269	573
2000	2,914	0.99	2,878	882	0	3,758	1,404	42.8	2,354	575
2001	2,916	0.99	2,901	885	0	3,782	1,407	42.1	2,375	579
2002	2,919	1.00	2,925	894	0	3,817	1,366	40.1	2,451	581
2003	2,921	1.01	2,950	947	0	3,883	1,426	41.1	2,457	595
2004	2,924	1.02	2,976	950	0	3,923	1,370	38.8	2,553	598
2005	2,926	1.03	3,002	954	0	3,945	1,410	39.2	2,535	609
<b>PAKISTAN</b>										
1992	1,782	0.93	1,658	0	0	1,658	1,163	9.3	495	0
1993	1,853	0.95	1,763	0	0	1,763	1,248	9.7	515	0
1994	1,865	1.01	1,878	25	0	1,903	1,348	10.2	555	0
1995	1,835	1.00	1,835	55	0	1,890	1,380	10.3	510	0
1992-95 ave.	1,834	0.97	1,784	20	0	1,804	1,285	9.9	519	0
1997	1,829	1.00	1,830	118	0	1,948	1,395	9.9	553	0
1998	1,832	1.01	1,850	144	0	1,994	1,389	9.6	605	0
1999	1,835	1.02	1,870	171	0	2,041	1,383	9.3	659	0
2000	1,838	1.03	1,890	205	0	2,095	1,380	9.0	715	0
2001	1,839	1.04	1,907	234	0	2,141	1,366	8.7	774	0
2002	1,839	1.05	1,923	266	0	2,189	1,353	8.4	836	0
2003	1,839	1.05	1,938	298	0	2,236	1,335	8.0	901	0
2004	1,837	1.06	1,951	334	0	2,285	1,315	7.7	970	0
2005	1,833	1.07	1,960	372	0	2,332	1,289	7.4	1,043	0
<b>PHILIPPINES</b>										
1992	3,330	1.44	4,810	0	0	4,730	1,730	24.7	3,000	220
1993	3,100	1.62	5,030	1	0	5,076	2,266	31.6	2,810	175
1994	2,967	1.53	4,533	136	0	4,704	1,804	24.6	2,900	140
1995	2,750	1.56	4,300	500	0	4,810	1,860	24.8	2,950	130
1992-95 ave.	3,037	1.54	4,668	159	0	4,830	1,915	26.4	2,915	166
1997	2,925	1.64	4,803	293	0	5,089	1,727	22.1	3,362	138
1998	2,931	1.67	4,898	379	0	5,272	1,743	21.8	3,529	143
1999	2,942	1.70	5,002	558	0	5,553	1,757	21.5	3,796	150
2000	2,946	1.73	5,098	694	0	5,786	1,771	21.3	4,015	156
2001	2,954	1.76	5,191	929	0	6,112	1,793	21.1	4,319	164
2002	2,958	1.79	5,297	1,130	0	6,419	1,801	20.8	4,618	172
2003	2,966	1.83	5,426	1,238	0	6,658	1,812	20.5	4,846	178
2004	2,976	1.87	5,555	1,297	0	6,847	1,821	20.2	5,026	183
2005	2,984	1.90	5,670	1,362	0	7,028	1,832	19.9	5,196	187
<b>SAUDI ARABIA</b>										
1992	243	2.65	645	4,802	0	7,135	212	12.2	6,923	3,285
1993	362	3.73	1,349	5,718	0	7,472	202	11.2	7,270	2,880
1994	523	3.93	2,054	4,483	0	7,237	179	9.6	7,058	2,180
1995	423	3.44	1,454	4,300	0	6,904	204	10.5	6,700	1,030
1992-95 ave.	388	3.55	1,376	4,826	0	7,193	205	11.1	6,988	2,344
1997	420	3.64	1,528	5,122	0	6,493	226	10.9	6,267	2,498
1998	415	3.63	1,505	4,869	0	6,266	235	10.9	6,031	2,606
1999	411	3.62	1,488	5,024	0	6,414	244	10.9	6,171	2,704
2000	408	3.62	1,480	5,124	0	6,518	252	11.0	6,266	2,790
2001	406	3.62	1,470	5,106	0	6,486	262	11.0	6,224	2,880
2002	403	3.63	1,462	4,976	0	6,350	271	11.0	6,078	2,968
2003	401	3.63	1,454	4,964	0	6,329	281	11.0	6,047	3,057
2004	397	3.63	1,439	4,876	0	6,216	292	11.1	5,925	3,156
2005	393	3.63	1,425	4,749	0	6,074	303	11.1	5,771	3,256

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
1,000 ha	Tons/ha		1,000 tons		Kgs.	1,000 tons				
<b>SOUTH AFRICA, REPUBLIC</b>										
1992	4,823	2.22	10,726	6	1,200	8,345	3,999	93.5	4,346	1,687
1993	4,994	2.72	13,590	54	4,450	8,481	4,374	99.6	4,107	2,400
1994	3,983	1.31	5,205	635	125	7,215	3,890	86.3	3,325	900
1995	4,205	2.31	9,693	420	1,500	8,613	4,341	93.8	4,272	900
1992-95 ave.	4,501	2.18	9,804	279	1,819	8,064	4,051	91.0	4,013	1,472
1997	4,328	2.11	9,148	64	400	8,775	4,281	87.8	4,494	1,352
1998	4,311	2.14	9,207	113	400	8,895	4,400	87.9	4,495	1,377
1999	4,299	2.16	9,276	156	350	9,054	4,544	88.5	4,510	1,405
2000	4,298	2.18	9,383	218	350	9,225	4,682	88.9	4,543	1,431
2001	4,296	2.21	9,488	281	300	9,442	4,827	89.3	4,615	1,458
2002	4,295	2.23	9,596	385	300	9,654	4,973	89.7	4,681	1,485
2003	4,294	2.26	9,707	430	300	9,809	5,121	90.1	4,688	1,513
2004	4,287	2.29	9,830	406	300	9,905	5,284	90.7	4,621	1,544
2005	4,281	2.33	9,957	437	300	10,062	5,449	91.2	4,613	1,576
<b>SOUTH KOREA</b>										
1992	129	4.08	526	6,737	0	7,276	478	10.7	5,569	580
1993	125	3.90	487	5,814	0	6,306	471	10.4	4,008	575
1994	123	3.82	470	8,955	0	9,400	465	10.2	6,972	600
1995	125	3.97	496	9,925	0	10,431	475	10.3	8,726	590
1992-95 ave.	126	3.93	495	7,858	0	8,336	472	10.4	6,319	586
1997	119	3.92	467	11,047	0	11,457	454	9.7	9,509	1,032
1998	116	3.97	460	11,446	0	11,868	449	9.5	9,896	1,070
1999	114	3.98	454	11,808	0	12,226	444	9.3	10,234	1,106
2000	112	3.99	447	12,146	0	12,560	440	9.1	10,551	1,139
2001	110	4.01	441	12,488	0	12,891	435	8.9	10,863	1,177
2002	108	4.03	435	12,614	0	13,038	430	8.8	10,991	1,188
2003	106	4.05	429	12,786	0	13,196	426	8.6	11,135	1,207
2004	104	4.07	423	12,790	0	13,211	421	8.4	11,128	1,209
2005	103	4.05	417	12,796	0	13,211	417	8.3	11,111	1,211
<b>SUB-SAHARAN AFRICA</b>										
1992	49,259	0.92	45,397	1,757	777	45,105	44,121	86.7	984	4,092
1993	48,282	0.88	42,493	2,073	998	45,590	44,530	84.9	1,060	2,070
1994	51,377	0.88	45,133	2,247	416	46,489	45,501	84.2	988	2,545
1995	48,648	0.92	44,647	960	625	46,212	45,177	81.2	1,035	1,315
1992-95 ave.	49,392	0.90	44,418	1,759	704	45,844	44,827	84.2	1,017	2,506
1997	52,111	0.95	49,496	1,673	798	50,241	49,218	83.5	1,022	2,473
1998	52,811	0.96	50,452	1,838	798	51,439	50,416	83.2	1,023	2,526
1999	53,495	0.97	51,815	1,796	798	52,753	51,745	83.1	1,008	2,586
2000	54,340	0.98	53,070	1,776	798	53,994	52,991	82.8	1,003	2,640
2001	54,989	0.99	54,193	1,821	798	55,158	54,160	82.3	998	2,698
2002	55,675	0.99	55,379	1,889	798	56,406	55,414	82.0	992	2,762
2003	56,491	1.00	56,590	1,824	798	57,557	56,572	81.5	985	2,821
2004	57,246	1.01	57,959	1,745	798	58,852	57,876	81.2	976	2,875
2005	57,987	1.02	59,232	1,713	798	60,084	59,122	80.8	962	2,938
<b>TAIWAN</b>										
1992	89	4.48	399	5,921	17	6,298	0	0.0	5,826	1,204
1993	89	4.46	397	5,770	0	6,162	0	0.0	5,786	1,209
1994	90	4.47	402	6,644	0	6,520	0	0.0	6,071	1,735
1995	46	4.70	216	6,276	0	6,747	0	0.0	6,316	1,480
1992-95 ave.	79	4.50	354	6,153	4	6,432	0	0.0	6,000	1,407
1997	80	4.50	358	6,663	0	6,958	0	0.0	6,500	1,600
1998	79	4.49	356	6,750	0	7,044	0	0.0	6,582	1,662
1999	79	4.51	355	6,755	0	7,097	0	0.0	6,631	1,675
2000	75	4.50	337	6,855	0	7,191	0	0.0	6,722	1,676
2001	71	4.50	320	6,965	0	7,285	0	0.0	6,811	1,676
2002	68	4.50	304	7,070	0	7,358	0	0.0	6,880	1,692
2003	64	4.50	289	7,253	0	7,471	0	0.0	6,991	1,763
2004	61	4.49	274	7,360	0	7,560	0	0.0	7,076	1,837
2005	58	4.51	261	7,461	0	7,635	0	0.0	7,147	1,924

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks		
						1,000 ha	Tons/ha	1,000 tons	1,000 tons		Kgs.	1,000 tons
<b>THAILAND</b>												
1992	1,370	2.59	3,550	197	157	3,400	55	0.9	3,345	445		
1993	1,220	2.52	3,080	8	128	3,181	61	1.0	3,120	224		
1994	1,360	2.79	3,800	236	110	3,936	60	1.0	3,875	214		
1995	1,310	2.98	3,900	400	100	4,200	60	1.0	4,140	214		
1992-95 ave.	1,315	2.72	3,583	210	124	3,679	59	1.0	3,620	274		
1997	1,251	3.16	3,955	27	0	3,990	61	1.0	3,929	148		
1998	1,278	3.19	4,079	214	0	4,282	61	1.0	4,221	159		
1999	1,263	3.22	4,066	296	0	4,359	62	1.0	4,298	162		
2000	1,256	3.25	4,080	382	0	4,458	62	1.0	4,397	166		
2001	1,282	3.29	4,219	417	0	4,629	63	1.0	4,567	173		
2002	1,275	3.33	4,246	561	0	4,800	63	1.0	4,737	179		
2003	1,270	3.37	4,284	650	0	4,929	64	1.0	4,866	184		
2004	1,265	3.42	4,322	701	0	5,020	64	1.0	4,956	188		
2005	1,248	3.45	4,307	686	0	4,994	65	1.0	4,929	187		
<b>TUNISIA</b>												
1992	504	1.13	571	288	0	889	100	11.7	789	120		
1993	401	0.40	161	747	0	878	16	1.8	862	150		
1994	251	0.58	146	725	0	871	40	4.5	831	150		
1995	201	0.25	51	675	0	776	50	5.5	726	100		
1992-95 ave.	339	0.68	232	609	0	854	52	5.9	802	130		
1997	448	0.69	310	671	0	974	47	5.1	927	159		
1998	447	0.69	310	690	0	998	48	5.0	950	161		
1999	445	0.70	310	709	0	1,017	48	5.0	968	163		
2000	444	0.70	310	730	0	1,038	49	5.0	989	165		
2001	444	0.70	310	751	0	1,060	50	5.0	1,010	166		
2002	443	0.70	310	761	0	1,070	50	5.0	1,020	166		
2003	442	0.70	311	793	0	1,102	50	4.9	1,052	168		
2004	441	0.70	310	815	0	1,122	51	4.9	1,071	171		
2005	439	0.71	310	836	0	1,142	52	4.9	1,091	175		
<b>TURKEY</b>												
1992	4,493	2.09	9,370	656	588	9,213	1,707	28.0	7,506	631		
1993	4,598	2.27	10,435	182	622	9,066	1,938	31.2	7,120	1,560		
1994	4,478	2.05	9,175	565	1,022	9,175	1,900	30.0	7,225	1,103		
1995	4,518	2.09	9,460	500	750	9,310	1,780	27.5	7,530	1,003		
1992-95 ave.	4,522	2.13	9,610	476	746	9,191	1,831	29.2	7,345	1,074		
1997	4,532	2.15	9,727	911	922	9,722	1,656	24.7	8,065	1,282		
1998	4,531	2.16	9,765	960	894	9,839	1,692	24.7	8,147	1,274		
1999	4,532	2.16	9,807	1,153	867	10,109	1,726	24.8	8,383	1,258		
2000	4,538	2.17	9,863	1,189	841	10,264	1,757	24.8	8,507	1,205		
2001	4,544	2.18	9,918	1,390	816	10,474	1,788	24.8	8,686	1,223		
2002	4,550	2.19	9,975	1,556	791	10,720	1,820	24.8	8,900	1,243		
2003	4,556	2.20	10,032	1,599	768	10,844	1,851	24.8	8,993	1,262		
2004	4,559	2.21	10,082	1,628	745	10,938	1,884	24.9	9,054	1,289		
2005	4,562	2.22	10,134	1,642	722	11,026	1,917	24.9	9,109	1,317		
<b>OTH. N. AFRICA &amp; MID. EAST</b>												
1992	3,378	0.73	2,476	4,125	117	6,374	1,443	27.2	4,931	504		
1993	3,324	0.83	2,746	4,049	374	6,152	1,410	25.6	4,742	773		
1994	2,821	0.89	2,522	4,060	725	6,199	1,386	24.3	4,813	431		
1995	3,038	0.79	2,386	3,415	325	5,574	1,354	22.9	4,220	333		
1992-95 ave.	3,140	0.81	2,533	3,912	385	6,075	1,398	24.9	4,677	510		
1997	2,954	0.93	2,751	4,091	0	6,823	1,325	20.9	5,498	610		
1998	2,972	0.94	2,790	4,147	0	6,931	1,369	20.9	5,562	616		
1999	2,973	0.95	2,818	4,251	0	7,068	1,423	21.0	5,646	617		
2000	2,968	0.96	2,844	4,280	0	7,123	1,484	21.2	5,638	618		
2001	2,962	0.97	2,869	4,305	0	7,173	1,529	21.1	5,644	619		
2002	2,970	0.98	2,905	4,320	0	7,223	1,571	21.0	5,653	621		
2003	2,985	0.99	2,949	4,191	0	7,156	1,610	20.9	5,545	605		
2004	2,999	1.00	2,989	4,216	0	7,206	1,646	20.7	5,560	604		
2005	3,011	1.00	3,026	4,224	0	7,252	1,689	20.6	5,563	602		

Note: Food category includes other uses in some countries.

Table 11. Coarse grain supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		Feed
	1,000 ha	Tons/ha			1,000 tons		Kgs.	1,000 tons		
OTHER SOUTH AMERICA										
1992	3,287	1.86	6,114	2,375	117	8,363	3,959	49.2	4,404	518
1993	3,206	1.87	5,997	3,077	168	8,869	3,996	48.7	4,873	555
1994	3,493	1.85	6,465	3,773	262	9,790	4,445	53.3	5,345	741
1995	3,334	1.90	6,325	3,329	170	9,866	4,132	48.7	5,734	359
1992-95 ave.	3,330	1.87	6,225	3,139	179	9,222	4,133	50.0	5,089	543
1997	3,440	1.95	6,711	3,110	100	9,708	4,542	51.7	5,166	572
1998	3,469	1.97	6,850	3,111	100	9,853	4,616	51.7	5,237	580
1999	3,492	2.00	6,981	3,224	100	10,090	4,698	51.8	5,392	595
2000	3,516	2.03	7,127	3,222	101	10,240	4,705	51.1	5,534	604
2001	3,546	2.05	7,285	3,334	101	10,502	4,801	51.3	5,700	620
2002	3,580	2.08	7,450	3,452	102	10,783	4,925	51.9	5,858	637
2003	3,614	2.11	7,618	3,518	102	11,019	5,015	52.1	6,004	652
2004	3,653	2.13	7,782	3,560	102	11,227	5,066	51.8	6,161	664
2005	3,691	2.15	7,943	3,629	102	11,456	5,130	51.8	6,325	678

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Ending stocks	
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.	1,000 tons		
<b>WORLD</b>										
1992	131,269	4.07	534,635	58,161	63,823	508,837	150,607	27.1	346,712	107,433
1993	129,657	3.63	470,999	55,721	58,250	503,822	154,166	27.3	340,537	72,081
1994	132,658	4.19	555,193	68,250	65,371	538,582	149,950	26.2	374,105	91,571
1995	130,337	3.82	498,117	63,254	68,793	528,157	154,913	26.6	367,135	55,992
1992-95 ave.	130,980	3.93	514,736	61,347	64,059	519,850	152,409	26.8	357,122	81,769
1997	135,859	4.18	567,562	63,941	63,941	563,762	152,959	25.5	398,570	71,982
1998	136,246	4.22	575,345	67,658	67,658	573,534	155,605	25.6	406,135	73,793
1999	136,813	4.28	585,191	71,164	71,164	584,963	158,563	25.7	415,116	74,021
2000	137,163	4.34	595,165	74,000	74,000	597,665	161,022	25.7	425,542	71,521
2001	137,718	4.40	606,445	77,552	77,552	610,358	163,043	25.7	435,489	67,608
2002	138,384	4.47	618,223	80,562	80,562	621,251	165,057	25.7	444,599	64,580
2003	139,180	4.53	630,456	83,180	83,180	631,964	166,997	25.6	453,350	63,072
2004	140,013	4.59	642,585	85,445	85,445	642,574	168,983	25.6	461,887	63,083
2005	140,558	4.64	652,688	87,549	87,549	653,542	171,246	25.6	470,676	62,229
<b>UNITED STATES</b>										
1992	29,169	8.25	240,719	180	42,249	172,927	37,916	146.8	134,536	53,672
1993	25,463	6.32	160,954	529	33,741	159,819	39,832	152.6	119,477	21,595
1994	29,496	8.70	256,621	243	55,311	183,577	42,537	161.2	140,573	39,571
1995	26,303	7.12	187,305	254	55,883	159,646	42,293	158.7	116,845	11,601
1992-95 ave.	27,608	7.66	211,400	302	46,796	168,992	40,644	154.9	127,858	31,610
1997	29,717	8.06	239,534	254	53,978	181,999	45,595	167.9	135,896	23,293
1998	29,717	8.15	242,327	254	56,518	183,904	46,865	170.9	136,531	25,452
1999	29,838	8.25	246,137	254	58,423	187,206	48,262	174.5	138,436	26,214
2000	29,919	8.35	249,694	254	61,598	190,128	49,278	176.6	140,341	24,436
2001	30,040	8.44	253,504	254	64,138	192,795	50,040	177.8	142,247	21,261
2002	30,243	8.53	258,076	254	66,043	194,700	50,675	178.5	143,517	18,848
2003	30,445	8.63	262,648	254	67,313	196,606	51,310	179.2	144,787	17,831
2004	30,648	8.72	267,221	254	68,583	198,002	52,072	180.4	145,422	18,721
2005	30,648	8.81	270,142	254	69,853	200,035	52,834	181.5	146,692	19,229
<b>ALGERIA</b>										
1992	1	2.00	2	1,100	0	1,102	0	0.0	1,102	100
1993	1	2.00	2	1,225	0	1,227	0	0.0	1,227	100
1994	1	2.00	2	1,100	0	1,102	0	0.0	1,102	100
1995	1	2.00	2	1,000	0	1,002	0	0.0	1,002	100
1992-95 ave.	1	2.00	2	1,106	0	1,108	0	0.0	1,108	100
1997	1	2.01	2	1,389	0	1,373	0	0.0	1,373	106
1998	1	2.01	2	1,407	0	1,406	0	0.0	1,406	108
1999	1	2.01	2	1,441	0	1,440	0	0.0	1,440	111
2000	1	2.01	2	1,478	0	1,477	0	0.0	1,477	114
2001	1	2.00	2	1,514	0	1,513	0	0.0	1,513	116
2002	1	2.00	2	1,550	0	1,549	0	0.0	1,549	119
2003	1	2.00	2	1,591	0	1,590	0	0.0	1,590	122
2004	1	2.00	2	1,630	0	1,629	0	0.0	1,629	125
2005	1	2.00	2	1,669	0	1,668	0	0.0	1,668	128
<b>ARGENTINA</b>										
1992	2,450	4.16	10,200	0	4,749	5,101	1,501	44.8	3,600	865
1993	2,400	4.17	10,000	0	4,200	5,765	1,515	44.7	4,250	900
1994	2,500	4.36	10,900	0	6,100	5,200	1,500	43.7	3,700	500
1995	2,800	3.93	11,000	0	5,800	5,200	1,500	43.3	3,700	500
1992-95 ave.	2,538	4.15	10,525	0	5,212	5,317	1,504	44.1	3,813	691
1997	2,787	4.40	12,252	0	6,289	5,950	1,631	46.0	4,319	608
1998	2,863	4.52	12,953	0	6,908	6,010	1,665	46.5	4,345	643
1999	3,018	4.66	14,059	0	7,930	6,075	1,697	46.9	4,378	697
2000	2,902	4.80	13,929	0	7,800	6,135	1,727	47.2	4,408	691
2001	3,007	4.96	14,908	0	8,668	6,194	1,758	47.6	4,436	737
2002	3,082	5.12	15,780	0	9,495	6,245	1,790	47.9	4,455	776
2003	3,134	5.28	16,562	0	10,222	6,305	1,823	48.3	4,483	811
2004	3,092	5.45	16,849	0	10,465	6,371	1,860	48.8	4,511	824
2005	3,065	5.60	17,161	0	10,710	6,436	1,897	49.3	4,539	839

Note: Food category includes other uses in some countries.



Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.	1,000 tons		
<b>BRAZIL</b>										
1992	12,400	2.35	29,200	1,220	0	30,200	3,700	23.6	26,500	3,598
1993	13,692	2.41	32,934	1,304	0	33,250	5,250	33.1	28,000	4,586
1994	14,180	2.61	36,943	1,407	0	36,700	5,200	32.4	31,500	6,236
1995	13,600	2.28	31,000	1,500	0	36,500	5,250	32.3	31,250	2,236
1992-95 ave.	13,468	2.41	32,519	1,358	0	34,163	4,850	30.4	29,313	4,164
1997	14,240	2.52	35,917	1,504	0	37,399	3,112	18.7	34,287	2,334
1998	14,378	2.57	36,986	1,774	0	38,674	3,114	18.5	35,560	2,420
1999	14,495	2.62	38,013	1,788	0	39,727	3,130	18.5	36,597	2,494
2000	14,550	2.67	38,907	1,845	0	40,688	3,128	18.3	37,560	2,558
2001	14,587	2.73	39,814	1,912	0	41,664	3,128	18.1	38,536	2,620
2002	14,642	2.78	40,774	1,967	0	42,669	3,112	17.9	39,557	2,692
2003	14,676	2.84	41,693	1,966	0	43,595	3,096	17.6	40,499	2,756
2004	14,737	2.90	42,707	1,970	0	44,606	3,077	17.4	41,529	2,827
2005	14,755	2.95	43,557	1,856	0	45,376	3,069	17.2	42,307	2,864
<b>CANADA</b>										
1992	857	5.70	4,883	1,255	200	6,209	1,374	49.5	4,835	1,250
1993	986	6.59	6,501	552	523	7,100	1,500	53.4	5,600	680
1994	955	7.37	7,043	925	346	7,650	1,600	56.3	6,050	652
1995	1,000	7.25	7,250	500	350	7,355	1,455	50.6	5,900	697
1992-95 ave.	950	6.76	6,419	808	355	7,079	1,483	52.5	5,596	820
1997	968	6.79	6,571	639	315	6,885	1,433	48.9	5,452	1,162
1998	960	6.82	6,546	720	318	6,938	1,445	48.8	5,493	1,172
1999	948	6.85	6,496	812	322	6,980	1,458	48.8	5,522	1,178
2000	932	6.88	6,409	943	325	7,020	1,471	48.8	5,549	1,185
2001	930	6.90	6,419	977	328	7,061	1,484	48.8	5,577	1,192
2002	910	6.94	6,311	1,129	331	7,102	1,497	48.9	5,605	1,199
2003	912	6.96	6,345	1,142	335	7,145	1,509	48.9	5,636	1,206
2004	909	6.99	6,350	1,184	338	7,188	1,522	48.9	5,666	1,214
2005	902	7.02	6,330	1,251	341	7,233	1,534	48.9	5,699	1,221
<b>CENTRAL AM. &amp; CARIBBEAN</b>										
1992	2,142	1.50	3,211	1,687	15	4,889	2,522	40.6	2,367	289
1993	2,127	1.47	3,130	1,774	3	4,907	2,471	39.1	2,436	283
1994	2,099	1.32	2,777	2,188	16	5,009	2,602	40.4	2,407	223
1995	2,169	1.47	3,186	1,750	5	4,931	2,540	38.8	2,391	223
1992-95 ave.	2,134	1.44	3,076	1,850	10	4,934	2,534	39.7	2,400	255
1997	2,196	1.45	3,191	1,940	9	5,117	2,560	37.8	2,557	243
1998	2,217	1.45	3,224	1,993	8	5,205	2,590	37.6	2,615	246
1999	2,235	1.46	3,257	2,072	7	5,317	2,619	37.4	2,698	251
2000	2,253	1.46	3,296	2,134	7	5,419	2,645	37.2	2,774	254
2001	2,272	1.47	3,335	2,228	6	5,552	2,666	36.9	2,886	259
2002	2,291	1.47	3,374	2,316	6	5,680	2,685	36.6	2,995	264
2003	2,310	1.48	3,414	2,374	5	5,779	2,704	36.3	3,075	268
2004	2,329	1.48	3,449	2,399	5	5,841	2,726	36.1	3,115	270
2005	2,348	1.48	3,484	2,446	4	5,922	2,749	35.9	3,173	273
<b>CENTRAL &amp; EASTERN EUROPE</b>										
1992	7,724	2.68	20,708	1,569	619	24,706	3,445	28.0	21,261	2,239
1993	7,234	2.79	20,174	360	225	20,824	4,088	33.2	16,736	1,724
1994	7,066	3.12	22,037	384	725	21,566	3,096	25.1	18,470	1,854
1995	6,937	3.54	24,530	250	2,275	22,340	3,465	28.0	18,875	2,019
1992-95 ave.	7,241	3.02	21,863	641	961	22,359	3,524	28.6	18,835	1,960
1997	6,751	3.56	24,043	633	724	23,914	3,761	30.1	20,153	3,117
1998	6,686	3.55	23,716	600	1,010	23,390	3,817	30.5	19,573	3,033
1999	6,613	3.60	23,838	524	1,435	22,964	3,897	31.0	19,068	2,995
2000	6,510	3.69	24,021	432	1,210	23,196	3,997	31.7	19,199	3,042
2001	6,442	3.81	24,573	367	1,400	23,521	4,035	31.9	19,487	3,061
2002	6,374	3.90	24,883	361	1,668	23,525	4,053	31.9	19,473	3,112
2003	6,361	3.98	25,327	358	2,564	23,128	4,066	31.9	19,062	3,105
2004	6,363	4.05	25,743	342	3,334	22,788	4,078	31.9	18,710	3,068
2005	6,364	4.11	26,130	336	3,990	22,455	4,111	32.0	18,344	3,089

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				
						Total	Food	Food/cap	Feed	Ending stocks
<b>CHILE</b>										
1992	106	8.49	900	454	0	1,283	183	13.3	1,100	250
1993	105	8.92	937	381	0	1,318	148	10.6	1,170	250
1994	104	8.96	932	585	0	1,497	172	12.1	1,325	270
1995	104	8.94	930	600	0	1,550	175	12.2	1,375	250
1992-95 ave.	105	8.83	925	505	0	1,412	169	12.0	1,243	255
1997	110	8.40	927	692	0	1,608	181	12.2	1,427	229
1998	110	8.59	947	724	0	1,663	185	12.4	1,478	237
1999	111	8.63	957	771	0	1,719	191	12.6	1,528	246
2000	111	8.76	970	813	0	1,776	197	12.8	1,579	253
2001	111	8.86	984	864	0	1,840	203	13.0	1,637	261
2002	111	8.97	997	914	0	1,904	208	13.2	1,695	268
2003	111	9.08	1,011	959	0	1,962	214	13.3	1,748	277
2004	112	9.13	1,019	995	0	2,005	220	13.6	1,785	285
2005	112	9.21	1,030	1,035	0	2,056	226	13.8	1,830	294
<b>CHINA</b>										
1992	21,040	4.53	95,380	0	12,623	85,757	25,757	21.9	60,000	27,000
1993	20,690	4.96	102,700	0	11,796	92,904	27,404	23.0	65,500	25,000
1994	21,152	4.69	99,280	4,287	1,500	99,567	27,567	22.9	72,000	27,500
1995	22,700	4.76	108,000	2,500	1,000	109,000	23,500	19.3	85,500	28,000
1992-95 ave.	21,396	4.74	101,340	1,697	6,730	96,807	26,057	21.8	70,750	26,875
1997	22,590	4.92	111,130	2,092	1,000	112,439	22,414	18.1	90,025	26,783
1998	22,704	4.97	112,938	4,167	1,195	116,401	22,422	17.9	93,979	26,292
1999	22,884	5.06	115,772	5,355	1,346	120,668	22,478	17.8	98,190	25,405
2000	22,970	5.15	118,378	6,548	1,308	124,839	22,635	17.8	102,204	24,184
2001	23,101	5.25	121,249	7,931	1,260	129,089	22,560	17.6	106,529	23,015
2002	23,273	5.34	124,358	8,988	1,216	133,290	22,572	17.5	110,718	21,855
2003	23,456	5.44	127,533	9,993	1,188	137,444	22,585	17.4	114,859	20,749
2004	23,637	5.53	130,679	10,985	1,172	141,829	22,615	17.3	119,214	19,412
2005	23,796	5.62	133,698	11,816	1,149	146,142	22,730	17.3	123,412	17,635
<b>EU-15</b>										
1992	3,879	7.80	30,242	1,611	1,249	28,355	3,318	9.0	20,370	4,937
1993	3,787	8.05	30,487	2,615	1,750	32,234	3,310	8.9	23,823	3,889
1994	3,710	7.67	28,447	3,400	250	32,458	3,677	9.9	23,532	3,174
1995	3,697	7.78	28,773	2,600	200	32,520	3,757	10.0	23,815	1,967
1992-95 ave.	3,768	7.83	29,487	2,557	862	31,392	3,515	9.4	22,885	3,492
1997	3,942	7.86	30,974	2,100	275	33,032	3,821	10.1	24,863	3,303
1998	3,893	7.98	31,050	2,000	300	32,775	3,840	10.2	24,549	3,278
1999	3,835	8.08	30,974	2,000	300	32,684	3,861	10.2	24,401	3,268
2000	3,841	8.17	31,389	2,000	300	33,052	3,882	10.2	24,702	3,305
2001	3,847	8.28	31,846	2,000	300	33,501	3,900	10.3	25,085	3,350
2002	3,841	8.38	32,187	2,000	300	33,852	3,918	10.3	25,372	3,385
2003	3,840	8.47	32,543	2,000	300	34,207	3,936	10.3	25,663	3,421
2004	3,827	8.56	32,773	2,000	300	34,449	3,955	10.4	25,841	3,445
2005	3,836	8.65	33,174	2,000	300	34,835	3,973	10.4	26,162	3,484
<b>EGYPT</b>										
1992	750	6.00	4,500	1,742	0	6,242	1,542	25.7	4,700	0
1993	811	6.14	4,980	2,135	0	6,915	1,380	22.6	5,535	200
1994	886	6.38	5,650	2,600	0	7,950	1,500	24.1	6,450	500
1995	850	6.47	5,500	2,500	0	8,300	1,500	23.6	6,800	200
1992-95 ave.	824	6.26	5,158	2,244	0	7,352	1,481	24.0	5,871	225
1997	845	6.56	5,545	2,822	0	8,359	1,567	23.7	6,792	297
1998	850	6.61	5,612	2,939	0	8,543	1,595	23.7	6,948	305
1999	853	6.65	5,676	3,089	0	8,708	1,623	23.7	7,085	362
2000	857	6.70	5,737	3,180	0	8,797	1,650	23.7	7,147	482
2001	858	6.74	5,785	3,330	0	9,055	1,677	23.7	7,378	542
2002	859	6.79	5,835	3,475	0	9,178	1,704	23.6	7,474	674
2003	860	6.84	5,885	3,552	0	9,318	1,730	23.6	7,588	793
2004	861	6.89	5,931	3,612	0	9,527	1,758	23.6	7,769	809
2005	862	6.94	5,978	3,687	0	9,744	1,786	23.6	7,958	730

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
FORMER SOVIET UNION										
1992	2,700	2.63	7,109	6,160	220	13,314	1,835	6.2	10,962	2,140
1993	2,987	3.02	9,022	4,195	150	12,857	1,548	5.2	10,645	2,350
1994	1,929	2.21	4,261	591	40	6,090	1,598	5.4	4,202	1,072
1995	2,853	2.52	7,195	1,180	900	7,306	1,619	5.4	5,179	1,241
1992-95 ave.	2,617	2.64	6,897	3,032	328	9,892	1,650	5.6	7,747	1,701
1997	2,469	3.14	7,762	200	450	7,565	1,629	5.4	5,437	1,999
1998	2,530	3.08	7,798	209	500	7,519	1,680	5.5	5,346	1,987
1999	2,544	3.05	7,750	423	550	7,605	1,746	5.7	5,358	2,005
2000	2,553	3.07	7,846	482	600	7,684	1,862	6.1	5,408	2,049
2001	2,522	3.12	7,869	678	650	7,872	1,925	6.3	5,445	2,074
2002	2,491	3.19	7,936	771	700	7,975	1,939	6.3	5,550	2,106
2003	2,499	3.21	8,032	1,033	450	8,481	1,983	6.4	6,014	2,240
2004	2,480	3.25	8,066	1,508	445	8,996	2,026	6.5	6,479	2,373
2005	2,463	3.26	8,034	1,974	400	9,482	2,075	6.6	6,920	2,499
INDONESIA										
1992	3,050	1.85	5,650	357	81	5,900	3,100	15.7	2,800	189
1993	2,950	1.83	5,400	962	35	6,151	3,101	15.5	3,050	365
1994	3,000	1.73	5,200	1,738	40	6,863	3,100	15.2	3,763	400
1995	2,950	1.80	5,300	2,000	30	7,270	3,200	15.5	4,070	400
1992-95 ave.	2,988	1.80	5,388	1,264	47	6,546	3,125	15.5	3,421	339
1997	2,906	1.86	5,401	2,036	0	7,400	3,427	16.1	3,973	303
1998	2,898	1.86	5,398	2,112	0	7,506	3,342	15.4	4,164	308
1999	2,896	1.87	5,427	2,347	0	7,764	3,283	15.0	4,481	318
2000	2,900	1.90	5,514	2,478	0	7,983	3,232	14.5	4,751	327
2001	2,913	1.92	5,597	2,716	0	8,300	3,174	14.1	5,126	340
2002	2,913	1.94	5,655	3,013	0	8,654	3,108	13.6	5,546	355
2003	2,911	1.96	5,707	3,193	0	8,890	3,038	13.1	5,852	365
2004	2,907	1.96	5,707	3,279	0	8,982	2,963	12.6	6,019	368
2005	2,893	1.97	5,685	3,468	0	9,146	2,891	12.1	6,255	375
IRAN										
1992	45	1.22	55	1,160	0	1,015	65	1.0	950	235
1993	45	1.56	70	503	0	808	58	0.9	750	0
1994	50	1.40	70	1,092	0	970	120	1.9	850	192
1995	50	1.40	70	700	0	900	120	1.8	780	62
1992-95 ave.	48	1.39	66	864	0	923	91	1.4	833	122
1997	49	1.40	69	676	0	744	103	1.5	641	0
1998	49	1.40	68	701	0	769	105	1.5	664	0
1999	49	1.40	68	714	0	782	108	1.5	674	0
2000	49	1.40	68	719	0	787	111	1.5	676	0
2001	48	1.40	68	727	0	795	114	1.5	681	0
2002	48	1.40	68	735	0	803	117	1.5	686	0
2003	48	1.40	68	746	0	814	120	1.5	694	0
2004	48	1.40	67	751	0	818	123	1.5	695	0
2005	48	1.40	67	756	0	823	126	1.5	697	0
IRAQ										
1992	120	2.17	260	0	0	260	110	5.7	150	0
1993	130	2.15	280	0	0	280	120	6.0	160	0
1994	140	2.14	300	0	0	300	120	5.8	180	0
1995	140	2.14	300	0	0	300	120	5.6	180	0
1992-95 ave.	133	2.15	285	0	0	285	118	5.8	168	0
1997	137	2.23	306	44	0	355	143	6.2	211	0
1998	137	2.27	311	63	0	374	153	6.4	220	0
1999	136	2.32	316	82	0	398	162	6.5	236	0
2000	136	2.37	322	99	0	421	171	6.7	251	0
2001	136	2.41	328	111	0	439	179	6.8	259	0
2002	136	2.46	334	125	0	458	188	6.8	271	0
2003	135	2.51	340	141	0	481	195	6.9	285	0
2004	135	2.56	346	156	0	502	202	6.9	300	0
2005	135	2.61	352	173	0	524	210	6.9	315	0

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.		1,000 tons	
<b>JAPAN</b>										
1992	1	2.00	2	16,760	0	16,850	0	0.0	12,879	1,439
1993	1	2.00	2	16,165	0	16,450	0	0.0	12,700	1,156
1994	1	2.00	2	16,481	0	16,350	0	0.0	12,600	1,289
1995	1	2.00	2	16,000	0	16,250	0	0.0	12,500	1,041
1992-95 ave.	1	2.00	2	16,352	0	16,475	0	0.0	12,670	1,231
1997	1	2.00	2	15,040	0	15,042	0	0.0	10,915	1,050
1998	1	2.00	2	14,952	0	15,067	0	0.0	10,855	937
1999	1	2.00	2	14,907	0	14,911	0	0.0	10,618	935
2000	1	2.00	2	14,856	0	14,863	0	0.0	10,486	930
2001	1	2.00	2	14,902	0	14,906	0	0.0	10,398	928
2002	1	2.00	2	14,837	0	14,840	0	0.0	10,323	927
2003	1	2.00	2	14,747	0	14,752	0	0.0	10,225	924
2004	1	2.00	2	14,648	0	14,651	0	0.0	10,117	923
2005	1	2.00	2	14,491	0	14,493	0	0.0	9,951	923
<b>MALAYSIA</b>										
1992	21	1.71	36	1,957	0	1,960	95	5.0	1,865	175
1993	20	1.90	38	1,977	0	2,030	110	5.7	1,920	160
1994	20	2.00	40	2,400	0	2,300	75	3.8	2,225	300
1995	20	2.00	40	2,300	0	2,490	80	4.0	2,410	150
1992-95 ave.	20	1.90	39	2,159	0	2,195	90	4.6	2,105	196
1997	21	2.02	41	2,512	0	2,547	62	3.0	2,485	107
1998	21	2.03	43	2,613	0	2,651	64	3.0	2,588	111
1999	22	2.04	44	2,717	0	2,757	65	3.0	2,692	115
2000	22	2.05	45	2,830	0	2,871	66	3.0	2,804	120
2001	23	2.06	47	2,948	0	2,990	67	2.9	2,922	125
2002	23	2.07	48	3,070	0	3,113	69	3.0	3,044	130
2003	24	2.08	50	3,195	0	3,239	70	3.0	3,169	136
2004	24	2.09	51	3,324	0	3,370	72	3.0	3,298	141
2005	25	2.10	53	3,455	0	3,502	73	3.0	3,429	147
<b>MEXICO</b>										
1992	7,536	2.47	18,631	396	26	18,443	14,868	164.4	3,575	1,558
1993	8,557	2.24	19,141	1,691	60	20,530	15,030	163.0	5,500	1,800
1994	8,000	2.28	18,200	3,166	50	21,450	14,750	156.9	6,700	1,666
1995	7,500	2.13	16,000	3,250	25	20,225	14,775	154.3	5,450	666
1992-95 ave.	7,898	2.28	17,993	2,126	40	20,162	14,856	159.6	5,306	1,423
1997	7,929	2.38	18,908	3,296	0	22,195	15,069	151.7	7,126	323
1998	7,789	2.49	19,385	3,282	0	22,660	15,274	151.0	7,386	330
1999	7,651	2.56	19,600	3,538	0	23,131	15,470	150.3	7,661	337
2000	7,504	2.64	19,817	3,833	0	23,643	15,675	149.7	7,968	344
2001	7,437	2.71	20,191	3,979	0	24,162	15,894	149.3	8,268	352
2002	7,376	2.77	20,430	4,237	0	24,660	16,129	149.1	8,531	359
2003	7,314	2.83	20,663	4,523	0	25,179	16,390	149.1	8,789	366
2004	7,246	2.89	20,906	4,825	0	25,723	16,681	149.4	9,042	374
2005	7,171	2.95	21,139	5,124	0	26,255	16,968	149.7	9,287	382
<b>MOROCCO</b>										
1992	454	0.48	216	350	0	559	159	5.7	400	27
1993	300	0.31	92	375	0	469	19	0.7	450	25
1994	324	0.63	203	543	0	746	106	3.6	640	25
1995	450	0.78	350	300	0	650	250	8.4	400	25
1992-95 ave.	382	0.56	215	392	0	606	134	4.6	473	26
1997	464	0.92	428	289	0	717	178	5.7	539	28
1998	471	0.95	447	297	0	743	182	5.8	561	29
1999	478	0.98	468	294	0	761	186	5.8	575	29
2000	485	1.01	489	286	0	775	190	5.8	584	30
2001	490	1.04	509	286	0	794	195	5.8	599	31
2002	495	1.07	529	286	0	815	199	5.8	616	31
2003	500	1.10	551	287	0	837	203	5.9	633	32
2004	505	1.14	573	289	0	861	208	5.9	653	33
2005	510	1.17	596	292	0	887	212	5.9	674	34

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.		1,000 tons	
<b>PAKISTAN</b>										
1992	800	1.38	1,100	0	0	1,100	680	5.4	420	0
1993	878	1.38	1,213	0	0	1,213	773	6.0	440	0
1994	886	1.49	1,318	25	0	1,343	868	6.6	475	0
1995	850	1.50	1,275	55	0	1,330	900	6.7	430	0
1992-95 ave.	854	1.44	1,227	20	0	1,227	786	6.0	441	0
1997	854	1.49	1,272	118	0	1,390	927	6.6	463	0
1998	862	1.50	1,294	144	0	1,438	926	6.4	511	0
1999	870	1.51	1,315	171	0	1,486	926	6.2	560	0
2000	878	1.52	1,336	205	0	1,541	930	6.1	612	0
2001	883	1.53	1,354	234	0	1,588	922	5.9	666	0
2002	888	1.54	1,371	266	0	1,637	914	5.7	723	0
2003	893	1.55	1,387	298	0	1,685	903	5.4	782	0
2004	895	1.56	1,401	334	0	1,735	889	5.2	846	0
2005	896	1.58	1,412	372	0	1,784	871	5.0	913	0
<b>PHILIPPINES</b>										
1992	3,330	1.44	4,810	0	0	4,730	1,730	24.7	3,000	220
1993	3,100	1.62	5,030	1	0	5,076	2,266	31.6	2,810	175
1994	2,967	1.53	4,533	136	0	4,704	1,804	24.6	2,900	140
1995	2,750	1.56	4,300	500	0	4,810	1,860	24.8	2,950	130
1992-95 ave.	3,037	1.54	4,668	159	0	4,830	1,915	26.4	2,915	166
1997	2,925	1.64	4,803	296	0	5,089	1,727	22.1	3,362	138
1998	2,931	1.67	4,898	378	0	5,271	1,743	21.8	3,528	143
1999	2,942	1.70	5,002	552	0	5,547	1,757	21.5	3,790	150
2000	2,946	1.73	5,098	683	0	5,775	1,771	21.3	4,004	156
2001	2,954	1.76	5,191	912	0	6,095	1,793	21.1	4,302	164
2002	2,958	1.79	5,297	1,108	0	6,397	1,801	20.8	4,596	172
2003	2,966	1.83	5,426	1,211	0	6,631	1,812	20.5	4,819	178
2004	2,976	1.87	5,555	1,264	0	6,814	1,821	20.2	4,993	183
2005	2,984	1.90	5,670	1,323	0	6,989	1,832	19.9	5,157	187
<b>SAUDI ARABIA</b>										
1992	3	1.33	4	844	0	848	0	0.0	848	10
1993	3	1.33	4	1,073	0	1,077	2	0.1	1,075	10
1994	3	1.33	4	933	0	937	4	0.2	933	10
1995	3	1.33	4	1,000	0	1,004	4	0.2	1,000	10
1992-95 ave.	3	1.33	4	963	0	967	3	0.2	964	10
1997	3	1.33	4	1,594	0	1,595	4	0.2	1,591	56
1998	3	1.33	4	1,640	0	1,642	4	0.2	1,637	58
1999	3	1.33	4	1,784	0	1,786	5	0.2	1,781	60
2000	3	1.34	4	1,847	0	1,849	5	0.2	1,844	62
2001	3	1.33	4	1,804	0	1,806	5	0.2	1,801	64
2002	3	1.33	4	1,651	0	1,653	5	0.2	1,648	66
2003	3	1.33	4	1,575	0	1,577	5	0.2	1,572	68
2004	3	1.33	4	1,513	0	1,515	6	0.2	1,509	71
2005	3	1.33	4	1,294	0	1,296	6	0.2	1,290	73
<b>SOUTH AFRICA</b>										
1992	3,660	2.73	9,985	0	1,200	7,598	3,718	86.9	3,880	1,687
1993	3,900	3.30	12,875	20	4,450	7,732	4,132	94.1	3,600	2,400
1994	3,000	1.55	4,650	600	125	6,625	3,625	80.4	3,000	900
1995	3,200	2.81	9,000	400	1,500	7,900	4,100	88.6	3,800	900
1992-95 ave.	3,440	2.65	9,128	255	1,819	7,364	3,794	85.2	3,570	1,472
1997	3,243	2.60	8,430	28	400	8,005	3,975	81.5	4,030	1,352
1998	3,230	2.63	8,480	74	400	8,129	4,084	81.6	4,045	1,377
1999	3,221	2.65	8,539	111	350	8,272	4,217	82.1	4,055	1,405
2000	3,222	2.68	8,636	146	350	8,406	4,346	82.5	4,060	1,431
2001	3,222	2.71	8,730	227	300	8,630	4,480	82.9	4,150	1,458
2002	3,222	2.74	8,828	325	300	8,826	4,615	83.3	4,211	1,485
2003	3,223	2.77	8,927	368	300	8,967	4,753	83.6	4,214	1,513
2004	3,219	2.81	9,040	346	300	9,055	4,905	84.2	4,150	1,544
2005	3,215	2.85	9,156	375	300	9,199	5,058	84.6	4,141	1,576

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption				Ending stocks
						Total	Food	Food/cap	Feed	
<b>SOUTH KOREA</b>										
1992	21	4.38	92	6,544	0	6,630	0	0.0	4,987	580
1993	20	4.10	82	5,696	0	5,795	0	0.0	3,992	563
1994	18	4.17	75	8,223	0	8,273	0	0.0	6,300	588
1995	20	4.50	90	9,000	0	9,100	0	0.0	7,400	578
1992-95 ave.	20	4.29	85	7,366	0	7,450	0	0.0	5,670	577
1997	23	3.96	89	10,300	0	10,318	0	0.0	8,825	1,020
1998	22	3.96	88	10,701	0	10,751	0	0.0	9,230	1,058
1999	22	3.96	88	11,034	0	11,086	0	0.0	9,539	1,094
2000	22	3.96	87	11,349	0	11,403	0	0.0	9,832	1,127
2001	22	3.96	86	11,713	0	11,761	0	0.0	10,169	1,165
2002	21	3.96	85	11,834	0	11,908	0	0.0	10,293	1,176
2003	21	3.96	84	12,022	0	12,087	0	0.0	10,453	1,195
2004	21	3.96	83	12,005	0	12,086	0	0.0	10,426	1,197
2005	21	3.96	82	12,030	0	12,110	0	0.0	10,428	1,199
<b>SUB-SAHARAN AFRICA</b>										
1992	16,060	1.27	20,350	1,686	257	20,934	20,045	39.4	889	2,235
1993	16,724	1.17	19,613	1,885	735	21,498	20,528	39.1	970	1,500
1994	16,873	1.14	19,300	2,088	316	21,277	20,379	37.7	898	1,295
1995	16,537	1.23	20,401	865	425	21,521	20,581	37.0	940	615
1992-95 ave.	16,549	1.20	19,916	1,631	433	21,308	20,384	38.3	924	1,411
1997	17,683	1.27	22,526	1,309	401	23,321	22,394	38.0	927	1,596
1998	17,840	1.28	22,908	1,349	401	23,820	22,893	37.8	927	1,632
1999	18,095	1.29	23,421	1,411	401	24,389	23,475	37.7	914	1,674
2000	18,310	1.30	23,889	1,471	401	24,926	24,016	37.5	910	1,707
2001	18,534	1.32	24,374	1,501	401	25,437	24,532	37.3	905	1,744
2002	18,789	1.33	24,908	1,552	401	26,015	25,116	37.2	899	1,788
2003	19,045	1.34	25,449	1,537	401	26,548	25,654	37.0	894	1,825
2004	19,350	1.35	26,064	1,513	401	27,142	26,257	36.8	885	1,859
2005	19,654	1.36	26,685	1,497	401	27,738	26,866	36.7	872	1,902
<b>TAIWAN</b>										
1992	62	4.65	288	5,629	17	5,890	0	0.0	5,550	1,150
1993	62	4.61	286	5,316	0	5,602	0	0.0	5,350	1,150
1994	63	4.62	291	6,300	0	6,016	0	0.0	5,700	1,725
1995	30	5.00	150	6,000	0	6,400	0	0.0	6,100	1,475
1992-95 ave.	54	4.68	254	5,811	4	5,977	0	0.0	5,675	1,375
1997	56	4.70	264	6,299	0	6,503	0	0.0	6,113	1,539
1998	56	4.69	263	6,382	0	6,585	0	0.0	6,191	1,599
1999	56	4.70	262	6,386	0	6,636	0	0.0	6,239	1,611
2000	53	4.70	249	6,515	0	6,764	0	0.0	6,362	1,611
2001	50	4.70	236	6,630	0	6,866	0	0.0	6,463	1,611
2002	48	4.70	225	6,720	0	6,929	0	0.0	6,522	1,627
2003	45	4.70	213	6,829	0	6,973	0	0.0	6,565	1,696
2004	43	4.69	202	6,918	0	7,049	0	0.0	6,637	1,767
2005	41	4.71	193	7,012	0	7,122	0	0.0	6,706	1,850
<b>THAILAND</b>										
1992	1,230	2.76	3,400	197	147	3,250	50	0.9	3,200	434
1993	1,070	2.71	2,900	8	118	3,000	50	0.8	2,950	224
1994	1,200	3.00	3,600	200	110	3,700	50	0.8	3,650	214
1995	1,150	3.22	3,700	400	100	4,000	50	0.8	3,950	214
1992-95 ave.	1,163	2.92	3,400	201	119	3,488	50	0.8	3,438	272
1997	1,120	3.39	3,794	27	0	3,829	51	0.8	3,779	148
1998	1,145	3.42	3,915	214	0	4,118	51	0.8	4,067	159
1999	1,131	3.45	3,903	296	0	4,196	52	0.8	4,144	162
2000	1,124	3.49	3,918	382	0	4,296	52	0.8	4,244	166
2001	1,148	3.53	4,053	417	0	4,463	53	0.8	4,411	173
2002	1,141	3.58	4,080	561	0	4,634	53	0.8	4,581	179
2003	1,137	3.62	4,119	650	0	4,764	54	0.8	4,710	184
2004	1,132	3.67	4,156	701	0	4,854	54	0.8	4,799	188
2005	1,117	3.71	4,143	686	0	4,830	55	0.8	4,775	187

Note: Food category includes other uses in some countries.

Table 12. Corn supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption			Feed	Ending stocks
						Total	Food	Food/cap		
	1,000 ha	Tons/ha			1,000 tons		Kgs.		1,000 tons	
<b>TUNISIA</b>										
1992	1	1.00	1	283	0	284	0	0.0	284	10
1993	1	1.00	1	275	0	276	0	0.0	276	10
1994	1	1.00	1	224	0	230	0	0.0	230	5
1995	1	1.00	1	275	0	276	0	0.0	276	5
1992-95 ave.	1	1.00	1	264	0	267	0	0.0	267	8
1997	1	1.00	1	317	0	318	1	0.1	317	12
1998	1	1.00	1	333	0	333	1	0.1	333	12
1999	1	1.00	1	349	0	350	1	0.1	349	13
2000	1	1.00	1	366	0	367	1	0.1	366	13
2001	1	1.00	1	384	0	384	1	0.1	384	14
2002	1	1.00	1	403	0	403	1	0.1	403	15
2003	1	1.00	1	423	0	423	1	0.1	422	15
2004	1	1.00	1	443	0	443	1	0.1	443	16
2005	1	1.00	1	465	0	465	1	0.1	464	17
<b>TURKEY</b>										
1992	625	3.56	2,225	160	8	2,327	627	10.3	1,700	100
1993	630	3.97	2,500	10	88	2,320	620	10.0	1,700	202
1994	450	3.78	1,700	465	0	2,250	550	8.7	1,700	117
1995	430	3.72	1,600	400	0	2,050	450	7.0	1,600	67
1992-95 ave.	534	3.76	2,006	259	24	2,237	562	9.0	1,675	122
1997	442	3.90	1,723	483	0	2,183	523	7.8	1,660	66
1998	441	3.93	1,735	537	0	2,248	536	7.8	1,712	90
1999	441	3.96	1,749	579	0	2,303	548	7.9	1,755	115
2000	442	3.99	1,764	588	0	2,349	561	7.9	1,789	118
2001	442	4.03	1,779	562	0	2,342	573	7.9	1,769	117
2002	442	4.06	1,795	598	0	2,391	586	8.0	1,805	120
2003	443	4.09	1,810	631	0	2,439	598	8.0	1,841	122
2004	443	4.12	1,825	674	0	2,496	611	8.1	1,885	125
2005	443	4.16	1,840	720	0	2,557	625	8.1	1,932	128
<b>OTH. N. AFRICA &amp; MID. EAST</b>										
1992	112	3.24	363	1,911	0	2,231	420	7.9	1,811	130
1993	113	2.73	308	1,413	0	1,751	458	8.3	1,293	100
1994	118	2.95	348	2,066	0	2,366	462	8.1	1,904	148
1995	118	2.95	348	1,725	0	2,146	474	8.0	1,672	75
1992-95 ave.	115	2.96	342	1,779	0	2,124	454	8.1	1,670	113
1997	121	3.00	362	1,720	0	2,081	471	7.4	1,611	51
1998	122	3.05	373	1,757	0	2,129	481	7.3	1,648	52
1999	124	3.10	384	1,891	0	2,271	496	7.3	1,775	56
2000	125	3.15	395	1,905	0	2,300	516	7.4	1,784	56
2001	127	3.20	407	1,918	0	2,324	524	7.2	1,801	57
2002	129	3.26	419	1,921	0	2,340	529	7.1	1,811	57
2003	131	3.31	433	1,946	0	2,378	534	6.9	1,844	58
2004	132	3.37	446	1,979	0	2,423	538	6.8	1,885	60
2005	134	3.42	459	2,017	0	2,475	545	6.7	1,929	61
<b>OTHER SOUTH AMERICA</b>										
1992	2,293	1.80	4,118	2,185	72	6,182	3,179	39.5	3,003	397
1993	2,299	1.87	4,310	2,789	168	6,861	3,171	38.7	3,690	467
1994	2,604	1.91	4,980	3,443	262	7,948	3,582	42.9	4,366	680
1995	2,500	1.93	4,815	3,050	170	8,060	3,390	39.9	4,670	315
1992-95 ave.	2,424	1.88	4,556	2,867	168	7,263	3,331	40.3	3,932	465
1997	2,553	1.98	5,047	2,783	100	7,724	3,695	42.1	4,029	524
1998	2,577	2.00	5,151	2,791	100	7,835	3,749	42.0	4,086	532
1999	2,596	2.02	5,252	2,900	100	8,038	3,814	42.1	4,224	545
2000	2,617	2.05	5,367	2,974	101	8,233	3,802	41.3	4,431	553
2001	2,643	2.08	5,493	3,026	101	8,403	3,880	41.5	4,523	568
2002	2,672	2.11	5,625	3,113	102	8,620	3,984	42.0	4,636	585
2003	2,703	2.13	5,762	3,177	102	8,823	4,055	42.1	4,768	598
2004	2,738	2.15	5,893	3,219	102	8,998	4,085	41.8	4,913	610
2005	2,772	2.17	6,024	3,283	102	9,192	4,130	41.7	5,062	623

Note: Food category includes other uses in some countries.

## Soybeans and Products

World soybean trade is projected to increase faster during 1995-2005 than during the 1980's, but much more slowly than in the early 1990s. Soybean meal trade growth is projected to be slower than both the 1980s and the early 1990s. Global exports of both soybeans and meal are expected to rise at annual rates of 1.8-1.9 percent during 1995-2005, reaching 36.3 and 37.8 million tons, respectively, by 2005. Combined exports of soybeans and meal, on a soybean equivalent basis, are projected at 75.7 million tons by 2000 and 83.5 million tons in 2005. Increases in soybean trade drive these gains until the end of the decade, while soybean meal accounts for most of the growth after 2000.

World vegetable oil trade is projected to grow 3.3 percent annually during 1995-2005, less than the rates achieved in the 1980s and the early 1990s. Soybean oil trade is projected to slow even more than total vegetable oil trade, with projected annual growth of 1.1 percent during 1995-2005, compared with 8 percent during 1989-94 when trade responded to U.S. and EU subsidies and sharp import gains in developing countries. During 1995-2005, growth in soybean oil trade will be curbed by reduced U.S. export subsidies, negligible oilseed expansion in the EU, and higher relative prices that are expected to shift demand toward competing oils.

With the anticipated slowdown in soybean oil trade, both world and U.S. exports of soybeans and meal are projected to grow faster than exports of soybean oil during 1995-2005. In the overall oilseed and product market, however, vegetable oil trade is expected to continue to expand faster than trade in protein meals. With the outlook for continued fast growth in trade in oils relative to meals, incentives to produce high-oil content oilseeds, including oil palm, rapeseed, and sunflowerseed, are expected to strengthen, particularly after 2000.

### Soybean and Meal Trends

U.S. exports of soybeans and soybean meal are projected at 23.0 and 5.8 million tons, respectively, in 2005. U.S. soybean market share is projected to drop from 66 percent to about 63 percent by 2005, while U.S. soybean meal market share remains virtually unchanged at 15 percent. These projected U.S. shares contrast with significantly higher shares for soybeans (75 percent) and soybean meal (25 percent) achieved in the 1980s. Small domestic production gains, combined with rising livestock numbers, especially poultry, are expected to limit U.S. exportable supplies of soybeans and soybean meal.

Foreign soybean production is projected to climb 2.4 percent annually and reach 86.1 million tons in 2005. Foreign supply growth will be sharply slower than during the 1970s (9 percent annually) and 1980s (6 percent), when Brazil and Argentina added large amounts of land to soybean production. Soybean yields are forecast to rise at a modest 1.2 percent annually, slightly below the 1980s, because no major technological breakthroughs that would support rapid yield increases are anticipated.

Gains in world soybean meal consumption are also projected to be smaller than in the 1980s, primarily because of weaker demand growth in the FSU, Japan, and the EU. However, strong economic growth in developing economies, is projected to partially compensate for those declines and support global consumption growth of about 2.4 percent annually.



## **Soybean Oil Trends**

The U.S. soybean oil market share is expected to be virtually unchanged through 2005, but the soybean oil share of world vegetable oil trade is projected to decline. Reduced export subsidies, sharp output gains in other vegetable oils, especially palm oil, and limited growth in domestic soybean oil production, are expected to prevent growth in U.S. market share. U.S. soybean oil exports are projected to remain at 0.9 million tons through 2005.

World disappearance of soybean oil is projected to expand 2.2 percent annually during 1995-2005, virtually unchanged from the 1980's, but less than the 4.1 percent growth achieved during 1989-94. Consumption gains are expected to be concentrated in Asia and South America, with little growth anticipated in the Middle East, North Africa, Central America, and the Caribbean. Foreign soybean oil production is projected to rise 2.5 percent annually and reach 16.2 million tons by 2005. Growth in soybean processing in Mexico, Brazil, Argentina, India, and China is expected to account for most of the projected gains in foreign soybean oil production.

## **Highlights for Major Soybean and Meal Importers**

Developing economies will likely account for more than 60 percent of soybeans and soybean meal import growth during 1995-2005. Demand is expected to expand most rapidly in China and the Southeast Asian countries, including the Philippines, Indonesia, Malaysia, and Thailand. Robust gains are also projected for South America, the Middle East, and North Africa regions. Per capita income growth is expected to support substantial increases in the livestock sectors in these regions. EU imports are projected to continue to grow, but their share of world soybean and meal imports, on a soybean equivalent basis, is expected to drop from 50 percent to 43 percent by 2005.

- **EU imports of soybeans and meal, in soybean equivalents, are projected to rise marginally through 2005. This compares with a small decline in imports during the 1980s. The U.S.-EU Oilseed Agreement which altered EU oilseed support mechanisms and established area bases for producer payments is expected to limit the expansion of oilseed area. This reduced area will partially offset the decline in import demand for soybeans and products resulting from lower grain prices brought about by CAP reform. Lower EU feed grain prices relative to meals have driven down consumption and imports of soybean meal during 1995 and 1996, reversing the trend toward increased soybean meal use since 1988. Growth in soybean meal use is expected to resume in 1997 in response to a more favorable meal-to-grains price ratio. Soybean meal imports are forecast at 16.8 million tons by 2005, while soybean imports are projected at 14.6 million tons (both including intra-EU trade).**

The extent to which higher feed grain prices in the longer term will increase soybean meal use is a key uncertainty in the outlook for soybean and meal trade, particularly since the EU accounts for about half of world soybean and meal imports. The degree of substitution that actually occurs will hinge on a number of factors that are difficult to project with precision, including the extent to which internal grain prices rise with world market prices, the relative strength of the U.S. dollar, livestock production in the EU, and supplies of other proteins.

Table 13. Soybean trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exports</b>														
United States	20,944	16,032	22,810	22,045	20,458	20,684	20,956	21,228	21,500	21,772	22,181	22,589	22,861	23,133
Argentina	2,273	2,957	2,505	2,700	2,609	3,137	3,274	3,337	3,402	3,494	3,559	3,598	3,655	3,699
Brazil	4,184	5,396	3,471	3,300	4,088	4,331	4,675	5,149	5,318	5,691	5,735	5,740	5,787	5,702
Canada	211	489	524	600	456	733	748	782	775	788	797	806	815	824
China	300	1,100	394	300	524	373	355	334	330	316	307	303	296	294
European Union-15 1/	348	410	368	331	364	338	341	344	348	351	355	358	362	366
Oth. S. & C. America	1,422	1,374	1,473	1,381	1,413	1,521	1,574	1,633	1,693	1,744	1,797	1,889	2,020	2,130
Other	68	106	138	134	112	175	188	201	214	218	231	244	258	272
<b>Total</b>	<b>29,748</b>	<b>27,864</b>	<b>31,683</b>	<b>30,791</b>	<b>30,022</b>	<b>31,292</b>	<b>32,111</b>	<b>32,988</b>	<b>33,580</b>	<b>34,374</b>	<b>34,962</b>	<b>35,527</b>	<b>36,054</b>	<b>36,420</b>
<b>Imports</b>														
United States	56	175	136	136	128	136	136	136	136	136	136	136	136	136
Brazil	0	900	800	1,000	675	200	200	200	150	100	100	100	100	100
Canada	226	57	65	20	92	43	44	44	44	45	45	46	46	47
C. Amer. & Carib.	390	410	412	418	408	464	539	536	561	606	638	648	652	655
China	150	125	154	350	195	365	789	1,113	1,164	1,598	1,750	1,904	2,210	2,307
European Union-15 1/	15,167	13,111	15,311	14,825	14,604	14,811	14,842	14,895	14,900	14,813	14,794	14,778	14,710	14,606
Indonesia	527	709	600	520	589	650	682	715	772	837	908	950	976	998
Japan	4,866	4,855	4,837	4,750	4,827	4,888	4,896	4,716	4,734	4,782	4,792	4,805	4,824	4,818
Malaysia	526	502	630	660	580	757	787	824	860	897	930	964	1,000	1,037
Mexico	2,136	2,200	1,950	2,200	2,122	2,449	2,583	2,732	2,889	3,048	3,200	3,360	3,520	3,678
Oth. N. A. & M. East	683	677	810	857	767	816	837	862	892	928	969	1,008	1,043	1,075
Oth. S. America	397	432	447	468	436	470	491	512	532	553	573	595	617	640
Pakistan	0	12	25	25	16	32	33	34	35	36	37	38	39	40
Philippines	62	136	145	160	128	194	214	255	240	281	290	305	309	299
South Korea	1,131	1,160	1,400	1,400	1,273	1,438	1,447	1,493	1,516	1,437	1,438	1,373	1,280	1,184
Taiwan	2,506	2,500	2,598	2,550	2,539	2,626	2,677	2,727	2,775	2,821	2,867	2,910	2,952	2,996
Thailand	123	124	98	222	142	214	214	221	226	229	244	268	305	340
Turkey	64	63	60	105	73	73	74	72	69	65	61	58	54	51
Other	737	906	1,130	929	926	1,068	1,026	1,101	1,085	1,162	1,190	1,281	1,281	1,413
<b>Total</b>	<b>29,747</b>	<b>29,054</b>	<b>31,608</b>	<b>31,595</b>	<b>30,501</b>	<b>31,292</b>	<b>32,111</b>	<b>32,988</b>	<b>33,580</b>	<b>34,374</b>	<b>34,962</b>	<b>35,527</b>	<b>36,054</b>	<b>36,420</b>
Exports-Imports	1	(1,190)	76	(804)	(480)	0	0	0	0	0	0	0	0	(0)

1/ Includes EU-15 intratrade.

Table 14. Soymeal trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exports</b>														
United States	5,853	4,859	6,094	5,262	5,467	5,035	5,126	5,216	5,307	5,398	5,534	5,625	5,715	5,806
Argentina	6,835	6,731	7,103	7,300	6,992	7,813	7,878	8,068	8,360	8,771	8,941	9,119	9,328	9,539
Brazil	9,301	10,419	11,251	10,800	10,443	10,782	10,838	10,938	11,072	11,107	11,536	12,011	12,172	12,476
Canada	80	21	16	30	37	24	24	25	25	25	25	26	26	26
China	400	1,050	1,275	400	781	500	500	475	394	354	319	287	258	232
European Union-15 1/	4,044	3,854	4,132	4,023	4,013	3,991	3,993	3,995	4,050	3,995	3,989	3,991	3,977	3,995
India	2,005	2,200	1,500	2,300	2,001	2,741	2,835	2,943	3,049	3,162	3,301	3,470	3,665	3,901
Oth. C. & S. America	649	698	1,021	891	815	951	982	1,017	1,051	1,086	1,122	1,158	1,195	1,232
Other	57	185	209	194	181	231	241	222	211	206	197	190	188	190
<b>Total</b>	<b>29,024</b>	<b>30,017</b>	<b>32,601</b>	<b>31,200</b>	<b>30,711</b>	<b>32,068</b>	<b>32,417</b>	<b>32,899</b>	<b>33,519</b>	<b>34,104</b>	<b>34,964</b>	<b>35,877</b>	<b>36,524</b>	<b>37,397</b>
<b>Imports</b>														
United States	84	63	58	54	65	68	68	68	68	68	68	68	68	68
Canada	617	674	820	800	728	709	716	722	725	729	734	737	742	745
C. Amer. & Carib.	578	787	925	987	814	1,035	1,014	1,050	1,079	1,102	1,134	1,185	1,244	1,306
Chile	156	160	165	195	169	249	257	272	288	304	322	342	363	382
China	40	0	50	200	73	366	380	368	426	314	363	490	504	682
Central/East Europe	1,565	1,625	1,920	1,783	1,723	1,714	1,762	1,811	1,865	1,921	1,993	2,061	2,117	2,172
European Union-15 1/	15,485	16,441	16,850	16,573	16,337	16,308	16,340	16,383	16,408	16,509	16,604	16,650	16,777	16,782
Former Soviet Union 2/	1,288	1,260	690	788	1,007	728	724	726	723	728	743	759	778	781
Indonesia	311	490	600	700	525	746	782	834	876	905	953	977	1,020	1,058
Japan	871	875	910	850	877	694	616	596	564	527	508	484	463	450
Malaysia	340	440	450	450	325	368	385	415	448	467	489	507	533	561
Mexico	395	350	400	325	368	385	415	448	467	486	489	507	533	561
Oth. N. A. & M. East	2,031	2,550	2,878	2,893	2,588	3,156	3,299	3,398	3,513	3,615	3,740	3,883	4,036	4,198
Oth. S. America	828	998	1,056	1,116	1,000	1,431	1,518	1,532	1,538	1,541	1,612	1,675	1,758	1,816
Philippines	823	655	750	810	760	871	886	965	1,043	1,134	1,173	1,174	1,225	1,257
South Korea	787	782	780	800	782	766	867	880	927	1,036	1,097	1,193	1,312	1,401
Thailand	570	732	875	900	769	928	958	989	1,043	1,099	1,136	1,177	1,211	1,269
Turkey	266	205	250	275	249	272	282	291	299	309	318	326	337	348
Other	522	693	793	875	721	1,133	1,010	1,058	1,114	1,193	1,358	1,518	1,328	1,361
<b>Total</b>	<b>27,537</b>	<b>29,760</b>	<b>31,220</b>	<b>31,374</b>	<b>29,973</b>	<b>32,068</b>	<b>32,417</b>	<b>32,899</b>	<b>33,519</b>	<b>34,104</b>	<b>34,964</b>	<b>35,877</b>	<b>36,524</b>	<b>37,397</b>
<b>Exports - Imports</b>	<b>1,487</b>	<b>257</b>	<b>1,381</b>	<b>(174)</b>	<b>738</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

1/ Includes EU-15 intratrade.

2/ Includes FSU intratrade.

Table 15. Soyoil trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exports</b>														
United States	644	694	1,216	816	843	873	862	850	882	873	885	907	930	953
Argentina	1,409	1,443	1,445	1,515	1,453	1,606	1,627	1,666	1,729	1,815	1,850	1,887	1,930	1,975
Brazil	771	1,556	1,739	1,225	1,323	1,169	1,183	1,170	1,157	1,137	1,167	1,199	1,187	1,179
China	5	38	60	60	38	30	30	25	20	20	20	20	20	20
European Union-15 1/	1,062	909	1,215	1,204	1,098	1,132	1,151	1,121	1,116	1,109	1,101	1,096	1,066	1,061
Malaysia	80	90	110	103	96	111	115	119	124	128	132	136	140	144
Other Asia	122	118	103	97	110	126	114	118	117	118	119	121	121	126
Oth. C. & S. America	138	156	236	223	188	204	219	234	250	266	281	296	310	324
Other	13	42	34	29	30	14	26	32	37	41	41	33	29	18
<b>Total</b>	<b>4,242</b>	<b>5,046</b>	<b>6,158</b>	<b>5,262</b>	<b>5,177</b>	<b>5,265</b>	<b>5,327</b>	<b>5,335</b>	<b>5,412</b>	<b>5,507</b>	<b>5,596</b>	<b>5,695</b>	<b>5,733</b>	<b>5,800</b>
<b>Imports</b>														
United States	5	31	8	6	13	5	5	5	5	5	5	5	5	5
Brazil	120	310	150	150	183	150	175	185	200	205	210	215	200	175
C. Amer. & Carib.	160	157	168	163	162	167	161	171	175	175	177	183	190	195
Chile	70	85	105	105	91	99	107	116	123	131	136	142	148	154
China	100	640	1,450	1,150	835	1,243	1,232	1,222	1,246	1,233	1,247	1,281	1,298	1,351
European Union-15 1/	533	501	534	538	527	447	470	467	472	506	532	534	519	506
India	42	41	150	125	90	111	104	108	113	124	140	161	188	219
Mexico	72	76	90	80	80	47	44	42	29	29	29	30	30	31
Other Asia	551	594	729	687	640	767	789	803	830	868	897	929	963	996
Oth. N. A. & M. East	957	1,220	1,226	1,149	1,138	1,214	1,199	1,188	1,190	1,192	1,189	1,183	1,175	1,165
Oth. S. America	347	377	470	418	403	422	441	437	436	429	445	460	482	494
Pakistan	253	172	150	200	194	211	215	218	221	224	227	229	231	233
Turkey	210	165	150	145	168	164	164	164	165	167	170	174	178	182
Other	630	443	468	425	492	218	221	220	220	231	205	182	137	101
<b>Total</b>	<b>4,050</b>	<b>4,812</b>	<b>5,848</b>	<b>5,341</b>	<b>5,013</b>	<b>5,266</b>	<b>5,327</b>	<b>5,344</b>	<b>5,425</b>	<b>5,519</b>	<b>5,609</b>	<b>5,707</b>	<b>5,744</b>	<b>5,807</b>
<b>Exports - Imports</b>	<b>192</b>	<b>234</b>	<b>310</b>	<b>(79)</b>	<b>164</b>	<b>(1)</b>	<b>0</b>	<b>(9)</b>	<b>(13)</b>	<b>(12)</b>	<b>(13)</b>	<b>(12)</b>	<b>(11)</b>	<b>(7)</b>

1/ Includes EU-15 intratrade.

Figure 17. Soybeans: Historical & Projected World Area & Yield

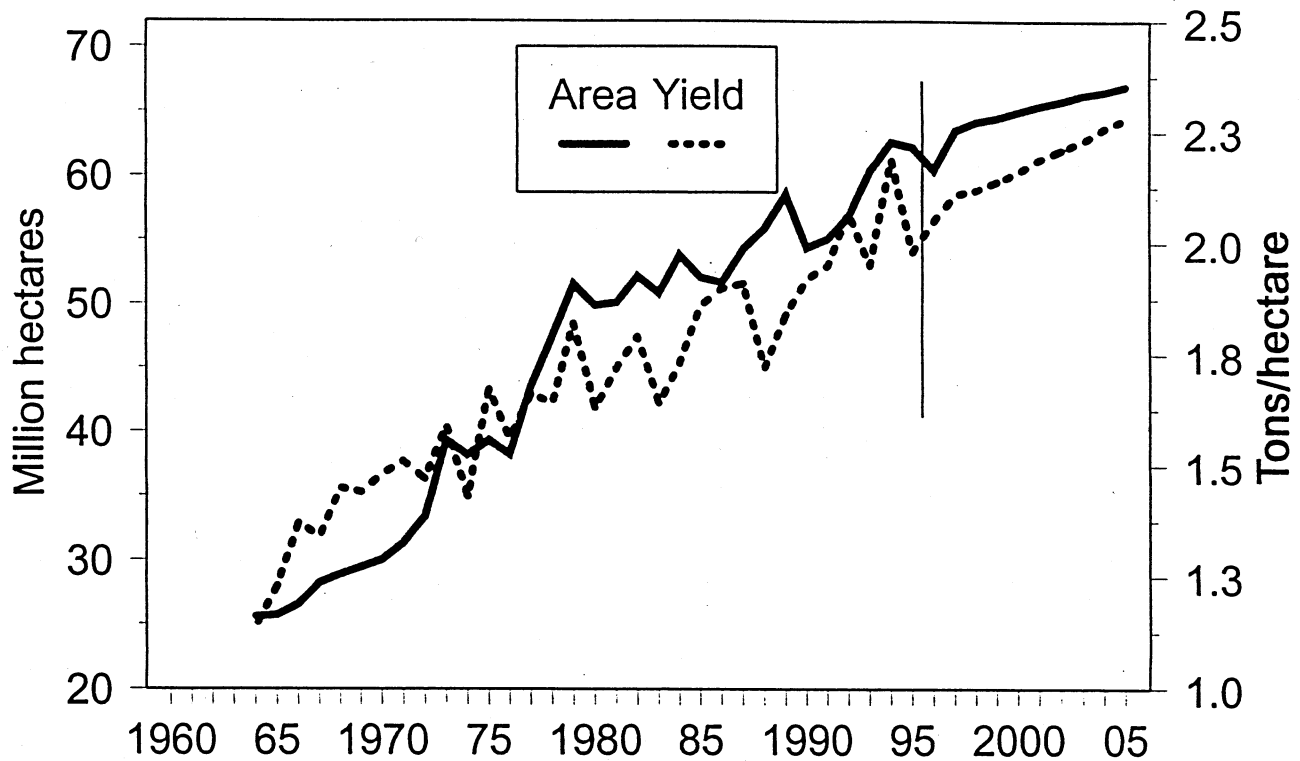


Figure 18. Soybeans: Historical & Projected World Supply & Use

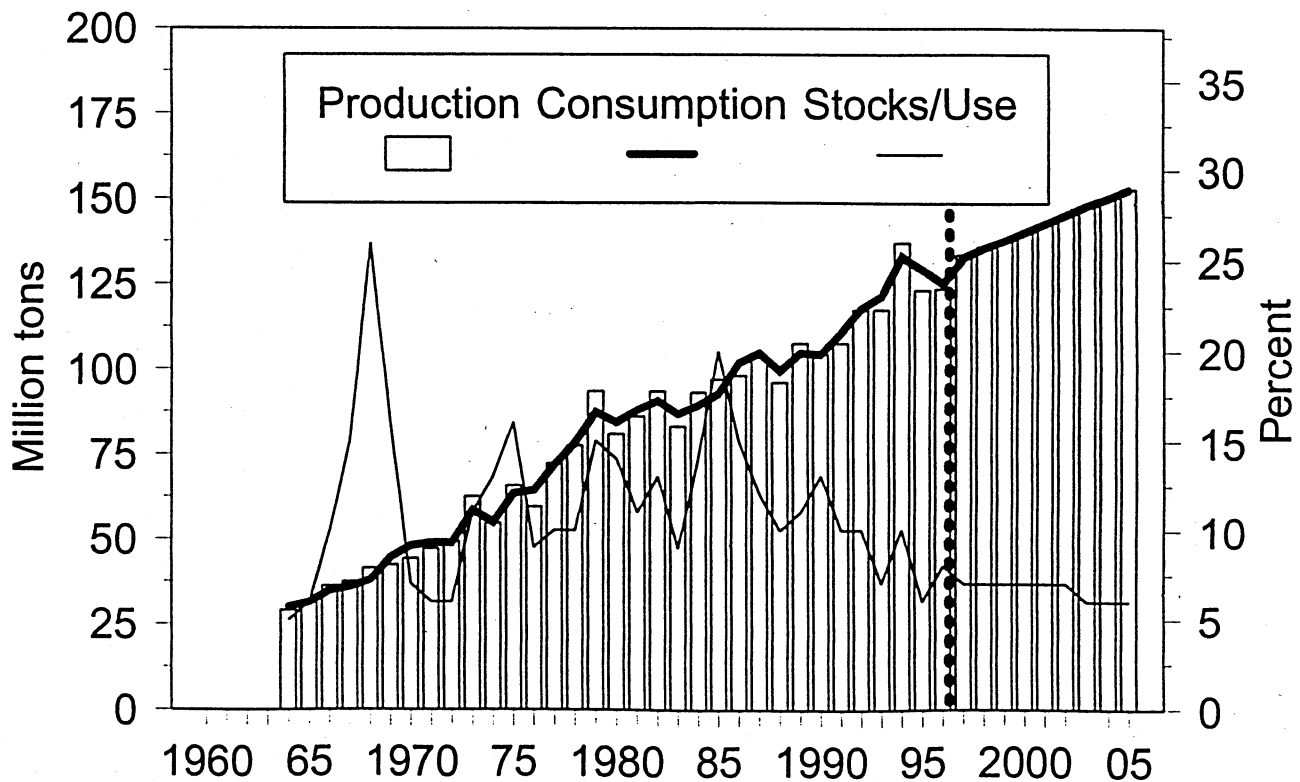


Figure 19. Soy Products: Historical & Projected Real Prices

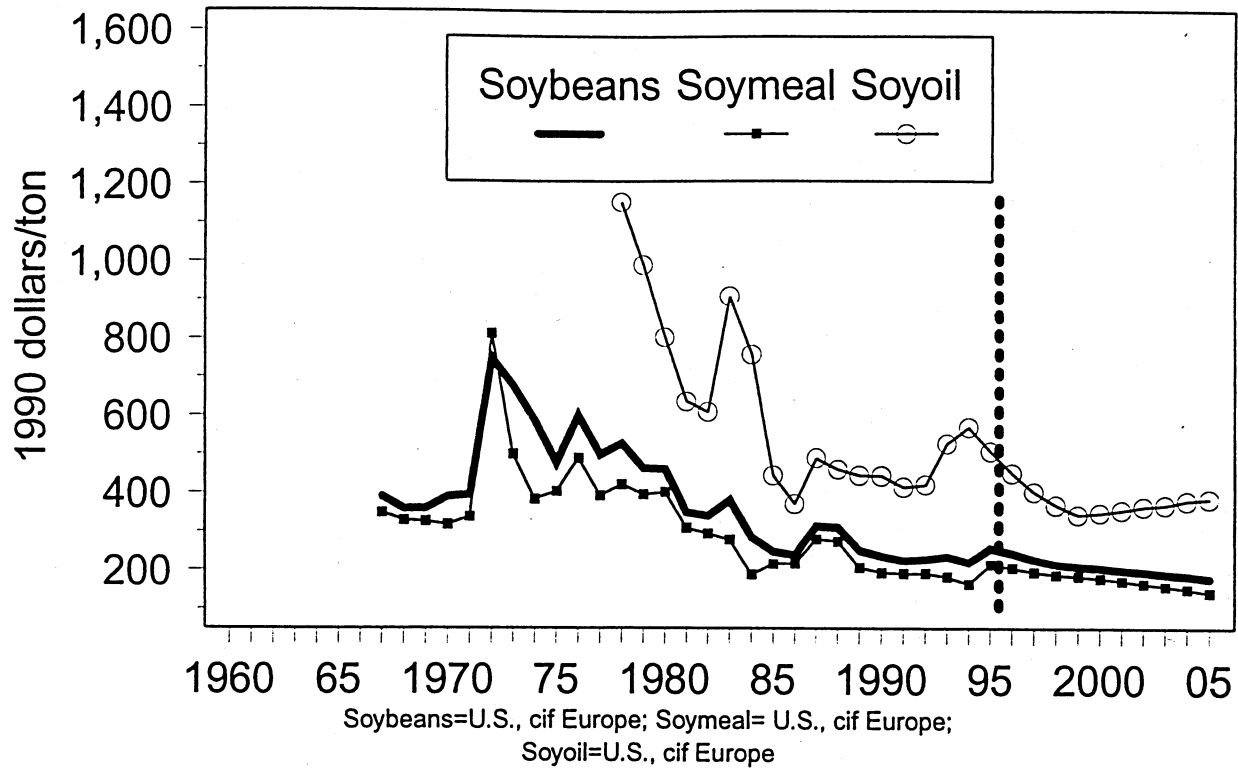
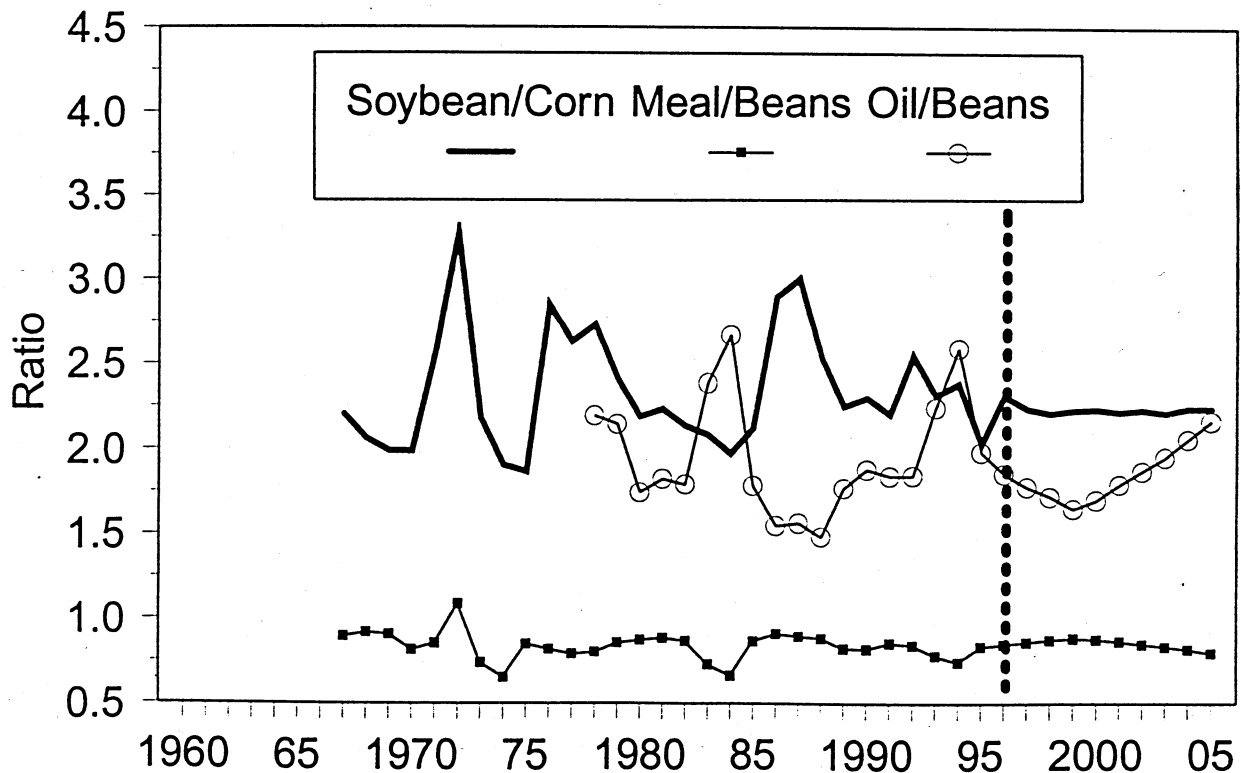


Figure 20. Soy Products: Historical & Projected Price Ratios



- **Mexico's** soybean imports are expected to recover as economic growth strengthens following the deep recession resulting from the peso crisis. Despite the expected recovery, projected soybean imports in 2005 are significantly below pre-crisis projections. PROCAMPO reforms are expected to support gains in soybean production at the expense of other crops. However, brisk soybean meal consumption triggered by income growth and reduced import tariffs under NAFTA will maintain high levels of soybean import demand over the projection period. Soybean imports are projected to grow 5.3 percent annually, reaching 3.7 million tons by 2005.
- **FSU** soybean meal imports are projected to resume growth after 1999, as market reforms in the FSU begin to yield small economic gains, a modest recovery in the livestock sector, and growing demand for soybean meal. However, the projected 2 percent annual import growth is dramatically below the 14 percent gains seen in the 1980's, with financial constraints, particularly debt, tending to limit imports. Soybean imports are expected to rise only marginally through 2005 because of gains in domestic soybean production and capital constraints on investment in new crushing facilities. Imports of soybeans and soybean meal are projected at 0.2 million tons and 0.8 million tons, respectively, in 2005, considerably lower than in the 1980s and early 1990s.
- Imports of soybean meal into **Eastern Europe**, one of the top three soybean meal import markets in the late 1980s, are projected to climb slowly throughout the period. Economic reforms and growth are expected to drive some rebuilding of livestock inventories. However, soybean meal use is expected to remain well below the levels attained in the 1970s and 1980s, as governments in most countries have ended consumer meat subsidies, raising prices and reducing demand.

Import demand for soybeans and meal in Eastern Europe will depend heavily on how rapidly economic conditions improve in these transition economies. Faster than anticipated growth in domestic and export demand for the region's livestock products could stimulate even more imports of soybeans and soybean meal.

- **China** is projected to become a net importer of soybeans and meal by 1998, as market reforms continue to boost per capita incomes and meat consumption. Poultry production is expected to continue to rise rapidly due to strong domestic demand and increasing exports to other Asian countries, especially Japan. It is expected that China will maintain import tariffs that restrict imports of soybean meal in favor of soybeans. Moreover, increasing shortages of vegetable oils and protein meals are likely to prompt further investment in new soybean processing facilities along China's central and southern coastal cities.

The pace of future growth in China's soybean and meal imports is highly uncertain and dependent on assumptions regarding economic growth, the rate of growth of livestock production, the evolution of feed rations, and the government's trade policy response to rising imports of soybeans and meal. Most factors support the outlook for rising imports of soybeans and meal.

- **Japan** is expected to reduce its imports of soybean meal substantially, while imports of soybeans drop slightly. Increased liberalization of livestock product imports and reduced competitiveness of the domestic livestock industry are anticipated to depress domestic livestock production and demand for protein meal. In addition, rapeseed

imports are expected to rise because of strong world prices and high Japanese tariffs on vegetable oil.

- Soybean imports by **South Korea** are projected to show modest increases through 2000, but to decline thereafter. Soybean meal imports, on the other hand, are projected to show strong growth. Tariff reductions for soybean oil imply a shift in the mix of imports from soybeans to soybean meal and soybean oil.

### Highlights for Major Soyoil Importers

Income growth in China, India, and Pakistan, which together account for more than a third of total world population, is expected to be a significant determinant of vegetable oil trade growth during 1995-2005. Despite high internal prices and import controls in these countries, consumption of vegetable oils is expected to expand considerably. However, soybean oil imports are expected to play a lesser role because of higher relative market prices compared to other oils, particularly palm oil, reflecting insufficient global soybean oil supplies. Palm oil is expected to meet the largest share of this consumption growth. Indonesia, a major producer, will consume much of its own palm oil, while China, India, and Pakistan are expected to import palm oil because of relative prices and proximity to producers.

Since the projected growth in vegetable oil demand during 1995-2005 is highly dependent on expected economic growth in developing countries, the projections are sensitive to the macroeconomic outlook for these countries. The import projections are also sensitive to the assumption that there will be no major changes in market access for vegetable oils. Since a number of major markets, including China, India, and Pakistan, have significant access barriers, unanticipated unilateral reforms could have a significant impact on the trade outlook.

- **India's** gains in per capita income will boost oil demand, but growth in soybean oil imports will be slowed by increasing domestic production, continued state trading, and limited consumer acceptance of soybean oil as a pure cooking oil. Palm oil is expected to account for the bulk of Indian imports due to better consumer acceptance and low delivered price relative to other oils.
- Strong economic growth in **China**, combined with limited gains in domestic soybean production, is projected to raise soybean oil imports. During 1995-2000, growth in soybean oil imports is expected to be moderated by rising imports of soybeans, more consumption of other edible oils, and the relatively high level of edible oil use already achieved in urban areas. After 2000, however, steady growth in demand is expected to offset these factors, leading to resumed growth in soybean oil imports, with imports reaching 1.4 million tons by 2005. Increased consumption of rapeseed, palm, and cottonseed oil through domestic production and larger imports is also projected.

Assessment of China's future vegetable oil consumption and trade growth, given the size of the market, constitutes a major uncertainty in the world trade outlook. It is unlikely that the recent high growth in consumption and imports will be sustained. The future responsiveness of demand to income and prices will be critical to the trade outlook. Small adjustments in projected rates of oilseed area or yield growth can



have significant trade impacts. Also, China's vegetable oil trade remains a monopoly, with import decisions subject to factors not necessarily based on market forces.

- Import demand for soybean oil in the **North Africa and Middle East** is projected to decline as a result of the gradual reduction of U.S. export subsidies and the limited gains in EU oilseed production. Consumer preferences, higher relative soybean oil prices, and tight balance of payments positions likely will also induce shifts to substitute oils, including palm oil.
- In **Latin America**, total soybean oil imports are expected to grow steadily through 2005. While Mexico, Central America, and the Caribbean show almost no growth, South American imports are projected to expand sharply during 1996-2005. Mexico's soybean oil imports will decline, because most demand will be met by soybean imports. In Central America and the Caribbean, higher relative soybean oil prices are expected to dampen growth through 2000, with higher incomes revitalizing demand growth thereafter. The nonproducing countries of South America are projected as the fastest growing soybean oil market during 1996-2005. South American demand is expected to stem from robust economic growth, consumer preference for soybean oil, and proximity to major producers.
- Most soybean oil trade during 1996-2005 is anticipated to be in the form of commercial sales. Under these conditions, demand in markets such as **Sub-Saharan Africa, Eastern Europe, and the FSU** is expected to show little growth. In the FSU and Eastern Europe, expansion of soybean oil trade may also be hindered by increasing production of high-oil-content seeds, such as sunflowerseed and rapeseed.

#### **Highlights for Major Soybean and Meal Exporters**

Strong export growth for soybeans and meal is expected from both Brazil and Argentina. Chinese soybean and meal exports are projected to decline as strong domestic feed demand reduces export availabilities. India's soybean meal exports likely will rise as production increases faster than domestic consumption, though at a slower rate than in the past.

- South American production growth is projected to drop from 6 percent annually in the 1980s to 3 percent during 1996-2005. Annual export growth for soybeans and soybean meal is expected to slow to 3 and 2 percent, respectively. Although trade policies in **Argentina and Brazil** continue to favor exports of soybean meal over soybeans, neither country is expected to further alter the export mix by increasing export tax incentives for oilseed processors. In Argentina, competition from corn will restrict growth in soybean area, although some gains in area through double-cropping with wheat are expected. Greater domestic consumption in Brazil will restrict the growth of soybean meal available for export. Soybean production and exports in both **Paraguay and Bolivia** will expand steadily throughout 2005 due to increased irrigation and improved infrastructure. South America's combined market share for soybeans is projected to rise from 28 percent in 1995 to 33 percent by 2005, while the soybean meal share remains unchanged at 62 percent.

The potential response of farmers and traders in Brazil and Argentina to economic reforms and the privatization of ports, highways, and grain handling facilities, will be important to the trade outlook for soybeans and meal. In either country, improved infrastructure can significantly lower producer costs and enhance competitiveness.

Prospects for expanding Brazilian production rely heavily on new production in the outskirts of the Center-West region. Transport costs now hinder area expansion. Although some expansion of soybean area in the Center-West region is anticipated in the baseline, area and production could grow more dramatically if transport costs are reduced or soybean prices rise sufficiently.

- Major reductions in soybean and soybean meal exports have already occurred in **China**, and exports are assumed to continue to decline slowly through 2005. An increasing share of soybean production is expected to be used to meet the growing demands of its livestock sector.
- Despite a likely slowing of government support for oilseeds, **India** will continue to increase soybean and soybean meal production, although at a moderate 4 percent growth rate. Increasing production of soybean meal combined with relatively limited domestic demand is projected to push soybean meal exports to about 3.9 million tons in 2005.

#### Highlights for Major Soybean Exporters

Unlike imports, exports of soybean oil are concentrated in the United States, Argentina, Brazil, and the EU, which together account for more than 90 percent of world exports.

- Growth in **Argentine** soybean oil exports is expected to slow as increasing competition from corn limit annual gains in soybean production to 2 percent, compared with nearly 18 percent during the 1980s. Nevertheless, Argentina is projected to remain the largest exporter of soybean oil due to its small domestic market. In **Brazil**, on the other hand, keen domestic demand is expected to prevent any growth in soybean oil exports despite gains in domestic production.
- **U.S.** soybean oil exports are projected to fall marginally by 2000, as export subsidies are reduced and commercial sales play an increasing role in world and U.S. exports. Beyond 2000, the United States is expected to regain price-competitiveness, but tight domestic supplies will limit the U.S. response to higher prices and growing world demand for soybean oil.
- CAP reform and the U.S.-EU Oilseed Agreement are expected to restrain expansion of all oilseed production in the **EU** by limiting the area available for production. Higher soybean oil production from larger soybean imports will likely meet any increase in domestic consumption, resulting in roughly constant EU soybean oil exports during 1996-2005.

Table 16. Soybean trade projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha	----- 1,000 tons -----					
<b>WORLD</b>								
1992	56,735	2.07	117,299	29,931	29,808	117,478	97,885	11,321
1993	60,309	1.95	117,399	29,174	27,889	121,235	101,848	8,770
1994	62,574	2.19	137,085	31,808	31,688	132,967	110,969	13,008
1995	62,205	1.98	123,370	31,795	30,816	129,175	108,967	8,182
1992-95 ave.	60,456	2.05	123,788	30,677	30,050	125,214	104,917	10,320
1997	63,774	2.10	133,722	31,292	31,292	133,072	113,167	8,958
1998	64,428	2.11	136,152	32,111	32,111	135,785	115,762	9,325
1999	64,746	2.13	138,065	32,988	32,988	138,005	117,625	9,385
2000	65,210	2.15	140,330	33,580	33,580	140,394	119,866	9,321
2001	65,674	2.18	142,976	34,374	34,374	142,772	122,207	9,525
2002	66,028	2.20	145,266	34,962	34,962	145,310	124,349	9,481
2003	66,494	2.22	147,938	35,527	35,527	147,891	126,714	9,528
2004	66,792	2.25	150,101	36,054	36,054	150,005	129,121	9,624
2005	67,210	2.27	152,622	36,420	36,420	152,435	131,568	9,811
<b>UNITED STATES</b>								
1992	23,566	2.53	59,612	56	20,944	38,347	34,808	7,955
1993	23,208	2.19	50,919	175	16,032	37,326	34,716	5,691
1994	24,629	2.78	68,493	136	22,810	42,398	38,242	9,112
1995	24,938	2.35	58,563	136	22,045	40,606	37,558	5,160
1992-95 ave.	24,085	2.47	59,397	126	20,458	39,669	36,331	6,980
1997	24,494	2.52	61,643	136	20,684	40,551	37,285	5,307
1998	24,494	2.54	62,188	136	20,956	41,096	37,830	5,579
1999	24,393	2.57	62,596	136	21,228	41,504	38,238	5,579
2000	24,413	2.59	63,140	136	21,500	41,912	38,646	5,443
2001	24,494	2.62	64,093	136	21,772	42,321	39,054	5,579
2002	24,494	2.64	64,773	136	22,181	42,864	39,599	5,443
2003	24,615	2.67	65,726	136	22,589	43,273	40,007	5,443
2004	24,656	2.69	66,406	136	22,861	43,681	40,415	5,443
2005	24,737	2.72	67,222	136	23,133	44,089	40,823	5,579
<b>ARGENTINA</b>								
1992	4,900	2.32	11,350	0	2,273	9,140	8,687	225
1993	5,400	2.28	12,300	0	2,957	9,260	8,779	308
1994	5,700	2.14	12,200	0	2,505	9,310	8,822	693
1995	5,700	2.16	12,300	0	2,700	9,790	9,300	503
1992-95 ave.	5,425	2.22	12,038	0	2,609	9,375	8,897	432
1997	5,872	2.31	13,539	0	3,137	10,379	9,936	586
1998	5,972	2.33	13,902	0	3,274	10,613	10,026	601
1999	6,040	2.35	14,211	0	3,337	10,861	10,269	614
2000	6,111	2.38	14,563	0	3,402	11,148	10,642	627
2001	6,176	2.42	14,923	0	3,494	11,414	11,153	642
2002	6,229	2.45	15,240	0	3,559	11,669	11,364	654
2003	6,288	2.48	15,590	0	3,598	11,977	11,593	669
2004	6,327	2.51	15,876	0	3,655	12,209	11,857	681
2005	6,378	2.54	16,196	0	3,699	12,483	12,124	695
<b>BRAZIL</b>								
1992	10,625	2.12	22,500	0	4,184	18,340	16,765	707
1993	11,440	2.16	24,700	900	5,396	20,446	18,736	465
1994	11,500	2.26	26,000	800	3,471	22,944	21,154	850
1995	11,100	2.07	23,000	1,000	3,300	21,150	19,600	400
1992-95 ave.	11,166	2.15	24,050	675	4,088	20,720	19,064	606
1997	12,008	2.22	26,685	200	4,331	22,502	20,317	782
1998	12,228	2.24	27,401	200	4,675	22,901	20,626	807
1999	12,291	2.26	27,805	200	5,149	22,842	20,834	821
2000	12,376	2.29	28,316	150	5,318	23,131	21,124	838
2001	12,482	2.32	28,907	100	5,691	23,296	21,574	858
2002	12,540	2.34	29,362	100	5,735	23,712	22,041	873
2003	12,636	2.37	29,941	100	5,740	24,281	22,593	893
2004	12,681	2.39	30,370	100	5,787	24,668	23,274	908
2005	12,778	2.42	30,947	100	5,702	25,325	23,995	928

Table 16. Soybean trade projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha	----- 1,000 tons -----					
<b>CANADA</b>								
1992	623	2.34	1,455	226	211	1,535	1,018	155
1993	720	2.57	1,851	57	489	1,424	1,042	150
1994	820	2.75	2,251	65	524	1,722	1,100	220
1995	819	2.78	2,280	20	600	1,690	1,200	230
1992-95 ave.	746	2.63	1,959	92	456	1,593	1,090	189
1997	831	2.63	2,185	43	733	1,492	1,130	286
1998	835	2.66	2,219	44	748	1,511	1,147	289
1999	839	2.68	2,248	44	762	1,527	1,164	293
2000	843	2.70	2,277	44	775	1,543	1,180	296
2001	846	2.73	2,306	45	788	1,560	1,196	299
2002	848	2.75	2,329	45	797	1,574	1,211	302
2003	851	2.77	2,354	46	806	1,591	1,227	305
2004	854	2.79	2,380	46	815	1,608	1,243	308
2005	856	2.81	2,404	47	824	1,624	1,258	311
<b>CENTRAL AM. &amp; CARIBBEAN</b>								
1992	27	2.44	66	390	4	454	440	3
1993	16	3.00	48	410	3	454	445	4
1994	15	2.80	42	412	3	450	444	5
1995	16	2.63	42	418	3	458	452	4
1992-95 ave.	19	2.68	50	408	3	454	445	4
1997	17	2.71	47	464	3	508	487	3
1998	18	2.73	49	539	3	585	584	4
1999	18	2.75	50	536	3	583	582	4
2000	19	2.78	52	561	3	610	592	4
2001	19	2.80	53	606	3	656	629	4
2002	19	2.82	55	638	3	689	647	4
2003	20	2.84	56	648	3	702	647	4
2004	20	2.87	58	652	3	707	641	4
2005	21	2.89	59	655	3	712	644	4
<b>CHINA</b>								
1992	7,221	1.43	10,300	150	300	10,150	4,300	0
1993	9,454	1.62	15,310	125	1,100	14,335	7,200	0
1994	10,000	1.60	16,000	154	394	15,760	8,090	0
1995	9,250	1.57	14,500	350	300	14,550	7,250	0
1992-95 ave.	8,981	1.56	14,028	195	524	13,699	6,710	0
1997	9,476	1.63	15,451	365	373	15,443	8,748	0
1998	9,487	1.66	15,727	789	355	16,161	9,459	0
1999	9,468	1.69	15,983	1,113	334	16,762	9,809	0
2000	9,482	1.72	16,299	1,164	330	17,133	10,151	0
2001	9,427	1.75	16,499	1,598	316	17,781	10,731	0
2002	9,463	1.78	16,844	1,750	307	18,287	10,990	0
2003	9,480	1.81	17,164	1,904	303	18,765	11,521	0
2004	9,492	1.84	17,467	2,210	296	19,381	12,038	0
2005	9,537	1.87	17,820	2,307	294	19,833	12,587	0
<b>EU-15</b>								
1992	469	2.72	1,274	15,167	346	16,080	14,085	652
1993	283	2.85	807	13,111	410	13,654	12,238	506
1994	351	2.94	1,031	15,311	368	15,933	14,351	547
1995	316	3.08	973	14,825	331	15,483	13,933	531
1992-95 ave.	355	2.88	1,021	14,604	364	15,288	13,652	559
1997	336	2.93	984	14,611	338	15,272	13,898	556
1998	326	2.95	962	14,642	341	15,259	13,886	560
1999	318	2.98	947	14,695	344	15,295	13,919	563
2000	320	3.01	964	14,900	348	15,513	14,117	566
2001	319	3.04	971	14,813	351	15,430	14,042	569
2002	321	3.08	986	14,794	355	15,423	14,036	571
2003	321	3.11	996	14,778	358	15,414	14,027	573
2004	321	3.14	1,008	14,710	362	15,353	13,971	576
2005	322	3.16	1,019	14,606	366	15,256	13,883	579

Table 16. Soybean trade projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha	-----			-----		
			1,000 tons					
<b>INDIA</b>								
1992	3,627	0.86	3,106	0	0	3,106	2,810	0
1993	4,250	0.94	4,000	0	0	4,000	3,600	0
1994	3,950	0.84	3,300	100	0	3,200	2,750	200
1995	4,400	0.91	4,000	0	0	4,200	3,750	0
1992-95 ave.	4,057	0.89	3,602	25	0	3,627	3,228	50
1997	4,894	0.98	4,804	0	0	4,804	4,276	0
1998	5,178	0.99	5,144	0	0	5,144	4,579	0
1999	5,415	1.01	5,444	0	0	5,444	4,845	0
2000	5,603	1.02	5,701	0	0	5,701	5,074	0
2001	5,751	1.03	5,922	0	0	5,922	5,270	0
2002	5,869	1.04	6,115	0	0	6,115	5,442	0
2003	5,958	1.05	6,283	0	0	6,283	5,591	0
2004	6,024	1.07	6,428	0	0	6,428	5,721	0
2005	6,066	1.08	6,551	0	0	6,551	5,831	0
<b>INDONESIA</b>								
1992	1,470	1.16	1,700	527	0	2,300	250	80
1993	1,407	1.11	1,565	709	0	2,250	140	104
1994	1,470	1.09	1,600	600	0	2,240	100	64
1995	1,500	1.13	1,700	520	0	2,220	50	64
1992-95 ave.	1,462	1.12	1,641	589	0	2,253	135	78
1997	1,554	1.15	1,785	650	0	2,440	262	114
1998	1,567	1.18	1,846	682	0	2,524	283	118
1999	1,579	1.20	1,891	715	0	2,602	319	122
2000	1,573	1.22	1,916	773	0	2,685	352	126
2001	1,576	1.24	1,953	837	0	2,786	383	131
2002	1,583	1.26	1,996	908	0	2,898	415	136
2003	1,593	1.28	2,043	950	0	2,988	445	140
2004	1,605	1.30	2,090	976	0	3,062	479	144
2005	1,608	1.32	2,127	998	0	3,122	508	146
<b>JAPAN</b>								
1992	110	1.71	188	4,866	0	5,075	3,785	773
1993	87	1.16	101	4,855	0	5,008	3,700	721
1994	61	1.62	99	4,837	0	4,993	3,707	664
1995	80	1.38	110	4,750	0	4,915	3,660	609
1992-95 ave.	85	1.47	125	4,827	0	4,998	3,713	692
1997	80	1.16	93	4,686	0	4,748	3,501	583
1998	80	1.16	93	4,696	0	4,780	3,547	592
1999	80	1.16	93	4,716	0	4,812	3,569	588
2000	80	1.16	93	4,734	0	4,822	3,591	593
2001	80	1.16	93	4,782	0	4,867	3,645	601
2002	80	1.16	93	4,792	0	4,883	3,666	603
2003	80	1.16	93	4,805	0	4,898	3,682	603
2004	80	1.16	93	4,824	0	4,916	3,703	604
2005	80	1.16	93	4,818	0	4,915	3,699	600
<b>MALAYSIA</b>								
1992	0	0.00	0	526	10	510	425	60
1993	0	0.00	0	502	12	472	372	78
1994	0	0.00	0	630	15	610	510	83
1995	0	0.00	0	660	20	640	538	83
1992-95 ave.	0	0.00	0	580	14	558	461	76
1997	0	0.00	0	757	20	729	627	91
1998	0	0.00	0	787	20	763	658	95
1999	0	0.00	0	824	20	799	692	100
2000	0	0.00	0	860	20	836	725	104
2001	0	0.00	0	897	20	872	759	109
2002	0	0.00	0	930	20	906	790	113
2003	0	0.00	0	964	20	940	821	118
2004	0	0.00	0	1,000	20	976	854	122
2005	0	0.00	0	1,037	20	1,012	888	127

Table 16. Soybean trade projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha			1,000 tons			
<b>MEXICO</b>								
1992	305	1.88	572	2,136	0	2,770	2,670	113
1993	238	2.09	497	2,200	0	2,710	2,640	100
1994	288	1.82	525	1,950	0	2,483	2,413	92
1995	136	1.99	270	2,200	0	2,480	2,410	82
1992-95 ave.	242	1.93	466	2,122	0	2,611	2,533	97
1997	276	2.27	626	2,449	0	3,063	2,971	113
1998	284	2.31	657	2,583	0	3,228	3,130	126
1999	293	2.35	689	2,732	0	3,414	3,315	132
2000	306	2.40	734	2,889	0	3,615	3,492	140
2001	320	2.44	782	3,048	0	3,822	3,678	147
2002	335	2.50	836	3,200	0	4,029	3,862	154
2003	352	2.55	898	3,360	0	4,250	4,063	162
2004	371	2.62	970	3,520	0	4,481	4,266	171
2005	393	2.69	1,055	3,678	0	4,724	4,467	180
<b>PAKISTAN</b>								
1992	8	1.25	10	0	0	10	9	0
1993	6	2.33	14	12	0	26	25	0
1994	6	2.33	14	25	0	39	38	0
1995	6	2.33	14	25	0	39	38	0
1992-95 ave.	7	2.00	13	16	0	29	28	0
1997	6	2.38	15	32	0	47	47	0
1998	6	2.42	15	33	0	48	48	0
1999	6	2.47	16	34	0	50	50	0
2000	6	2.52	16	35	0	51	51	0
2001	7	2.57	17	36	0	53	53	0
2002	7	2.62	18	37	0	55	55	0
2003	7	2.68	18	38	0	57	57	0
2004	7	2.73	19	39	0	58	58	0
2005	7	2.78	20	40	0	60	60	0
<b>PHILIPPINES</b>								
1992	16	0.75	12	62	0	74	47	3
1993	17	0.76	13	136	0	112	83	40
1994	17	0.76	13	145	0	146	115	52
1995	17	0.76	13	160	0	180	145	45
1992-95 ave.	17	0.76	13	126	0	128	98	35
1997	17	0.76	13	194	0	202	165	40
1998	18	0.76	14	214	0	223	184	45
1999	18	0.77	14	255	0	261	221	53
2000	19	0.78	14	240	0	254	214	52
2001	19	0.78	15	281	0	288	246	60
2002	19	0.79	15	290	0	301	259	64
2003	20	0.80	16	305	0	316	272	68
2004	20	0.81	16	309	0	322	277	71
2005	20	0.81	16	299	0	315	269	71
<b>SOUTH KOREA</b>								
1992	105	1.68	176	1,131	0	1,296	906	178
1993	117	1.45	170	1,160	0	1,334	974	174
1994	110	1.55	170	1,400	0	1,576	1,200	168
1995	115	1.57	180	1,400	0	1,579	1,169	169
1992-95 ave.	112	1.56	174	1,273	0	1,446	1,062	172
1997	117	1.67	195	1,438	0	1,624	1,197	197
1998	117	1.67	195	1,447	0	1,640	1,204	199
1999	117	1.67	195	1,493	0	1,683	1,239	205
2000	117	1.67	195	1,516	0	1,708	1,255	208
2001	117	1.67	195	1,437	0	1,640	1,179	199
2002	117	1.67	195	1,438	0	1,634	1,164	199
2003	117	1.67	195	1,373	0	1,575	1,097	191
2004	117	1.67	195	1,280	0	1,486	1,000	181
2005	117	1.67	195	1,184	0	1,391	897	169

Table 16. Soybean trade projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha	----- 1,000 tons -----					
<b>TAIWAN</b>								
1992	5	2.60	13	2,506	0	2,706	2,315	108
1993	6	2.17	13	2,500	0	2,515	2,241	106
1994	4	2.00	8	2,598	0	2,622	2,339	90
1995	5	2.00	10	2,550	0	2,534	2,250	116
1992-95 ave.	5	2.20	11	2,539	0	2,594	2,286	105
1997	5	2.00	10	2,626	0	2,639	2,326	130
1998	5	2.00	10	2,677	0	2,679	2,361	138
1999	5	2.00	10	2,727	0	2,739	2,414	136
2000	5	2.00	10	2,775	0	2,777	2,448	143
2001	5	2.00	10	2,821	0	2,835	2,498	140
2002	5	2.00	10	2,867	0	2,847	2,509	170
2003	5	2.00	10	2,910	0	2,932	2,584	158
2004	5	2.00	10	2,952	0	2,913	2,567	208
2005	5	2.00	10	2,996	0	3,001	2,645	213
<b>THAILAND</b>								
1992	343	1.40	480	123	0	595	440	22
1993	343	1.40	480	124	0	595	440	31
1994	352	1.36	480	98	0	609	456	0
1995	350	1.29	450	222	0	672	510	0
1992-95 ave.	347	1.36	473	142	0	618	462	13
1997	364	1.37	497	214	0	717	571	0
1998	366	1.39	507	215	0	722	570	0
1999	367	1.41	518	221	0	739	581	0
2000	371	1.44	536	226	0	762	598	0
2001	382	1.47	563	230	0	792	621	0
2002	378	1.50	567	244	0	810	633	0
2003	375	1.53	573	268	0	841	657	0
2004	371	1.56	577	305	0	882	692	0
2005	368	1.59	583	340	0	923	726	0
<b>TURKEY</b>								
1992	50	1.80	90	64	0	154	60	5
1993	40	1.75	70	63	0	133	58	5
1994	50	1.80	90	60	0	150	70	5
1995	60	1.75	105	105	0	210	130	5
1992-95 ave.	50	1.78	89	73	0	162	80	5
1997	58	1.89	109	73	0	182	98	5
1998	58	1.91	111	74	0	185	99	6
1999	60	1.93	116	72	0	187	99	6
2000	62	1.95	120	69	0	189	99	6
2001	63	1.97	125	65	0	189	99	6
2002	65	1.99	130	61	0	191	99	6
2003	67	2.01	135	58	0	192	99	6
2004	69	2.03	140	54	0	194	99	6
2005	71	2.05	146	51	0	196	98	6
<b>OTH. N. AFRICA &amp; MID. EAST</b>								
1992	82	1.99	163	683	0	809	790	101
1993	75	2.01	151	677	0	832	812	97
1994	77	2.00	154	810	0	1,005	985	56
1995	74	1.97	146	857	0	1,004	984	55
1992-95 ave.	77	1.99	154	757	0	913	893	77
1997	75	1.99	149	816	0	964	943	56
1998	73	1.99	145	837	0	981	959	57
1999	72	1.99	143	862	0	1,003	980	58
2000	70	1.99	140	892	0	1,031	1,006	60
2001	69	1.99	138	928	0	1,064	1,038	62
2002	68	1.99	136	969	0	1,102	1,076	64
2003	67	1.99	134	1,008	0	1,139	1,112	66
2004	66	1.99	132	1,043	0	1,173	1,144	68
2005	65	1.99	130	1,075	0	1,203	1,172	70

Table 16. Soybean trade projections

Crop year	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Crush	
	1,000 ha	Tons/ha	----- 1,000 tons -----					
OTHER SOUTH AMERICA								
1992	1,344	1.81	2,429	397	1,422	1,397	1,269	63
1993	1,459	1.75	2,559	432	1,374	1,611	1,483	72
1994	1,529	1.94	2,969	447	1,473	1,942	1,864	76
1995	1,564	1.83	2,861	468	1,381	1,945	1,865	82
1992-95 ave.	1,474	1.84	2,705	436	1,413	1,724	1,620	73
1997	1,698	1.86	3,158	470	1,521	2,105	1,980	93
1998	1,718	1.87	3,219	491	1,574	2,137	2,021	94
1999	1,754	1.89	3,318	512	1,633	2,198	2,072	97
2000	1,798	1.91	3,436	532	1,693	2,275	2,144	100
2001	1,846	1.93	3,560	553	1,744	2,368	2,221	105
2002	1,891	1.95	3,687	573	1,797	2,462	2,304	109
2003	1,941	1.97	3,818	595	1,889	2,524	2,385	111
2004	1,988	1.99	3,948	617	2,020	2,547	2,467	112
2005	2,039	2.00	4,084	640	2,130	2,595	2,533	115



Table 17. Soymeal supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Feed	
	1,000 tons	%	----- 1,000 tons -----					
<b>WORLD</b>								
1992	97,885	0.79	77,317	27,611	29,024	75,423	74,917	3,401
1993	101,848	0.80	81,013	29,887	30,017	80,795	80,298	3,489
1994	110,969	0.79	87,845	31,365	32,601	86,405	85,894	3,693
1995	108,967	0.79	86,578	31,520	31,200	87,446	86,960	3,145
1992-95 ave.	104,917	0.79	83,188	30,096	30,711	82,517	82,017	3,432
1997	113,167	0.80	90,228	32,068	32,068	90,041	0	3,509
1998	115,762	0.80	92,312	32,417	32,417	92,263	0	3,558
1999	117,625	0.80	93,851	32,899	32,899	93,820	0	3,589
2000	119,866	0.80	95,642	33,519	33,519	95,504	0	3,727
2001	122,207	0.80	97,516	34,104	34,104	97,418	0	3,825
2002	124,349	0.80	99,165	34,964	34,964	99,072	0	3,918
2003	126,714	0.80	101,056	35,877	35,877	100,966	0	4,008
2004	129,121	0.80	102,979	36,524	36,524	102,831	0	4,156
2005	131,568	0.80	104,978	37,397	37,397	104,880	0	4,254
<b>UNITED STATES</b>								
1992	34,808	0.79	27,546	84	5,653	22,001	22,001	185
1993	34,716	0.80	27,682	63	4,859	22,935	22,935	136
1994	38,242	0.79	30,178	58	6,094	24,075	24,075	203
1995	37,558	0.79	29,816	54	5,262	24,630	24,630	181
1992-95 ave.	36,331	0.79	28,806	65	5,467	23,410	23,410	176
1997	37,285	0.79	29,529	68	5,035	24,539	24,539	204
1998	37,830	0.79	29,960	68	5,126	24,902	24,902	204
1999	38,238	0.79	30,323	68	5,216	25,175	25,175	204
2000	38,646	0.79	30,640	68	5,307	25,401	25,401	204
2001	39,054	0.79	30,958	68	5,398	25,628	25,628	204
2002	39,599	0.79	31,321	68	5,534	25,855	25,855	204
2003	40,007	0.79	31,638	68	5,625	26,081	26,081	204
2004	40,415	0.79	31,956	68	5,715	26,309	26,309	204
2005	40,823	0.79	32,318	68	5,806	26,580	26,580	204
<b>ARGENTINA</b>								
1992	8,687	0.81	7,019	0	6,835	134	134	201
1993	8,779	0.81	7,093	0	6,731	180	180	383
1994	8,822	0.81	7,128	0	7,103	195	195	213
1995	9,300	0.81	7,514	0	7,300	200	200	227
1992-95 ave.	8,897	0.81	7,189	0	6,992	177	177	256
1997	9,936	0.81	8,032	0	7,813	208	208	243
1998	10,026	0.81	8,105	0	7,878	220	220	250
1999	10,269	0.81	8,302	0	8,068	228	228	256
2000	10,642	0.81	8,603	0	8,360	236	236	264
2001	11,153	0.81	9,016	0	8,771	238	238	271
2002	11,364	0.81	9,187	0	8,941	239	239	278
2003	11,593	0.81	9,372	0	9,119	244	244	286
2004	11,857	0.81	9,585	0	9,328	250	250	293
2005	12,124	0.81	9,802	0	9,539	254	254	301
<b>BRAZIL</b>								
1992	16,765	0.79	13,177	0	9,301	3,800	3,800	543
1993	18,736	0.79	14,726	0	10,419	4,200	4,200	650
1994	21,154	0.79	16,627	0	11,251	5,000	5,000	1,026
1995	19,600	0.79	15,406	0	10,800	5,200	5,200	432
1992-95 ave.	19,064	0.79	14,984	0	10,443	4,550	4,550	663
1997	20,317	0.79	16,050	0	10,782	5,253	5,253	737
1998	20,626	0.79	16,295	0	10,838	5,443	5,443	751
1999	20,834	0.79	16,459	0	10,938	5,512	5,512	760
2000	21,124	0.79	16,688	0	11,072	5,603	5,603	773
2001	21,574	0.79	17,043	0	11,107	5,916	5,916	793
2002	22,041	0.79	17,413	0	11,536	5,857	5,857	813
2003	22,593	0.79	17,849	0	12,011	5,814	5,814	837
2004	23,274	0.79	18,386	0	12,172	6,185	6,185	866
2005	23,995	0.79	18,956	0	12,476	6,448	6,448	898

Table 17. Soymeal supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Feed	
	1,000 tons	%	----- 1,000 tons -----					
<b>CANADA</b>								
1992	1,018	0.80	814	617	80	1,351	1,351	5
1993	1,042	0.79	823	674	21	1,476	1,476	5
1994	1,100	0.79	869	820	16	1,673	1,673	5
1995	1,200	0.79	948	800	30	1,718	1,718	5
1992-95 ave.	1,090	0.79	864	728	37	1,555	1,555	5
1997	1,130	0.79	896	709	24	1,581	1,581	5
1998	1,147	0.79	910	717	24	1,602	1,602	5
1999	1,164	0.79	923	723	25	1,620	1,620	5
2000	1,180	0.79	935	725	25	1,635	1,635	5
2001	1,196	0.79	948	729	25	1,652	1,652	5
2002	1,211	0.79	960	734	25	1,668	1,668	5
2003	1,227	0.79	972	737	26	1,684	1,684	5
2004	1,243	0.79	985	742	26	1,702	1,702	5
2005	1,258	0.79	997	745	26	1,716	1,716	5
<b>CENTRAL AM. &amp; CARIBBEAN</b>								
1992	440	0.79	349	578	77	853	853	35
1993	445	0.79	353	767	72	1,048	1,048	35
1994	444	0.79	352	925	72	1,204	1,204	36
1995	452	0.79	358	987	72	1,274	1,274	35
1992-95 ave.	445	0.79	353	814	73	1,095	1,095	35
1997	487	0.79	386	1,035	75	1,344	1,344	36
1998	584	0.79	463	1,014	80	1,395	1,395	37
1999	582	0.79	462	1,050	86	1,425	1,424	38
2000	592	0.79	469	1,079	92	1,455	1,456	39
2001	629	0.79	498	1,102	99	1,500	1,500	40
2002	647	0.79	513	1,134	106	1,540	1,540	41
2003	647	0.79	513	1,185	114	1,583	1,583	42
2004	641	0.79	508	1,244	122	1,629	1,628	43
2005	644	0.79	511	1,306	131	1,684	1,684	45
<b>CENTRAL &amp; EASTERN EUROPE</b>								
1992	527	0.80	420	1,565	0	1,975	1,975	35
1993	419	0.79	333	1,625	10	1,923	1,923	64
1994	488	0.79	387	1,920	3	2,294	2,294	77
1995	503	0.74	371	1,783	3	2,164	2,164	57
1992-95 ave.	484	0.78	378	1,723	4	2,089	2,089	58
1997	445	0.79	352	1,714	44	2,021	2,021	39
1998	445	0.79	350	1,762	38	2,074	2,074	39
1999	448	0.78	351	1,811	59	2,102	2,102	40
2000	455	0.78	355	1,865	42	2,178	2,178	40
2001	466	0.78	362	1,921	17	2,266	2,266	40
2002	482	0.77	372	1,993	7	2,358	2,358	40
2003	502	0.77	386	2,061	1	2,446	2,446	40
2004	528	0.76	404	2,117	3	2,518	2,518	40
2005	560	0.76	426	2,172	5	2,593	2,593	40
<b>CHILE</b>								
1992	0	0.00	0	156	0	156	156	1
1993	0	0.00	0	160	0	160	160	1
1994	0	0.00	0	165	0	165	165	1
1995	0	0.00	0	195	0	195	195	1
1992-95 ave.	0	0.00	0	169	0	169	169	1
1997	0	0.00	0	249	0	249	249	1
1998	0	0.00	0	257	0	257	257	1
1999	0	0.00	0	272	0	272	272	1
2000	0	0.00	0	288	0	288	288	1
2001	0	0.00	0	304	0	304	304	1
2002	0	0.00	0	322	0	322	322	2
2003	0	0.00	0	342	0	342	342	2
2004	0	0.00	0	363	0	363	363	2
2005	0	0.00	0	382	0	382	382	2

Table 17. Soymeal supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Feed	
	1,000 tons	%	1,000 tons					
<b>CHINA</b>								
1992	4,300	0.81	3,483	40	400	3,123	3,123	0
1993	7,200	0.81	5,832	0	1,050	4,782	4,782	0
1994	8,090	0.81	6,553	50	1,275	5,328	5,328	0
1995	7,250	0.81	5,873	200	400	5,673	5,673	0
1992-95 ave.	6,710	0.81	5,435	73	781	4,727	4,727	0
1997	8,748	0.81	7,086	366	500	6,952	6,952	0
1998	9,459	0.81	7,662	380	500	7,542	7,542	0
1999	9,809	0.81	7,945	368	475	7,838	7,838	0
2000	10,151	0.81	8,222	426	394	8,254	8,254	0
2001	10,731	0.81	8,692	314	354	8,652	8,652	0
2002	10,990	0.81	8,902	363	319	8,946	8,945	0
2003	11,521	0.81	9,332	490	287	9,535	9,535	0
2004	12,038	0.81	9,750	504	258	9,996	9,997	0
2005	12,587	0.81	10,195	682	232	10,645	10,645	0
<b>EU-15</b>								
1992	14,085	0.78	10,983	15,485	4,044	22,244	22,200	1,147
1993	12,238	0.80	9,845	16,441	3,854	22,654	22,608	925
1994	14,351	0.80	11,426	16,850	4,132	24,283	24,232	786
1995	13,933	0.80	11,131	16,573	4,023	23,619	23,570	848
1992-95 ave.	13,652	0.79	10,846	16,337	4,013	23,200	23,153	927
1997	13,898	0.79	10,979	16,308	3,991	23,320	23,270	776
1998	13,886	0.79	10,969	16,340	3,993	23,375	23,325	718
1999	13,919	0.79	10,996	16,363	3,995	23,414	23,364	667
2000	14,117	0.79	11,152	16,408	4,050	23,456	23,406	721
2001	14,042	0.79	11,093	16,509	3,995	23,603	23,553	725
2002	14,036	0.79	11,088	16,604	3,989	23,699	23,649	729
2003	14,027	0.79	11,081	16,650	3,991	23,735	23,685	734
2004	13,971	0.79	11,038	16,777	3,977	23,794	23,744	778
2005	13,883	0.79	10,967	16,782	3,995	23,751	23,701	782
<b>FORMER SOVIET UNION</b>								
1992	626	0.80	499	1,288	0	1,787	1,787	0
1993	696	0.78	546	1,260	0	1,806	1,806	0
1994	621	0.79	492	690	5	1,177	1,177	0
1995	534	0.80	425	788	5	1,208	1,208	0
1992-95 ave.	619	0.79	491	1,007	3	1,495	1,495	0
1997	565	0.79	446	728	0	1,178	1,178	0
1998	551	0.79	436	724	0	1,160	1,160	0
1999	558	0.79	441	726	0	1,167	1,167	0
2000	559	0.79	442	723	0	1,165	1,165	0
2001	589	0.79	465	728	0	1,193	1,193	0
2002	592	0.79	467	743	0	1,210	1,210	0
2003	580	0.79	458	769	0	1,227	1,227	0
2004	578	0.79	456	778	0	1,234	1,234	0
2005	578	0.79	457	781	0	1,238	1,238	0
<b>INDIA</b>								
1992	2,810	0.80	2,250	0	2,005	245	215	0
1993	3,600	0.80	2,880	0	2,200	680	640	0
1994	2,750	0.80	2,200	0	1,500	700	650	0
1995	3,750	0.80	3,000	0	2,300	700	660	0
1992-95 ave.	3,228	0.80	2,583	0	2,001	581	541	0
1997	4,276	0.80	3,420	0	2,741	679	638	0
1998	4,579	0.80	3,663	0	2,835	828	786	0
1999	4,845	0.80	3,876	0	2,943	933	891	0
2000	5,074	0.80	4,059	0	3,049	1,010	966	0
2001	5,270	0.80	4,216	0	3,162	1,054	1,010	0
2002	5,442	0.80	4,354	0	3,301	1,053	1,008	0
2003	5,591	0.80	4,473	0	3,470	1,003	958	0
2004	5,721	0.80	4,577	0	3,665	912	865	0
2005	5,831	0.80	4,665	0	3,901	764	717	0

Table 17. Soymeal supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Feed	
	1,000 tons	%				1,000 tons		
<b>INDONESIA</b>								
1992	250	0.80	200	311	0	510	510	73
1993	140	0.79	110	490	0	600	600	73
1994	100	0.80	80	600	0	680	680	73
1995	50	0.80	40	700	0	760	760	53
1992-95 ave.	135	0.80	108	525	0	638	638	68
1997	262	0.80	210	746	0	839	839	168
1998	283	0.80	226	782	0	980	980	196
1999	319	0.80	255	834	0	1,071	1,071	214
2000	352	0.80	282	876	0	1,143	1,143	229
2001	383	0.80	306	905	0	1,200	1,200	240
2002	415	0.80	332	953	0	1,271	1,271	254
2003	445	0.80	356	977	0	1,323	1,323	265
2004	479	0.80	383	1,020	0	1,390	1,390	278
2005	508	0.80	406	1,058	0	1,452	1,452	290
<b>JAPAN</b>								
1992	3,785	0.78	2,940	871	2	3,785	3,435	91
1993	3,700	0.77	2,849	875	2	3,729	3,400	84
1994	3,707	0.77	2,860	910	2	3,764	3,435	88
1995	3,660	0.79	2,876	850	2	3,716	3,400	96
1992-95 ave.	3,713	0.78	2,881	877	2	3,749	3,418	90
1997	3,501	0.79	2,749	694	2	3,442	3,126	83
1998	3,547	0.79	2,785	616	2	3,400	3,087	82
1999	3,569	0.79	2,802	596	2	3,398	3,078	81
2000	3,591	0.79	2,819	564	2	3,381	3,065	81
2001	3,645	0.79	2,862	527	2	3,386	3,073	82
2002	3,666	0.79	2,879	508	2	3,387	3,067	80
2003	3,682	0.79	2,891	484	2	3,373	3,057	81
2004	3,703	0.79	2,908	463	2	3,369	3,053	81
2005	3,699	0.79	2,905	450	2	3,353	3,039	81
<b>MALAYSIA</b>								
1992	425	0.80	340	340	2	660	660	72
1993	372	0.81	300	440	5	710	710	97
1994	510	0.80	410	450	5	850	850	102
1995	538	0.80	432	450	5	882	882	97
1992-95 ave.	461	0.80	371	420	4	776	776	92
1997	627	0.80	501	502	5	994	994	73
1998	658	0.80	526	516	5	1,034	1,034	76
1999	692	0.80	554	530	5	1,075	1,075	79
2000	725	0.80	580	558	5	1,128	1,128	83
2001	759	0.80	607	588	5	1,186	1,186	88
2002	790	0.80	632	621	5	1,244	1,244	92
2003	821	0.80	657	660	5	1,307	1,307	97
2004	854	0.80	683	698	5	1,370	1,370	101
2005	888	0.80	710	740	5	1,440	1,440	106
<b>MEXICO</b>								
1992	2,670	0.78	2,083	395	0	2,478	2,438	150
1993	2,640	0.78	2,061	350	0	2,411	2,371	150
1994	2,413	0.78	1,883	400	0	2,283	2,243	150
1995	2,410	0.78	1,881	325	0	2,206	2,166	150
1992-95 ave.	2,533	0.78	1,977	368	0	2,345	2,305	150
1997	2,971	0.78	2,318	385	0	2,729	2,689	132
1998	3,130	0.78	2,441	415	0	2,851	2,811	137
1999	3,315	0.78	2,586	448	0	3,028	2,988	143
2000	3,492	0.78	2,724	467	0	3,185	3,145	149
2001	3,678	0.78	2,869	486	0	3,350	3,310	154
2002	3,862	0.78	3,012	489	0	3,497	3,457	157
2003	4,063	0.78	3,169	507	0	3,672	3,632	161
2004	4,266	0.78	3,327	533	0	3,852	3,812	169
2005	4,467	0.78	3,484	561	0	4,036	3,996	178

Table 17. Soymeal supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Feed	
	1,000 tons	%				1,000 tons		
<b>PHILIPPINES</b>								
1992	47	0.81	38	823	0	721	720	258
1993	83	0.80	66	655	0	786	785	193
1994	115	0.80	92	750	0	861	860	174
1995	145	0.80	116	810	0	881	880	219
1992-95 ave.	98	0.80	78	760	0	812	811	211
1997	165	0.80	132	871	0	983	983	225
1998	184	0.80	148	886	0	1,025	1,025	234
1999	221	0.80	177	965	0	1,121	1,121	255
2000	214	0.80	171	1,043	0	1,197	1,198	272
2001	246	0.80	197	1,134	0	1,307	1,307	296
2002	259	0.80	207	1,173	0	1,367	1,367	309
2003	272	0.80	218	1,174	0	1,387	1,388	313
2004	277	0.80	222	1,225	0	1,436	1,436	324
2005	269	0.80	216	1,257	0	1,466	1,466	331
<b>SOUTH KOREA</b>								
1992	906	0.80	724	767	0	1,450	1,420	290
1993	974	0.80	779	782	0	1,488	1,458	363
1994	1,200	0.80	960	780	0	1,700	1,670	403
1995	1,169	0.80	935	800	0	1,762	1,732	376
1992-95 ave.	1,062	0.80	850	782	0	1,600	1,570	358
1997	1,197	0.80	956	766	0	1,716	1,686	357
1998	1,204	0.80	962	867	0	1,809	1,780	377
1999	1,239	0.80	989	880	0	1,859	1,829	387
2000	1,255	0.80	1,002	927	0	1,917	1,887	400
2001	1,179	0.80	942	1,036	0	1,967	1,937	410
2002	1,164	0.80	930	1,097	0	2,017	1,986	421
2003	1,097	0.80	877	1,193	0	2,061	2,030	430
2004	1,000	0.80	799	1,312	0	2,102	2,072	439
2005	897	0.80	716	1,401	0	2,114	2,084	441
<b>THAILAND</b>								
1992	440	0.78	343	570	0	913	913	0
1993	440	0.78	343	732	0	1,075	1,075	0
1994	456	0.78	356	875	0	1,231	1,231	0
1995	510	0.78	398	900	0	1,298	1,298	0
1992-95 ave.	462	0.78	360	769	0	1,129	1,129	0
1997	571	0.78	446	928	0	1,374	1,341	0
1998	570	0.78	444	958	0	1,402	1,399	0
1999	581	0.78	453	989	0	1,442	1,469	0
2000	598	0.78	466	1,043	0	1,509	1,536	0
2001	621	0.78	484	1,099	0	1,583	1,611	0
2002	633	0.78	494	1,136	0	1,630	1,679	0
2003	657	0.78	513	1,177	0	1,690	1,747	0
2004	692	0.78	540	1,211	0	1,751	1,819	0
2005	726	0.78	566	1,269	0	1,835	1,897	0
<b>TURKEY</b>								
1992	60	0.80	48	266	5	309	309	0
1993	58	0.79	46	205	2	249	249	0
1994	70	0.80	56	250	0	306	306	0
1995	130	0.79	103	275	0	378	378	0
1992-95 ave.	80	0.80	63	249	2	311	311	0
1997	98	0.80	79	272	0	351	351	0
1998	99	0.80	79	282	0	361	361	0
1999	99	0.80	79	291	0	370	370	0
2000	99	0.80	79	299	0	378	378	0
2001	99	0.80	79	309	0	388	388	0
2002	99	0.80	79	318	0	397	397	0
2003	99	0.80	79	327	0	406	406	0
2004	99	0.80	79	337	0	416	416	0
2005	98	0.80	79	348	0	427	427	0

Table 17. Soymeal supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Feed	
	1,000 tons	%	----- 1,000 tons -----					
<b>OTH. N. AFRICA &amp; MID. EAST</b>								
1992	790	0.78	616	2,031	8	2,633	2,630	89
1993	812	0.78	636	2,550	8	3,171	3,168	96
1994	985	0.77	762	2,878	8	3,613	3,610	115
1995	984	0.77	762	2,893	9	3,654	3,651	107
1992-95 ave.	893	0.78	694	2,588	8	3,268	3,265	102
1997	943	0.80	754	3,156	8	3,899	3,899	96
1998	959	0.80	767	3,299	8	4,054	4,054	100
1999	980	0.80	784	3,398	8	4,171	4,171	103
2000	1,006	0.80	805	3,513	8	4,306	4,306	107
2001	1,038	0.80	830	3,615	8	4,434	4,434	110
2002	1,076	0.80	861	3,740	8	4,589	4,588	114
2003	1,112	0.80	889	3,883	8	4,760	4,759	119
2004	1,144	0.80	915	4,036	8	4,938	4,938	124
2005	1,172	0.80	938	4,198	8	5,122	5,122	129
<b>OTHER SOUTH AMERICA</b>								
1992	1,269	0.77	979	828	572	1,255	1,250	177
1993	1,483	0.77	1,141	998	626	1,510	1,505	180
1994	1,864	0.79	1,468	1,056	949	1,585	1,581	170
1995	1,865	0.79	1,469	1,116	819	1,755	1,751	181
1992-95 ave.	1,620	0.78	1,264	1,000	742	1,526	1,522	177
1997	1,980	0.77	1,524	1,431	876	2,043	2,038	256
1998	2,021	0.77	1,556	1,518	902	2,158	2,152	270
1999	2,072	0.77	1,596	1,532	931	2,193	2,187	274
2000	2,144	0.77	1,651	1,538	959	2,226	2,220	279
2001	2,221	0.77	1,710	1,541	987	2,260	2,255	283
2002	2,304	0.77	1,774	1,612	1,016	2,358	2,353	295
2003	2,385	0.77	1,836	1,675	1,044	2,455	2,450	307
2004	2,467	0.77	1,900	1,758	1,073	2,571	2,564	322
2005	2,533	0.77	1,951	1,816	1,101	2,655	2,650	332

Table 18. Soyoil supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap.	
1,000 tons	%								
<b>WORLD</b>									
1992	97,885	0.18	17,472	4,050	4,242	17,427	16,791	3.0	1,803
1993	101,848	0.18	18,226	4,812	5,046	18,423	17,762	3.1	1,372
1994	110,969	0.18	19,973	5,848	6,158	19,649	18,978	3.3	1,386
1995	108,967	0.18	19,695	5,341	5,262	19,364	18,674	3.2	1,796
1992-95 ave.	104,917	0.18	18,842	5,013	5,177	18,716	18,051	3.2	1,589
1997	113,167	0.18	20,459	5,265	5,265	20,432	19,068	3.2	1,938
1998	115,762	0.18	20,930	5,327	5,327	20,870	19,469	3.2	1,998
1999	117,625	0.18	21,278	5,335	5,335	21,230	19,815	3.2	2,046
2000	119,866	0.18	21,693	5,412	5,412	21,683	20,237	3.2	2,056
2001	122,207	0.18	21,693	5,412	5,412	22,136	20,688	3.3	2,039
2002	124,349	0.18	22,522	5,596	5,596	22,546	21,052	3.3	2,015
2003	126,714	0.18	22,958	5,695	5,695	23,023	21,500	3.3	1,950
2004	129,121	0.18	23,406	5,733	5,733	23,513	21,979	3.3	1,843
2005	131,568	0.18	23,859	5,800	5,800	24,002	22,468	3.4	1,700
<b>UNITED STATES</b>									
1992	34,808	0.18	6,250	5	644	5,922	5,922	22.9	705
1993	34,716	0.18	6,328	31	694	5,870	5,870	22.5	500
1994	38,242	0.19	7,082	8	1,216	5,858	5,858	22.2	516
1995	37,558	0.19	7,042	6	816	5,920	5,920	22.2	828
1992-95 ave.	36,331	0.18	6,676	13	843	5,893	5,893	22.5	637
1997	37,285	0.19	6,981	5	873	6,089	6,089	22.4	948
1998	37,830	0.19	7,090	5	862	6,192	6,192	22.6	989
1999	38,238	0.19	7,174	5	850	6,295	6,295	22.8	1,023
2000	38,646	0.19	7,255	5	862	6,396	6,396	22.9	1,025
2001	39,054	0.19	7,335	5	873	6,499	6,499	23.1	993
2002	39,599	0.19	7,441	5	885	6,599	6,599	23.2	955
2003	40,007	0.19	7,521	5	907	6,703	6,703	23.4	871
2004	40,415	0.19	7,602	5	930	6,804	6,804	23.6	744
2005	40,823	0.19	7,682	5	953	6,895	6,895	23.7	583
<b>ARGENTINA</b>									
1992	8,687	0.17	1,487	0	1,409	76	73	2.2	37
1993	8,779	0.17	1,519	0	1,443	76	73	2.2	37
1994	8,822	0.17	1,526	0	1,445	78	75	2.2	40
1995	9,300	0.17	1,609	0	1,515	81	78	2.2	53
1992-95 ave.	8,897	0.17	1,535	0	1,453	78	75	2.2	42
1997	9,936	0.17	1,716	0	1,606	107	104	2.9	58
1998	10,026	0.17	1,732	0	1,627	104	101	2.8	59
1999	10,269	0.17	1,774	0	1,666	106	103	2.8	60
2000	10,642	0.17	1,838	0	1,729	107	104	2.8	63
2001	11,153	0.17	1,926	0	1,815	109	106	2.9	65
2002	11,364	0.17	1,963	0	1,850	112	109	2.9	67
2003	11,593	0.17	2,002	0	1,887	114	111	3.0	68
2004	11,857	0.17	2,048	0	1,930	116	113	3.0	69
2005	12,124	0.17	2,094	0	1,975	117	114	3.0	71
<b>BRAZIL</b>									
1992	16,765	0.19	3,154	120	771	2,342	2,192	14.0	284
1993	18,736	0.19	3,522	310	1,556	2,400	2,230	14.0	160
1994	21,154	0.19	3,977	150	1,739	2,425	2,235	13.9	123
1995	19,600	0.19	3,685	150	1,225	2,521	2,331	14.3	212
1992-95 ave.	19,064	0.19	3,585	183	1,323	2,422	2,247	14.1	195
1997	20,317	0.19	3,818	150	1,169	2,792	2,586	15.6	237
1998	20,626	0.19	3,876	175	1,183	2,862	2,651	15.8	242
1999	20,834	0.19	3,915	185	1,170	2,926	2,709	16.0	246
2000	21,124	0.19	3,970	200	1,157	3,010	2,788	16.3	249
2001	21,574	0.19	4,054	205	1,137	3,117	2,889	16.7	254
2002	22,041	0.19	4,142	210	1,167	3,180	2,947	16.9	259
2003	22,593	0.19	4,246	215	1,199	3,256	3,016	17.2	265
2004	23,274	0.19	4,374	200	1,187	3,380	3,133	17.7	272
2005	23,995	0.19	4,509	175	1,179	3,497	3,245	18.2	281

Table 18. Soyoil supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	%				1,000 tons	Kgs.	1,000 tons	
<b>CENTRAL AM. &amp; CARIBBEAN</b>									
1992	440	0.18	79	160	10	226	226	3.6	22
1993	445	0.18	80	157	9	232	232	3.7	18
1994	444	0.18	79	168	9	239	239	3.7	17
1995	452	0.18	81	163	7	237	237	3.6	17
1992-95 ave.	445	0.18	80	162	9	234	234	3.7	19
1997	487	0.18	88	167	8	246	246	3.6	19
1998	584	0.18	105	161	8	257	257	3.7	20
1999	582	0.18	105	171	8	267	267	3.8	21
2000	592	0.18	107	175	8	273	273	3.8	21
2001	629	0.18	113	175	8	279	279	3.9	21
2002	647	0.18	117	177	8	285	285	3.9	22
2003	647	0.18	117	183	8	291	291	3.9	22
2004	641	0.18	115	190	8	296	296	3.9	23
2005	644	0.18	116	195	9	302	302	3.9	23
<b>CHILE</b>									
1992	0	0.00	0	70	0	70	68	4.9	0
1993	0	0.00	0	85	0	85	83	5.9	0
1994	0	0.00	0	105	0	105	103	7.3	0
1995	0	0.00	0	105	0	105	102	7.1	0
1992-95 ave.	0	0.00	0	91	0	91	89	6.3	0
1997	0	0.00	0	99	0	99	96	6.5	3
1998	0	0.00	0	107	0	107	104	6.9	4
1999	0	0.00	0	116	0	116	113	7.4	4
2000	0	0.00	0	123	0	123	120	7.8	4
2001	0	0.00	0	131	0	131	128	8.2	5
2002	0	0.00	0	136	0	136	133	8.4	5
2003	0	0.00	0	142	0	142	139	8.7	5
2004	0	0.00	0	148	0	148	145	8.9	5
2005	0	0.00	0	154	0	154	151	9.2	5
<b>CHINA</b>									
1992	4,300	0.15	646	100	5	741	741	0.6	0
1993	7,200	0.15	1,086	640	38	1,688	1,688	1.4	0
1994	8,090	0.15	1,220	1,450	60	2,610	2,610	2.2	0
1995	7,250	0.15	1,093	1,150	50	2,193	2,193	1.8	0
1992-95 ave.	6,710	0.15	1,011	835	38	1,808	1,808	1.5	0
1997	8,748	0.15	1,322	1,243	30	2,535	2,535	2.0	0
1998	9,459	0.15	1,440	1,232	30	2,642	2,642	2.1	0
1999	9,809	0.15	1,505	1,222	25	2,702	2,701	2.1	0
2000	10,151	0.15	1,569	1,246	20	2,795	2,795	2.2	0
2001	10,731	0.16	1,671	1,233	20	2,884	2,884	2.3	0
2002	10,990	0.16	1,724	1,247	20	2,951	2,951	2.3	0
2003	11,521	0.16	1,821	1,281	20	3,082	3,082	2.4	0
2004	12,038	0.16	1,917	1,298	20	3,195	3,195	2.4	0
2005	12,587	0.16	2,019	1,351	20	3,350	3,351	2.5	0
<b>EU-15</b>									
1992	14,085	0.18	2,542	533	1,062	1,977	1,729	4.7	278
1993	12,238	0.18	2,239	501	909	1,848	1,628	4.4	261
1994	14,351	0.18	2,615	534	1,215	1,968	1,744	4.7	227
1995	13,933	0.18	2,536	538	1,204	1,897	1,684	4.5	200
1992-95 ave.	13,652	0.18	2,483	527	1,098	1,923	1,696	4.6	242
1997	13,898	0.18	2,502	447	1,132	1,885	1,743	4.6	185
1998	13,886	0.18	2,500	470	1,151	1,819	1,675	4.4	185
1999	13,919	0.18	2,506	467	1,121	1,852	1,706	4.5	185
2000	14,117	0.18	2,541	472	1,116	1,902	1,753	4.6	180
2001	14,042	0.18	2,527	506	1,109	1,925	1,774	4.7	180
2002	14,036	0.18	2,526	532	1,101	1,957	1,805	4.7	180
2003	14,027	0.18	2,525	534	1,096	1,963	1,807	4.7	180
2004	13,971	0.18	2,515	519	1,066	1,968	1,810	4.7	180
2005	13,883	0.18	2,499	506	1,061	1,943	1,783	4.7	180



Table 18. Soyoil supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption			Ending stocks		
						1,000 tons	%	1,000 tons		Kgs.	1,000 tons
<b>INDIA</b>											
1992	2,810	0.18	500	42	0	562	562	0.6	20		
1993	3,600	0.18	650	41	0	711	711	0.8	0		
1994	2,750	0.18	495	150	0	645	645	0.7	0		
1995	3,750	0.18	660	125	0	785	785	0.8	0		
1992-95 ave.	3,228	0.18	576	90	0	676	676	0.7	5		
1997	4,276	0.18	770	111	0	904	904	0.9	0		
1998	4,579	0.18	824	104	0	928	928	0.9	0		
1999	4,845	0.18	872	106	0	978	978	1.0	0		
2000	5,074	0.18	913	113	0	1,026	1,026	1.0	0		
2001	5,270	0.18	949	124	0	1,073	1,073	1.0	0		
2002	5,442	0.18	980	140	0	1,120	1,120	1.1	0		
2003	5,591	0.18	1,006	161	0	1,167	1,167	1.1	0		
2004	5,721	0.18	1,030	188	0	1,218	1,218	1.1	0		
2005	5,831	0.18	1,050	219	0	1,269	1,269	1.1	0		
<b>MALAYSIA</b>											
1992	425	0.18	77	16	80	15	15	0.8	11		
1993	372	0.18	67	43	90	16	16	0.8	15		
1994	510	0.18	92	33	110	17	17	0.9	13		
1995	538	0.18	97	23	103	17	17	0.8	13		
1992-95 ave.	461	0.18	83	29	96	16	16	0.8	13		
1997	627	0.18	113	18	111	19	19	0.9	9		
1998	658	0.18	118	17	115	20	20	0.9	9		
1999	692	0.18	125	17	119	21	21	1.0	10		
2000	725	0.18	131	15	124	22	22	1.0	10		
2001	759	0.18	137	14	128	22	22	1.0	11		
2002	790	0.18	142	11	132	21	21	0.9	11		
2003	821	0.18	148	10	136	22	22	0.9	12		
2004	854	0.18	154	7	140	21	21	0.9	12		
2005	888	0.18	160	6	144	21	21	0.9	13		
<b>MEXICO</b>											
1992	2,670	0.17	454	72	0	529	517	5.7	17		
1993	2,640	0.17	449	76	0	523	513	5.6	19		
1994	2,413	0.17	410	90	25	489	482	5.1	5		
1995	2,410	0.17	410	80	28	462	455	4.8	5		
1992-95 ave.	2,533	0.17	431	80	13	501	492	5.3	12		
1997	2,971	0.17	504	47	0	552	543	5.5	15		
1998	3,130	0.17	533	44	0	577	568	5.6	15		
1999	3,315	0.17	564	42	0	605	596	5.8	15		
2000	3,492	0.17	594	29	0	623	614	5.9	16		
2001	3,678	0.17	626	29	0	654	645	6.1	16		
2002	3,862	0.17	657	29	0	685	676	6.2	17		
2003	4,063	0.17	691	30	0	720	711	6.5	18		
2004	4,266	0.17	726	30	0	754	745	6.7	19		
2005	4,467	0.17	760	31	0	790	781	6.9	20		
<b>PAKISTAN</b>											
1992	9	0.11	1	253	0	275	264	2.1	10		
1993	25	0.16	4	172	0	181	174	1.4	5		
1994	38	0.16	6	150	0	148	142	1.1	13		
1995	38	0.16	6	200	0	207	199	1.5	12		
1992-95 ave.	28	0.15	4	194	0	203	195	1.5	10		
1997	47	0.16	8	211	0	219	210	1.5	12		
1998	48	0.16	8	215	0	222	213	1.5	12		
1999	50	0.16	8	218	0	226	217	1.5	13		
2000	51	0.17	9	221	0	229	220	1.4	13		
2001	53	0.17	9	224	0	233	223	1.4	13		
2002	55	0.17	9	227	0	236	227	1.4	13		
2003	57	0.17	10	229	0	239	229	1.4	13		
2004	58	0.17	10	231	0	241	232	1.4	13		
2005	60	0.18	11	233	0	244	234	1.3	13		

Table 18. Soyoil supply and use projections

	Crush	Yield	Production	Imports	Exports	Consumption			Ending stocks
						Total	Food	Food/cap	
	1,000 tons	%				1,000 tons		Kgs.	1,000 tons
<b>TURKEY</b>									
1992	60	0.18	11	210	4	217	205	3.4	0
1993	58	0.19	11	165	0	176	164	2.6	0
1994	70	0.19	13	150	0	163	151	2.4	0
1995	130	0.17	22	145	0	167	155	2.4	0
1992-95 ave.	80	0.18	14	168	1	181	169	2.7	0
1997	98	0.18	18	164	2	181	165	2.5	0
1998	99	0.18	18	164	2	180	165	2.4	0
1999	99	0.18	18	164	2	180	165	2.4	0
2000	99	0.18	18	165	2	181	166	2.3	0
2001	99	0.18	18	167	2	183	168	2.3	0
2002	99	0.18	18	170	2	186	171	2.3	0
2003	99	0.18	18	174	2	190	175	2.3	0
2004	99	0.18	18	178	2	194	179	2.4	0
2005	98	0.18	18	182	2	199	183	2.4	0
<b>OTHER ASIA</b>									
1992	8,155	0.18	1,453	535	122	1,864	1,769	2.0	244
1993	8,020	0.18	1,406	551	118	1,883	1,803	2.0	200
1994	8,313	0.18	1,458	696	103	1,991	1,901	2.1	260
1995	8,258	0.18	1,454	664	97	1,996	1,903	2.1	285
1992-95 ave.	8,187	0.18	1,443	612	110	1,934	1,844	2.0	247
1997	8,320	0.18	1,502	767	126	2,167	2,077	2.2	244
1998	8,490	0.18	1,534	789	114	2,186	2,094	2.2	249
1999	8,646	0.18	1,561	803	118	2,225	2,130	2.2	254
2000	8,786	0.18	1,587	830	117	2,279	2,181	2.2	259
2001	8,907	0.18	1,609	868	118	2,339	2,238	2.2	265
2002	9,006	0.18	1,627	897	119	2,389	2,290	2.2	269
2003	9,054	0.18	1,636	929	121	2,428	2,319	2.2	274
2004	9,077	0.18	1,639	963	121	2,469	2,355	2.2	279
2005	9,037	0.18	1,632	996	126	2,493	2,375	2.2	283
<b>OTH.N.AFRICA &amp; MID.EAST</b>									
1992	790	0.18	140	957	7	1,082	1,061	4.0	42
1993	812	0.18	145	1,220	8	1,373	1,330	4.8	26
1994	985	0.18	176	1,226	8	1,372	1,329	4.7	48
1995	984	0.18	176	1,149	8	1,317	1,271	4.4	48
1992-95 ave.	893	0.18	159	1,138	8	1,286	1,248	4.2	41
1997	943	0.18	168	1,214	8	1,375	1,323	4.3	38
1998	959	0.18	171	1,199	8	1,362	1,309	4.2	38
1999	980	0.18	175	1,188	8	1,355	1,301	4.1	38
2000	1,006	0.18	179	1,196	8	1,361	1,307	4.0	38
2001	1,038	0.18	185	1,192	8	1,369	1,313	3.9	38
2002	1,076	0.18	192	1,189	8	1,372	1,318	3.8	38
2003	1,112	0.18	198	1,183	8	1,373	1,318	3.7	38
2004	1,144	0.18	204	1,175	8	1,371	1,315	3.6	38
2005	1,172	0.18	209	1,165	8	1,366	1,309	3.5	38
<b>OTHER SOUTH AMERICA</b>									
1992	1,269	0.18	231	347	126	455	447	5.6	74
1993	1,483	0.18	271	377	147	494	486	5.9	81
1994	1,864	0.18	342	470	202	617	609	7.3	74
1995	1,865	0.18	339	418	188	565	556	6.5	78
1992-95 ave.	1,620	0.18	296	403	166	533	525	6.3	77
1997	1,980	0.18	362	422	196	585	575	6.5	90
1998	2,021	0.18	369	441	211	597	586	6.6	92
1999	2,072	0.18	379	437	226	591	580	6.4	91
2000	2,144	0.18	392	436	242	586	576	6.2	90
2001	2,221	0.18	406	429	258	578	567	6.1	89
2002	2,304	0.18	421	445	274	591	580	6.1	91
2003	2,385	0.18	436	460	288	606	595	6.2	93
2004	2,467	0.18	451	482	302	628	617	6.3	96
2005	2,533	0.18	463	494	315	640	629	6.3	98

## Cotton

World cotton trade is expected to average 1.8 percent annual growth during 1995-2005, largely reversing the declines suffered during the previous 10 years. World cotton trade fell from a peak of 7.3 million tons in 1986 to as low as 5.6 million in 1992, in large part due to declining Russian imports. Import growth is foreseen in Russia and elsewhere after 1995 and, by 2005, world exports are projected at about 7.1 million tons.

U.S. exports are expected to trend up during the 1990s and beyond, growing to 1.9 million tons by 2005. The U.S. share of world trade is likely to average about 25 percent, as many foreign producers reduce raw cotton exports by channeling production toward consumption and value-added textile products. U.S. exports are expected to rise 1.8 percent annually during 1996-2005, about the same as world trade.

Both foreign consumption and production growth have slowed to negligible rates during the last 10 years, but both are expected to rebound to about their long-term average growth of 2.2 percent per year. The projection for world cotton consumption to expand at an annual rate of approximately 2.3 percent during 1995-2005 underpins the outlook for a relatively strong rate of import growth. However, a key uncertainty in the projection is the extent to which the recent gains in cotton consumption, associated with a shift in consumer fiber preference toward cotton, and away from synthetics, can be sustained.

Foreign production has stagnated in recent years, as smaller harvests in China and the FSU have offset gains elsewhere. High levels of input use and poor water management have rendered useless much of the area abandoned in Central Asia during the 1990s and this area is expected to remain out of production during the projection period. Pesticide resistance has hampered production in China. Further losses in these regions are not expected, and China's and Central Asia's production is expected to resume growth, although not as quickly as elsewhere.

The rapid consumption growth of the early 1980s, spurred by prolonged economic expansion and sharp share gains versus other fibers in some markets, is not expected to resume. In the short term, consumption growth in the traditional developed cotton importers is likely to be constrained by relatively sluggish economic performance, and in Eastern Europe and the FSU by economic restructuring. In the long term, the liberalization of textile trade under the Uruguay Round Agreement will also constrain cotton imports by the most developed traditional importers, such as the EU and Japan. In contrast, rapid consumption growth is expected in many developing countries and steady growth is expected to continue in major cotton producing countries. However, the pace of this structural shift will depend on the implementation of the phaseout of the Multifiber Arrangement. While it is anticipated that the most significant changes will probably be delayed until the end of the implementation period, large uncertainties remain about the timing of liberalization and shifts in garment production both to and among developing countries.

### Highlights for Major Importers

Global cotton trade to 2005 will depend largely on consumption patterns in importing countries. World trade contracted for two reasons beginning in the late 1980s--the virtual collapse of Russia as a consumer and importer of cotton, and the continued shift of spinning from traditional importers to cotton-producing countries. Russia's cotton consumption fell almost 80 percent between 1989 and 1994, to 284,000 tons, during the restructuring of

Table 19. Cotton trade projections

Crop year	1992	1993	1994	1995	1992-95 avg.	1997	1998	1999	2000	2001	2002	2003	2004	2005
1,000 tons														
<b>Exports</b>														
United States	1,132	1,494	2,047	1,568	1,560	1,589	1,611	1,633	1,655	1,698	1,742	1,786	1,830	1,874
Argentina	65	69	200	294	157	243	225	230	242	253	261	269	282	291
Australia	369	366	283	305	331	428	462	470	479	487	492	497	511	524
Brazil	24	1	50	50	31	50	50	51	51	51	52	52	52	53
China	149	163	40	87	110	97	97	100	100	97	94	93	94	92
European Union-15 1/	200	228	301	303	258	251	253	259	266	262	263	262	263	262
Egypt	19	114	60	33	57	67	70	73	76	79	102	103	106	107
Former Soviet Union 2/	1,977	2,166	2,034	1,678	1,964	1,802	1,900	1,954	1,991	2,026	2,035	2,062	2,059	2,097
India	234	66	31	109	110	119	90	100	114	127	139	150	159	160
Mexico	5	7	40	71	31	53	71	77	82	83	82	83	82	83
Oth. SubSaharan Africa	158	154	162	228	176	183	193	195	202	208	212	218	226	231
Pakistan	256	69	33	261	155	231	228	222	184	163	182	203	218	233
Turkey	59	109	1	50	55	60	61	62	63	65	66	67	68	70
W. Africa (Franc-zone)	445	442	558	601	512	544	567	576	585	595	605	615	625	635
Other	476	458	428	441	451	422	437	421	442	446	422	420	435	429
<b>Total</b>	<b>5,568</b>	<b>5,906</b>	<b>6,268</b>	<b>6,079</b>	<b>5,955</b>	<b>6,140</b>	<b>6,314</b>	<b>6,423</b>	<b>6,532</b>	<b>6,641</b>	<b>6,749</b>	<b>6,880</b>	<b>7,011</b>	<b>7,141</b>
<b>Imports</b>														
United States	0	1	4	22	7	1	1	1	1	1	1	1	1	1
Brazil	397	407	320	414	385	473	486	481	488	510	535	556	575	593
Canada	46	46	48	51	48	50	50	50	51	51	52	52	53	53
China	53	176	884	566	420	454	649	634	665	714	745	778	809	832
Central/East Europe	358	282	276	325	310	343	350	362	374	379	386	395	402	410
European Union-15 1/	1,034	1,131	1,010	1,096	1,068	1,028	999	1,005	997	995	982	972	960	951
Egypt	37	13	46	65	40	49	48	46	45	46	45	45	44	43
Former Soviet Union 2/	773	771	637	564	686	614	610	629	648	658	673	698	725	755
Hong Kong	175	189	210	207	195	179	175	178	179	176	174	175	175	174
India	20	51	76	16	41	0	0	0	0	0	0	0	0	0
Indonesia	433	444	457	501	459	510	540	576	606	627	653	685	715	744
Japan	485	434	381	348	412	338	322	306	292	279	266	253	241	230
Malaysia	44	57	65	70	59	51	52	53	54	55	56	57	58	59
Mexico	143	173	126	114	139	71	98	108	114	116	124	132	136	143
Oth. SubSaharan Africa	85	70	69	57	70	71	77	85	94	103	112	122	128	137
Pakistan	5	76	152	16	62	0	0	0	0	0	0	0	0	0
Philippines	49	79	60	65	63	77	81	83	88	95	101	105	111	116
South Korea	373	368	370	327	360	364	355	355	350	349	345	344	339	339
Taiwan	275	269	245	245	259	232	220	216	210	201	194	188	182	176
Thailand	331	351	331	343	339	370	384	414	442	465	491	522	552	584
Turkey	233	119	231	76	165	197	181	133	106	112	99	58	48	30
W. Africa (Franc zone)	4	8	8	8	7	8	8	8	8	8	8	8	8	8
Other	546	595	601	645	597	725	693	766	783	765	773	799	812	828
<b>Total</b>	<b>5,899</b>	<b>6,110</b>	<b>6,607</b>	<b>6,141</b>	<b>6,190</b>	<b>6,205</b>	<b>6,379</b>	<b>6,488</b>	<b>6,597</b>	<b>6,706</b>	<b>6,814</b>	<b>6,945</b>	<b>7,076</b>	<b>7,206</b>
Exports - Imports	(331)	(204)	(339)	(62)	(234)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)	(65)

1/ Includes EU-15 intratrade.

2/ Includes FSU intratrade.

Note: Imports exceed exports due to differences in countries reported.

Figure 21. Cotton: Historical & Projected World Area & Yield

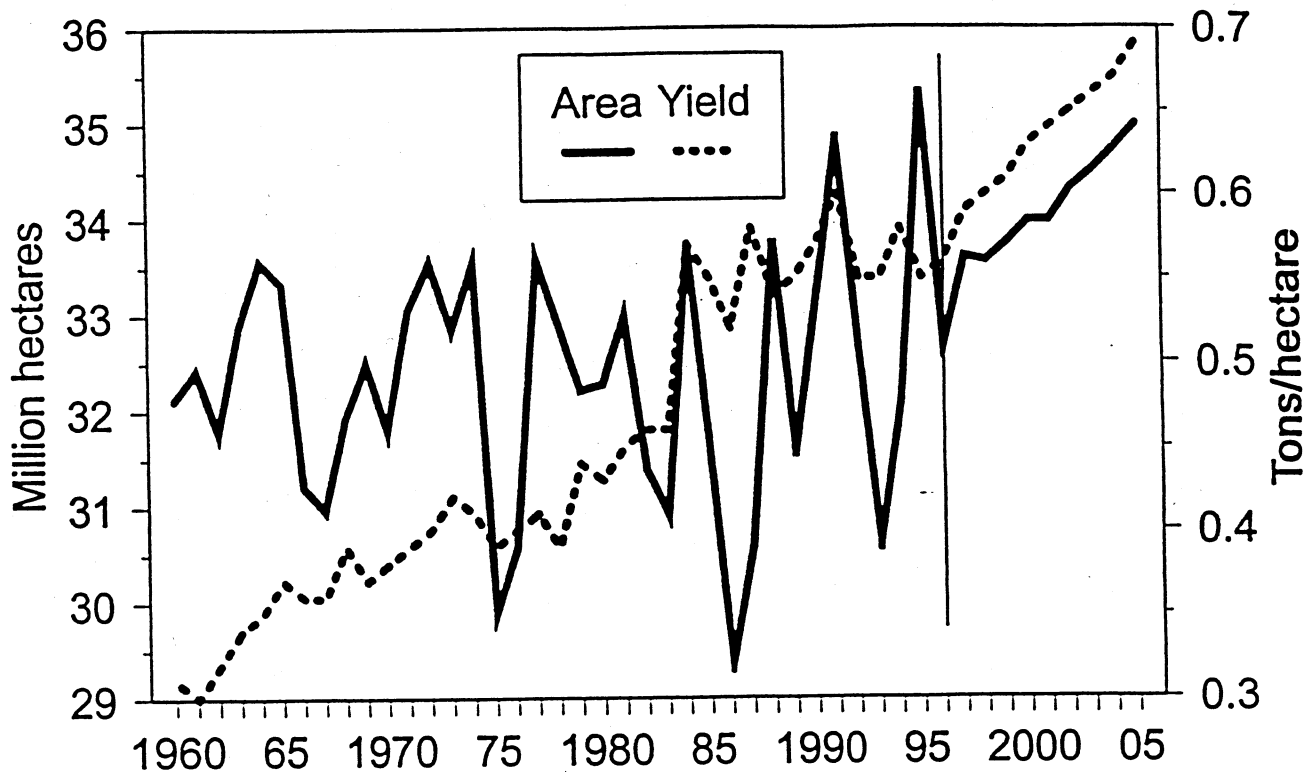


Figure 22. Cotton: Historical & Projected World Supply & Use

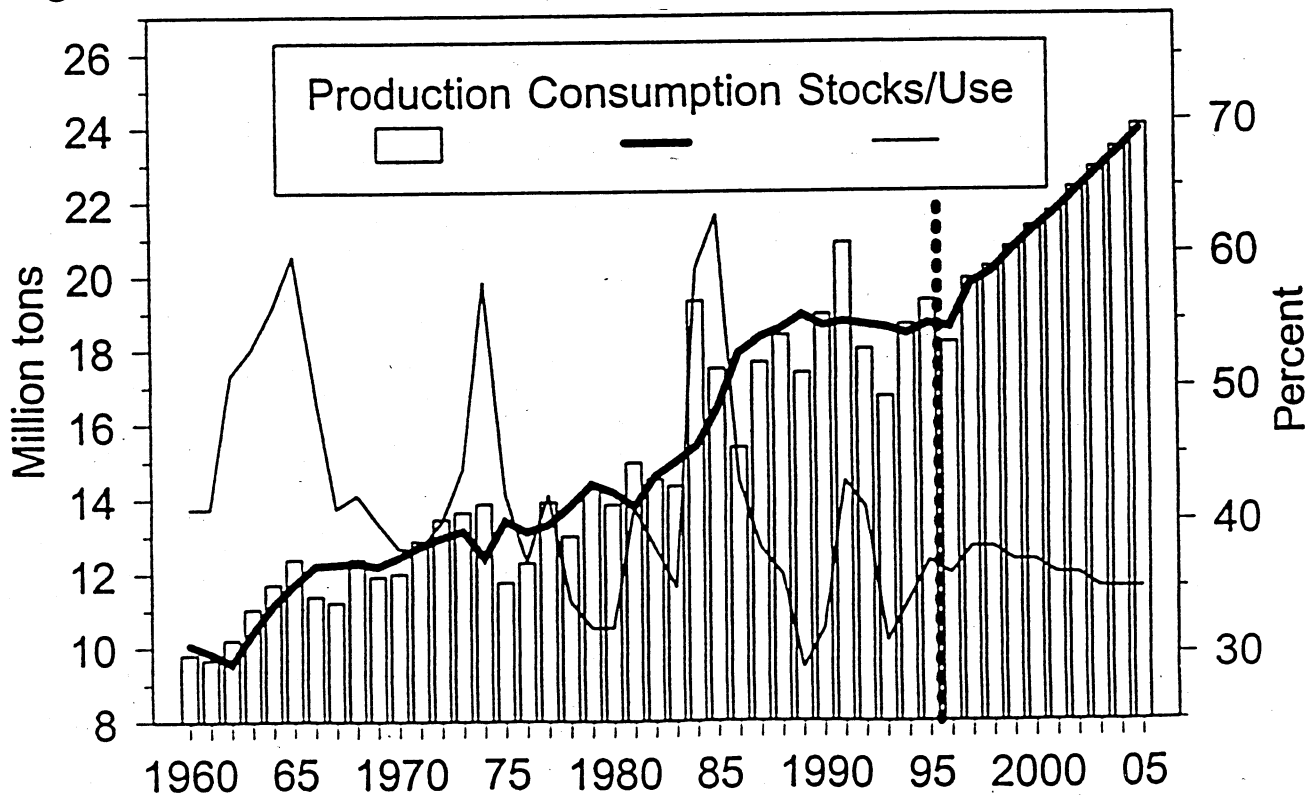


Figure 23. Cotton: Historical Real Prices

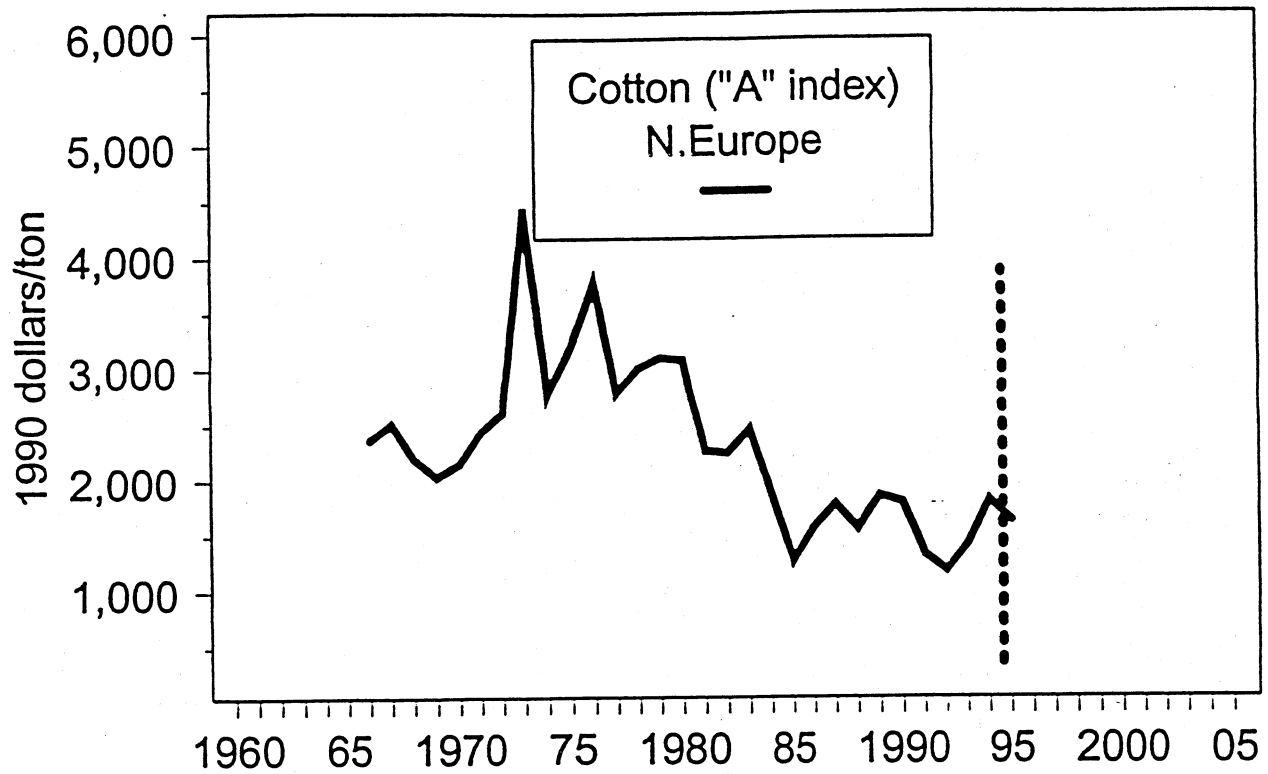
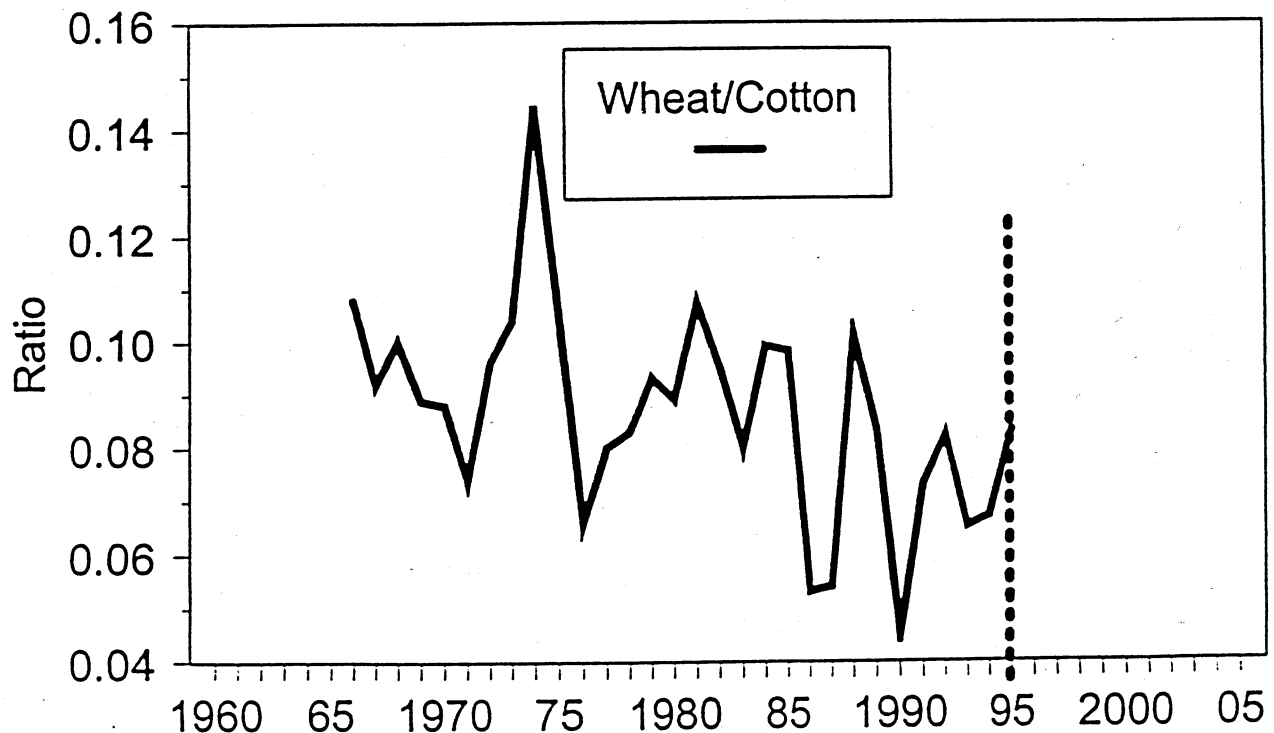


Figure 24. Cotton: Historical Price Ratios



Note: USDA is prohibited from publishing cotton price projections.

Russia's political, economic, and foreign trade systems. Elsewhere, other traditional cotton-importing countries found it less expensive to purchase cotton yarn and fabric for their textile industries as inexpensive textile imports flooded their markets, particularly from Pakistan. These imports took the place of imported raw cotton.

With Russian and East European consumption projected to rebound, world cotton trade is likely to grow during the next 10 years. Also, pest and disease control problems have severely constrained Pakistan's ability to maintain its earlier growth rates in cotton consumption and textile exports, thus strengthening prospects for raw cotton demand by some cotton-importing textile exporters who will face less competition. Finally, several countries that were sources of cotton exports during the 1980s are expected to be growing importers instead. In past years, increasing consumption in Mexico, Brazil, and China in part represented shifts in consumption from importing countries to non-importing producers. As consumption gains have steadily outpaced production in all three countries, they have begun to drive world trade higher rather than lower as in the past.

- In the traditional cotton importers (**Japan, South Korea, Taiwan, and the EU**) consumption is expected to decline steadily after a short pause during the mid-1990s. Strong competition from emerging Asian textile suppliers and comparative production disadvantages accelerate declines in their raw cotton consumption after 2000.
- **China** is expected to raise both production and consumption, but, in the long-run, consumption is expected to grow more rapidly. China's imports have risen in the last few years and China is expected to remain a growing net importer. Intransigent bollworm infestations in the North China Plain have hampered the crop in China's pre-eminent growing region. Also, rapid economic growth has increasingly turned land over to non-agricultural pursuits and deprived agriculture of investment funds for inputs and improvements. Soaring grain prices and an increasingly affluent population's demand for a greater variety of foods have increased the area of other crops at the expense of cotton.

China's future production and consumption prospects are both subject to considerable uncertainty. Since China is projected to be the world's largest importer over much of the projection period, differing assumptions on supply and use developments could significantly influence world trade and U.S. exports. Specific areas of uncertainty include the extent to which current insect control problems that have hampered production can be solved and the extent to which cotton consumption, which has apparently stagnated since the late 1980s, will respond to sustained economic growth.

- **Indonesia and Thailand** resume rapid consumption and import expansion through 2005 as they benefit from comparatively cheap labor, favorable exchange rates, and foreign investment in their textile industries.
- After 4 years of significantly lower cotton consumption, some **East European and FSU** countries are beginning to increase consumption again. Gains in consumption and imports will begin slowly and from a much lower level than historically. In most of these countries, cotton consumption and imports are expected to remain well below historical levels.

Future demand prospects in the non-producing Republics of the **FSU** and **Eastern Europe** are a major uncertainty in the trade outlook. As their economies recover, it is not clear if their textile sectors will expand at the same rate as the overall economy, grow faster as a result of promotion aimed at achieving quick gains in export earnings, or be abandoned due to import competition.

### Highlights for Major Exporters

Foreign export growth is expected to recover during the period, but still remain below the long-term trend. By 2005, foreign exports are expected to total 5.3 million tons. Foreign export growth will be supported by some resumption of trade relations between cotton-producing and noncotton-producing countries of the FSU, and by growing import demand from China and Latin America.

- **Australia**, the French-speaking countries of **West Africa**, and **Paraguay** will continue to channel most of their cotton output into the export market throughout the period.
- **Pakistan** is expected to maintain some regulation of raw cotton exports, favoring domestic producers of products for export over exports of raw cotton. However, restrictions on raw cotton exports are expected to be less severe than in the past, leading to some growth in raw cotton exports, as well as some strengthening of domestic producer and consumer prices, during 1996-2005.
- **India**, with much potential for yield gains, is expected to raise exports moderately. However, as with Pakistan, India's export growth will be limited by strong growth in domestic consumption, and in exports of yarns, cloth, and garments.
- The central Asian countries of the **FSU** will continue exporting cotton to non-FSU markets at higher levels than during the 1980s. These countries are also expected to increase their exports within the FSU. The mix between FSU and non-FSU sales will depend on the willingness and ability of importers elsewhere in the FSU to offer either hard currency or other compensation sufficient to offset lost hard currency earnings. Longstanding transportation and other links among the FSU countries may help facilitate trade with that region. Central Asia's ability to export, however, will be heavily dependent on yield gains. Past environmental damage is expected to keep some land out of production indefinitely, and efforts to diversify agricultural production will sustain area for grains and other crops at the expense of cotton. However, supply prospects in Central Asia are an important uncertainty in the world trade outlook.
- Some traditional cotton exporters, such as **Brazil**, **Mexico**, **Central America**, and **Turkey** have substantially reduced cotton exports while increasing imports to meet more rapidly expanding consumption needs. These trends will continue, and with the exception of Turkey, these countries will be growing net importers of cotton.



Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha	1,000 tons			Kgs.	1,000 tons	
<b>WORLD</b>								
1992	32,631	0.55	17,984	5,884	5,570	18,650	3.4	7,565
1993	30,617	0.55	16,714	6,086	5,909	18,679	3.3	5,777
1994	32,056	0.58	18,645	6,597	6,270	18,451	3.2	6,298
1995	35,344	0.55	19,296	6,122	6,080	18,718	3.2	6,918
1992-95 ave.	32,662	0.56	18,160	6,172	5,957	18,625	3.3	6,640
1997	33,679	0.59	19,874	6,205	6,140	19,735	3.3	7,475
1998	33,628	0.60	20,193	6,379	6,314	20,055	3.3	7,613
1999	33,822	0.61	20,716	6,488	6,423	20,645	3.3	7,684
2000	34,041	0.62	21,267	6,597	6,532	21,165	3.4	7,786
2001	34,043	0.64	21,655	6,706	6,641	21,644	3.4	7,797
2002	34,374	0.65	22,302	6,814	6,749	22,186	3.5	7,913
2003	34,559	0.66	22,845	6,945	6,880	22,732	3.5	8,026
2004	34,783	0.67	23,398	7,076	7,011	23,279	3.5	8,145
2005	35,031	0.69	24,019	7,206	7,141	23,859	3.6	8,305
<b>UNITED STATES</b>								
1992	4,510	0.78	3,531	0	1,132	2,232	8.6	1,015
1993	5,173	0.68	3,513	1	1,494	2,266	8.7	769
1994	5,391	0.79	4,281	4	2,047	2,430	9.2	577
1995	6,469	0.60	3,913	22	1,568	2,291	8.6	653
1992-95 ave.	5,386	0.71	3,810	7	1,560	2,305	8.8	754
1997	5,425	0.75	4,071	1	1,589	2,418	8.9	1,198
1998	5,304	0.76	4,050	1	1,611	2,397	8.7	1,241
1999	5,304	0.77	4,093	1	1,633	2,461	8.9	1,241
2000	5,385	0.78	4,224	1	1,655	2,526	9.1	1,285
2001	5,304	0.80	4,224	1	1,698	2,593	9.2	1,219
2002	5,466	0.81	4,420	1	1,742	2,657	9.4	1,241
2003	5,506	0.82	4,507	1	1,786	2,700	9.4	1,263
2004	5,547	0.83	4,594	1	1,830	2,743	9.5	1,285
2005	5,628	0.84	4,725	1	1,874	2,788	9.6	1,350
<b>ARGENTINA</b>								
1992	325	0.45	145	2	65	128	3.8	116
1993	480	0.49	235	15	69	120	3.5	177
1994	700	0.50	350	9	200	102	3.0	234
1995	900	0.46	414	15	294	100	2.9	269
1992-95 ave.	601	0.48	286	10	157	113	3.3	199
1997	692	0.51	356	12	243	127	3.6	216
1998	674	0.53	357	13	225	145	4.0	217
1999	671	0.55	366	13	230	146	4.0	221
2000	671	0.56	378	13	242	144	3.9	225
2001	671	0.58	389	13	253	145	3.9	230
2002	671	0.60	401	14	261	149	4.0	234
2003	672	0.61	413	14	269	153	4.1	238
2004	672	0.63	426	14	282	154	4.0	242
2005	674	0.65	440	14	291	159	4.1	246
<b>AUSTRALIA</b>								
1992	262	1.42	373	0	369	28	1.6	160
1993	264	1.25	329	0	366	31	1.7	92
1994	222	1.51	335	0	283	34	1.9	110
1995	270	1.29	348	0	305	41	2.2	112
1992-95 ave.	255	1.36	346	0	331	34	1.8	119
1997	307	1.58	486	0	428	41	2.2	183
1998	317	1.61	511	0	462	42	2.2	191
1999	324	1.65	533	0	470	43	2.2	211
2000	325	1.68	545	0	479	44	2.3	232
2001	327	1.71	560	0	487	46	2.3	260
2002	330	1.75	575	0	492	47	2.3	296
2003	329	1.78	586	0	497	48	2.4	336
2004	327	1.82	594	0	511	50	2.4	370
2005	324	1.85	600	0	524	51	2.5	395

Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha	1,000 tons			Kgs.	1,000 tons	
<b>BRAZIL</b>								
1992	1,485	0.31	460	397	24	795	5.1	398
1993	1,085	0.37	405	407	1	860	5.4	349
1994	1,220	0.45	550	320	50	871	5.4	298
1995	1,215	0.41	501	414	50	850	5.2	313
1992-95 ave.	1,251	0.38	479	385	31	844	5.3	340
1997	1,369	0.44	606	473	50	1,002	6.0	375
1998	1,364	0.45	609	486	50	1,024	6.1	396
1999	1,371	0.45	620	481	51	1,047	6.2	399
2000	1,371	0.46	627	488	51	1,071	6.3	392
2001	1,365	0.46	632	510	51	1,097	6.4	385
2002	1,363	0.47	639	535	52	1,123	6.5	385
2003	1,358	0.48	645	556	52	1,151	6.6	383
2004	1,356	0.48	653	575	52	1,179	6.7	380
2005	1,355	0.49	662	593	53	1,208	6.8	374
<b>CANADA</b>								
1992	0	0.00	0	46	0	44	1.6	5
1993	0	0.00	0	46	0	48	1.7	3
1994	0	0.00	0	48	0	48	1.7	3
1995	0	0.00	0	51	0	48	1.7	6
1992-95 ave.	0	0.00	0	48	0	47	1.7	4
1997	0	0.00	0	50	0	50	1.7	4
1998	0	0.00	0	50	0	50	1.7	4
1999	0	0.00	0	50	0	50	1.7	4
2000	0	0.00	0	51	0	51	1.7	4
2001	0	0.00	0	51	0	51	1.7	4
2002	0	0.00	0	52	0	52	1.7	4
2003	0	0.00	0	52	0	52	1.7	4
2004	0	0.00	0	53	0	53	1.7	5
2005	0	0.00	0	53	0	53	1.7	5
<b>CENTRAL/EAST EUROPE</b>								
1992	13	0.92	12	358	61	326	2.7	76
1993	9	0.56	5	282	19	279	2.3	65
1994	12	0.83	10	276	12	275	2.2	64
1995	12	0.83	10	325	13	310	2.5	76
1992-95 ave.	12	0.80	9	310	26	298	2.4	70
1997	14	0.89	11	343	11	338	2.7	76
1998	14	0.88	12	350	12	346	2.8	79
1999	14	0.86	12	362	12	360	2.9	82
2000	14	0.86	12	374	12	371	2.9	84
2001	14	0.85	13	379	13	377	3.0	86
2002	14	0.85	13	386	13	383	3.0	88
2003	14	0.85	14	395	14	393	3.1	91
2004	14	0.84	14	402	14	400	3.1	93
2005	14	0.84	14	410	14	407	3.2	95
<b>CHINA</b>								
1992	6,835	0.66	4,507	53	149	4,681	4.0	2,274
1993	5,000	0.75	3,745	176	163	4,704	4.0	1,328
1994	5,530	0.78	4,333	884	40	4,398	3.7	2,107
1995	5,500	0.79	4,355	566	87	4,529	3.7	2,412
1992-95 ave.	5,716	0.74	4,235	420	110	4,578	3.8	2,030
1997	5,778	0.76	4,406	454	97	4,771	3.9	2,263
1998	5,747	0.77	4,415	649	98	4,966	4.0	2,264
1999	5,802	0.78	4,525	634	100	5,092	4.0	2,231
2000	5,789	0.79	4,598	665	100	5,203	4.1	2,191
2001	5,760	0.81	4,654	714	97	5,312	4.2	2,150
2002	5,781	0.82	4,746	745	94	5,433	4.2	2,114
2003	5,803	0.83	4,841	779	93	5,561	4.3	2,079
2004	5,829	0.85	4,939	809	94	5,688	4.4	2,045
2005	5,864	0.86	5,047	832	92	5,821	4.4	2,011

Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha	1,000 tons			Kgs.	1,000 tons	
<b>EU-15</b>								
1992	353	0.93	330	1,034	200	1,157	3.1	339
1993	383	0.95	365	1,131	228	1,204	3.2	403
1994	423	1.01	428	1,010	301	1,187	3.2	353
1995	466	0.92	429	1,096	303	1,207	3.2	368
1992-95 ave.	406	0.95	388	1,068	258	1,183	3.2	366
1997	457	0.92	418	1,028	251	1,183	3.1	355
1998	445	0.95	422	999	253	1,169	3.1	353
1999	438	0.98	432	1,005	259	1,178	3.1	353
2000	429	1.03	443	997	266	1,175	3.1	352
2001	419	1.04	436	995	262	1,168	3.1	353
2002	417	1.05	438	982	263	1,161	3.0	350
2003	411	1.06	437	972	262	1,149	3.0	347
2004	407	1.08	438	960	263	1,138	3.0	344
2005	402	1.09	438	951	263	1,127	2.9	342
<b>EGYPT</b>								
1992	357	0.99	353	37	19	357	6.0	42
1993	372	1.12	416	13	114	298	4.9	59
1994	303	0.88	267	46	60	299	4.8	13
1995	305	0.77	235	65	33	266	4.2	14
1992-95 ave.	334	0.95	318	40	57	301	4.9	32
1997	347	1.00	348	49	68	326	4.9	20
1998	350	1.01	355	48	70	332	4.9	20
1999	353	1.02	361	46	73	334	4.9	20
2000	355	1.03	367	45	76	336	4.8	20
2001	358	1.04	374	46	79	340	4.8	20
2002	361	1.05	380	45	102	323	4.5	21
2003	364	1.06	387	45	103	328	4.5	21
2004	366	1.08	394	44	106	332	4.5	21
2005	369	1.09	401	43	107	336	4.4	21
<b>FORMER SOVIET UNION</b>								
1992	2,888	0.69	1,991	773	1,977	987	3.8	591
1993	2,815	0.72	2,027	771	2,166	846	3.2	377
1994	2,706	0.70	1,890	637	2,034	608	2.3	262
1995	2,623	0.70	1,842	564	1,678	667	2.5	323
1992-95 ave.	2,758	0.70	1,938	686	1,964	777	2.9	388
1997	2,649	0.77	2,045	614	1,802	848	3.1	499
1998	2,655	0.78	2,067	610	1,900	774	2.8	502
1999	2,651	0.79	2,102	629	1,954	775	2.8	505
2000	2,672	0.80	2,126	648	1,991	779	2.8	508
2001	2,653	0.81	2,138	658	2,026	765	2.7	513
2002	2,659	0.81	2,154	673	2,035	785	2.7	519
2003	2,639	0.82	2,169	698	2,062	797	2.7	527
2004	2,641	0.83	2,187	725	2,059	843	2.9	538
2005	2,622	0.84	2,211	755	2,097	857	2.9	549
<b>HONG KONG</b>								
1992	0	0.00	0	175	19	169	30.4	48
1993	0	0.00	0	189	32	163	29.4	42
1994	0	0.00	0	210	54	163	29.4	35
1995	0	0.00	0	207	50	158	28.5	34
1992-95 ave.	0	0.00	0	195	39	163	29.5	40
1997	0	0.00	0	179	21	157	28.4	38
1998	0	0.00	0	175	21	154	27.8	37
1999	0	0.00	0	178	21	157	28.0	38
2000	0	0.00	0	179	21	157	28.0	38
2001	0	0.00	0	176	21	155	27.5	37
2002	0	0.00	0	174	21	154	27.2	37
2003	0	0.00	0	175	21	154	27.2	37
2004	0	0.00	0	175	21	154	27.1	37
2005	0	0.00	0	174	21	154	27.0	37

Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha	1,000 tons			Kgs.	1,000 tons	
<b>INDIA</b>								
1992	7,543	0.32	2,380	20	234	2,125	2.4	636
1993	7,440	0.28	2,095	51	66	2,160	2.3	556
1994	7,695	0.31	2,361	76	31	2,249	2.4	713
1995	8,400	0.28	2,330	16	109	2,308	2.4	642
1992-95 ave.	7,770	0.29	2,292	41	110	2,211	2.4	637
1997	7,705	0.32	2,489	0	119	2,400	2.4	640
1998	7,741	0.34	2,600	0	90	2,480	2.5	670
1999	7,790	0.35	2,714	0	100	2,585	2.5	698
2000	7,830	0.36	2,825	0	114	2,684	2.6	725
2001	7,868	0.37	2,934	0	127	2,781	2.6	751
2002	7,900	0.38	3,039	0	139	2,875	2.7	776
2003	7,934	0.40	3,143	0	150	2,968	2.7	801
2004	7,961	0.41	3,243	0	159	3,060	2.8	826
2005	7,995	0.42	3,343	0	160	3,157	2.8	852
<b>INDONESIA</b>								
1992	19	0.16	3	433	0	420	2.1	54
1993	20	0.15	3	444	0	461	2.3	40
1994	21	0.14	3	457	0	467	2.3	33
1995	21	0.19	4	501	0	490	2.4	48
1992-95 ave.	20	0.16	3	459	0	452	2.2	44
1997	21	0.13	3	510	0	529	2.5	45
1998	21	0.13	3	540	0	542	2.5	46
1999	21	0.13	3	576	0	576	2.6	49
2000	21	0.13	3	606	0	606	2.7	51
2001	21	0.13	3	627	0	628	2.8	53
2002	21	0.13	3	653	0	653	2.9	56
2003	21	0.13	3	685	0	685	3.0	58
2004	21	0.13	3	715	0	715	3.0	61
2005	21	0.13	3	744	0	744	3.1	63
<b>JAPAN</b>								
1992	0	0.00	0	485	0	501	4.0	109
1993	0	0.00	0	434	0	451	3.6	92
1994	0	0.00	0	381	0	382	3.0	91
1995	0	0.00	0	348	0	348	2.8	91
1992-95 ave.	0	0.00	0	412	0	421	3.4	96
1997	0	0.00	0	338	0	341	2.7	75
1998	0	0.00	0	322	0	325	2.6	71
1999	0	0.00	0	306	0	310	2.4	68
2000	0	0.00	0	292	0	295	2.3	65
2001	0	0.00	0	279	0	282	2.2	62
2002	0	0.00	0	266	0	268	2.1	59
2003	0	0.00	0	253	0	256	2.0	56
2004	0	0.00	0	241	0	244	1.9	54
2005	0	0.00	0	230	0	233	1.8	51
<b>MALAYSIA</b>								
1992	0	0.00	0	44	0	43	2.3	7
1993	0	0.00	0	57	0	57	3.0	7
1994	0	0.00	0	65	0	64	3.2	8
1995	0	0.00	0	70	0	70	3.5	8
1992-95 ave.	0	0.00	0	59	0	58	3.0	8
1997	0	0.00	0	51	0	51	2.4	10
1998	0	0.00	0	52	0	52	2.4	10
1999	0	0.00	0	53	0	53	2.4	10
2000	0	0.00	0	54	0	54	2.4	10
2001	0	0.00	0	55	0	55	2.4	10
2002	0	0.00	0	56	0	56	2.4	10
2003	0	0.00	0	57	0	57	2.4	10
2004	0	0.00	0	58	0	58	2.4	10
2005	0	0.00	0	59	0	59	2.4	10

Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha	1,000 tons			Kgs.	1,000 tons	
<b>MEXICO</b>								
1992	42	0.71	30	143	5	160	1.8	19
1993	30	0.80	24	173	7	188	2.0	21
1994	146	0.68	100	126	40	181	1.9	26
1995	242	0.77	187	114	71	207	2.2	49
1992-95 ave.	115	0.74	85	139	31	179	1.9	29
1997	242	0.75	181	71	53	193	1.9	28
1998	242	0.74	179	98	71	206	2.0	29
1999	243	0.74	179	108	77	210	2.0	29
2000	247	0.73	181	114	82	214	2.0	29
2001	250	0.73	183	116	83	216	2.0	29
2002	252	0.73	185	124	82	226	2.1	29
2003	255	0.73	186	132	83	235	2.1	29
2004	258	0.73	187	136	82	241	2.2	29
2005	260	0.72	189	143	83	248	2.2	30
<b>PAKISTAN</b>								
1992	2,836	0.54	1,540	5	256	1,444	11.5	471
1993	2,805	0.49	1,368	76	69	1,477	11.5	369
1994	2,650	0.53	1,415	152	33	1,480	11.3	423
1995	3,000	0.62	1,851	16	261	1,491	11.1	538
1992-95 ave.	2,823	0.55	1,544	62	155	1,465	11.3	450
1997	2,972	0.59	1,760	0	231	1,565	11.1	382
1998	2,985	0.61	1,834	0	228	1,595	11.0	393
1999	3,028	0.63	1,922	0	222	1,678	11.3	414
2000	3,077	0.65	2,008	0	184	1,789	11.7	449
2001	3,134	0.67	2,107	0	163	1,910	12.2	484
2002	3,195	0.69	2,215	0	182	1,999	12.4	519
2003	3,258	0.72	2,333	0	203	2,096	12.6	553
2004	3,322	0.74	2,459	0	218	2,204	12.9	590
2005	3,385	0.77	2,596	0	233	2,323	13.3	630
<b>PHILIPPINES</b>								
1992	8	0.38	3	49	0	65	0.9	22
1993	8	0.25	2	79	0	70	1.0	33
1994	9	0.33	3	60	0	72	1.0	24
1995	9	0.33	3	65	0	70	0.9	22
1992-95 ave.	9	0.32	3	63	0	69	1.0	25
1997	9	0.34	3	77	0	80	1.0	16
1998	10	0.35	3	81	0	84	1.1	17
1999	10	0.36	4	83	0	86	1.1	17
2000	11	0.37	4	88	0	92	1.1	17
2001	11	0.37	4	95	0	99	1.2	17
2002	11	0.38	4	101	0	105	1.2	17
2003	12	0.40	5	105	0	110	1.2	18
2004	12	0.41	5	111	0	116	1.3	18
2005	13	0.42	5	116	0	121	1.3	18
<b>SOUTH KOREA</b>								
1992	1	0.00	0	373	0	353	7.9	143
1993	1	0.00	0	368	2	348	7.7	161
1994	1	0.00	0	370	3	364	8.0	164
1995	1	0.00	0	327	3	366	8.0	122
1992-95 ave.	1	0.00	0	360	2	358	7.9	148
1997	0	0.00	0	364	3	361	7.7	121
1998	0	0.00	0	355	0	357	7.5	119
1999	0	0.00	0	355	0	356	7.4	119
2000	0	0.00	0	350	0	351	7.3	117
2001	0	0.00	0	349	0	350	7.2	116
2002	0	0.00	0	345	0	346	7.0	116
2003	0	0.00	0	344	0	344	7.0	115
2004	0	0.00	0	339	0	340	6.8	114
2005	0	0.00	0	339	0	339	6.7	113

Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
	1,000 ha	Tons/ha	1,000 tons			Kgs.	1,000 tons	
<b>TAIWAN</b>								
1992	0	0.00	0	275	0	298	14.1	56
1993	0	0.00	0	269	0	270	12.7	55
1994	0	0.00	0	245	2	245	11.4	53
1995	0	0.00	0	245	1	245	11.3	52
1992-95 ave.	0	0.00	0	259	1	265	12.4	54
1997	0	0.00	0	232	0	239	10.8	48
1998	0	0.00	0	220	0	221	9.9	47
1999	0	0.00	0	216	0	217	9.6	47
2000	0	0.00	0	210	0	211	9.3	46
2001	0	0.00	0	201	0	202	8.9	45
2002	0	0.00	0	194	0	195	8.5	45
2003	0	0.00	0	188	0	189	8.2	44
2004	0	0.00	0	182	0	183	7.8	44
2005	0	0.00	0	176	0	177	7.5	43
<b>THAILAND</b>								
1992	48	0.46	22	331	7	350	6.0	98
1993	16	0.38	6	351	6	359	6.0	90
1994	15	0.40	6	331	5	338	5.6	84
1995	20	0.35	7	343	7	343	5.6	84
1992-95 ave.	25	0.41	10	339	6	348	5.8	89
1997	27	0.42	11	370	0	374	6.0	60
1998	27	0.43	11	384	0	392	6.2	64
1999	27	0.43	12	414	0	422	6.6	68
2000	27	0.43	12	442	0	450	7.0	73
2001	28	0.44	12	465	0	472	7.3	77
2002	28	0.44	12	491	0	498	7.7	82
2003	27	0.44	12	522	0	529	8.1	87
2004	27	0.45	12	552	0	559	8.6	92
2005	27	0.45	12	584	0	590	9.0	98
<b>TURKEY</b>								
1992	637	0.90	574	233	59	626	10.3	238
1993	568	1.06	602	119	109	700	11.3	150
1994	582	1.08	628	231	1	826	13.0	182
1995	742	1.13	838	76	50	892	13.8	154
1992-95 ave.	632	1.05	661	165	55	761	12.1	181
1997	665	1.19	789	197	60	888	13.2	187
1998	698	1.20	836	181	61	950	13.9	193
1999	732	1.21	886	133	62	950	13.6	200
2000	768	1.22	939	106	63	985	13.9	197
2001	806	1.24	996	112	65	1,036	14.4	205
2002	846	1.25	1,055	99	66	1,080	14.7	213
2003	888	1.26	1,119	58	67	1,114	14.9	209
2004	933	1.26	1,175	48	69	1,148	15.1	216
2005	979	1.26	1,233	30	70	1,185	15.4	224
<b>WEST AFRICA, FRANC-ZONE</b>								
1992	1,260	0.43	547	4	445	61	0.8	108
1993	1,250	0.42	527	8	442	66	0.8	135
1994	1,453	0.40	576	8	558	68	0.8	93
1995	1,599	0.42	677	8	601	72	0.8	105
1992-95 ave.	1,391	0.42	582	7	512	67	0.8	110
1997	1,417	0.43	609	8	545	71	0.8	143
1998	1,442	0.44	633	8	567	72	0.8	144
1999	1,451	0.44	643	8	576	73	0.7	146
2000	1,461	0.45	653	8	586	74	0.7	147
2001	1,471	0.45	663	8	595	74	0.7	149
2002	1,481	0.45	673	8	605	75	0.7	150
2003	1,491	0.46	684	8	615	76	0.7	152
2004	1,501	0.46	695	8	625	77	0.7	153
2005	1,512	0.47	706	8	635	77	0.7	155

Table 20. Cotton supply and use projections

	Area	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap	
						1,000 ha	Tons/ha	
OTHER SUB-SAHARAN AFRICA (excl. WA10)								
1992	1,759	0.23	399	85	158	288	0.6	179
1993	1,443	0.21	307	70	154	284	0.6	118
1994	1,477	0.23	340	69	162	280	0.6	85
1995	1,872	0.25	473	57	228	283	0.5	104
1992-95 ave.	1,638	0.23	380	70	176	281	0.6	122
1997	1,917	0.22	414	71	183	299	0.5	172
1998	1,931	0.22	423	77	193	302	0.5	177
1999	1,930	0.22	429	85	195	314	0.5	182
2000	1,929	0.23	435	94	202	322	0.5	187
2001	1,928	0.23	441	103	208	331	0.5	192
2002	1,928	0.23	448	112	212	342	0.5	198
2003	1,928	0.24	454	122	218	353	0.6	203
2004	1,943	0.24	465	128	226	361	0.5	209
2005	1,944	0.24	472	137	231	372	0.6	215

## Beef

Growth in global beef and veal production is projected at slightly above the rate of population increases during 1995-2005, about the same as during the 1980s. Rising incomes will increase total consumer demand for meat, but because beef is relatively more expensive than other meats, the projected growth in beef output is less than growth for pork and poultry meat production.

Global per capita consumption of beef is projected to remain nearly constant through 2005. Some gains in per capita consumption are expected in Brazil, Mexico, China, Japan, and South Korea. These gains are, however, expected to be balanced by declines in Canada, the United States, the EU-15, and Argentina. Changes in income levels, relative prices of competing meats, and health concerns are some of the reasons behind the changes in consumption patterns.

Increasing import demand in areas like the Pacific Rim will mean growth opportunities for exporters. The major exporters will continue to increase production for export, while domestic production in the major importing countries is projected to stagnate, mainly because of the relatively lower cost of imported beef.

Growth in beef exports is projected to slow over the next decade, primarily because of reduced subsidized exports by the EU. The EU, however, is the only major exporter that is expected to show a decline in exports. The United States is projected to continue to increase export volume through 2005. This growth occurs primarily because the countries that are projected to have the greatest import growth are also some of the major markets for the United States, such as Japan, South Korea, and Mexico.

### Highlights for Major Importers

Most of the growth in beef and veal imports will come from the Pacific Rim countries, where increasing incomes and lower trade barriers will raise consumption beyond that which can be satisfied by their limited production base. Although Australia is likely to increase production of grain-fed beef for export, no erosion of the U.S. share in these markets is forecast.

- Only a small increase in **U.S.** imports of beef is expected. The U.S. Meat Import Law has been replaced by tariffs and a tariff rate quota, but large domestic supplies of leaner beef reduce the need for imports of grass fed beef to be mixed with domestic beef trimmings. Trade with Canada and Mexico are governed by the North American Free Trade Agreement (NAFTA) which does not limit the movement of beef between the countries.
- **Japan's** imports are expected to increase substantially, with little change in production. Japan is expected to reduce its beef tariffs in accordance with the UR agreement, with imports projected to increase from 53 to 65 percent of consumption. Retail prices should decline somewhat due to increased competition from imports and appreciation of the yen. Australia and the United States are projected to remain the major suppliers.
- In the **FSU**, economic restructuring of the livestock sector has occurred due to a sharp drop in incomes, combined with reduced producer and consumer subsidies that previously enabled high levels of meat consumption. Per capita meat consumption in



Table 21. Beef trade projections

Calendar year	1992	1993	1994	1995	1996	1993-96 avg.	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exports</b>														
United States	601	578	731	853	962	781	1,043	1,100	1,175	1,225	1,259	1,315	1,349	1,383
Argentina	296	280	375	460	500	404	334	345	346	379	414	426	452	464
Australia	1,191	1,169	1,180	1,070	1,100	1,130	1,166	1,207	1,243	1,298	1,336	1,367	1,396	1,423
Brazil	434	392	358	280	380	353	150	94	145	219	308	370	420	459
Canada	159	191	220	210	235	214	265	277	286	298	306	313	320	325
Central/East Europe	149	153	99	80	57	97	55	64	146	204	219	223	233	242
European Union-15 1/	1,235	1,121	1,095	835	1,058	1,027	938	877	817	817	817	817	817	817
New Zealand	426	448	466	493	500	477	516	518	518	520	520	521	522	522
<b>Total</b>	<b>4,491</b>	<b>4,332</b>	<b>4,524</b>	<b>4,281</b>	<b>4,792</b>	<b>4,482</b>	<b>4,467</b>	<b>4,482</b>	<b>4,676</b>	<b>4,960</b>	<b>5,179</b>	<b>5,352</b>	<b>5,509</b>	<b>5,635</b>
<b>Imports</b>														
United States	1,107	1,089	1,075	982	965	1,028	1,066	1,089	1,111	1,134	1,157	1,179	1,202	1,225
Canada	221	270	286	215	190	240	200	202	204	206	208	210	212	214
European Union-15 1/	472	426	426	421	450	431	450	450	450	450	450	450	450	450
Former Soviet Union 2/	100	200	175	225	176	194	144	156	162	167	170	177	187	203
Japan	591	731	842	900	925	850	1,017	1,038	1,062	1,086	1,113	1,138	1,160	1,181
Mexico	130	96	90	65	80	83	186	215	197	198	204	211	218	226
South Korea	183	132	165	205	240	186	252	275	304	332	359	387	413	439
<b>Total</b>	<b>2,804</b>	<b>2,944</b>	<b>3,059</b>	<b>3,013</b>	<b>3,026</b>	<b>3,011</b>	<b>3,315</b>	<b>3,425</b>	<b>3,490</b>	<b>3,573</b>	<b>3,661</b>	<b>3,752</b>	<b>3,842</b>	<b>3,938</b>
<b>Exports-Imports</b>	<b>1,687</b>	<b>1,388</b>	<b>1,465</b>	<b>1,268</b>	<b>1,766</b>	<b>1,472</b>	<b>1,152</b>	<b>1,057</b>	<b>1,186</b>	<b>1,387</b>	<b>1,518</b>	<b>1,600</b>	<b>1,667</b>	<b>1,697</b>

1/ Excludes EU-15 intratrade.

2/ Excludes FSU intratrade.

Figure 25. Beef: Historical & Projected Real Prices

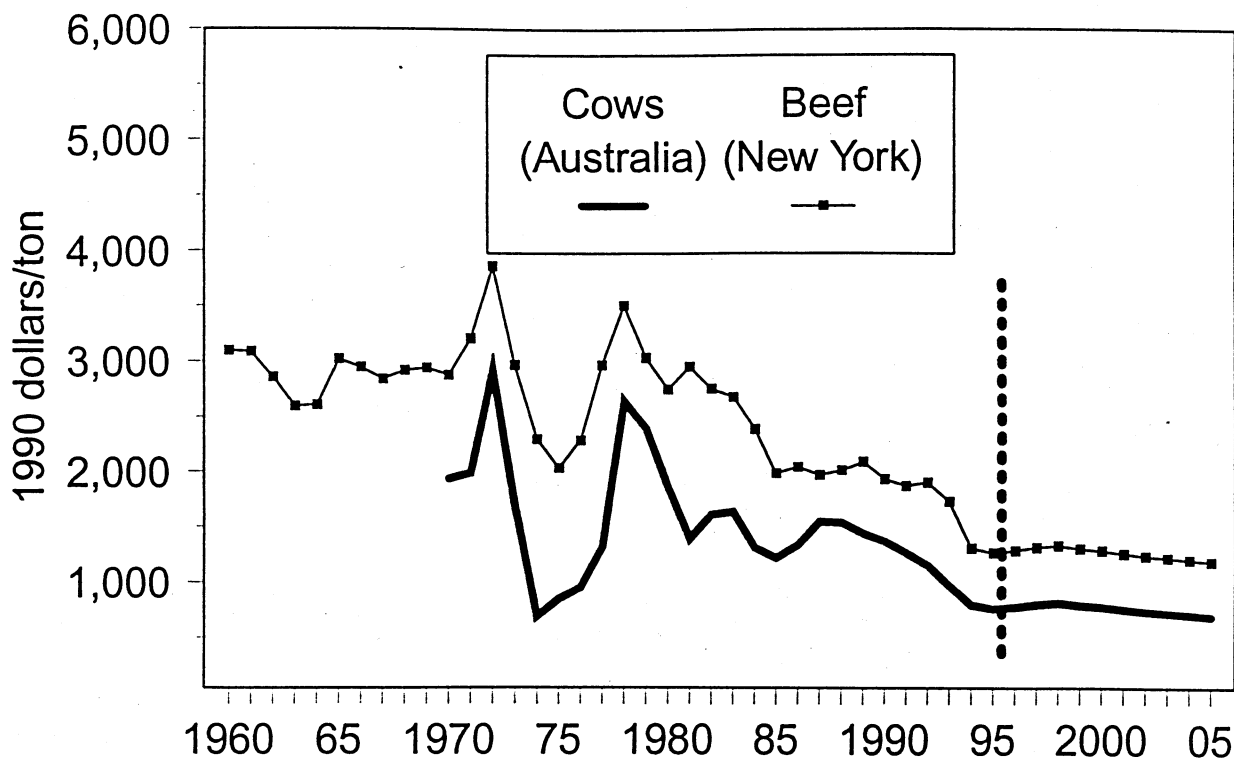
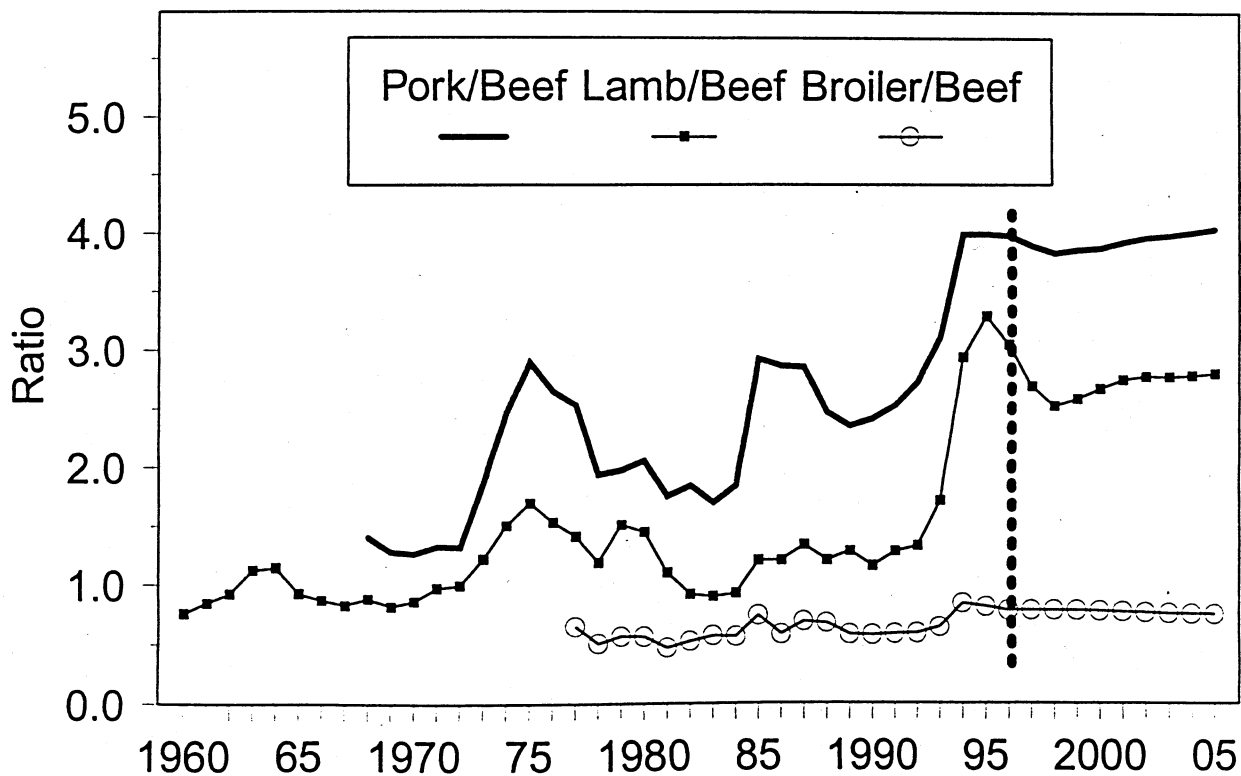


Figure 26. Beef: Historical & Projected Price Ratios



1990 was nearly double the consumption in many market economies with similar per capita incomes. Cattle inventories will continue to fall until the onset of economic growth in the late 1990s. Beef imports have also fallen during the period of restructuring because of lack of commercial import capacity. FSU barter arrangements to import beef from Eastern Europe are not expected to be reestablished during the projection period.

The pace of reform and income growth in the FSU is a key uncertainty in the outlook for beef trade. The large cuts in subsidies to producers over the last several years and the resulting deterioration of the terms of trade caused severe cutbacks in inventories. Also, the higher prices because of price liberalization resulted in cutbacks in consumer demand. The ability of these governments to sustain support to the livestock sector will affect the pace of recovery and trade. Trade developments with the EU and other countries will also have a strong impact.

- The array of EU bilateral and multilateral concessions, which reduce import duties for Central and Eastern European countries and African, Caribbean, and Pacific countries, is expected to continue during the projection period.
- Canada's beef imports, like U.S. imports, are now governed by a tariffed program and the provisions of NAFTA within North America. Per capita consumption will decline slightly in favor of other meats. Modest growth is likely in production, and exports of fed beef into Asian markets are likely to strengthen.
- South Korea's per capita consumption is projected to increase 60 percent by 2005. Korea is expected to end its quota in 2001 and replace its markup with tariffs that are subject to reduction. Better quality grain-fed beef, will continue to dominate imports.
- Mexico's beef imports and production continue to be affected by the current economic crisis and a drought in 1995. Beef imports are expected to rise as the economy strengthens and incomes increase. An immediate benefit of the North American Free Trade Agreement (NAFTA) was the lifting in January 1994 of the 20-25 percent import tariff on beef from the United States and Canada. Over time, feed prices will fall from current levels, which could stimulate domestic beef production.

#### Highlights for Major Exporters

Australia will likely remain the leading exporter of beef and veal, but because of the cutbacks in subsidized EU exports, the EU will drop to third and the United States will rise to second place. Australia and the United States will remain the largest exporters to the Pacific Rim. New Zealand will continue to send most of its exports to the United States, while also seeking to diversify, particularly into South Korea and Japan as U.S. demand for processing beef slows.

- Australia has moved into first place in beef exports over the EU and is projected to remain the leading exporter. Increased grain feeding of cattle in feedlots will occur as Japanese import demand grows over the period. Average slaughter weights will also

## Overview of World Beef Market

About 10 percent of world beef production enters the export market. Trade patterns are affected by price and quality differences, health and sanitary restrictions, tariffs, quotas, and subsidies. The leading exporters are Australia, EU, United States, New Zealand, Brazil, Argentina, and Canada. Together, they account for about 87 percent of total exports.

The seven leading importers are the United States, Japan, EU, FSU, Canada, South Korea, and Mexico. In 1990, these countries imported about 60 percent of the beef traded. Their share of the world market is projected to increase by 2005 as declining EU exports of subsidized beef induce North African and Middle Eastern countries import less beef and more of other meats, particularly poultry.

**Foot-and-mouth disease.** The world beef market has traditionally been separated into two distinct segments based on the presence of foot-and-mouth disease (FMD). FMD countries must heat-treat and package their beef in airtight containers before they can export to FMD-free areas. This limits potential for export growth by FMD-endemic countries, such as Brazil, Argentina, China, and some areas in Eastern Europe. Programs for FMD eradication continue in several countries. Uruguay recently was approved to ship fresh/frozen beef to the United States, and Argentina is nearing approval.

**Quality.** Increasingly, beef trade is split into higher priced grain-fed beef and lower priced grass fed beef markets. Because of differences in the types of beef traded, some countries are both importers and exporters of beef. For example, the United States is the world's largest beef producer, the largest importer, and the third largest exporter. The United States produces and exports mostly grain-fed beef and imports lower priced grass-fed beef. U.S. beef was, at one time, exported mainly to hotels for the tourist and business trade. But, with rising incomes, changing tastes and lifestyles, and reduced trade barriers in Japan and South Korea, demand for grain-fed beef has increased, and so have U.S. exports.

Most grain-fed beef exports come from the United States, Canada, and Australia. Feed grain production problems in Australia may limit its capacity to be a reliable and growing source of high-quality fed beef. However, Argentina could become a larger supplier of grain-fed beef as the price spread between grain-fed and grass-fed beef increases. Australia and New Zealand produce mainly grass fed beef for export, exporting 64 and 81 percent of their production, respectively, in 1994.

**Policy.** Government programs can also determine trading patterns. For example, the EU is the second largest beef producer but the third largest importer and the second largest exporter. High levels of government support for beef and dairy producers have kept prices and production up in the EU. The government has purchased surplus production and subsequently subsidized exports to remove the surplus. UR commitments require the EU to reduce subsidized exports beginning in 1995.

**Technology.** Beef is a highly perishable commodity and relatively recent technological breakthroughs in transportation, storage, and distribution have increased the possibilities for trade. Extending shelf life has increased trade in chilled beef.

increase with the increased grain feeding. Beef production will rise mainly for the export market. Higher prices for beef relative to sheep meat and wool will encourage switching from sheep to cattle. However, feed grain sufficiency will remain a problem in Australia and as long as it exists will limit its expansion into the higher end of the fed beef market against the U.S., Canada, and, likely by the end of the period, Argentina.

- **EU** beef exports, production and per capita consumption are all projected to decline during the projection period. Beef exports are projected to fall primarily due to UR commitments that limit subsidized exports. Beef production is projected lower because of a shrinking dairy herd, lower beef prices, and measures to encourage less intensive production associated with CAP reforms. Despite the outlook for lower EU beef prices, per capita consumption declines are projected due to competition from lower-priced pork and poultry, and a continued trend toward lower beef consumption.

The pace of CAP reforms in the EU is a significant uncertainty in the forecasts. The extent of the growth in meat output and declines in export subsidies will have a major impact on feed use, prices, and trade. The recent outbreak of BSE, or mad cow disease, may lead to more significant longer term declines in beef demand than are projected here.

- **U.S.** exports are expected to increase, with the main growth markets being Japan, South Korea, and Mexico. Exports as a percent of U.S. production will rise from 6 to 12 percent.
- **New Zealand's** beef production is expected to increase due to larger export demand and also because of the significant expansion of the dairy herds. New Zealand holds a significant comparative advantage in dairy production. Beef production is also encouraged by high prices relative to sheep meat and wool. The United States will remain New Zealand's major market, but other countries will gain in market share.
- In **Brazil**, beef production will expand to meet growing domestic demand. Per capita consumption will increase in response to per capita GDP growth and declining prices. Encouraged by the government's end of price and trade controls, investment will continue in the beef sector. Productivity gains are expected through expansion of improved pasture, cattle genetics and cross-breeding, and better nutrition management. Exports are projected decline in the near term due to herd rebuilding and rising internal demand, before increasing to the levels of the mid-1980's which were unusually high due to domestic policies and lower prices.

Future policy reforms in Brazil are a major uncertainty in the beef trade outlook. Without sustained economic reform, Brazil is unlikely to increase production or consumption at the projected rate. If areas that presently import fresh Brazilian beef become more strict about accepting meat from foot-and-mouth disease (FMD) areas, exports could be limited. Projected growth in Brazilian imports of beef are also dependent on a continued economic recovery, as well as the continuation of subsidized EU beef exports. In the absence of EU subsidies, Brazil may opt to reduce imports and slow growth in consumption.

- In **Argentina**, progress is being made in eradicating FMD and, at the least, an approval of regionalized FMD-free status is likely. Should this occur, however, Argentina could be better off shifting toward fed beef production because of the large world supplies of FMD-free grass-fed beef that already exist. With the elimination of export taxes, gradual improvements in marketing infrastructure, and a modest strengthening of the beef/grain price ratio, producers are expected to slow the shift toward cropland and away from pasture for beef. Argentina has the world's highest per capita beef consumption, 60 percent greater than in the United States, and per capita consumption is expected to decline, following a trend begun in the mid-1980s.

The timing of Argentina's achievement of FMD-free status is a major uncertainty in the world beef trade outlook. Also uncertain is the nature and pace of the sector's adjustment to FMD-free status. FMD-free status is not likely to slow beef exports to Brazil. However, a shift toward becoming a reliable supplier of fed beef could result in reduced supplies of lower priced beef.

- **Canadian** exports are projected to remain strong throughout the period. The United States will remain Canada's major beef export market, but fed beef exports into other countries should increase fairly rapidly. Modern plants in Canada should encourage expansion in fed beef production in response to increasing world fed beef demand as incomes rise. Canada joins the United States as the major sources of high-quality fed beef. U.S. imports from Canada are free from tariffication under NAFTA.
- Some growth in **East European** beef exports and production is projected. With improved feeding practices, slaughter weights and output will increase. Per capita beef consumption has declined from the 1990 peak due to a drop in incomes, changes in relative prices, and the end of subsidies. But as income growth returns, per capita consumption is expected to rise.

As in the FSU, the future pace of reform in Eastern Europe is uncertain and will affect the outlook for production and trade of beef. It is unclear to what extent governments will maintain support to livestock producers, how fast production will recover, or how quickly these countries will look to expand exports. Trade developments with the EU and other countries will also have a strong impact.

Table 22. Beef supply and use projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap.	
						1,000 hd	Kg/hd	
<b>UNITED STATES</b>								
1992	34,489	308	10,613	1,107	601	11,146	43.6	166
1993	34,746	305	10,584	1,089	578	11,019	42.7	242
1994	34,376	326	11,194	1,075	731	11,529	44.2	251
1995	35,623	324	11,540	982	853	11,700	44.3	220
1996	36,465	326	11,875	965	962	11,878	44.6	220
1993-96 ave.	35,303	320	11,298	1,028	781	11,532	43.9	233
1998	35,821	324	11,606	1,066	1,043	11,648	42.9	214
1999	35,278	326	11,503	1,089	1,100	11,492	41.9	215
2000	35,663	327	11,665	1,111	1,175	11,598	41.9	218
2001	35,839	328	11,747	1,134	1,225	11,655	41.8	219
2002	36,058	329	11,849	1,157	1,259	11,746	41.7	220
2003	36,045	330	11,882	1,179	1,315	11,746	41.4	219
2004	35,852	331	11,859	1,202	1,349	11,712	40.9	219
2005	35,530	332	11,808	1,225	1,383	11,651	40.4	218
<b>ARGENTINA</b>								
1992	11,900	212	2,520	16	296	2,232	67.3	25
1993	12,100	211	2,550	2	280	2,273	67.8	24
1994	12,400	210	2,600	3	375	2,230	65.8	22
1995	12,300	208	2,560	3	460	2,100	61.2	25
1996	12,400	208	2,580	3	500	2,080	60.0	28
1993-96 ave.	12,300	209	2,573	3	404	2,171	63.7	25
1998	11,647	210	2,445	0	334	2,114	59.7	22
1999	11,644	210	2,440	0	345	2,095	58.5	22
2000	11,830	209	2,475	0	346	2,129	58.8	22
2001	12,102	209	2,529	0	379	2,150	58.8	23
2002	12,354	209	2,577	0	414	2,162	58.5	23
2003	12,452	208	2,594	0	426	2,168	58.0	23
2004	12,533	208	2,607	0	452	2,155	57.1	24
2005	12,572	208	2,611	0	464	2,147	56.3	24
<b>AUSTRALIA</b>								
1992	8,480	217	1,838	5	1,191	646	36.8	36
1993	8,357	216	1,806	5	1,169	634	35.6	44
1994	8,248	223	1,839	6	1,180	670	37.1	39
1995	7,581	228	1,725	5	1,070	660	36.0	39
1996	7,900	227	1,794	5	1,100	698	37.6	40
1993-96 ave.	8,022	223	1,791	5	1,130	666	36.6	41
1998	8,347	222	1,855	0	1,166	690	36.3	39
1999	8,494	224	1,899	0	1,207	692	36.0	39
2000	8,539	228	1,944	0	1,243	700	36.1	40
2001	8,626	233	2,006	0	1,298	708	36.1	40
2002	8,709	236	2,052	0	1,336	715	36.2	41
2003	8,813	237	2,090	0	1,367	723	36.2	41
2004	8,931	238	2,124	0	1,396	728	36.2	42
2005	9,042	239	2,157	0	1,423	734	36.1	42
<b>BRAZIL</b>								
1992	24,400	181	4,420	114	434	4,080	26.4	50
1993	25,200	180	4,545	48	392	4,201	26.8	50
1994	24,600	182	4,475	117	358	4,274	26.9	10
1995	25,555	182	4,650	120	280	4,450	27.7	50
1996	26,200	179	4,700	100	380	4,450	27.4	20
1993-96 ave.	25,389	181	4,593	96	353	4,344	27.2	33
1998	27,369	182	4,981	81	150	4,904	29.5	41
1999	27,662	182	5,039	82	94	5,026	29.9	41
2000	28,341	182	5,168	86	145	5,108	30.1	42
2001	29,097	183	5,311	91	219	5,181	30.3	44
2002	30,052	183	5,491	96	308	5,277	30.6	46
2003	31,012	183	5,672	102	370	5,402	31.0	48
2004	31,920	183	5,844	107	420	5,529	31.5	50
2005	32,819	183	6,014	113	459	5,666	32.0	52

Table 22. Beef supply and use projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap.	
	1,000 hd	Kg/hd	-----	1,000 tons	-----		Kgs.	1,000 tons
<b>CANADA</b>								
1992	3,238	277	898	221	159	960	35.0	16
1993	3,036	283	860	270	191	931	33.5	24
1994	3,083	293	903	286	220	963	34.3	30
1995	3,250	295	960	215	210	970	34.1	25
1996	3,575	294	1,050	190	235	1,000	34.8	30
1993-96 ave.	3,236	291	943	240	214	966	34.2	27
1998	---	---	1,027	200	265	970	33.1	20
1999	---	---	1,032	202	277	957	32.3	19
2000	---	---	1,032	204	286	950	31.8	19
2001	---	---	1,031	206	298	939	31.2	19
2002	---	---	1,030	208	306	932	30.7	19
2003	---	---	1,029	210	313	926	30.2	19
2004	---	---	1,030	212	320	922	29.9	19
2005	---	---	1,031	214	325	920	29.6	19
<b>CENTRAL &amp; EASTERN EUROPE</b>								
1992	11,130	210	2,342	59	149	2,296	18.7	196
1993	9,724	213	2,074	72	153	2,036	16.6	153
1994	7,131	214	1,523	69	99	1,512	12.3	134
1995	6,710	215	1,444	79	80	1,466	11.9	111
1996	4,260	249	1,061	97	57	1,176	9.5	36
1993-96 ave.	6,956	223	1,526	79	97	1,548	12.5	109
1998	---	---	1,564	89	55	1,591	12.7	116
1999	---	---	1,591	77	64	1,602	12.8	118
2000	---	---	1,674	88	146	1,614	12.9	120
2001	---	---	1,717	93	204	1,604	12.7	122
2002	---	---	1,734	120	219	1,633	12.9	124
2003	---	---	1,745	144	223	1,661	13.1	129
2004	---	---	1,760	150	233	1,671	13.1	135
2005	---	---	1,774	155	242	1,694	13.2	129
<b>EU-15</b>								
1992	32,792	270	8,843	472	1,235	7,908	21.4	1,296
1993	29,981	272	8,149	426	1,121	7,813	21.1	937
1994	28,745	273	7,849	426	1,095	7,596	20.4	521
1995	28,550	275	7,827	421	835	7,539	20.2	395
1996	28,491	275	7,839	450	1,058	7,142	19.1	484
1993-96 ave.	28,942	274	7,916	431	1,027	7,523	20.2	584
1998	---	---	8,107	450	938	7,831	20.8	400
1999	---	---	8,056	450	877	7,629	20.2	400
2000	---	---	8,023	450	817	7,656	20.2	400
2001	---	---	8,024	450	817	7,657	20.2	400
2002	---	---	7,956	450	817	7,589	20.0	400
2003	---	---	7,935	450	817	7,568	19.9	400
2004	---	---	7,914	450	817	7,547	19.8	400
2005	---	---	7,886	450	817	7,519	19.7	400
<b>FORMER SOVIET UNION</b>								
1992	41,086	179	7,342	100	0	7,024	24.0	0
1993	32,813	176	5,769	200	0	5,256	17.8	0
1994	31,611	174	5,516	175	0	5,319	18.0	0
1995	26,585	173	4,610	225	0	4,735	15.9	0
1996	23,480	182	4,275	176	0	4,444	14.9	0
1993-96 ave.	28,622	176	5,043	194	0	4,939	16.6	0
1998	---	---	5,189	144	0	5,333	17.7	0
1999	---	---	4,827	156	0	4,983	16.4	0
2000	---	---	4,712	162	0	4,874	16.0	0
2001	---	---	4,795	167	0	4,962	16.2	0
2002	---	---	5,008	170	0	5,178	16.8	0
2003	---	---	5,183	177	0	5,360	17.3	0
2004	---	---	5,302	187	0	5,489	17.7	0
2005	---	---	5,368	203	0	5,571	17.8	0



Table 22. Beef supply and use projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per cap.	
	1,000 hd	Kg/hd	1,000 tons			Kgs.		1,000 tons
<b>JAPAN</b>								
1992	1,491	397	592	591	1	1,190	9.6	98
1993	1,511	392	593	731	0	1,302	10.4	120
1994	1,537	392	602	842	0	1,446	11.6	118
1995	1,525	394	601	900	0	1,510	12.0	109
1996	1,515	395	599	925	0	1,530	12.2	103
1993-96 ave.	1,522	393	599	850	0	1,447	11.5	113
1998	---	---	560	1,017	0	1,572	12.4	118
1999	---	---	552	1,038	0	1,589	12.5	120
2000	---	---	552	1,062	0	1,612	12.6	122
2001	---	---	550	1,086	0	1,634	12.8	124
2002	---	---	548	1,113	0	1,659	12.9	126
2003	---	---	546	1,138	0	1,682	13.1	128
2004	---	---	545	1,160	0	1,703	13.2	129
2005	---	---	543	1,181	0	1,722	13.3	131
<b>MEXICO</b>								
1992	7,770	214	1,660	130	1	1,789	20.2	0
1993	7,870	217	1,710	96	1	1,805	20.0	0
1994	8,310	218	1,810	90	1	1,899	20.6	0
1995	8,650	214	1,850	65	5	1,910	20.3	0
1996	8,180	214	1,750	80	7	1,823	19.0	0
1993-96 ave.	8,253	216	1,780	83	4	1,859	20.0	0
1998	8,043	219	1,763	186	4	1,945	19.6	0
1999	8,381	220	1,846	215	5	2,056	20.3	0
2000	8,828	221	1,955	197	6	2,147	20.9	0
2001	9,126	223	2,032	198	6	2,224	21.2	0
2002	9,357	224	2,095	204	7	2,292	21.5	0
2003	9,541	225	2,147	211	7	2,351	21.7	0
2004	9,689	226	2,192	218	7	2,403	21.9	0
2005	9,819	227	2,233	226	7	2,452	22.0	0
<b>NEW ZEALAND</b>								
1992	2,816	184	518	1	426	96	28.7	24
1993	3,060	188	575	3	448	98	29.1	56
1994	3,007	190	572	3	466	99	29.2	66
1995	3,212	187	600	2	493	100	29.3	75
1996	2,270	260	590	3	500	101	29.5	67
1993-96 ave.	2,887	202	584	3	477	100	29.3	66
1998	3,226	190	615	0	516	94	27.3	70
1999	3,235	190	616	0	518	98	28.3	70
2000	3,252	190	620	0	518	102	29.2	70
2001	3,268	190	623	0	520	103	29.4	70
2002	3,272	190	623	0	520	103	29.6	70
2003	3,271	190	623	0	521	102	29.2	70
2004	3,264	190	622	0	522	100	28.4	70
2005	3,252	190	620	0	522	98	27.7	70
<b>SOUTH KOREA</b>								
1992	537	255	137	183	0	313	7.1	31
1993	687	256	176	132	0	317	7.1	22
1994	778	257	200	165	0	372	8.3	15
1995	797	257	205	205	0	410	9.0	15
1996	815	258	210	240	0	450	9.8	15
1993-96 ave.	769	257	198	186	0	387	8.5	17
1998	789	284	224	252	0	475	10.1	17
1999	806	287	232	275	0	505	10.7	19
2000	811	290	235	304	0	538	11.2	20
2001	815	292	238	332	0	569	11.8	21
2002	819	295	242	359	0	599	12.3	22
2003	822	298	245	387	0	631	12.8	23
2004	825	300	248	413	0	660	13.3	24
2005	827	303	251	439	0	689	13.8	25

## Pork

World pork production is projected to increase at a slower rate than in previous decades as environmental constraints limit expansion in many areas and large supplies of relatively lower cost poultry provide competition. World pork production is expected to increase at an annual rate near 2.4 percent during 1996-2005. Asia, Eastern Europe, and the FSU are expected to be the primary growth areas for pork production, with more modest increases projected in the United States and the EU.

Pork consumption is projected to grow about 2.6 percent per year between 1996 and 2005, somewhat slower than during the 1980s. Slower consumption growth is the result of moderate income gains in the developed economies, as well as declining relative prices for meats that easily substitute for pork, particularly poultry. The United States, the EU, and Japan fall into this category.

Stronger demand growth in Asia, the FSU, and Eastern Europe is expected to partially offset the moderate growth in the United States, EU, and Japan. Consumption in China and Taiwan is expected to increase by almost 2 percent annually, while Korean consumption will grow nearly 4 percent annually. Pork demand is also expected to grow significantly in Eastern Europe and the FSU, aided by modest economic growth, lower inflation, and higher disposable incomes.

World pork trade is projected to continue to expand, driven by rising demand by several of the major pork importers, including Hong Kong, Japan, Korea, and Mexico. The United States is projected to assume a dominant export role over the next decade, increasing exports by over 65 percent between 1995 and 2005. Factors contributing to robust U.S. growth include competitive exchange rates and an increasingly export-oriented pork production industry. The six largest exporters (the United States, Canada, China, the EU, Eastern Europe, and Taiwan) account for over 90 percent of world pork exports.

### Highlights for Major Importers

Changes in world pork imports will be driven primarily by reduced imports in the United States and rapid growth in Japan and Mexico. The FSU will be a significant, although somewhat variable, influence in the world market.

- **Japan's** imports are expected to increase dramatically due to changes in government policy and demographics which will discourage domestic production. Imports may represent almost half of total Japanese pork consumption by 2005. Increasing environmental costs of production and lower prices are expected to provide little incentive for new entrants. The population of producers is aging, and, as they leave the sector, pork production is expected to decline gradually. By 2005, pork production could be more than 10 percent below the 1996 level.
- In the **FSU**, an underdeveloped private livestock sector was unable to meet consumer demand in the early 1990's, leading to increased imports. Only moderate growth in consumer demand and limited commercial import capacity are expected to lead to little import growth during the first half of the projection period. By 2000, however, a stabilizing macroeconomy, lower inflation, and a growing private sector should lead to relative increases in income and an appreciated ruble. Although FSU pork

Table 23. Pork trade projections

Calendar year	1992	1993	1994	1995	1996	1993-96 avg.	1998	1999	2000	2001	2002	2003	2004	2005
<b>Exports</b>														
United States	185	197	241	356	408	301	458	483	508	533	558	583	608	633
Canada	294	303	298	310	335	312	321	315	309	302	296	291	285	279
Central/East Europe	160	144	140	136	111	133	172	178	185	200	243	292	328	355
China	117	150	195	200	210	189	227	231	234	236	239	242	245	249
European Union-15 1/	478	638	845	726	706	729	596	572	575	583	591	599	603	599
Taiwan	303	283	331	330	300	311	288	282	274	266	258	250	243	235
Total	1,537	1,715	2,050	2,058	1,840	1,973	2,062	2,061	2,085	2,120	2,185	2,257	2,312	2,350
<b>Imports</b>														
United States	293	336	337	297	295	316	284	278	274	270	267	262	258	254
Canada	16	22	27	35	40	31	52	55	59	63	67	71	76	80
Former Soviet Union 2/	315	250	270	275	275	268	193	185	185	192	206	221	239	261
Hong Kong	198	208	224	225	226	221	205	208	212	214	217	220	222	225
Japan	684	653	705	800	800	740	873	918	962	1,008	1,033	1,057	1,081	1,103
Mexico	55	50	80	55	70	64	71	80	97	94	91	115	139	149
South Korea	4	2	26	75	100	51	95	97	99	101	103	105	107	109
Total	1,565	1,521	1,669	1,762	1,629	1,690	1,773	1,821	1,888	1,942	1,984	2,051	2,122	2,181

1/ Excludes EU-15 intratrade.

2/ Excludes FSU intratrade.

Figure 27. Pork: Historical & Projected Real Prices

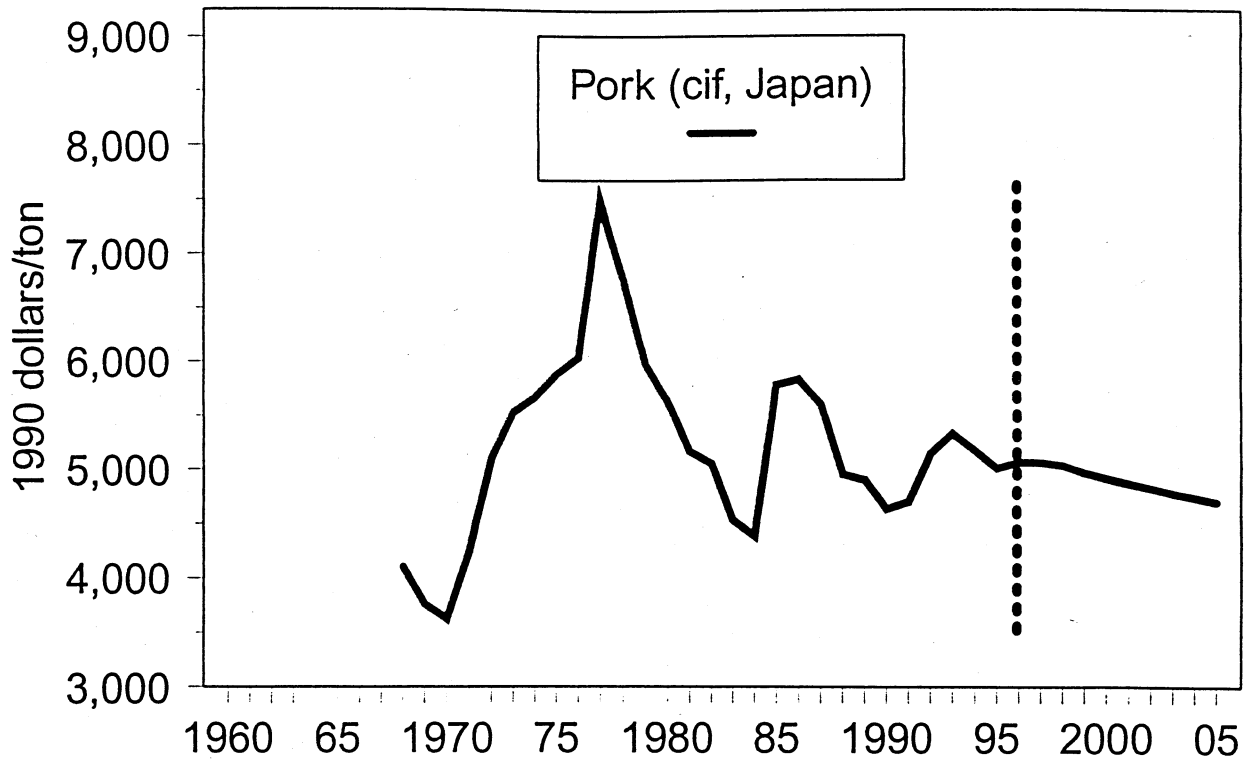
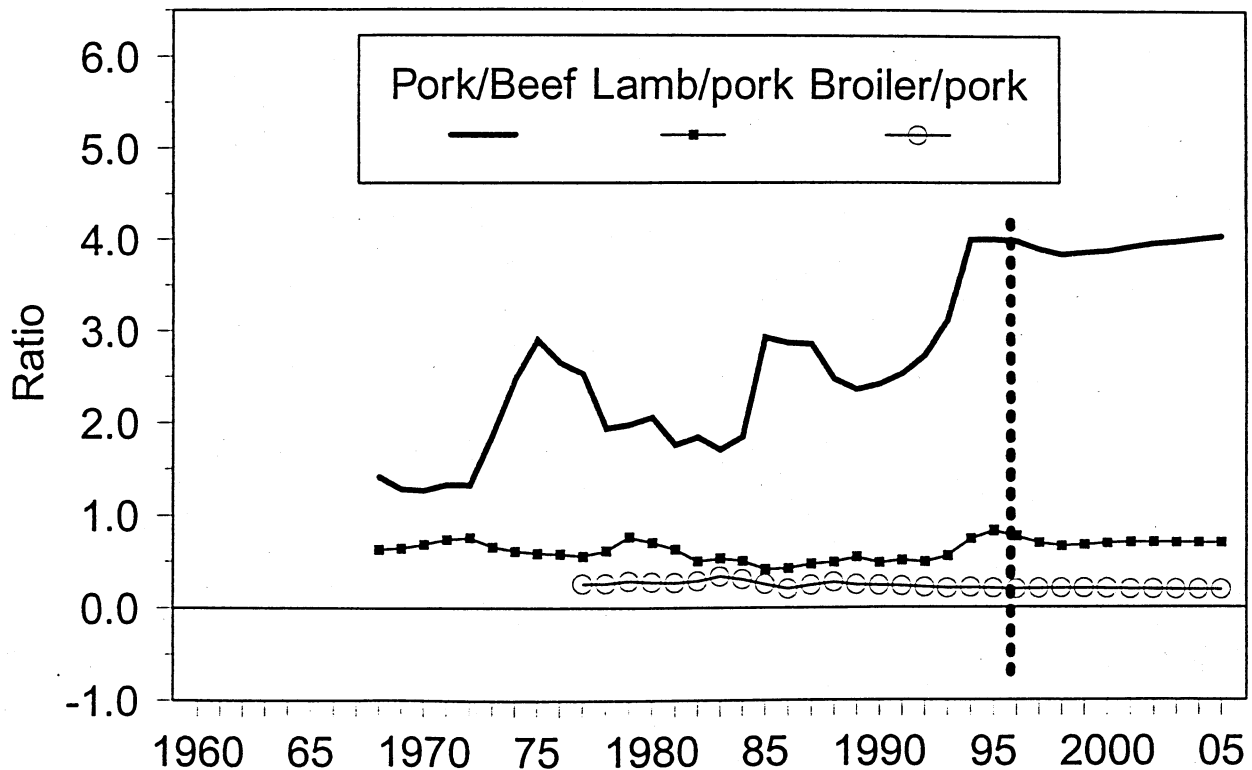


Figure 28. Pork: Historical & Projected Price Ratios



production is projected to stabilize and begin to increase by 2000, imports are also projected to rise significantly as demand outpaces supply.

The pace of economic reform in the FSU could significantly alter the rate of income growth and pork demand, and is a major uncertainty in the trade outlook. Slower movement toward market liberalization through increased subsidies, while reducing the near-term decline in consumption or production, could slow the rebound in trade in the longer term.

- **Hong Kong** already imports over 90 percent of its pork consumption, and imports will account for an even larger share of consumption as environmental constraints reduce production. A significant portion of Hong Kong's pork imports are likely reexported to China.
- **EU** pork imports from third-country exporters are expected to grow under the UR agreement, which mandates access to the EU market. The agreement mandates EU imports of 75,000 tons of pork and pork products by 2001. Imports are assumed to remain at that level through the remainder of the projection period.

Pork consumption in the EU is expected to grow at an average annual rate of less than 1 percent through 2005. Competitive pressure from relatively lower priced competing meat proteins, particularly poultry, is expected to limit growth. In northern Europe and the UK, consumer concerns about the environment and animal welfare could further moderate both production and consumption.

- **Mexico's** pork imports are expected to increase significantly after 2000, as the Mexican macroeconomy recovers from capital outflows and peso depreciation in 1994. Annual growth in Mexican pork imports could reach 9 percent, after several years of modest increases in the late 1990's. The majority of imports will be of U.S. origin.
- **South Korea's** pork imports are projected to increase about 1 percent per year between 1996 and 2005. As part of its UR commitments, Korea established an import quota for frozen pork of 29,240 MT in 1996. Complete liberalization will occur in July 1997. Imports of frozen pork until June 30, 1997, are subject to a tariff rate of 25 percent. On July 1 1997, Korea will eliminate all quantitative restrictions on frozen pork imports and replace the quota with a tariff of 33.4 percent. This tariff will be reduced in equal annual increments to 25 percent by 2004.
- **Canada's** pork imports are projected to double between 1996 and 2005. The majority of Canadian imports likely will be of U.S. origin. Competitive pressure from U.S. markets is expected to dampen the increases in Canadian pork prices.
- **U.S.** pork imports are expected to decline almost 1 percent annually between 1996 and 2005. Growth in production and moderate prices with stable consumption will generate less demand for imports. In addition, the decline in exportable supplies from Canada and apparent Danish intentions to focus on EU and Eastern European markets will reduce incentives to ship to the United States.

## Highlights for Major Exporters

The United States is expected to show the greatest gains in exports, gaining market share from Taiwan, whose exportable supplies will be adversely affected by environmental concerns and rising domestic demand. Eastern Europe has the potential to become a major exporter over the next decade, while the EU exports likely will fall due to limits on export subsidies under the UR agreement.

- **U.S.** pork exports are projected to expand 5 percent annually between 1996 and 2005. The primary U.S. growth markets will be Japan and Mexico.
- **EU** pork producers face UR-imposed subsidy limits on pork exports. Exports could be slowed by higher costs associated with environmental regulation and animal welfare concerns. In response to the UR agreement restrictions, the EU is expected to turn "inward and eastward," building markets both within the EU and in Eastern Europe and the FSU.

EU subsidies will be targeted on cuts exported to developing markets (FSU and Eastern Europe, in particular). High-end products such as canned hams will continue to be exported with subsidy, in order to hold market share in developed third-country export markets such as the United States.

The extent to which the EU will be able to export pork without subsidy is a major source of uncertainty in the outlook. While lower grain prices and structural adjustment in the swine sector will provide cost reductions, the competitiveness of EU producers will be affected by high labor costs. The extent to which EU production is affected by efforts to halt environmental degradation is a further uncertainty in the trade outlook. The EU has already placed restrictions on northern European producers, but these could tighten even further.

- **Canadian** pork exports, primarily to the United States and Japan, will increase through the late 1990s and then decline as production falls and domestic consumption continues to increase. Total Canadian exports are forecast to fall 2 percent annually during the projection period. Although the United States will remain Canada's major market for pork exports, the Japanese market will increase in importance.
- **Taiwan**, currently the major exporter of pork to Japan, will see its role as an exporter steadily decline. Future pork production will be limited by environmental constraints. After experiencing a high 7-percent growth trend during the 1980's, production is projected to grow by less than 1 percent per year between 1996 and 2005. Concurrently, income growth could boost domestic demand for pork.

Domestic pork consumption is expected to increase almost 2 percent annually, resulting in considerably less pork available for export. Exports could fall by almost 25 percent by 2005. Taiwan's share of the Japanese market is projected to fall.

The rate at which Taiwan's pork production will respond to emerging environmental concerns is difficult to project and is a key uncertainty in the trade outlook. Although Taiwan faces a severe pollution problem and has put forth a number of plans for

reducing production, there has been little adherence to any planned reductions because of the profitability of the sector. It has been assumed in this analysis that production will level off during the projection period. But, if Japan's market is able to bid up the price of pork in Taiwan, production could continue to increase.

- **Eastern Europe's** pork exports are forecast to increase by 13 percent per year between 1996 and 2005. Exports will be primarily to the EU and the FSU. Progress in economic reform and sustained economic recovery in Eastern Europe will be a major determinant of the region's competitiveness in EU and FSU pork markets. The actual pace of reform and recovery is difficult to project and constitutes a key uncertainty in the trade outlook. Slower movement toward market liberalization, or slower economic recovery, could reduce exports below projections.
- **China**, which has traditionally supplied Hong Kong and the FSU with pork, is expected to show export growth of about 1.8 percent per year. This is considerably less than the growth rate for domestic production, however. Several factors will account for the relatively slow growth in China's exports. First, domestic demand is expected to increase as incomes increase and consumers shift their preferences to meat. Second, China is FMD endemic and cannot ship pork products to Japan or Korea. Much of what China exports to markets other than Hong Kong tends to be lower quality/canned product and would not compete well in the major growth markets.

Table 24. Pork supply and use projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per ca	
						1,000 hd	Kg/hd	
<b>UNITED STATES</b>								
1992	94,557	83	7,817	293	185	7,926	31.0	175
1993	93,696	83	7,751	336	197	7,902	30.6	163
1994	95,529	84	8,027	337	241	8,087	31.0	199
1995	98,151	82	8,083	297	356	8,042	30.5	181
1996	99,200	84	8,312	295	408	8,199	30.8	181
1993-96 ave.	96,644	83	8,043	316	301	8,058	30.7	181
1998	95,419	85	8,101	284	458	7,924	29.2	183
1999	95,886	85	8,146	278	483	7,941	29.0	183
2000	97,472	85	8,278	274	465	8,088	29.2	182
2001	98,865	85	8,397	270	533	8,134	29.1	182
2002	99,138	85	8,432	267	558	8,144	28.9	179
2003	100,304	85	8,536	262	583	8,215	28.9	179
2004	101,986	85	8,680	258	608	8,329	29.1	180
2005	103,508	85	8,814	254	633	8,434	29.2	181
<b>CANADA</b>								
1992	15,476	78	1,209	16	294	932	34.0	13
1993	15,212	78	1,192	22	303	913	32.9	11
1994	15,532	79	1,234	27	298	959	34.1	15
1995	15,885	79	1,255	35	310	981	34.5	14
1996	15,725	79	1,250	40	335	955	33.2	14
1993-96 ave.	15,589	79	1,233	31	312	952	33.7	14
1998	---	---	1,260	52	321	990	33.8	15
1999	---	---	1,263	55	315	1,003	33.9	15
2000	---	---	1,262	59	309	1,012	33.9	15
2001	---	---	1,260	63	302	1,021	33.9	15
2002	---	---	1,260	67	296	1,031	33.9	15
2003	---	---	1,261	71	291	1,041	34.0	15
2004	---	---	1,261	76	285	1,052	34.1	16
2005	---	---	1,263	80	279	1,064	34.2	16
<b>CENTRAL &amp; EASTERN EUROPE</b>								
1992	69,899	81	5,673	57	160	5,644	45.9	283
1993	65,947	76	5,039	72	144	4,999	40.7	251
1994	55,894	75	4,196	175	140	4,248	34.5	233
1995	54,993	74	4,093	96	136	4,052	32.8	234
1996	43,188	80	3,451	50	111	3,472	27.4	151
1993-96 ave.	55,006	76	4,195	98	133	4,193	33.8	217
1998	---	---	4,357	37	172	4,255	33.8	184
1999	---	---	4,465	74	178	4,360	34.8	185
2000	---	---	4,494	139	185	4,447	35.4	186
2001	---	---	4,559	190	200	4,549	36.1	186
2002	---	---	4,644	240	243	4,641	36.7	187
2003	---	---	4,726	314	292	4,748	37.4	187
2004	---	---	4,825	380	328	4,877	38.3	187
2005	---	---	4,953	435	355	5,033	39.4	187
<b>CHINA</b>								
1992	351,697	75	26,353	0	117	26,236	22.5	0
1993	378,238	75	28,544	0	150	28,394	24.1	0
1994	421,030	76	32,048	0	195	31,853	26.8	0
1995	485,000	76	37,000	0	200	36,800	30.6	0
1996	500,000	78	39,000	0	210	38,790	31.9	0
1993-96 ave.	446,067	77	34,148	0	189	33,959	28.4	0
1998	533,302	80	42,510	0	227	42,283	34.1	0
1999	548,243	80	44,094	0	231	43,863	35.1	0
2000	564,583	81	45,817	0	234	45,583	36.2	0
2001	579,003	82	47,410	0	236	47,174	37.1	0
2002	595,850	83	49,229	0	239	48,990	38.3	0
2003	611,284	83	50,959	0	242	50,717	39.4	0
2004	626,093	84	52,663	0	245	52,418	40.4	0
2005	641,925	85	54,480	0	249	54,231	41.5	0



Table 24. Pork supply and use projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per ca	
	1,000 hd	Kg/hd	1,000 tons			Kgs.	1,000 tons	
<b>EU-15</b>								
1992	182,117	81	14,708	76	478	14,117	38.2	377
1993	190,904	81	15,482	41	638	14,799	39.9	463
1994	191,033	81	15,491	31	845	14,681	39.5	459
1995	186,947	81	15,201	34	726	14,546	39.0	422
1996	187,079	81	15,211	36	706	14,548	38.9	415
1993-96 ave.	188,991	81	15,346	36	729	14,369	38.6	440
1998	---	---	15,673	55	596	15,120	40.2	452
1999	---	---	15,612	60	572	15,099	40.0	453
2000	---	---	15,632	65	575	15,121	40.0	454
2001	---	---	15,645	70	583	15,132	39.9	454
2002	---	---	15,693	75	591	15,176	39.9	455
2003	---	---	15,714	75	599	15,190	39.9	456
2004	---	---	15,733	75	603	15,205	39.9	456
2005	---	---	15,746	75	599	15,221	39.8	457
<b>FORMER SOVIET UNION</b>								
1992	69,541	75	5,228	315	0	5,543	18.9	0
1993	49,996	83	4,138	250	0	4,388	14.9	0
1994	58,838	63	3,695	270	0	3,965	13.4	0
1995	52,083	62	3,235	275	0	3,510	11.8	0
1996	42,360	60	2,535	275	0	2,810	9.4	0
1993-96 ave.	50,819	67	3,401	268	0	3,669	12.4	0
1998	37,197	70	2,594	193	0	2,787	9.2	0
1999	36,935	71	2,615	185	0	2,800	9.2	0
2000	37,020	71	2,637	185	0	2,822	9.3	0
2001	37,264	71	2,664	192	0	2,856	9.3	0
2002	37,349	72	2,695	206	0	2,901	9.4	0
2003	37,414	73	2,742	221	0	2,963	9.6	0
2004	37,457	74	2,784	239	0	3,023	9.7	0
2005	37,489	75	2,829	261	0	3,090	9.9	0
<b>HONG KONG</b>								
1992	182	55	10	198	1	207	37.3	9
1993	155	58	9	208	1	216	38.9	9
1994	186	54	10	224	6	227	40.9	10
1995	180	56	10	225	7	228	41.1	10
1996	175	51	9	226	7	227	41.0	11
1993-96 ave.	174	55	10	221	5	225	40.5	10
1998	---	---	7	205	0	213	38.4	9
1999	---	---	5	208	0	214	38.5	8
2000	---	---	5	212	0	217	38.8	8
2001	---	---	4	214	0	218	38.9	8
2002	---	---	4	217	0	221	39.2	8
2003	---	---	4	220	0	224	39.6	8
2004	---	---	3	222	0	225	39.7	8
2005	---	---	3	225	0	228	40.1	8
<b>JAPAN</b>								
1992	19,182	75	1,432	684	0	2,087	16.8	107
1993	19,152	75	1,433	653	0	2,074	16.6	119
1994	18,649	75	1,390	705	0	2,097	16.8	117
1995	18,005	75	1,350	800	0	2,130	17.0	137
1996	17,510	75	1,315	800	0	2,120	16.8	132
1993-96 ave.	18,329	75	1,372	740	0	2,105	16.8	126
1998	---	---	1,282	873	0	2,196	17.3	85
1999	---	---	1,290	918	0	2,180	17.1	113
2000	---	---	1,250	962	0	2,211	17.3	114
2001	---	---	1,226	1,008	0	2,233	17.5	115
2002	---	---	1,219	1,033	0	2,251	17.5	116
2003	---	---	1,211	1,057	0	2,267	17.6	116
2004	---	---	1,202	1,081	0	2,282	17.7	117
2005	---	---	1,193	1,103	0	2,295	17.8	118

Table 24. Pork supply and use projections

	Slaughter	Yield	Production	Imports	Exports	Consumption		Ending stocks
						Total	Per ca	
	1,000 hd	Kg/hd	1,000 tons			Kgs.	1,000 tons	
<b>MEXICO</b>								
1992	11,400	73	830	55	4	881	9.9	0
1993	11,950	73	870	50	3	917	10.1	0
1994	12,600	71	900	80	2	978	10.6	0
1995	13,540	71	960	55	6	1,009	10.7	0
1996	12,460	71	890	70	8	952	9.9	0
1993-96 ave.	12,638	72	905	64	5	964	10.4	0
1998	13,517	72	971	71	3	1,039	10.5	0
1999	13,677	72	985	80	3	1,062	10.5	0
2000	13,854	72	1,000	97	3	1,094	10.6	0
2001	14,386	72	1,040	94	3	1,131	10.8	0
2002	14,869	72	1,075	91	3	1,163	10.9	0
2003	14,959	72	1,080	115	3	1,192	11.0	0
2004	15,021	72	1,083	139	3	1,219	11.1	0
2005	15,245	72	1,095	149	3	1,241	11.1	0
<b>SOUTH KOREA</b>								
1992	9,490	79	752	4	11	731	16.6	14
1993	9,679	80	773	2	11	767	17.2	11
1994	9,839	80	786	26	11	798	17.7	14
1995	9,814	80	784	75	13	850	18.7	10
1996	10,265	80	820	100	15	905	19.7	10
1993-96 ave.	9,899	80	791	51	13	830	18.3	11
1998	---	---	912	95	17	991	21.1	11
1999	---	---	952	97	17	1,031	21.7	12
2000	---	---	993	99	18	1,073	22.4	12
2001	---	---	1,032	101	19	1,113	23.1	13
2002	---	---	1,073	103	20	1,155	23.7	13
2003	---	---	1,112	105	21	1,195	24.3	14
2004	---	---	1,151	107	22	1,235	24.9	14
2005	---	---	1,189	109	23	1,274	25.5	14
<b>TAIWAN</b>								
1992	13,310	84	1,113	0	303	810	38.8	0
1993	13,225	86	1,135	0	283	852	40.4	0
1994	13,860	87	1,204	0	331	873	41.0	0
1995	14,200	87	1,235	3	330	908	42.2	0
1996	13,700	86	1,175	5	300	880	41.5	0
1993-96 ave.	13,746	86	1,187	2	311	878	41.3	0
1998	---	---	1,199	5	288	916	41.5	0
1999	---	---	1,208	5	282	931	41.8	0
2000	---	---	1,214	5	274	945	42.1	0
2001	---	---	1,219	5	266	958	42.4	0
2002	---	---	1,225	6	258	973	42.6	0
2003	---	---	1,229	6	250	985	42.8	0
2004	---	---	1,241	6	243	1,004	43.3	0
2005	---	---	1,246	6	235	1,017	43.6	0

## Poultry

World consumption of poultry meat is projected to rise more than 3 percent per year during 1995-2005, somewhat more slowly than during the 1980s. Lower prices and production costs compared with red meats are expected to raise poultry's share of world meat consumption. In developed countries, health concerns are also expected to aid the demand for poultry meat. As consumption rises, global trade in poultry meat is projected to continue to increase, growing at an average annual rate of about 3 percent. As global imports rise, the United States is expected to maintain or expand its share of world poultry meat exports.

Per capita poultry meat consumption is expected to increase about 2.5 percent per year, below the rate of the 1980s, but well above the rate for pork and, particularly, beef. Consumption is expected to continue to grow rapidly in Brazil, Mexico, and China, where current levels of use are relatively low. Per capita consumption growth has remained relatively low in many countries, including Japan, Egypt, the FSU, and Central and Eastern Europe (CEE). Japan is currently experiencing rapid growth in beef consumption as beef imports have been liberalized. Per capita poultry consumption is projected to increase slowly. In Egypt, relatively low incomes and trade policies restricting poultry imports have kept consumption low. In Russia and CEE, gains in domestic poultry production still remain weak in the near term and per capita consumption growth will come from imported products. In lower income countries, poultry imports will continue to be limited by inadequate buying power. Countries with relatively high per capita use include Hong Kong, Saudi Arabia, the United States, Canada, and selected countries in the Middle East.

The United States is the largest poultry meat producer, accounting for nearly 30 percent of world production in 1994. The next largest producers are the EU, China, Brazil, and the FSU. Production in these countries, except for the FSU where production is declining, is projected to continue rising as demand expands. The greatest gains are likely to occur in China where production is expected to about double from 1995 to 2005 in response to growing domestic demand and exports.

Global trade in poultry meat is projected to trend upwards at 4 percent per year to near 6 million tons by 2005. This represents a slowing from the high growth rates of the 1980s. Increases in imports are anticipated in all the largest import markets, including China, Japan, Hong Kong, the Middle East, Mexico, the FSU, and Canada.

The low prices of poultry parts have been instrumental in promoting the recent rise in world demand for poultry, particularly export growth to relatively new markets, such as the FSU, Eastern Europe, Mexico, and China. Parts also dominate the imports of all the Pacific Rim nations. Exports of more processed poultry meat are growing, but are expected to remain a relatively small portion of total trade.

There is some resistance to low-priced leg parts exports, particularly from the United States, because their prices are often below the cost of production in the importing country. A number of countries have threatened to raise tariffs or otherwise impose measures to protect their domestic industries. Some countries have imposed import restrictions, usually in response to pressures from poultry producer groups. For the future, it is assumed that while some imports may be restricted, freer trade will generally prevail.

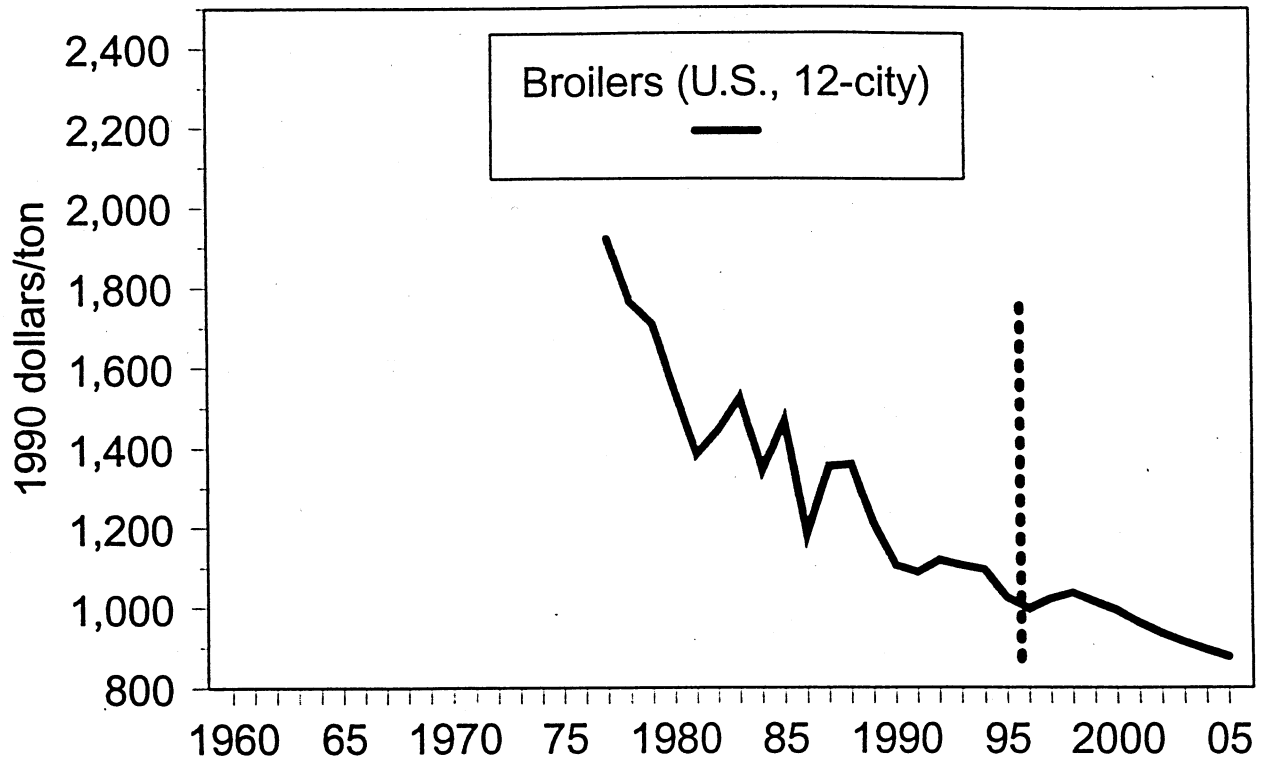
Table 25. Poultry trade projections

Calendar year	1992	1993	1994	1995	1996	1993-96 avg.	1998	1999	2000	2001	2002	2003	2004	2005
	1,000 tons													
<b>Exports</b>														
United States	772	815	1,457	1,862	1,985	1,530	2,296	2,433	2,579	2,723	2,824	2,923	3,026	3,140
Brazil	390	429	495	457	490	468	544	564	572	575	575	576	580	582
China	158	176	252	370	500	325	609	639	669	698	728	756	784	812
European Union-15 1/	502	616	765	783	843	752	494	455	416	393	402	413	416	422
Hong Kong	109	185	291	439	464	345	545	599	629	660	693	728	764	803
Thailand	180	185	180	199	177	185	186	186	185	183	181	180	179	179
Total	2,111	2,406	3,440	4,110	3,017	3,604	4,674	4,876	5,050	5,232	5,403	5,576	5,749	5,938
<b>Imports</b>														
Canada	62	62	67	77	85	73	88	89	91	94	95	97	99	101
China	78	100	139	250	350	210	752	838	931	1,031	1,138	1,253	1,374	1,503
Egypt	2	2	4	5	3	4	30	39	45	53	58	64	74	86
European Union-15 1/	205	215	210	207	210	211	345	259	194	146	109	81	81	81
Former Soviet Union 2/	70	200	505	650	865	555	721	735	736	704	656	640	610	593
Hong Kong	352	396	533	685	700	579	801	860	895	929	967	1,006	1,046	1,090
Japan	406	402	455	480	502	460	648	674	713	750	783	813	843	870
Mexico	116	160	190	160	165	169	203	203	205	206	212	219	226	233
Saudi Arabia	250	263	275	274	277	272	286	301	301	315	329	340	355	371
South Korea	19	20	24	32	36	28	40	42	47	53	61	70	80	93
Total	1,560	1,820	2,402	2,820	2,151	2,559	3,914	4,040	4,158	4,281	4,408	4,583	4,788	5,021

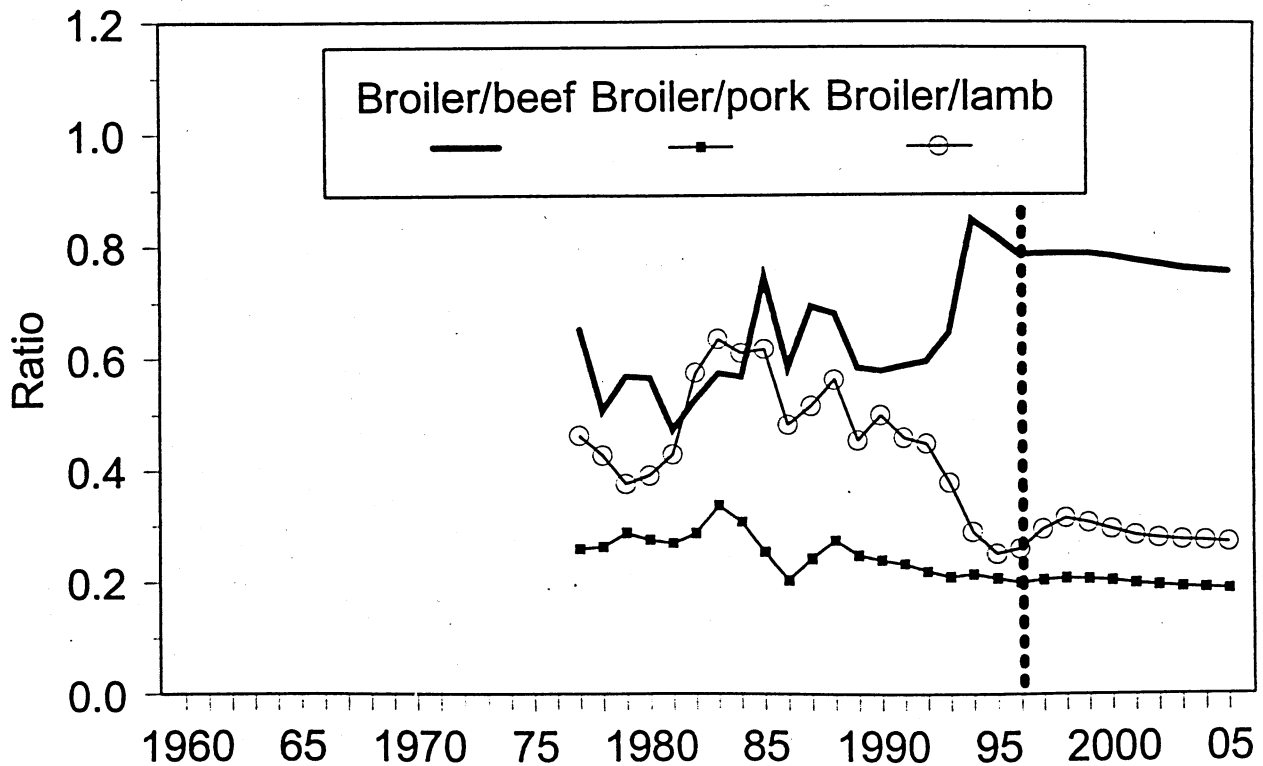
1/ Excludes EU-15 intratrade.

2/ Excludes FSU intratrade.

**Figure 29. Poultry: Historical & Projected Real Prices**



**Figure 30. Poultry: Historical & Projected Price Ratios**



## Highlights for Major Importers

- **EU** imports will decline significantly, as limits on subsidized exports cause poultry production to be retained on the domestic market, reducing the need for imports. The EU's minimum import commitment is considerably below current import levels, thus no increase in imports is expected due to the UR agreement.
- **Japan** is expected to remain as one of the largest importers. Its poultry import growth will depend largely on domestic production, which is projected to gradually decline. Japan is an expanding market for further processed poultry meats and for deboned chicken leg parts, which have generally been gaining import market share in recent years. The United States should remain a major exporter to Japan, but could face strong competition from China, especially in the further processed poultry market.
- **Hong Kong** is expected to continue as a large importer as well as an important re-exporter, particularly to China. A large percentage of its imports are low-priced leg and wing parts and chicken feet. The United States is projected to continue to supply the large majority of these products.
- **China's** poultry imports, primarily via re-exports from Hong Kong, have shown strong growth in recent years. This trade is expected to continue to be permitted even after Hong Kong reverts to Chinese rule in 1997. However, inadequate refrigerated transport and storage capacity are expected to cause a slowdown in import growth, both for domestic use and for processing for re-export.
- **Middle East** imports will likely continue to increase, since domestic production is relatively costly. This region has benefited from subsidized imports, with whole birds, mostly from the EU and Brazil, making up a high percentage of total imports. Imports from the United States include whole birds but are mainly parts. As EU export subsidies are reduced, the U.S. poultry industry may be able to expand its share of this market.
- **FSU** imports are projected to continue growing for the next several years, but then level off as domestic production begins to recover. In **Russia**, tariffs on imports are not expected to stop imports of low-priced poultry parts, mainly chicken leg quarters destined particularly for the urban areas.

Future growth in poultry imports by the **FSU** will be determined by supply and demand developments that will be influenced by the speed of its economic restructuring and transformation to a market-driven economy. The United States is expected to remain the dominant supplier to this market especially for frozen leg quarters, now the preferred import product. However, future FSU import demand is a key uncertainty in the poultry trade outlook.

- **Mexico's** incentives for domestic poultry production are estimated to be better under NAFTA. Although the peso devaluation reduced imports in 1995, Mexico's imports are expected to grow. Mexico has become a very important market for U.S. poultry. Under freer trade, imports of the relatively low-priced poultry meat, both chicken and turkey leg parts, are projected to rise.

### Overview of the World Poultry Market

Historically, poultry products have not been a widely traded commodity, with most poultry meat and eggs consumed in the country where they were produced. With a general easing of trade barriers poultry trade is expected to grow as low-cost producers establish markets in countries that traditionally had protected their domestic industry.

Japan, Hong Kong, Saudi Arabia, the FSU countries (mostly Russia), the EU, Mexico, and China are the major poultry importers, accounting for 70-80 percent of estimated world poultry meat imports in 1993.

Trade in poultry meat is differentiated by cut and by degree of processing. Fewer whole birds are now being exported than in the past as the world market turns increasingly to trade in parts, which (particularly in the case of the United States) are often lower priced than whole birds, and to processed products trade.

Trade in poultry meats is often restricted by health and sanitary regulations. Disease-free certification may be required in some importing countries for diseases such as avian influenza and Newcastle disease. Exporters may also be discouraged by required testing for certain residues and microbes. Japan and Taiwan are notable, but not exclusive, users of these tests.

Trade also has been restricted and distorted through import licensing and quotas for protection, as well as with export subsidies. The EU has extensive subsidies on poultry exports, and South Korea, Taiwan, and Canada have substantial restrictions on poultry imports. However, trade liberalization is generally gaining and progress has been made in opening poultry markets.

Since the late 1980s, trade opportunities have increased. Increasing numbers of consumers worldwide are able to shop for relatively low-priced chicken and turkey parts. While in some cases trade is still restricted, more countries are opening their markets. Mexico and Russia are examples of markets that have opened to increased poultry imports in recent years. South Korea is slowly opening its market.

The top poultry exporters are the United States, the EU, Brazil, China, Thailand, and Hong Kong (re-exporter). These countries accounted for slightly more than 75 percent of world exports in 1994. The United States and other efficient, relatively low-cost producers and exporters--Brazil, China, Thailand, and potentially Hungary--are expected to benefit from increased trade facilitated by market liberalization.

Import growth could be slowed in the short term due to tariff rate quotas negotiated on U.S. poultry meat as a part of NAFTA which began in 1994. The quotas are increased each year and the over-quota tariffs are cut each year and are phased out by 2003. These quotas could restrain growth in the short term, but so far Mexico has chosen not to enforce them, despite pressure from the domestic pork industry. Potential enforcement of the tariff rate quota by Mexico imposes significant uncertainty on the U.S. poultry export outlook.

- **Canada's** imports are projected to rise due to continued competition from lower priced U.S. products. Canada has import quotas, but pressure for lower cost meat is expected to result in continued import growth. Breast meat and further processed poultry are more important in this market. As the Canadian market opens up, U.S. producers are expected increase their market share, but they are likely to face competition from foreign producers, especially for items such as deboned meats.
- **South Korea** is slowly liberalizing its restrictive import licensing, and its market is expected to expand in the future. It has increased imports of turkey leg parts from France and the United States for use in processed meats.

#### Highlights for Major Exporters

- **EU** poultry exports will decline by about 50 percent from the level of the early 1990's due to UR limits on subsidized exports. Despite steep cuts in subsidized poultry exports, the EU will likely remain an important exporter through 2005 and a U.S. competitor in expanding Middle Eastern markets. Subsidized exports will continue to account for a large share of poultry exports, although efficient production methods and lower feed costs will allow some EU producers to export poultry without subsidies.
- **Brazil**, a strong, emerging export competitor, is projected to hold market share with the EU and the United States during the short term. But Brazil's export growth may slow after the year 2000 as domestic demand begins to increase relative to domestic supply. Income gains and the increasingly lower prices of poultry compared with most red meats are raising domestic Brazilian demand for poultry meat. The extent to which rising domestic demand will slow Brazil's exports is a key uncertainty in the trade outlook.
- For **China**, another emerging exporter, both imports (of some parts) and exports (of others) are expected to continue increasing in response to higher incomes generating more consumption and to expanded investment in production, including that for export. Some of the imports are reprocessed and re-exported. Because of its low wages, China's production is being aided by outside investment, particularly from Japan, its major market. The extent to which strong domestic demand growth may affect China's exports of poultry products is another important uncertainty in the global outlook.
- **Hong Kong** has become an important poultry meat re-exporter. But its exports are expected to grow more slowly. After reunification with China, there likely will be less incentive to ship poultry products through Hong Kong rather than directly to China.
- **Thailand's** exports are expected to be slowed by both rising domestic use and slowing production growth stemming from increasing wages and dependence on imported feeds. Despite more competition from China, Thailand is expected to remain a competitive exporter of processed products, mainly deboned chicken parts.



Table 26. Poultry supply and use projections

	Production	Imports	Exports	Consumption		Ending stocks
				Total	Per cap	
	1,000 tons			Kgs.		1,000 tons
<b>UNITED STATES</b>						
1992	11,885	0	772	11,079	43.4	295
1993	12,260	0	815	11,451	44.3	289
1994	13,206	0	1,457	11,700	44.8	338
1995	13,860	0	1,862	12,158	46.1	178
1996	14,732	0	1,985	12,925	48.5	375
1993-96 ave.	13,515	0	1,530	12,059	46.0	295
1998	16,084	0	2,296	13,670	50.3	413
1999	16,615	0	2,433	14,172	51.7	424
2000	17,221	0	2,579	14,631	52.9	435
2001	17,824	0	2,723	15,090	54.1	446
2002	18,443	0	2,824	15,608	55.4	457
2003	19,051	0	2,923	16,117	56.8	468
2004	19,640	0	3,026	16,603	58.0	480
2005	20,242	0	3,140	17,091	59.2	491
<b>BRAZIL</b>						
1992	2,932	0	390	2,542	16.5	0
1993	3,211	0	429	2,782	17.8	0
1994	3,491	4	495	3,000	18.9	0
1995	3,888	2	457	3,433	21.4	0
1996	4,495	5	490	4,010	24.7	0
1993-96 ave.	3,771	3	468	3,306	20.7	0
1998	4,283	0	544	3,739	22.5	0
1999	4,399	0	564	3,835	22.8	0
2000	4,562	0	572	3,990	23.5	0
2001	4,733	0	575	4,158	24.3	0
2002	4,930	0	575	4,355	25.2	0
2003	5,126	0	576	4,550	26.1	0
2004	5,328	0	580	4,748	27.1	0
2005	5,527	0	582	4,945	27.9	0
<b>CANADA</b>						
1992	706	62	8	762	27.8	29
1993	741	62	13	794	28.6	25
1994	829	67	29	861	30.6	31
1995	857	77	38	902	31.7	25
1996	867	85	38	912	31.7	27
1993-96 ave.	824	73	30	867	30.7	27
1998	862	88	9	945	32.2	23
1999	880	89	10	959	32.4	24
2000	898	91	10	979	32.8	24
2001	916	94	10	1,000	33.2	25
2002	934	95	10	1,019	33.5	25
2003	953	97	10	1,040	33.9	25
2004	971	99	10	1,060	34.3	26
2005	990	101	10	1,080	34.7	26
<b>CHINA</b>						
1992	4,540	78	158	4,460	3.8	0
1993	5,300	100	176	5,224	4.4	0
1994	7,550	139	252	7,437	6.2	0
1995	7,500	250	370	7,380	6.1	0
1996	9,000	350	500	8,850	7.3	0
1993-96 ave.	7,338	210	325	7,223	6.0	0
1998	9,459	752	609	9,602	7.8	0
1999	10,091	838	639	10,290	8.2	0
2000	10,795	931	669	11,057	8.8	0
2001	11,488	1,031	698	11,821	9.3	0
2002	12,248	1,138	728	12,658	9.9	0
2003	13,023	1,253	756	13,520	10.5	0
2004	13,817	1,374	784	14,407	11.1	0
2005	14,661	1,503	812	15,352	11.8	0

Table 26. Poultry supply and use projections

	Production	Imports	Exports	Consumption		Ending stocks
				Total	Per cap	
	1,000 tons				Kgs.	1,000 tons
<b>EU-15</b>						
1992	7,493	205	502	7,134	19.3	207
1993	7,175	215	616	6,797	18.3	184
1994	7,476	210	765	6,873	18.5	232
1995	7,531	207	783	6,948	18.6	239
1996	7,496	210	843	6,868	18.3	234
1993-96 ave.	7,420	211	752	6,866	18.4	222
1998	7,542	345	494	7,468	19.8	148
1999	7,607	259	455	7,411	19.6	148
2000	7,658	194	416	7,436	19.6	149
2001	7,707	146	393	7,460	19.7	149
2002	7,784	109	402	7,490	19.7	150
2003	7,857	81	413	7,524	19.8	151
2004	7,903	81	416	7,567	19.8	151
2005	7,958	81	422	7,616	19.9	152
<b>EGYPT</b>						
1992	225	2	0	227	3.9	0
1993	275	2	0	277	4.6	0
1994	315	4	0	319	5.2	0
1995	324	5	0	329	5.3	0
1996	329	15	0	344	5.4	0
1993-96 ave.	311	7	0	317	5.1	0
1998	313	30	0	343	5.2	0
1999	321	39	0	360	5.4	0
2000	329	45	0	374	5.5	0
2001	336	53	0	389	5.6	0
2002	344	58	0	402	5.7	0
2003	352	64	0	416	5.8	0
2004	360	74	0	434	5.9	0
2005	369	86	0	455	6.1	0
<b>FORMER SOVIET UNION</b>						
1992	2,807	70	0	2877	9.8	0
1993	2,613	200	0	2813	9.6	0
1994	2,238	505	0	2743	9.3	0
1995	1,100	650	0	1750	5.9	0
1996	1,070	865	0	1935	6.5	0
1993-96 ave.	1,755	555	0	2310	7.8	0
1998	1,550	721	0	2,271	7.5	0
1999	1,610	735	0	2,345	7.7	0
2000	1,670	736	0	2,406	7.9	0
2001	1,745	704	0	2,449	8.0	0
2002	1,827	656	0	2,483	8.1	0
2003	1,904	640	0	2,544	8.2	0
2004	1,992	610	0	2,602	8.4	0
2005	2,086	593	0	2,679	8.6	0
<b>HONG KONG</b>						
1992	21	352	109	263	47.3	7
1993	20	396	185	230	41.4	8
1994	16	533	291	256	46.1	10
1995	15	685	439	257	46.4	14
1996	12	700	464	248	44.8	14
1993-96 ave.	16	579	345	248	44.7	12
1998	18	801	545	279	50.5	6
1999	18	860	599	278	50.1	6
2000	17	895	629	283	50.6	6
2001	16	929	660	285	50.8	7
2002	16	967	693	290	51.4	7
2003	15	1,006	728	293	51.9	7
2004	15	1,046	764	296	52.3	7
2005	14	1,090	803	301	53.0	7

Table 26. Poultry supply and use projections

	Production	Imports	Exports	Consumption		Ending stocks
				Total	Per cap	
	1,000 tons			Kgs.		1,000 tons
<b>JAPAN</b>						
1992	1,367	406	8	1,752	14.1	82
1993	1,368	402	6	1,750	14.0	96
1994	1,302	455	5	1,767	14.1	81
1995	1,280	480	5	1,745	13.9	91
1996	1,255	502	4	1,750	13.9	94
1993-96 ave.	1,301	460	5	1,753	14.0	91
1998	1,245	648	5	1,886	14.9	92
1999	1,218	674	5	1,893	14.9	86
2000	1,206	713	6	1,912	15.0	87
2001	1,196	750	6	1,938	15.2	88
2002	1,239	783	7	1,934	15.1	169
2003	1,142	813	8	1,991	15.5	125
2004	1,165	843	9	1,998	15.5	127
2005	1,162	870	9	2,021	15.7	128
<b>MEXICO</b>						
1992	990	116	5	1,101	12.4	0
1993	1,090	160	0	1,250	13.8	0
1994	1,240	190	0	1,430	15.5	0
1995	1,120	160	0	1,280	13.6	0
1996	1,145	165	(0)	1,310	13.7	0
1993-96 ave.	1,149	169	(0)	1,318	14.2	0
1998	1,335	203	0	1,530	15.4	0
1999	1,410	203	0	1,613	15.9	0
2000	1,496	205	0	1,701	16.5	0
2001	1,578	206	0	1,784	17.0	0
2002	1,658	212	0	1,870	17.6	0
2003	1,737	219	0	1,956	18.1	0
2004	1,815	226	0	2,041	18.6	0
2005	1,896	233	0	2,129	19.1	0
<b>SAUDI ARABIA</b>						
1992	303	250	4	540	32.3	69
1993	285	263	5	562	32.3	50
1994	286	275	8	557	30.9	46
1995	287	274	6	555	29.6	46
1996	293	277	7	563	29.0	46
1993-96 ave.	288	272	7	557	30.3	47
1998	340	286	5	618	29.7	51
1999	355	301	5	650	30.2	52
2000	367	301	5	661	29.7	54
2001	378	315	5	687	29.8	56
2002	390	329	5	712	29.9	58
2003	402	340	5	736	29.9	61
2004	415	355	5	763	30.0	63
2005	429	371	5	793	30.1	65
<b>SOUTH KOREA</b>						
1992	354	19	0	373	8.4	0
1993	366	20	0	386	8.7	0
1994	378	24	0	398	8.8	4
1995	396	32	0	428	9.4	4
1996	408	36	0	444	9.6	4
1993-96 ave.	387	28	0	414	9.1	3
1998	454	40	0	492	10.5	4
1999	474	42	0	516	10.9	5
2000	494	47	0	540	11.3	5
2001	517	53	0	569	11.8	5
2002	535	61	0	595	12.2	5
2003	551	70	0	620	12.6	5
2004	565	80	0	645	13.0	6
2005	577	93	0	670	13.4	6

Table 26. Poultry supply and use projections

	Production	Imports	Exports	Consumption		Ending stocks
				Total	Per cap	
	----- 1,000 tons -----				Kgs.	1,000 tons
THAILAND						
1992	710	0	180	530	9.2	0
1993	685	0	185	500	8.5	0
1994	730	0	180	550	9.2	0
1995	795	0	199	596	9.9	0
1996	870	0	177	693	11.4	0
1993-96 ave.	770	0	185	585	9.8	0
1998	833	0	186	647	10.4	0
1999	856	0	186	670	10.6	0
2000	889	0	185	704	11.1	0
2001	917	0	183	734	11.4	0
2002	951	0	181	770	11.9	0
2003	980	0	180	800	12.3	0
2004	1,007	0	179	828	12.7	0
2005	1,036	0	179	857	13.1	0

## Appendix: Definition of Geographic Regions

The list below indicates the countries included in the geographic regions used in the tables and text in this report. Inclusion of supply, use, and trade data for a particular country and commodity is dependent on availability of those data in the USDA database. USDA supply and use data are not available for all countries and commodities included in the report.

Within the tables included in the report, data are frequently aggregated into regions defined, for example, as "Other Asia" or "Other North Africa and Middle East." These aggregates include data for all countries in that region (subject to data availability), except those broken out separately in that table. For example, "Other Asia" will include all countries listed below for the Asia region, less any Asia region countries shown individually in the table. Aggregates listed simply as "Other" include available data for all countries in the world not already accounted for by the individual countries and regions shown in the table.

### Europe

European Union-15 (EU-15): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxemburg, Netherlands, Portugal, Spain, Sweden, United Kingdom

Former Soviet Union (FSU): Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan

Central and Eastern Europe (CEE): Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia, Former Yugoslavia (incl. Bosnia, Croatia, Macedonia, Montenegro, Serbia, Slovenia)

### Western Hemisphere

Central America and Caribbean: Antigua & Barbuda, Bahamas, Barbados, Belize, Bermuda, Costa Rica, Cuba, Dominica, Dominican Republic, El Salvador, Grenada, Guadeloupe, Guatemala, Haiti, Honduras, Jamaica, Martinique, Netherlands Antilles, Nicaragua, Panama, Puerto Rico, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago, Virgin Islands

South America: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, Venezuela

Latin America: South America, Central America and Caribbean

### Africa and Middle East

Africa and Middle East: North Africa and Middle East, Sub-Saharan Africa, South Africa

North Africa and Middle East: Algeria, Bahrain, Cyprus, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, Turkey, United Arab Emirates, Yemen

Sub-Saharan Africa: Angola, Botswana, Burundi, Cape Verde, Comoros, Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mauritania, Mauritius, Mozambique, Nigeria, Reunion, Rwanda, Sao Tome and Principe, Seychelles, Sierra Leone, Somalia, Sudan, Swaziland, Tanzania, Uganda, Zaire, Zambia, Zimbabwe,

West Africa 10: Benin, Burkina, Cameroon, Central African Republic, Chad, Cote d'Ivoire, Mali, Niger, Senegal, Togo

#### **Asia and Oceania**

Asia and Oceania: Asia, Oceania

Asia: China, East Asia, Mongolia, South Asia, Southeast Asia

East Asia: Hong Kong, Japan, Macao, North Korea, South Korea, Taiwan

Southeast Asia: Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam

South Asia: Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, Sri Lanka

Oceania: Australia, American Samoa, Fiji, Kiribati, New Caledonia, New Zealand, Papua New Guinea, Fiji, Solomon Islands, Tuvalu, Vanuatu, Western Samoa