



Food Outlook

Global Market Analysis

Overview

As 2006 draws to an end, the most prominent feature of the food and feed markets in 2006 has been the surge in the prices of cereals, in particular wheat and maize, which, by November, had reached levels not seen for a decade. Poor harvests in key producing countries and a fast growing demand for biofuel production have been the main drivers of the grain markets. Supply constraints also have dominated the rice economy.

The exceptional increase in cereal prices bears strong implications for the other agricultural commodities: although prices in the oilseed complex have also been on the rise, gains have been well short of those witnessed for cereals. This is likely to trigger, in the coming season, a shift away from oilseed cultivation, as farmers turn towards more profitable cereal crops, a move that will exacerbate current imbalances, especially in the vegetable oil markets, which have seen demand rising faster than production.

The strength of grain markets also has ripple effects on the meat and dairy sectors via their feed linkages. For instance, expectations of high feed costs are threatening to postpone a recovery in livestock and meat production. This comes at a time when more pondered consumer reactions to animal health scares have raised the prospect of a demand rebound. As for dairy products, developments in the sector's own fundamentals currently overshadow concerns over feed costs. Negative expectations for milk production in Australia and in the European Union, which together supply a third of world dairy exports, forewarn a tightening of the market and an end to the softening of prices witnessed earlier in 2006.

After three years of deficit, global sugar production has recovered, so much so that it is expected again to outpace demand. While the turnaround appears to have been factored in by the market, as evidenced by the slide in prices since the highs reached in February 2006, the sugar market remains particularly susceptible to large demand swings and price volatility.

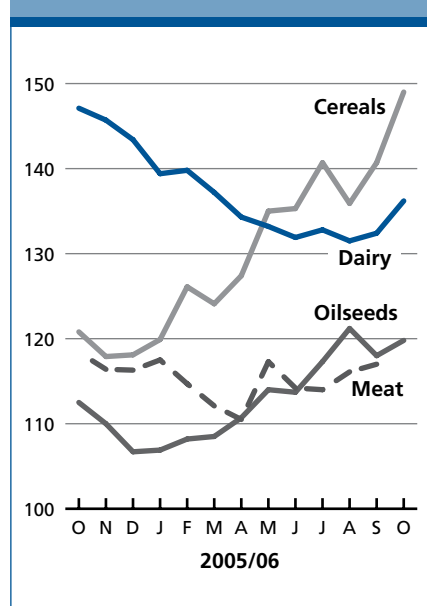
On the policy front, animal disease-related import bans are gradually being lifted, but governments have intensified their interference in the basic food and feed markets. In the case of cereals, interventions on the export side, in the form of export ceilings and temporary export bans, have multiplied, as governments stepped in to avert domestic supply shortages. Actions on wheat and sugar were also geared towards facilitating imports. Interestingly, in the European Union, the first effects of sectoral reforms have already become evident in the dairy and sugar markets. Accession of Bulgaria and Romania to the European Union as of 1 January 2007 is also an important development that will influence global food and feed markets.

While the general policy setting will continue to be of utmost importance in 2007, the attention is now turning to external factors, in particular, crude oil prices and macro-economic variables such as exchange rates and income growth. Given current market tightness, weather is another uncertainty that will weigh heavily on food and feed crop prices, and indirectly, also on the prices of meat and dairy products.

CONTENTS

| | |
|--|------------|
| Market summaries | 2-3 |
| Market assessments | |
| Wheat | 4 |
| Coarse grains | 8 |
| Rice | 12 |
| Oilseeds, oils and oilmeals | 17 |
| Sugar | 22 |
| Meat and meat products | 25 |
| Milk and milk products | 28 |
| Fertilizers | 32 |
| Ocean freight rates | 34 |
| Special features | |
| Bulgaria and Romania: EU Accession | 36 |
| Impact of animal disease | 39 |
| Appendix tables | 48 |
| Market indicators and food import bills | 72 |

FAO food price indices



Market summaries

WHEAT

A sharp drop in world wheat production in 2006, driven by lower outputs in nearly all major exporting countries, has resulted in one of the tightest periods for world supply and demand of wheat in more than two decades. The decline in 2006 production has turned out to be the largest since 1994. International wheat prices have responded to smaller exportable supplies and shrinking inventories by surging to levels not seen since the mid-1990s. In spite of reduced supplies and higher prices, world trade in 2006/07 is likely to remain at the previous season's high level mainly due to much larger imports by Brazil and India. Given reported increases in winter wheat plantings and favourable growing conditions to date, world wheat production in 2007 is likely to recover, which would improve supply and contribute to lowering price levels later this season and into the next.

COARSE GRAINS

World markets for coarse grains are experiencing an exceptionally volatile period as a result of a sharp decline in world production and a tightening of supplies in the United States, the world's largest producer and exporter. This season's decline in production coincides with a more rapid expansion in demand for industrial use, ethanol in particular. Against this background, global stocks by the end of the 2007 seasons are likely to be drawn down significantly, fuelling price volatility and increases across the board. Looking ahead, the current strong prices are likely to encourage higher plantings and result in larger production in 2007 compared with 2006. However, if industrial use continues to grow at the current pace, it may take more than one good crop season for prices to retreat significantly from their current highs.

RICE

A series of set backs, in the form of typhoons, drought, flooding, diseases and insect attacks, have marred prospects for rice crops in 2006, so virtually no growth in global production is anticipated in 2006. Early indications on 2007 crops in the southern hemisphere countries are also negative. As a result, a greater reliance on rice reserves might be needed to meet domestic consumption. Rice trade is foreseen to increase somewhat in 2007, sustained by increasing imports by countries in Africa and Latin America and the Caribbean and, on the export side, by large inventories in Thailand. Although the arrival of supplies from newly harvested crops could bring some respite to high world prices, this is likely to be only temporary, and an expected tightening of the global supply and demand portends a continuation of relatively firm rice prices into 2007.

OILSEEDS

Growth in global oilseed production is forecast to slow down considerably in 2006/07 due to declines in rapeseed, groundnut and sunflower production in key producing countries as well as lower increases of soybean output in Latin America. Global supplies of both oils/fats and meals/cakes should, however, continue to expand thanks to ample carry-in stocks from 2005/06. World oils/fats consumption for food and non-food applications, notably in the biofuel sector, is anticipated to expand further. To satisfy demand, a draw down in global oils/fats stocks appears necessary, which should sustain prices. Also, global demand for meals/cakes should continue rising, with soybean meal satisfying most of the increase. As consumption is expected to fall short of production, global meal/cake inventories should rise further, putting an end to the upward trend in international meal/cake prices. Regarding trade, sustained growth of global exports and imports is expected for both oils/fats and meals/cakes. During 2006/07, the oilseed complex is expected to be increasingly affected by expectations for oilseed and cereal crops in the subsequent 2007/08 season. The tightness currently observed in feed grain markets could lead to lower plantings and firming prices in the oilseed sector.

SUGAR

World sugar prices have largely retreated from the 25-year highs reached in February 2006 and had approached their longer-term trend value by end October 2006. World sugar production is forecast to increase to 155.5 million tonnes in 2006/07, as producers responded to two years of high prices by expanding planted areas to sugar crops, with record production forecast in Brazil and India. More favourable weather patterns also resulted in a recovery to normal output levels, particularly in Thailand and the United States. A forecast 23 percent decline in European Union sugar production due to sugar policy reform has been partially offset by increases elsewhere in Europe. As a result of slower growth, world sugar consumption is foreseen to reach 152.1 million tonnes. Prospects for continued strong prices in 2006/2007 may be dampened by the forecast 3.4 million tonnes surplus after three consecutive years of deficit.

MEAT AND MEAT PRODUCTS

Global meat markets in 2007 are expected to gradually recover in the aftermath of animal disease outbreaks that have plagued the sector for the past four years. Low poultry prices and renewed consumer confidence in the context of strong economic growth and reduced disease outbreaks are forecast to induce a gradual recovery in global meat demand. While meat output is expected to respond positively to it, considerable uncertainty hinges on the impact of rising feed prices on industry profitability. On the trade side, meat shipments, after witnessing an animal disease-induced cyclical pattern of losses and recoveries over the past four years, are forecast to rise by 7 percent.

DAIRY

World milk production may increase by over 2 percent in 2006, mainly as a result of relatively higher prices in the past two years. Growth in the output of developing countries is robust at over 4 percent, due mainly to large gains in some countries of Asia and South America. Output in developed countries is largely stagnant. A major feature of the current trade situation is declining exports by the European Union, whose intervention stocks have been drawn down, and whose export refunds have been reduced. The drought in Australia is also affecting its exportable supplies. As a result, international dairy product prices, which fell from a historical peak in 2005, have recently turned around at above trend levels. The outlook for 2007 is for a continued global expansion in milk supplies, but with little change in global trade of milk products. Prices are expected to remain firm.

Market assessments

WHEAT

PRICES

Prices have risen significantly but a turnaround is likely

While international wheat prices continued on an upward trend during most of the 2005/06 marketing season, the price increase has accelerated since the beginning of the current season as production prospects deteriorated, especially in several wheat exporting countries. By October 2006, concerns about the prospects for wheat crops in major producing countries in the southern hemisphere, (especially drought-devastated Australia), added further strength to prices, while the announcement by **Ukraine** to limit exports through quotas also provided support. The volatile but rising prices in October 2006 were followed by more subdued price movements in early November 2006, before rising again towards the end of the month. In November, the United States **hard wheat** export price averaged US\$219, up over US\$52, or 31 percent, from the previous year. The rise in the United States export prices was also supported by the sudden recent weakening of the United States Dollar. Stronger upward price movements were also recorded for Argentine **Trigo Pan** and the United States **and European Union soft varieties**. Rising world prices have boosted sales from the **European Union** in spite of a strong Euro and in

the absence of export refunds.

Price developments in the **futures market** have been supported not only by the wheat market's own fundamentals but also by a continuing rally in maize prices and heavy purchases by hedge funds. By late November 2006, the Chicago Board of Trade (CBOT) **March contracts** for soft red winter wheat resumed their upward trend and reached US\$191 per tonne, up US\$73 per tonne, or 62 percent from 2005.

Notwithstanding the current tight market situation, FAO is expecting international wheat prices to return to more moderate levels. Once the market gets past the present uncertainties associated with the short-term supply outlook and crop prospects in southern hemisphere countries, focus will shift to the new crops in the northern hemisphere. The sharp increase in winter plantings and good growing conditions have raised expectations for a strong rebound in 2007 harvests. As a result, wheat prices could be subject to more persistent downward pressure later in the season as supply prospects gradually improve.

PRODUCTION

Production sharply down in 2006 but favourable early prospects for 2007

As of mid-November, with the main wheat harvests in the northern hemisphere already complete and those in the south soon to be concluded, FAO's latest forecast of **world** output in 2006 stands at roughly 592 million tonnes, almost 33 million tonnes, or 5.3 percent, down from 2005 and

Figure 1. Wheat export price (US no. 2 H.W. Gulf)

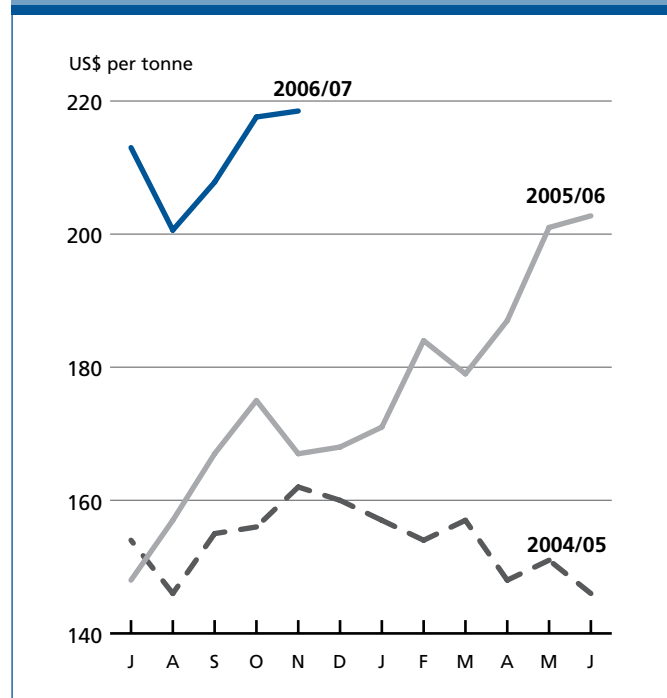


Figure 2. CBOT wheat futures for March

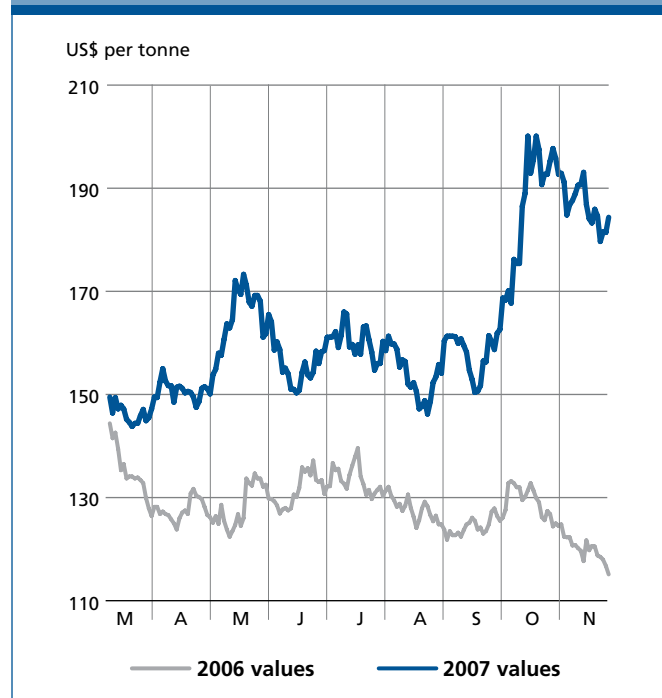


Table 1. World wheat market at a glance

| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | Change: 2006/07 over 2005/06 |
|---|-----------------------|--------------------------|--------------------------|---------------------------------------|
| | <i>million tonnes</i> | | | <i>%</i> |
| WORLD BALANCE | | | | |
| Production | 632.0 | 624.5 | 591.8 | -5.2 |
| Trade | 110.8 | 110.1 | 110.0 | -0.1 |
| Total utilization | 618.8 | 623.2 | 621.7 | -0.2 |
| Food | 437.7 | 442.4 | 445.6 | 0.7 |
| Feed | 111.1 | 113.2 | 112.2 | -0.8 |
| Other uses | 70.1 | 67.6 | 63.9 | -5.6 |
| Ending stocks | 175.5 | 174.7 | 147.0 | -15.8 |
| SUPPLY AND DEMAND INDICATORS | | | | |
| Per caput food consumption: | | | | |
| World (<i>Kg/year</i>) | 68.6 | 68.6 | 68.2 | -0.5 |
| LIFDC (<i>Kg/year</i>) | 59.8 | 59.6 | 59.2 | -0.7 |
| World stock-to-use ratio (%) | 28.2 | 28.1 | 23.2 | -17.5 |
| Major exporters' stock-to-disappearance ratio (%) | 21.7 | 23.1 | 13.8 | -40.1 |

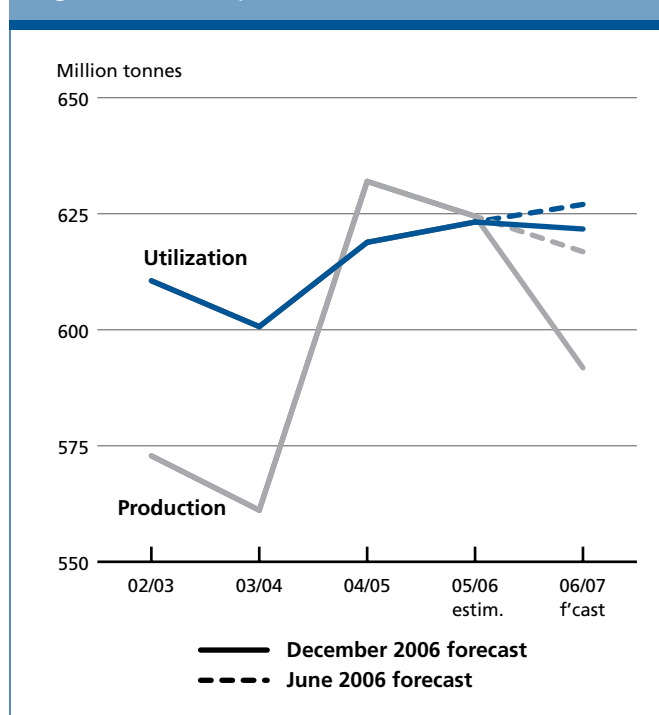
below the average of the past five years. This level is well short of expectations earlier in the year, following downward revisions for several regions.

In **Europe**, hot and dry summer weather affected yields in several major producing **European Union** countries, turning prospects around and leading to an estimated 5 percent reduction in their aggregate output in 2006. In the southern hemisphere, a rapid deterioration in production prospects since September has called for large downward revisions there also, compared with expectations at the start of the seasons. Favourable early prospects in **Australia** were gradually eroded as severe drought set in across much of the country during the growing period, and with the harvest now underway, the final output is forecast at just 44 percent of the average of the past five years. In **South America**, a period of drought in **Argentina** reduced yield prospects, and although the harvest is still expected to better 2005's low level, the improvement will not be as much as projected earlier and output will remain below the five-year average. In **Brazil**, financial constraints on producers were largely responsible for a sharp fall in plantings, which, combined with adverse weather, could lead to a 50 percent smaller crop in 2006.

However, as forecast earlier in 2006, much of the decline in aggregate 2006 world wheat production is due to smaller harvests now completed and confirmed in some major northern hemisphere producers. This applies in particular to the **Russian Federation, Ukraine and United States**, where adverse weather conditions at the start of the season affected planted areas and impaired early crop development.

At the regional level, increased wheat outputs in 2006

Figure 3. Wheat production and utilization



are estimated only for Asia and Africa. In **Asia**, aggregate production is set to be up by nearly 3 percent, mostly reflecting larger crops in **China, India and Kazakhstan**. In **North Africa**, weather conditions during the 2006 season were much more favourable than in the previous year and supported a strong recovery in output.

Early prospects for the newly-planted **2007** winter wheat crop are generally favourable. Conditions for planting and crop establishment have been good and current indications point to larger areas in several major producing countries. In the **United States**, the winter wheat planting was virtually complete by mid-November under favourable conditions and tentative estimates point to a 5 percent expansion in area. Also in **Europe**, the wheat area is expected to be up in several of the major producing countries throughout the region.

TRADE

Brazil and India sustain world trade in 2006/07

World trade in wheat in 2006/07 is currently forecast at 110 million tonnes, unchanged from the previous season and slightly below FAO's last forecast reported in the October 2006 issue of the Crop Prospects and Food Situation Report. The decline in this month's forecast is mostly a reflection of further cuts in commercial imports by several countries, mostly in reaction to higher world prices. This has been the case of **Nigeria**, the second largest importing country in Africa after Egypt, which was initially forecast to purchase more wheat this season but is now more likely to purchase less. **Iraq** is another country where total imports are likely to

decrease rather than rise, given the slower pace in securing contracts and in actual deliveries. Strong international prices, high freight rates for Iraqi ports and the continuing turmoil on the domestic front have added uncertainty to the prospects for higher imports by Iraq this season. In spite of lower imports by many countries, world trade in 2006/07 is still expected to be the second largest, just one million tonnes below the record in 2004/05. The reason is a sudden surge in imports by only a few countries, most notably Brazil and India, without which world trade would have instead taken a sharp dive.

If the current forecasts materialize, imports by Brazil and India in 2006/07 alone would add up to around 14 million tonnes. In the case of **Brazil**, the expected halving of its production in 2006 combined with strong and growing domestic demand have raised its import demand to be at least 7.8 million tonnes, well beyond its average imports of roughly 5 million tonnes, which Brazil normally purchases from Argentina, its principal Southern Common Market or **Mercosur** partner. Given the tight exportable supplies in Argentina, Brazil could be seeking wheat outside the Mercosur trade block, although that would mean higher import costs because of the applied 10 percent tariff on purchases from countries outside Mercosur.

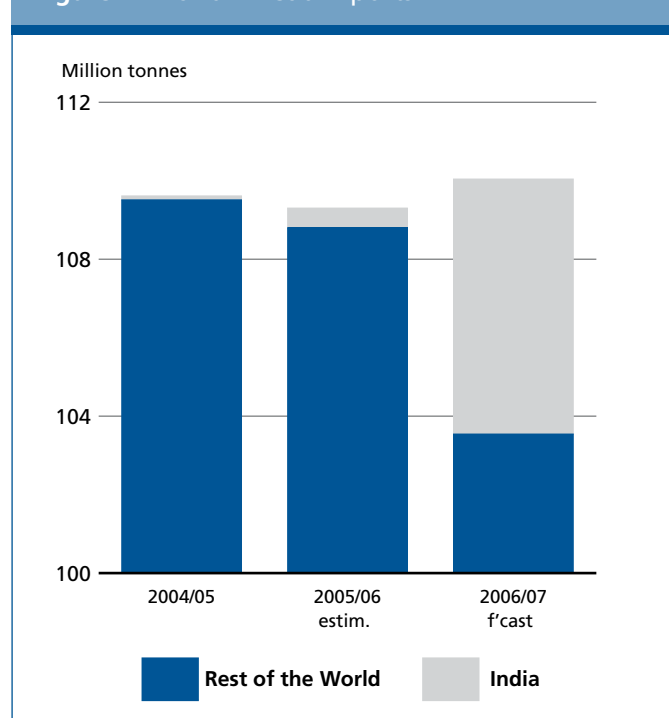
In the case of **India**, this season's expected large imports come as a surprise to world markets given the fact that India has become increasingly known as a self-sufficient country in recent years with even occasional large surpluses for exports. However, with consumption rising faster than production and depleted public stocks, the Government

decided to contract large imports to avert price increases. Since the start of the season, the Government has purchased some 5.5 million tonnes and in September 2006 suspended the remaining small import duty on wheat until the end of December 2006, in an effort to encourage imports by private millers. At the time of suspension, the import duty had already been reduced from 50 to 5 percent in late June 2006.

As for major developments in other markets, the forecast for wheat imports by the **Islamic Republic of Iran** has been raised to 900 000 tonnes in spite of yet another year of record crop. This follows an upward revision to the estimate of the previous season's imports, following the recent confirmation by the Government that an amount of 1.2 million tonnes was imported in the 2005/06 for the purpose of replenishing the country's strategic reserves. In contrast, wheat imports are forecast to decline in several countries. In **Pakistan**, a bumper harvest has reduced the need for large imports and the country is reported to be considering some exports this season. Most countries in northern Africa also benefited from good to bumper crops in 2006 and this has driven down their imports considerably, especially in **Morocco** where production has almost doubled from 2005 and imports are forecast at one million tonnes, down 1.8 million tonnes from the previous season and smallest since the mid-1990s.

The large anticipated imports by Brazil and India constitute one of the emerging features of this season's trade. The other is the supply tightness triggered by smaller harvests in several wheat exporting countries. Among the top five major exporters, individual shipments from all but Australia are likely to remain close to, or even increase from, the previous season but this would be mainly at the expense of some heavy draw downs of their inventories. In **Australia**, given the forecasts for a sharp reduction in wheat output, exports (July/June) are forecast to decline by some 1.5 million tonnes while ending stocks would also have to be depleted. A tight domestic situation is also expected to emerge in **Argentina**. Although its exports during the current marketing season are likely to increase, according to trade sources, it is unprecedented that the country already committed the expected export availability from the new crop. This contrasts with the situation in **Canada** where the 2006 good level and high quality production have created a more favourable condition for exports, which are likely to exceed 20 million tonnes, the highest level in almost ten years. Wheat exports from the **European Union** are also forecast to increase, approaching a four-year high of around 15.5 million tonnes. While wheat production also fell sharply in the European Union in 2006, its large carry-over stocks and good export prospects supported by high world prices have given way to a much faster pace in its sales this season without the need to resort to export subsidies; no restitutions have been granted since mid-July.

Figure 4. World wheat imports



The anticipated increase in aggregate wheat sales by the five major exporters would cover the expected sharp decline in shipments from other sources. Several exporters suffered from reduced harvests this season and this is expected to weigh heavily on their export potential. In **Ukraine**, a critical situation has developed due to a major trade policy change by the Government. Ukraine exported 6.5 million tonnes of wheat in 2005/06 but its exports this season may not exceed half that amount and this is not only due to a sharp decline in production but also because of a much slower pace in sales following the Government's decision in late September 2006 to introduce wheat export licensing and export quotas (400 000 tonnes of wheat) for the rest of the year. The objective has been to stabilize domestic prices but, in effect, it has brought all shipments from Ukraine to a halt as no licenses have been issued since October. Based on the latest indications, the Government is considering the extension of the export restriction beyond 2006 to cover also the rest of the 2006/07 marketing season.

UTILIZATION

Food consumption stable but feed use contracts

Total wheat utilization in 2006/07 is forecast to approach 622 million tonnes, which is 1.5 million tonnes below the previous season. This decline comes against a backdrop of two consecutive years of strong growth when weaker prices contributed to larger use of low quality wheat for animal feed. A combination of smaller production and higher prices is likely to dampen growth in total wheat usage this season. Total **feed use** is forecast at 112 million tonnes, a drop of one million tonnes from the previous season, most of which is occurring in major wheat exporting countries, especially in the United States given this season's exceptionally tight domestic condition. **Food use** of wheat, which constitutes the bulk of total wheat utilization, is forecast to reach 446 million tonnes, up roughly one percent. At this level, world per caput consumption of wheat would remain at the previous season's level of roughly 68 kg.

STOCKS

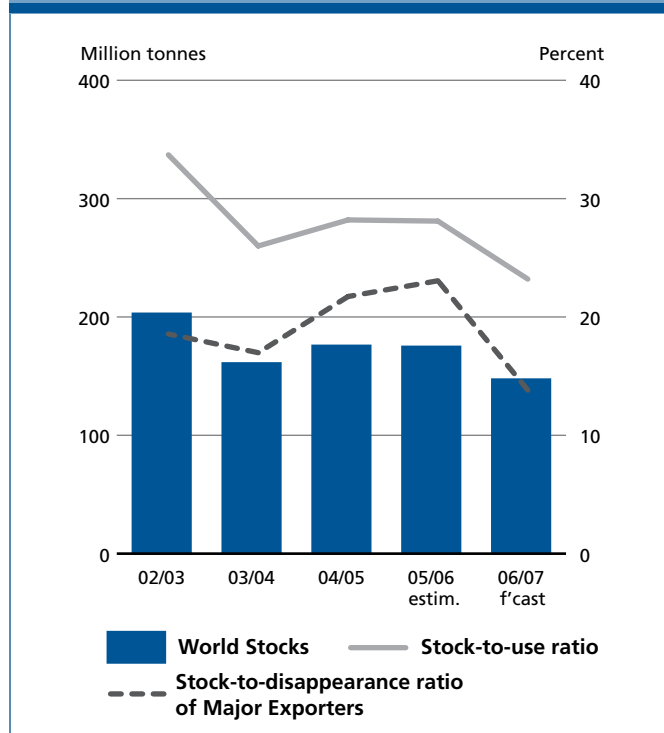
World stocks-to-use ratio falling to a rare historical low

The production short-falls in 2006 in many parts of the world are expected to result in a large draw down of world wheat inventories to their lowest level since the early 1980s. Global wheat stocks for crop years ending in 2007 are currently forecast to fall to around 147 million tonnes, nearly 28 million tonnes, or 16 percent, below their opening levels. At this level, and in spite of an expected slowdown in utilization growth, the **world stocks-to-use ratio** for wheat is forecast at around 23 percent. This represents a 5 percentage point drop from the previous season and the

lowest ratio for at least 30 years. Most significant reductions are expected among major exporters with their combined inventories shrinking to just over 34 million tonnes, the lowest level in ten years. In the **United States**, ending stocks are likely to fall by more than 4 million to around 11 million tonnes, while in **Australia** and the **European Union**, wheat stocks are expected to decline by at least 7 million tonnes each. Smaller inventories are also forecast for **Canada**. Nonetheless, as a further sign of the supply tightening in world markets, the anticipated overall decline in wheat stocks held by the major exporters would result in the ratio of their combined **stocks-to-disappearance** (defined as domestic utilization plus export) to reach a low of only 14 percent, more than a 6 percentage point below the long-term trend.

Elsewhere, most **CIS** countries will also face a tighter stock situation, especially **Ukraine** where stocks are expected to fall by at least one million tonnes. In contrast, ending stocks in **India** may increase by at least 2 million tonnes following large imports this season. In **China**, where wheat production in 2006 is reported to have reached the highest level in seven years, wheat stocks are forecast to stabilize at the previous season's levels of around 46 million tonnes in spite of lower imports and also some increase in exports because of favourable prices in world markets. In an effort to raise farmers' income, the state-owned warehouses in the major wheat growing areas of China were instructed to purchase wheat from farmers between June and September at minimum guaranteed prices. The set

Figure 5. Wheat stocks and ratios



prices were above the market rates and this policy therefore contributed to exceptionally large sales by farmers to public warehouses during the early months of this season.

COARSE GRAINS

PRICES

The recent price surges are supported by strong fundamentals

The recent upward movements in international prices of most coarse grains have been mainly set off by the prevailing supply and demand fundamentals in markets for **maize**; the world's largest traded coarse grain. In this regard, it is the domestic market of the United States which plays the most critical role considering the fact that the United States is the world's largest producer as well as the largest consumer and exporter of maize. The sharp cut in the 2006 maize production in the United States, just as its own demands for feed, industrial use and exports are all increasing, has resulted in a much tighter domestic balance and driven up prices.

In addition, the trade situation this season is marked by much smaller maize exportable supplies in several exporting countries. **Argentina** recently suspended export permits due to concerns about the domestic supply situation in the light of large shipments already this season. Exports from **China** are expected to decline; based on the latest news, domestic prices are beginning to rise more rapidly throughout the country, which is a sign of increased tightening that may eventually result in smaller exports than currently expected. In November, the **United States maize export price** (US No.2 Yellow) averaged US\$164 per tonne, up US\$67 per tonne, or 70 percent, from 2005. The Argentine export prices have also registered sharp increases in recent months, to almost US\$170 per tonne, up US\$78 per tonne from 2005. Other coarse grains have also maintained a firm tone this season, partly because of spill over effect from maize and partly reflecting their own supply and demand situation; such as smaller availabilities of **sorghum** in the United States; sharply lower **barley** and **oats** supplies in Australia; and reduced barley production in Canada.

Similarly in the **futures market**, maize quotations have moved up sharply in recent months. In fact the supply tightness is such that the seasonal harvest pressure which normally would have put downward pressure on prices around late October 2006 has not appeared to have taken place this season. Instead, in early November, the **nearby maize futures** at the CBOT surged to a ten-year high on the expectation of an even more significant tightening in the United States than markets had anticipated earlier. Large speculative buying by investment funds also pushed up prices; so much so that the November maize trading

volumes in the CBOT (futures and options) reached one of the highest in its history. By late November 2006, the **March 2007 maize contracts** stood at around US\$152 per tonne, up US\$72 per tonne, or 90 percent, from the corresponding period in 2005. This confirms the view that high prices are not going to fade away any time soon, especially the United States export prices, given the recent fall in the value of the United States Dollar. However, strong maize prices would increase the likelihood of a substantial increase in maize planted area in the United States for the 2007/08 marketing season and this would most likely to occur at the expense of reduced plantings of soybeans, the second largest crop grown in the United States. Figure 8 shows the trend in **nearby soybean/maize price ratio** since January 2006. From a historical perspective, whenever the ratio approaches two, the general bias favours maize over soybeans, resulting in a shift of planting area from soybeans to maize. With the recent ratios well under two, a significant increase in maize plantings in spring is most likely. Increases in plantings would be a positive development, which will improve the supply outlook for next season. However, demand for coarse grains, especially for maize, also continues to increase: demand for ethanol is likely to remain as thriving as this season even if crude oil prices were to decline further, and demand for feed is likely to increase faster as the livestock sector returns to its trend growth rate. Against this background, a massive increase in production would be needed in order to prevent stocks from eroding further and to thwart price escalations.

Figure 6. Maize export price (US no. 2 yellow, Gulf)

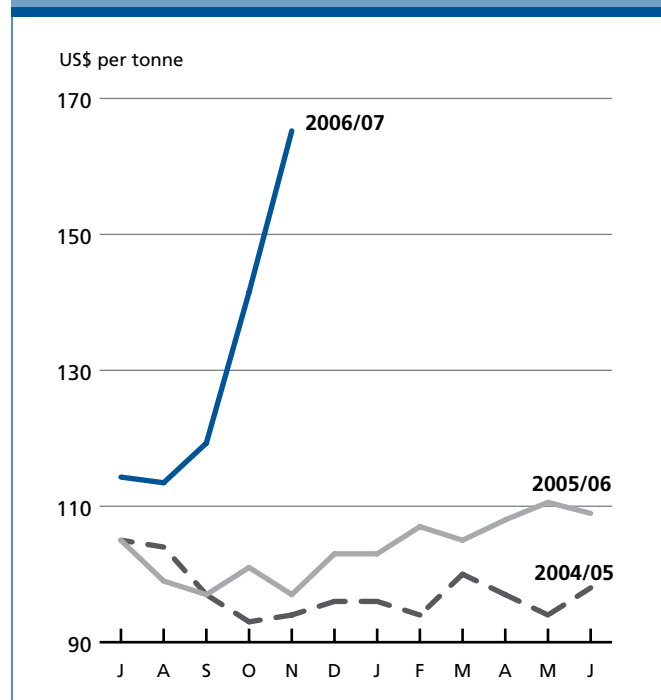


Figure 7. CBOT maize futures for March

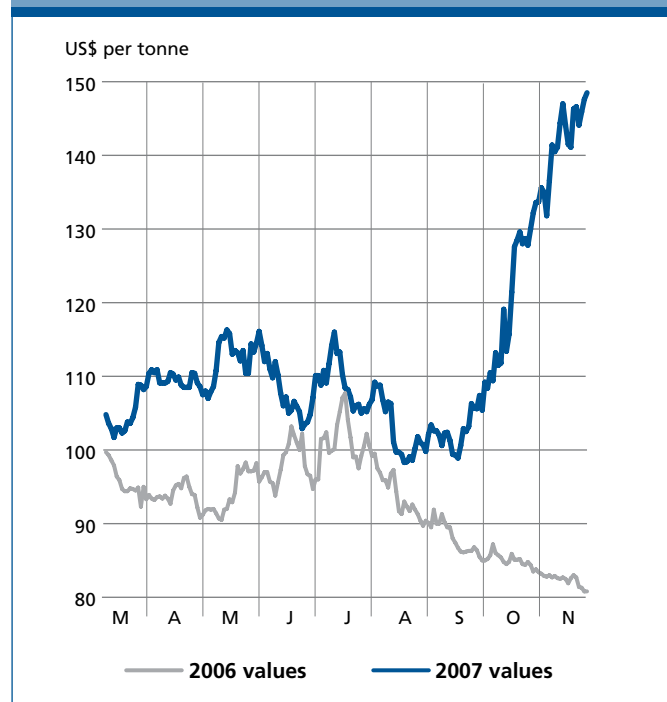


Figure 8. Recent trends in the nearby* soybean/maize futures rates



PRODUCTION

Lower production in 2006

FAO's latest forecast for **world** production of coarse grains in 2006 stands at 981 million tonnes, down by 2.1 percent from 2005 but above the average of the past five years. At the regional level, the past months have seen upward

Table 2. World coarse grains market at a glance

| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | Change: 2006/07 over 2005/06 |
|---|-----------------------|--------------------------|--------------------------|---------------------------------------|
| | <i>million tonnes</i> | | | <i>%</i> |
| WORLD BALANCE | | | | |
| Production | 1035.2 | 1002.3 | 981.2 | -2.1 |
| Trade | 104.8 | 106.4 | 105.0 | -1.3 |
| Total utilization | 991.2 | 998.7 | 1017.4 | 1.9 |
| Food | 175.6 | 178.8 | 183.2 | 2.5 |
| Feed | 635.4 | 624.3 | 622.0 | -0.4 |
| Other uses | 180.2 | 195.6 | 212.2 | 8.5 |
| Ending stocks | 193.0 | 189.0 | 151.2 | -20.0 |
| SUPPLY AND DEMAND INDICATORS | | | | |
| Per caput food consumption: | | | | |
| World (Kg/year) | 27.5 | 27.7 | 28.1 | 1.3 |
| LIFDC (Kg/year) | 28.6 | 28.9 | 29.3 | 1.6 |
| World stock-to-use ratio (%) | 19.3 | 18.6 | 14.9 | -19.5 |
| Major exporters' stock-to-disappearance ratio (%) | 19.0 | 17.7 | 10.5 | -40.8 |

revisions to the forecasts for Asia, Africa and South America, but these have been mostly offset by reductions for Europe and Oceania.

The world **maize** crop in 2006 is now forecast at 694 million tonnes, 2.2 percent down from the previous year. The bulk of the decline reflects smaller crops harvested earlier in the year in **Argentina** and **South Africa** and a reduced harvest, now almost completed, in the **United States**. The main factor for the smaller crops in all cases has been reduced incentive to plant maize because of too-high production costs relative to expected returns, but adverse hot and dry weather also had an impact on yields in some parts. In contrast, aggregate (main and secondary season) maize output increased in **Brazil**, reflecting a larger area planted to the main season crop harvested earlier in 2006. A larger crop has also been gathered in **Central America**, with output in **Mexico** recovering from a below-average level in 2005. Also in **Asia**, maize output is estimated up in **China**, the **Philippines** and **Thailand**.

The first of the **2007** maize crops are now being sown in the southern hemisphere. In **South America**, after a slow start to the season due to limited soil moisture in some growing areas, planting is now well underway and early indications point to a slight increase in the aggregate area. In **South Africa**, conditions are favourable and a survey of farmers' planting intentions point to a sharp increase in the area sown.

Regarding **barley**, the second most important coarse grain, global output in 2006 is estimated at around 139 million tonnes, virtually unchanged from 2005 and slightly below the average of the past five years. Earlier

Figure 9. Coarse grains production and utilization

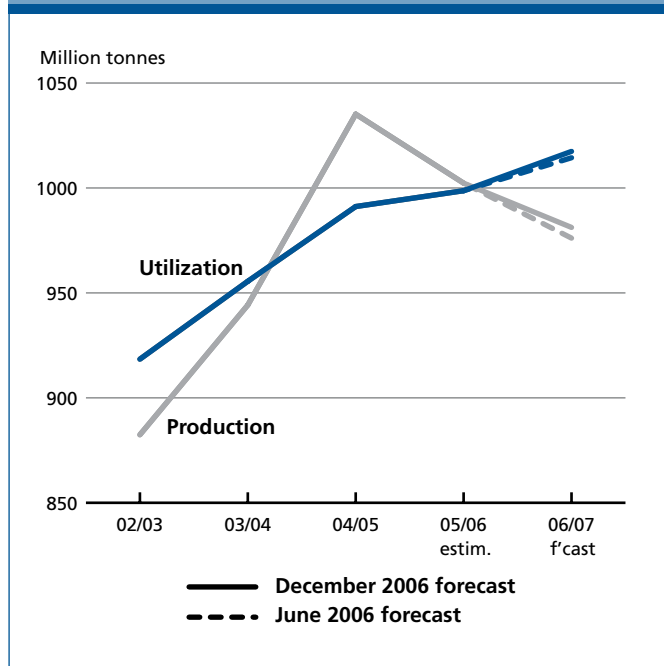
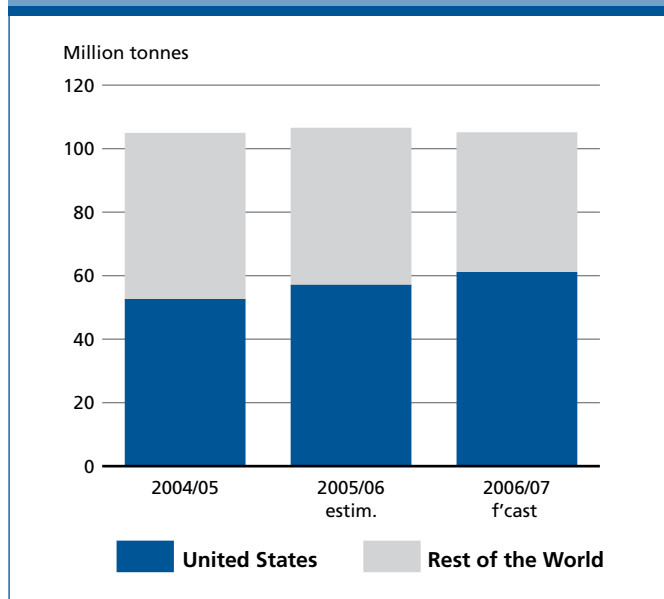


Figure 10. World coarse grains exports



expectations for production to recover in the **European Union** and **North Africa**, following drought in 2005, were materialized. However, in several **European Union** countries, hot and dry summer conditions again affected yields to some extent. Large crops were also gathered in the **Russian Federation** and **Ukraine**. Offsetting these increased outputs, 2006 barley output fell in Canada and the United States, and is forecast to be sharply down in Australia after drought struck developing crops.

World **sorghum** production in 2006 is forecast at about 57 million tonnes, slightly down from 2005 and marginally

below the five-year average. The bulk of the decrease is accounted for by the **United States**, where plantings and yields dropped, leading to almost a 30 percent drop in output. In **Africa**, the largest producing region, output could fall in the eastern subregion after a bumper crop in 2005, but this is likely to be offset by larger harvests in Western Africa where the season has been favourable.

TRADE

World trade down slightly in 2006/07

Unchanged from the earlier reports, international trade in total coarse grains in 2006/07 (July/June) is forecast at 105 million tonnes, down nearly one million tonnes from the previous season. Small declines in several countries in Africa and Asia contribute to most of the anticipated decrease in world trade while higher imports are forecast for a number of countries in North and South America. In terms of the individual coarse grains, **maize** is expected to benefit from stronger demand with its trade climbing to a record 80 million tonnes, up 2 million tonnes from 2005/06. However, most of the anticipated expansion in maize trade is likely to be offset by a significant reduction in **barley** trade, now seen to fall by one million tonnes, to 16 million tonnes. Trade in **sorghum** is also expected to decline, though slightly, to 5.5 million tonnes. For the other coarse grains, trade prospects remain similar to the previous season.

Total imports by countries in **Asia** are forecast at 57 million tonnes, down 600 000 tonnes from the previous season. Smaller imports of barley by **Saudi Arabia** are responsible for most of this anticipated reduction. Saudi Arabia is the world's leading importer of feed barley with an annual intake usually exceeding 5 million tonnes. This season, however, high barley prices and reduced supplies from Australia and Ukraine are expected to result in smaller purchases by Saudi Arabia. Higher domestic production is expected to drive down barley and maize imports by the **Islamic Republic of Iran** while, in **China**, imports of barley are forecast to decline as a result of reduced malting barley supplies in world markets. Slightly smaller maize imports are also forecast for **Japan** whereas for the **Republic of Korea**, the world's third largest importer after Japan and Mexico, coarse grain imports are likely to remain at the previous season's level despite high international prices; the country is expected to cut its feed wheat imports instead.

In **Africa**, total imports are forecast to decline by one million tonnes to 14.9 million tonnes. The single largest decline is for **Zimbabwe** where maize imports are forecast to fall by almost one million tonnes from the previous season to 300 000 tonnes, reflecting the estimated doubling of production in 2006. Another sharp decline in imports is forecast for **Morocco's** barley purchases, which are likely to be cut by at least 300 000 tonnes as a result of a strong rebound in production from 2005's drought reduced levels.

By contrast, **Egypt** is seen to increase its foreign purchases of maize by 600 000 tonnes due to a sharp decline in its maize production, which is down from the previous season's record and follows a decrease in area planted. Higher maize imports are forecast also for **Kenya** in spite of the expected rise in the 2006 production. This increase in imports compensates for the anticipated decline in Kenya's wheat imports this season.

In **Central America**, total imports by **Mexico** are forecast at 9.5 million tonnes, a slight decline from the previous season, mostly due to reduced purchases of sorghum; while maize imports are likely to increase. In **Latin America and the Caribbean**, **Brazil** is expected to import slightly more barley this season due to its decline in production. In **North America**, Canada and the United States are forecast to raise their imports. In **Canada**, the decline in domestic maize production, coupled with strong demand, is expected to result in its largest imports since 2002/03. In the **United States**, drops in barley and oat output are likely to drive up their imports. While the United States is the world's largest importer of **oats** (mostly from Canada), it is the first time that its oat imports are forecast to exceed its own domestic production. In **Europe**, import changes from the previous season are expected to be small as high international prices and adequate supplies of local feed wheat discourage larger imports in spite of an overall decline in the region's total coarse grain production in 2006.

Regarding **coarse grain exports**, maize shipments are forecast to increase as a result of strong world demand. **Maize** sales from the **United States** are forecast to increase the most, despite its own strong demand and lower production. Larger maize exports by the United States compensate the anticipated decline in exports by Argentina, China, the Republic of South Africa, and Ukraine due to these countries' tighter exportable supplies. Higher maize sales are also forecast for **Brazil** helped by 2006's above average crops and favourable international prices. Fear of low domestic maize supplies and possible price escalations following this season's faster pace in exports forced **Argentina**, the world's second largest exporter, to suspend maize export permits as of 20 November. Reduced supplies of barley in **Australia** and **Canada** are expected to lower their exports and contribute to a tightening up of world markets, although the **European Union** is expected to maintain its barley shipments at about the same level as last season, and the **Russian Federation** and **Ukraine** both have good crops this season and are expected to export more. The forecast decline in **sorghum** trade this season is mostly driven by reduced shipments by the **United States** due to smaller production. At this reduced level, sales from the United States still account for over 80 percent of the sorghum total trade volume. In the **oats** market, **Canada** is forecast to increase its exports significantly offsetting the expected sharp decline in **Australia** from drought.

UTILIZATION

Utilization expands mostly due to higher industrial demand

World coarse grain utilization in 2006/07 is forecast to reach a new record of roughly 1 017 million tonnes, up almost 2 percent from the previous season. Most of the increase reflects a continuing fast expansion in demand for production of **maize-based ethanol**; primarily in the United States, although a number of other countries is also in the process of establishing and/or expanding its grain-based ethanol facilities. Between 2000 and 2005, maize-based ethanol production in the United States increased by 150 percent with another 20 percent expansion envisaged for 2006. There are currently over 100 ethanol plants operating in 20 states across the country and 42 additional plants are under construction while another seven are being expanded. This development is starting to have important implications for the overall supply of maize for other uses, including domestic feed, but also for exports considering that the United States is the world's largest maize exporter. At the start of the decade, the amount of maize used for ethanol in the United States barely amounted to 6 percent of its domestic production whereas by 2005 it reached 14 percent and, according to the United States' Department of Agriculture (USDA), it is heading towards 20 percent in 2006 which would mean roughly 55 million tonnes, or close to the amount of expected exports in 2006/07.

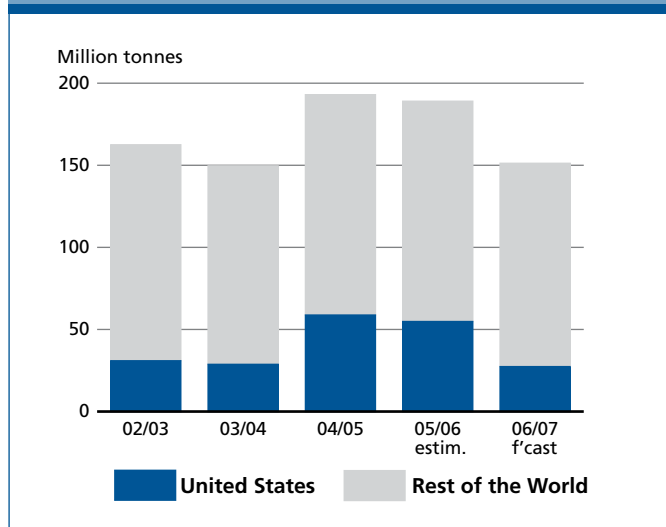
Coarse grains destined for **food consumption** are also growing at a relatively strong pace this season, up 2 percent from 2005/06, mostly because of improved local supplies in several countries in Africa, such as in Nigeria (for sorghum and millet) and most countries in the southern subregion (for maize). By contrast, **feed utilization**, which is the largest usage component of coarse grains, is likely to reach 622 million tonnes, down slightly from the 2005 already reduced level. Most of this anticipated contraction is expected among the developed countries where the 2006 maize supplies have been cut because of smaller production; above all in the United States, the Republic of South Africa, and several countries in Central and Eastern Europe. In the developing countries, prospects for continuing growth in feed use remain strong; partly because of more adequate local supplies but also the growing demand from the livestock sector especially in Asia and Latin America.

STOCKS

Stocks decline as production falls

By the end of national crop seasons in 2007, world carry-overs of coarse grains are forecast to reach 151 million tonnes, down 38 million tonnes, or 20 percent, from their opening levels. This forecast is 12 million tonnes less than previously reported (in the October issue of the Crop

Figure 11. World coarse grains stocks



Prospects and Food Situation) and reflects downward adjustment to the world production estimate, by roughly the same amount. The sharp decline in world coarse grains stocks compared with the previous season results from lower carry-overs of all major coarse grains, led by **maize**, down 28 million tonnes, and **barley**, down 7 million tonnes.

At the current forecast level, **the ratio of global coarse grain stocks to total utilization** is estimated at 15 percent, 3 percentage points below the previous season and lowest since 2004. However, this anticipated reduction in global reserves in large part stems from a decline in stocks held by the major exporting countries, particularly the United States, where ending inventories are forecast to register a decline of almost 28 million tonnes. As a result, **the ratio of aggregate coarse grain stocks held by all the major exporters to their combined disappearance** (defined as domestic utilization plus exports) is expected to approach 11 percent, 7 percentage points below the previous season. In addition to a cut in production, faster growth in domestic use and strong exports are among the other main factors for a large draw down of stocks in major exporting countries by the end of this season.

RICE

PRICES

Tight supplies keep international prices on the rise

The strength that has dominated the rice international market since January persisted over the July to September period, as reflected in the FAO All Rice Price Index, which gained one point every month, passing from 108 in June to 111 in September. The Index in October did not show sign

of weakening, at 111, despite the arrival on the market of new crop supplies, and gained further steam in November (first three weeks), when it rose to 113. The price strength dominated all the rice market segments, including the Indica low quality, Indica high quality and Japonica rice, with the exception of fragrant rice, which showed signs of weakening in October and November 2006.

Much of the continued firmness reflected generally tight supplies in exporting countries. In the **United States**, prices remained on the rise, peaking in October and November to levels not seen in many years, influenced by the USDA's downward revision of the 2006 crop. This was in spite of the finding of unauthorized GM rice in commercial shipments which only triggered a short-lived price slump in the immediate aftermath of the news release, in mid-August. **Viet Nam's** rice quotations also grew stronger, lifted by a robust demand and limited supplies, a trend evident since June. In **India**, after several months of a fairly stable situation, export prices rose in October following the government announcement of increases in the domestic procurement prices, with further gains recorded in November. On the other hand, the availability of freshly harvested supplies tended to depress somewhat prices in **Egypt** and **Pakistan** in September and October, after several weeks of relatively high quotations. **Thai** rice was also priced lower in August and September, after the government procurement, bearing on the 2005 second paddy crop, ended on 31 July. The announcement, by the interim Government, of less attractive purchase prices under the government procurement programme and a plan to release public stocks through bi-monthly tenders also influenced negatively export quotations in October and November. On the import side, demand by African countries subsided in September, but continued purchasing interest by countries in the Near East and the Philippines has provided renewed vigour to the market since then.

As many countries just harvested their main paddy crops, import demand may weaken somewhat in the coming months. However, this is unlikely to result in much lower world prices as exporters are also expected to have limited supply for sale. As a result, price declines, if any, are likely to be only temporary. This would be especially the case if the export ban announced by Viet Nam in November 2006 remains in effect until March 2007 when the winter/spring crop will be harvested and if the main paddy crop in India is confirmed to be substantially smaller than in 2005. Thus, international rice prices are likely to remain on the rise at least until March 2007, a tendency that could become particularly marked should there be confirmation of strengthening El Niño conditions.

More detailed information on the rice market is available in the FAO Rice Market Monitor which can be accessed at: http://www.fao.org/es/ESCen/20953/21026/21631/highlight_23001.en.html

Figure 12. Rice export price (Thai 100% B)

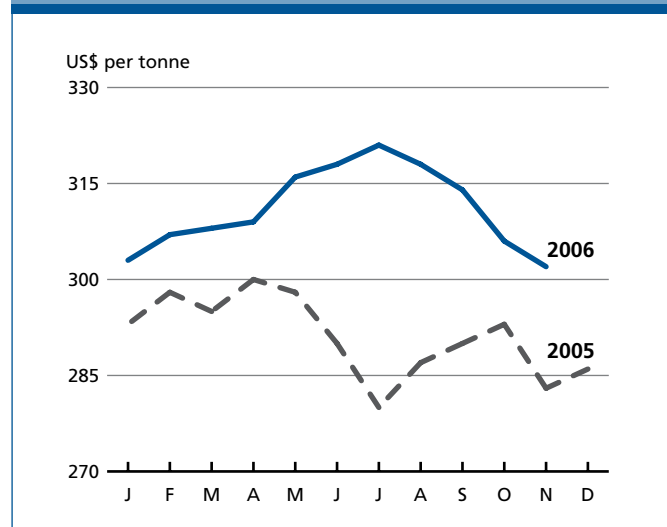
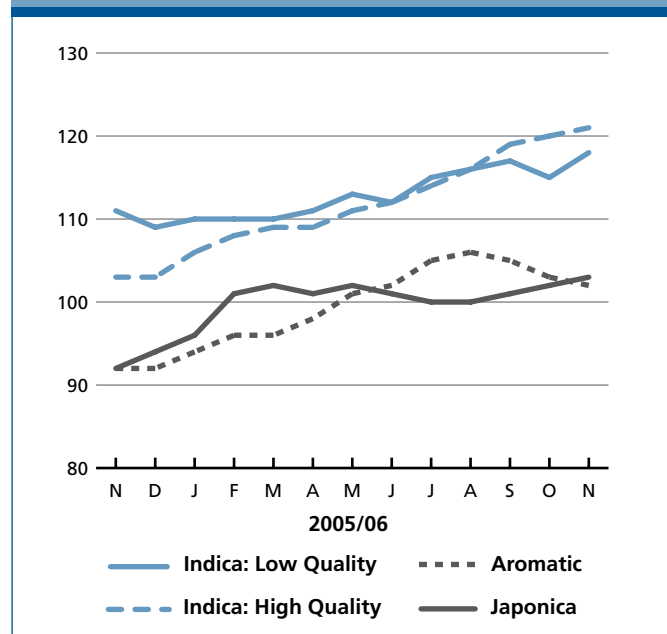


Figure 13. FAO rice price indices (1998-2000 = 100)



PRODUCTION

Paddy production likely to stagnate in 2006, as several regions are hit by adverse weather conditions

The forecast for global paddy production in 2006 is subject to downward revision, which would reflect a bleaker outlook for crops in Asia where several countries have been affected by persistent drought problems, and in August, by monsoon floods. Based on the latest FAO forecasts, 2006 global paddy production might fall to 631 million tonnes, 5 million tonnes less than anticipated earlier and slightly down from 632 million tonnes in 2005. The worsening of the outlook

Table 3. World rice market at a glance

| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | Change: 2006/07 over 2005/06 |
|---|-----------------------|--------------------------|--------------------------|---------------------------------------|
| | <i>million tonnes</i> | | | % |
| WORLD BALANCE (milled basis) | | | | |
| Production | 406.9 | 421.9 | 420.9 | -0.2 |
| Trade | 29.8 | 28.6 | 28.9 | 1.1 |
| Total utilization | 413.8 | 416.4 | 420.6 | 1.0 |
| Food | 361.6 | 367.2 | 372.2 | 1.4 |
| Ending stocks | 99.2 | 105.3 | 104.7 | -0.6 |
| SUPPLY AND DEMAND INDICATORS | | | | |
| Per caput food consumption: | | | | |
| World (Kg/year) | 56.7 | 56.9 | 56.9 | 0.0 |
| LIFDC (Kg/year) | 69.7 | 69.7 | 69.6 | -0.1 |
| World stock-to-use ratio (%) | 23.8 | 25.0 | 24.6 | -1.6 |
| Major exporters' stock-to-disappearance ratio (%) | 13.2 | 15.7 | 15.0 | -4.5 |

was particularly severe in the case of India, although there is still much uncertainty as to what will be the final level of paddy output in the country.

Production in Asia is now forecast at 570 million tonnes, only half a million tonnes less than last season's level, but well below earlier expectations. Adverse growing conditions, in the form of typhoons, floods, drought, diseases and insect attacks, severely undermined paddy production prospects in 2006. As a result, little overall growth is currently expected in the region. Several countries, however, may witness an increase, in particular **Bangladesh**, where heavy rainfall in August brought relief to the main crop, but also **Cambodia, Indonesia, the Islamic Republic of Iran, Myanmar, the Philippines** and **Viet Nam**. By contrast, major setbacks are expected to depress output below last season's level in **the Democratic Republic of Korea, India, Japan, Malaysia, Nepal, the Republic of Korea** and **Thailand**. In **India**, the 2006 monsoon season, which ended in September, has been erratic and several important rice producing states, such as Assam, Tamil Nadu and Uttar Pradesh received below normal precipitation, while rainfall was above average in Orissa. FAO is consequently anticipating production in the country to harvest 135 million tonnes, 1.5 million tonnes less than last season. Crops in **China** were also affected by droughts, floods and disease problems with the result that production is now forecast to rise only marginally compared with 2005.

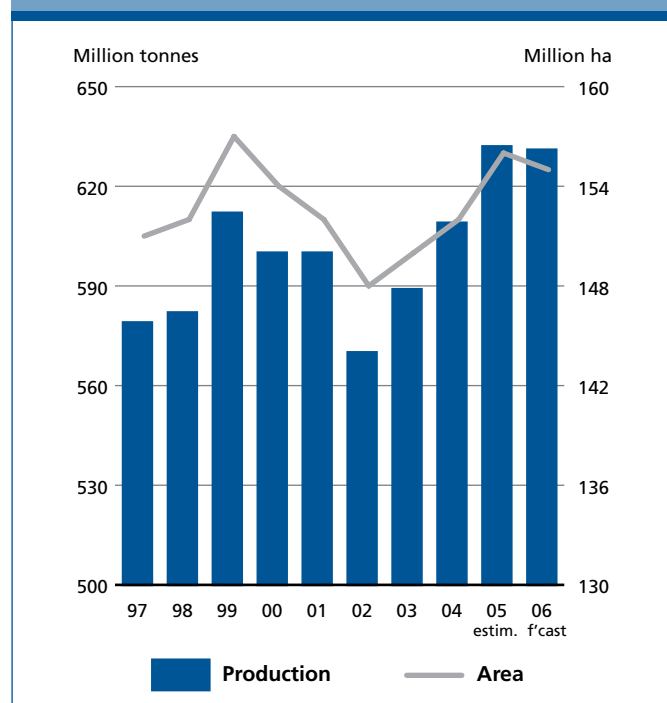
In Africa, about 22 million tonnes are now expected to be gathered in 2006, around some 700 000 tonnes more than previously anticipated, and 1.3 million tonnes above output in 2005. Much of the increase would reflect the favourable growing conditions that have prevailed in most countries,

Table 4. Brazil paddy production by region in 2006 (for Brazil: 2005/06 paddy season)

| | Area | Production | Production change from last season | Yield |
|--------------|----------------|-----------------|------------------------------------|-------------|
| | 000 ha | 000 tonnes | % | tonnes/ha |
| Total | 2 988.4 | 11 579.0 | -12.5 | 3.88 |
| North | 455.4 | 1 014.6 | -33.0 | 2.02 |
| Northeast | 727.1 | 1 115.1 | -9.0 | 1.52 |
| Centre-West | 442.2 | 1 138.9 | -57.0 | 2.31 |
| Southeast | 127.4 | 300.8 | -19.0 | 2.46 |
| South | 1 236.3 | 8 009.4 | 8.0 | 6.59 |

Source: CONAB, Second Planting Intention Survey, Nov. 2006

Figure 14. Global rice paddy production and area



higher prices and government renewed efforts to revitalize the sector. Growth would mainly be on account of **Egypt, Madagascar, Malawi, Nigeria** and **the United Republic of Tanzania**, while **Chad, Cote d'Ivoire** and **Mauritania** may experience a contraction.

The production outlook in **Central America and the Caribbean** continues to be positive, with little damage from hurricanes reported in 2006, although concerns are rising over a possible strengthening of El Niño/ENSO conditions in coming months. Much of the expected gain in paddy production in the region would be by sustained by recovery in **Cuba** and **the Dominican Republic** and a continued expansion in **Mexico**. However, output may fall in **Costa Rica, Nicaragua** and **Panama**.

Based on the latest estimates, production in **South America** is set to contract by 6.5 percent to an overall 22.5 million tonnes, influenced by a negative outcome in **Brazil**, the largest producer in the region, but also in **Colombia, Ecuador** and **Peru**. In the rest of the world, production in 2006 is estimated to have expanded in **Australia** and the **Russian Federation**, while it is foreseen to fall in the **European Union** and **the United States**.

Although it is too early to predict global paddy production in 2007, prospects for those countries in the southern hemisphere where the first 2007 crops are at the planting stage, are rather downcast, with strong drought conditions prevailing in **Australia** and **Indonesia**. In addition, as the chances of an occurrence of a moderate El Niño/El Niña event have recently risen, other countries' rice crops could also be affected.

TRADE

Little growth in rice international trade foreseen in 2007

The FAO outlook for trade in calendar 2007 points to an expansion of only one percent to 28.9 million tonnes. However, trade prospects are still highly tentative at this stage as they are largely derived from production forecasts in 2006, many of which could still be subject to major revisions. The expected lack of substantial trade growth in 2007 would mainly reflect a relatively tight situation in exporting countries, which may push rice quotations further up in the course of 2007, thereby constraining the actual level of imports.

IMPORTS

Increased imports by African and South American countries to compensate for a decline in shipment to Asian countries

Global imports could recover somewhat in 2007, sustained by larger shipments to countries in Africa and Latin America and the Caribbean. By contrast, Asian countries are foreseen to import less, in particular **Bangladesh, the Islamic Republic of Iran and the Philippines**, which are all expected to harvest larger crops in 2006. In the case of **the Islamic Republic of Iran**, the drop could be accentuated by the imposition of higher tariffs on private sector rice imports, channelled through cooperatives at the border with Pakistan, which were reported to have been raised from 4 to 70 percent. Purchases by the **Republic of Korea** are also anticipated to decline in 2007 from the abnormally large purchases that the country had to make over 2006 to fulfil its minimum market access import obligations for 2005 and 2006. Under the agreement it clinched to extend the World Trade Organization (WTO) rice import waiver, the Republic of Korea should let some 266 000 tonnes of rice enter its territory in 2007 subject to a 5 percent

Figure 15. World rice trade and FAO rice export price index

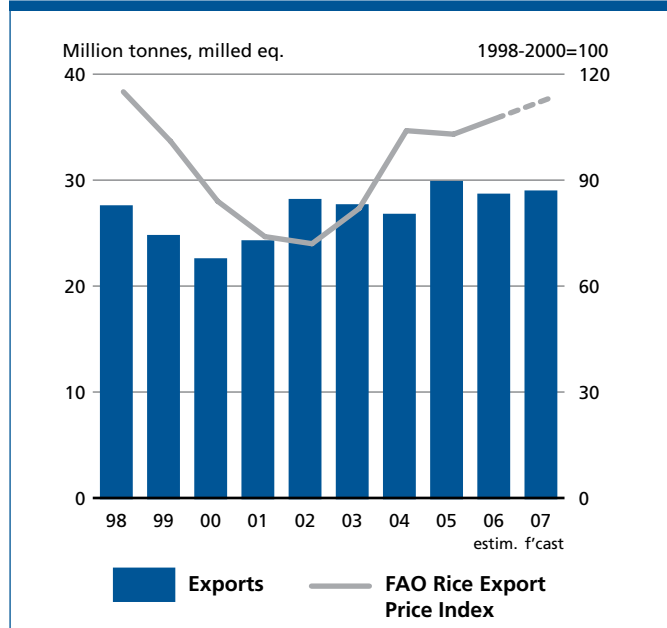
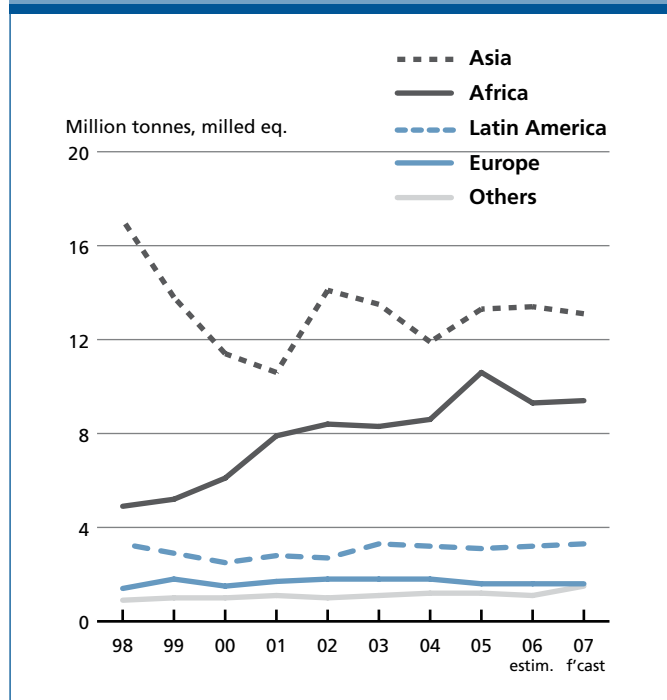


Figure 16. Rice imports by region



import duty, three-quarters of which are granted through specific country quotas to Australia, China, Thailand and the United States. Shipments to **Iraq** and **Saudi Arabia** are set to remain unchanged in 2007 at their expected 2006 level of 1.2 million tonnes and 1.1 million tonnes, respectively. Likewise, the re-imposition of tight restrictions in **Indonesia** may constrain the level of rice imports to some 800 000 tonnes in 2007, the same level as expected in 2006.

However, much will depend on the weather pattern in the coming months, as a resurgence of an El Niño anomaly could have major implications for the region as a whole and for the country in particular.

Rice consignments to countries in **Africa** are forecast to rise to 9.4 million tonnes, 100 000 tonnes above the 2006 current estimate, mainly on account of larger shipments to **Cote D'Ivoire, Mauritania, Senegal** and the **United Republic of Tanzania**. Imports by **Nigeria**, which the Government wanted to forbid as of 2007, are expected to continue flowing into the country, but a tightening of controls may contribute to lower them by 100 000 tonnes to 1.7 million tonnes. The Government seems to have realized that its plan to impose an import ban on rice would not be consistent with WTO obligations. Nonetheless, it has still some leeway for raising the level of protection as import tariffs were bound at the WTO at 150 percent, with the possibility to add a supplementary 80 percent for administrative purposes. In 2005, rice imports were applied a 50 percent tariff, plus a 50 percent additional levy, and other surcharges. Moreover, to avert an underestimation of their value, rice imports have been subject to a minimum price, depending on the country of origin.

Imports to **Latin America and the Caribbean** are anticipated to rise by 8 percent in 2007, to some 3.3 million tonnes. Much of the increase would be on account of **Brazil**, where early prospects for crops are indicating a possible further contraction in output in 2007. As a result, the country may need to buy 700 000 tonnes, 100 000 tonnes more than in 2006. Imports by **Mexico** might also rise, following the announcement that it would revoke a 3.93 percent and 10.18 percent anti-dumping duty that it had been imposing on imports of milled, long grain rice from the United States since June 2002. The move follows the rejection of Mexico's appeal by a WTO panel in November 2005. In October, Mexico also signed a memorandum of understanding with Pakistan, to lift a ten-year old ban on rice imports from this country, which had been imposed for phytosanitary reasons. The expected 2006 production shortfalls may also boost imports by **Colombia** and **Costa Rica**. On the other hand, the expected recovery in production in **Cuba** may prompt it to cut international rice purchases to some 700 000 tonnes in 2007.

In **Europe**, lower duties following the implementation of the new import regime, together with strong domestic prices, may boost imports by the **European Union** to 900 000 tonnes in 2007, 100 000 tonnes more than anticipated in 2006. The new import rules, which were laid down in May 2006, establish that husked rice imports are subject to a duty of either €30 per tonne, €42.5 per tonne or €65 per tonne depending on the actual volume of imports. Similarly, imports of milled and semi-milled rice would be charged a duty of €145 or €175 also depending on the volume of imports, as derived from import certificates. As

for broken rice, imports are subject to a fixed duty of €65 per tonne. Imports of husked Basmati rice qualify for a zero rate of duty, if belonging to European Union recognized Basmati varieties¹. The new tariff structure has potentially large implications for the European Union's milling sector, by reducing the difference in tariffs between husked and milled rice. Based on the import certificates delivered over the 2005/06 rice marketing year, European Union imports of husked rice (excluding basmati rice) will be charged the €42.5 per tonne duty level from 1 September 2006 to 28 February 2007. In the case of milled and semi-milled rice, the duty will be €145 per tonne over the same period.

The Russian Federation is likely to import less in 2007, following the bumper crop it is estimated to have gathered in 2006 and the continued imposition of a €70 per tonne import duty.

Purchases by **Australia** and the **United States** are also likely to rise in 2007, consistent, in the first country, with the currently gloomy crop prospects in 2007 and, in the second, with a much reduced 2006 crop.

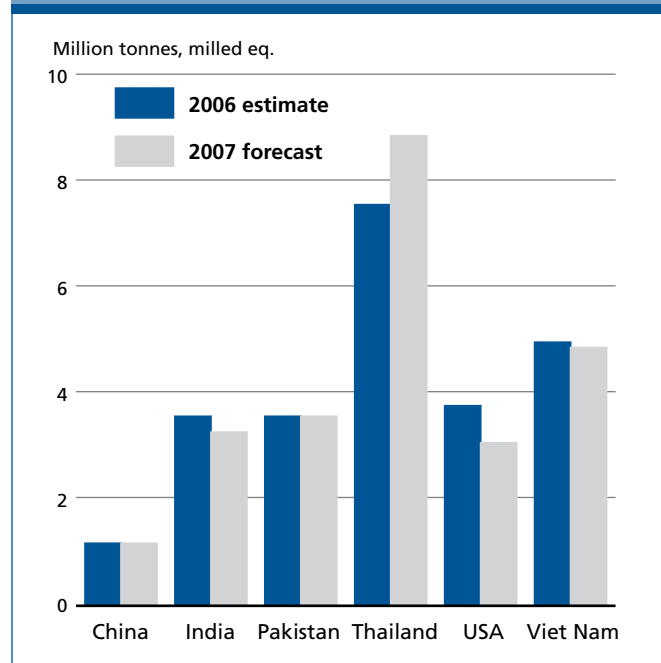
EXPORTS

Several major exporting countries may face supply constraints in 2007

The deterioration of production prospects in 2007 may now result in a tighter supply/demand situation on the world market in 2007. Nonetheless, relatively large stock availabilities in **Thailand** and good crops in **Cambodia**, **Egypt** and **Myanmar** could help sustain a modest expansion in world exports to 28.9 million tonnes in 2007, 300 000 tonnes more than expected in 2006. On the other hand, reduced export availabilities are likely to depress sales from **Australia**, **Ecuador**, **India**, **Japan**, **the United States** and **Viet Nam**.

In **Thailand**, the interim government recently announced its intention to dispose of its large public stocks within one year through bi-monthly tenders, with fragrant rice released for sale on both the domestic and export markets, while white rice would be exclusively destined to export. In view of the negative crop expectations in 2006, those supplies would be instrumental to help the country raise its exports by 1.3 million tonnes to 8.8 million tonnes in 2007. The 2006 bumper crop in **Egypt** could help it to ship 1.1 million tonnes of rice in 2007, 10 percent above the level anticipated in 2006. After imposing temporary restrictions on exports in September, the Government again allowed exports of milled rice in October, while maintaining the prohibition for husked rice. The impact of this restriction is likely to be rather small as the bulk of Egypt's rice imports consists of milled and broken rice. Abundant supplies from the 2006

Figure 17. Rice exports by the major exporters



excellent crop should enable **Pakistan** to maintain exports at 3.5 million tonnes, although traders may face higher tariffs on sales to eastern Africa (Kenya, Uganda and the United Republic of Tanzania) and to the Islamic Republic of Iran. A recent agreement with Viet Nam to let rice from **Cambodia** enter its territory free of duty would also boost Cambodia's exports. Most of the other major rice exporters, including **Ecuador**, **India**, **Japan**, **the United States**, **Uruguay** and **Viet Nam** may face difficulties in keeping shipments on sale in 2007 at the same level as in 2006, because of supply constraints. **Australia**, in particular, may become a net rice importer in 2007, in light of the dismal rice crop prospects. **India's** shipments could also be negatively influenced by high domestic prices, in particular for Basmati rice, the planting of which is reported to have declined substantially this season. In addition, a recent decision by the exporter association to establish a minimum export price level for basmati rice, would also sustain their quotations. Scant supplies in **Viet Nam** instigated the Government to restrict exports in November 2006. As the scarcity is likely to persist until March/April 2007, when the winter/spring crop would be harvested, tight supply conditions may constrain sales in 2007 below the 2006 expected level, especially if a recently announced agreement with Thailand, to let Viet Nam export prices converge to the (higher) Thai quotations, is carried through. In the case of the **United States**, the retrenchment from the market reflects expectations of high domestic prices as well as the imposition of testing requirements by several importing countries, following findings of the unauthorized, genetically modified LLRice 601 in United States long grain rice shipments.

¹ Basmati 217, Basmati 370, Basmati 386, Kernel(Basmati), Pusa Basmati, Ranbir Basmati, Super Basmati, Taraori Basmati (HBC-19) and Type-3 (Dehradun)

UTILIZATION

Little change in rice per caput food consumption foreseen in 2007

Total rice consumption in 2006/2007 is anticipated to rise by around 4 million tonnes to 421 million tonnes, in milled equivalent. As usual for rice, the bulk of it will be destined for food consumption purposes, or about 372 million tonnes. On average, per caput rice consumption is anticipated to remain largely unchanged at some 56.9 kg per year, influenced by expectations for the developing countries of stagnating per caput intake. Consumption in the developing countries is forecast to remain at around 68.5 kg per capita per year, while it may increase somewhat for developed countries, to 12.8 kg per year. low-income food-deficit countries (LIFDCs), however, may face a small decline in per caput availabilities, mostly reflecting limited production growth prospects and forecast of static imports.

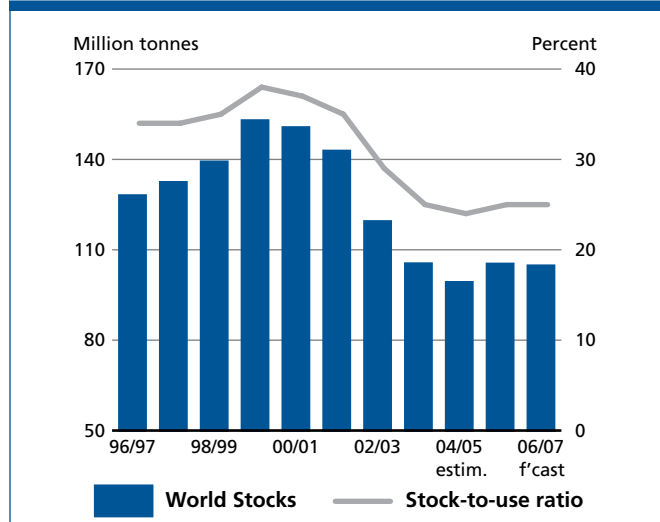
STOCKS

Global rice stocks to fall, as prospects for 2006 global production worsen

World rice inventories at the close of the crop seasons in 2007 are now set to be cut to less than 105 million tonnes, slightly below their opening level, reversing previous expectations of a stock rebuilding. The change in the outlook follows mainly from the deterioration of crop prospects in several major producing countries, which will constrain many of them to dent on their reserves to meet domestic consumption and, in the case of exporters, export demand. Among traditional exporting countries, only **China** and **India** are anticipated to close the season with a small increase in rice inventories, sustained, in the case of China, by rising production and static domestic consumption, while in India, it would mainly be a reflection of an expected decline in exports in 2007. Most of the other rice exporters are likely to end the season with smaller carry-overs. For instance, in **Thailand**, a drawdown would be required to meet rising domestic requirements and a sizeable increase in exports in 2007, in the face of lower production this season. Much of the stock contraction is likely to concern rice owned by the Government. Relatively poor crops could also compel **Viet Nam**, not only to reduce the volume of its shipments, but also to draw supplies from its reserves. Likewise, the anticipated drop of production in the **United States** may result in smaller end-of-season inventories. As for **Pakistan**, the maintenance of a high level of sales abroad could also entail a cut in reserves. At present, closing stocks in **Egypt** are not expected to change much.

Among the non-traditional exporting countries, **Cambodia, the Islamic Republic of Iran, Myanmar** and **Sri Lanka** are all expected to use part of their production gains this season to reconstitute their rice reserves. The

Figure 18. Global rice closing stocks and stock-to-use ratio



increase in production could also foster a build-up in **Nigeria, Senegal** and **the United Republic of Tanzania**. By contrast, fast consumption growth in **Bangladesh** will likely result in smaller reserves, despite rising imports. Similarly, stocks in **Brazil, Indonesia, Japan** and **the Republic of Korea** are also expected to be cut in light of the poor 2006 production outcomes.

The expected fall in global stocks carried over into 2007 would also influence negatively the **rice stocks-to-utilization ratio**, which provides an indication of the extent to which rice reserves could cover rice consumption in 2007, and hence, of food security. According to current forecasts, the ratio would fall to 24.6 in 2007, compared with 25.0 in 2006.

OILSEEDS, OILS AND OILMEALS²

PRICES³

Prices to remain firm in the oilseed complex

During the second half of the 2005/06 season (October-September), prices in the oilseed complex moved upward in response to forecasts of only modest growth in 2006/07 oilcrop production combined with a rise in demand to new

² Almost the entire volume of oilcrops harvested worldwide is crushed in order to obtain oils and fats for human nutrition or industrial purposes and cakes and meals used as feed ingredients. Therefore, rather than referring to oilseeds, the analysis of the market situation is mainly undertaken in terms of oils/fats and cakes/meals. Hence, production data for oils (cakes) derived from oilseeds refer to the oil (cake) equivalent of the current production of the relevant oilseeds, while the data on trade in and stocks of oils (cakes) refer to the sum of trade in and stocks of oils and cakes plus the oil (cake) equivalent of oilseed trade and stocks.

³ For details on prices and corresponding indices, see appendix Table A22.

record levels. The market reacted to the prospect of less ample supplies and reduced inventories compared with the three preceding years, when supplies were abundant relative to demand. In the last quarter of 2005/06, the FAO price indices for oils/fats and meals/cakes were respectively 10 and 30 percent above the levels recorded during the same period of the previous season. The rise was more pronounced for meal/cake prices which have also come under the influence of strongly rising world prices of wheat and feed grains.

The latest forecasts for 2006/07 confirm that production of oilseeds may not be sufficient to satisfy global demand for oils/fats, thus necessitating a sizeable reduction in stocks. Such an outlook suggests that prices for oils/fats may continue rising during the current season. By contrast, the increase in prices for meals/cakes could come to a halt as global output of meals is currently anticipated to exceed demand, causing inventories to rise further. However, the price depressing effect of large stocks could be offset by continued strength in feed grain prices, which, eventually should stimulate oilmeal demand. The futures market tends to point into this direction: by late November 2006, the CBOT March contract for soybeans was about US\$50 per tonne (or 23 percent) higher than the corresponding value of 2005 and, since September 2006, the development of soybean futures prices has been strongly influenced by maize futures.

Over the next few months, prices in the oilseed complex will be affected by the progress of the southern hemisphere crop, which will be harvested early in 2007. Later in the season, prices will increasingly reflect 2007/08 production prospects for oilseeds as well as other crops. The latest indications of continued tightness in the feed grain markets have the potential to affect oilseed plantings in 2007. If the currently anticipated fall in the oilseeds/grains price ratio materializes (see Figure 8 in the coarse grain section, which compares soybean and maize futures prices) farmers in the northern hemisphere can be expected to sow more grains and less oilseeds in the spring of 2007, which would lend further support to the prices of oilseeds and derived products over the year.

OILSEEDS

Growth in world oilseed production to slow down

Global 2006/07 oilseed production is currently forecast to increase by less than one percent, a considerable slow-down compared with past seasons. World soybean output is anticipated to expand by 2-3 percent, reaching a new record, but this is expected to be offset by declining world production of rape, groundnut and sunflower seed.

Regarding *soybeans*, a record crop has been harvested in the **United States**, thanks to a rise in both area and yield. In South America, where soybean plantings are still underway, production is tentatively forecast to grow at a below average

Figure 19. Quarterly international price indices for oilseeds, oils/fats and oilmeals/cakes (1998-2000 = 100)

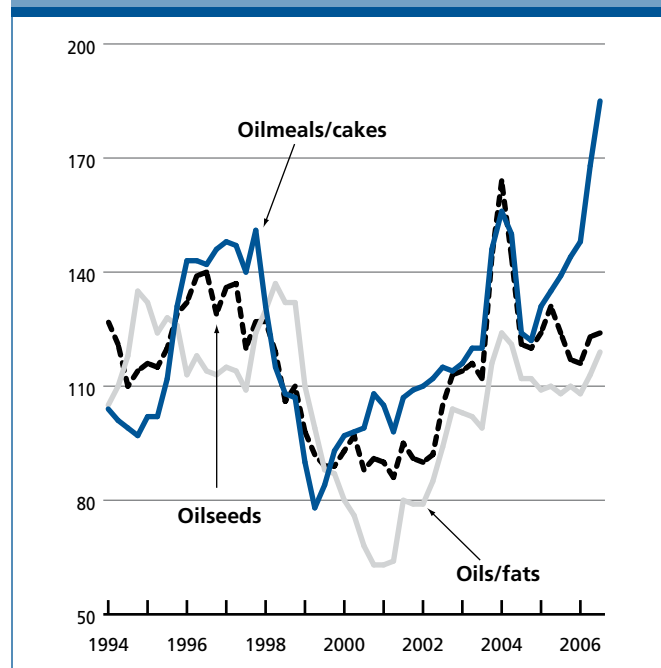
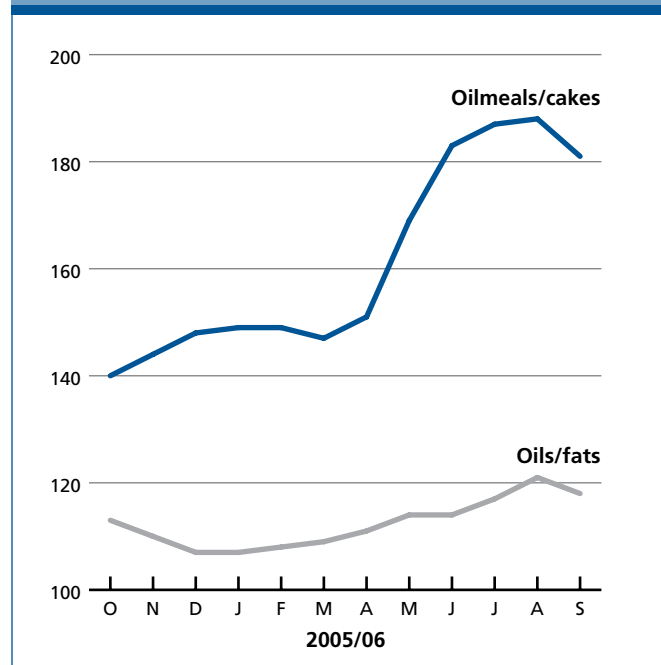


Figure 20. Monthly price indices of meals/cakes and oils/fats (October to September, 1998-2000 = 100)



rate of 2 percent. **Brazil's** output is forecast to fall by about 2 percent, owing to a sizeable reduction in plantings, for the second consecutive year, caused by high production costs and lack of funding. Brazil's shortfall should be offset by **Argentina**, where soybean plantings are expected to exceed

Figure 21. CBOT soybean futures for March

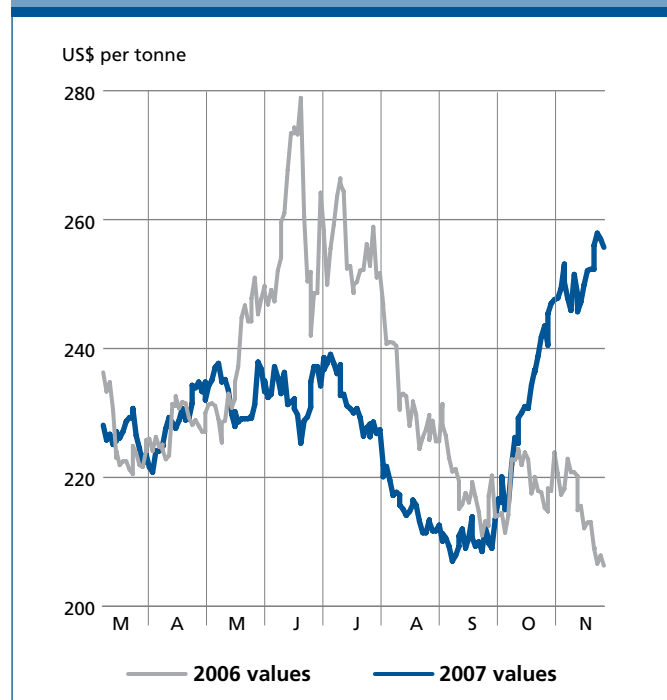


Table 5. World oilseeds and products markets at a glance

| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
|---------------------------------------|-----------------------|--------------------------|--------------------------|
| | <i>million tonnes</i> | | |
| Total oilseeds | | | |
| Production | 391 | 400 | 403 |
| Oils and fats¹ | | | |
| Production | 142 | 148 | 151 |
| Supply ² | 158 | 167 | 171 |
| Utilization ³ | 138 | 145 | 150 |
| Trade ⁴ | 67 | 72 | 76 |
| Stock-to-utilization ratio (%) | 14 | 14 | 13 |
| Oilmeals and cakes⁵ | | | |
| Production | 99 | 101 | 102 |
| Supply ² | 109 | 113 | 117 |
| Utilization ³ | 95 | 98 | 101 |
| Trade ⁴ | 53 | 55 | 58 |
| Stock-to-utilization ratio (%) | 13 | 15 | 15 |

Source: FAO

Note: Refer to footnote 2 in the text for further explanations regarding definitions and coverage

¹ Includes oils and fats of vegetable and animal origin

² Production plus opening stocks

³ Residual of the balance

⁴ Trade data refer to exports based on a common October/September marketing season

⁵ All meal figures are expressed in protein equivalent; meals include all meals and cakes derived from oilcrops as well as fish meal

Table 6. World production of major oilseeds

| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
|------------------------|-----------------------|--------------------------|--------------------------|
| | <i>million tonnes</i> | | |
| Soybeans | 216.1 | 218.7 | 224.3 |
| Cottonseed | 44.6 | 42.3 | 43.4 |
| Rapeseed | 45.9 | 48.8 | 46.5 |
| Groundnuts (unshelled) | 34.7 | 35.4 | 33.8 |
| Sunflower | 25.4 | 30.0 | 29.6 |
| Palm kernels | 8.9 | 9.5 | 9.6 |
| Copra | 5.2 | 5.2 | 5.4 |
| Total | 380.8 | 389.9 | 392.6 |

Source: FAO

Note: The split years bring together northern hemisphere annual crops harvested in the latter part of the first year shown, with southern hemisphere annual crops harvested in the early part of the second year shown. For tree crops, which are produced throughout the year, calendar year production for the second year shown is used.

(2005/2006) record level, leading to an output projection of 42 million tonnes, exactly double the amount produced in 2000. In **China**, the world's fourth largest producer of soybeans, output is reported to have fallen for the second consecutive year. World *rapeseed* output is forecast to decline sizeably after three years of record breaking crops, mainly because unfavourable weather conditions have led to a drop in yields. Lower production is expected in four out of the five major producers, namely **Australia, Canada, China** and **India**. In **India**, production fell because farmers preferred to shift some land to grains and pulses, which were more attractively priced. **European Union** rapeseed output is estimated to have remained unchanged, whereas production has expanded in **Ukraine**. Also world *groundnut* production has fallen after three years of good performance. Lower output has been reported from **India** and the **United States**. With regard to *sunflower* seed, the drop in production in the United States has only partly been offset by rises elsewhere.

OILS AND FATS⁴

Weakening growth in global supplies

Current crop forecasts translate into a below average increase of global oils/fats production of around 2 percent. The slowdown comes from an only modest increase in soybean oil production and falling rapeseed, groundnut and sunflower oil output. By contrast, global palm oil production is expected to again rise markedly in 2007. The projected 7 percent increase in output is due to a further significant

⁴ This section refers to oils from all origins, which, in addition to products derived from the oil crops discussed under the section on oilseeds, include palm oil, marine oils as well as animal fats.

rise in the mature area, notably in **Indonesia**. However, these forecasts remain tentative as palm oil production could be negatively affected by El Niño conditions. Global supplies of oils/fats (i.e. 2005/06 ending stocks plus 2006/07 production) are forecast to augment further, though they should rise markedly less than during the last two seasons.

Sustained expansion in demand

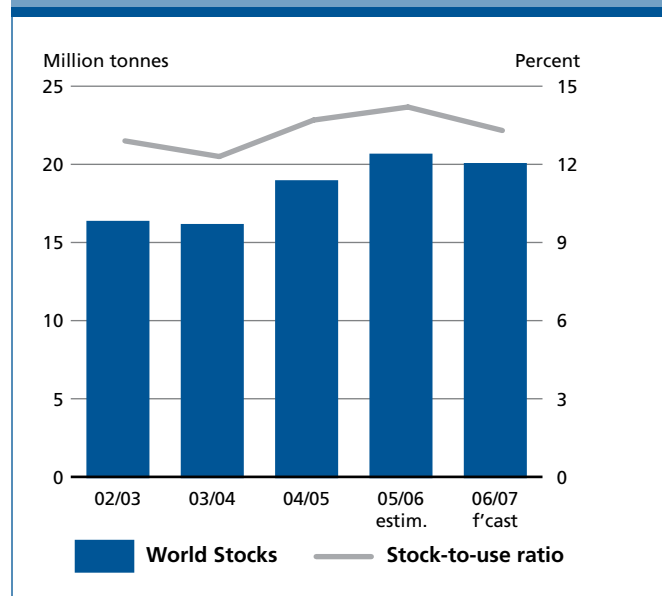
As in past years, global demand for oils/fats, both for food and non-food purposes, is anticipated to expand significantly: during 2006/07, world consumption is expected to increase by almost 6 million tonnes or 4 percent. An increasingly important demand factor is the fast growing use of oils/fats as fuels and as feedstock for biodiesel production. Such utilization is expected to expand further in the **European Union** and the **United States**, while production is starting in various other countries, including **Argentina, Brazil, Canada, Indonesia, Malaysia** and **the Philippines**. The key oils concerned are soy and rapeseed oil, but palm and coconut oil as well as animal fats are also being used. Private sector investment into the development of biodiesel industries continues to be strong, irrespective of the uncertain development of mineral oil prices and notwithstanding the possibility that plants may not be running at full capacity. Government incentives and other public support measures, together with existing or prospected mandatory blending requirements explain this trend. According to private sources, global utilization of oils/fats as biofuels should exceed 10 percent of total consumption in 2006/07.

As to total consumption of oils/fats, the anticipated reduction of rapeseed, groundnut and sunflower oil supplies should increase the reliance on soy and palm oil in 2006/07. Together the two oils should account for half of total consumption. Traditionally, the bulk of the expansion in global demand occurs in the developing world. However, in the last two years, sizeable growth has also occurred among developed nations due to biofuel production in these countries, a trend that is expected to continue in 2006/07. Among developing countries, demand expansion is expected to be led by Asia. Particularly noteworthy are **China**, where population and GDP growth continue to spur food and non-food consumption, and **Malaysia**, with rising demand for palm oil for use as fuel and biodiesel feedstock.

Tightening supplies calling for a reduction in stocks

Compared with overall demand, global supplies of oils/fats continue to be ample, thanks to the availability of large stocks. However, 2006/07 production *per se* would not be sufficient to meet demand, therefore necessitating a reduction in global inventories of about 3 percent. This development reverses the trend observed in the last two seasons, when global oils/fats production was in excess of

Figure 22. World closing stocks and stock-to-use ratio of oils/fats (including the oil contained in seeds stored)



demand, causing oils/fats stocks to surge to record levels. The projected reduction in inventories should mainly concern rape and sun oil, and be concentrated in **China, India, the European Union** and **North America**. Current forecasts for 2006/07 imply a reduction in the global stock-to-utilization ratio by one full percentage point, thus explaining why oil/fat prices are anticipated to remain high or even strengthen further during the course of this season. Early projections for next season, which point towards a further tightening of the supply and demand situation in 2008, could lend additional support to prices.

Trade to increase markedly

Similar to the past few years, world trade in oils/fats (including the oil contained in seeds traded) is anticipated to rise by over 6 percent or more than 4 million tonnes in 2006/07. Palm oil and soy oil should account for most of the expansion due to this season's reduced supplies of rapeseed and other oils. The bulk of the increase in imports is expected to originate from developing countries, especially in Asia. **China** and **India** continue to be key buyers, with import volumes (including the oil contained in oilseeds imported) forecast at a record level of 14.1 million tonnes and 5.8 million tonnes respectively. The anticipated 10 percent rise in **China's** imports is a result of poor rape and soybean crops, as well as rising domestic demand for oilseeds, which is being stimulated by continued expansion in the country's crush capacity. Also in **India**, where last season's abundant crops lead to a halt in import expansion, this season's prospective fall in output is expected to result in record import volumes. The **European Union** should account

for most of the increase in import demand in developed countries. After two years of exceptional expansion, imports are expected to continue growing strongly because domestic oilseed production is not sufficient to satisfy both, demand for food uses and for biofuel production. Further growth in import demand is also expected for the **United States**.

As to global exports of oils/fats, in several countries - notably **Argentina, Brazil, Canada, Indonesia, Malaysia,** and the **United States**, export availabilities are expected to be constrained by increased use of oils/fats as biofuels domestically. **Brazil** could actually experience a fall in shipments, given the likely reduction in output. Similarly, **Australia** should have less rapeseed oil for export, following the drop in domestic output. In view of these shortages, **Canada** is expected to further raise its exports of rapeseed and rapeseed oil, shipping a record 3.4 million tonnes in 2006/07. In addition, **Ukraine** is anticipated to step in as a new supplier of rapeseed. **Argentina** and the **United States** should supply most of this season's increase in soy oil trade. The two countries' record soybean harvests should allow them to ship record amounts. In the case of **Argentina**, this would also apply to sunflower oil. The largest expansion in shipments is expected to occur in palm and palm kernel oil. Together, the two oils should account for well over 40 percent of total trade in 2006/07, with **Indonesia** and **Malaysia** as dominant suppliers. While **Malaysia** is expected to remain the largest exporter, **Indonesia's** shipments are quickly approaching the levels anticipated for Malaysia.

MEALS AND CAKES⁵

Continued rise in supplies thanks to record carry-in stocks

Global production of meals/cakes is expected to rise only modestly in 2006/07. The anticipated one percent increase implies a below average gain for the second consecutive year. Growth is dampened by reduced production of rape, sunflower and groundnut meal, which, however, should be compensated by a record output of soybean meal. The rise in soybean meal production will be on account of **Argentina** and the **United States**. The expansion of output in these two countries is expected to offset the decline expected in **Brazil, China** and **India**. Looking at global supplies of meals/cakes (i.e. adding 2005/06 ending stocks to 2006/07 production), an average growth of 3-4 percent is expected for the current season, thanks to the availability of record carry-in stocks.

Sustained growth in demand

In 2006/07, world consumption of meals/cakes is anticipated to grow by 3-4 percent or 3.3 million tonnes (expressed in protein equivalent), stimulated, *inter alia*, by a tight outlook and rising prices for feed grains as well as the anticipated

recovery in livestock production. Soybean meal is expected to account for as much as 90 percent of the anticipated rise in meal/cake consumption. Three-quarters of the demand increase should originate in developing countries, where consumption is seen to be expanding much faster than in developed countries. As in previous years, consumption growth will be concentrated in Asia, with the highest increase, in absolute terms, expected in **China**. About half of the projected increase in global demand is anticipated to occur in China which, if materialized, would lift the country's share in global utilization to more than 20 percent. Among developed countries, consumption is expected to remain about unchanged in the **United States**, whereas, in the **European Union**, it is likely to expand further thanks to the availability of attractively priced meal, which stems from the oil demand-driven increase in domestic crush.

Excess supplies to result in further rising stocks

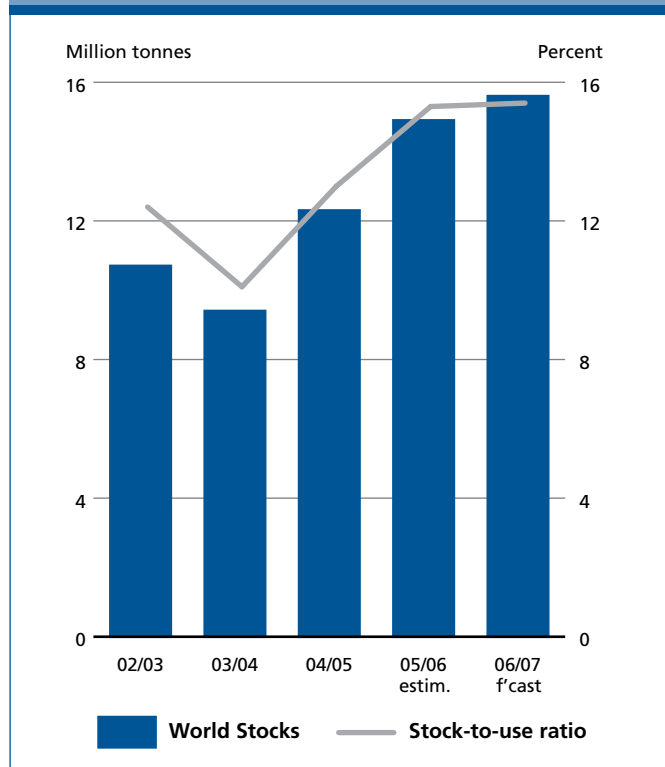
According to current forecasts, 2006/07 meals/cakes production should, as in the two preceding years, exceed demand, although the size of the surplus should diminish. As a result, inventories are expected to rise for the third consecutive year, setting a new record. The rise would largely be on account of increased soybean meal inventories in the **United States**, which should offset falling stocks in **Brazil** and the **European Union**. Based on current supply and demand forecasts, the global stock-to-utilization ratio for meals/cakes would remain about the same as in the previous season. This picture suggests that the recent upward trend in meal/cake prices could come to a halt. However, this situation might be short-lived given current forecasts of a tightening of supplies *vis-à-vis* demand in 2007/08, a scenario that would lend renewed support to meal/cake prices later this season.

Sustained growth in trade

The expansion of global trade in meals/cakes is anticipated to continue in 2006/07. Shipments should expand by over 6 million tonnes (expressed in product weight), a 5 percent rise compared with last season. Soybean meal is expected to account for virtually all of the expansion in global trade, with only two countries, **Argentina** and the **United States**, participating in the increase in exports. Shipments from these two countries should climb to record levels. By contrast, a reduction in export volumes is expected in **Brazil** and **India**, owing to poor domestic crops and rising internal demand. Regarding imports, virtually the entire increase in global import demand is expected to originate in developing countries. Import requirements are seen rising in particular in developing nations in Asia. In **China**, the anticipated fall in domestic meal production combined with rising demand for meals/cakes are expected to push up the volume of imports by a further 3.4 million tonnes (including the meal contained in imported seeds) or 14 percent compared with

⁵ This section refers to both meals derived from oil crops as well as fish meal.

Figure 23. World closing stocks and stock-to-use ratio of meals/cakes (in protein equivalent and including the meal contained in seeds stored)



2005/06. Sizeable increases are also anticipated in **Malaysia, Pakistan, the Republic of Korea, Thailand** and **Viet Nam**. In the **European Union**, which accounts for about one-third of global import demand, purchases are expected to remain unchanged.

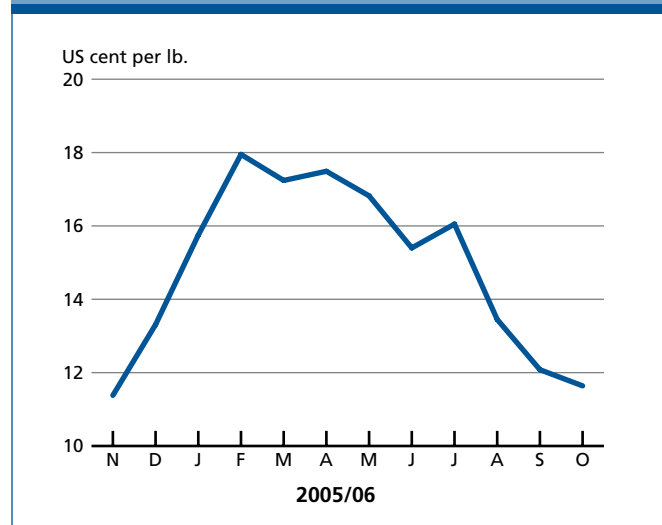
SUGAR

PRICES

Sugar prices continue to decline from 25-year highs

World sugar prices in recent months have significantly decreased from the 25-year highs of early 2006. Several factors have contributed to the marked price declines over the past few months, particularly, better than anticipated 2006/07 output, declining oil prices and reduced speculation by large trading funds. Although preliminary estimates for the current crop year indicated a world supply deficit for the third consecutive year, higher than anticipated global output now points towards a surplus. Lower oil prices, and recent estimates of excess supply are pressuring sugar prices downwards to its longer-term trend value. The International Sugar Agreement (ISA) daily price averaged US¢13.86 per pound for the third quarter of 2006 (July through

Figure 24. ISA daily price (Nov. 2005-Oct. 2006)



September), 18 percent lower than the first quarter (January through March) average of US¢16.98 per pound.

Prices should continue to fluctuate around its longer-term trend value reflected in the ISA monthly averages for September and October, US¢12.08 and US¢11.64 per pound, respectively. Steady declines since July 2006 have been in response to an emerging surplus supply situation, lower oil prices and replenished sugar and ethanol stocks in Brazil, the largest sugar producing nation. The price outlook for 2006/2007 has been dampened by record output in major producing countries, slower than anticipated consumption growth and the forecast global surplus.

PRODUCTION

Global sugar surplus forecast for 2006/2007 after three years of deficit

FAO has revised the 2006/2007 sugar production forecast upward to 155.5 million tonnes, due to better than anticipated output in Brazil, the Russian Federation, United States, the Far East Asia and Eastern Europe, a 4.3 percent expansion over 2005/2006. Increased global production is largely attributable to developing countries, where output is forecast at 116.5 million tonnes, 9.7 percent more than the preceding season. Clearly, sugar producers have responded to the high prices of the past two years by expanding planted areas and supporting efforts to revitalize sugar industries, particularly those in developing countries. Growing export demand for ethanol, as well as domestic biofuel initiatives, are also supporting global trends toward expansions in sugarcrops and renovation or construction of processing and refining facilities.

Larger sugar output from **developing countries**, currently estimated to increase by 10.3 million tonnes to 116.4 million tonnes is expected to reverse the global deficit

of the past three years into a global surplus of 3.4 million tonnes. Production in **Latin America and the Caribbean** for 2006/2007 is currently estimated at 51.4 million tonnes, with production in Brazil forecast to reach 31 million tonnes, a record crop and some 2 million tonnes more than in 2005/2006. Sugarcane output for 2007 is estimated at nearly 420 million tonnes, with a better than anticipated harvest and crushing campaign ending in November. Dry weather at the beginning of the harvest has resulted in slightly decreased tonnage from the centre-south region, whereas favourable growing conditions in the north-northeast region sustained a 7 percent increase in cane tonnage in 2005, when output was some 20 percent less than anticipated. The north-northeast milling campaign is underway and should end in March.

Record crop in Brazil replenishes sugar and ethanol stocks as Government announces return to higher ethanol-to-gasoline blend

Sugar production in **Brazil** depends on how much of the cane harvest is directed to sugar or ethanol. The Government of Brazil reduced the anhydrous ethanol to gasoline blend ratio from 25 to 20 percent in early 2006 to mitigate the tendency for sugar prices to rise at the retail level. The record cane harvest allowed to replenish sugar and ethanol stocks and, after several weeks of negotiation between the industry and the Government, it was decided to increase to 23 percent the blend ratio of ethanol to gasoline, effective 20 November 2006. Current ethanol prices are lower than one year ago and reports indicate that earnings from domestic sales of ethanol have become more profitable than sugar exports since world sugar prices began to decline in February 2006.

Sugar output in **Mexico** is forecast at 5.8 million tonnes in 2006/07, slightly higher than 2005, but still slightly below the record 2004/2005 crop of 6.1 million tonnes. However, a strike by workers at sugar mills in mid-November may reduce the sugar output and slow the crushing campaign for the new crop. Damage and flooding due to Hurricane Stan in October 2005 reduced sugarcane yields and delayed the harvest, reducing 2005/2006 output. More favourable weather and growing conditions have resulted in an estimated near record crop in 2006/07, despite reduced planted area in 2005. Current debate between government and sugar producers hinges on the mechanism that should be used to establish reference prices paid at the farmgate. Suggestions have been made to modify the reference price to reflect internal prices of the North American Free Trade Agreement (NAFTA) partners, particularly in view of the planned liberalization of all sugar and sweetener trade among NAFTA members in 2008. The new Congress in Mexico has also planned to eliminate the 20 percent tax on beverages made with high-fructose maize syrup (HFCS) in January 2007, following the WTO ruling against the appeal by Mexico to maintain the tax.

Sugar production in **Guatemala** is forecast to reach 2.2 million tonnes in 2006/2007, a modest increase over the reduced 2005/2006 crop attributable to an expansion in cane areas. Cane yields, at slightly more than 85 tonnes per hectare, are largely similar to 2005 when Hurricane Stan damaged Pacific coast growing areas. More favourable weather patterns contributed to a slight increase in 2006/2007 sugar output in **Cuba**, currently estimated at 1.4 million tonnes, after the very low 2005/2006 production. Government plans to downsize the industry further had been reversed in light of higher world prices and increased global demand for ethanol. The upcoming harvest will utilize some 80 percent of the currently available milling capacity.

High prices drive expansion and renovation of sugar industries in Africa and Asia

Output from developing countries in **Africa** is expected to increase slightly to 10.6 million tonnes in 2006/2007, reflecting an expansion in Egypt, Kenya, Mauritius, Mozambique and the Sudan. **Egypt** continues to invest in the sugarbeet sector and plans to open five new processing facilities, with the first of these to become operational in early 2007. Expectations are that sugar production in the **Islamic Republic of Iran** may increase marginally in 2007, with plans to nearly double sugar output by 2013. Recent investments in sugar export facilities in **Mozambique** have contributed to the rapid growth of the sugar sector, with output increasing from some 40 000 tonnes in the late 1990s to nearly 300 000 tonnes in 2006/2007.

Sugar output in the **Far East Asia** for 2006/2007 shows the most significant increase, 15.1 percent, over 2005/2006 amongst all regions. Production is estimated at 52.7 million tonnes, up 6.9 million tonnes, as producers responded to high sugar prices and growing demand for ethanol. Output increased in all major producing countries, particularly China, India, Indonesia, Pakistan and Thailand. Output in **India** may reach a new record, 24 million tonnes, reflecting expanded area planted to sugarcane, in response to higher domestic prices, and favourable weather patterns that raised sugar content, particularly in southern and central India. Reports indicate that several sugar industry groups are expanding milling capacity.

Production in **China** for 2006/2007 is estimated to be at 11.3 million tonnes, up 15 percent over 2005. Higher domestic prices stimulated large planting to sugarcane and sugarbeet, while favourable weather after two years of drought contributed to higher sugar yields. Reports indicate that the Government had released more than 1.2 million tonnes of sugar from reserve stocks by the end of September 2006, in order to contain domestic price rises. HFCS continue to make inroads as a more economic substitute for sugar in food processing and beverages, with year-on-year production growth continuing to be around 20 percent. The production and use of high-intensity sweeteners (HIS),

particularly saccharine, has increased in response to high sugar prices, despite the ongoing policy to reduce the use of HHS in the food processing and beverage sector.

Some area formerly planted to rice and cassava in **Thailand** has been replaced with sugarcane in 2006, with current sugar output estimated at 6.9 million tonnes, a 30 percent increase year-on-year. Production in **Indonesia** is estimated at 2.5 million tonnes, up 200 000 from 2005/2006, in line with Government policy to achieve self-sufficiency in sugar output by 2009. Increased output is also reported for the **Philippines**, which may result in an exportable surplus in 2007.

Reduced output in developed countries largely attributable to European Union sugar policy reform

Sugar production in **developed countries** is expected to decrease by 9.1 percent in 2006/2007, down to 39.1 million tonnes. Output in the **European Union** for 2006/2007 is estimated to have fallen by 23 percent, from 21.4 million tonnes in 2005/2006 to 16.5 million tonnes in 2006/2007, reflecting the adjustment process begun in July 2006, under the European Union sugar policy reform. The decline in overall European sugar production, however, has been somewhat offset by a better than expected output in the **Russian Federation** and in Eastern European countries. In the **Russian Federation**, where the sugar industry continues to expand sugarbeet production and renovate and improve beet processing facilities, sugar output is estimated to have risen to 3.1 million tonnes, up 15 percent over 2005, in response to high world prices. As a result, raw sugar imports were down 60 percent during the first half of 2006.

Recovery in cane growing areas of the **United States** is expected to lift sugar output by 14 percent to 7.6 million tonnes, largely attributable to a rebound in Louisiana and Florida, where hurricane damage in 2005 reduced the 2005/2006 crop. Better than anticipated beet sugar output has also contributed to the increase. Production prospects in **South Africa** have been reduced to 2.4 million tonnes due to dry weather after normal rainfall in 2005 provided a respite to dry conditions in past crop years. Estimated output for 2006/2007 in **Australia** has been reduced to 4.9 million tonnes, following some damage by Cyclone Larry, in March, and heavy rains during harvest in Queensland, one of the largest sugar producing areas, which reduced overall sugar extraction rates.

UTILIZATION

Asia continues to drive growth in world sugar consumption

The FAO forecast of world sugar consumption 2006/07 is 152.1 million tonnes, a 1.5 percent growth from 149.9 million tonnes in 2005/2006, and well below the

Table 7 . World production and consumption of sugar (million tonnes, raw value)

| | Production | | Consumption | |
|------------------------------------|----------------------------------|--------------------------|-----------------------|-----------------------|
| | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| | <i>million tonnes, raw value</i> | | | |
| WORLD | 149.1 | 155.5 | 149.9 | 152.1 |
| Developing countries | 106.1 | 116.4 | 102.4 | 104.3 |
| Latin America and the Caribbean | 48.6 | 51.4 | 27.5 | 27.8 |
| Africa | 5.3 | 5.6 | 9.4 | 9.5 |
| Near East | 6.0 | 6.3 | 11.7 | 11.9 |
| Far East Asia | 45.8 | 52.7 | 53.8 | 54.9 |
| Oceania | 0.4 | 0.4 | 0.1 | 0.1 |
| Developed countries | 43.0 | 39.1 | 47.5 | 47.9 |
| Europe, of which: | 27.4 | 23.0 | 29.5 | 29.6 |
| EU 25 | 21.4 | 16.5 | 17.8 | 17.8 |
| CIS in Europe | 5.3 | 5.8 | 9.4 | 9.4 |
| North America | 6.8 | 7.7 | 10.5 | 10.5 |
| Oceania | 5.2 | 4.9 | 1.4 | 1.4 |
| Others | 3.6 | 3.5 | 6.1 | 6.2 |

ten year average annual growth of 2.4 percent. Sugar consumption in **developing countries** is forecast at 104.3 million tonnes, with growth at 1.8 percent. This rate is substantially lower than past year averages, reflecting the adverse effects of higher global sugar prices on net importing countries, particularly in Africa and Asia, as well as the increased use of alternative starch-based or high-intensity sweeteners in some major consuming countries, such as China and Mexico. However, economic growth continues to drive consumption increases in developing countries, particularly in India and in the Far East Asia. For **developed countries**, per capita consumption continues to decline, similar to the past decade reflecting health concerns and mature sugar and sweetener markets. Overall consumption in developed countries is expected to grow at less than one percent and total 47.9 million tonnes in 2006/2007.

Regionally, utilization is forecast at 27.8 million tonnes in **Latin America** and the **Caribbean** in 2006/2007, slightly more than one percent over 2005/2006. The increase is mostly led by **Brazil**, where consumption is set to rise to 11.3 million tonnes, sustained by population growth and expanded use of sugar in food processing. In **Mexico**, consumption is forecast at 5.6 million tonnes. Sugar is likely to account for only a marginal proportion of growth in domestic sweetener consumption, which is expected to be met by HFCS, particularly given the elimination in January 2007 of a consumption tax on beverages made with HFCS.

Developing countries in the **Far East Asia** are forecast to account for 54.9 million tonnes of global sugar consumption in 2006/2007, a 2.1 percent increase over the previous year,

which compares with an average growth of 3.4 percent in the past ten years. In **China**, sugar consumption is expected to increase only marginally, to 12.9 million tonnes, as the utilization of artificial and high-intensity sweeteners in food and beverage processing continues to be more cost-effective than cane and beet sugar. Sales of saccharine are significantly higher than government controlled targets, while starch-based sweetener (HFCS) is increasingly replacing sugar, where feasible, in industrial applications, limited only by available refining capacity and availability of maize for feedstock use.

In **India**, increased incomes and government actions to contain domestic price increases are expected to help achieve consumption of nearly 21 million tonnes in 2006/2007. Domestic sugar prices reached record highs in May 2006, restraining consumption growth and prompting the Government to invoke the Essentials Commodity Act to control hoarding, ban exports and allow duty-free imports of sugar. Consumption is expected to increase to 11.9 million tonnes in the **Near East**, up 240 000 tonnes, slightly more than 2 percent. In **Africa**, it may reach 9.5 million tonnes in 2006/2007, a marginal increase over 2005/2006. Population growth in both regions remains the key driver of sugar consumption.

Sugar utilization is likely to remain mostly stable in **developed countries**, with an expected 350 000 tonne increase year-on-year, or 0.8 percent, to reach 47.9 million tonnes. No substantial change is forecast in the **European Union** where sugar utilization is currently at 17.8 million tonnes. Slightly stronger growth should occur in **North America**, where consumption is expected to reach 10.7 million tonnes, mostly sustained by population growth in the United States. Only a slight increase in consumption to 6.6 million tonnes is foreseen in the **Russian Federation**, driven by increased use of sugar by large industrial food processors.

MEAT AND MEAT PRODUCTS

PRICES

Meat prices may rebound in 2007 as demand recovers

Global meat markets in 2007 are expected to recover gradually in the aftermath of animal disease outbreaks that have plagued the sector for the past years. Low poultry prices and renewed consumer confidence, in the context of strong economic growth and reduced disease outbreaks, are forecast to sustain a gradual recovery in global meat demand. While this would stimulate an increase in meat output, the sector response will largely depend on the impact of rising feed prices on industry profitability. On the trade side, meat shipments, after witnessing an animal

disease-induced cyclical pattern of losses and recoveries, are forecast up 7 percent to 22 million tonnes in 2007. These favourable trade prospects are dependent on the progressive lifting of animal disease-related trade bans and on a steady recovery in consumption. Key, of course, to both consumption and trade growth, however, are consumer responses to any further disease outbreak.

Despite expectations of a gradual recovery of meat consumption and trade in 2007, meat prices in most of 2006 remained depressed, with the FAO meat price index, through September 2006, at 115 points, down from 127 points in mid-2005, the highest in the FAO database, which dates back to 1990.

Poultry prices, after rising more than 30 percent in the context of avian influenza (AI)-reduced export supplies since 2003, plummeted nearly 20 percent since mid-2005 as AI was reported in over 40 previously unaffected countries in Europe, Middle East and Africa. Poultry prices in the United States and Brazil, the suppliers of 70 percent of global trade, dropped 40 and 25 percent respectively between mid to late 2005 and April 2006. Rebounding import demand, however, has allowed export prices to recover but not yet to pre-AI levels.

Meanwhile, abundant supplies in 2006 have put pressure on **pigmeat prices**, which fell by 16 percent in mid-year 2006 compared with early 2005. In particular, high stocks in Japan, the recipient of nearly one-quarter of global trade in pigmeat, have led to considerable decline in Japanese import prices. While higher feed prices may lift pigmeat prices in 2007, continued strong supply growth from integrated United States industries and a competitive exchange rate are expected to mitigate the increase in international prices in 2007. This supply growth has allowed the United States to raise its share of global pigmeat exports from 16 percent in 2003 to an estimated 25 percent in 2007.

Despite tight supplies of world **beef** supplies (induced by foot-and-mouth disease (FMD) outbreaks in Brazil, bovine spongiform encephalopathy (BSE) trade bans on North American beef, and Argentine export bans) FAO's trade-weighted average of beef prices through mid-2006 was down marginally from the 2005 average of US\$3 507. While a strong recovery in Asian beef consumption and imports in 2007 is likely to support grain-fed beef prices, overall beef price rises are expected to be moderated by increased South American exportable supplies.

PRODUCTION

Meat output prospects to recover in 2007 despite rising feed prices

Global meat output is set to rise by more than 8 million tonnes to almost 285 million tonnes in 2007, an increase of over 3 percent from the previous level in the context of a recovery in consumer confidence. Nearly 70 percent of

Figure 25. FAO international price index for meat products (1998-2000 = 100)

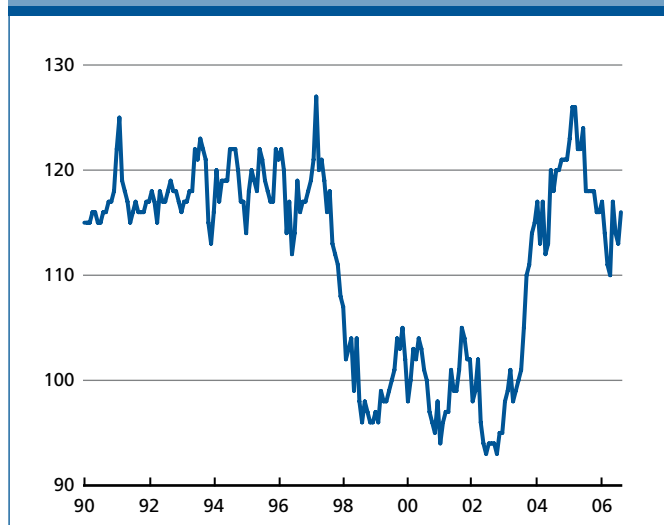
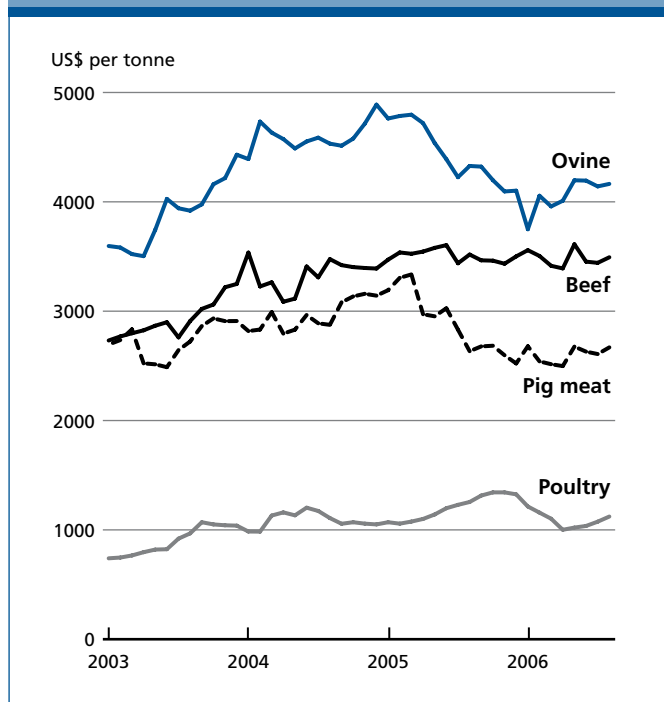


Figure 26. Prices of selected meat products



these gains is expected in Asia and South America which account, respectively, for 42 and 12 percent of global output. Strong economic growth and consumption in Asia is supporting output gains while, in export-oriented South America, an easing of previous trade barriers will likely prompt an increase in slaughtering and production. The estimated 4 percent rise in developing countries meat output is twice that expected for developed regions, bringing their contribution to global output to 60 percent, 10 percentage points more than a decade ago.

While developed countries are set to witness relatively

Table 8. World meat markets at a glance

| | 2005 | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | Change: 2007 over 2006 |
|-------------------------------------|-----------------------|-----------------------|-----------------------|---------------------------------|
| | <i>million tonnes</i> | | <i>%</i> | |
| WORLD BALANCE | | | | |
| Production | 269.1 | 275.7 | 284.3 | 3.1 |
| Bovine meat | 64.5 | 65.7 | 67.5 | 2.8 |
| Poultry | 82.2 | 83.1 | 85.5 | 3.0 |
| Pigmeat | 104.0 | 108.0 | 112.0 | 3.7 |
| Ovinemeat | 13.1 | 13.5 | 13.8 | 2.7 |
| Trade | 20.9 | 20.7 | 22.0 | 6.7 |
| Bovine meat | 6.6 | 6.6 | 7.2 | 9.2 |
| Poultry | 8.4 | 8.2 | 8.7 | 6.4 |
| Pigmeat | 4.8 | 4.8 | 5.0 | 4.2 |
| Ovinemeat | 0.8 | 0.8 | 0.9 | 4.6 |
| SUPPLY AND DEMAND INDICATORS | | | | |
| Per caput food consumption: | | | | |
| World (Kg/year) | 41.7 | 42.2 | 43.0 | 1.9 |
| Developed (Kg/year) | 83.0 | 83.8 | 85.1 | 1.6 |
| Developing (Kg/year) | 30.9 | 31.5 | 32.3 | 2.6 |
| FAO Price Index | | | | |
| 1998-2000=100 | 121 | 115 ¹ | ... | ... |

¹ January - August.

Note: Percentage calculated on unrounded data.

large increases in output, most of the gains is likely to originate in the United States and drought-affected Oceania. European production is expected to increase only marginally, with rising meat prices prompting a slight increase in cattle and pigmeat slaughter. Poultry production, hit by AI outbreaks in 2006, may also record a modest recovery.

However, uncertainties facing the meat industry include the potential effects of higher feed costs in many countries, as increased interest in biofuel production combined with heat-related production shortfalls push up grain prices. In early November 2006, the maize price in the United States, the largest animal feed producer and exporter, soared to ten-year highs, putting pressure on livestock profitability and suggesting potentially higher meat prices in 2007.

Prospects for higher prices is pushing up **beef production** prospects in 2007 to 67.5 million tonnes, up nearly 3 percent. Most of the production gains, with the exception of China, are expected in many of the export-oriented countries in North and South America. In South America, expectations of higher beef prices, in the context of a lifting of FMD-related trade restrictions, will support a 3.5 jump in output, while Argentine beef production is likely to be boosted by an easing of the partial export bans put in place in 2006 with the objective of dampening domestic inflation.

Low grain prices over the past few years have contributed to positive producer returns in the **hog sector** in many countries. In 2007, the sector is expected to expand at 4 percent, similar to the rate witnessed in 2006, pushing up global output to 112 million tonnes. As swine and pork production becomes more concentrated in feed grain producing areas in China, output continues to expand at 5 percent. Combined with a favourable outlook in Brazil, Mexico and Viet Nam, the pigmeat share of developing countries in global output is expected to rise from 63 percent in 2006 to 64 percent in 2007. Meanwhile, in developed countries, output gains are expected to average around one percent, as only the United States is expected to expand output in the context of steady returns. Growth in the Canadian industry, which exports over 50 percent of its output, is currently constrained by a strengthening of the country's currency. The strong growth in global pigmeat supplies in 2007 is likely to moderate the tendency for prices to rise in 2007, while expectations of higher feed prices will put pressure on margins and industry profitability.

Prospects for recovering consumption and prices of **poultry** in 2007, in the aftermath of AI, which, in 2006, depressed in output growth to its lowest level in two decades, are expected to prompt a recovery in global poultry output of 2.5 million tonnes to 85.5 million tonnes. This increase in output is expected to be shared equally between developed and developing countries. The export-oriented markets in South America are projected to expand their output by nearly 5 percent supported by higher prices and the rebounding of demand in many of their traditional export markets in Europe and the Middle East.

Ovine meat output is expected to reach 13.8 million tonnes in 2007, 3 percent more than in 2006. Most of the growth is expected to be concentrated in Asia, in particular China, India, the Islamic Republic of Iran and Pakistan, which account for nearly 60 percent of global production. While production in the major exporting region of Oceania is up due to drought-induced slaughter in Australia, recovering output in Argentina and Uruguay reflects government programmes aimed at reviving the sector, which was put under pressure in the late 1990 by low wool prices.

UTILIZATION

Consumption to rebound after below average growth in 2006

As human health concerns related to AI ease in the context of changing consumer risk perceptions, per caput meat consumption is set to increase by 2 percent to 43 kg/caput. Influenced by a reduction in the number of AI outbreaks, more effective communication strategies and strong economic growth, developing countries, which already account for 60 percent of meat consumption, are expected to be responsible for nearly 80 percent of the gains in meat

utilization. While per caput intake in developing countries is set to rise by nearly 1 kg/caput to 32.3 kg/caput in 2007, this still is only one-third of the 85.1 kg/caput average consumption in the developed countries.

TRADE

Meat trade outlook buoyed by a reduction in disease-related trade restrictions

Relatively low meat prices and recovering consumption are setting the stage for a 7 percent rise in meat trade in 2007, to 22 million tonnes. While trade prospects for all meats appear favourable, the beef and poultry sectors are set to account for 80 percent of these trade gains, as they both benefit from a lifting of animal disease-related trade restrictions. Brazil, which has surpassed the United States as the largest meat exporter since 2004, is expected to maintain this position in 2007. While losing some market share in 2006, Brazilian meat exports are set to expand by 8 percent in 2007, supported by strong import demand in traditional markets in the Middle East and Africa.

After witnessing an AI-induced 2 percent drop in poultry trade in 2006, world exports are forecast to expand by 6 percent in 2007, to a record 8.7 million tonnes. As global demand recovers to 85.4 million tonnes and many of the affected regions in Africa and the Middle East resume traditional importing patterns, Brazil, the United States and the European Union, are set to increase exports. The outlook for poultry import demand is favourable, with strong demand stemming from Asia, in particular China, and countries in the Middle East. The outlook for the Russian Federation, the world's largest importer, is negative, however, as imports are set to decline for the second year in a row due to uncertainty about issuance of import licenses and a strong recovery in domestic production. Meanwhile, the outlook for poultry imports by the European Union, the world's third largest importer, is clouded by ongoing discussions with Brazil and Thailand about the establishment of new quotas for salted chicken. This negotiation follows a mid-year WTO panel decision in 2006 that requires the European Union to lower tariffs on selected poultry cuts.

Pigmeat trade is expected to expand by 4 percent to 5 million tonnes, supported by strong demand in Asia and the Russian Federation. This is despite lower imports by Japan, the largest market, which are set to decline in view of the high stock levels and some competition from beef imports. A diversification of product exports from Brazil to some of the growing non-traditional markets in Asia will support a rebound in their shipments, while United States exports are expected to rise by 4 percent in the context of favourable exchange rates. Conversely, exports from Canada and the European Union will likely be constrained by less competitive prices arising from strong currencies.

A lifting of import bans on beef from Brazil and North

America, the suppliers of over 40 percent of global beef shipments, is expected to boost bovine meat trade by 9 percent in 2007. After declining in 2006, beef imports are forecast to reach 7.2 million tonnes in 2007, supported by a double digit increase in Asian imports, in particular China, Japan and the Republic of Korea. Imports of low quality cuts by the United States, the world's largest import market, are set to expand as herd rebuilding will likely constrain domestic output. The country's robust demand is expected to be met by higher shipments of manufacturing grade beef from Oceania, where drought in Australia is pushing up slaughter and exports. While the reopening of markets to Brazil and the United States beef will boost these countries' exports, reduced cattle supplies and high prices in Canada and the European Union will limit their participation in the global market in 2007.

A drought-induced increase in exportable supplies of **ovine meat** from Australia in 2006 and 2007 is anticipated to boost global exports by nearly 5 percent to 855 000 tonnes in 2007. Two successive years of strong export growth from Oceania, a region which supplies over 80 percent of global shipments, has induced a nearly 16 percent drop in the FAO price indicator for lamb since mid-2005. These low prices are expected to stimulate imports in many of the major markets, including Canada, China, Japan, Mexico and the United States. Meanwhile, a slow herd rebuilding and tight supplies in the European Union, the world's largest import market, is prompting a recovery in imports. Additional supplies are also being sourced from non-traditional exporters, such as Argentina and Uruguay.

MILK AND MILK PRODUCTS

PRICES

Will the recent upturn last?

International prices for major traded dairy products softened over most of 2006, due to increased export supplies by Oceania and some emerging Latin American countries. The FAO international dairy product price index (1998-2000=100) fell to 132 in September 2006, compared with a 15 year high of 148 in September 2005. However, in October the index increased 4 points to 136 and early reports in November show further strengthening. Whether this rebound continues will depend largely on the export situation for Australia, which is experiencing drought problems in 2006, and on the export position of the European Union. Compared with a year earlier (October), prices for whole milk powder, cheese and butter are down 6 percent, 9 percent and 21 percent respectively. Reflecting shorter supplies, skim powder prices are up one percent compared with 2005.

The changing situation for the European Union is most evidenced by its export refund and intervention stock situation. Compared with 2005 at this time, intervention stocks are down by about 30 percent for all products, except skim milk powder for which stocks have been nil since May 2006. Export refunds of the European Union have been lowered from 2005. While they remain significant at €310/tonne, €985/tonne, and €435/tonne for whole milk powder (WMP), butter and cheddar cheese respectively, those for butter are down 38 percent, and cheese down 23 percent; WMP refunds remain at 2005 levels. Export refunds for skim

Figure 27. Animal disease outbreaks introduce considerable volatility for meat traders

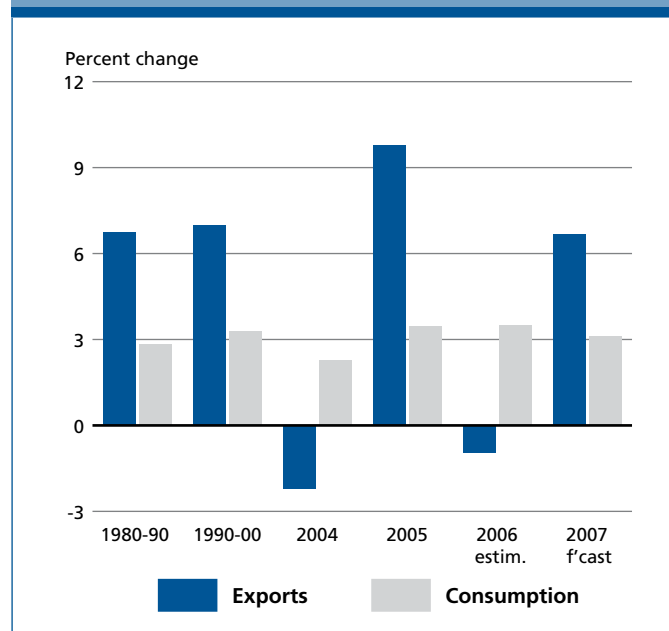


Figure 28. Monthly index of international prices of selected dairy products (1998 - 2000 = 100)

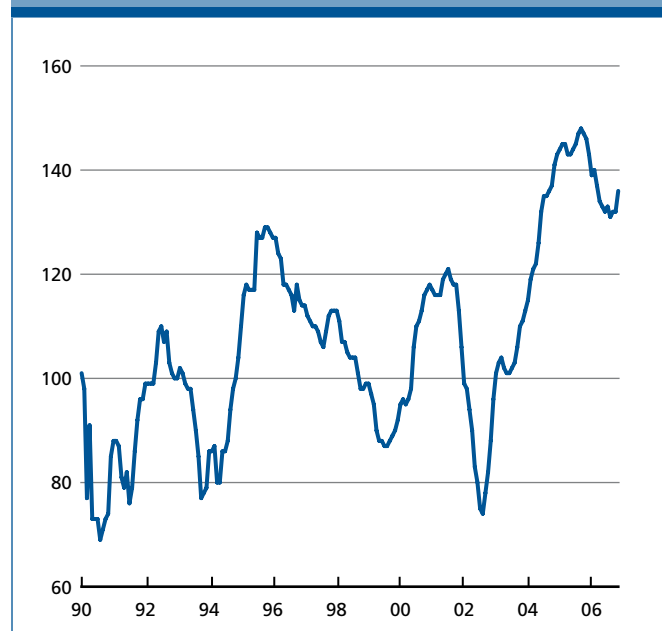
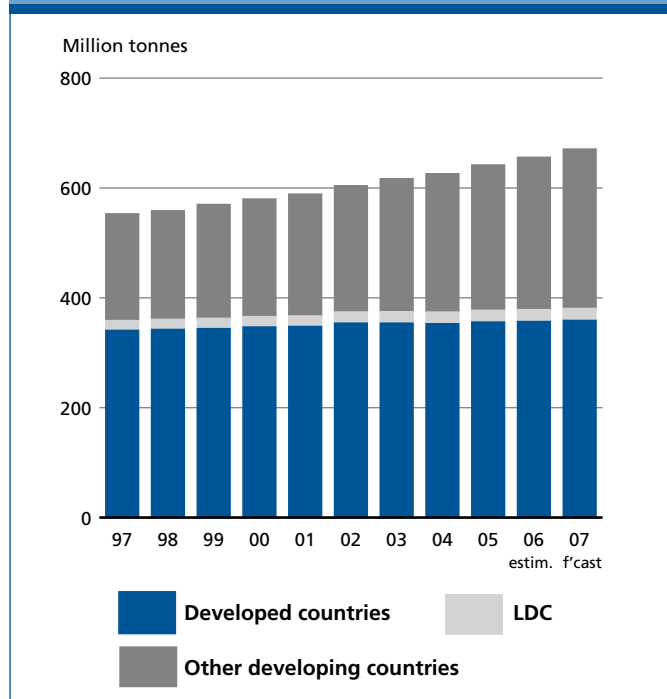


Figure 29. Global milk production



milk powder have been zero since June. This changing export situation marks a major change for dairy markets.

PRODUCTION

Growth in global milk output continues strong

World production of milk in 2006 is expected to reach 657 million tonnes, up 2.2 percent from 2005; preliminary projections for 2007 are for this growth to continue. With an increase of over 4 percent, developing countries led by China, India and Pakistan and countries in South America, largely account for the change in global output. Developed countries recorded near zero growth for 2006, with declining output in Australia and the European Union, but increasing production in New Zealand and the United States. Developed countries continue to lose share. Growth by low cost emerging dairy producers and exporters has been encouraged by higher prices of the past three years. An important question will be the impact of recently higher feed grain prices.

Asia is the world's largest milk production region

Asia replaced Europe as the world's largest milk production region in 2006. It now accounts for 34 percent of global output compared with 30 percent five years ago. Yearly production growth rates of around 5 percent were driven by the strong increase in the demand for milk and dairy products in the region, sustained by the strong economic growth. Within the Asian region, **China** has more than

doubled its output over the past five years with growth rates of over 20 percent; this growth is expected to slow as input costs for farmers have increased while milk prices have remained unchanged. In **India**, the world's largest single milk producing country, the sector continues to expand by over 3 percent per year, driven by increasing demand for value-added milk products on the consumer side and extensive dairy development programmes on the supply side. In **Pakistan**, milk output continues to expand by over 3 percent per year. The sector potential for growth is significant and the Government is launching several initiatives related to research, capacity building and improvements in the collection and storage systems. For the **Islamic Republic of Iran**, another country with a strong dairy tradition, production is expected to rise by over 5 percent, supported by higher milk prices.

Emerging dairy supplier in Latin American countries

Among Central American and Caribbean countries, **Mexico's** production is increasing at about 1.5 percent, in response to increased demand for domestically produced fluid milk from LICONSA, the parastatal agency responsible for the Government's social feeding programmes. In South America, **Brazil**, the largest milk producer of the region, with a share of almost 50 percent, became a net-exporter for the first time after a production surge of over 5 percent in 2005. Production growth for 2006 is expected to slow to 3 percent, due to weaker domestic demand and higher feed costs. **Argentina** is likely to increase its output by almost 8 percent in 2006, in response to expected growing demand in both the domestic and export markets. Growth may slow in 2007 because of increasing production costs and uncertainty regarding government policy decisions on domestic price measures and export taxes. **Venezuela** has registered output gains of over 5 percent since 2005, after a decade of stable production, as efforts have been made to improve the dairy herd and provide better access to credit for farmers. Output may rise in Chile by about 2 percent in 2006, reflecting better weather conditions and improving productivity and rise also in **Uruguay** in response to the higher international prices in the past two years.

Milk production in Africa to fall in 2006

Africa accounts for less than 5 percent of global milk output. Livestock production in the region is characterized by a large number of small-scale farmers producing for the informal market and plays an important role in food security, providing basic food while securing employment opportunities and household income for the rural population. **Egypt**, which accounts alone for over 50 percent of milk output in North Africa, has faced a production decline of 5 percent in 2006 due to outbreaks of lumpy skin and FMD. These are likely to affect output also in 2007

when production may decline by a further 8 percent. In Sub-Saharan Africa, the **Sudan** is increasing its production through the introduction of better breeds that find a suitable climate and extensive pasturelands in the country. **Kenya** has the largest and best developed dairy herd in the region but while domestic demand is expected to grow by 3 to 4 percent per year, milk production may remain below demand in the short term as farmers face competition from cheaper milk powder imports. The Government raised the tariff on imported dairy products in 2002, but production has not responded. Droughts in 2005 and the beginning of 2006 have also depressed milk output in 2006. In **South Africa**, milk output for 2006 may remain close to or slightly below the 2005 levels due to a decrease in producer prices and adverse production conditions.

Milk production expands at a slower pace in the United States, declines in Canada

Stemming from high profitability conditions in 2004 and 2005, milk production in the **United States** is expected to expand by about 2.8 percent in 2006, although growth has been revised down a bit from earlier forecasts due to unusually high summer temperatures in key milk-producing regions. Milk output in the country may rise further in 2007, but the impact of high feed prices may dampen growth. In **Canada**, milk production for 2006 is expected to decline marginally from 2005, reflecting production quota adjustments to weaker demand for dairy products in late 2005 and increased imports.

Less milk from Europe

Despite the increase of 0.5 percent in production quota, milk production in the enlarged **European Union** area (EU-25) is expected to decline by over one percent in 2006. Prospects are for little growth in 2007. The reasons behind include drought in southern parts of Europe, Poland and the United Kingdom. Less efficient producers however, are also cutting output in response to recent policy reforms that have decoupled farm payments from production. Furthermore, Germany and Italy and several new members such as the Czech Republic and Poland, have decreased output to avoid paying super levies for overshooting their quota. Milk production in **Ukraine**, one of Europe's emerging exporters, is set to fall by 4 percent in 2006, largely as a result of import bans by its most important market, the **Russian Federation**. Milk production in the **Russian Federation** may rise 1.8 percent in 2006, as national programmes aimed at improving the livestock sector encourage production. The positive trend should continue in 2007, although farmers are concerned about the depressing effect of imports on dairy prices. **Romania**, one of Europe's emerging dairy markets, is preparing for accession to the European Union in January 2007, and may raise milk output by about 2 percent in 2006. It has been granted an annual European Union production

quota of over 3 million tonnes and the Government recently offered incentives to milk producers to modernize their dairy plants in order to comply with European Union standards.

Oceania is losing production share

Although Australia and New Zealand together comprise only 4 percent of global milk production, they account for about one-third of total world trade. Supply variations in these two countries usually have considerable impact on world product prices. In part due to recent adverse climatic conditions, Oceania has not maintained its pace of expansion of the late 1990s and early 2000s and has been losing production share on the global market. The 2005/2006 production season in **New Zealand** ended with an estimated 3 percent increase on the previous season which, however, was below average of previous years. Milk production for the 2006/2007 season may reach a new record, as herd numbers are set to increase by one percent, and further productivity gains are expected from better farm management practices and genetic improvements. **Australia** has ended its production season in June marginally below last season's output. The lack of growth largely reflects a sequence of unfavourable weather conditions in recent years, but also the policy reform initiated in 2000.

TRADE

In **milk equivalent terms**, slower growth is expected for total dairy product trade in 2006 and, while it is forecast to grow by about 2 percent compared with 2005, it remains below 2004 levels. The increase in 2006 is mainly due to a rebound in supplies from Oceania and increasing exports from some Latin American countries. However, declining exports from the **European Union** represent a major feature of international markets that is underpinning milk product prices. Demand for dairy products remains firm, particularly in high economic growth regions in Asia and in parts of North Africa. Some importing countries have increased their output in response to higher international prices, and are now importing less. **Brazil**, a previous large importer, remains on the verge of sustaining a net export position.

European Union and Oceania are losing trade shares

In terms of global trade shares (see Figure 32), the **European Union** has reduced exports and its share of international dairy trade has declined to 29 percent in 2006. **Australia** and **New Zealand** account together for 35 percent of global exports, up significantly from the last decade, a reflection of low production costs and favourable exchange rates. However, recently with adverse seasonal conditions, an appreciating exchange rate and policy reforms in Australia, market shares have declined. The **United States** has improved its position on the global market for skim milk

powder without the use of export subsidies. New emerging exporters, mainly from Latin America and Eastern Europe are gaining market shares from the traditional suppliers.

Whole milk powder trade increasing

Whole milk powder is the most important dairy commodity traded in terms of volume. Among major importers is **Algeria**, where increasing demand is likely to be met mostly by imports. Increased imports are also expected for countries in Southeast Asia (**Indonesia, Malaysia, Mexico, the Philippines** and **Thailand**). However, **Mexico** is purchasing less milk powder as the Government is fostering the use of locally produced fresh milk for its public feeding programmes. Historically, the major suppliers of WMP have been countries in **Oceania** and the **European Union**, but whereas the latter will decrease exports by 5 percent in 2006, Oceanic suppliers are expected to increase theirs, with **New Zealand** up 8 percent, and **Australia** up almost 20 percent compared with 2005. Among new suppliers, **Argentina** is gaining market share rapidly, as its exports of WMP are forecast to increase by 17 percent in 2006, despite the imposition of higher export taxes during the first half of the year.

Skim milk powder exports continue to decline

Traders have been switching away from skim milk powder towards whole milk powder, which is preferred by importers who want to reconstitute powder into whole milk and other products. The **European Union** is likely to reduce exports by almost 50 percent in 2006 to a 30-year low. Increasing shipments are forecast to come from the Oceanic countries where **New Zealand** could increase sales by over 10 percent.

Cheese exports down due to tight supplies from the European Union and Oceania

Cheese remains by far the largest traded milk product in value terms. The majority of cheese trade is conducted among developed countries (about 62 percent), following tariff rate quota allocations. Trade with some higher income developing countries is now also growing quickly. For 2006, **Australian** cheese exports are expected to fall by 11 percent from 2005, reflecting constrained milk supplies. In **New Zealand**, milk is being allocated mainly into the production of WMP and butter, leaving cheese output and exports largely unchanged from the previous year. In the **European Union**, cheese supplies to the world market are set to decline by almost 3 percent as more products are absorbed by the domestic market. Among emerging exporters, **Argentina** is expected to increase its cheese shipments by over 5 percent. Ukraine is facing a severe cutback in dairy exports in 2006 after the outbreaks of animal diseases prompted the Russian Federation to impose an import ban on Ukraine's dairy produce. Although the **Russian Federation** is forecast to cut overall cheese imports by about 8 percent in 2006, it remains the world's largest

Table 9. Major exporters of dairy products

| | 2004 | 2005 | 2006 <i>estim.</i> |
|--------------------------|------------------------|--------------|-----------------------|
| | <i>thousand tonnes</i> | | |
| WHOLE MILK POWDER | | | |
| World | 1 780 | 1 640 | 1 716 |
| New Zealand ¹ | 669 | 592 | 638 |
| EU 25 ³ | 509 | 474 | 452 |
| Argentina | 177 | 162 | 190 |
| Australia ² | 117 | 105 | 126 |
| SKIM MILK POWDER | | | |
| World | 1 146 | 1 050 | 953 |
| USA | 232 | 300 | 250 |
| EU 25 ³ | 281 | 192 | 100 |
| New Zealand ¹ | 250 | 181 | 201 |
| Australia ² | 155 | 141 | 134 |
| BUTTER | | | |
| World | 961 | 841 | 794 |
| EU 25 ³ | 344 | 330 | 230 |
| New Zealand ¹ | 365 | 288 | 337 |
| Australia ² | 83 | 69 | 70 |
| Ukraine | 42 | 24 | 18 |
| CHEESE | | | |
| World | 1 550 | 1 552 | 1 462 |
| EU 25 ³ | 573 | 536 | 520 |
| New Zealand ¹ | 277 | 254 | 254 |
| Australia ² | 212 | 227 | 202 |
| Ukraine | 94 | 116 | 50 |

¹ Dairy years ending in May of the year stated.

² Dairy years ending in June of the year stated.

³ Excluding trade between the 25 European Union Member States.

cheese importer. The shortage from Ukraine has been partly made up by increased imports from Germany and Lithuania. Weak currency prospects in **Japan**, the second largest cheese importer worldwide, reduced its import demand prospects for cheese by about 6 percent in 2006. Among other developed countries, the **European Union** and the **United States** remain important cheese importers although higher demand is increasingly satisfied domestically.

New Zealand outstrips the European Union as world's number one butter supplier

In **Oceania**, butter exports for 2006 are forecast to increase by 17 percent in **New Zealand** while **Australian** shipments may increase only marginally. The **European Union**, whose butter exports are expected to drop by about 30 percent in 2006, is about to lose its position as the world's largest butter exporter; this is in spite of high export refunds for butter. After a decline in butter trade in 2005 with traditional

Figure 30. World dairy exports (milk equivalent)

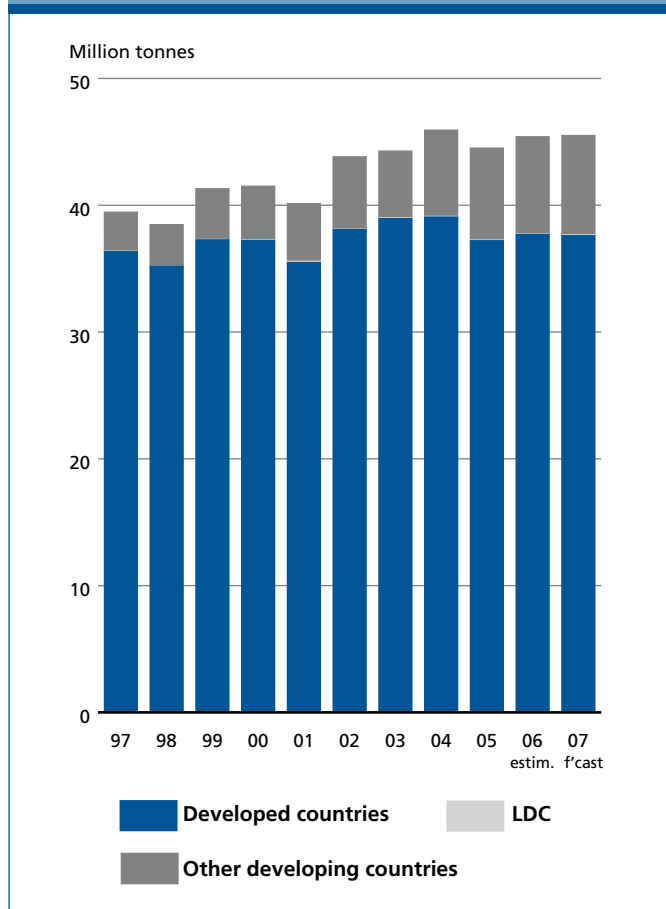


Figure 31. World dairy imports (milk equivalent)

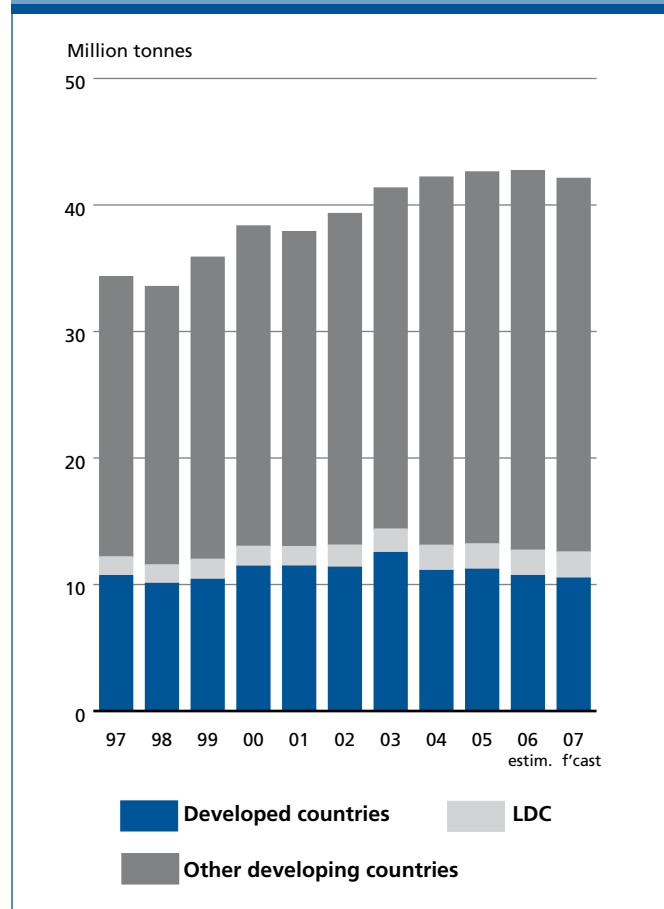
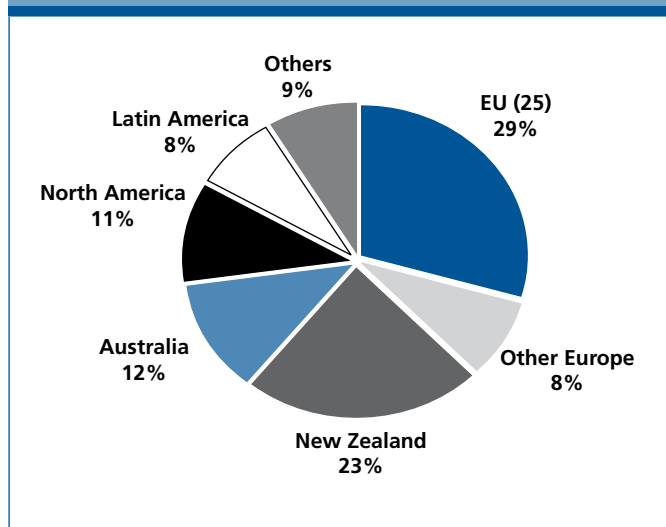


Figure 32. Share of global dairy exports (average 2004-2006)



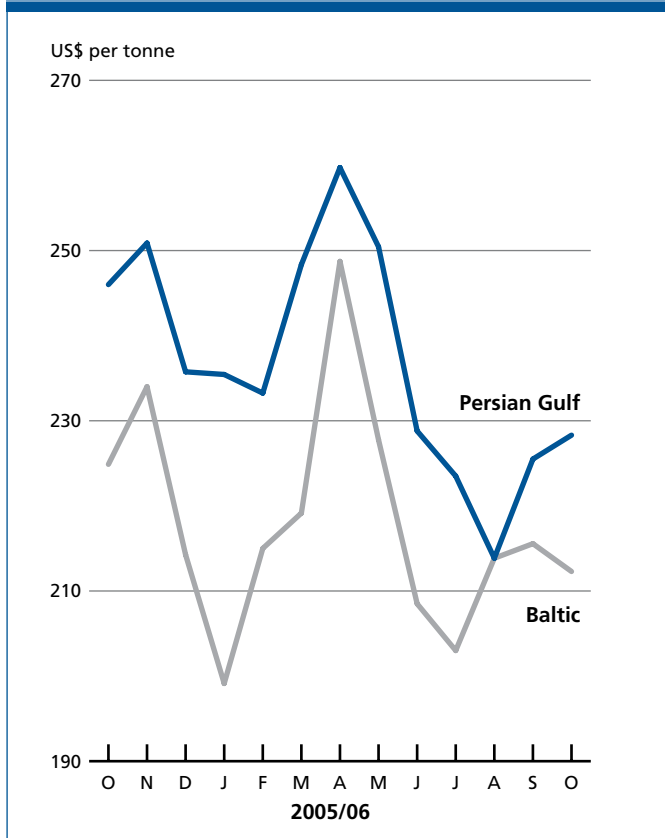
importers buying less due to high prices, the situation for 2006 is forecast to improve slightly with some increase in demand from important importers such as **Egypt** and **Mexico**.

FERTILIZERS

UREA

Urea prices moved up in October, as exporters continued to buy to cover their commitments for sale. Over 75 000 tonnes of urea were traded at around US\$214 per tonne, free-on-board (fob) Yuzhnyy, for November loading, while Baltic prices rose to US\$205-210 per tonne, fob, in the second week of October, reflecting continued inquiries from Brazil and other countries in Latin America and the Caribbean. Turkey is a strong buyer at the moment, but the rise in prices may induce it to withdraw from the market. Urea prices in the United States have risen, in line with gas prices, but remain lower than in the rest of the world. The significant volumes purchased by India were certainly a key demand-driver of the urea market during the third quarter of the year, despite low United States imports. India has also purchased substantial volumes for delivery in the fourth quarter of the year, which traders still need to cover with producers. India's purchases have therefore continued to sustain prices in recent months. The Islamic Republic of Iran has withdrawn its tender, but, as Bangladesh and Pakistan, it is expected to re-enter the market in December.

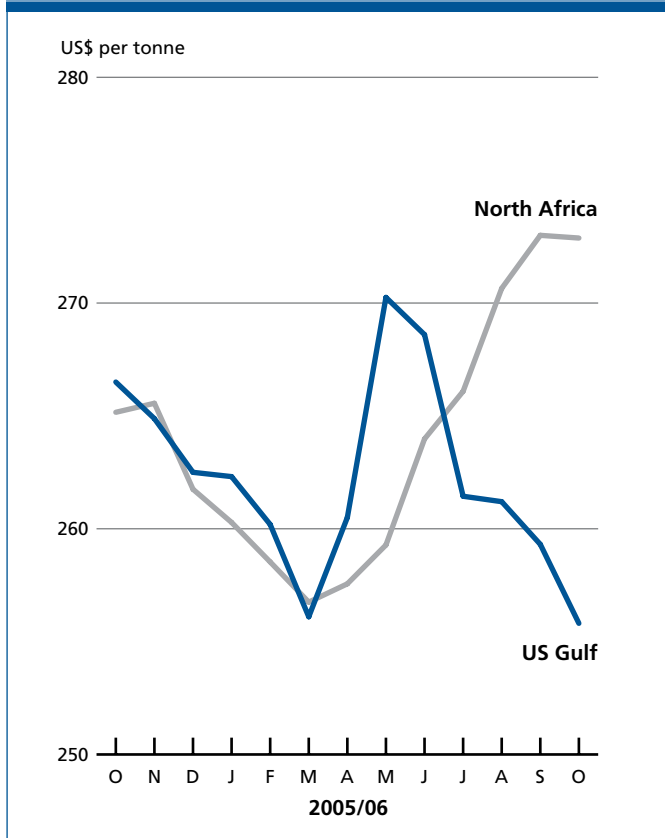
Figure 33. UREA



Diammonium Phosphate (DAP)

Import demand for Diammonium Phosphate (DAP) is now largely limited to China, Ethiopia and the Islamic Republic of Iran. Domestic demand in the United States is also weak, which is putting United States prices under pressure. Demand by African countries is also faltering, as a tender that should have been called by Ethiopia in October never materialized. India appears to have largely satisfied its import requirements and is unlikely to return to the market to purchase a significant volume before early 2007. Imports by Pakistan, where the Government confirmed the granting of Rupees 250 subsidy per 50 kg bag of DAP in late September 2006, may rise. However, the Islamic Republic of Iran, which already purchased DAP from Jordan, the Russian Federation and Turkey in October last month, remains the most important potential importer, with a further tender already announced for November. China and, especially, India now appear to be the most promising markets, which, in the case of China, reflects the relaxation of tariffs on fertilizer imports. The improved access to the Chinese market is expected to contribute to closing the existing gap between (the much higher) domestic prices and world prices. Overall, given the lack of new deals on the horizon to match exportable supplies, DAP prices tended to weaken further over the last quarter of 2006.

Figure 34. DAP



Muriate of Potash (MOP)

The Muriate of Potash (MOP) market generally remained firm over the second half of the year. Potash suppliers were reported to be heavily committed, with large shipments

Figure 35. MOP

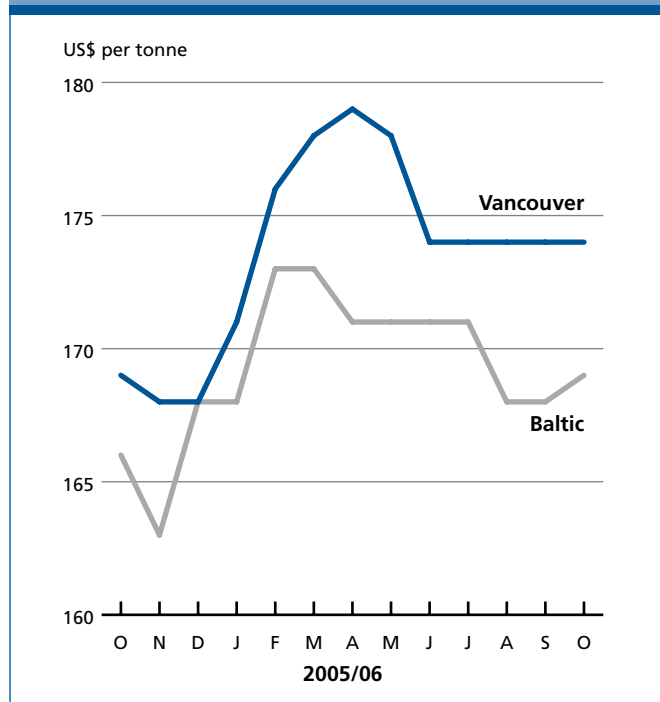
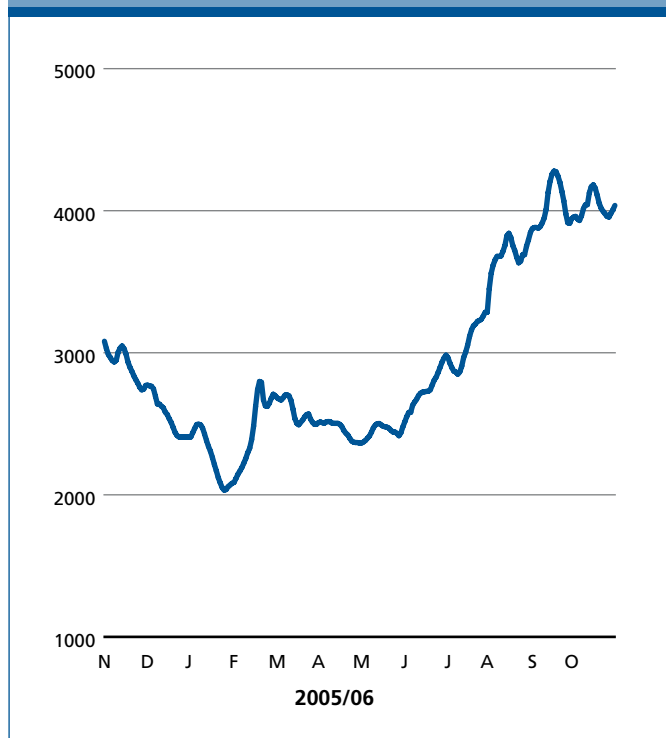


Figure 36. Baltic dry index



directed to China, India and other markets. In North America, potash inventories have been cut, but their level at the end of the third quarter of 2006 remains one percent over the five-year average. The MOP market situation was less buoyant in Europe, where the prices of standard MOP for delivery over the 2nd half of 2006 weakened. A new deal for large deliveries of Belarusian potash to Colombia and Venezuela was signed in September, which injected new vigour to the market, offsetting the effect of falling imports by Brazil. As a result, prices improved markedly by the end of 2006. Attention in the final weeks of the year will be concentrated on China, which will soon start negotiating the prices of contracts for delivery in 2007.

OCEAN FREIGHT RATES*

Ocean freight market (June 2006 – October 2006)

Contrary to the usual seasonal drop in activity, ocean freight rates rose steadily during the northern hemisphere summer on growing demand. This was largely attributed to China's strong iron ore imports from Brazil, bookings before the start of the peak United States grain export season and Europe's increasing coal demand ahead of winter. Availability of vessels in prompt positions remained tight. Port delays, especially in Australia and in the Persian Gulf, kept tonnage off the market, thus strengthening rates further. Between early June and October, the Baltic Dry Index (BDI) climbed by around two-thirds, to over 4 000. The record was 6 200, in December 2004. Periodic dips in rates in July, August and October were due to temporary slowdowns in demand for minerals, increased spot tonnage availability, particularly in the Pacific and, more recently, lower bunker fuel prices.

In the **Panamax** sector, heavy grain and soyabeans trade volumes out of South America, particularly from Brazil, boosted rates in the Atlantic. Short period rates continued to lead spot markets, while the splitting of larger cargoes into Panamax-size parcels additionally supported the market. Transatlantic round voyage rates increased by about US\$10 000, to US\$28 000 per day. Atlantic short period rates rose by about US\$9 000, to US\$30 000 daily. Compared with the beginning of June, the grain rate from the United States Gulf to Japan added US\$13.00 (37 percent), to about US\$48.00/tonne, while period rates on this route increased by US\$11 000 - US\$12 000, to about US\$30 000 daily. In the Black Sea, a recent interruption in Ukraine's wheat exports, caused by delays in issuing licences, forced some ship owners to move tonnage in ballast elsewhere. In the Pacific, China's heavy demand for minerals and record coal shipments from Australia pushed freight rates to higher levels, also helped by India's wheat purchases. Short-term period rates increased to about US\$34 000 daily, nearly double those seen some five months earlier.

Capesize rates increased on good mineral demand, especially once China agreed to an increase in iron ore prices. Also supporting the market was a higher volume of enquiries for coal out of Australia as well as increasing coal shipments to Europe. A surge in time charter business triggered a rise in the spot market. In the Atlantic, the benchmark iron ore rate from Brazil to China increased from US\$19.10 at the end of May to about US\$29.00 per tonne, while the coal rate from South Africa to Europe

* Contributed by the International Grains Council (<http://www.igc.org.uk>)

(*Rotterdam*) more than doubled, to US\$23.25 (US\$11.00) per tonne.

Demand in the Handysize sector remained healthy in both basins, helped by active grain and sugar trade. By the end of October, short period rates in the Atlantic were quoted at about US\$27 000 (US\$16 000) daily, while rates in the Pacific were in the region of US\$30 000 (US\$21 500). In the Atlantic, the grain rate from Brazil to the European Union

(*Antwerp-Hamburg*) increased by one-third, to US\$46.00 (US\$34.50) per tonne. Good demand for steel and fertilizer supported rates out of the Black Sea, quoted in October at around US\$31 000 - US\$32 000 daily. In Europe, hot weather during the summer months reduced river water levels, with barge ships on the Rhine utilizing only half of their capacity in this period.

Special features

BULGARIA AND ROMANIA EUROPEAN UNION ACCESSION*

The next round of European Union enlargements, the sixth since 1957, is fast approaching. **Romania** and **Bulgaria** will join the European Union on 1 January 2007 as the 26th and 27th members. Consequently, the European Union will border the logistically important Black Sea. The European Union will increase by the size of Germany and will then cover an area of 4.24 million km², representing 40 percent of the European continent. Following the accession, the number of inhabitants in the European Union will rise by around 30 million to a total of 490 million. At an average of 5.5 percent p.a. in Romania and 5 percent in Bulgaria in the last five years, economic growth in these two countries has been high. Responsible for this economic growth in both countries has been domestic demand due to high personal consumption, on the one hand, and to high demand for capital goods, on the other. In spite of growing consumption in the last few years, both countries are among the poorest in Europe. Per capita gross domestic product amounted to US\$3 347 in Bulgaria in 2005 and to US\$3 600 in Romania. In comparison, in the EU-25 it was US\$30 473 in 2005. This market review will focus on agriculture in Romania and Bulgaria.

Agricultural area in Romania amounts to 13.9 million ha according to EUROSTAT, of which 8.8 million ha are arable. The most fertile soil is in the western part of Romania in the province of Banat and in the areas of Wallachia in the south and the Republic of Moldavia in the east. Bulgaria has an agricultural area of 2.9 million ha, of which 2.7 million ha are arable. The fertile heavy black-earth soil is found in the north of Bulgaria, at the border to Romania. The region in the northeast of Bulgaria around Dobrich is considered to be the country's granary.

In Romania and Bulgaria the farms are mainly small. In **Romania** a good 4.5 million operations were recorded in a survey conducted by EUROSTAT in 2002. For the most part the country has a subsistence economy with a farm size of less than one hectare. Forty (40) percent of the farms cultivate areas between one and five hectares. Around 30 percent of total agricultural area is farmed by these operations. The main reason for this structure favouring small farms is the land reform of 1991. Within the framework of this reform, land was returned to the owners who were registered as such prior to 1945. In addition, the employees of the previous collective farms received agricultural areas if

they had worked for at least three years on a farm. Neither previous nor new owners were given more than 50 ha of land. Furthermore, the farms have the right to purchase only up to 200 ha of agricultural land. Thereafter, they are only allowed to expand by acquiring leasehold. Bulgaria has around 665 000 farms. The transformation of the structure of the farms is comparable with that seen in the new German states. Nowadays, 79 percent of total agricultural area is cultivated by farms that are more than 50 ha in size. The most important crops in both countries are wheat, maize and sunflowers. In Romania, soybeans are also planted on a larger scale.

Romanian grain production – this includes wheat, barley, maize, rye and oats, averaged 12.3 million tonnes in the last four years. The most important crop was maize, with an average production of 7.1 million tonnes, followed by wheat at 3.9 million tonnes and barley at 721 000 tonnes. Hectare yields have hardly increased in Romania since 1991. The maize yield has reached a mere 3 tonnes/ha on average in the last four years and was therefore even below the yield recorded in Ukraine and well below the EU-25 average of 7.7 tonnes/ha. The most important **feedstuff** is maize with average annual usage of approximately 5.6 million tonnes in the period from 2003/04 to 2005/06, followed by wheat at 850 000 tonnes. **Exports** averaged 1.1 million tonnes annually in the same period, including maize at 520 000 tonnes, wheat at 333 000 tonnes and barley at 216 000 tonnes.

In **Bulgaria**, the **grain crop** averaged 4.9 million tonnes in the last four years. The most important grain crop is wheat with average production of 2.8 million tonnes, followed by maize at 1.4 million tonnes and barley at 605 000 tonnes. Yields are currently higher than in Romania. Maize yields, for example, averaged 3.8 tonnes/ha in the last four years. In Bulgaria, too, maize is the **most important feedstuff** with annual usage amounting to 800 000 tonnes on average in the period from 2003/04 to 2005/06, followed by wheat at 610 000 tonnes. In the same period, an average of 750 000 tonnes of wheat was exported annually, as well as 349 000 tonnes of maize and 210 000 tonnes of barley.

Sunflowers are the dominant oilseed in both countries. The **planting of sunflowers** increased significantly following the fall of the iron curtain in 1991. Sunflower seed production reached 1.2 million tonnes in the last four years on average. In 1991, a mere 556 000 tonnes were produced. Rapeseed planting in Romania has also increased considerably in the last two years. The main rapeseed growing region is the area along the southern edge of the Carpathians. While **rapeseed production** amounted to 64 000 tonnes on average in the last four years, Romanian farmers produced in excess of 160 000 tonnes in 2005 and 2006. The increase in production is mainly a reflection of the growing usage of vegetable oils in the EU-25. Thus, Romania has become an **important exporter** to the EU-

* This special feature is courtesy of ALFRED C. TOEPFER INTERNATIONAL (www.acti.de) the views of which do not necessarily reflect those of FAO.

25. **Sunflower seed exports** averaged 345 000 tonnes in the period from 2003/04 to 2005/06. According to our estimates, rapeseed exports to the European Union close to doubled in this marketing year compared with two years ago. The export potential of rapeseed is, however, likely to decline in the next few years if the planned biodiesel plants are actually built. Production capacity is estimated at 290 000 tonnes of biodiesel.

In **Bulgaria**, sunflower seeds, with average annual production of 721 000 tonnes, have been by far the most important oilseed since 2003. Sunflower seeds are also an important export, with an annual volume of 418 000 tonnes on average from 2003/04 to 2005/06.

Grain and oilseed yields fluctuate widely in both countries due to the continental climate and severe winters, the danger of floods along the Danube and a greater danger of winterkill (in Romania it is 9-12 percent of winter grain on average) and pronounced summer dryness. In addition to this, with the farms being mainly small, they have neither the liquidity nor the necessary managerial skills to counterbalance the extremes in yields even to a small extent. However, both countries have a significant production potential. As in many former socialist countries, yields after 1991 have varied not only from region to region but also within any given region from farm to farm. While many former collective farms are operating at a low yield level, foreign investors have shown that higher yields are possible. Hectare yields of 6 tonnes for wheat or 7 tonnes for maize as well as 2 tonnes for sunflower seeds are by all means possible if the right input is used and the production processes are optimized (assuming normal weather conditions).

Romanian pork production has been increasing steadily in the last few years with growth rates of 5.3 percent on average since 2000 and is forecast by the USDA at 490 000 tonnes for 2006. This higher level of production is driven by strong **domestic demand**. Per capita pork consumption in Romania has been growing since 2001 by an annual 8.8 percent to an estimated 14.3 kg for 2006. In the EU-25, 43.5 kg are consumed per capita. All in all, the USDA expects pork demand to amount to 778 000 tonnes in 2006. Besides an increase in consumption, **imports** have risen nine-fold since 2000. The USDA has forecast pork imports at 288 000 tonnes, up from 263 000 tonnes in 2005 and 32 000 tonnes in 2000. Foreign investors believe Romania to have an interesting growth potential because of the low wages, rising demand for pork, lower raw material costs and low land prices. In spite of higher production, pig inventories have remained relatively stable in both of the last two years. At the end of 2005, 5.2 million head were counted, compared with 5.1 million in 2002. However, structural change is moving forward: fewer animals are being held by the previously collective farms while inventories at other kinds of farms are increasing.

In **Bulgaria, pork production** more than halved from 2000 to 2006. According to estimates released by the USDA, 81 000 tonnes of pork will be produced in 2006, compared with 224 000 tonnes in 2000. The decline is the result of lower pork consumption in the amount of an estimated 105 000 tonnes in 2006, down from 263 000 tonnes six years ago. Usage has, however, stabilized at this level in the last two years. The USDA expects per capita consumption to amount to 7.9 kg in 2006. As in Romania, the farms holding pigs are very small. The average farm holds only five animals. In comparison, in Germany an average of 322 animals were held per farm in May 2006. In total, 943 000 pigs were held as of the end of 2005, almost as many as in the German state of Saxony Anhalt.

Low hygiene standards are a problem in both countries. This is evidenced by, for example, the outbreak of classical swine fever, which has been rampant in Romania and Bulgaria for quite some time. In 2006 alone, more than 500 cases of swine fever have already been reported in Romania. Since the beginning of November, there has been an emergency vaccination of pigs on small farms and these measures will be expanded to large farms beginning on 1 January 2007. These countries are therefore currently not allowed to export living pigs, pork and certain pork products to the EU-25.

The **poultry sector in Romania** has had more momentum in the last few years. It is interesting that in Romania ten of the country's farms contribute 50 percent to total domestic production. The quality and hygiene standards and production methods applied by these farms are based on those used in the west. Thus, these farms breed their animals themselves, give them feed produced by them, slaughter them on their farms and process these products to make food. Domestic production has consequently risen by 10.5 percent p.a. on average since 2000 and is estimated by the USDA at 220 000 tonnes for 2006. This boom is driven by the growth in per capita consumption, which has increased by 9.8 percent p.a. on average since 2001 and is forecast by the USDA at 8 kg per capita for 2006. In addition to higher production, imports are also increasing, in fact to an estimated 125 000 tonnes for 2006 from 25 000 tonnes in 2000. Meanwhile, egg production has been stagnating in the last few years at 6 million eggs. Overall, many market observers see significant growth potential in Romania in the poultry industry so that the country can be expected to change from a net importer of poultry meat to a net exporter.

The **poultry sector in Bulgaria** is, as in Romania, a growing market. The market concentration is increasing further. Thus, 17 percent of the farms already hold 60 percent of the broilers. Poultry density is highest in the northeast of the country. This region is the country's granary, which makes the supply of feedstuffs possible. The USDA estimates the country's poultry meat production at between

70 000 tonnes and 80 000 tonnes in 2005, up from 60 000 tonnes in the year before. A significant reason for the increase is the per capita consumption, which is at around 14 kg p.a. and is thus approaching the level in the European Union, where it is at 15.9 kg. Besides higher production, imports have also risen in the last few years. They amounted to 44 000 tonnes in 2005 (2004: 42 000 tonnes). Only because of the outbreak of AI at the end of 2005 and beginning of 2006 did demand decline for a short while. Since May 2006, however, this trend has been stopped. AI had one further effect, many slaughtering facilities could not meet the high hygiene standards and gave up, which affected 11 of the nationwide 59 registered poultry meat processing operations during the outbreak of AI in Bulgaria.

Milk production in Romania amounted to just under 5.9 million tonnes in 2005, which corresponds approximately to the amount produced in Spain. Production has increased since 2000 by an average of 2.2 percent p.a. 97 percent of the milk is produced on small farms focused on self-sufficiency or direct selling. Two-thirds of the milk produced is either used on the farm itself or sold directly. The small milk quota of 3.1 million tonnes allocated by the European Union to Romania therefore also makes sense. The quota for deliveries to dairies is 1.1 million tonnes and for the direct sale 2.0 million tonnes. At the present time, the Ministry of Agriculture of Romania expects the milk quota to be divided among around 600 000 farmers. The main reason for the low level of milk deliveries is the small-structured agriculture. Ninety-five (95) percent of the 1.2 million Romanian dairy farmers has only one or two cows. For dairies, the expense associated with the collection, transportation and storage of milk is immense. The milk produced there frequently also has quality problems, which makes it impossible to process the milk further in the dairy. A higher quota for the delivery of milk to the dairies will only be possible if there is a change in the structure within Romanian agriculture. However, problems exist not only on the farms but also at the dairies. At the end of October, only 59 of the just under 600 registered dairies in Romania met the high European Union quality standards. An additional 188 are likely to meet the European Union requirements in the near future.

Romanian consumption of beef has increased annually by 0.8 percent since 2001 and is estimated by the USDA at 4.9 kg per capita for 2006. The production of beef grew in the same period to 208 000 tonnes from 200 000 tonnes and beef imports rose to 240 000 tonnes from 215 000 tonnes.

In **Bulgaria** the farmers produced a good 1.5 million tonnes of milk in 2005 according to the USDA. This corresponds approximately to the amount of **milk** produced in Saxony. Unlike in Romania, more milk is delivered to the dairies in Bulgaria, in fact two-thirds of the milk produced, with half of the remainder being consumed by the farms themselves and the other half sold directly. Bulgaria's milk

quota was set in the treaty of accession at 979 000 tonnes, of which 772 000 tonnes are for deliveries to the dairies. Bulgaria is plagued by the same structural obstacles as Romania, although the problems are not as pronounced. Two-thirds of the Bulgarian dairy farmers have one cow and only 10 percent of the dairy cows are held by large agricultural operations. Therefore, the problems encountered when the dairies collect the milk are similar to the ones in Romania.

Bulgarian beef consumption is forecast for 2006 by the USDA at 92 000 tonnes (2005: 104 000 tonnes). This demand has been covered less by domestic production, estimated at 35 000 (39 000) tonnes, than by imports in the amount of 53 000 (69 000) tonnes. Per capita consumption has been at 5 kg p.a. in the last few years.

Since 2000, **cattle inventories in both countries** have remained stable at 3.6 million head and thus represent only approximately 4 percent of cattle inventories in the EU-27. In the medium- to long-term, cattle inventories are expected to decline in both countries. This is due primarily to the expected increase in milk production per cow. As a result of a smaller number of cows, fewer calves will be born that would be available for placing on feed. A factor that should not be underestimated is additionally the improvement in feed conversion and thus the decline in the use of feedstuff per milk or meat unit produced.

However, other factors are also important for the further development of livestock production. Besides the **improved infrastructure**, which will lead to more favourably priced inputs, and the improved marketing of the milk produced and of livestock ready for slaughter, the improved hygiene standards also play an important role. These additional costs will be a big obstacle for many small farms and will accelerate the transition of the structure especially in livestock production. In light of the insufficient implementation of important hygiene standards, the European Union Commission's monitoring report released in September 2006 was the opportunity to admonish both countries to carry out substantial improvements especially in the area of cadaver disposal systems in order to reduce the possibility of the incidence of BSE.

Compound feed production in Romania is estimated for 2006 at 1.90 (2005: 1.91) million tonnes. The largest share of compound feed is produced for poultry, at a good 1.10 (1.08) million tonnes, followed by compound feed for pigs at 740 000 (750 000) tonnes. In **Bulgaria, compound feed production** is forecast at 685 000 (669 000) tonnes for 2006, including 410 000 (397 000) tonnes for poultry and 220 000 (217 000) tonnes for pigs. These figures reflect the important role played by the poultry market in both countries. A big potential is seen in the future of compound feed production for cattle, which is currently playing an insignificant role in both countries.

Both countries will accept the so-called "acquis

communautaire” when they **join the European Union**. This consists of the rights and obligations of the European Union, which are binding for all its Member States. By applying the Common Agricultural Policy, the European Union Commission expects the agricultural production structure to improve significantly as well as the living conditions of the rural population. Bulgaria and Romania have €5.4 million available for agriculture comprising €3.9 billion for Romania and €1.5 billion for Bulgaria. An important pillar is the direct payment to the farms, although a choice can be made between a single farm payment and a uniform area payment. The concept behind the calculation of the single farm payment is very complicated. Therefore it is probable, as in most of the countries in the EU-10, that the simpler concept of a uniform area payment is applied. All claims for direct payments as a part of the area payments and the livestock payments have been combined in a budget. The available funds will be paid out in accordance with the agricultural area of the country and the calculated amount will be paid out as an area payment per hectare of cultivated area. An exception exists for the acceptance of the common rights and obligations for the purchase of agricultural and forestry areas by other European Union citizens. They still have to abide by the national regulations for seven years. A different regulation applies only to farmers from the Member States who have leased land in Romania and Bulgaria prior to accession.

Romania and Bulgaria both have **significant production potential**, which is not only limited to grain production but also includes livestock production. Both countries already contribute around 6 percent to European Union grain production, 11 percent to oilseed, 3 percent to beef, a good one percent to pork and 3 percent to poultry meat production. This potential was not only recognized early on by many foreign investors who made investments there. The European Union also encourages this move by providing special support programmes, which include, for example, the support for up to 50 percent of the costs of investment. For this, the good production locations are to be found directly at logistically important locations close to the Danube, which make the exporting of goods possible as well as the procurement of resources. It can therefore be assumed that Romania and Bulgaria will develop into important agricultural locations within the European Union. However, this will not happen overnight but will need some time.

IMPACT OF ANIMAL DISEASE OUTBREAKS ON LIVESTOCK MARKETS: AN FAO ANALYSIS

While it is recognized that animal disease may have a significant local impact, the growing interdependence of livestock markets is creating awareness of the broader costs on livestock industries around the globe. Certainly, escalating outbreaks of animal diseases have increased market instabilities, most recently with a recurrence of FMD in South America, the identification of BSE in various major exporting countries and, most specifically, the ever widening and troublesome spread of AI, especially its H5N1 variety, around the world. These outbreaks have tested the resilience of global livestock markets that have recently exhibited the slowest growth in trade over the past decade. The notification of trade bans for meat has never been higher and, increasingly, consumers’ concerns about meat safety are leading them to shift consumption to other animal proteins. As governments express rising concern about the socio-economic impact of animal disease prevention and control, the zoonotic nature of H5N1 is raising the costs of prevention and disease control, prompted by the possibility of a disease pandemic affecting the human population

In the context of considerable policy challenges posed by animal disease to livestock producers, meat processing industries and policy-makers around the globe, this analysis reviews the status of the major animal diseases currently affecting markets and assesses some preliminary scenario results of three broad animal disease scenarios involving AI, FMD and BSE outbreaks¹. The examination of alternative model simulations helps identify and assess critical aspects of the impacts of animal diseases on markets. In particular, it provides general benchmark estimates on the market and trade costs of these diseases under different scenarios, while providing a framework to assess some of the factors and policies that can influence the market impact of different types of animal diseases.

Animal Disease Outbreaks: An Update

Recent market developments in meat markets are set against a backdrop of animal disease-induced market instability in recent years characterized by consumption shocks, variability of export supplies, and price volatility. The onset of AI in Asia (AI outbreaks in late 2003 and early 2004) coincided with the discovery of BSE in North America, a region which supplies nearly one-quarter of global meat exports. Exacerbating

¹ As a part of its Cosimo Project, a collaborative modelling effort with the Organization for Economic Cooperation and Development (OECD), FAO has enhanced the coverage of the world meat market, including the Pacific and Atlantic beef and pigmeat (including FMD and FMD-free) markets, and the global poultry meat sector. The model includes important domestic and trade policies that condition global market responses and supports cross-commodity analysis through linkages to the major markets for grains, oilseeds and oilseed products and milk and dairy product markets

market instability were the FMD outbreaks in Argentina and Brazil in late 2005.

Avian Influenza

New AI detections in the major consumption areas of nearly 40 poultry importing nations in Western Europe, the Near East, and Africa in late 2005/early 2006 led to major consumption shocks and translated into shifting trade flows, dramatic price declines, and supply responses in both infected and non-infected countries. While more than 220 million birds are estimated to have been culled since the onset of the disease, this accounts for less than one percent of the 52 billion birds slaughtered annually. Most of the market and trade impact of AI are closely linked to consumption and the imposition of trade restrictions. However, the culling and high mortality of birds certainly has had an impact on the livelihoods of poultry-dependent households in many of the least developed countries. In addition, the unproductive "downtime" forced on affected poultry farms has had a negative effect on industry profitability and market stability while there have been broader ripple effects through global markets as consumption and trade shocks have affected prices for meats and industry inputs around the globe.

In the European region, AI outbreaks were confirmed in 25 countries, with trade bans put in place for those nine countries where AI was identified in domestic poultry operations. Approximately 69 countries put bans on poultry products from the various affected Member States within the EU-25. Eleven of those did not adopt a regional approach and imposed bans on all European Union products. In addition to bans related to H5N1, trade restrictions were also put in place on products from the Netherlands which in August identified a low pathogenic avian influenza strain on one farm. With short-term consumption shocks in the EU-25 ranging between 70 percent in Italy, 40 percent in France, and 0-10 percent in other member countries, European Union aggregate chicken prices declined by 15 percent in late 2005.

Foot-and-Mouth Disease in South America

Brazil: In October 2005, FMD outbreaks in the **cattle** sector were reported in two Brazilian States, Mato Grosso do Sul and Parana. These two States previously accounted for 50 percent of Brazil's beef exports. Bans were imposed by over 50 countries, but the overall export impact was mitigated by the regional nature of the bans imposed by the European Union and the Russian Federation, recipients of nearly half of Brazil's beef exports, which targeted only the two affected states. The Government expects to send soon documentation to the World Organisation for Animal Health (OIE) requesting the reinstatement of sanitary status as an area free of FMD with vaccination. The end of September sees the conclusion of the six-month period required after

the last animals were culled on the properties affected. The regionalization of export bans allowed the beef sector to maintain export volumes at almost the previous years' level, because slaughterhouses substituted beef from the affected states with that produced in states completely free of FMD such as Goias, Mato Grosso and Minas Gerais. This process of substitution was facilitated by Brazil's diversified export markets covering over 150 countries.

The **pork** sector in Brazil has been more disadvantaged by the FMD outbreak than the beef sector, which actually experienced the outbreak. This is despite the fact that the share of exports to production, at 21 percent, is similar to that of beef. The pork sector has a heavy dependence on the Russian Federation market, the destination of 65 percent of Brazil's total pork exports. This, combined with a decision by the Government of the Russian Federation to extend the ban to Santa Catarina (the only State in Brazil which has the status of being completely free of FMD without vaccination) and Rio Grande do Sul, has led to serious damage to the industry with prices declining on the Brazilian domestic market by 30 percent, well below the costs of production. Approximately 60 countries have imposed import restrictions on pork from Brazil. While exports were reported down more than 25 percent in the first half of the year, a resumption of trade to the Russian Federation from Rio Grande do Sul in mid-year implies some export recovery. There have been attempts in 2006 to diversify markets to FMD areas, in particular Singapore, Hong Kong and other smaller markets in Africa and Asia.

Argentina: In early February 2006, FMD was detected in the province of Corrientes. Since the outbreak, Argentina has lost its FMD-free with vaccination status, a suspension which could last 6-8 months as the country responded to the outbreak through the stamping out of around 5 000 head (mainly cattle). The trade impact has been minimal because, with the exception of Chile, most major markets only banned imports from Corriente, a province which accounts for only 2 percent of Argentine beef exports.

Bovine Spongiform Encephalopathy in North America

In 2003 BSE infected cows were discovered in North America, a region which supplies nearly one-quarter of global beef exports (valued at US\$4 billion). Since then, net export availabilities of beef from the region have been significantly reduced by about one million tonnes. It was only some 30 months after BSE was found in Canada (May 2003) and the United States (December 2003) that major high value Asian beef markets started to re-open the access to Canadian and United States beef cuts. The economic impact of the prolonged ban on North American beef products extended beyond the immediate effects on the two affected markets (see below) as reduced exportable supplies prompted a nearly 20 percent increase in Pacific market beef

OIE Rules on Disease Freedom

Foot-And-Mouth Disease:

To be recognized as an FMD-free country without vaccination, a country should show that there has been no outbreak of FMD and that no vaccination against FMD has been carried out during the last 12 months. When FMD outbreak occurs in a FMD free zone where vaccination is not practiced, the following waiting period is required:

- 3 months after last case of stamping out
- 3 months after slaughter of all vaccinated animals where a stamping out policy is imposed
- 6 months after the last case or the last vaccination where stamping out policy was not applied.

When FMD outbreak occurs in an FMD free zone where vaccination is practised, one of following is required:

- 6 months after last case where stamping out is applied
- 18 months after the last case where a stamping out policy is not applied.

Avian Influenza:

For an AI-free country, zone or compartment, no infection for the past 12 months. If an infection occurs in a previously free zone, disease-free status can be regained three months after a stamping-out policy is applied. Low pathogenic poultry can be kept for slaughter or stamping out, disease free status can be regained three months after disinfection of all affected establishments.

Bovine Spongiform Encephalopathy:

Determining the BSE risk status of the cattle population of a country, zone or compartment is done by conducting a risk assessment, which is reviewed annually, that identifies all potential factors for BSE occurrence and their historical perspective. These factors include a number of factors such as feeding regimes, live animal movement and importation of beef products. In the case of a positive BSE finding, full documentation must be provided to demonstrate related cattle have been completely destroyed. A claim of negligible or controlled risk must be substantiated.

Zoning, Regionalization and Compartmentalization:

Regionalization (or zoning) and compartmentalization are procedures implemented by a country to preserve the distinct health status of a specific geographic area or subpopulation (in the case of compartmentalization) for the purpose of international trade. The exporting country defines this zone/compartment in respect to the specific disease and the measures recommended by the OIE with the importing country recognizing this status.

prices (supported also by rising chicken prices in the context of AI).

The BSE-related market losses in Canada and the United States have differed depending on the two countries' export dependency and net trade position. For example, the Canadian cattle industry exported 12 percent of its live animals and nearly 50 percent of total beef production prior to the identification of a BSE-infected animal in May 2003. After more than two years, at a total estimated cost of over US\$4 billion, exports of meat are gradually recovering. Exports of live animals are languishing as exports of cows are still banned; however, exports of young cattle are rebounding. In 2003 alone, the value of Canadian beef and cattle exports declined by over US\$1 billion (US\$400 million for beef, US\$700 million for live cattle). In the case of the United States, the country is a net beef and live cattle importer and, although one of the world's largest beef exporters, its exports account for only 10 percent of production. The value of United States beef exports, following the detection of two BSE-cows dropped by US\$2.6 billion in 2004, while the absence of United States beef in global markets contributed to raising international

prices. However, domestic prices remained relatively high as imports adjusted. This contrasts with the domestic impact in Canada where a more dramatic dependence on international export market, as indicated above, immediately translated into cattle prices dropping by approximately 50 percent and reduction of cattle and calf receipts for 2003 by 33 percent from previous year's level (Statistics Canada, 2004).

Animal Disease Scenarios: Some Model Results

There is no established conceptual framework for analysing the global cost of animal diseases; however, estimates of producer market losses that arise from various disease outbreak scenarios can be estimated by model simulation. The results could prove useful for governments and international organizations when evaluating policy interventions that seek to mitigate aggregate costs.

This section provides some preliminary estimates of the impact on production, consumption, trade and prices from disease outbreaks, of AI in Europe, Brazil and the United States, FMD in Brazil, and BSE in North America. The discussion focuses on: 1) the role that market characteristics play in determining individual country market losses; 2) the

impact that regionalization policies have on disease costs; 3) the nature of consumer responses in influencing market losses; and 4) the differential market impacts of various animal diseases.

The heterogeneous nature of meat products and markets complicates modelling of the sector and this needs to be taken into consideration in understanding the results. For example, the world beef and pigmeat markets are considered to be divided into at least three market segments. These markets, the Pacific Market (PM), the Atlantic Market (AM), and the FMD endemic market (FMDM) have been established over time, largely on the basis of the FMD status of the various countries, but also by trading patterns and trade agreements^{2/3}.

Avian Influenza Scenarios

Various scenarios on the market and trade impact of AI were analysed:

- Global AI consumption shift/shock of 10 percent away from poultry to other meats⁴.
- AI outbreak in the European Union: two scenarios with loss in exports for six months⁵, first, with no consumption shock, second, with a 10 percent consumption shock in the European Union.
- AI outbreak in Brazil: loss in exports for six months, no consumption shock.
- AI outbreak in the United States: loss in exports for six months, no consumption shock.

Results are examined relative to the baseline projection for 2006, and are shown in Tables 1-4.

Global consumption shock due to AI

The impact on global markets and trade of shifting consumer preferences in all countries against poultry meat is demonstrated in Scenario 1, which simulates the effect of a global 10 percent shift away from poultry towards the other meats in 2006 (see Table 1). In the first year, trade in poultry products falls by 13 percent and international prices by almost 7 percent. World production and consumption of poultry meat decline by nearly 6 percent. Given the lag in

² In 2004-05, the Pacific Markets accounted for some 46 percent of world beef exports and 68 percent of world pork exports. Atlantic markets accounted for 51 percent of world beef exports and 29 percent of world pork exports. The remaining FMD markets account for the remainder and are small.

³ In general, the Pacific Market for beef includes North and Central America, Oceania, Japan, South Korea, Thailand and a portion of the Chinese and Indonesian markets; it is similar for pigmeat but includes the Philippines and high quality cuts from the European Union. The Atlantic Market for beef includes South America, Malaysia, Viet Nam, various countries in North Africa and the Middle East, Eastern Europe and the remaining portion of the Chinese and Indonesian markets; for pigmeat, lower quality cuts from European Union are also included. The FMDM is the residual market.

⁴ The "shift" is interpreted to mean a shift in the demand schedule such that for the same prices and incomes, consumers consume 10 percent less poultry meat.

⁵ Annual average equivalent of a complete ban on exports for six months.

Table 1. Scenario 1: Worldwide 10 percent preference shift away from poultry consumption

| | World | Developed | Least Developed | Other developing |
|------------------------------|-------|-----------|-----------------|------------------|
| POULTRY | | | | |
| Production | -5.8 | -4.7 | -5.5 | -6.7 |
| Consumption | -5.8 | -5.5 | -6.2 | -6.0 |
| Imports | | -16.2 | -8.0 | -12.3 |
| Exports | -13.3 | -7.7 | n.a. | -18.9 |
| INTERNATIONAL PRICES: | | | | |
| Poultry | -6.7 | | | |
| Atlantic pigmeat | 14.9 | | | |
| Pacific pigmeat | 18.8 | | | |
| Atlantic beef | 15.8 | | | |
| Pacific beef | 10.7 | | | |
| Maize | -3.2 | | | |
| Oilmeal | -3.3 | | | |

Notes: In this scenario, the consumption preference shift away from poultry is re-allocated to other meats on a proportion basis using world consumption shares of 2004-05. An n.a. value for LDCs results from the fact that exports from these countries are minima.

supply response of other meats, prices increase considerably, with beef and pigmeat prices up from 10 to 20 percent in the Atlantic and Pacific markets. Feed prices fall as poultry production contracts and other meat production remains largely unchanged in the first year. However, the model, when carried into future years, illustrates the global markets' ability to respond to market shocks, with feed demand recovering in subsequent years as production of other meats rises. Clearly, sharp meat consumption shifts, as currently witnessed in global poultry markets, have large ripple effects throughout the broader agricultural economy.

AI outbreak in the European Union

In Scenario 2a, a simulated reduction in European Union poultry exports, channelled into the domestic market in the short term, reduces European Union chicken prices by almost 4 percent. In response to a 7 percent decline in production, a shortage of white poultry meat results in increased imports. As competitors move to fill the global supply shortages, international poultry prices increase by almost 2 percent, while substitution effects increase the prices of beef and pigmeat. Scenario 2b is identical to 2a, except that a 10 percent European Union consumption shock (i.e. a shift left in the demand schedule), which is allocated proportionally to other meats, has been assumed. In this scenario, chicken prices decline by over 6 percent, poultry output by almost 12 percent and consumption by almost 7 percent. The consumption shift affects the domestic pigmeat sector and, given the biological lag that limits the supply response for the first year, prices rise by almost 12 percent. Pigmeat prices in

Table 2. Market and trade impacts of AI outbreaks in the European Union**SCENARIO 2A: AI OUTBREAKS IN THE EUROPEAN UNION: NO CONSUMPTION PREFERENCE SHIFT**

| | World | EU | Brazil | United States | Developed | Least Developed | Other developing |
|----------------|----------|------|--------|---------------|-----------|-----------------|------------------|
| | % Change | | | | | | |
| POULTRY | | | | | | | |
| Production | -0.2 | -7.0 | 2.1 | 0.4 | -2.0 | 1.0 | 1.3 |
| Consumption | -0.2 | 0.8 | -1.3 | 0.0 | 0.3 | -0.8 | -0.6 |
| Imports | | 37.1 | 0.0 | 0.0 | 9.3 | -3.9 | -8.6 |
| Exports | -0.6 | -50 | 10.2 | 2.5 | -12.2 | n.a. | 10.9 |
| PRICE | | | | | | | |
| Poultry | 1.6 | -3.8 | 2.1 | 0.3 | | | |
| Pigmeat | 0.0 | -1.2 | 0.4 | 0.0 | | | |
| Beef | 0.0 | -0.6 | 0.0 | 0.1 | | | |

SCENARIO 2B: AI OUTBREAKS IN THE EUROPEAN UNION: 10 PERCENT PREFERENCE SHIFT AWAY FROM POULTRY

| | World | EU | Brazil | United States | Developed | Least Developed | Other developing |
|----------------|----------|-------|--------|---------------|-----------|-----------------|------------------|
| | % Change | | | | | | |
| POULTRY | | | | | | | |
| Production | -1.0 | -11.9 | 1.5 | 0.6 | -3.4 | 0.9 | 1.0 |
| Consumption | -1.0 | -6.6 | -0.3 | 0.2 | -1.7 | -0.9 | -0.4 |
| Imports | | -0.4 | 0.0 | 0.0 | 3.0 | -4.5 | -8.5 |
| Exports | -3.2 | -50 | 5.8 | 3.0 | -12.3 | n.a. | 5.8 |
| PRICE | | | | | | | |
| Poultry | 1.2 | -6.2 | 1.5 | 0.5 | | | |
| Pigmeat | 1.5 | 11.8 | -0.1 | 1.5 | | | |
| Beef | 3.6 | 4.7 | 3.6 | 0.6 | | | |

Notes: Applied to 2006 base projection. Assumes trade bans last six months. Results for annual data. For the European Union, the world reference prices used are the Pacific pigmeat prices and Atlantic beef prices

the Pacific market, which is the highest value destination for European Union pigmeat, rise only one percent, as European Union supplies to that market are reduced. In the beef sector, increased beef consumption attracts imports from the Atlantic market, causing beef prices in that market to rise 3.5 percent. The price and trade impacts of a significant shift in European meat consumption patterns stimulates higher Brazil and United States poultry exports. Finally, while under the first scenario producer market revenues (as measured by the sum of the price and output changes) fall by about 11 percent (or about €1.2 billion), they fall almost 18 percent (or about €2.1 billion) under a consumption preference shift away from poultry meat.

AI hypothetical outbreaks in Brazil and the United States

Scenarios 3 and 4 evaluate hypothetical AI breakouts in Brazil and the United States (see Tables 3 and 4). Not surprisingly, given their large share of world trade, these

scenarios hold broader implications for international poultry markets than that of the European Union, which only accounts for 10 percent of global trade. These two examples show how market shocks differ for countries depending on their relative linkages to international markets. A 50 percent export shock in Brazil, which exports about 30 percent of its production, leads to a 10 percent reduction in domestic poultry prices. Meanwhile, given the lower export dependence of the industry in the United States, where exports (almost exclusively lower priced dark meat) account for only 15 percent of domestic output, the same proportionate loss of export markets is estimated to reduce production and prices by some 7 percent. The obvious lesson demonstrated by these scenarios is that greater involvement in international markets exposes a country to proportional greater "market access risk"; e.g. the price/sales risk that is associated with higher export dependence. In these two scenarios, market revenue losses, as exports are banned for the duration of six months, are 20 percent in Brazil

Table 3. Scenario 3: Hypothetical AI outbreak in Brazil: No consumption shock

| | World | EU | Brazil | United States | Developed | Least Developed | Other developing |
|------------------|-----------------|------|--------|---------------|-----------|-----------------|------------------|
| | <i>% Change</i> | | | | | | |
| POULTRY | | | | | | | |
| Production | -0.1 | -1.8 | -9.8 | 0.2 | 0.6 | 1.4 | -0.6 |
| Consumption | -0.1 | -0.6 | 5.7 | -0.1 | -0.2 | -0.9 | 0.0 |
| Imports | | 25.0 | 0.0 | 0.0 | -2.5 | -3.3 | -9.7 |
| Exports | -6.3 | 8 | -50 | 1.5 | 3.9 | n.a. | 16.7 |
| PRICE | | | | | | | |
| Poultry | 3.4 | 2.7 | -9.7 | 0.4 | | | |
| Atlantic pigmeat | -3.0 | 0.8 | -3.0 | 0.0 | | | |
| Beef | -1.7 | 0.4 | -1.7 | 0.1 | | | |

Notes: Applied to 2006 base projection. Assumes trade bans last six months. Results for annual data

Scenario 4: Hypothetical AI Outbreak in the United States: No consumption shock

| | World | EU | Brazil | United States | Developed | Least Developed | Other developing |
|----------------|-----------------|-------|--------|---------------|-----------|-----------------|------------------|
| | <i>% Change</i> | | | | | | |
| POULTRY | | | | | | | |
| Production | 0.0 | 3.5 | 3.2 | -6.6 | -2.2 | 2.2 | 1.7 |
| Consumption | 0.1 | -0.4 | -1.7 | 1.3 | 0.4 | -2.3 | -0.1 |
| Imports | | -20.2 | 0.0 | 0.0 | -3.3 | -11.6 | -5.6 |
| Exports | -6.2 | 23 | 15.0 | -50 | -25.3 | n.a. | 12.8 |
| PRICE | | | | | | | |
| Poultry | 2.3 | 1.8 | 3.0 | -6.8 | | | |
| Pigmeat | 0.7 | 0.5 | 0.7 | -1.4 | | | |
| Beef | 0.9 | 0.3 | 0.9 | -2.1 | | | |

Notes: Applied to 2006 base projection. Assumes trade bans last six months. Results for annual data

compared with about 14 percent in the United States. Effects on international markets obviously depend on relative market shares, the importance of trade to the overall industry, and the destination of trade flows.

FMD Scenarios: The Impact of Regionalization

The market and trade impact of an outbreak of FMD in Brazil is assessed for the two year period, 2006-2007. Scenarios 5a and 5b illustrate the differential impact that may be anticipated under an OIE recognized regionalization approach, under which importing countries ban beef only from the disease-stricken regions, versus a scenario that does not recognize regionalization, which results in a total ban of imports from the country, rather than the region in the country (Table 5). In the case of Brazil, the world's largest beef exporter, the assumed difference in export levels due to regionalization, as evidenced in 2006, is significant; for beef, under a regionalized market, exports of beef and pork

fall by about 9 and 60 percent respectively, compared with a 100 percent reduction for both product exports, under a no-regionalization assumption.

Under the regionalization⁶ scenario (see results in Table 5), the decline in beef exports in 2006 of about 10 percent is accompanied by a drop in market prices of 16 percent in the first year. Domestic production falls less than one percent in the first year, as the product moves onto the domestic market; however, the total market revenue loss is estimated at 16-17 percent of market receipts in the first year. Lower production in the second year causes domestic prices to rebound to previously projected levels, with market revenue losses of only 2.5 percent. Beef prices in the Atlantic markets, as measured by the Argentinean export price, rise by nearly 7 percent, reflecting the lower export supplies to that market

⁶ Exports not allowed from the two disease-affected states.

Table 5. FMD Outbreak: Trade impacts of regionalization – the case of Brazil

| | Scenario 5a: Regionalization | | | | Scenario 5b: No regionalization | | | |
|-------------------------------------|---------------------------------|------|--------|-------|------------------------------------|------|--------|-------|
| | World | | Brazil | | World | | Brazil | |
| | 2006 | 2007 | 2006 | 2007 | 2006 | 2007 | 2006 | 2007 |
| IMPACT ON THE BEEF SECTOR | | | | | | | | |
| Production | 0.0 | -0.2 | -0.8 | -2.7 | 0.2 | -0.4 | -4.0 | -13.4 |
| Consumption | 0.0 | -0.2 | 1.8 | -0.7 | 0.2 | -0.4 | 24.9 | 12.6 |
| Imports | | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Exports | -1.3 | -0.9 | -9.6 | -9.0 | -8.7 | -6.6 | -100 | -100 |
| IMPACT ON THE PIGMEAT SECTOR | | | | | | | | |
| Production | 0.0 | 0.2 | 0.0 | -9.5 | 0.0 | 0.3 | 0.0 | -20.2 |
| Consumption | 0.0 | 0.1 | 14.3 | 2.2 | 0.0 | 0.2 | 23.9 | -1.6 |
| Imports | | | 0.0 | 0.0 | | | 0.0 | 0.0 |
| Exports | 0.4 | -2.8 | 059.7 | -59.6 | -0.1 | 0.7 | -100 | -100 |
| PRICES | | | | | | | | |
| Pigmeat | 62.8 | 2.6 | -26.4 | -3.8 | 83.0 | 61.1 | -50.1 | -8.6 |
| Poultry | -0.5 | 0.1 | -0.6 | 0.1 | -1.8 | -0.5 | -2.3 | -0.7 |
| Beef | 6.5 | 2.1 | -15.6 | 0.3 | 76.1 | 50.0 | -56.0 | -27.5 |
| Feed | 0.0 | 0.8 | 0.0 | 0.3 | -0.1 | 1.4 | 0.0 | 0.5 |

Scenario 2a: Total ban on Brazilian beef: 100 percent reduction in exports of beef and pigmeat

Scenario 2b: Regional bans on three states: 200 000 tonnes reduction in beef exports, 60 percent reduction in pigmeat exports

in the first year, but by only 2 percent in the second year. The market impacts gradually erode subsequently as market access is regained as bans are lifted. For the pigmeat sector, a reduction of exports of almost 60 percent pushes down domestic prices by 26 percent in the first year. Producers respond to the lower prices of the previous year through an output cut of 9.5 percent in the second year, 2007. Given the significant market share of Brazil in the Atlantic pigmeat market, Atlantic pigmeat prices rise by over 60 percent in the first year, before moderating in the second year.

Under an assumption of no-regionalization, the impact of an outbreak of FMD in Brazil is estimated to be very severe. A simulated total ban of exports in 2006 pushes down domestic prices of both beef and pigmeat by more than 50 percent, as all exports are disposed of in the domestic market. Market revenues for beef fall by almost 60 percent in the first year, and by 22 percent in the second year, compared with the baseline projection. For pigmeat, the results are more severe with market revenue losses estimated at 56 and 28 percent in the first and second year, respectively. Prices in both the Atlantic beef and pigmeat meat markets respond drastically to significantly lower supplies and prices increase by about 80 percent in each of these markets. The closing of price differentials between market segments cause major changes in international trading patterns, with participants of the premium Pacific markets also shipping to the Atlantic markets

as the prices in the later market rise. This scenario highlights the very important role played by regionalization policies, not only in stabilizing the domestic market of a major trading country, but in limiting price volatility in international markets. Clearly, the benefits arising from the application by partner countries of the regionalization principle are greater the larger the export dependency and international market share of the disease-affected country.

BSE in North America: Transitioning Back into International Markets

The effects of BSE in Canada and the United States have been assessed in several studies. The key impact of this disease has been to reduce exportable supplies from these countries to the Pacific Market by about one million tonnes of beef annually. Severe domestic price depression created by excess domestic supply, particularly in Canada, but also in the United States, has led to a contraction of the industry. As trade bans have been lifted, first between these two countries where intratrade is significant, then by importers in Pacific markets, the North American beef sectors are gradually returning to a pre-BSE situation. Of clear concern is the long-term impact of prolonged trade bans, the ability of the sectors to recover and to regain their international market shares, as well as the broader incentives related to long-term investment in the industry.

To evaluate the implications of re-establishing market shares, the baseline projections, which assumed a lifting of trade bans, is contrasted with a simulation which extends trade bans into the indefinite future. The difference between these scenarios provides an impact assessment of BSE in North America on international beef markets and a measure of the length of time that markets take to adjust to the lifting of the trade bans.

Figure 1 illustrates the response of both the Canadian and United States and Canadian industry over the projection period to 2015 after trade bans are removed, compared with a situation where trade bans are retained. This scenario shows the responsiveness of North American beef output to the higher domestic prices associated with the relaxation of the ban. In fact, the adjustment time is very slow, with production continuing to adjust over the ten year period. Output is only 6 percent higher than if trade bans were to have remained in place. The industry recovery allows it to supply to the Pacific market the one million tonnes that had been precluded by the trade bans. This boosts North American (United States) domestic prices by 5 to 10 percent higher over the period, while Pacific market prices decrease 15 to 20 percent, compared with a situation where trade bans continue.

Conclusions

This article has reviewed the status of the three major animal diseases, namely AI, FMD, and BSE, which have been major causes of instability in meat markets and trade over the past three years. Through the use of a newly developed modelling framework, it also presents the results of three broad animal disease scenarios and draws some lessons on several factors that critically influence market losses from animal diseases and their international market impacts.

Some of the preliminary conclusions of the study are that:

- international market responses to animal disease outbreaks depend critically on the type of disease, the nature of consumer responses, the size of the market affected and trade linkages. Obviously, the impact of animal disease outbreaks, in the form of market losses, is highest for countries where the outbreak occurs and is in proportion to the country's export dependence. The prevalence of disease-related market segmentation, such as those existing for beef and pigmeat, create higher international impacts for those market segments;
- consumer reactions play an important role in determining the size of market losses associated with animal diseases, with non-disease infected exporters significantly and adversely affected. Government

Figure 1. BSE scenario: Price adjustments with removal of trade bans

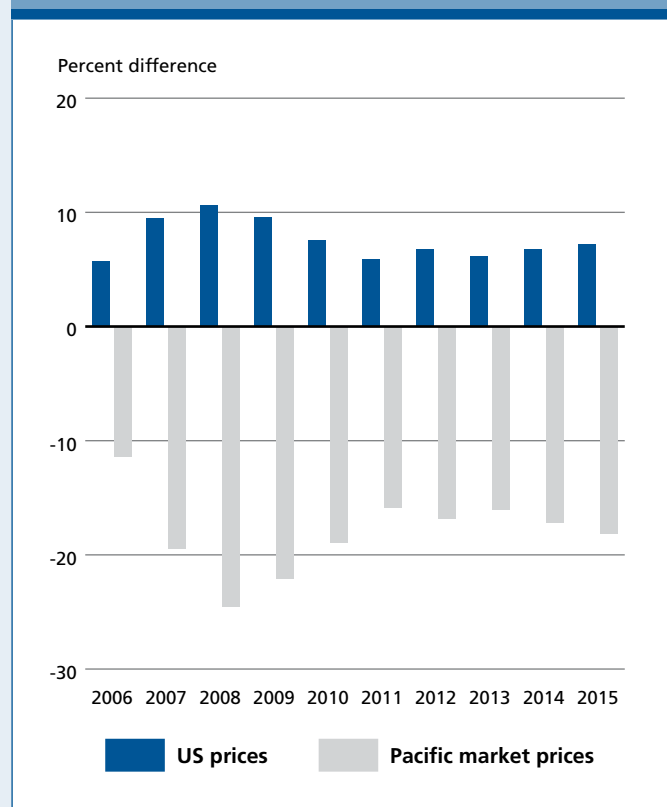
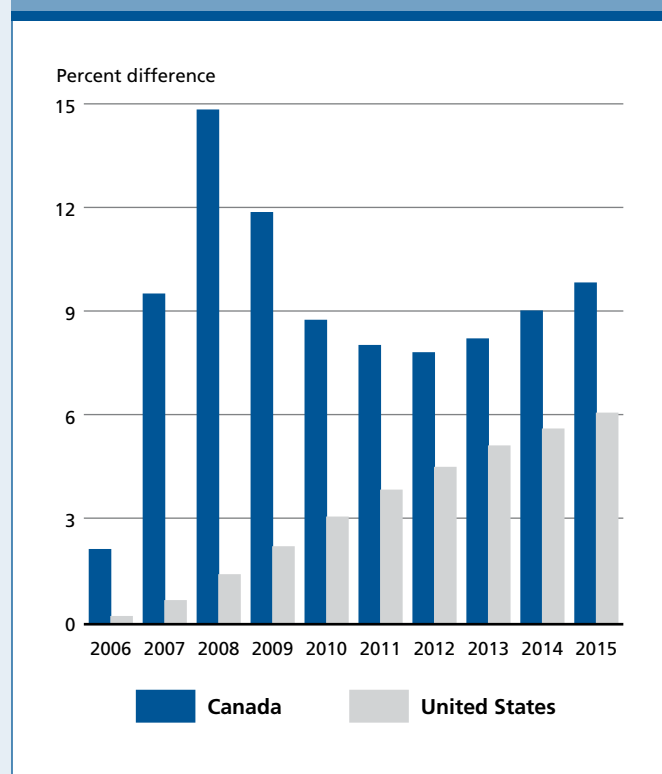


Figure 2. BSE scenario: Production response with removal of trade bans in Canada and the United States



Notes: The charts show the percentage difference from a base where trade bans continue against North America, and a projection where bans are lifted.

policies that seek to sustain consumer confidence could mitigate market losses, thus minimizing market impacts, both in-country and globally;

- regionalization is a very effective instrument to limit market losses to countries that are experiencing an animal disease outbreak and to stabilize international markets. This has proved to be the case for Argentina and Brazil, where the potential market impacts of FMD

outbreaks could have been extremely severe in the absence of importer recognition of in-country zones;

- a return to market equilibrium following a significant disease outbreak varies by disease and meat product. Poultry markets rebound very quickly, given the rapid supply responses of the industry, in contrast to beef markets which may take a decade to return to equilibrium.

Statistical appendix

| | | |
|------------------|---|----|
| Table A1 | Wheat Statistics | 50 |
| Table A2 | Coarse Grains Statistics | 51 |
| Table A3 | Maize Statistics | 52 |
| Table A4 | Barley Statistics | 53 |
| Table A5 | Sorghum Statistics | 54 |
| Table A6 | Other Coarse Grain Statistics | 54 |
| Table A7 | Rice Statistics | 55 |
| Table A8 | Cereal Supply and Utilization in Main Exporting Countries | 56 |
| Table A9 | Total Oilcrops Statistics | 57 |
| Table A10 | Total Oils and Fats Statistics | 58 |
| Table A11 | Total Meals and Cakes Statistics | 59 |
| Table A12 | Bovine Meat Statistics | 60 |
| Table A13 | Ovine Meat Statistics | 61 |
| Table A14 | Pig Meat Statistics | 62 |
| Table A15 | Poultry Meat Statistics | 63 |
| Table A16 | Total Meat Statistics | 64 |
| Table A17 | Milk and Milk Products Statistics | 65 |
| Table A18 | Sugar Statistics | 66 |
| Table A19 | Selected International Prices of Wheat and Coarse Grains | 67 |
| Table A20 | Wheat and Maize Futures Prices | 67 |
| Table A21 | Selected International Prices of Rice and Price Indices | 68 |
| Table A22 | Selected International Prices for Oilcrop Products and Price Indices | 68 |
| Table A23 | Selected International Prices for Milk Products and Dairy Price Indices | 69 |
| Table A24 | Selected International Meat Prices | 69 |
| Table A25 | Selected International Meat Prices and FAO Meat Price Index | 70 |
| Table A26 | Selected International Commodity Prices | 70 |
| Table A27 | Ocean Freight Rates for Wheat | 71 |
| Table A28 | Fertilizer Spot Price Ranges | 71 |

STATISTICAL NOTES

General

- FAO estimates and forecasts are based on official and unofficial sources.
- In all appendix tables, the shaded columns refer to FAO forecasts and other columns represent FAO estimates.
- Estimates of world imports and exports may not always match, mainly because shipments and deliveries do not necessarily occur in the same marketing year.
- Tonnes refer to metric tonnes.
- All totals are computed from unrounded data.
- Regional totals may include estimates for countries not listed.
- Estimates for China also include those for the Taiwan Province, unless otherwise stated.
- '-' means nil or negligible.

Production

- Cereals: Data refer to the calendar year in which the whole harvest or bulk of harvest takes place.
- Sugar: Figures refer to centrifugal sugar derived from sugar cane or beet, expressed in raw equivalents. Data relate to the October/September season.

Utilization

- Cereals: Data are on individual country's marketing year basis.
- Sugar: Figures refer to centrifugal sugar derived from sugar cane or beet, expressed in raw equivalents. Data relate to the October/September season.

Trade

- Wheat: Trade data include wheat flour in wheat grain equivalent. The time reference period is July/June, unless otherwise stated.
- Coarse grains: The time reference period is July/June, unless otherwise stated.
- Rice, sugar, dairy and meat products: The time reference period is January/December.
- Oilseeds, oils and fats and meals: The time reference period is October/September, unless otherwise stated.

Stocks

- Cereals: Data refer to carry-overs at the close of national crop seasons ending in the year shown.

CRB Price Indices

- The Commodity Research Bureau's (CRB) 'Spot Market Price Index' measures spot price movements of twenty-two basic commodities which are assumed sensitive to changes in global economic conditions. The constituent commodities fall under two major subdivisions: Raw Industrials and Foodstuffs. The former includes burlap, copper scrap, cotton, hides, lead scrap, print cloth, rosin, rubber, steel scrap, tallow, tin, wool tops, and zinc. Foodstuffs include butter, cocoa beans, corn, cottonseed oil, hogs, lard, steers, sugar, and wheat. The index is constructed using the unweighted geometric means of individual commodity price relatives, defined as the ratio of the current price to the base period price. For more information see www.crbtrader.com.
- The 'Reuters-CRB Energy Sub-index' measures the unweighted arithmetic mean of price movements of futures contracts for crude oil, heating oil and natural gas, which expire on or before the end of the sixth calendar month from the index's current date. For more information see www.crbtrader.com.

COUNTRY CLASSIFICATION

In the presentation of statistical material, countries are subdivided according to geographical location as well as into the following two main economic groupings: "Developed countries" (including the developed market economies and the transition markets) and "Developing countries" (including the developing market economies and the Asia centrally planned countries). The designation "**Developed**" and "**Developing**" economies is intended for statistical convenience and does not necessarily express a judgement about the stage reached by a particular country or area in the development process. References are also made to special country groupings: **Low-Income Food-Deficit Countries (LIFDCs), Least Developed Countries (LDCs) and Net Food-Importing Developing Countries (NFIDCs)**. The LIFDCs includes 82 countries that are net importers of basic foodstuffs with per caput income below the level used by the World Bank to determine eligibility for IDA assistance (i.e. US\$1 415 in 2002). The LDCs and NFIDCs groups include a list of countries agreed by the World Trade Organization (WTO) to qualify as beneficiaries under the Marrakech Decision on the Possible Negative Effects of the Reform Programme on Least Developed and Net Food Importing Developing Countries. The LDCs group currently includes 50 countries with low income as well as weak human resources and low level of economic diversification. The list is reviewed every three years by the Economic and Social Council of the United Nations. The NFIDCs group includes 24 developing country WTO Members that have notified their request to be listed as NFIDCs and have submitted relevant statistical data concerning their status as net importers of basic foodstuffs during a representative period. This list is reviewed annually by the WTO Committee on Agriculture.

Table A1. Wheat statistics (million tonnes)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 263.2 | 270.8 | 45.0 | 47.8 | 10.0 | 12.3 | 304.5 | 306.2 | 84.1 | 84.2 |
| Bangladesh | 1.1 | 1.0 | 2.3 | 2.4 | - | - | 3.5 | 3.5 | 0.3 | 0.2 |
| China | 97.4 | 103.0 | 2.8 | 2.1 | 0.5 | 1.4 | 103.6 | 103.6 | 46.3 | 46.5 |
| of which Taiwan | - | - | 1.2 | 1.1 | - | - | 1.1 | 1.1 | 0.4 | 0.4 |
| India | 68.6 | 69.5 | 0.5 | 6.5 | 0.7 | 0.3 | 72.1 | 73.7 | 12.5 | 14.5 |
| Indonesia | - | - | 4.8 | 4.8 | - | - | 4.7 | 4.8 | 1.7 | 1.7 |
| Iran, Islamic Republic of | 14.5 | 14.5 | 1.2 | 0.9 | - | - | 15.3 | 15.4 | 2.4 | 2.4 |
| Iraq | 1.6 | 1.6 | 4.6 | 3.0 | 0.1 | 0.1 | 5.0 | 5.1 | 2.6 | 2.1 |
| Japan | 0.9 | 0.9 | 5.3 | 5.3 | 0.4 | 0.4 | 5.9 | 5.9 | 0.7 | 0.6 |
| Kazakhstan | 11.5 | 13.1 | - | - | 3.6 | 5.0 | 8.0 | 8.2 | 3.5 | 3.5 |
| Korea, Republic of | - | - | 3.8 | 3.5 | 0.1 | 0.1 | 3.7 | 3.5 | 0.3 | 0.4 |
| Pakistan | 21.6 | 22.0 | 0.9 | 0.4 | 0.1 | 0.5 | 21.3 | 21.7 | 2.4 | 2.6 |
| Philippines | - | - | 2.9 | 2.8 | - | - | 2.9 | 2.8 | 0.3 | 0.3 |
| Saudi Arabia | 2.4 | 2.4 | 0.1 | 0.1 | - | - | 2.5 | 2.6 | 0.8 | 0.6 |
| Thailand | - | - | 1.2 | 1.2 | - | - | 1.1 | 1.2 | 0.3 | 0.2 |
| Turkey | 20.5 | 20.5 | 0.2 | 0.6 | 2.4 | 2.0 | 19.7 | 19.5 | 0.9 | 0.5 |
| AFRICA | 21.0 | 24.9 | 31.5 | 26.9 | 0.8 | 0.9 | 50.5 | 51.4 | 14.8 | 14.6 |
| Algeria | 2.4 | 2.7 | 5.7 | 4.6 | - | - | 7.3 | 7.5 | 3.6 | 3.7 |
| Egypt | 8.2 | 8.3 | 7.6 | 7.0 | - | - | 14.8 | 15.4 | 3.0 | 2.9 |
| Ethiopia | 2.4 | 2.5 | 0.4 | 0.3 | - | - | 2.8 | 2.8 | 0.2 | 0.2 |
| Morocco | 3.0 | 6.3 | 2.8 | 1.0 | 0.2 | 0.4 | 6.4 | 6.9 | 2.3 | 2.4 |
| Nigeria | 0.1 | 0.1 | 3.8 | 3.5 | 0.2 | 0.1 | 3.7 | 3.5 | 0.6 | 0.6 |
| South Africa | 1.9 | 2.2 | 1.1 | 1.1 | 0.1 | 0.2 | 2.9 | 2.9 | 0.5 | 0.7 |
| Tunisia | 1.6 | 1.3 | 1.1 | 1.1 | 0.1 | 0.1 | 2.5 | 2.5 | 1.0 | 0.8 |
| CENTRAL AMERICA | 3.0 | 3.2 | 7.3 | 7.3 | 0.5 | 0.6 | 9.8 | 9.9 | 1.1 | 1.1 |
| Cuba | - | - | 0.9 | 1.0 | - | - | 0.9 | 1.0 | - | - |
| Mexico | 3.0 | 3.2 | 3.5 | 3.5 | 0.4 | 0.5 | 6.1 | 6.2 | 0.7 | 0.7 |
| SOUTH AMERICA | 20.7 | 18.7 | 11.9 | 14.0 | 8.6 | 9.0 | 24.8 | 24.6 | 2.5 | 1.7 |
| Argentina | 12.6 | 13.5 | - | - | 7.5 | 8.7 | 5.5 | 5.3 | 0.5 | 0.3 |
| Brazil | 4.7 | 2.3 | 5.6 | 7.8 | 0.8 | - | 10.5 | 10.4 | 0.8 | 0.4 |
| Chile | 1.9 | 1.4 | 0.8 | 0.8 | - | - | 2.3 | 2.3 | 0.2 | 0.1 |
| Colombia | - | - | 1.3 | 1.3 | - | - | 1.3 | 1.3 | 0.1 | 0.1 |
| Peru | 0.2 | 0.2 | 1.7 | 1.6 | - | - | 1.8 | 1.8 | 0.3 | 0.3 |
| Venezuela | - | - | 1.6 | 1.6 | - | - | 1.5 | 1.6 | 0.2 | 0.2 |
| NORTH AMERICA | 84.1 | 75.6 | 1.8 | 2.6 | 42.6 | 46.5 | 40.2 | 39.6 | 25.3 | 18.5 |
| Canada | 26.8 | 26.3 | - | - | 15.5 | 20.5 | 9.2 | 8.7 | 9.7 | 7.3 |
| United States of America | 57.3 | 49.3 | 1.8 | 2.6 | 27.1 | 26.0 | 31.0 | 30.9 | 15.5 | 11.2 |
| EUROPE | 207.2 | 188.7 | 11.2 | 10.8 | 32.5 | 27.2 | 186.9 | 182.9 | 34.4 | 23.5 |
| Bulgaria | 3.5 | 3.2 | - | - | 0.8 | 0.8 | 2.6 | 2.6 | 0.5 | 0.3 |
| European Union | 123.6 | 117.6 | 7.6 | 7.0 | 14.1 | 15.5 | 119.6 | 116.2 | 20.0 | 12.5 |
| Romania | 7.3 | 5.3 | 0.2 | 0.3 | 0.5 | 0.6 | 6.5 | 6.2 | 2.7 | 1.5 |
| Russian Federation | 47.7 | 43.1 | 1.2 | 1.0 | 10.3 | 6.9 | 38.6 | 37.7 | 7.0 | 6.5 |
| Ukraine | 18.7 | 13.8 | 0.1 | 0.1 | 6.5 | 3.1 | 11.2 | 12.0 | 2.6 | 1.5 |
| OCEANIA | 25.4 | 9.9 | 0.6 | 0.6 | 15.1 | 13.5 | 6.4 | 7.1 | 12.5 | 3.4 |
| Australia | 25.1 | 9.5 | - | - | 15.1 | 13.5 | 5.5 | 6.1 | 12.3 | 3.2 |
| WORLD | 624.5 | 591.8 | 109.3 | 110.0 | 110.1 | 110.0 | 623.2 | 621.7 | 174.7 | 147.0 |
| Developing countries | 281.5 | 289.5 | 85.5 | 86.4 | 15.4 | 16.7 | 357.4 | 360.3 | 94.0 | 93.5 |
| Developed countries | 342.9 | 302.2 | 23.8 | 23.7 | 94.7 | 93.2 | 265.8 | 261.4 | 80.7 | 53.5 |
| LIFDCs | 229.2 | 239.0 | 49.6 | 49.7 | 3.1 | 4.5 | 280.8 | 283.5 | 83.8 | 84.7 |
| LDCs | 10.1 | 9.1 | 10.9 | 10.6 | 0.1 | 0.1 | 20.9 | 20.7 | 3.9 | 2.9 |
| NFIDCs | 35.0 | 38.5 | 20.7 | 17.6 | 0.5 | 1.1 | 53.6 | 55.2 | 10.8 | 10.7 |

Table A2. Coarse grains statistics (million tonnes)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 246.6 | 249.7 | 57.7 | 57.1 | 8.0 | 4.9 | 294.9 | 301.1 | 68.3 | 69.2 |
| China | 150.4 | 153.0 | 7.5 | 7.6 | 6.0 | 3.0 | 150.7 | 155.6 | 49.2 | 51.0 |
| of which Taiwan | 0.1 | 0.1 | 5.0 | 5.2 | - | - | 5.1 | 5.1 | 0.9 | 0.9 |
| India | 34.6 | 34.3 | 0.2 | 0.1 | 0.3 | 0.3 | 34.4 | 34.1 | 1.6 | 1.5 |
| Indonesia | 12.5 | 12.1 | 0.5 | 1.0 | 0.1 | 0.1 | 12.7 | 12.8 | 1.0 | 1.3 |
| Iran, Islamic Republic of | 4.4 | 5.2 | 3.3 | 2.9 | - | - | 7.7 | 8.1 | 0.3 | 0.3 |
| Japan | 0.2 | 0.2 | 19.8 | 19.6 | - | - | 20.2 | 20.2 | 2.5 | 2.1 |
| Korea, D.P.R. | 2.2 | 2.1 | - | 0.1 | - | - | 2.2 | 2.2 | 0.2 | 0.2 |
| Korea, Republic of | 0.4 | 0.4 | 9.3 | 9.2 | - | - | 9.4 | 9.5 | 1.5 | 1.6 |
| Malaysia | 0.1 | 0.1 | 2.4 | 2.4 | - | - | 2.5 | 2.5 | 0.3 | 0.3 |
| Pakistan | 3.8 | 3.8 | - | - | - | - | 3.5 | 3.8 | 0.6 | 0.7 |
| Philippines | 5.3 | 6.1 | 0.4 | 0.1 | 0.1 | 0.1 | 5.5 | 5.8 | 0.5 | 0.7 |
| Saudi Arabia | 0.4 | 0.4 | 7.9 | 7.3 | - | - | 8.3 | 8.2 | 2.9 | 2.4 |
| Thailand | 3.7 | 4.0 | 0.2 | 0.1 | 0.2 | 0.2 | 3.7 | 3.9 | 0.1 | 0.1 |
| Turkey | 13.4 | 12.5 | 0.1 | 0.2 | 0.3 | 0.1 | 13.7 | 13.1 | 3.7 | 3.3 |
| Viet Nam | 3.8 | 3.8 | 0.1 | 0.1 | - | - | 3.6 | 3.8 | 0.7 | 0.8 |
| AFRICA | 97.8 | 97.8 | 15.9 | 14.9 | 4.2 | 3.5 | 107.5 | 110.0 | 13.1 | 12.5 |
| Algeria | 1.1 | 1.4 | 2.2 | 2.2 | - | - | 3.3 | 3.4 | 0.9 | 1.0 |
| Egypt | 8.7 | 8.0 | 4.4 | 5.0 | - | - | 13.0 | 13.2 | 0.6 | 0.4 |
| Ethiopia | 9.3 | 9.3 | 0.1 | - | 0.2 | 0.1 | 8.6 | 9.0 | 0.9 | 1.1 |
| Kenya | 3.0 | 3.1 | 0.4 | 0.7 | - | - | 3.6 | 3.7 | 0.2 | 0.2 |
| Morocco | 1.3 | 2.7 | 2.0 | 1.6 | - | - | 4.1 | 4.3 | 0.7 | 0.6 |
| Nigeria | 22.4 | 24.1 | 0.1 | 0.1 | 0.2 | 0.2 | 22.0 | 23.6 | 0.4 | 0.8 |
| South Africa | 12.3 | 7.0 | 0.7 | 0.7 | 1.9 | 0.9 | 10.5 | 9.0 | 3.5 | 1.6 |
| Sudan | 5.0 | 4.8 | 0.2 | 0.2 | 0.2 | 0.3 | 4.6 | 4.6 | 0.9 | 1.1 |
| UR of Tanzania | 4.3 | 4.3 | 0.2 | 0.1 | 0.4 | 0.4 | 3.8 | 3.9 | 1.5 | 1.6 |
| CENTRAL AMERICA | 30.2 | 32.8 | 14.2 | 14.0 | 0.1 | 0.1 | 45.8 | 47.2 | 3.5 | 3.2 |
| Mexico | 26.2 | 28.8 | 9.6 | 9.5 | - | - | 37.4 | 38.6 | 2.8 | 2.5 |
| SOUTH AMERICA | 72.9 | 73.6 | 7.4 | 7.6 | 13.7 | 13.7 | 66.3 | 66.5 | 5.4 | 4.9 |
| Argentina | 24.5 | 18.1 | - | - | 11.9 | 10.5 | 8.8 | 8.0 | 1.8 | 1.0 |
| Brazil | 37.5 | 44.3 | 0.7 | 0.9 | 1.2 | 2.6 | 41.2 | 41.6 | 1.8 | 2.1 |
| Chile | 2.0 | 2.0 | 1.3 | 1.2 | - | - | 2.9 | 3.1 | 0.2 | 0.2 |
| Colombia | 1.7 | 1.5 | 3.0 | 3.3 | - | - | 4.4 | 4.5 | 0.4 | 0.4 |
| Peru | 1.5 | 1.5 | 1.5 | 1.4 | - | - | 2.8 | 2.9 | 0.6 | 0.6 |
| Venezuela | 2.5 | 2.6 | 0.3 | 0.3 | - | - | 2.9 | 2.9 | 0.2 | 0.1 |
| NORTH AMERICA | 325.4 | 308.9 | 3.8 | 5.7 | 61.0 | 64.7 | 267.5 | 278.6 | 61.4 | 31.5 |
| Canada | 26.3 | 23.4 | 1.8 | 3.3 | 4.1 | 3.8 | 22.8 | 23.7 | 6.5 | 4.1 |
| United States of America | 299.1 | 285.5 | 2.1 | 2.4 | 56.9 | 60.9 | 244.7 | 255.0 | 54.9 | 27.4 |
| EUROPE | 214.4 | 210.2 | 5.4 | 5.6 | 14.2 | 14.5 | 207.8 | 206.0 | 33.4 | 28.7 |
| European Union | 134.3 | 130.3 | 3.4 | 3.4 | 3.9 | 3.9 | 135.3 | 133.3 | 23.3 | 19.8 |
| Romania | 11.5 | 9.9 | 0.1 | 0.1 | 0.7 | 0.7 | 11.5 | 10.1 | 2.3 | 1.4 |
| Russian Federation | 28.3 | 29.5 | 0.6 | 0.8 | 1.8 | 2.3 | 26.9 | 28.2 | 2.3 | 2.0 |
| Ukraine | 18.6 | 20.3 | 0.1 | 0.1 | 6.6 | 6.3 | 12.6 | 13.9 | 2.3 | 2.6 |
| Yugoslavia Fed. Rep. | 7.5 | 6.2 | - | - | 0.3 | 0.3 | 7.1 | 6.2 | 1.1 | 0.8 |
| OCEANIA | 15.0 | 8.3 | 0.1 | 0.1 | 5.1 | 3.4 | 8.7 | 8.1 | 3.8 | 1.3 |
| Australia | 14.5 | 7.7 | - | - | 5.1 | 3.4 | 8.1 | 7.4 | 3.7 | 1.2 |
| WORLD | 1002.3 | 981.2 | 104.6 | 105.0 | 106.4 | 105.0 | 998.7 | 1017.4 | 189.0 | 151.2 |
| Developing countries | 430.8 | 441.9 | 73.2 | 71.5 | 23.8 | 21.0 | 478.2 | 489.4 | 83.7 | 85.3 |
| Developed countries | 571.5 | 539.3 | 31.4 | 33.4 | 82.5 | 83.9 | 520.5 | 528.0 | 105.3 | 65.9 |
| LIFDCs | 309.0 | 316.1 | 23.4 | 22.9 | 9.2 | 6.5 | 320.0 | 329.2 | 64.9 | 68.1 |
| LDCs | 49.2 | 51.0 | 2.7 | 2.3 | 2.3 | 2.6 | 47.6 | 49.5 | 6.5 | 7.5 |
| NFDCs | 23.1 | 23.9 | 13.7 | 14.0 | 0.1 | 0.1 | 37.2 | 38.0 | 3.8 | 3.5 |

Table A3. Maize statistics (million tonnes)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 195.8 | 198.6 | 42.0 | 42.5 | 7.2 | 4.3 | 228.8 | 234.8 | 57.2 | 59.3 |
| China | 139.4 | 142.0 | 5.0 | 5.6 | 5.9 | 3.0 | 137.5 | 142.5 | 47.3 | 49.3 |
| of which Taiwan | - | - | 4.8 | 5.0 | - | - | 4.9 | 4.9 | 0.9 | 0.9 |
| India | 14.9 | 14.5 | 0.1 | 0.1 | 0.3 | 0.3 | 14.6 | 14.4 | 1.3 | 1.2 |
| Indonesia | 12.5 | 12.1 | 0.5 | 1.0 | 0.1 | 0.1 | 12.7 | 12.8 | 1.0 | 1.3 |
| Iran, Islamic Republic of | 1.5 | 1.7 | 2.2 | 2.0 | - | - | 3.7 | 3.8 | 0.2 | 0.1 |
| Japan | - | - | 16.6 | 16.4 | - | - | 16.7 | 16.7 | 1.6 | 1.3 |
| Korea, D.P.R. | 2.1 | 1.9 | - | 0.1 | - | - | 2.1 | 2.0 | 0.2 | 0.2 |
| Korea, Republic of | 0.1 | 0.1 | 9.1 | 9.0 | - | - | 8.9 | 9.1 | 1.4 | 1.5 |
| Malaysia | 0.1 | 0.1 | 2.4 | 2.4 | - | - | 2.5 | 2.5 | 0.3 | 0.3 |
| Pakistan | 3.3 | 3.3 | - | - | - | - | 3.0 | 3.2 | 0.6 | 0.7 |
| Philippines | 5.3 | 6.1 | 0.3 | 0.1 | 0.1 | 0.1 | 5.4 | 5.8 | 0.5 | 0.7 |
| Thailand | 3.4 | 3.7 | 0.2 | 0.1 | 0.2 | 0.2 | 3.4 | 3.6 | 0.1 | 0.1 |
| Turkey | 3.7 | 3.2 | 0.1 | 0.1 | 0.1 | - | 3.9 | 3.4 | 0.4 | 0.3 |
| Viet Nam | 3.8 | 3.8 | 0.1 | 0.1 | - | - | 3.6 | 3.8 | 0.7 | 0.8 |
| AFRICA | 49.0 | 46.1 | 13.2 | 12.7 | 3.5 | 2.7 | 57.9 | 57.4 | 7.7 | 6.8 |
| Algeria | - | - | 2.0 | 2.1 | - | - | 2.0 | 2.1 | 0.2 | 0.2 |
| Egypt | 7.7 | 6.8 | 4.4 | 5.0 | - | - | 12.0 | 12.0 | 0.6 | 0.4 |
| Ethiopia | 2.9 | 3.0 | 0.1 | - | 0.1 | 0.1 | 2.8 | 2.9 | 0.2 | 0.2 |
| Kenya | 2.8 | 2.9 | 0.4 | 0.7 | - | - | 3.4 | 3.5 | 0.1 | 0.2 |
| Morocco | 0.1 | 0.1 | 1.4 | 1.3 | - | - | 1.5 | 1.5 | 0.3 | 0.2 |
| Nigeria | 6.0 | 6.4 | 0.1 | 0.1 | 0.1 | 0.1 | 5.9 | 6.0 | 0.1 | 0.5 |
| South Africa | 11.7 | 6.6 | 0.6 | 0.6 | 1.9 | 0.9 | 9.9 | 8.4 | 3.2 | 1.4 |
| UR of Tanzania | 3.3 | 3.4 | 0.2 | 0.1 | 0.4 | 0.4 | 2.9 | 2.9 | 1.1 | 1.2 |
| CENTRAL AMERICA | 23.3 | 25.5 | 10.5 | 10.7 | 0.1 | 0.1 | 34.6 | 36.1 | 2.9 | 2.8 |
| Mexico | 19.8 | 22.0 | 5.9 | 6.2 | - | - | 26.7 | 28.1 | 2.1 | 2.1 |
| SOUTH AMERICA | 64.4 | 65.3 | 6.6 | 6.7 | 13.0 | 13.1 | 57.6 | 57.6 | 4.5 | 4.3 |
| Argentina | 20.5 | 14.5 | - | - | 11.3 | 10.0 | 5.5 | 4.6 | 1.3 | 0.7 |
| Brazil | 35.1 | 42.1 | 0.5 | 0.5 | 1.2 | 2.6 | 38.3 | 39.0 | 1.5 | 2.0 |
| Chile | 1.5 | 1.4 | 1.3 | 1.2 | - | - | 2.4 | 2.4 | 0.2 | 0.1 |
| Colombia | 1.4 | 1.3 | 2.8 | 3.0 | - | - | 3.9 | 4.0 | 0.4 | 0.4 |
| Peru | 1.2 | 1.2 | 1.4 | 1.3 | - | - | 2.5 | 2.6 | 0.6 | 0.6 |
| Venezuela | 2.1 | 2.1 | 0.2 | 0.3 | - | - | 2.5 | 2.4 | 0.2 | 0.1 |
| NORTH AMERICA | 291.7 | 281.2 | 2.0 | 3.4 | 51.5 | 56.2 | 242.4 | 254.9 | 52.1 | 25.2 |
| Canada | 9.5 | 8.8 | 1.7 | 3.2 | 0.3 | 0.2 | 10.9 | 11.8 | 2.0 | 1.4 |
| United States of America | 282.3 | 272.4 | 0.3 | 0.2 | 51.2 | 56.0 | 231.6 | 243.1 | 50.1 | 23.8 |
| EUROPE | 85.1 | 77.0 | 4.0 | 3.9 | 4.1 | 3.6 | 84.6 | 78.8 | 13.0 | 11.6 |
| European Union | 50.9 | 46.4 | 2.9 | 2.8 | 0.1 | 0.2 | 52.9 | 49.2 | 7.2 | 7.0 |
| Romania | 9.9 | 8.7 | - | - | 0.5 | 0.6 | 10.0 | 8.8 | 2.0 | 1.3 |
| Russian Federation | 3.2 | 3.3 | 0.3 | 0.3 | 0.1 | 0.2 | 3.4 | 3.5 | 0.8 | 0.8 |
| Ukraine | 7.2 | 6.0 | - | - | 2.6 | 1.8 | 4.5 | 4.4 | 0.7 | 0.5 |
| Yugoslavia Fed. Rep. | 7.1 | 5.7 | - | - | 0.3 | 0.3 | 6.6 | 5.7 | 1.0 | 0.7 |
| OCEANIA | 0.6 | 0.6 | - | - | - | - | 0.6 | 0.6 | - | - |
| WORLD | 710.0 | 694.2 | 78.3 | 80.0 | 79.5 | 80.0 | 706.6 | 720.1 | 137.4 | 109.8 |
| Developing countries | 319.3 | 327.1 | 54.0 | 54.5 | 22.0 | 19.3 | 349.6 | 357.9 | 67.3 | 70.2 |
| Developed countries | 390.7 | 367.1 | 24.3 | 25.5 | 57.5 | 60.7 | 357.0 | 362.2 | 70.1 | 39.6 |
| LIFDCs | 222.8 | 227.3 | 18.5 | 18.9 | 8.1 | 5.4 | 231.3 | 237.8 | 57.1 | 60.2 |
| LDCs | 21.5 | 23.3 | 2.1 | 1.8 | 1.6 | 1.9 | 21.8 | 22.7 | 3.3 | 3.9 |
| NFDCs | 18.8 | 18.1 | 11.8 | 12.5 | 0.1 | 0.1 | 30.2 | 30.6 | 2.8 | 2.7 |

Table A4. Barley statistics (million tonnes)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 21.8 | 22.1 | 13.2 | 12.3 | 0.6 | 0.6 | 34.6 | 35.0 | 9.7 | 8.6 |
| China | 3.4 | 3.4 | 2.2 | 1.9 | - | - | 5.5 | 5.4 | 1.2 | 1.1 |
| India | 1.2 | 1.3 | - | - | - | - | 1.2 | 1.3 | - | - |
| Iran, Islamic Republic of | 2.9 | 3.5 | 1.1 | 0.9 | - | - | 4.0 | 4.3 | 0.1 | 0.2 |
| Iraq | 0.8 | 0.8 | 0.2 | 0.2 | 0.1 | 0.1 | 0.9 | 0.9 | 0.1 | 0.1 |
| Japan | 0.2 | 0.2 | 1.4 | 1.4 | - | - | 1.6 | 1.7 | 0.7 | 0.6 |
| Kazakhstan | 1.5 | 1.8 | - | - | 0.2 | 0.3 | 1.3 | 1.6 | 0.5 | 0.5 |
| Saudi Arabia | 0.1 | 0.1 | 6.4 | 5.8 | - | - | 6.5 | 6.4 | 2.8 | 2.3 |
| Syria | 0.8 | 0.7 | 0.6 | 0.7 | 0.1 | 0.1 | 1.4 | 1.4 | 0.8 | 0.6 |
| Turkey | 9.2 | 8.8 | - | 0.1 | 0.2 | 0.1 | 9.2 | 9.1 | 3.2 | 2.9 |
| AFRICA | 4.7 | 6.3 | 2.0 | 1.5 | - | - | 7.4 | 7.7 | 1.8 | 1.9 |
| Algeria | 1.1 | 1.3 | 0.2 | 0.1 | - | - | 1.3 | 1.2 | 0.7 | 0.8 |
| Ethiopia | 1.5 | 1.5 | - | - | - | - | 1.4 | 1.5 | 0.3 | 0.3 |
| Libya | 0.1 | 0.1 | 0.6 | 0.6 | - | - | 0.6 | 0.6 | - | - |
| Morocco | 1.1 | 2.5 | 0.6 | 0.3 | - | - | 2.6 | 2.8 | 0.4 | 0.4 |
| CENTRAL AMERICA | 0.8 | 0.9 | 0.3 | 0.2 | - | - | 1.2 | 1.1 | 0.2 | 0.2 |
| Mexico | 0.8 | 0.9 | 0.3 | 0.2 | - | - | 1.2 | 1.1 | 0.2 | 0.2 |
| SOUTH AMERICA | 1.7 | 1.8 | 0.6 | 0.6 | 0.4 | 0.3 | 2.0 | 2.2 | 0.3 | 0.3 |
| Argentina | 0.8 | 0.8 | - | - | 0.3 | 0.2 | 0.6 | 0.6 | 0.2 | 0.2 |
| NORTH AMERICA | 17.1 | 13.9 | 0.1 | 0.3 | 2.8 | 2.0 | 14.2 | 13.7 | 5.6 | 3.5 |
| Canada | 12.5 | 10.0 | - | - | 2.2 | 1.5 | 9.7 | 9.4 | 3.3 | 1.6 |
| United States of America | 4.6 | 3.9 | 0.1 | 0.3 | 0.6 | 0.5 | 4.5 | 4.2 | 2.4 | 1.9 |
| EUROPE | 83.0 | 90.1 | 0.8 | 1.0 | 9.3 | 10.1 | 76.6 | 82.2 | 12.0 | 10.7 |
| Belarus | 1.8 | 1.8 | - | 0.1 | - | - | 1.8 | 1.9 | 0.2 | 0.2 |
| Bulgaria | 0.7 | 0.5 | - | - | 0.3 | 0.2 | 0.6 | 0.4 | 0.1 | 0.1 |
| European Union | 52.8 | 55.6 | 0.3 | 0.4 | 3.2 | 3.0 | 51.6 | 54.6 | 9.4 | 7.8 |
| Romania | 1.2 | 0.8 | - | 0.1 | 0.2 | 0.1 | 1.1 | 0.9 | 0.3 | 0.1 |
| Russian Federation | 15.8 | 17.5 | 0.2 | 0.2 | 1.7 | 2.2 | 14.3 | 15.7 | 0.9 | 0.8 |
| Ukraine | 9.0 | 12.0 | 0.1 | 0.1 | 3.9 | 4.5 | 5.4 | 7.0 | 0.9 | 1.5 |
| OCEANIA | 10.2 | 3.9 | - | - | 4.4 | 3.0 | 4.0 | 4.1 | 3.4 | 0.9 |
| Australia | 9.9 | 3.6 | - | - | 4.4 | 3.0 | 3.7 | 3.7 | 3.4 | 0.9 |
| WORLD | 139.3 | 139.1 | 17.1 | 16.0 | 17.5 | 16.0 | 140.1 | 146.0 | 33.0 | 26.0 |
| Developing countries | 26.4 | 28.2 | 14.2 | 12.6 | 0.8 | 0.6 | 40.8 | 41.2 | 10.6 | 9.6 |
| Developed countries | 112.9 | 110.9 | 2.9 | 3.3 | 16.7 | 15.4 | 99.2 | 104.7 | 22.4 | 16.4 |
| LIFDCs | 12.2 | 13.6 | 3.7 | 3.2 | 0.2 | 0.2 | 16.4 | 16.8 | 3.1 | 2.9 |
| LDCs | 1.9 | 1.8 | - | - | - | - | 1.8 | 1.8 | 0.3 | 0.4 |
| NFIDCs | 2.1 | 3.5 | 1.7 | 1.4 | - | - | 4.7 | 5.0 | 0.8 | 0.7 |

Table A5. Sorghum statistics (million tonnes)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|--------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 11.2 | 11.1 | 1.6 | 1.6 | - | - | 12.7 | 12.6 | 0.6 | 0.6 |
| China | 2.6 | 2.5 | 0.1 | 0.1 | - | - | 2.6 | 2.5 | 0.2 | 0.2 |
| India | 7.6 | 7.6 | - | - | - | - | 7.6 | 7.6 | 0.2 | 0.2 |
| Japan | - | - | 1.4 | 1.4 | - | - | 1.4 | 1.3 | 0.1 | 0.2 |
| AFRICA | 24.4 | 24.9 | 0.7 | 0.6 | 0.6 | 0.6 | 23.7 | 25.0 | 2.1 | 2.1 |
| Burkina Faso | 1.6 | 1.6 | - | - | 0.1 | 0.1 | 1.5 | 1.5 | 0.1 | 0.1 |
| Ethiopia | 2.1 | 2.0 | - | - | 0.1 | - | 1.9 | 2.0 | 0.2 | 0.3 |
| Nigeria | 9.2 | 9.9 | - | - | 0.1 | 0.1 | 9.1 | 9.8 | 0.1 | 0.1 |
| Sudan | 4.3 | 4.1 | 0.2 | 0.2 | 0.2 | 0.3 | 3.9 | 3.9 | 0.6 | 0.6 |
| CENTRAL AMERICA | 6.0 | 6.3 | 3.2 | 3.0 | - | - | 9.8 | 9.8 | 0.5 | 0.3 |
| Mexico | 5.6 | 5.8 | 3.2 | 3.0 | - | - | 9.2 | 9.2 | 0.5 | 0.3 |
| SOUTH AMERICA | 5.4 | 4.9 | 0.2 | 0.2 | 0.3 | 0.3 | 5.3 | 5.1 | 0.5 | 0.3 |
| Argentina | 2.9 | 2.3 | - | - | 0.3 | 0.3 | 2.4 | 2.3 | 0.3 | 0.1 |
| Brazil | 1.5 | 1.5 | 0.1 | 0.1 | - | - | 1.8 | 1.7 | 0.2 | 0.1 |
| Venezuela | 0.4 | 0.5 | 0.1 | - | - | - | 0.5 | 0.5 | - | - |
| NORTH AMERICA | 10.0 | 7.3 | - | - | 5.0 | 4.3 | 4.8 | 3.8 | 1.7 | 1.0 |
| United States of America | 10.0 | 7.3 | - | - | 5.0 | 4.3 | 4.8 | 3.8 | 1.7 | 1.0 |
| EUROPE | 0.6 | 0.6 | 0.1 | 0.1 | - | - | 0.7 | 0.7 | - | - |
| European Union | 0.5 | 0.5 | 0.1 | 0.1 | - | - | 0.7 | 0.6 | - | - |
| OCEANIA | 2.0 | 2.0 | 0.1 | 0.1 | 0.3 | 0.3 | 2.0 | 1.8 | 0.1 | - |
| Australia | 2.0 | 2.0 | - | - | 0.3 | 0.3 | 2.0 | 1.8 | 0.1 | - |
| WORLD | 59.6 | 57.0 | 5.8 | 5.5 | 6.2 | 5.5 | 59.1 | 58.7 | 5.6 | 4.3 |
| Developing countries | 46.7 | 47.1 | 4.3 | 3.9 | 0.9 | 0.9 | 49.8 | 50.9 | 3.5 | 3.1 |
| Developed countries | 12.8 | 10.0 | 1.6 | 1.6 | 5.3 | 4.6 | 9.3 | 7.9 | 2.1 | 1.2 |
| LIFDCs | 35.1 | 35.7 | 0.8 | 0.7 | 0.6 | 0.6 | 34.4 | 35.7 | 2.4 | 2.5 |
| LDCs | 13.3 | 13.2 | 0.6 | 0.5 | 0.4 | 0.5 | 12.6 | 13.0 | 1.7 | 1.9 |
| NFIDCs | 1.7 | 1.9 | 0.2 | 0.1 | - | - | 1.8 | 2.0 | 0.1 | 0.1 |

Table A6. Other coarse grain statistics - millet, rye, oats and other grains (million tonnes)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 17.8 | 17.9 | 0.9 | 0.8 | 0.1 | 0.1 | 18.8 | 18.7 | 0.8 | 0.7 |
| AFRICA | 19.6 | 20.5 | 0.1 | 0.1 | 0.2 | 0.2 | 18.6 | 19.9 | 1.5 | 1.7 |
| CENTRAL AMERICA | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.3 | 0.2 | - | - |
| SOUTH AMERICA | 1.3 | 1.5 | 0.1 | 0.1 | - | - | 1.4 | 1.6 | 0.1 | 0.1 |
| NORTH AMERICA | 6.6 | 6.5 | 1.7 | 1.9 | 1.8 | 2.2 | 6.0 | 6.2 | 2.0 | 1.9 |
| EUROPE | 45.8 | 42.6 | 0.4 | 0.6 | 0.8 | 0.8 | 45.9 | 44.3 | 8.4 | 6.4 |
| OCEANIA | 2.2 | 1.8 | 0.1 | 0.1 | 0.4 | 0.1 | 2.0 | 1.6 | 0.3 | 0.3 |
| WORLD | 93.5 | 90.8 | 3.4 | 3.5 | 3.2 | 3.5 | 93.0 | 92.6 | 13.0 | 11.1 |

Table A7. Rice statistics (million tonnes, milled basis)

| | Production | | Imports | | Exports | | Total Utilization | | Stocks ending in | |
|---------------------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|---------------|------------------|---------------|
| | 2005 | 2006 | 2006 | 2007 | 2006 | 2007 | 2005/06 | 2006/07 | 2006 | 2007 |
| | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> | <i>estim.</i> | <i>f'cast</i> |
| ASIA | 381.3 | 380.8 | 13.4 | 13.1 | 21.4 | 22.7 | 367.1 | 370.7 | 97.7 | 98.1 |
| Bangladesh | 26.6 | 27.3 | 0.8 | 0.6 | - | - | 27.4 | 28.0 | 3.8 | 3.7 |
| China | 124.8 | 124.9 | 1.3 | 1.3 | 1.1 | 1.1 | 123.6 | 123.6 | 57.3 | 58.7 |
| of which Taiwan | 1.1 | 1.1 | 0.2 | 0.2 | - | - | 1.3 | 1.2 | 0.1 | 0.1 |
| India | 91.0 | 90.0 | 0.1 | 0.1 | 3.5 | 3.2 | 85.1 | 86.8 | 11.5 | 11.6 |
| Indonesia | 34.1 | 34.4 | 0.8 | 0.8 | - | - | 35.6 | 35.7 | 2.5 | 2.0 |
| Iran, Islamic Republic of | 2.1 | 2.3 | 1.2 | 0.8 | - | - | 3.1 | 3.2 | 0.5 | 0.4 |
| Iraq | 0.2 | 0.2 | 1.2 | 1.2 | - | - | 1.3 | 1.4 | 0.3 | 0.3 |
| Japan | 8.2 | 7.5 | 0.7 | 0.8 | 0.3 | 0.2 | 8.4 | 8.3 | 1.6 | 1.5 |
| Korea, D.P.R. | 1.7 | 1.5 | 0.4 | 0.5 | - | - | 2.1 | 2.0 | 0.1 | 0.1 |
| Korea, Republic of | 4.8 | 4.6 | 0.3 | 0.3 | 0.2 | 0.2 | 4.8 | 4.7 | 1.1 | 1.0 |
| Malaysia | 1.4 | 1.3 | 0.9 | 0.9 | - | - | 2.2 | 2.2 | 0.1 | 0.1 |
| Myanmar | 15.8 | 15.9 | - | - | 0.1 | 0.3 | 15.1 | 15.5 | 4.1 | 4.3 |
| Pakistan | 5.5 | 5.6 | - | - | 3.5 | 3.5 | 2.0 | 2.1 | 0.2 | 0.2 |
| Philippines | 9.9 | 10.0 | 1.7 | 1.5 | - | - | 11.2 | 11.6 | 2.0 | 1.9 |
| Saudi Arabia | - | - | 1.1 | 1.1 | - | - | 1.1 | 1.1 | 0.2 | 0.2 |
| Sri Lanka | 2.2 | 2.2 | - | - | - | 0.1 | 2.2 | 2.2 | 0.1 | 0.2 |
| Thailand | 19.9 | 19.7 | - | - | 7.5 | 8.8 | 11.0 | 11.1 | 5.2 | 5.0 |
| Viet Nam | 23.9 | 24.1 | - | - | 4.9 | 4.8 | 19.3 | 19.6 | 4.4 | 4.2 |
| AFRICA | 13.6 | 14.4 | 9.3 | 9.4 | 1.0 | 1.1 | 22.2 | 22.7 | 2.4 | 2.4 |
| Cote d'Ivoire | 0.7 | 0.7 | 0.9 | 0.9 | - | - | 1.6 | 1.6 | 0.1 | 0.1 |
| Egypt | 4.2 | 4.5 | - | - | 1.0 | 1.1 | 3.4 | 3.4 | 0.6 | 0.6 |
| Madagascar | 2.3 | 2.3 | 0.2 | 0.2 | - | - | 2.4 | 2.5 | 0.1 | 0.2 |
| Nigeria | 2.5 | 2.9 | 1.8 | 1.7 | - | - | 4.4 | 4.5 | 0.3 | 0.4 |
| Senegal | 0.2 | 0.2 | 0.8 | 0.9 | - | - | 1.0 | 1.0 | 0.2 | 0.2 |
| South Africa | - | - | 0.7 | 0.8 | - | - | 0.8 | 0.7 | 0.1 | 0.1 |
| UR of Tanzania | 0.7 | 0.8 | 0.1 | 0.2 | - | - | 0.8 | 0.9 | 0.1 | 0.1 |
| CENTRAL AMERICA | 1.5 | 1.6 | 2.3 | 2.3 | - | - | 3.9 | 4.0 | 0.6 | 0.5 |
| Cuba | 0.2 | 0.3 | 0.7 | 0.7 | - | - | 1.0 | 1.0 | 0.1 | 0.1 |
| Mexico | 0.2 | 0.2 | 0.5 | 0.5 | - | - | 0.7 | 0.7 | - | - |
| SOUTH AMERICA | 15.9 | 14.9 | 0.8 | 1.0 | 1.9 | 1.8 | 14.5 | 14.6 | 2.5 | 1.9 |
| Argentina | 0.7 | 0.8 | - | - | 0.4 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 |
| Brazil | 8.9 | 7.8 | 0.6 | 0.7 | 0.3 | 0.3 | 8.7 | 8.7 | 1.4 | 0.8 |
| Peru | 1.7 | 1.6 | 0.1 | 0.1 | - | - | 1.6 | 1.7 | 0.3 | 0.3 |
| Uruguay | 0.9 | 0.9 | - | - | 0.8 | 0.8 | 0.1 | 0.1 | 0.2 | 0.2 |
| NORTH AMERICA | 7.1 | 6.1 | 0.9 | 1.0 | 3.7 | 3.0 | 4.2 | 4.4 | 1.4 | 1.1 |
| Canada | - | - | 0.3 | 0.3 | - | - | 0.3 | 0.3 | 0.1 | 0.1 |
| United States of America | 7.1 | 6.1 | 0.6 | 0.6 | 3.7 | 3.0 | 3.8 | 4.0 | 1.4 | 1.1 |
| EUROPE | 2.4 | 2.3 | 1.6 | 1.6 | 0.2 | 0.2 | 3.9 | 3.8 | 0.6 | 0.5 |
| European Union | 1.9 | 1.8 | 0.8 | 0.9 | 0.2 | 0.2 | 2.6 | 2.6 | 0.5 | 0.5 |
| Russian Federation | 0.4 | 0.4 | 0.3 | 0.3 | - | - | 0.7 | 0.7 | - | - |
| OCEANIA | 0.2 | 0.7 | 0.4 | 0.4 | 0.4 | - | 0.6 | 0.7 | 0.1 | 0.1 |
| Australia | 0.2 | 0.7 | 0.1 | 0.2 | 0.4 | - | 0.3 | 0.4 | 0.1 | 0.1 |
| WORLD | 421.9 | 420.9 | 28.6 | 28.9 | 28.6 | 28.9 | 416.4 | 420.8 | 105.3 | 104.7 |
| Developing countries | 403.6 | 403.7 | 24.3 | 24.3 | 24.0 | 25.5 | 398.2 | 402.5 | 101.5 | 101.4 |
| Developed countries | 18.3 | 17.2 | 4.3 | 4.6 | 4.6 | 3.4 | 18.3 | 18.4 | 3.8 | 3.3 |
| LIFDCs | 319.3 | 320.3 | 16.2 | 16.2 | 9.5 | 9.6 | 322.4 | 325.8 | 82.5 | 83.5 |
| LDCs | 56.7 | 57.8 | 6.1 | 6.2 | 0.4 | 0.9 | 61.5 | 62.9 | 11.3 | 11.5 |
| NFDCs | 15.8 | 16.2 | 2.5 | 2.5 | 4.6 | 4.7 | 13.7 | 14.0 | 1.8 | 1.8 |

Table A8. Cereal supply and utilization in main exporting countries (million tonnes)

| | Wheat ¹ | | | Coarse Grains ² | | | Rice (milled basis) | | |
|---------------------|---------------------------------|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|---|--------------------------|--------------------------|
| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
| | UNITED STATES (June/May) | | | UNITED STATES | | | UNITED STATES (Aug./July) | | |
| Opening stocks | 14.9 | 14.7 | 15.5 | 28.8 | 58.8 | 54.9 | 0.8 | 1.2 | 1.4 |
| Production | 58.7 | 57.3 | 49.3 | 319.9 | 299.1 | 285.5 | 7.5 | 7.1 | 6.1 |
| Imports | 1.5 | 1.7 | 2.9 | 2.2 | 2.0 | 2.5 | 0.4 | 0.5 | 0.6 |
| Total Supply | 75.1 | 73.7 | 67.7 | 350.8 | 359.9 | 342.9 | 8.6 | 8.9 | 8.1 |
| Domestic use | 31.6 | 31.0 | 30.9 | 240.6 | 244.7 | 255.0 | 3.9 | 3.8 | 3.9 |
| Exports | 28.8 | 27.2 | 25.6 | 51.5 | 60.3 | 60.6 | 3.5 | 3.7 | 3.1 |
| Closing stocks | 14.7 | 15.5 | 11.2 | 58.8 | 54.9 | 27.4 | 1.2 | 1.4 | 1.1 |
| | CANADA (August/July) | | | CANADA | | | THAILAND (Nov./Oct.)³ | | |
| Opening stocks | 6.1 | 7.9 | 9.7 | 4.2 | 6.5 | 6.5 | 3.2 | 3.8 | 5.2 |
| Production | 25.9 | 26.8 | 26.3 | 26.7 | 26.3 | 23.4 | 18.9 | 19.9 | 19.7 |
| Imports | 0.1 | 0.0 | 0.0 | 2.5 | 2.0 | 2.7 | 0.0 | 0.0 | 0.0 |
| Total Supply | 32.0 | 34.7 | 36.1 | 33.5 | 34.8 | 32.6 | 22.1 | 23.7 | 24.9 |
| Domestic use | 9.3 | 9.2 | 8.7 | 22.9 | 22.8 | 23.7 | 10.8 | 11.0 | 11.1 |
| Exports | 14.8 | 15.8 | 20.1 | 4.1 | 5.4 | 4.8 | 7.5 | 7.5 | 8.8 |
| Closing stocks | 7.9 | 9.7 | 7.3 | 6.5 | 6.5 | 4.1 | 3.8 | 5.2 | 5.0 |
| | ARGENTINA (Dec./Nov.) | | | ARGENTINA | | | INDIA (Oct./Sept.)³ | | |
| Opening stocks | 2.0 | 0.9 | 0.5 | 1.2 | 0.9 | 1.8 | 13.0 | 9.0 | 11.5 |
| Production | 16.0 | 12.6 | 13.5 | 18.7 | 24.5 | 18.1 | 83.1 | 91.0 | 90.0 |
| Imports | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| Total Supply | 18.0 | 13.5 | 14.0 | 19.9 | 25.4 | 20.0 | 96.2 | 100.1 | 101.6 |
| Domestic use | 6.2 | 5.5 | 5.3 | 8.0 | 8.8 | 8.0 | 82.1 | 85.1 | 86.8 |
| Exports | 10.9 | 7.5 | 8.4 | 11.0 | 14.8 | 11.0 | 5.0 | 3.5 | 3.2 |
| Closing stocks | 0.9 | 0.5 | 0.3 | 0.9 | 1.8 | 1.0 | 9.0 | 11.5 | 11.6 |
| | AUSTRALIA (Oct./Sept.) | | | AUSTRALIA | | | PAKISTAN (Nov./Oct.)³ | | |
| Opening stocks | 6.1 | 8.0 | 12.3 | 3.1 | 3.0 | 3.7 | 0.7 | 0.2 | 0.2 |
| Production | 21.9 | 25.1 | 9.5 | 12.1 | 14.5 | 7.7 | 5.0 | 5.5 | 5.6 |
| Imports | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Supply | 28.0 | 33.1 | 21.8 | 15.2 | 17.4 | 11.4 | 5.7 | 5.7 | 5.8 |
| Domestic use | 5.3 | 5.5 | 6.1 | 7.2 | 8.1 | 7.4 | 2.0 | 2.0 | 2.1 |
| Exports | 14.7 | 15.4 | 12.5 | 5.0 | 5.7 | 2.8 | 3.5 | 3.5 | 3.5 |
| Closing stocks | 8.0 | 12.3 | 3.2 | 3.0 | 3.7 | 1.2 | 0.2 | 0.2 | 0.2 |
| | EU (July/June) | | | EU | | | VIET NAM (Nov./Oct.)³ | | |
| Opening stocks | 9.5 | 23.5 | 20.0 | 11.3 | 24.7 | 23.3 | 4.9 | 4.7 | 4.4 |
| Production | 137.5 | 123.6 | 117.6 | 152.1 | 134.3 | 130.3 | 24.1 | 23.9 | 24.1 |
| Imports | 7.2 | 7.6 | 7.0 | 2.8 | 3.4 | 3.4 | 0.0 | 0.0 | 0.0 |
| Total Supply | 154.2 | 154.7 | 144.6 | 166.2 | 162.5 | 157.0 | 29.0 | 28.6 | 28.6 |
| Domestic use | 118.0 | 119.6 | 116.2 | 140.5 | 135.3 | 133.3 | 19.1 | 19.3 | 19.6 |
| Exports | 13.7 | 15.1 | 15.9 | 4.0 | 3.9 | 3.9 | 5.2 | 4.9 | 4.8 |
| Closing stocks | 23.5 | 20.0 | 12.5 | 24.7 | 23.3 | 19.8 | 4.7 | 4.4 | 4.2 |
| | TOTAL OF ABOVE | | | TOTAL OF ABOVE | | | TOTAL OF ABOVE | | |
| Opening stocks | 38.5 | 55.0 | 58.0 | 48.5 | 93.8 | 90.2 | 22.5 | 18.9 | 22.7 |
| Production | 260.0 | 245.3 | 216.2 | 529.5 | 498.7 | 465.1 | 138.6 | 147.5 | 145.5 |
| Imports | 8.7 | 9.4 | 9.9 | 7.6 | 7.4 | 8.6 | 0.5 | 0.6 | 0.6 |
| Total Supply | 307.2 | 309.7 | 284.2 | 585.6 | 599.9 | 564.0 | 161.6 | 167.0 | 168.9 |
| Domestic use | 170.4 | 170.8 | 167.2 | 419.2 | 419.6 | 427.4 | 118.0 | 121.3 | 123.4 |
| Exports | 82.8 | 80.9 | 82.5 | 75.6 | 90.1 | 83.0 | 24.7 | 23.0 | 23.4 |
| Closing stocks | 55.0 | 58.0 | 34.5 | 93.8 | 90.2 | 53.5 | 18.9 | 22.7 | 22.1 |

¹ Trade data include wheat flour in wheat grain equivalent. For the European Union semolina is also included.

² Argentina (December/November) for rye, barley and oats, (March/February) for maize and sorghum; Australia (November/October) for rye, barley and oats, (March/February) for maize and sorghum; Canada (August/July); European Union (July/June); United States (June/May) for rye, barley and oats, (September/August) for maize and sorghum.

³ Rice trade data refer to the calendar year of the second year shown.

Table A9. Total oilcrops statistics (million tonnes)

| | Production ¹ | | | Imports | | | Exports | | |
|-----------------------------|-------------------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|
| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
| ASIA | 120.5 | 122.0 | 121.2 | 46.1 | 48.9 | 53.4 | 2.4 | 2.4 | 2.5 |
| China | 60.0 | 58.4 | 58.0 | 28.4 | 31.3 | 35.2 | 1.3 | 1.3 | 1.4 |
| of which Taiwan Province | 0.0 | 0.0 | 0.0 | 2.2 | 2.4 | 2.5 | 0.0 | 0.0 | 0.0 |
| India | 30.3 | 33.4 | 32.7 | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 0.5 |
| Indonesia | 6.7 | 7.0 | 7.0 | 1.3 | 1.3 | 1.4 | 0.1 | 0.1 | 0.1 |
| Iran, Islamic Republic of | 0.4 | 0.4 | 0.4 | 0.7 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 |
| Japan | 0.2 | 0.3 | 0.3 | 7.0 | 6.8 | 6.9 | 0.0 | 0.0 | 0.0 |
| Korea, Republic of | 0.2 | 0.3 | 0.2 | 1.5 | 1.4 | 1.5 | 0.0 | 0.0 | 0.0 |
| Malaysia | 4.1 | 4.3 | 4.5 | 0.7 | 0.7 | 0.8 | 0.1 | 0.0 | 0.1 |
| Pakistan | 5.6 | 4.9 | 4.9 | 0.7 | 0.9 | 1.2 | 0.0 | 0.0 | 0.0 |
| Thailand | 0.7 | 0.7 | 0.7 | 1.6 | 1.5 | 1.6 | 0.0 | 0.0 | 0.0 |
| Turkey | 2.2 | 2.2 | 2.4 | 1.7 | 1.5 | 1.4 | 0.0 | 0.0 | 0.0 |
| AFRICA | 16.0 | 16.1 | 16.0 | 1.4 | 1.6 | 1.6 | 0.7 | 0.7 | 0.7 |
| Nigeria | 4.3 | 4.4 | 4.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| CENTRAL AMERICA | 1.1 | 1.1 | 1.1 | 5.9 | 6.4 | 6.4 | 0.1 | 0.1 | 0.1 |
| Mexico | 0.7 | 0.8 | 0.8 | 5.4 | 5.8 | 5.8 | 0.0 | 0.0 | 0.0 |
| SOUTH AMERICA | 107.9 | 110.1 | 112.4 | 2.0 | 1.4 | 1.8 | 34.1 | 37.1 | 35.9 |
| Argentina | 44.4 | 45.3 | 47.3 | 0.6 | 0.4 | 0.3 | 10.0 | 7.6 | 6.2 |
| Brazil | 56.1 | 57.7 | 56.6 | 0.5 | 0.1 | 0.6 | 20.3 | 26.0 | 25.3 |
| Paraguay | 4.2 | 3.9 | 4.9 | 0.0 | 0.0 | 0.0 | 3.0 | 2.5 | 3.3 |
| NORTH AMERICA | 108.1 | 110.0 | 110.4 | 1.5 | 1.8 | 1.6 | 36.0 | 34.5 | 39.9 |
| Canada | 11.6 | 14.2 | 13.0 | 0.7 | 0.8 | 0.5 | 5.4 | 7.6 | 7.8 |
| United States of America | 96.5 | 95.8 | 97.4 | 0.8 | 1.0 | 1.1 | 30.6 | 26.9 | 32.1 |
| EUROPE | 34.1 | 37.8 | 39.6 | 19.1 | 18.3 | 17.9 | 1.9 | 2.6 | 3.1 |
| European Union ² | 21.2 | 21.2 | 21.5 | 18.1 | 17.4 | 17.0 | 0.5 | 0.3 | 0.3 |
| Russian Federation | 5.7 | 7.3 | 7.8 | 0.2 | 0.1 | 0.1 | 0.1 | 0.5 | 0.6 |
| Ukraine | 3.6 | 5.8 | 6.4 | 0.0 | 0.0 | 0.0 | 0.2 | 0.8 | 1.1 |
| OCEANIA | 2.9 | 3.0 | 2.1 | 0.1 | 0.1 | 0.1 | 1.3 | 1.2 | 0.8 |
| Australia | 2.6 | 2.6 | 1.7 | 0.1 | 0.0 | 0.0 | 1.2 | 1.2 | 0.7 |
| WORLD | 390.6 | 400.1 | 402.8 | 76.1 | 78.5 | 82.8 | 76.5 | 78.6 | 83.0 |
| Developing countries | 241.2 | 244.7 | 246.2 | 47.6 | 50.7 | 55.5 | 37.3 | 40.1 | 39.1 |
| Developed countries | 149.4 | 155.4 | 156.6 | 28.5 | 27.8 | 27.3 | 39.2 | 38.5 | 43.9 |
| LIFDCs | 125.1 | 126.4 | 125.2 | 32.8 | 36.4 | 40.4 | 2.9 | 2.8 | 2.9 |
| LDCs | 10.1 | 10.3 | 10.2 | 0.2 | 0.3 | 0.3 | 0.5 | 0.4 | 0.4 |
| NFIDCs | 7.4 | 6.6 | 6.7 | 2.2 | 2.6 | 2.9 | 0.1 | 0.1 | 0.1 |

¹ The split years bring together northern hemisphere annual crops harvested in the latter part of the first year shown, with southern hemisphere annual crops harvested in the early part of the second year shown; for tree crops which are produced throughout the year, calendar year production for the second year shown is used.

² Excluding trade between the twenty-five European Union Member States.

Note: Totals computed from unrounded data.

Table A10. Total oils and fats statistics (million tonnes)¹

| | Imports | | | Exports | | | Utilization | | |
|-----------------------------|-------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|--------------|--------------------------|--------------------------|
| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
| ASIA | 28.2 | 29.9 | 31.9 | 31.1 | 33.1 | 35.6 | 68.2 | 71.2 | 74.0 |
| Bangladesh | 1.1 | 1.1 | 1.2 | 0.0 | 0.0 | 0.0 | 1.3 | 1.3 | 1.4 |
| China | 7.5 | 7.9 | 8.5 | 0.2 | 0.3 | 0.2 | 25.7 | 26.9 | 27.0 |
| of which Taiwan Province | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.8 | 0.9 | 0.9 |
| India | 5.6 | 5.1 | 5.8 | 0.6 | 0.6 | 0.6 | 14.2 | 14.4 | 14.8 |
| Indonesia | 0.1 | 0.1 | 0.1 | 11.7 | 13.4 | 15.2 | 4.2 | 4.4 | 4.6 |
| Iran | 1.3 | 1.3 | 1.4 | 0.1 | 0.1 | 0.1 | 1.5 | 1.6 | 1.6 |
| Japan | 1.1 | 1.1 | 1.2 | 0.0 | 0.0 | 0.0 | 3.2 | 3.2 | 3.2 |
| Korea, Republic of | 0.8 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 1.1 | 1.1 | 1.1 |
| Malaysia | 0.9 | 1.4 | 1.3 | 14.7 | 14.8 | 15.5 | 3.1 | 3.6 | 4.1 |
| Pakistan | 1.9 | 1.9 | 2.0 | 0.2 | 0.2 | 0.2 | 3.2 | 3.3 | 3.5 |
| Philippines | 0.2 | 0.3 | 0.3 | 1.0 | 1.2 | 1.2 | 0.7 | 0.7 | 0.8 |
| Singapore | 0.6 | 0.6 | 0.6 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 |
| Turkey | 1.1 | 1.6 | 1.7 | 0.2 | 0.4 | 0.4 | 2.1 | 2.3 | 2.5 |
| AFRICA | 5.9 | 6.0 | 6.3 | 0.8 | 0.8 | 0.8 | 11.1 | 11.1 | 11.3 |
| Algeria | 0.6 | 0.6 | 0.7 | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 |
| Egypt | 1.3 | 1.3 | 1.4 | 0.0 | 0.0 | 0.0 | 1.6 | 1.5 | 1.6 |
| Nigeria | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 1.8 | 1.8 | 1.9 |
| South Africa | 0.6 | 0.6 | 0.7 | 0.1 | 0.0 | 0.0 | 1.0 | 1.0 | 1.0 |
| CENTRAL AMERICA | 2.2 | 2.3 | 2.3 | 0.4 | 0.4 | 0.4 | 4.3 | 4.4 | 4.5 |
| Mexico | 1.1 | 1.1 | 1.2 | 0.0 | 0.0 | 0.0 | 2.8 | 2.9 | 2.9 |
| SOUTH AMERICA | 1.6 | 1.7 | 1.8 | 10.0 | 10.7 | 11.7 | 8.4 | 8.4 | 8.6 |
| Argentina | 0.0 | 0.0 | 0.0 | 6.2 | 7.1 | 8.0 | 0.7 | 0.7 | 0.7 |
| Brazil | 0.2 | 0.2 | 0.2 | 2.5 | 2.6 | 2.5 | 4.7 | 4.6 | 4.7 |
| NORTH AMERICA | 2.5 | 3.0 | 3.3 | 4.4 | 4.5 | 4.7 | 16.4 | 17.2 | 18.2 |
| Canada | 0.4 | 0.4 | 0.4 | 1.6 | 1.7 | 1.8 | 1.0 | 1.0 | 1.0 |
| United States of America | 2.1 | 2.6 | 2.9 | 2.8 | 2.8 | 2.9 | 15.4 | 16.2 | 17.2 |
| EUROPE | 10.7 | 11.9 | 13.0 | 3.4 | 4.3 | 4.4 | 29.0 | 31.6 | 32.9 |
| European Union ² | 8.5 | 9.8 | 10.8 | 2.0 | 1.8 | 1.8 | 23.4 | 26.0 | 27.1 |
| Russian Federation | 1.2 | 1.0 | 1.0 | 0.2 | 0.6 | 0.6 | 3.1 | 3.0 | 3.1 |
| Ukraine | 0.3 | 0.3 | 0.3 | 0.7 | 1.6 | 1.5 | 0.7 | 0.7 | 0.8 |
| OCEANIA | 0.5 | 0.5 | 0.5 | 1.6 | 1.6 | 1.6 | 0.9 | 0.9 | 0.9 |
| Australia | 0.2 | 0.2 | 0.3 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 |
| WORLD | 51.6 | 55.3 | 59.1 | 51.7 | 55.6 | 59.2 | 138.3 | 144.8 | 150.4 |
| Developing countries | 35.9 | 37.8 | 40.1 | 42.8 | 45.6 | 49.1 | 87.0 | 90.1 | 93.2 |
| Developed countries | 15.7 | 17.5 | 19.0 | 8.9 | 10.0 | 10.2 | 51.3 | 54.7 | 57.2 |
| LIFDCs | 23.0 | 23.5 | 25.3 | 15.1 | 17.2 | 18.9 | 62.0 | 64.1 | 66.1 |
| LDCs | 3.6 | 3.8 | 3.9 | 0.4 | 0.4 | 0.4 | 6.4 | 6.5 | 6.6 |
| NFDCs | 6.1 | 6.3 | 6.6 | 1.2 | 1.1 | 1.2 | 8.7 | 8.9 | 9.2 |

¹ Includes oils and fats of vegetable and animal origin.

² Excluding trade between the twenty five European Union Member States.

Note: Totals computed from unrounded data.

Table A11. Total meals and cakes statistics (million tonnes)¹

| | Imports | | | Exports | | | Utilization | | |
|-----------------------------|-------------|--------------------------|--------------------------|-------------|--------------------------|--------------------------|--------------|--------------------------|--------------------------|
| | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2004/05 | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
| ASIA | 19.8 | 21.8 | 23.8 | 9.3 | 11.1 | 10.7 | 92.6 | 97.5 | 102.4 |
| China | 2.4 | 2.7 | 3.2 | 1.0 | 0.7 | 0.6 | 46.4 | 49.6 | 52.8 |
| of which Taiwan Province | 0.6 | 0.6 | 0.6 | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 | 2.5 |
| India | 0.2 | 0.2 | 0.2 | 2.8 | 4.7 | 4.1 | 11.1 | 11.4 | 11.6 |
| Indonesia | 2.0 | 2.2 | 2.3 | 1.9 | 2.1 | 2.1 | 2.2 | 2.3 | 2.5 |
| Japan | 2.1 | 2.3 | 2.3 | 0.0 | 0.0 | 0.0 | 7.3 | 7.3 | 7.4 |
| Korea, Republic of | 2.8 | 3.0 | 3.2 | 0.0 | 0.0 | 0.0 | 3.9 | 4.0 | 4.2 |
| Malaysia | 0.8 | 1.1 | 1.3 | 2.2 | 2.1 | 2.2 | 1.6 | 1.9 | 2.0 |
| Pakistan | 0.2 | 0.2 | 0.3 | 0.0 | 0.1 | 0.1 | 2.7 | 2.7 | 2.9 |
| Philippines | 1.5 | 1.5 | 1.6 | 0.4 | 0.5 | 0.5 | 2.0 | 2.0 | 2.1 |
| Saudi Arabia | 0.7 | 0.7 | 0.7 | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 |
| Thailand | 2.0 | 2.3 | 2.5 | 0.1 | 0.1 | 0.1 | 4.0 | 4.1 | 4.2 |
| Turkey | 0.8 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 2.7 | 2.9 | 2.9 |
| Viet Nam | 1.3 | 1.3 | 1.5 | 0.1 | 0.1 | 0.1 | 1.4 | 1.5 | 1.6 |
| AFRICA | 2.7 | 3.1 | 3.5 | 0.7 | 0.8 | 0.8 | 7.7 | 8.1 | 8.4 |
| Egypt | 0.7 | 0.9 | 1.0 | 0.0 | 0.0 | 0.0 | 1.4 | 1.5 | 1.6 |
| South Africa | 0.7 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 1.3 | 1.4 | 1.4 |
| CENTRAL AMERICA | 2.7 | 2.9 | 3.2 | 0.1 | 0.1 | 0.1 | 7.3 | 7.8 | 7.9 |
| Mexico | 1.2 | 1.5 | 1.7 | 0.0 | 0.0 | 0.0 | 5.4 | 5.9 | 5.9 |
| SOUTH AMERICA | 3.5 | 3.7 | 3.9 | 40.9 | 42.1 | 45.9 | 16.9 | 16.6 | 17.1 |
| Argentina | 0.0 | 0.0 | 0.0 | 22.0 | 25.4 | 29.2 | 2.0 | 2.2 | 2.0 |
| Bolivia | 0.0 | 0.0 | 0.0 | 1.0 | 1.1 | 1.0 | 0.2 | 0.2 | 0.1 |
| Brazil | 0.2 | 0.2 | 0.2 | 14.3 | 12.5 | 12.5 | 10.1 | 9.4 | 10.0 |
| Chile | 0.7 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 1.2 | 1.2 | 1.3 |
| Paraguay | 0.0 | 0.0 | 0.0 | 0.7 | 0.7 | 0.7 | 0.2 | 0.2 | 0.2 |
| Peru | 0.7 | 0.8 | 0.9 | 2.2 | 1.5 | 1.7 | 0.9 | 1.0 | 1.0 |
| Venezuela | 0.7 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.8 | 0.8 | 0.9 |
| NORTH AMERICA | 2.9 | 3.2 | 3.5 | 9.2 | 10.0 | 10.5 | 37.7 | 38.2 | 38.5 |
| Canada | 1.2 | 1.4 | 1.6 | 2.1 | 2.2 | 2.3 | 2.4 | 2.4 | 2.5 |
| United States of America | 1.7 | 1.8 | 1.9 | 7.1 | 7.8 | 8.2 | 35.3 | 35.8 | 36.0 |
| EUROPE | 31.3 | 32.3 | 32.7 | 3.4 | 3.9 | 3.9 | 56.9 | 58.4 | 59.6 |
| European Union ² | 29.4 | 30.3 | 30.7 | 0.8 | 1.0 | 1.1 | 52.6 | 53.7 | 54.5 |
| Russian Federation | 0.5 | 0.4 | 0.5 | 0.7 | 0.9 | 0.8 | 1.9 | 1.9 | 2.2 |
| Ukraine | 0.1 | 0.1 | 0.2 | 0.9 | 1.3 | 1.2 | 0.2 | 0.2 | 0.3 |
| OCEANIA | 0.7 | 0.7 | 0.9 | 0.2 | 0.2 | 0.2 | 1.2 | 1.3 | 1.4 |
| Australia | 0.4 | 0.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.9 | 0.9 | 1.0 |
| WORLD | 63.6 | 67.7 | 71.5 | 63.8 | 68.2 | 72.1 | 220.3 | 227.9 | 235.3 |
| Developing countries | 25.6 | 28.2 | 31.0 | 50.9 | 54.0 | 57.4 | 114.4 | 119.7 | 125.4 |
| Developed countries | 38.0 | 39.5 | 40.5 | 12.9 | 14.2 | 14.7 | 105.9 | 108.2 | 109.9 |
| LIFDCs | 9.4 | 10.5 | 11.5 | 7.2 | 9.2 | 8.5 | 74.1 | 78.3 | 82.5 |
| LDCs | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 3.2 | 3.3 | 3.3 |
| NFIDCs | 4.0 | 4.4 | 4.9 | 2.5 | 1.8 | 2.0 | 8.3 | 8.6 | 9.1 |

¹ Includes meals and cakes derived from oilcrops as well as fish meal.

² Excluding trade between the twenty five European Union Member States.

Note: Totals computed from unrounded data.

Table A12. Bovine meat statistics (million tonnes, carcass weight equivalent)

| | Production | | Imports | | Exports | | Utilization | |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| ASIA | 17.0 | 17.8 | 2.1 | 2.4 | 0.6 | 0.6 | 18.6 | 19.5 |
| China | 7.5 | 7.9 | 0.2 | 0.2 | 0.1 | 0.1 | 7.6 | 8.1 |
| India | 3.3 | 3.5 | - | - | 0.5 | 0.5 | 2.8 | 3.0 |
| Iran, Islamic Republic of | 0.3 | 0.3 | 0.1 | 0.1 | - | - | 0.4 | 0.5 |
| Israel | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| Japan | 0.5 | 0.5 | 0.6 | 0.7 | - | - | 1.1 | 1.2 |
| Korea, Republic of | 0.2 | 0.3 | 0.2 | 0.3 | - | - | 0.5 | 0.5 |
| Malaysia | - | - | 0.2 | 0.2 | - | - | 0.2 | 0.2 |
| Pakistan | 1.0 | 1.1 | - | - | - | - | 1.0 | 1.0 |
| AFRICA | 4.7 | 4.8 | 0.6 | 0.6 | 0.1 | 0.1 | 5.2 | 5.3 |
| Algeria | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| Angola | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| Egypt | 0.6 | 0.6 | 0.2 | 0.3 | - | - | 0.8 | 0.8 |
| South Africa | 0.7 | 0.7 | - | - | - | - | 0.7 | 0.7 |
| CENTRAL AMERICA | 2.2 | 2.3 | 0.4 | 0.5 | 0.1 | 0.1 | 2.6 | 2.6 |
| Mexico | 1.6 | 1.6 | 0.4 | 0.4 | - | - | 1.9 | 2.0 |
| SOUTH AMERICA | 14.4 | 14.9 | 0.3 | 0.3 | 2.8 | 3.1 | 11.8 | 12.1 |
| Argentina | 2.8 | 2.9 | - | - | 0.4 | 0.5 | 2.4 | 2.3 |
| Brazil | 8.8 | 9.1 | - | - | 1.7 | 1.9 | 7.1 | 7.3 |
| Chile | 0.2 | 0.3 | 0.2 | 0.2 | - | - | 0.4 | 0.4 |
| Colombia | 0.8 | 0.8 | - | - | - | - | 0.7 | 0.8 |
| Uruguay | 0.6 | 0.6 | - | - | 0.5 | 0.5 | 0.1 | 0.2 |
| Venezuela | 0.4 | 0.5 | 0.1 | 0.1 | - | - | 0.5 | 0.5 |
| NORTH AMERICA | 13.3 | 13.6 | 1.5 | 1.6 | 1.0 | 1.1 | 13.8 | 14.1 |
| Canada | 1.4 | 1.3 | 0.2 | 0.2 | 0.5 | 0.4 | 1.1 | 1.1 |
| United States of America | 11.9 | 12.3 | 1.3 | 1.4 | 0.5 | 0.7 | 12.7 | 13.0 |
| EUROPE | 11.2 | 11.2 | 1.5 | 1.7 | 0.3 | 0.3 | 12.5 | 12.6 |
| European Union | 8.0 | 8.0 | 0.5 | 0.5 | 0.2 | 0.2 | 8.3 | 8.3 |
| Russian Federation | 1.7 | 1.6 | 0.8 | 0.8 | - | - | 2.4 | 2.4 |
| Ukraine | 0.5 | 0.5 | 0.1 | 0.1 | - | - | 0.5 | 0.5 |
| OCEANIA | 2.9 | 3.1 | - | - | 1.8 | 1.9 | 1.2 | 1.2 |
| Australia | 2.2 | 2.4 | - | - | 1.3 | 1.4 | 1.0 | 1.0 |
| New Zealand | 0.7 | 0.7 | - | - | 0.5 | 0.5 | 0.2 | 0.2 |
| WORLD | 65.7 | 67.5 | 6.5 | 7.1 | 6.6 | 7.2 | 65.7 | 67.5 |
| Developing countries | 35.9 | 37.2 | 2.7 | 2.9 | 3.6 | 3.9 | 35.0 | 36.2 |
| Developed countries | 29.8 | 30.3 | 3.9 | 4.2 | 3.0 | 3.2 | 30.6 | 31.2 |
| LIFDCs | 18.8 | 19.5 | 1.0 | 1.1 | 0.6 | 0.7 | 19.2 | 20.0 |
| LDCs | 3.0 | 3.1 | 0.1 | 0.1 | - | - | 3.1 | 3.2 |
| NFIDCs | 3.2 | 3.2 | 0.4 | 0.5 | - | - | 3.6 | 3.7 |

Table A13. Ovine meat statistics (million tonnes, carcass weight equivalent)

| | Production | | Imports | | Exports | | Utilization | |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| ASIA | 8.1 | 8.4 | 0.3 | 0.3 | - | 0.1 | 8.3 | 8.6 |
| Bangladesh | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| China | 4.5 | 4.7 | 0.1 | 0.1 | - | - | 4.5 | 4.7 |
| India | 0.7 | 0.7 | - | - | - | - | 0.7 | 0.7 |
| Iran, Islamic Republic of | 0.5 | 0.6 | - | - | - | - | 0.5 | 0.6 |
| Pakistan | 0.6 | 0.6 | - | - | - | - | 0.5 | 0.6 |
| Saudi Arabia | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| Syria | 0.2 | 0.2 | - | - | - | - | 0.2 | 0.2 |
| Turkey | 0.3 | 0.3 | - | - | - | - | 0.3 | 0.3 |
| AFRICA | 2.1 | 2.2 | 0.1 | 0.1 | - | - | 2.2 | 2.2 |
| Algeria | 0.2 | 0.2 | - | - | - | - | 0.2 | 0.2 |
| Nigeria | 0.3 | 0.3 | - | - | - | - | 0.3 | 0.3 |
| South Africa | 0.2 | 0.2 | - | - | - | - | 0.2 | 0.2 |
| Sudan | 0.3 | 0.3 | - | - | - | - | 0.3 | 0.3 |
| CENTRAL AMERICA | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| Mexico | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.1 | 0.2 |
| SOUTH AMERICA | 0.3 | 0.4 | - | - | - | - | 0.3 | 0.3 |
| Brazil | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| NORTH AMERICA | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| United States of America | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| EUROPE | 1.4 | 1.4 | 0.2 | 0.3 | - | - | 1.6 | 1.6 |
| European Union | 1.0 | 1.0 | 0.2 | 0.2 | - | - | 1.3 | 1.2 |
| Russian Federation | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.2 |
| OCEANIA | 1.2 | 1.3 | 0.1 | 0.1 | 0.7 | 0.7 | 0.6 | 0.6 |
| Australia | 0.7 | 0.7 | - | - | 0.3 | 0.3 | 0.4 | 0.4 |
| New Zealand | 0.5 | 0.5 | - | - | 0.4 | 0.4 | 0.2 | 0.2 |
| WORLD | 13.5 | 13.8 | 0.8 | 0.9 | 0.8 | 0.9 | 13.5 | 13.8 |
| Developing countries | 10.1 | 10.5 | 0.4 | 0.4 | 0.1 | 0.1 | 10.5 | 10.8 |
| Developed countries | 3.3 | 3.4 | 0.4 | 0.4 | 0.7 | 0.8 | 3.0 | 3.0 |
| LIFDCs | 8.6 | 8.8 | 0.1 | 0.1 | 0.1 | 0.1 | 8.6 | 8.9 |
| LDCs | 1.4 | 1.4 | - | - | - | - | 1.4 | 1.4 |
| NFIDCs | 1.0 | 1.0 | - | - | - | - | 1.0 | 1.1 |

Table A14. Pig meat statistics (million tonnes, carcass weight equivalent)

| | Production | | Imports | | Exports | | Utilization | |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| ASIA | 63.1 | 66.2 | 2.2 | 2.2 | 0.6 | 0.6 | 64.8 | 67.9 |
| China | 54.1 | 56.9 | 0.4 | 0.4 | 0.5 | 0.5 | 54.0 | 56.8 |
| of which Hong Kong, SAR | 0.2 | 0.2 | 0.3 | 0.3 | - | - | 0.4 | 0.5 |
| India | 0.5 | 0.5 | - | - | - | - | 0.5 | 0.5 |
| Indonesia | 0.6 | 0.6 | - | - | - | - | 0.6 | 0.6 |
| Japan | 1.2 | 1.2 | 1.2 | 1.1 | - | - | 2.4 | 2.4 |
| Korea, D.P.R. | 0.2 | 0.2 | 0.1 | 0.1 | - | - | 0.3 | 0.3 |
| Korea, Republic of | 1.0 | 1.1 | 0.3 | 0.2 | - | - | 1.3 | 1.3 |
| Philippines | 1.5 | 1.5 | - | - | - | - | 1.5 | 1.5 |
| Singapore | - | - | 0.1 | 0.1 | - | - | 0.1 | 0.2 |
| Thailand | 0.7 | 0.7 | - | - | - | - | 0.7 | 0.7 |
| Viet Nam | 2.4 | 2.6 | - | - | - | - | 2.4 | 2.6 |
| AFRICA | 0.9 | 0.9 | 0.1 | 0.1 | - | - | 1.0 | 1.0 |
| Madagascar | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| Nigeria | 0.2 | 0.2 | - | - | - | - | 0.2 | 0.2 |
| South Africa | 0.1 | 0.2 | - | - | - | - | 0.2 | 0.2 |
| Uganda | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| CENTRAL AMERICA | 1.5 | 1.5 | 0.5 | 0.5 | 0.1 | 0.1 | 1.9 | 2.0 |
| Cuba | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| Mexico | 1.1 | 1.2 | 0.4 | 0.4 | 0.1 | 0.1 | 1.4 | 1.5 |
| SOUTH AMERICA | 4.5 | 4.8 | 0.1 | 0.1 | 0.7 | 0.8 | 3.9 | 4.1 |
| Argentina | 0.2 | 0.2 | - | - | - | - | 0.2 | 0.2 |
| Brazil | 3.1 | 3.3 | - | - | 0.6 | 0.7 | 2.5 | 2.6 |
| Chile | 0.5 | 0.6 | - | - | 0.1 | 0.1 | 0.4 | 0.5 |
| Colombia | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| NORTH AMERICA | 11.4 | 11.7 | 0.6 | 0.6 | 2.1 | 2.2 | 9.9 | 10.1 |
| Canada | 1.9 | 1.9 | 0.1 | 0.1 | 1.0 | 1.0 | 1.0 | 1.0 |
| United States of America | 9.5 | 9.8 | 0.5 | 0.5 | 1.1 | 1.2 | 8.9 | 9.1 |
| EUROPE | 26.1 | 26.4 | 1.2 | 1.3 | 1.3 | 1.3 | 26.0 | 26.4 |
| Belarus | 0.4 | 0.4 | - | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 |
| European Union | 21.6 | 21.6 | - | - | 1.2 | 1.2 | 20.4 | 20.4 |
| Romania | 0.5 | 0.5 | 0.2 | 0.2 | - | - | 0.7 | 0.7 |
| Russian Federation | 1.8 | 1.9 | 0.6 | 0.7 | - | - | 2.4 | 2.5 |
| Yugoslav Fed. Rep. | 0.6 | 0.6 | - | - | - | - | 0.6 | 0.6 |
| Ukraine | 0.7 | 0.7 | 0.1 | 0.1 | - | - | 0.7 | 0.8 |
| OCEANIA | 0.5 | 0.5 | 0.1 | 0.1 | - | - | 0.6 | 0.6 |
| Australia | 0.4 | 0.4 | 0.1 | 0.1 | - | - | 0.4 | 0.4 |
| Papua New Guinea | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| WORLD | 108.0 | 112.0 | 4.8 | 5.0 | 4.8 | 5.0 | 108.1 | 112.0 |
| Developing countries | 68.4 | 71.9 | 1.7 | 1.7 | 1.3 | 1.5 | 68.8 | 72.1 |
| Developed countries | 39.7 | 40.2 | 3.1 | 3.2 | 3.5 | 3.6 | 39.4 | 39.9 |
| LIFDCs | 58.3 | 61.2 | 0.8 | 0.8 | 0.5 | 0.5 | 58.6 | 61.5 |
| LDCs | 0.8 | 0.8 | 0.1 | 0.1 | - | - | 0.8 | 0.8 |
| NFIDCs | 0.5 | 0.5 | 0.1 | 0.1 | - | - | 0.5 | 0.6 |

Table A15. Poultry meat statistics (million tonnes, carcass weight equivalent)

| | Production | | Imports | | Exports | | Utilization | |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| ASIA | 27.1 | 27.6 | 3.5 | 3.9 | 1.2 | 1.3 | 29.4 | 30.1 |
| China | 14.5 | 14.7 | 1.2 | 1.3 | 0.6 | 0.6 | 15.1 | 15.4 |
| of which Hong Kong, SAR | - | - | 0.5 | 0.5 | 0.2 | 0.2 | 0.4 | 0.4 |
| India | 2.0 | 2.2 | - | - | - | - | 2.0 | 2.2 |
| Indonesia | 1.0 | 1.1 | - | - | - | - | 1.0 | 1.1 |
| Iran, Islamic Republic of | 0.8 | 0.9 | - | - | - | - | 0.8 | 0.9 |
| Japan | 1.3 | 1.3 | 0.9 | 0.9 | - | - | 2.2 | 2.2 |
| Korea, Republic of | 0.6 | 0.6 | 0.1 | 0.1 | - | - | 0.7 | 0.7 |
| Kuwait | - | - | 0.1 | 0.1 | - | 0.1 | 0.1 | 0.1 |
| Malaysia | 1.0 | 1.0 | - | - | - | - | 1.0 | 1.0 |
| Saudi Arabia | 0.6 | 0.6 | 0.4 | 0.5 | - | - | 1.0 | 1.0 |
| Singapore | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| Thailand | 1.1 | 1.1 | - | - | 0.4 | 0.5 | 0.6 | 0.6 |
| Turkey | 0.9 | 1.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.9 | 1.0 |
| Yemen | 0.1 | 0.1 | 0.1 | 0.1 | - | - | 0.2 | 0.2 |
| AFRICA | 3.4 | 3.5 | 0.7 | 0.8 | - | - | 4.0 | 4.2 |
| Angola | - | - | 0.1 | 0.1 | - | - | 0.1 | 0.1 |
| South Africa | 0.9 | 1.0 | 0.3 | 0.3 | - | - | 1.2 | 1.2 |
| CENTRAL AMERICA | 3.6 | 3.8 | 0.9 | 1.0 | - | - | 4.5 | 4.7 |
| Cuba | - | - | 0.1 | 0.1 | - | - | 0.1 | 0.2 |
| Mexico | 2.5 | 2.6 | 0.6 | 0.6 | - | - | 3.1 | 3.2 |
| SOUTH AMERICA | 14.2 | 14.8 | 0.3 | 0.3 | 3.0 | 3.2 | 11.5 | 11.9 |
| Brazil | 9.9 | 10.4 | - | - | 2.8 | 3.0 | 7.1 | 7.4 |
| Venezuela | 0.8 | 0.8 | 0.2 | 0.2 | - | - | 1.0 | 1.0 |
| NORTH AMERICA | 20.1 | 20.5 | 0.2 | 0.2 | 3.1 | 3.2 | 17.4 | 17.5 |
| Canada | 1.2 | 1.2 | 0.2 | 0.2 | 0.1 | 0.1 | 1.2 | 1.2 |
| United States of America | 19.0 | 19.3 | 0.1 | 0.1 | 3.0 | 3.0 | 16.2 | 16.2 |
| EUROPE | 13.7 | 14.3 | 2.5 | 2.5 | 0.8 | 0.9 | 15.4 | 15.9 |
| European Union | 10.7 | 10.8 | 0.7 | 0.7 | 0.8 | 0.9 | 10.5 | 10.6 |
| Romania | 0.4 | 0.4 | 0.2 | 0.1 | - | - | 0.5 | 0.5 |
| Russian Federation | 1.6 | 1.9 | 1.3 | 1.2 | - | - | 2.9 | 3.1 |
| Ukraine | 0.6 | 0.7 | 0.1 | 0.1 | - | - | 0.7 | 0.8 |
| OCEANIA | 1.0 | 1.0 | - | - | - | - | 1.0 | 1.0 |
| Australia | 0.8 | 0.9 | - | - | - | - | 0.8 | 0.8 |
| New Zealand | 0.1 | 0.1 | - | - | - | - | 0.1 | 0.1 |
| WORLD | 83.1 | 85.5 | 8.2 | 8.7 | 8.2 | 8.7 | 83.2 | 85.4 |
| Developing countries | 45.4 | 46.9 | 4.1 | 4.6 | 4.2 | 4.5 | 45.4 | 47.0 |
| Developed countries | 37.7 | 38.7 | 4.0 | 4.0 | 4.0 | 4.2 | 37.8 | 38.5 |
| LIFDCs | 21.9 | 22.4 | 2.2 | 2.4 | 0.6 | 0.7 | 23.4 | 24.2 |
| LDCs | 1.1 | 1.2 | 0.4 | 0.4 | - | - | 1.5 | 1.6 |
| NFIDCs | 3.6 | 3.8 | 0.4 | 0.5 | - | - | 4.0 | 4.3 |

Table A16. Total meat statistics¹ (million tonnes, carcass weight equivalent)

| | Production | | Imports | | Exports | | Utilization | |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| ASIA | 117.2 | 121.9 | 8.1 | 8.8 | 2.5 | 2.7 | 122.9 | 128.0 |
| China | 82.0 | 85.6 | 1.9 | 2.0 | 1.2 | 1.3 | 82.6 | 86.3 |
| of which Hong Kong, SAR | 0.2 | 0.2 | 0.9 | 1.0 | 0.2 | 0.2 | 1.0 | 1.0 |
| India | 6.7 | 7.0 | - | - | 0.5 | 0.5 | 6.2 | 6.5 |
| Iran, Islamic Republic of | 1.7 | 1.8 | 0.1 | 0.1 | - | - | 1.8 | 1.9 |
| Japan | 3.1 | 3.1 | 2.7 | 2.7 | - | - | 5.8 | 5.8 |
| Korea, Republic of | 1.9 | 1.9 | 0.6 | 0.6 | - | - | 2.5 | 2.5 |
| Malaysia | 1.2 | 1.2 | 0.2 | 0.3 | - | - | 1.4 | 1.5 |
| Pakistan | 2.0 | 2.0 | - | - | - | - | 2.0 | 2.0 |
| Philippines | 2.4 | 2.4 | 0.2 | 0.2 | - | - | 2.6 | 2.6 |
| Saudi Arabia | 0.7 | 0.7 | 0.6 | 0.7 | - | - | 1.3 | 1.4 |
| Singapore | 0.1 | 0.1 | 0.3 | 0.3 | - | - | 0.4 | 0.4 |
| Thailand | 2.0 | 2.0 | - | - | 0.5 | 0.5 | 1.6 | 1.6 |
| Turkey | 1.6 | 1.6 | 0.1 | 0.1 | 0.1 | 0.1 | 1.6 | 1.6 |
| Viet Nam | 3.1 | 3.3 | - | - | - | - | 3.1 | 3.3 |
| AFRICA | 12.4 | 12.7 | 1.5 | 1.6 | 0.1 | 0.1 | 13.8 | 14.2 |
| Algeria | 0.6 | 0.6 | 0.1 | 0.1 | - | - | 0.7 | 0.7 |
| Egypt | 1.3 | 1.4 | 0.3 | 0.3 | - | - | 1.6 | 1.7 |
| Nigeria | 1.1 | 1.1 | - | - | - | - | 1.1 | 1.1 |
| South Africa | 1.9 | 1.9 | 0.3 | 0.3 | - | - | 2.2 | 2.3 |
| CENTRAL AMERICA | 7.6 | 7.8 | 1.9 | 2.1 | 0.2 | 0.2 | 9.3 | 9.7 |
| Cuba | 0.2 | 0.2 | 0.2 | 0.2 | - | - | 0.4 | 0.4 |
| Mexico | 5.4 | 5.6 | 1.4 | 1.5 | 0.1 | 0.1 | 6.7 | 6.9 |
| SOUTH AMERICA | 33.7 | 35.1 | 0.6 | 0.7 | 6.6 | 7.2 | 27.7 | 28.6 |
| Argentina | 4.3 | 4.4 | - | - | 0.6 | 0.7 | 3.7 | 3.8 |
| Brazil | 21.9 | 22.9 | - | - | 5.0 | 5.5 | 16.9 | 17.4 |
| Chile | 1.3 | 1.4 | 0.2 | 0.2 | 0.2 | 0.3 | 1.2 | 1.4 |
| Colombia | 1.6 | 1.7 | - | - | - | - | 1.6 | 1.7 |
| Uruguay | 0.7 | 0.7 | - | - | 0.5 | 0.5 | 0.2 | 0.3 |
| NORTH AMERICA | 45.2 | 46.1 | 2.5 | 2.6 | 6.3 | 6.5 | 41.4 | 42.1 |
| Canada | 4.5 | 4.4 | 0.5 | 0.5 | 1.6 | 1.6 | 3.3 | 3.3 |
| United States of America | 40.7 | 41.6 | 2.0 | 2.0 | 4.7 | 4.9 | 38.0 | 38.7 |
| EUROPE | 53.6 | 54.4 | 5.7 | 5.9 | 2.5 | 2.6 | 56.8 | 57.7 |
| Belarus | 0.8 | 0.8 | 0.1 | 0.1 | 0.1 | 0.2 | 0.7 | 0.8 |
| European Union | 42.2 | 42.4 | 1.5 | 1.6 | 2.2 | 2.3 | 41.5 | 41.7 |
| Romania | 1.2 | 1.2 | 0.4 | 0.4 | - | - | 1.6 | 1.6 |
| Russian Federation | 5.3 | 5.6 | 2.7 | 2.8 | - | - | 8.0 | 8.3 |
| Ukraine | 1.8 | 2.0 | 0.2 | 0.2 | - | - | 2.0 | 2.1 |
| OCEANIA | 6.0 | 6.3 | 0.2 | 0.3 | 2.6 | 2.7 | 3.7 | 3.9 |
| Australia | 4.2 | 4.4 | 0.1 | 0.1 | 1.7 | 1.8 | 2.6 | 2.7 |
| New Zealand | 1.4 | 1.5 | - | - | 0.9 | 0.9 | 0.5 | 0.6 |
| WORLD | 275.7 | 284.3 | 20.6 | 21.9 | 20.7 | 22.0 | 275.6 | 284.2 |
| Developing countries | 163.7 | 170.3 | 8.9 | 9.8 | 9.3 | 10.1 | 163.3 | 169.9 |
| Developed countries | 112.1 | 114.2 | 11.6 | 12.1 | 11.4 | 11.9 | 112.3 | 114.3 |
| LIFDCs | 110.8 | 115.2 | 4.1 | 4.5 | 1.8 | 2.0 | 113.0 | 117.8 |
| LDCs | 7.0 | 7.1 | 0.6 | 0.7 | - | - | 7.5 | 7.8 |
| NFDCs | 8.6 | 8.9 | 0.9 | 1.1 | - | - | 9.5 | 9.9 |

¹ Including "other meat"

Table A17. Milk and milk products statistics (million tonnes, milk equivalent)

| | Production | | | Imports | | | Exports | | |
|---------------------------|--------------|-----------------------|-----------------------|-------------|-----------------------|-----------------------|-------------|-----------------------|-----------------------|
| | 2005 | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2005 | 2006 <i>estim.</i> | 2007 <i>f'cast</i> | 2005 | 2006 <i>estim.</i> | 2007 <i>f'cast</i> |
| ASIA | 214.9 | 226.2 | 238.1 | 21.3 | 21.7 | 21.8 | 3.5 | 3.6 | 3.6 |
| China | 32.4 | 38.8 | 45.3 | 3.1 | 3.2 | 3.2 | 0.2 | 0.2 | 0.2 |
| India ¹ | 95.1 | 98.4 | 101.9 | 0.1 | 0.1 | 0.1 | 0.4 | 0.6 | 0.6 |
| Indonesia | 0.7 | 0.7 | 0.7 | 1.7 | 1.8 | 1.9 | 0.2 | 0.2 | 0.2 |
| Iran, Islamic Republic of | 7.1 | 7.5 | 8.0 | 0.3 | 0.3 | 0.3 | - | - | - |
| Japan | 8.3 | 8.2 | 8.2 | 1.5 | 1.5 | 1.6 | - | - | - |
| Korea, Republic of | 2.2 | 2.2 | 2.2 | 0.6 | 0.6 | 0.6 | - | - | - |
| Malaysia | - | - | - | 1.5 | 1.6 | 1.6 | 0.2 | 0.2 | 0.2 |
| Pakistan | 29.5 | 30.4 | 31.3 | 0.1 | 0.1 | 0.1 | - | - | - |
| Philippines | - | - | - | 1.6 | 1.7 | 1.7 | 0.2 | 0.2 | 0.2 |
| Saudi Arabia | 1.2 | 1.2 | 1.2 | 1.9 | 1.9 | 1.9 | 0.2 | 0.2 | 0.2 |
| Singapore | - | - | - | 1.2 | 1.2 | 1.2 | 0.5 | 0.5 | 0.5 |
| Thailand | 0.9 | 1.0 | 1.0 | 1.3 | 1.4 | 1.4 | 0.4 | 0.4 | 0.4 |
| Turkey | 10.5 | 10.5 | 10.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| AFRICA | 31.2 | 31.0 | 31.0 | 6.2 | 6.2 | 6.3 | 0.4 | 0.4 | 0.4 |
| Algeria | 1.7 | 1.8 | 1.8 | 2.2 | 2.2 | 2.2 | - | - | - |
| Egypt | 5.5 | 5.1 | 4.7 | 0.6 | 0.6 | 0.7 | - | - | - |
| Kenya | 3.0 | 2.9 | 3.0 | - | - | - | - | - | - |
| South Africa | 2.9 | 2.9 | 2.9 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Sudan | 5.1 | 5.1 | 5.1 | 0.1 | 0.1 | 0.1 | - | - | - |
| Tunisia | 1.0 | 1.0 | 1.0 | 0.1 | 0.1 | 0.1 | - | - | - |
| CENTRAL AMERICA | 15.9 | 16.0 | 16.3 | 4.5 | 4.5 | 4.5 | 0.3 | 0.3 | 0.3 |
| Costa Rica | 0.8 | 0.8 | 0.9 | - | - | - | 0.1 | 0.1 | 0.1 |
| Mexico | 10.0 | 10.1 | 10.2 | 2.9 | 2.9 | 2.9 | 0.1 | 0.1 | 0.1 |
| SOUTH AMERICA | 51.4 | 53.2 | 54.6 | 1.7 | 1.7 | 1.8 | 3.3 | 3.6 | 3.7 |
| Argentina | 10.1 | 10.9 | 11.5 | 0.1 | 0.1 | 0.1 | 1.8 | 2.0 | 2.1 |
| Brazil | 24.7 | 25.5 | 26.1 | 0.4 | 0.4 | 0.5 | 0.3 | 0.4 | 0.4 |
| Colombia | 6.8 | 6.8 | 6.9 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Uruguay | 1.6 | 1.7 | 1.7 | - | - | - | 0.6 | 0.6 | 0.6 |
| Venezuela | 1.3 | 1.3 | 1.3 | 0.7 | 0.7 | 0.7 | - | - | - |
| NORTH AMERICA | 88.2 | 90.6 | 90.9 | 3.0 | 3.0 | 2.9 | 5.0 | 4.7 | 4.6 |
| Canada | 8.1 | 8.0 | 7.9 | 0.8 | 0.8 | 0.8 | 0.4 | 0.4 | 0.4 |
| United States of America | 80.3 | 82.5 | 83.0 | 2.2 | 2.2 | 2.2 | 4.7 | 4.3 | 4.2 |
| EUROPE | 215.9 | 214.5 | 215.4 | 5.3 | 4.9 | 4.9 | 16.8 | 16.3 | 16.2 |
| European Union | 146.9 | 144.9 | 145.1 | 2.0 | 1.8 | 1.8 | 13.7 | 12.8 | 12.6 |
| Romania | 6.2 | 6.1 | 6.2 | 0.1 | 0.1 | 0.1 | - | - | - |
| Russian Federation | 31.0 | 31.6 | 32.0 | 2.4 | 2.3 | 2.3 | 0.2 | 0.2 | 0.3 |
| Ukraine | 13.8 | 13.3 | 13.5 | - | - | - | 1.3 | 1.1 | 1.1 |
| OCEANIA | 24.7 | 25.2 | 25.6 | 0.7 | 0.7 | 0.7 | 15.1 | 16.4 | 16.5 |
| Australia ² | 10.1 | 10.1 | 10.0 | 0.5 | 0.5 | 0.5 | 5.6 | 5.8 | 5.7 |
| New Zealand ³ | 14.5 | 15.0 | 15.5 | 0.1 | 0.1 | 0.1 | 9.5 | 10.6 | 10.8 |
| WORLD | 642.2 | 656.6 | 671.6 | 42.7 | 42.7 | 42.1 | 44.5 | 45.4 | 45.5 |
| Developing countries | 286.4 | 299.2 | 312.6 | 31.5 | 32.0 | 31.6 | 7.3 | 7.7 | 7.9 |
| Developed countries | 355.8 | 357.4 | 359.0 | 11.2 | 10.7 | 10.5 | 37.2 | 37.7 | 37.6 |
| LIFDCs | 209.5 | 219.9 | 231.2 | 13.0 | 13.4 | 13.2 | 1.6 | 1.8 | 1.8 |
| LDCs | 21.5 | 21.6 | 21.8 | 2.0 | 2.0 | 2.1 | 0.1 | 0.1 | 0.1 |
| NFIDCs | 46.3 | 47.3 | 48.2 | 3.6 | 3.8 | 3.7 | 0.3 | 0.3 | 0.3 |

¹ Dairy years starting April of the year stated.

² Dairy years ending June of the year stated.

³ Dairy years ending May of the year stated.

Note: The solids content method is used to calculate milk equivalents. ME multiplication factors used: butter, 6.60; cheese (from whole cow milk), 4.40; cheese (from skim cow milk), 2.00; milk powder, 7.60. Regarding assumptions and approaches and in calculation of milk equivalents please refer to Bulletin of IDF 390 (March 2004).

Table A18. Sugar statistics (million tonnes, raw value)

| | Production | | Utilization | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> | 2005/06 <i>estim.</i> | 2006/07 <i>f'cast</i> |
| ASIA | 50.4 | 57.5 | 66.2 | 67.6 |
| China | 9.8 | 11.3 | 12.7 | 13.0 |
| India | 21.0 | 24.0 | 20.5 | 20.9 |
| Indonesia | 2.3 | 2.5 | 4.1 | 4.1 |
| Japan | 0.9 | 0.9 | 2.3 | 2.4 |
| Pakistan | 3.2 | 3.2 | 4.3 | 4.4 |
| Thailand | 5.3 | 6.9 | 2.5 | 2.5 |
| Turkey | 2.2 | 2.2 | 2.0 | 2.1 |
| AFRICA | 10.4 | 10.6 | 14.8 | 15.0 |
| Egypt | 1.7 | 1.8 | 2.7 | 2.8 |
| Kenya | 0.6 | 0.6 | 0.8 | 0.8 |
| Mauritius | 0.6 | 0.6 | 0.8 | 0.8 |
| South Africa | 2.6 | 2.4 | 1.6 | 1.6 |
| Sudan | 0.8 | 0.9 | 0.8 | 0.8 |
| Swaziland | 0.7 | 0.7 | 0.2 | 0.2 |
| CENTRAL AMERICA | 11.7 | 12.4 | 9.2 | 9.3 |
| Cuba | 1.3 | 1.4 | 0.7 | 0.7 |
| Dominican Republic | 0.5 | 0.6 | 0.4 | 0.4 |
| Guatemala | 2.0 | 2.2 | 0.7 | 0.7 |
| Mexico | 5.5 | 5.8 | 5.6 | 5.6 |
| SOUTH AMERICA | 36.8 | 38.9 | 18.2 | 18.4 |
| Brazil | 29.0 | 31.0 | 11.1 | 11.3 |
| NORTH AMERICA | 6.8 | 7.7 | 10.5 | 10.7 |
| United States of America | 6.7 | 7.6 | 9.1 | 9.3 |
| EUROPE | 27.4 | 23.0 | 29.5 | 29.6 |
| European Union | 21.4 | 16.5 | 17.8 | 17.8 |
| Russian Federation | 2.7 | 3.1 | 6.5 | 6.6 |
| Ukraine | 2.0 | 2.1 | 2.3 | 2.3 |
| OCEANIA | 5.6 | 5.3 | 1.5 | 1.6 |
| Australia | 5.2 | 4.9 | 1.2 | 1.2 |
| Fiji | 0.3 | 0.4 | 0.1 | 0.1 |
| WORLD | 149.1 | 155.5 | 149.9 | 152.1 |
| Developing countries | 106.1 | 116.4 | 102.4 | 104.3 |
| Developed countries | 43.0 | 39.1 | 47.5 | 47.9 |

Table A19. Selected international prices of wheat and coarse grains

| Period | International Prices (US\$ per tonne) | | | | | |
|---------------------------|---|---|-------------------------------------|--------------------------------|------------------------|--------------------------------|
| | Wheat | | | Maize | | Sorghum |
| | US No.2 Hard Red Winter Ord. Prot. ¹ | US Soft Red Winter No.2 ² | Argentina Trigo Pan ³ | US No.2 Yellow ² | Argentina ³ | US No.2 Yellow ² |
| Annual (July/June) | | | | | | |
| 2002/2003 | 161 | 138 | 145 | 107 | 102 | 112 |
| 2003/2004 | 161 | 149 | 154 | 115 | 109 | 118 |
| 2004/2005 | 154 | 138 | 123 | 97 | 90 | 99 |
| 2005/2006 | 175 | 138 | 138 | 104 | 101 | 108 |
| Monthly | | | | | | |
| 2005 – November | 167 | 133 | 134 | 97 | 91 | 94 |
| 2005 – December | 168 | 138 | 130 | 103 | 95 | 104 |
| 2006 – January | 171 | 143 | 133 | 103 | 103 | 107 |
| 2006 – February | 183 | 150 | 137 | 107 | 105 | 110 |
| 2006 – March | 179 | 142 | 135 | 105 | 99 | 109 |
| 2006 – April | 187 | 141 | 135 | 108 | 106 | 114 |
| 2006 – May | 201 | 149 | 146 | 111 | 112 | 123 |
| 2005 – June | 203 | 139 | 156 | 109 | 107 | 118 |
| 2006 – July | 213 | 146 | 159 | 114 | 114 | 129 |
| 2006 – August | 201 | 145 | 160 | 113 | 111 | 121 |
| 2006 – September | 208 | 165 | 167 | 119 | 114 | 128 |
| 2006 – October | 218 | 196 | 191 | 141 | 135 | 154 |
| 2006 – November | 219 | 192 | 185 | 166 | 171 | 169 |

¹ Delivered United States f.o.b Gulf.² Delivered United States Gulf.³ Up River f.o.b.

Sources: International Grain Council and USDA.

Table A20. Wheat and maize futures prices (US\$/tonne)

| | Dec | | March | | May | | July | |
|--------------|----------|----------|------------|------------|----------|----------|-----------|-----------|
| | Dec 2006 | Dec 2005 | March 2007 | March 2006 | May 2007 | May 2006 | July 2007 | July 2006 |
| Wheat | | | | | | | | |
| Oct 24 | 192 | 119 | 198 | 124 | 188 | 127 | 172 | 130 |
| Oct 31 | 177 | 116 | 185 | 122 | 178 | 125 | 168 | 128 |
| Nov 7 | 183 | 114 | 191 | 120 | 186 | 123 | 176 | 126 |
| Nov 14 | 179 | 115 | 186 | 121 | 185 | 124 | 174 | 127 |
| Nov 21 | 176 | 110 | 184 | 115 | 185 | 119 | 174 | 122 |
| Nov 28 | 179 | 109 | 187 | 115 | 188 | 119 | 181 | 122 |
| Maize | | | | | | | | |
| Oct 24 | 128 | 79 | 132 | 84 | 135 | 87 | 137 | 90 |
| Oct 31 | 126 | 77 | 132 | 83 | 134 | 86 | 137 | 89 |
| Nov 7 | 138 | 77 | 144 | 82 | 147 | 86 | 149 | 88 |
| Nov 14 | 141 | 77 | 146 | 83 | 148 | 86 | 149 | 89 |
| Nov 21 | 142 | 75 | 149 | 81 | 150 | 84 | 150 | 87 |
| Nov 28 | 145 | 74 | 151 | 79 | 154 | 83 | 155 | 86 |

Source: Chicago Board of Trade

Table A21. Selected international prices for rice and price indices

| Period | International Prices (US\$ per tonne) | | | | Total | FAO Indices (1998-2000=100) | | | |
|----------------------------------|--|-----------------------------|-------------------------------|----------------------------------|-------|--------------------------------|----------------|----------|----------|
| | Thai 100% B ¹ | Thai broken ² | US Long grain ³ | Pakistan Basmati ⁴ | | Indica | | Japonica | Aromatic |
| | | | | | | High quality | Low quality | | |
| Annual (January/December) | | | | | | | | | |
| 2002 | 197 | 151 | 207 | 366 | 72 | 73 | 75 | 67 | 74 |
| 2003 | 201 | 151 | 284 | 357 | 82 | 79 | 81 | 82 | 91 |
| 2004 | 244 | 207 | 372 | 468 | 104 | 101 | 110 | 104 | 96 |
| 2005 | 291 | 219 | 319 | 473 | 103 | 104 | 115 | 92 | 94 |
| Monthly | | | | | | | | | |
| 2005 – November | 283 | 211 | 324 | 488 | 101 | 103 | 111 | 92 | 92 |
| 2005 – December | 286 | 206 | 327 | 500 | 101 | 103 | 109 | 94 | 92 |
| 2006 – January | 303 | 212 | 346 | 500 | 103 | 106 | 110 | 96 | 94 |
| 2006 – February | 307 | 212 | 370 | 500 | 105 | 108 | 110 | 101 | 96 |
| 2006 – March | 308 | 212 | 373 | 500 | 106 | 109 | 110 | 102 | 96 |
| 2006 – April | 309 | 215 | 373 | 500 | 106 | 109 | 111 | 101 | 98 |
| 2006 – May | 316 | 215 | 375 | 513 | 108 | 111 | 113 | 102 | 101 |
| 2006 – June | 318 | 213 | 379 | 525 | 108 | 112 | 112 | 101 | 102 |
| 2006 – July | 321 | 216 | 379 | 525 | 109 | 114 | 115 | 100 | 105 |
| 2006 – August | 318 | 220 | 415 | 525 | 110 | 116 | 116 | 100 | 106 |
| 2006 – September | 314 | 222 | 423 | 525 | 111 | 119 | 117 | 101 | 105 |
| 2006 – October | 306 | 221 | 424 | 525 | 111 | 120 | 115 | 102 | 103 |
| 2006 – November | 302 | 217 | 430 | 525 | 113 | 121 | 118 | 103 | 102 |

¹ White rice, 100 percent second grade, f.o.b. Bangkok, indicative traded prices.

² A1 super, f.o.b. Bangkok, indicative traded prices.

³ United States No.2, 4 percent broken f.o.b.

⁴ Basmati: ordinary, f.o.b. Karachi.

Note: The FAO Rice Price Index is based on 16 rice export quotations. 'Quality' is defined by the percentage of broken kernels, with high (low) quality referring to rice with less (equal to or more) than 20 percent broken. The subindex for Aromatic Rice follows movements in prices of Basmati and Fragrant rice.

Sources: FAO for indices. Rice prices: Jackson Son & Co. (London) Ltd. and other public sources.

Table A22. Selected international prices for oilcrop products and price indices

| Period | International Prices (US\$ per tonne) | | | | | FAO Indices (1998-2000=100) | | |
|-----------------------------------|---------------------------------------|--------------------------|-----------------------|------------------------------|-------------------------------|-----------------------------|--------------------------|--------------------|
| | Soybeans ¹ | Soybean Oil ² | Palm Oil ³ | Soybean Cake ⁴ | Rapeseed Meal ⁵ | Oilseeds | Edible/Soap Fats/Oils | Oilcakes/ Meals |
| Annual (October/September) | | | | | | | | |
| 2001/02 | 201 | 411 | 357 | 175 | 129 | 95 | 84 | 111 |
| 2002/03 | 243 | 539 | 428 | 191 | 141 | 114 | 102 | 117 |
| 2003/04 | 322 | 632 | 488 | 257 | 178 | 143 | 118 | 144 |
| 2004/05 | 275 | 545 | 419 | 212 | 130 | 125 | 110 | 132 |
| 2005/06 | 259 | 572 | 451 | 202 | 130 | 120 | 112 | 161 |
| Monthly | | | | | | | | |
| 2005 – October | 258 | 582 | 444 | 202 | 129 | 118 | 113 | 140 |
| 2005 – November | 256 | 558 | 445 | 199 | 124 | 116 | 110 | 144 |
| 2005 – December | 260 | 539 | 428 | 207 | 135 | 117 | 107 | 148 |
| 2006 – January | 257 | 534 | 424 | 205 | 136 | 116 | 107 | 149 |
| 2006 – February | 256 | 533 | 443 | 204 | 135 | 116 | 108 | 149 |
| 2006 – March | 256 | 539 | 439 | 192 | 133 | 117 | 109 | 147 |
| 2006 – April | 259 | 541 | 440 | 193 | 129 | 120 | 111 | 151 |
| 2006 – May | 267 | 584 | 439 | 197 | 122 | 125 | 114 | 169 |
| 2006 – June | 267 | 599 | 437 | 200 | 114 | 125 | 114 | 183 |
| 2006 – July | 272 | 628 | 469 | 202 | 124 | 127 | 117 | 187 |
| 2006 – August | 255 | 632 | 509 | 208 | 133 | 123 | 121 | 188 |
| 2006 – September | 251 | 600 | 497 | 215 | 143 | 121 | 118 | 181 |
| 2006 – October | 269 | 613 | 506 | 223 | 147 | 127 | 120 | 182 |

¹ Soybeans (US, No.2 yellow, c.i.f. Rotterdam).

² Soybean oil (Dutch, fob ex-mill).

³ Palm oil (Crude, c.i.f. Northwest Europe).

⁴ Soybean cake (Pellets, 44/45 percent, Argentina, c.i.f. Rotterdam).

⁵ Rapeseed meal (34 percent, Hamburg, f.o.b. ex-mill).

Note: The FAO indices are calculated using the Laspeyres formula; the weights used are the average export values of each commodity for the 1998-2000 period. The indices are based on the international prices of five selected seeds, ten selected oils and fats and seven selected cakes and meals.

Sources: FAO and Oil World.

Table A23. Selected international prices for milk products and dairy price index

| PERIOD | International Prices (US\$ per tonne) | | | | FAO Dairy Price Index |
|----------------------------------|---------------------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------|
| | Butter ¹ | Skim Milk Powder ² | Whole Milk Powder ³ | Cheddar Cheese ⁴ | (1998-2000=100) |
| Annual (January/December) | | | | | |
| 2002 | 1 056 | 1 380 | 1 389 | 1 690 | 86 |
| 2003 | 1 372 | 1 761 | 1 804 | 1 864 | 105 |
| 2004 | 1 788 | 2 018 | 2 021 | 2 611 | 130 |
| 2005 | 2 128 | 2 223 | 2 261 | 2 838 | 145 |
| 2006 (January/October) | 1 768 | 2 132 | 2 124 | 2 671 | 135 |
| Monthly | | | | | |
| 2005 – October | 2 119 | 2 250 | 2 300 | 2 900 | 147 |
| 2005 – November | 2 050 | 2 238 | 2 269 | 2 900 | 146 |
| 2005 – December | 2 000 | 2 175 | 2 250 | 2 875 | 143 |
| 2006 – January | 1 950 | 2 163 | 2 175 | 2 750 | 139 |
| 2006 – February | 1 932 | 2 182 | 2 188 | 2 750 | 140 |
| 2006 – March | 1 863 | 2 150 | 2 157 | 2 700 | 137 |
| 2006 – April | 1 800 | 2 100 | 2 125 | 2 650 | 134 |
| 2006 – May | 1 763 | 2 075 | 2 100 | 2 657 | 133 |
| 2006 – June | 1 725 | 2 050 | 2 063 | 2 657 | 132 |
| 2006 – July | 1 700 | 2 075 | 2 100 | 2 657 | 133 |
| 2006 – August | 1 638 | 2 088 | 2 088 | 2 625 | 131 |
| 2006 – September | 1 638 | 2 169 | 2 082 | 2 600 | 132 |
| 2006 – October | 1 675 | 2 263 | 2 163 | 2 625 | 136 |

¹ Butter, 82 percent butterfat, f.o.b. Oceania; indicative traded prices.

² Skim Milk Powder, 1.25 percent butterfat, f.o.b. Oceania; indicative traded prices.

³ Whole Milk Powder, 26 percent butterfat, f.o.b. Oceania; indicative traded prices.

⁴ Cheddar Cheese, 39 percent max. moisture, f.o.b. Oceania; indicative traded prices.

Note: The FAO Dairy Price Index is derived from a trade-weighted average of a selection of representative internationally-traded dairy products.

Sources: FAO for indices. Product prices: Mid-point of price ranges reported by Dairy Market News (USDA).

Table A24. Selected international meat prices

| PERIOD | Pig Meat Prices (US\$ per tonne) | | | Bovine Meat Prices (US\$ per tonne) | | | |
|-------------------------|----------------------------------|--------|-------|-------------------------------------|-----------|-------|-----------|
| | United States | BRAZIL | JAPAN | United States | ARGENTINA | JAPAN | AUSTRALIA |
| Annual (Jan/Dec) | | | | | | | |
| 2002 | 1 796 | 1 012 | 4 887 | 2 765 | 1 309 | 4 244 | 2 127 |
| 2003 | 1 886 | 1 112 | 5 268 | 3 396 | 1 484 | 5 022 | 2 110 |
| 2004 | 2 071 | 1 521 | 5 626 | 3 788 | 1 549 | 5 675 | 2 513 |
| 2005 | 2 161 | 1 868 | 5 093 | 4 173 | 1 673 | 5 764 | 2 617 |
| Monthly | | | | | | | |
| 2005 – September | 1 991 | 1 801 | 4 738 | 3 899 | 1 766 | 5 754 | 2 651 |
| 2005 – October | 2 052 | 1 860 | 4 579 | 4 182 | 1 641 | 5 658 | 2 568 |
| 2005 – November | 1 983 | 1 858 | 4 440 | 4 025 | 1 783 | 5 596 | 2 579 |
| 2005 – December | 1 883 | 1 817 | 4 437 | 4 301 | 1 868 | 5 635 | 2 541 |
| 2006 – January | 2 053 | 1 834 | 4 556 | 4 430 | 1 965 | 5 786 | 2 505 |
| 2006 – February | 1 900 | 1 820 | 4 462 | 4 341 | 1 913 | 5 615 | 2 524 |
| 2006 – March | 1 858 | 1 626 | 4 485 | 4 233 | 1 836 | 5 508 | 2 447 |
| 2006 – April | 1 829 | 1 978 | 4 504 | 3 966 | 1 851 | 5 624 | 2 482 |
| 2006 – May | 1 996 | 2 120 | 4 715 | 3 800 | 3 790 | 5 761 | 2 485 |
| 2006 – June | 1 975 | 2 106 | 4 597 | 3 845 | 2 814 | 5 566 | 2 453 |
| 2006 – July | 1 948 | 2 006 | 4 587 | 3 817 | 2 296 | 5 667 | 2 538 |
| 2006 – August | 2 044 | 1 981 | 4 544 | 3 981 | 2 151 | 5 691 | 2 593 |
| 2006 – September | 2 059 | 1 953 | 4 497 | 4 226 | n.a. | 5 700 | 2 590 |

Table A25. Selected international meat prices and fao meat price indices (1998-2000=100)

| | Poultry Meat Prices(US\$ per tonne) | | | FAO Indices ¹ (1998-2000=100) | | | |
|-------------------------|-------------------------------------|-------|--------|--|-------------|----------|--------------|
| | United States | JAPAN | BRAZIL | Total Meat | Bovine Meat | Pig Meat | Poultry Meat |
| Annual (Jan/Dec) | | | | | | | |
| 2002 | 582 | 1710 | 850 | 96 | 96 | 93 | 89 |
| 2003 | 612 | 1631 | 888 | 105 | 107 | 99 | 90 |
| 2004 | 757 | 2020 | 1033 | 118 | 122 | 107 | 109 |
| 2005 | 847 | 2062 | 1228 | 121 | 129 | 104 | 121 |
| Monthly | | | | | | | |
| 2005 – September | 971 | 2194 | 1300 | 118 | 127 | 96 | 132 |
| 2005 – October | 993 | 2202 | 1354 | 118 | 127 | 97 | 134 |
| 2005 – November | 968 | 2203 | 1394 | 116 | 126 | 93 | 134 |
| 2005 – December | 863 | 2278 | 1458 | 116 | 128 | 91 | 133 |
| 2006 – January | 739 | 2252 | 1314 | 118 | 131 | 96 | 122 |
| 2006 – February | 686 | 2231 | 1228 | 115 | 129 | 91 | 116 |
| 2006 – March | 618 | 2200 | 1178 | 112 | 125 | 91 | 110 |
| 2006 – April | 572 | 1949 | 1083 | 111 | 124 | 90 | 100 |
| 2006 – May | 661 | 1798 | 1103 | 117 | 133 | 96 | 102 |
| 2006 – June | 712 | 1692 | 1140 | 114 | 127 | 95 | 104 |
| 2006 – July | 771 | 1736 | 1140 | 114 | 126 | 94 | 108 |
| 2006 – August | 871 | 1733 | 1134 | 116 | 128 | 96 | 112 |
| 2006 – September | 884 | 1724 | 1200 | n.a. | n.a. | 96 | 115 |

¹ Composition of the different indices:

Poultry Meat: USA - Broiler cuts, export unit value - Foreign Trade Statistics of the United States Census Bureau; Japan - Broiler Import Price, cif; Frozen, other than leg quarters - A.L.I.C.; Brazil - Export unit value for chicken, fob - A.B.E.F.

Pig Meat: USA - Export unit value for frozen product - Foreign Trade Statistics of the United States Census Bureau; Brazil - Export unit value for pig meat, fob - A.B.I.P.E.C.; Japan - Pork Import Price (cif): Frozen Boneless Cuts - A.L.I.C.

Bovine Meat: USA - Frozen beef, export unit value - Foreign Trade Statistics of United States Census Bureau; Japan - Beef Import Price (c.i.f.): Boneless Cuts, fresh or chilled - A.L.I.C.; Argentina: Export unit value of frozen beef cuts - S.A.G.PyA.; Australia - (Up to Oct 02) cow forequarters frozen boneless, 85 percent chemical lean, cif United States port (East Coast) ex-dock, (From Nov 02) chucks and cow forequarters - World Bank.

Table A26. Selected international commodity prices

| | Currency and Unit | Effective Date | Latest Quotation | 1 month ago | 1 year ago | Average 2000-2004 |
|-------------------------------------|-------------------|----------------|------------------|-------------|------------|-------------------|
| Sugar (I.S.A. daily price) | US cents per lb | 22-11-06 | 11.54 | 11.91 | 11.68 | 7.59 |
| Coffee (I.C.O. daily price) | US cents per lb | 24-11-06 | 102.75 | 97.85 | 85.93 | 54.3 |
| Cocoa (I.C.C.O. daily price) | US cents per lb | 22-11-06 | 71.46 | 70.11 | 65.04 | 64.0 |
| Tea (FAO Tea Composite Price) | US\$ per kg | 14-11-06 | 1.81 | 1.70 | 1.64 | 1.60 |
| Cotton (COTLOOK, index "A" 1-3/32") | US cents per lb | 10-11-06 | 57.65 | 56.50 | 56.80 | 55.68 |
| Jute "BWD" f.o.b. Mongla at sight | US\$ per tonne | 24-11-06 | 325.00 | 325.00 | 380.00 | 279.13 |
| Wool (64's, London) | Pence per kg | 10-11-06 | 455 | 387 | 398 | 422 |

Table A27. Ocean freight rates for wheat (US\$/tonne)

| PERIOD | From US Gulf ports to: | | | |
|---------------------------|------------------------|---------------------------------|--------------------|-------------------------|
| | EU ¹ | CIS Black Sea ^{1 2} | Egypt ¹ | Bangladesh ¹ |
| Annual (July/June) | | | | |
| 2002/2003 | 12.45 | 40.97 | 16.67 | 22.50 |
| 2003/2004 | 28.27 | 41.89 | 36.96 | 48.50 |
| 2004/2005 | 34.50 | 41.18 | 46.50 | 65.42 |
| 2005/2006 | 20.75 | 31.82 | 31.92 | 45.50 |
| Monthly | | | | |
| 2005 – November | 23.00 | 35.00 | 35.00 | 49.00 |
| 2006 – May | 19.00 | 29.00 | 30.00 | 43.00 |
| 2006 – June | 21.00 | 33.00 | 35.00 | 47.00 |
| 2006 – July | 22.00 | 34.00 | 38.00 | 48.00 |
| 2006 – August | 28.00 | 39.00 | 43.00 | 53.00 |
| 2006 – September | 30.00 | 39.00 | 43.00 | 53.00 |
| 2006 – October | 28.00 | 40.00 | 46.00 | 55.00 |
| 2006 – November | 28.00 | 39.00 | 45.00 | 54.00 |

¹ Size of vessels: European Union over 40 000 tonnes; CIS 20 000-40 000 tonnes; Egypt over 30 000 tonnes; Bangladesh over 40 000 tonnes.

² Excludes CIS and the United States flag vessels.

Note: Estimated mid-month rates based on current chartering practices for vessels ready to load three to four weeks ahead.

Source: International Grains Council.

Table A28. Fertilizer spot price ranges (bulk f.o.b., US\$/tonne)

| | November 2006 | October 2006 | October 2005 | Change from 2005 (percentage) |
|-------------------------------|---------------|---------------|---------------|----------------------------------|
| Urea | | | | |
| Baltic | 220.00-222.00 | 210.96-213.63 | 221.88-227.88 | -1.7 |
| Persian Gulf | 228.00-229.50 | 227.38-229.25 | 243.13-248.88 | -7.0 |
| Ammonium Sulphate | | | | |
| Baltic | 83.00-85.00 | 85.63-87.88 | 81.38-85.25 | 0.8 |
| Diammonium Phosphate | | | | |
| North Africa | 271.00-273.50 | 271.69-274.06 | 263.31-267.00 | 2.7 |
| US Gulf | 251.00-256.00 | 253.50-258.13 | 265.88-267.13 | -4.9 |
| Triple Super phosphate | | | | |
| North Africa | 204.75-213.25 | 202.25-209.13 | 185.88-189.13 | 11.5 |
| US Gulf | 194.00-210.00 | 205.50-217.50 | 200.50-201.00 | 0.6 |
| Muriate of Potash | | | | |
| Baltic | 165.00-180.00 | 163.13-174.38 | 155.00-177.50 | 3.8 |
| Vancouver | 160.00-190.00 | 163.75-184.38 | 147.50-190.00 | 3.7 |

Sources: Fertilizer Week and Fertilizer Market Bulletin.

Market indicators and food import bills

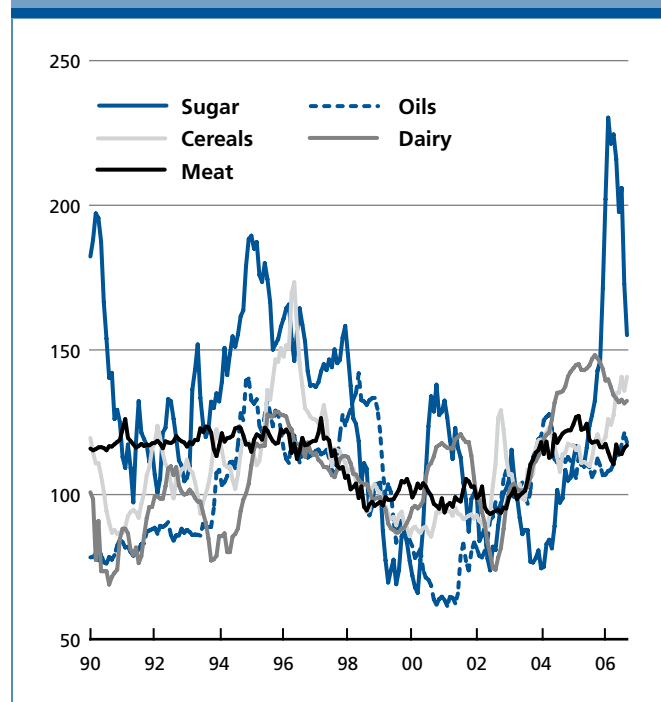
At the global level, expenditures on imported foodstuffs in 2006 could reach a historic high of US\$374 billion, over 2 percent more than the level of the previous year. This expectation is based on the realization of current forecasts for commercial food trade and prices for 2006. Rising freight rates in 2006 are incorporated in the import bill forecasts.

On a product basis, Figure 4 shows that the cost of imported sugar, cereals and vegetable oils are expected to be larger, with sugar registering the strongest increase, up 16 percent from the previous year. Higher international prices for these commodities have been the main factor in driving global food import bills upward. By contrast, the value of meat and dairy imports is anticipated to fall because of declining prices and import quantities.

Import bills for developing countries are now anticipated to rise by almost 5 percent from 2005, while for the 82 LIFDCs, expenditures on imported foodstuffs are set to increase by around 3 percent; slightly more than the global average. Regarding the more economically vulnerable countries, Figure 3 shows that LDC food import bills (indexed) in 2006 would be 58 percent higher than they were in 2000. This compares with 19 percent growth in the bills of developed countries.

That the foreseen rise in import bills is largely fuelled by higher international prices of cereals and sugar comes to the dismay of many developing countries that rely on the international market to meet their staple food needs. Indeed, the rise in the bills of these products was mainly caused by the increase in their prices rather than by an increase in the actual volumes of their food imports. Moreover, many countries are anticipated to reduce purchases, not always in

Figure 1. FAO price indices for selected commodities



response to their own improved domestic supplies but rather because of the high international prices. To further add to the plight of many of the poorer developing countries, higher energy costs as indicated by the CRB energy index, suggest they may need to curtail expenditures on imported staples to sustain their fossil fuel needs.

Forecast import bills of total food and major foodstuffs (US\$ million)

| | World | | Developed | | Developing | | LDC | | LIFDC | | NFIDC | |
|-------------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|--------------|---------------|---------------|---------------|---------------|
| | 2005 | 2006 | 2005 | 2006 | 2005 | 2006 | 2005 | 2006 | 2005 | 2006 | 2005 | 2006 |
| TOTAL FOOD | 373 688 | 382 712 | 256 655 | 260 315 | 117 033 | 122 397 | 9 111 | 9 450 | 58 332 | 60 049 | 13 846 | 14 874 |
| Cereals | 47 697 | 52 629 | 18 559 | 20 554 | 29 139 | 32 075 | 3 378 | 3 568 | 14 252 | 14 993 | 4 750 | 5 161 |
| Vegetable Oils | 69 298 | 73 537 | 34 810 | 37 199 | 34 488 | 36 337 | 2 045 | 2 040 | 21 294 | 21 686 | 3 788 | 3 879 |
| Dairy | 34 318 | 33 315 | 23 330 | 22 588 | 10 988 | 10 728 | 717 | 696 | 4 017 | 3 997 | 1 242 | 1 204 |
| Meat | 64 891 | 63 311 | 54 109 | 52 601 | 10 782 | 10 710 | 558 | 524 | 3 633 | 3 680 | 1 019 | 1 076 |
| Sugar | 14 795 | 17 232 | 8 148 | 9 674 | 6 647 | 7 557 | 932 | 1 142 | 4 203 | 4 759 | 887 | 1 395 |

Figure 2. FAO food price index and CRB commodity and energy indices

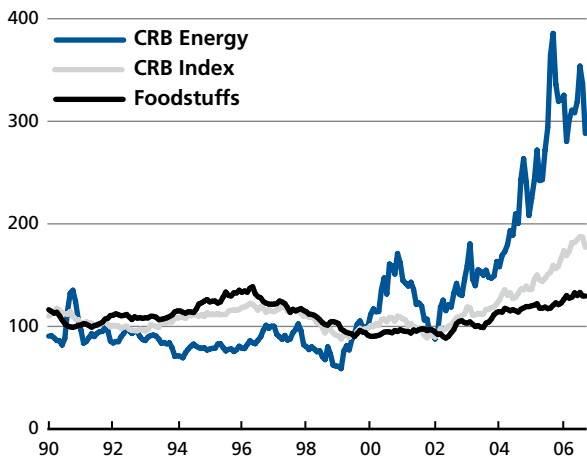


Figure 4. Forecast changes in global food import by type: 2006 over 2005 (%)

High sugar prices are expected to lead to a surge in the global sugar import bill. Meat import costs, through both quantities and prices, are forecast to decline courtesy of animal disease issues.

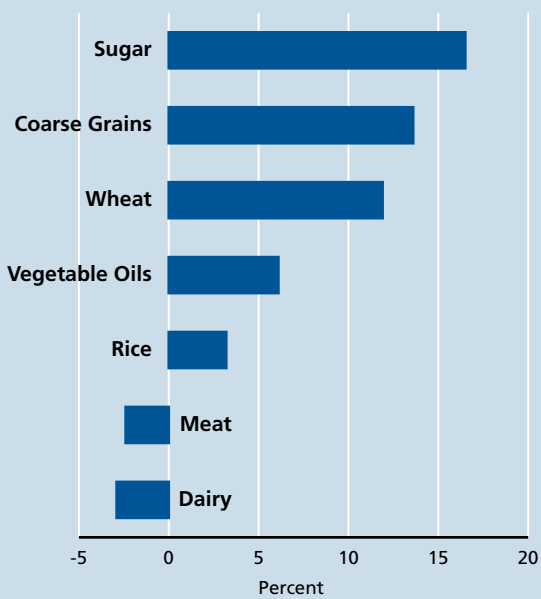


Figure 3. Food bill indices (2000 = 100)

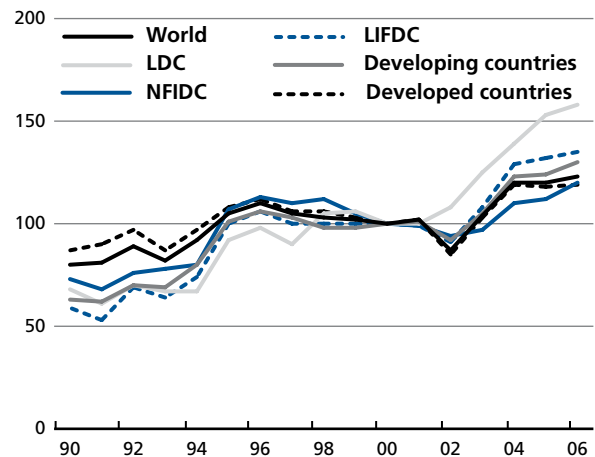
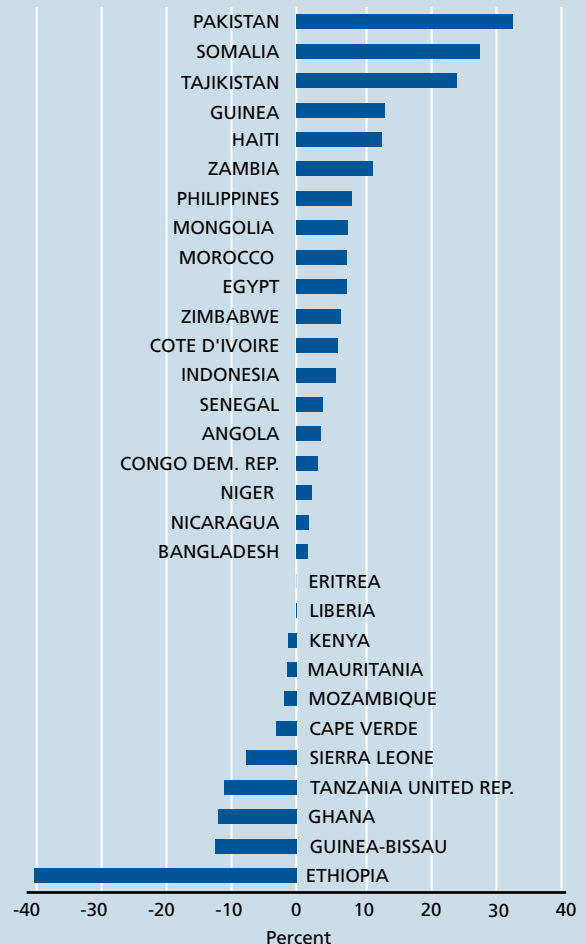


Figure 5. Forecast changes in food import bills of selected LIFDCs: 2006 over 2005 (%)

Rising import bills do not necessarily imply more imported foodstuffs. Prices of imported staples for which many of the LIFDCs remain heavily dependent on have risen sharply in the year, resulting in lower purchases by many countries.





International Conference on Commodity Exchanges Istanbul, 15-16 May 2007

Hosted by the Government of Turkey with support from the private sector, FAO is organizing an International Conference on Commodity Exchanges in Istanbul, 15-16 May 2007. This conference is held in conjunction with an important FAO intergovernmental meeting which discusses developments and prospects in world grain and rice markets. The conference is open to the public, free of charge, but requires prior registration. More than one hundred FAO-member countries participating in the intergovernmental group meeting are expected to attend the conference.

The International Commodity Conference will bring together a panel of world experts to review the evolution of commodity exchanges, the reasons for their success and failures and the role that they can play in facilitating economic development.

The full programme, list of speakers and the venue will be announced by early spring 2007. To find out more about the conference, please use the following contacts:

Facsimile: ++(39-06) 570-54495

Telephone: ++(39-06) 570-54136 or 570-53264

E-mail: IGG-Rice-and-Grains-2007@fao.org

NOTE: Food Outlook is issued under the Global Information and Early Warning System on Food and Agriculture, by collaboration among Services of the Commodities and Trade Division and other FAO units. The International Grain Council contributes the Ocean Freight Rates section. Food Outlook provides information on latest developments in agricultural markets and sets the global and regional commodity production, utilization, trade and price context for food security, and will be published twice a year in June and December. This issue is based on information available up to 29 November 2006.

Food Outlook and other GIEWS reports are available on the internet as part of the FAO World Wide Web (www.fao.org) at the following URL address: <http://www.fao.org/giews/>. In addition, some of the GIEWS regular reports can be received by e-mail through automatic mailing lists: subscription information is available at <http://www.fao.org/giews/english/listserv.htm>. Other relevant commodity studies, technical documents and featured publications on a wide range of topical issues are available on the FAO Commodities and Trade Division web site at: <http://www.fao.org/es/esc/en/index.html>

GIEWS

The Global Information and Early Warning System on Food and Agriculture

Continuously monitors crop prospects and food security situation at global, regional, national and sub-national levels and warns of impending food difficulties and emergencies. Established in the wake of the world food crisis of the early 1970's GIEWS maintains a unique database on all aspects of food supply and demand for every country of the world. The System regularly provides policy makers and the international community with up-to-date and accurate information so that timely interventions can be planned and suffering avoided.

Enquiries may be directed to:

Ali A. Gürkan, Chief, Basic Foodstuffs Service
Commodities and Trade Division (ESC), FAO, Rome
Direct Facsimile: 0039-06-5705-4495, E-mail: giews1@fao.org
Or find us on the FAO World Wide Web site (www.fao.org) at:
<http://www.fao.org/giews/>.

Disclaimer

The designations employed and the presentation of material in this report do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.