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# Contents



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# Summary

Despite declining prices, soybeans remained relatively attractive compared with other crops in 1998, with U.S. farmers planting a record 72.0 million acres. A late summer dry spell limited pod filling and trimmed the U.S. average yield to 38.9 bushels per acre. Soybean production for 1998 climbed to 2,741 million bushels, 52 million above the previous year's record.

Recent expansions in crushing capacity and bumper oilseed crops in South America and Europe cut soybean meal prices and diminished U.S. soybean crush margins. Also, policy changes in China encouraged greater use of oilseed crushing capacity in lieu of imports of meal and oil. U.S. crushing picked up briefly in the summer after the surge in South American exports tailed off, but the 1998/99 crush dipped 7 million bushels from a year earlier to 1,590 million. Despite ample soybean supplies, greater foreign supplies slowed U.S. soybean exports to 801 million bushels, down from 870 million in 1997/98. Slackening demand swelled carryout soybean stocks from 200 million bushels in 1997/98 to 348 million, the largest since 1986/87. The 1998/99 season average price fell to $5.00 per bushel, from $6.47 in 1997/98. The U.S. soybean crop value in 1998/99 dropped nearly $4 billion from the record 1997/98 earnings. However, government disbursements to farmers totaled $882 million in loan deficiency payments (LDP) and $333 million in marketing loan gains.

With an expansion in poultry feed consumption and only a modest slowdown for hogs in 1998/99, domestic disappearance of soybean meal increased to 30.6 million short tons. U.S. soybean meal exports dropped 2 million short tons to 7.2 million. Key elements in the weaker U.S. export volume were sharply intensified competition from Argentina, Brazil, and India and a large reduction in Chinese imports.

Crushing for the meal market stabilized while oil exports waned, resulting in a near record domestic supply of soybean oil. U.S. soybean oil exports dropped from the 1997/98 record of 3,079 million pounds to 2,421 million. U.S. export shipments to China fell from 1.1 billion pounds in 1997/98 to just 0.5 billion. Limited storage capacity of end users moderated the 1998/99 increase in domestic disappearance to 15,600 million pounds, which helped force prices lower. U.S. soybean oil ending stocks rose to 1,526 million pounds, reversing the declines of the previous 2 years. Soybean oil prices averaged 19.9 cents per pound in 1998/99, down from 25.8 cents the previous season.

At 158.9 million metric tons, global soybean production grew only slightly in 1998/99, but was nearly one-fifth larger than 1996/97 output. Consecutive bumper harvests by all the major growing nations pushed expected 1998/99 world ending soybean stocks to 24.3 million tons. World soybean imports in 1998/99 edged up to 39.5 million tons as strong Chinese imports were offset by sluggish demand elsewhere. The ending of preferential treatment for soybean meal helped raise Chinese soybean imports from 2.9 million tons in 1997/98 to 3.9 million. A 7-percent rise in soybean meal imports to 39.6 million tons is the main reason that global soybean trade fell in 1998/99. The tightness of the global edible oil market reversed in 1998/99, with production increasing 5.0 million tons to 81.3 million. While the growth was an improvement over 1997/98, global consumption rose 4.5 million tons to 80.4 million. Global vegetable oil exports rose modestly from 29.8 million tons in 1997/98 to 31.2 million in 1998/99.

U.S. peanut producers planted 1.521 million acres of peanuts in 1998, up 6 percent from a year earlier. Production totaled 3,963 million pounds, in-shell basis, up 12 percent. Average yield per harvested acre was 2,702 pounds, up 199 pounds from the 1997 yield. Food use for peanuts rose 1.8 percent to 2,137 million pounds, in-shell basis. On an in-shell basis, peanuts crushed in 1998/99 totaled 460 million pounds, 15 percent below the previous season. Peanut exports also declined, falling to 561 million pounds from 681 million in 1997/98. With increasing stocks, the 1998/99 U.S. average farm price for peanuts fell to 28 cents per pound from 28.3 cents a year earlier. Despite a decline in crushing, domestic use of peanut oil increased slightly to 230 million pounds.

Lower yields and harvested acreage in 1998 reduced cottonseed production 23 percent to 5.365 million short tons. Cottonseed crush was down 1.17 million short tons from the previous season to 2.719 million, while exports declined 54 percent to 68,000 short tons. Other use of cottonseed, primarily whole seed feeding, was 2.955 million short tons, only 2,000 below the 1997/98 season. Ending stocks as of July 31, 1999, declined 30 percent from the beginning level to 393,000 short tons. The tighter supply situation pushed cottonseed prices up slightly this season. U.S. farmers received an estimated $123 per short ton in 1998/99, up from $121 a year earlier.

Farmers in the United States expanded sunflower plantings in 1998 to 3.6 million acres, 0.7 million more than in 1997. Expanded acreage and a record yield pushed national sunflowerseed production to 5,247 million pounds. The U.S. 1998/99 sunflowerseed crush increased to 2,596 million pounds, compared with 2,338 million the year before. Tightness of cottonseed supplies for dairy feeding decreased the discount compared to sunflowerseed, helping raise non-oil sunflowerseed use to 1,854 million pounds. Despite robust domestic and foreign demand, huge supplies reversed the tight 1997/98 carryout of 202 million pounds, swelling year ending sunflowerseed stocks to 508 million in 1998/99. Sunflowerseed prices received by farmers receded from the 1997/98 average of $11.60 per cwt to $10.75.

# U.S. Soybean Situation, 1998/99

U.S. farmers planted a record 72.0 million acres of soybeans in 1998, up from 70.0 million the previous year. Despite declining prices, soybeans remained relatively attractive compared with competing crops. For the second consecutive year, U.S. soybean area exceeded wheat area. Much of the additional area planted to soybeans was shifted from wheat, with smaller amounts coming from corn or sorghum. Some of the acreage disenrolled from the Conservation Reserve Program may also have raised soybean acreage. Record soybean plantings for all of the top five producing States, as well as several others, have markedly expanded soybean area in recent years. Larger winter wheat acreage permitted soybean double-cropping to expand in Missouri, Kentucky, and Arkansas. But U.S. double-cropped soybeans suffered a net decline as fewer winter wheat acres, poor soil moisture, and weaker prices discouraged the practice in other States. The regions that increased acreage tended to have the highest average yields per acre, while the lower yielding regions reduced acreage.

Timely May plantings were followed by a warm, wet June that advanced soybean progress and set the stage for good yields. Hot and dry weather hurt yield potential in the Delta and Southeast regions, but most of the Nation's soybeans headed into the summer reproductive stage supplied with ample soil moisture. Early growing conditions were generally very favorable for soybeans in 1998, resulting in record pod counts in some States. However, a late summer dry spell limited pod filling and trimmed the U.S. average yield to 38.9 bushels per acre. Drought cut 1998 yields in the Delta region nearly 5 bushels per acre from a year earlier. Timely summer rains prevented even greater stress on Southeastern fields, where yields dropped nearly 2 bushels per acre from 1997. Tropical storms along the Gulf coast added more damage and delays to the fall harvest.

A late frost, extending an already long growing season, and a dry autumn created very good harvest conditions in the rest of the country. Soybean production for 1998 climbed to 2,741 million bushels, 52 million above the previous year's record. The quick harvest and lack of farm storage capacity exerted formidable pressure on fall prices.

The large U.S. grain and oilseed harvests created challenges for the storage and transportation system. U.S. grain storage capacity (on-farm plus off-farm) declined 18 percent from December 1, 1987 to December 1, 1997. Over the same time period, grain and oilseed production increased about 18 percent. An acute shortage of storage space in several locations for the glut of new crops compelled handlers to temporarily pile grain outdoors, risking quality deterioration if exposed to the weather too long. While grain transportation has become more efficient over the past decade, such a surge intensifies the task of allocating enough railcars to the neediest locations in a timely fashion for shipping to processors and ports. Soybean stocks backed up at interior locations because of the larger crop and weaker foreign demand from a year earlier.

Soybean crushing began briskly in 1998/99 based on the rapid harvest and strong fundamentals for soybean oil demand, resulting in an alltime high for the first quarter (September-November). However, greater competitor supplies made it difficult to repeat the previous year's growth and crushing weakened in early 1999. Despite favorable extraction rates, low product prices hurt the profitability of crushing. Recent expansions in crushing capacity, bumper output of South American and European oilseeds and Southeast Asian palm oil cut product prices, diminishing U.S. soybean crush margins. Also, policy changes in China encouraged greater use of oilseed crushing capacity in lieu of meal and oil imports. The value of soybean meal fell to just 55 percent of the soybean's crush value, compared with a typical average of 65-70 percent. Sliding soybean oil prices compounded crushers' dilemma of already poor returns for meal. The estimated gross crushing margin fell to $0.50 per bushel (the lowest since 1989), compared with a very attractive $1.40 in 1997/98. Crushing picked up briefly in the summer after the surge in South American exports tailed off, but 1998/99 crush dipped 7 million bushels from a year earlier to 1,590 million.

Despite ample soybean supplies, greater foreign supplies slowed U.S. soybean exports in 1998/99 to 801 million bushels, down from 870 million in 1997/98. Lower prices helped buoy the volume of U.S. soybean trade, but other than China, Indonesia, Thailand, and the Philippines, there were few foreign markets that imported more soybeans in 1998/99. Another reason that U.S. shipments failed to keep pace with 1997/98 is that no exports were made to Brazil or Argentina, which together imported 48 million bushels in late 1997. With a few exceptions, U.S. export shipments to most other destinations were down slightly from a year earlier. Most significantly, soybean shipments to the EU lagged the 1997/98 pace as the EU turned to more soybean meal imports, mainly from South America.

Slackening demand swelled carryout soybean stocks from 200 million bushels in 1997/98 to 348 million, the largest since 1986/87. Another measure of the relative abundance was the highest stocks-to-use ratio in 8 years of 13 percent. Such an above average supply-to-use balance had a dramatic effect on soybean prices. The 1998/99 season average price fell to $5.00 per bushel, from $6.47 in 1997/98.

With the advent of the soybean marketing assistance loan in 1991 (see the special article on the U.S. marketing loan program), market prices can drop below the loan rate. The national average loan rate was $5.26 per bushel in 1998/99. The U.S. soybean crop value in 1998/99 dropped nearly $4 billion from the record 1997/98 earnings. However, as an offset to the market price decline, government disbursements to farmers totaled $882 million in loan deficiency payments (LDPs) on 2.1 billion bushels of soybeans and $333 million in marketing loan gains on more than 300 million bushels.

The 1997/98 expansion in U.S. hog production continued through the summer and fall of 1998, although at a more moderate pace. Despite record slaughter last fall, large global meat supplies and constrained meatpacking capacity sharply cut hog prices. Slaughter hog prices in late 1998 dropped to the lowest in 27 years and 40 percent from a year earlier. The softening of demand relative to record supply pressured U.S. soybean meal prices to $138.50 per short ton, compared with the 1997/98 average of $186 and the 1996/97 average of $271. Despite the lowest soybean meal prices in three decades, Midwestern hog producers still could not cover variable costs when hog prices fell below $30 per cwt. Breeding hogs and farrowings eventually declined in the first half of 1999, which led to decreased pig production and slowed soybean meal consumption by the summer of 1998/99.

On the other hand, the economics for broiler chicken production were much better, as feed costs substantially declined while prices received by broiler producers improved. With an expansion in poultry feed consumption and only a modest slowdown for hogs and pigs in 1998/99, total soybean meal disappearance increased to 30.6 million short tons.

U.S. soybean meal exports dropped 2 million short tons in 1998/99 to 7.2 million. Key elements in the weaker U.S. export volume were sharply intensified competition from Argentina, Brazil, and India and a large reduction in Chinese imports. A rebound in South American fishmeal production also added to an already ample world protein meal outlook.

The 1998/99 beginning inventory of soybean oil was 1,384 million pounds, the smallest in 3 years. In spite of a weaker meal market that curtailed crushing, a higher extraction rate aided 1998/99 oil production. While warm summer temperatures during pod filling held down soybean yields, they also yielded an above average oil extraction rate of 11.3 pounds per bushel. Crushing for the meal market stabilized while oil exports waned, resulting in a record domestic supply of soybean oil. U.S. oil stocks peaked in March and slipped by season's end to 1,526 million pounds, reversing the declines of the previous 2 years.

U.S. soybean oil prices were very competitive against South American supplies in the fall of 1998. Also, palm oil prices were then at a premium to soybean oil, boosting U.S. sales to Asia and the Middle East. Yet, this was a narrow window of opportunity before the seasonal spring surge in production of South American soybean and sunflower oil, Chinese and Indian rapeseed oil, and Southeast Asian palm oil. Expanding oil supplies enabled Argentina to regain its market share of world soybean oil exports. Indonesia's progressive reduction in the export tax on crude palm oil (from 60 percent to 10 percent) also helped place more oil supplies onto the world market.

As these huge supplies rapidly came to market, global import demand waned. A wave of contract defaults by some major Asian importers (as they renegotiated to take advantage of collapsing prices) unsettled the fats and oils market in early 1999. China's campaign to improve domestic crush margins by strictly enforcing import licenses for vegetable oil had a substantial impact on global soybean oil imports. China also imported a greater volume of rapeseed in 1998/99 to bridge its deficit in vegetable oil supplies. U.S. export shipments to China fell from 1.1 billion pounds in 1997/98 to just 0.5 billion. Consequently, total U.S. soybean oil exports dropped from the record 3,077 million pounds in 1997/98 to 2,421 million.

Wet weather also produced volatile price movements in 1998/99. Argentine harvest delays rallied prices, while spring planting delays boosted expectations of U.S. soybean acreage and potential oil supplies. The monthly average central Illinois soybean oil price declined sharply from 25.2 cents per pound in November to below 16 cents in July. Prices subsequently firmed based on yield threatening developments to the 1999 soybean crop. Soybean oil prices averaged 19.9 cents per pound in 1998/99, down from 25.8 cents the previous season. Despite lower prices, the rate of growth in domestic disappearance slowed in 1998/99. The very large billion-pound increase in domestic disappearance for 1997/98 was likely because of substantial stockpiling by end users. So, limited storage capacity moderated the 1998/99 increase to 15,600 million pounds, which helped force prices lower.

For 1998/99, world beginning stocks of soybeans soared based on record 1997/98 crops for Brazil (32.5 million metric tons) and Argentina (19.2 million tons). At 158.9 million tons, global soybean production grew only slightly in 1998/99, but was nearly one-fifth larger than 1996/97 output. Consecutive bumper harvests by all the major growing nations pushed expected world ending soybean stocks to 24.3 million tons. The previous high was 23.7 million tons in 1994/95.

World soybean imports in 1998/99 edged up to 39.5 million tons as strong Chinese imports were offset by sluggish demand elsewhere. The ending of preferential treatment for soybean meal helped raise Chinese soybean imports from 2.9 million tons in 1997/98 to 3.9 million. But EU soybean imports dipped because of a larger Italian soybean crop and as the EU soybean crush fell 5 percent to 14.8 million tons. Japanese soybean imports fell 220,000 tons from 4.9 million in 1997/98. Continuing problems in Taiwan's hog sector limited soybean imports to 2.2 million tons, compared with 2.6 million 2 years earlier.

A 7-percent rise in soybean meal imports to 39.6 million tons is the main reason that global soybean trade fell in 1998/99. Western European crushers faced poor crushing margins for soybeans in 1998/99. Abundant feed wheat supplies and vigorous competition from U.S. and South American crushers made soybean meal imports relatively more attractive than soybean imports. In addition, crushing of larger domestic supplies of rapeseed and sunflowerseed minimized needs for soybean oil.

In late 1998, Brazilian crushing margins sank, forcing several plants to halt processing until new crop supplies arrived. Soybean stocks in southern Brazil, where most of the crushing capacity is located, were nearly 50 percent higher than a year earlier. Consequently, unlike 1997, imports from the United States under Brazil's drawback program were minimal, with most imports coming from Paraguay and Bolivia. The relative supply tightness supported only a slight reduction in planted area.

Brazil's government, in defending the value of the currency and protecting foreign investment, allowed domestic short-term interest rates to soar in 1998. Farmers' borrowing costs for the 1998/99 crop escalated as a consequence. Timely rainfall in December and early January eased earlier concerns about dryness, although late season dryness in the south curbed yields. Because farmers applied fewer inputs, Brazil's 1999 soybean yields did not match the 1998 record. A slightly smaller area harvested trimmed Brazil's soybean output to 31.0 million tons, just under the record 32.5 million tons in 1998.

Late in 1998, Brazil's federal government introduced a fiscal reform plan aimed at reducing the nation's large budget deficit. But resistance in Brazil's congress and a moratorium on debt payments by major states to the federal government undermined investor confidence in the proposed reforms and initiated a serious flight of capital. Defending the country's currency, the real, had sharply diminished dollar reserves, so on January 13, Brazil's central bank was forced to devalue by 8 percent. This limited devaluation was unsuccessful, so the managed exchange rate was subsequently abandoned and allowed to float freely. By early March, the real had depreciated 45 percent against the value of the U.S. dollar.

The devaluation raised Brazil's internal soybean prices, spurring marketing and export of remaining old-crop supplies. These events occurred too late to affect plantings, but they did accelerate 1998/99 marketings. Fears of further price erosion (if the real recovered) and a reimposition of an export tax on soybeans favored shipments as early as possible. A dry harvest period aided Brazilian farm marketings, and exports were well above average. Brazilian soybean exports were also expedited by a 50-percent increase in shiploading capacity at the port of Paranagua, the nation's leading shipper of soybeans abroad. Brazilian 1998/99 soybean exports surged to a record 8.9 million tons. September carryout stocks, which dropped to 6.4 million tons, may have been greater in the absence of devaluation.

The relatively large crop pushed Brazilian soybean crush to 20.6 million tons. Larger supplies also lifted Brazilian soybean meal exports to 9.8 million tons. Meal exports were up from 9.6 million in 1997/98 and surpassed all previous years except for the 1995/96 record of 11.9 million tons. While higher internal prices for soybean meal and the recession shrank domestic consumption, Brazil's currency devaluation also promoted an expansion in feed use for very competitive poultry exports. The net effect increased Brazil's 1998/99 domestic meal consumption to 6.6 million tons.

Early conditions for Argentine oilseed producers were somewhat dry, but timely rains benefited planting. Improvements in genetics and production practices have also enhanced productivity. Reportedly 60-70 percent of Argentina's 1999 soybeans were planted using glyphosate-tolerant varieties, which offer farmers better weed control at a lower cost. But hot and dry weather during the February pod filling period for double-cropped soybeans hurt yields, especially in Cordoba (Argentina's second-largest soybean province). And as in 1998, Argentina's soybean harvest was

hampered by very wet weather that began in March. Heavy rains were too late to help the crop, and caused isolated flooding and widespread harvest delays. Additional damage from a hard frost in mid-April affected northern production areas. Drier weather in June helped the Argentine soybean harvest stagger toward completion. Despite these problems, a record harvested soybean area raised the 1998/99 Argentine soybean output to 19.9 million tons, compared with 1997/98's 19.5 million.

Argentina continued to emphasize crushing and meal and oil exports at the expense of soybean exports. A large carryover and harvest swelled 1998/99 soybean crushing to a record 17.6 million tons, about double the 1991/92 quantity. Yet, even this high volume left much slack in the capacity utilization rate. Combined with a slightly smaller crop, Argentina's September soybean stocks dropped to about 6.2 million tons.

Virtually all of the increased production of Argentine soybean meal was exported. In 1998/99, Argentine soybean meal exports soared nearly 40 percent from the previous year's peak to 14.0 million tons. The devaluation of the real favored a higher composition of soybean exports from Brazil, so Argentina's 1998/99 soybean exports declined slightly to 3.1 million tons from 3.2 million in 1997/98.

As in Argentina, adverse late season weather offset expanded input use in Paraguay, keeping the 1998/99 soybean yield constant with the year before. Farmers again harvested the same area, so Paraguay's production matched the record 1997/98 output of 3.0 million tons. A lack of crushing capacity and the growing ease of shipping down the Parana River have escalated Paraguayan transshipments to Argentina in recent years. River barges now transport about 70 percent of Paraguay's soybean exports, where in the past the exports were nearly all trucked to Brazil's port at Paranagua. Paraguay's 1998/99 exports and crush were 2.4 million and 0.5 million tons, respectively. Adverse weather also curtailed yields in Bolivia, reducing the 1999 soybean crop to 0.6 million tons from 1.1 million in 1998.

Summer rains in India created excellent soil moisture conditions for planting soybeans in 1998, resulting in a record area. Despite yield-damaging rains during the October-November harvest for the main soybean growing region of Madhya Pradesh, India's 1998/99 output increased to 6.0 million tons. With a larger harvest and fewer of the quality problems that plagued the 1997/98 season, 1998/99 Indian soybean meal exports increased modestly to 2.8 million tons. Robust growth in India's poultry industry has expanded domestic protein meal consumption.

Competition with other commodities and market inefficiencies continued to stifle price incentives for an increase in China's soybean area. Policies discouraging provincial trade make it less costly for southern crushers to import from abroad than to obtain lower-quality soybeans from northern producers, who raise the bulk of China's output. Misallocation of supplies and a lack of proper storage also create excessive waste in China. Excessive domestic stocks and low prices led to another decline in soybean area. However, most regions (with some isolated flooding) were blessed by ample rainfall in 1998. The boost in yields raised the Chinese soybean harvest from 14.7 million tons in 1997 to 15.0 million in 1998.

In China, soybeans, soybean meal, and soybean oil are subject to import duties set at 3, 5, and 13 percent, respectively. In addition, a value added tax (VAT) of 13 percent is levied. In 1995, the Chinese government relaxed import quotas and waived the VAT on soybean meal as a means of providing support for the domestic livestock sector. The VAT exemption for soybean meal succeeded in boosting imported supplies for an expanding livestock sector, pushing imports from a negligible amount in 1994/95 to 4.2 million metric tons in 1997/98.

However, the Asian financial crisis exposed massive losses in China's state-owned enterprises, including oilseed crushing plants. Chronically large price differentials for vegetable oil enticed refiners to circumvent taxes and quotas on imports of crude soybean oil by not re-exporting the refined oil. The wave of meal imports undermined prices and left domestic processors with excessive stocks that they could not sell at a profit. These factors suppressed crushing margins and led to a great deal of idle crushing capacity. Yet, surplus domestic oilseed stocks increased, as access to supplies was discouraged by restrictions on interprovincial movement.

These events sparked a reform program to make oilseed processing profitable. In 1998, Chinese authorities were able to strengthen enforcement of import quotas for vegetable oils. This year, China also redefined the list of VAT-exempt feed products, which excluded soybean meal and other oilseed meals. The change was implemented July 1 and effective through December 31, 2000. However, for months before this, Chinese customs officials collected mandatory deposits from importers against the rumored tax. Sales of soybean meal to China slumped as cautious traders feared potential defaults. Reducing tax evasion and ending soybean meal's VAT-exempt status provided a greater incentive to import oilseeds for domestic processors to turn into protein meal and vegetable oil. With much lower world oilseed prices, the changes were intended to reduce financial losses by the state-run crushing plants.

The fundamental change in policy and slowing livestock consumption precipitated a sharp falloff in soybean meal imports in 1998/99, from 4.2 million tons in 1997/98 to 1.4 million. U.S. shipments of soybean meal to China in 1998/99 were just 0.15 million tons, down more than three-fourths from the previous year.

The plethora of soybean meal output from South America, India, China, and the United States narrowed margins for crushers around the world, including the European Union (EU). For 1998/99, EU imports of soybean meal overshadowed soybean imports. Total EU soybean imports were down to 16.1 million tons, little changed from the 1997/98 volume. The EU soybean crush for 1998/99 was down 5 percent to 14.8 million tons. With greater demand for meal, U.S. soybean exports to the EU were down nearly 30 percent from 1997/98.

Cheaper prices for imported soybean meal supported global consumption, particularly within the EU. As in the United States, large hog herds and cheap protein kept EU soybean meal consumption very brisk. As Argentine and Brazilian soybean processing expanded, the EU substituted more imports of soybean meal for soybeans. Greater external trade swelled EU 1998/99 soybean meal imports to 20.2 million tons from 16.8 million in 1997/98.

South Korean soybean crushing fell 10 percent and imports recovered to 1.45 million tons in 1998/99. Early in 1999, the country's largest crusher (accounting for nearly half of national processing) defaulted on short term loans. While a debt restructuring plan was implemented, the crusher's operations were temporarily interrupted. Profitability of the two other South Korean crushers was also under stress from inexpensive imports of soybean meal and oil. The recovery of the livestock sector boosted South Korean soybean meal consumption 5 percent, raising imports to 1.15 million tons.

While global protein meal supplies were overly abundant in 1998/99, vegetable oil supplies began the season comparatively tight. This situation favored worldwide production of high oil content oilseeds, such as rapeseed and sunflowerseed. Global rapeseed production in 1998/99 rose 10 percent from 1997/98 to 36.6 million tons.

Very tight rapeseed stocks encouraged EU farmers to expand plantings, resulting in record area in France, Germany, and the United Kingdom. Growing weather was generally favorable throughout Europe except in the Balkan nations. Based on larger area and normal yields, EU rapeseed production increased from 8.6 million tons in 1997 to 9.4 million in 1998. As EU rapeseed crushing expanded, it also factored into the smaller EU soybean crush.

After the first winter in 3 years without substantial winterkill, 1998 rapeseed yields in Poland rebounded strongly. Poland's production was one-third higher than 1997 at 1.1 million tons. Domestic shortages had forced Polish mills to import around 0.3 million tons of rapeseed over the last several years, so the better crop reversed that trend. Record Czech rapeseed plantings also led to an output peak in that country.

Expected relative returns in spring 1998 favored greater Canadian oilseed plantings and reduced wheat and barley area. Harvested rapeseed area in 1998 was 5.4 million hectares, second only to the record 1994/95 season. While planting and emergence were ahead of normal, a late spring frost required reseeding in some Prairie regions. In Saskatchewan and Alberta, topsoil moisture became quite short in June but improved before the harvest. Wider adoption of herbicide-tolerant varieties has also aided Canadian yields in recent years. Canadian rapeseed crushing proceeded briskly on the heels of a record 7.6-million-ton harvest. Canadian rapeseed exports to China and Japan moderated following stiff competition from the subsequent Australian rapeseed harvest. Canada also exported larger volumes of rapeseed, rapeseed meal, and rapeseed oil to the United States, helping to fill a gap left by smaller U.S. supplies of cottonseed and cottonseed products. Such robust growth in demand did little to ease Canadian ending stocks of seed from the tight 1997/98 carryover.

Similarly, grains area dropped in Australia to the benefit of oilseeds in 1998/99. The popularity of rapeseed continues to grow among Australian farmers, who planted almost 50 percent more of the crop than the previous year. Moisture conditions improved from the very dry 1997/98 season. Another record crop (1.66 million tons) was harvested in 1998. Rapeseed surpassed cottonseed for the first time as the largest source of Australian oilseeds. Given larger supplies and a weaker currency, Australia expanded its export market share for seed and rapeseed oil, particularly to Japan and China.

Rapeseed is India's second-largest oilseed, after peanuts. Harvested in February, rapeseed is the major domestic oil source prior to the initial peanut and soybean harvests in September. Most Indian rapeseed is produced in the northern and northeastern states. While yields were normal in the leading rapeseed state of Rajasthan, less favorable weather in Uttar Pradesh, the second ranked state, held down yields. Despite the problems, India's 1998/99 rapeseed crop was 5.8 million tons, far better than the 4.9-million-ton 1997 crop. Rapeseed crush expanded to 4.8 million tons, thus increasing rapeseed oil production.

Given high vegetable oil prices early in the season, crush margins and import demand for high oil content oilseeds like sunflowerseed and rapeseed were somewhat better than for soybeans. Global rapeseed imports jumped more than one-fourth in 1998/99 to 8.1 million tons. Japanese oilseed processors emphasized rapeseed more than soybeans. Japanese soybean imports declined 3.6 percent to 4.7 million tons, while rapeseed imports rose 0.4 percent to 2.1 million tons. Similarly, a 27-percent increase in rapeseed imports and a volatile international economy slowed growth in Mexico's soybean imports from 3.5 million tons in 1997/98 to 3.6 million.

China's rapeseed imports also soared following a poor harvest. Cold and wet weather cut the 1998 Chinese rapeseed harvest to 8.3 million tons, down from 9.6 million in 1997.

In March, frost in the main producing provinces caused extensive damage during the vulnerable blooming phase. Heavy rains in May exacerbated the damage. Imports of seed and oil from Europe, Canada, and Australia increased to cover the shortfall. With regional gluts of soybeans and soybean meal, there was a greater emphasis on imports of high oil content rapeseed to satisfy oil needs, raising China's 1998/99 rapeseed imports to 2.1 million tons, up from a negligible amount just 2 years earlier.

Tighter balances of sunflowerseed in 1997/98 urged producers around the world to plant more sunflowers, raising 1998/99 production to 25.9 million tons. After a decline in world sunflowerseed trade in 1997/98, exports in 1998/99 swelled 17 percent to 4.5 million tons.

EU import demand for sunflowerseed was comparatively stronger in 1998/99, as lower area and disappointing yields in France and Spain cut EU sunflowerseed production 15 percent to 3.4 million tons. A major devaluation of the ruble spurred even more imports of Russian sunflowerseed by western Europe. Supplies from the large Argentine sunflowerseed harvest also boosted EU imports of sunflowerseed and sunflowerseed products in the last half of the season.

Sunflower plantings in Russia and Ukraine were up sharply in 1998. But rising finance costs rationed inputs and a drought slashed yields, curtailing production to 3.0 million and 2.3 million tons in Russia and Ukraine, respectively. Higher area and yields in Hungary, Romania, Yugoslavia, and Bulgaria offset part of the decline in the former Soviet Union. Turkey's 1998 sunflowerseed crop was little changed from 1997. Turkey, which has considerably more crushing capacity than domestic oilseed production, continued to crush seed imported largely from Russia and Ukraine. Turkey returns much of the oil produced to Russia and Ukraine, as well as many Middle Eastern countries.

Late in 1998, the relative strength of vegetable oil prices encouraged Argentine producers to substitute sunflower acreage for grains and soybeans. Argentine sunflowerseed area surged 13 percent to 3.75 million hectares. But the anticipated bumper crop was diminished by frost and heavy late season rains. Excess rain before harvest flooded sunflower fields and damaged yields and seed quality. Despite slippage of sunflowerseed production to 6.8 million tons, it was still up nearly one-fourth from the previous year and Argentina's largest crop ever. Demand for Argentine sunflowerseed was very robust, particularly in Europe. Argentine sunflowerseed exports in 1998/99 totaled 860,000 tons, almost double the 1997/98 volume.

Global peanut production increased to 28.9 million tons in 1998/99 based on larger area and improved yields in China. The 1997 drought in northern China encouraged farmers to increase plantings. With good growing season moisture in the North China Plain, 1998 output reached a record 11.9 million tons. In Gujarat, the major peanut growing state of western India, abundant rainfall ahead of the monsoon provided a good start to the growing season. In spite of greater plantings, Indian 1998/99 peanut production slipped from 7.6 million tons in 1997/98 to 7.5 million.

Global cottonseed production, which has been stagnant for several years, fell again in 1998/99. Total output dropped from 34.7 million tons in 1997/98 to 32.8 million tons. Production gains in India, Uzbekistan, and Turkmenistan were offset by smaller yields in China, Pakistan, Argentina, and the United States. Global cottonseed stocks tightened even as world crush dropped 5 percent to 24.7 million tons. U.S. cottonseed exports, which fell by over half, were largely to blame for world trade dropping below 1 million tons.

Following poor harvests by Peru and Chile, global exports of fishmeal plunged by nearly half in 1997/98. As the effects of El Nino gradually subsided, world fishmeal production substantially recovered in 1998/99, rising 16 percent to 5.8 million tons. European fishmeal prices dropped in half from the 1997/98 average of $686 per metric ton. World fishmeal imports also rebounded in 1998/99 to 3.4 million tons. Fishmeal imports by China (the world's largest market) resumed their growth, increasing from 0.48 million tons in 1997/98 to 0.7 million. Chinese fishmeal demand was aided by lower prices and retention of the VAT exemption lost by soybean meal in mid-1999.

Global edible oil production increased 5.0 million tons to 81.3 million in 1998/99, following a below-normal increase. The source of this gain was distributed among the various oils. Global consumption rose 4.5 million tons to 80.4 million, leaving world ending stocks comparatively tight. However, vegetable oil prices started skidding in early 1999 due to bumper Argentine and Brazilian oilseed harvests and record U.S. oilseed plantings. Greater rapeseed plantings in the EU, China, India, and Canada also contributed to weaker oil prices, as did the emergence of Australia as a major world producer.

Leading the gains in vegetable oil production was a recovery in world palm oil output, from 17.1 million tons in 1997/98 to 19.3 million in 1998/99. Larger area and increased tree maturity were mostly responsible for the increase. Rains returned to Malaysian and Indonesian palm plantations in 1998, but it took until early 1999 to see any benefits on yields. Malaysian 1998/99 palm oil production expanded to 9.8 million tons from 8.5 million the previous year. Indonesian palm oil production increased from 5.0 million tons to 5.8 million.

For 1998/99, world consumption of palm oil rose 6 percent, compared with 1-percent growth in 1997/98. Early in the marketing year, unusually wide premiums for palm oil still moderated consumption for major importers such as China and India, shifting proportionately more food demand toward substitute oils. But late in 1998, a robust upswing in production finally signaled an end to the tight supply situation. Malaysian palm oil prices plunged in December with fears of importers defaulting or deferring new shipments. Although Malaysian palm oil exports surged to 8.1 million tons, they did not keep pace with the torrent of new production. For the year ending September 30, Malaysian stocks swelled from a very tight 0.7 million tons in 1997/98 to 1.2 million for 1998/99.

World palm oil trade surged 12 percent to 12.4 million tons. A more stable political environment and stronger currency also pushed Indonesian palm oil exports to 2.9 million tons in 1998/99, nearly one-fourth higher than the previous season. The Indonesian government, under a commitment to the International Monetary Fund, incrementally reduced the 60-percent export tax on crude palm oil to 10 percent, which freed up more supplies for export markets and added pressure on world prices.

In 1998, price premiums deterred palm oil imports by regions where soybean and sunflower oil were competitive, such as the Middle East, North Africa, and South Asia. Relative oil prices were a major impetus for the high crushing rates in Argentina, Brazil, and the United States. Global production of soybean oil jumped 6 percent to 24.1 million tons in 1998/99, led by Argentine crushing plants that increased soybean oil output 42 percent from 1997/98. Virtually all Argentine oil production is shipped abroad, so soybean oil exports surged to 3.1 million tons. Brazil's soybean oil production increased a more modest 3 percent with exports up to 1.4 million tons. These supplies supplemented a smaller, but relatively strong U.S. crush. Global soybean oil trade expanded 11 percent to 7.7 million tons. Similarly, brisk crushing increased world production of rapeseed oil 8 percent to 12.1 million tons and sunflowerseed oil nearly 10 percent to 9.1 million tons.

Global vegetable oil exports rose modestly from 29.8 million tons in 1997/98 to 31.2 million in 1998/99. A large portion of the gain went to India, where even small price shifts can cause a substantial change in consumption. In fact, India displaced China, at least temporarily, as the world's largest vegetable oil importer. Indian vegetable oil imports were favored by lower world prices, smaller domestic rapeseed oil and peanut oil supplies, and a reduction in oil import tariffs in August 1998. India held national elections in 1999, and government officials deferred to consumer interests by resisting appeals from farm and processor groups to limit vegetable oil imports with higher tariffs. Only a minor increase in the import duty (from 15 percent to 16.5 percent) was adopted. Indian consumption of all vegetable oils in 1998/99 soared 26 percent from 1997/98. With domestic supplies unable to keep pace, Indian imports of soybean, sunflowerseed, and rapeseed oil in 1998/99 were record large at 0.9 million, 0.6 million, and 0.2 million tons, respectively. Indian palm oil imports climbed to a record 2.5 million tons.

Similarly, Pakistan, Iran, Egypt, and Bangladesh sharply increased their vegetable oil imports. In 1999, Pakistan reacted to falling vegetable oil prices with a series of increases that doubled the import duties on soybean oil and palm oil, while eliminating duties on oilseeds. Pakistan also raised the import duty on soybean meal from 10 to 35 percent to stem the influx of Indian exports. The higher tariffs were intended to raise government revenue and favor domestic oilseed producers and processors. However, with a disappointing domestic cottonseed harvest, these steps were not enough to quell the surge in Pakistan's 1998/99 palm and soybean oil imports to 1.1 million and 0.4 million tons, respectively.

The relative inactivity of China in the world vegetable oil market helped take a toll on prices. Chinese farmers responded to the drought-curtailed 1997 harvest by produc-

ing a record 1998 peanut crop of 11.9 million metric tons. Additional peanut crushing raised domestic oil supplies by 0.3 million tons. The government also promoted domestic oilseed crushing, and long delayed the issuance of import quotas for vegetable oils. Higher Chinese rapeseed imports in 1998/99 raised domestic rapeseed oil output 9 percent to 3.2 million tons. Consequently, China's rapeseed oil imports fell 56 percent and soybean oil imports for 1998/99 dropped from 1.65 million tons in 1997/98 to 0.95 million. With only slightly less palm oil imports (1.25 million tons), China's total vegetable oil imports fell 30 percent to 2.4 million tons.

The Southeast Asian drought had adverse effects on 1998/99 world production of coconut oil, which fell 16 percent to 2.9 million tons. The Philippines usually accounts for about 40 percent of world coconut oil production and 60 percent of world exports. Philippine coconut oil production declined by one-third to 1.0 million tons in 1998/99 because drought reduced the coconut yield. Precipitation was above average since October 1998, but copra output was still depressed because of the lag in the harvest cycle. Copra is the dried meat of coconuts, which when crushed produces coconut oil. Two of the largest Philippine coconut oil producers (accounting for over half of the national output) temporarily closed because of the supply shortage.

Similar supply tightness in Indonesia, the second-largest producing nation, also prevailed. Philippine coconut producers gained at the expense of Indonesian exporters of palm kernel oil and coconut oil, who were deterred by imposition of export taxes. The supply of copra to Indonesian coconut oil producers dwindled as more copra (which was not subject to an export tax) was exported to foreign processors.

Consequently, global 1998/99 coconut oil exports plunged nearly 40 percent to 1.4 million tons. Inflation of world coconut oil prices ensued, with the Rotterdam price for May 1999 at $874 per ton, sharply above the 10-year average of $484. The major importers (European Union and United States) reacted by shifting to more imports of palm kernel oil, coconut oil's principal substitute for lauric acid.

## Cottonseed

In the 1998/99 season, U.S. farmers planted 13.4 million acres of cotton (all kinds), down 3.6 percent from the previous season. However, harvested area dropped 10 percent from a year earlier, as abandoned acreage was much higher. In addition, lower yields in 1998 caused final cottonseed production to fall 22.6 percent to 5.365 million short tons.

The total supply of cottonseed in 1998/99 was 6.135 million short tons, 19 percent below the previous year and the lowest since the 1991/92 season. Cottonseed crush was down 1.17 million short tons from the previous season while exports declined 54 percent to 68,000 short tons. Other use of cottonseed, primarily whole seed feeding, was 2.955 million short tons, 2,000 short tons below the 1997/98 season. Ending stocks on July 31, 1999, declined 30 percent from a year earlier to 393,000 short tons.

In the 1998/99 cottonseed products marketing year (October/September), cottonseed oil prices averaged near 28 cents per pound, compared with 28.84 cents a year earlier. Oil prices averaged 34 cents in October and November then continued to decline each month in 1999. During the first month of the marketing year, cottonseed meal prices averaged $161 per short ton then declined to slightly above $100 during the remainder of the year. The season average price was $110 per short ton, compared with $145 in 1997/98. In 1997/98, cottonseed oil represented 58 percent of the oil-and-meal value of products and cottonseed meal represented 42 percent. In 1998/99 cottonseed oil fell to 51 percent while meal rose to 49 percent. The total value of the oil and meal per ton of seed crushed in 1998/99 was $167, compared with $160 the previous season. Thus, even with a significant shift in the relative value of oil and meal, the total value of these products was relatively stable.

Despite lower availabilities and slightly higher prices, whole cottonseed feed use held essentially steady in 1998/99. Weak crushing margins for cottonseed permitted livestock feeding operations to bid whole cottonseed away from crushers.

Although the value of both oil and meal output declined in the 1998/99, whole cottonseed feeding's larger share of total use was reflected in a slightly higher average price received by farmers for cottonseed. U.S. farmers received $123 per short ton in 1998/99, up from $121 a year earlier. Based on a crop of 5.365 million short tons, the farmgate value of the 1998 cottonseed crop is placed at $660 million, below the previous season's $876 million, and the lowest since 1992.

## Peanuts

In December 1997, USDA announced a national peanut poundage quota for the 1998/99 marketing year (August/July) of 1.167 million short tons, in-shell basis, or 2,334 million pounds, up 3 percent from a year earlier. This amount equaled the estimated quantity of peanuts needed for domestic edible and related uses, and allowed for under-deliveries of up to 4.5 percent. In February 1998, USDA announced a national average price support for 1998-quota peanuts of $610 per short ton, unchanged from a year earlier, and a national average support rate for additional peanuts of $132 per short ton, also unchanged.

U.S. peanut producers planted 1.521 million acres of peanuts in 1998, up 6.1 percent from a year earlier. By region, 1998 peanut plantings increased in the Southeast (AL, FL, GA, and SC) by 3.8 percent to 848,000 acres, rose in the Virginia-North Carolina region by 2 percent to 201,000 acres, and increased in the Southwest (TX, OK, and NM) by 13.2 percent to 472,000 acres.

U.S. peanut production in 1998 totaled 3.963 million pounds, in-shell basis, up 12 percent from the previous year. Average yield per harvested acre was 2,702 pounds, up 199 pounds from 1997. Larger production and imports generated total supplies of 4.967 million pounds in 1998/99, the largest since 1994/95.

The 1998 growing season was less than ideal with cool, wet weather in the early spring, then hot and dry weather that caused severe drought across several major producing States. However, peanuts in Georgia proved much better than expected as yields averaged 330 pounds above the previous year. Hot, dry conditions did reduce the crop in South Carolina. Texas growers recorded their highest production ever and matched the 1997 season's record yield of 2,610 pounds per acre.

### *U.S. Peanut Food Use Rises in 1998*

Food use of peanuts rose for the third straight year in 1998/99, following several seasons of decline. Food use rose 1.8 percent to 2,137 million pounds, in-shell basis. The increase was comprised of a 2.7-percent growth rate for primary products and a 9.3-percent decline in roasting stock use.

Individual categories of primary product use in 1998/99 saw peanut candy rise 8.3 percent, snack peanuts rise 12.8 percent, peanut butter fall 2 percent, and "other" use fall 37.6 percent. In the important peanut butter category, a 23.4-percent decline in government purchases was partially responsible for lower disappearance. Assuming constant stocks of

peanut butter and adjusting for trade, non-government purchases of peanut butter were slightly above 1997/98.

### *Despite Larger Supplies, Peanut Crush Falls*

On an in-shell basis, peanuts crushed in 1998/99 totaled 460 million pounds, 25.4 percent below the previous season and the lowest since the 1983/84 marketing year. Peanut exports were also lower, declining to 561 million pounds from 681 million in 1997/98. Imports of peanuts rose to 155 million pounds, the highest since 1980/81.

The lower peanut crush in 1998/99 dropped oil production to 167 million pounds, the lowest since 1983/84. Record peanut oil imports of 73 million pounds helped boost total supplies to 281 million pounds, only 4.1 percent below the previous season. With peanut oil prices averaging 40.6 cents per pound in the 1998/99 season, versus 49 cents a year earlier, domestic consumption increased to 230 million pounds. Despite lower production, larger imports kept ending stocks at 40 million pounds, 1 million below the beginning level.

Production of peanut meal in 1998/99 also fell to 109,000 short tons, the lowest since 1983/84. Total use was 107,000 short tons, leaving ending stocks of only 1,000 short tons. The season average price for peanut meal dropped to $122 per short ton, down sharply from the previous season's $210.29.

### *U.S. 1998-Crop Peanut Prices Fall*

With the largest supply in 3 years, the 1998/99 U.S. average farm price for peanuts fell to 28.0 cents per pound from 28.3 cents a year earlier. Based on the outturn of 3.963 billion pounds, the farm value of the 1998/99 crop increased to $1,109.6 million, 10.8 percent above the previous crop.

## Sunflowerseed

World wheat production reached a record in 1997/98 and declined little in 1998/99, which again meant lower prices for U.S. spring wheat. With the elimination of planting requirements for grains in 1996, many Northern Plains farmers have since added more oilseeds to their rotations. Alternating crops helps to break the cycle of wheat diseases that have plagued producers in recent years. In 1998, spring wheat planting in North Dakota, Minnesota, and South Dakota declined 1.1 million, 0.5 million, and 0.4 million acres, respectively. In addition, strong vegetable oil prices especially favored producing high oil content oilseeds, so farmers expanded plantings of sunflowers, flax, and canola.

Farmers in the United States expanded sunflower plantings in 1998 to 3.6 million acres, 0.7 million more than in 1997. North Dakota (the top producing State) acreage increased 520,000 acres, which were predominately oil-type varieties. Expanded acreage and a record yield pushed national sunflowerseed production to 5,273 million pounds. This was the third largest U.S. harvest, behind 1979 and 1982. Given the rebound in yields and harvested area, oil-type sunflowerseed production soared 50 percent, while output of non-oil varieties rose 14 percent.

Early in the fall, domestic sunflowerseed crushing had slowed because of relatively tight carryover stocks. But with the influx of new crop production, crushing accelerated quickly. By early 1999, returns from domestic sunflowerseed crushing suffered due to the tumble in vegetable oil prices. The U.S. 1998/99 sunflowerseed crush increased to 2,596 million pounds, compared with 2,338 million the year before. Tightness of cottonseed supplies for dairy feeding decreased the discount compared to sunflowerseed, helping raise non-oil sunflowerseed use to 1,854 million pounds.

Smaller French and Spanish sunflowerseed crops swelled EU imports from Russia and Ukraine. But dry weather produced disappointing 1998 harvests in the latter exporting countries, shrinking supplies available to Western European crushers. Consequently, demand for U.S. exports of oil-type sunflowerseed was robust in the first half of the season. Russia's imposition of a 10-percent export duty on sunflowerseed in January further restricted availability to the EU oilseed sector. The fast pace continued until the bumper Argentine harvest became available beginning in March. U.S. exporters of oil-type sunflowerseed benefited and total sunflowerseed exports for 1998/99 rose to 564 million pounds, the largest since 1994/95.

Despite robust domestic and foreign demand, huge supplies reversed the tight 1997/98 carryout of 202 million pounds, swelling year ending sunflowerseed stocks to 508 million in 1998/99. Sunflowerseed prices received by farmers receded from the 1997/98 average of $11.60 per cwt to $10.75.

Like soybean oil, demand for U.S. sunflowerseed oil exports was relatively strong. U.S. exports for 1998/99 were about 805 million pounds, down 1 percent from the year earlier. Mexico accounted for about half of U.S. exports. Near-record 1998/99 U.S. sunflower oil production, as well as pressure from competing vegetable oils, reduced the Minneapolis average price from 27.6 cents per pound in 1997/98 to 20.2 cents in 1998/99. Similar forces dropped the 1998/99 average sunflowerseed meal price from $82 per short ton to $65.

## Other Minor Oilseeds

U.S. canola acreage surged again in 1998 from 671,000 acres in 1997 to a record 1.1 million. Excellent yields also helped boost canola seed output to a record 1,589 million pounds. Rising domestic supplies reduced U.S. import needs from 782 million pounds in 1997/98 to 684 million pounds. In addition, an unprecedentedly high volume of Canada's canola seed supplies was committed to China. U.S. exports of canola seed rose because genetically enhanced Canadian

seed was not approved for import by the EU. The rise in seed exports moderated the increase in the 1998/99 U.S. canola crush.

Despite lower crushing margins, Canadian crushing was very brisk, and generated a record volume of canola oil and meal, much of which was exported to the United States. Abundant domestic oil supplies slowed 1998/99 canola oil imports to just over 1 billion pounds, although a depreciated Canadian dollar supported Canadian shipments to the United States. Likewise, U.S. canola meal imports of around 1.2 million short tons contributed to an already ample domestic supply of protein meals and further pressured prices.

Flaxseed production also had a resurgence in 1998. U.S. flax acres jumped to 336,000 acres, more than double the 1997 area and the largest since 1991. Virtually all the increase was in North Dakota, where 280,000 acres were planted. With a good growing season, U.S. output surged to 6.7 million bushels, the largest since the 1987 harvest. Larger domestic production scaled back flaxseed imports from 9.6 million bushels to 6.0 million. U.S. flaxseed exports reached 476 million bushels, the largest in 7 years. Nevertheless, the surge in supplies far exceeded demand growth, so year-ending stocks nearly doubled to 2.2 million bushels. The season average farm price slipped from $5.81 per bushel to $5.10, just below the 1998/99 national average loan rate of $5.21.

U.S. safflower acreage swelled by one-third in 1998 to 303,000 acres. However, yields fell sharply to just 1,446 pounds per acre, and the harvest rose only 5 percent to 412,000 pounds. Thus, modest growth in safflower seed demand was possible without much growth in carryout stocks.

# Other Fats and Oils Highlights

### *Corn Oil*

Growing demand for corn syrup, starch, and ethanol has allowed output of the byproduct corn oil to keep pace with its demand. U.S. corn oil producers made 2,374 million pounds in 1998/99, up nearly 2 percent from the previous year. Corn oil prices plummeted from 29.2 cents per pound in January to 26.6 cents in February and stabilized around 22.5 cents by summer. However, soybean oil prices weakened even more, so the price premium for corn oil widened from 4.25 cents per pound to 7 cents over soybean oil. Lower prices encouraged a 5-percent increase in total domestic disappearance of corn oil to 1,346 million pounds. U.S. corn oil exports, which go mainly to Mediterranean countries, dropped slightly to 1,040 million pounds from 1,100 million a year earlier.

### *Imported Oils*

Despite its role as one of the world's largest exporters of animal fats and vegetable oils, the United States is also a leading importing country. Anticipating a shortfall in 1998/99 Philippine coconut oil production, U.S. buyers initiated a large buildup of stocks (392 million pounds) by the end of 1997/98. As foreign supplies waned, U.S. 1998/99 imports of coconut oil fell to 805 million pounds, compared with 1,440 million in 1997/98. A drawdown in stocks cushioned the impact, but soaring prices rationed domestic consumption, particularly for inedible uses. Rising values for lauric oils also limited the increase in U.S. palm kernel oil imports, from 359 million pounds in 1997/98 to 370 million in 1998/99.

The unit value of palm oil imports averaged 24.0 cents per pound in 1998/99, compared with 21.1 cents in 1997/98. However, once the weather and economic situations stabilized in Indonesia and Malaysia, international palm oil prices settled back from their 1998 peaks. In response, U.S. palm oil imports began to firm up again halfway into 1998/99, growing from 282 million pounds to 291 million.

Global olive oil production dropped 12 percent in 1998/99 to 2.1 million tons due to reduced output from the top three producers (Spain, Italy, and Greece). Freezing weather damaged Spanish production. The three countries are also the leading olive oil consumers, so the effect on world trade was comparatively modest. Despite a disappointing Spanish harvest that spiked prices in late 1998, output from other producing nations moderated the global impact. The unit value of U.S. olive oil imports settled to about $2,000 per metric ton in 1998/99 from $2,208 per ton in 1997/98. Therefore, U.S. olive oil imports continued to grow in 1998/99, rising from the previous season's 355 million pounds to 386 million.

### *Animal Fats*

In early 1999, record slaughter rates and heavy animal weights swelled output for the animal fats industry. Edible tallow production rose 10 percent in 1998/99 to 1,675 million pounds, while lard output grew about 4 percent to 1,106 million pounds. U.S. exports of tallow and lard expanded to 330 million and 135 million pounds, respectively, but did not surpass trade volumes of the early 1990's. A large surplus of domestic supplies developed instead. The surplus and pressure from vegetable oils prices caused average prices for edible tallow and lard (basis Chicago) to slump to 12.5 and 12 cents per pound, respectively, in 1998/99 from 20.7 cents and 19.5 cents in 1997/98. Consequently, domestic consumption absorbed much of the expanded supplies at a low cost. Edible tallow and lard disappearance rose 6-7 percent in 1998/99 to 1,354 million and 993 million pounds, respectively.

### *End Uses of Fats and Oils*

U.S. production of salad and cooking oils slowed from a robust 12-percent growth in 1997 to just 0.4 percent in 1998. Imports of refined oils and olive oil also slipped. Exports of salad and cooking oils surged 18 percent to 834 million pounds. The cyclical nature of U.S. consumption trimmed domestic disappearance 2 percent as stocks owned by end users expanded. Therefore, U.S. per capita salad and cooking oil consumption also dipped from 28.6 pounds in 1997 to 27.8 in 1998. In the manufacture of salad and cooking oils, there was little change in soybean oil consumption, but gains in corn oil and canola oil compensated for a reduction in cottonseed oil consumption.

U.S. output of baking and frying fats halted its generally declining trend with a modest 1.2-percent increase in 1998, from 5,656 million pounds in 1997. Per capita consumption of baking and frying fats stabilized at 21.0 pounds. Although consumption of cottonseed oil, lard, and tallow for shortenings declined, a 5-percent increase in soybean oil use offset these other sources. Soybean oil accounted for 83 percent of all oils used for making baking and frying fats.

For the fifth consecutive year, U.S. margarine production declined, down 2 percent from 1997 to 2,311 million pounds in 1998. The slide in per capita consumption continued, dropping to 8.5 pounds. Consumption of soybean oil (the dominant oil source) for margarine, fell 2 percent to 1,606 million pounds while consumption of animal fats rebounded from a low 1997 level.

# Impacts of the U.S. Marketing Loan Program for Soybeans

*Paul C. Westcott and J. Michael Price*[1]

**Abstract:** Baseline projections for 1999 and 2000 indicate soybean prices that are lower than the soybean loan rate, resulting in revenue-boosting, marketing loan benefits to soybean farmers in the form of loan deficiency payments and marketing loan gains. Implications of this situation are examined for the soybean sector as well as for effects on other crops. Of particular interest are effects of marketing loans on acreage, prices, and exports to identify and quantify market distortions of this domestic support program in the context of U.S. commitments to the World Trade Organization. The analysis uses USDA's 1999 baseline and simulations of an econometric model for the U.S. agricultural sector (FAPSIM). Comparisons are made between a marketing loan program scenario that represents current policy and a scenario with no commodity loan program. Results indicate somewhat higher soybean acreage due to marketing loans, raising soybean sector exports and lowering soybean prices. Much of the soybean acreage gain comes from corn, sorghum, and upland cotton, reducing production and exports of those crops, while increasing their prices. Most impacts occur in the years when there are soybean marketing loan benefits, with little effect in subsequent years when soybean prices rise above their loan rate.

## *Introduction*

Commodity loan programs in the United States are one of the major domestic support programs and have been in existence in various forms since the 1930s, primarily covering major field crops. Different versions of these programs over time have been designed to provide different benefits to producers, including price support, income support, price stability, and short-term liquidity.

In the past 15 years, loan programs for major field crops have moved from price support programs to marketing loan programs. While costs of marketing loan programs through 1997 were generally quite small, lower commodity prices in the last few years have led to significant program costs. Total marketing loan benefits rose from less than $200 million for 1997 crops to more than $3.7 billion for 1998 and could exceed $5 billion for 1999 crops. For U.S. commitments to the World Trade Organization (WTO) under the 1994 Uruguay Round Agreement on Agriculture, marketing loans are considered to be "amber box" because of their potential to significantly affect production and trade.

This paper investigates the nature of market distortions in the U.S. agricultural sector resulting from the soybean marketing loan program. Effects of the program within the soybean sector as well as cross-commodity effects to other crops are analyzed. Of particular interest are effects of this domestic support program on acreage, prices, and exports to identify and quantify market distortions in the context of U.S. commitments to the WTO.

## *Commodity Loan Programs—Price Support and Marketing Loan Programs*

Commodity loan programs have been operated in two major ways. Commodity loan programs supported market prices over most of their history, starting in 1933. Marketing loans have been used more recently, starting in the mid-1980s with rice and upland cotton, and provide income support but do not support market prices.

Commodity loan programs allow producers of designated crops to receive a loan from the government at a crop-specific loan rate per unit of production by pledging production as loan collateral. Following harvest of the crop, a farmer may obtain a loan for all or part of the new crop.[2] For production put under loan and pledged as loan collateral, the

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[2] Generally, participation in farm commodity programs for the crop has been required for loan program participation. In the past, annual commodity programs for feed grains, wheat, rice, and upland cotton included supply management provisions (such as acreage reduction programs or set-aside programs) and producers were required to comply with such provisions to be eligible for program benefits, including the loan program and target-price-based deficiency payments. Under the 1996 Farm Act, supply management programs were eliminated, but farmers of program crops were required to enroll at least one program crop in the 7-year program to be eligible for program benefits, including production flexibility contract payments and commodity loans (Young and Westcott). For oilseeds, however, there have been no other program features beyond the loan program, so no program enrollment has been required and all production of oilseeds has been eligible for the loan program.

farmer receives a per-unit amount equal to that year's loan rate. Under the loan program, the producer must keep the crop designated as loan collateral in approved storage to preserve the crop's quality. The producer may repay the loan (plus interest) at any time during the length of the loan, usually 9 months for most crops (10 months for cotton).

Before marketing loans were implemented (discussed below), to repay the loan, the farmer would return the loan principal plus accrued interest charges. Alternatively, rather than repaying the loan, the farmer could choose to default on the loan at the end of the loan period, keeping the loan money and forfeiting ownership of the loan collateral (the crop) to the government. If market prices were below the loan rate, the farmer would benefit from defaulting on the loan and keeping the higher loan rate. Additionally, if market prices were above the loan rate, but below the loan rate plus interest, keeping the loan proceeds and forfeiting the crop would also make economic sense because the cost of settling the loan (loan rate plus interest) would be greater than the market value of the crop. Price support to the sector was provided by the acquisition of crops by the government through loan program forfeitures, which essentially removed crops from the marketplace.

With the introduction of marketing loans, the operation of commodity loan programs changed. Marketing loan programs were started for rice and upland cotton in 1986 under provisions of the 1985 Farm Act. Subsequent legislation mandated marketing loan programs for soybeans and other oilseeds starting in 1991. Marketing loan programs for wheat and feed grains were implemented starting with 1993 crops, under the GATT trigger provisions of the Omnibus Budget Reconciliation Act of 1990. The 1996 Farm Act continued marketing loan programs for all of these crops.

Under a marketing loan program, loan placements may occur as described above. However, as implemented, marketing loan provisions allow repayment of commodity loans at less than the original loan rate when market prices are lower. This feature decreases the loan program's potential effect on supporting prices because stock accumulation by the government through loan defaults is reduced. Instead, farmers are provided economic incentives to retain ownership of the crops and sell them (hence the term "marketing loan") rather than default on loans and forfeit ownership of crops to the government.

Producers can receive marketing loan benefits in two different ways. The first way is through the loan program. Farmers place their crop under the commodity loan program, as described above, by pledging and storing some of their production as collateral for the loan, receiving a per-unit loan rate for the crop. But rather than repaying the loan (plus interest) at some time during the loan period, farmers are allowed to repay the loan at a lower loan repayment rate when market prices are below the loan rate. Marketing loan repayment rates are based on local, posted county prices for wheat, feed grains, and oilseeds, or the prevailing world market price for rice and upland cotton. When a farmer repays the loan at the lower posted county price or prevailing world market price, the difference between the loan rate and the loan repayment rate is called a marketing loan gain and represents a program benefit to producers. In addition, any accrued interest on the loan is waived.

Alternatively, farmers of crops covered by the loan programs (except extra-long staple cotton) may choose to receive marketing loan benefits through direct loan deficiency payments (LDPs) when market prices are lower than commodity loan rates. The LDP option allows the producer to receive benefits of the marketing loan program without having to take out and subsequently repay a commodity loan. The LDP rate is the amount by which the loan rate exceeds the posted county price or prevailing world market price, and thus is equivalent to the marketing loan gain that could alternatively be obtained for crops under loan. If an LDP is paid on a portion of the crop, that portion cannot subsequently go under loan. By taking the LDP and immediately selling the crop, a producer can effectively receive a per-unit revenue equal to the loan rate (assuming the sales price equals the posted county price), partly from the market and the rest from the government.

The marketing loan program thereby provides an effective per-unit revenue floor at the loan rate for eligible crops, with a countercyclical effect occurring through marketing loan benefits when the price is below the loan rate. However, the marketing loan program does not establish a floor for market prices since commodities typically remain available to the marketplace rather than being acquired by the government through loan program forfeitures.

Thus, when the expected market price for a given crop is below its loan rate, the loan rate provides the economic incentive to plant that crop because market receipts are augmented by marketing loan benefits. As a result, producers plant more acreage to supported crops than they otherwise would. Further, if loan rates do not reflect relative market prices, the mix of crops planted also may be affected.

### *Soybean Loan Program Background*

The soybean loan program was first introduced in 1941 and has been in place since then except in 1975 (Schaub and others). In most years, particularly since 1970, annual soybean prices have been above the soybean loan rate (fig. A-1), with farmers using the soybean loan program mostly as a source of short-term liquidity until they sold their crop. However, in some years, mostly before 1970 and in the mid-1980s, soybean prices fell to near the loan rate and loan program activity supported market prices through placements and forfeitures. Loan placements of the 1985 soybean crop, for example, reached nearly 25 percent of production, and nearly 60 percent of those placements (about 14 percent of the crop)

Figure A-1

**Soybean prices and loan rates**


Source: 1998-2008 projections, February 1999 USDA Baseline.

were forfeited to the government. Season average prices for soybeans for 1985 (when 1985 loan placements occurred) and 1986 (when most 1985-crop loan defaults occurred) were within a few cents of the respective loan rates.

Recently, strong U.S. and global production of soybeans have led to large supplies, building stocks and reducing soybean prices. Prices for soybeans in USDA's 1999 baseline projections were below the soybean loan rate for 1999 and 2000 (USDA). However, with the introduction of marketing loan provisions to the commodity loan program for soybeans in 1991, the nature of this domestic support program has changed from the price supporting role of earlier loan programs. Marketing loan provisions still provide an economic incentive to producers equal to the loan rate, although the program benefit is provided through an income transfer rather than through a price support achieved by government acquisition of the crop through loan defaults. Under marketing loan provisions, producers generally retain ownership of the crop and sell it in the marketplace at market prices, without prices being supported by government purchases. Nonetheless, marketing loan benefits to producers mean that the economic incentive for production decisions is related to the loan rate rather than to the market price, thus introducing potential distortions to the soybean market.

### *WTO Treatment of Domestic Support Programs*

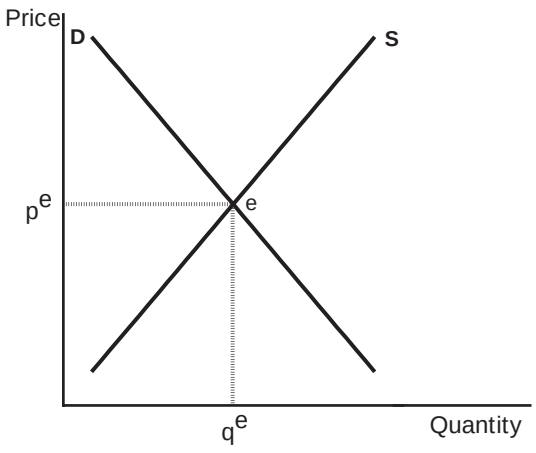
In the 1994 Uruguay Round Agreement on Agriculture, domestic support programs were categorized into groups based on whether the support provided was coupled to production and the degree of the program's potential effect on production and trade (Nelson, Young, Liapis, and Schnepf; Young, Nelson, and Schnepf). Amber box policies cover programs that have the most potential to distort production and trade. These policies are subject to limitations under the WTO with the level of allowable support gradually declining over time. Green box policies are those that have the smallest effect on production and trade and are therefore permitted without limitation under the WTO. Blue box policies include payments made as part of programs that also have production-limiting features.

The U.S. marketing loan program is considered to be an amber box, domestic support program for WTO notifications. This classification reflects the general availability of marketing loan benefits to program participants for production of eligible crops regardless of use, as well as the potential of the program to influence crop production decisions of farmers through economic incentives provided by those program benefits.

### *Analytical Framework*

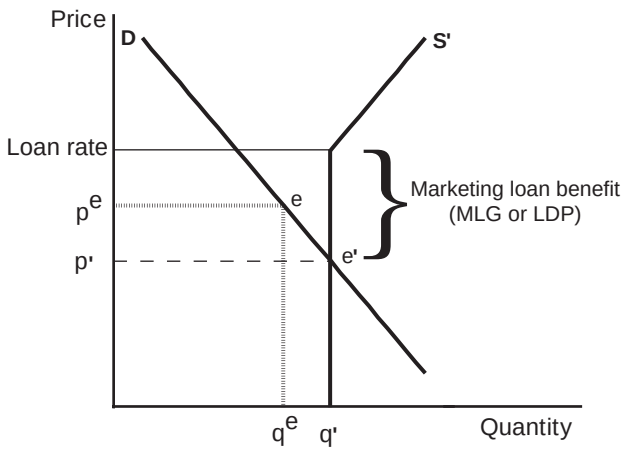
Figures A-2 and A-3 illustrate the effects of marketing loans on commodity markets. Figure A-2 starts with a simple no-program situation without market distortions. Market equilibrium is at the intersection of supply and demand at point e with a price of $p^e$ and an equilibrium quantity of $q^e$. This no-program equilibrium provides a reference point for assessing impacts of the alternative policy situation of a marketing loan program.

Figure A-2
**Supply and demand, market equilibrium**




Source: Economic Research Service, USDA.

Figure A-3
**Supply and demand, marketing loan program**




Source: Economic Research Service, USDA.

Marketing loan provisions are then added for the commodity in figure A-3, at a loan rate that exceeds the no-program price equilibrium. The primary effect is that the supply curve is kinked and becomes perfectly inelastic at the loan rate. For any price movement below the loan rate, the producer can capture a marketing loan benefit, through either a marketing loan gain or a loan deficiency payment. Assuming that the sales price for the crop is equal to the posted county price, the marketing loan benefit ensures a per-unit revenue for the crop equal to the loan rate. Thus, the loan rate becomes the effective producer incentive price that applies for the supply curve at all prices below the loan rate. The demand function for the commodity is not affected by the marketing loan program, so it remains the same as in figure A-2. However, a new equilibrium results at point e' at a price of p' and a quantity of q'.

Comparisons to the no-program equilibrium at point e provide an indication of the distortions introduced by the marketing loan program. With the marketing loan program, the producer incentive price has been raised from the no-program price equilibrium level of $p^e$ to the loan rate. In response, farmers expand production, by $(q' - q^e)$ in figure A-3. Since the demand function is not affected by the marketing loan program, the increase in production moves the equilibrium down along the demand function. At the new equilibrium, the quantity demanded is augmented by the same amount as the production increase, $(q' - q^e)$. To the extent that exports are a portion of this new equilibrium quantity demanded, some part of $(q' - q^e)$ represents a program distortion affecting exports. The increase in production reduces the market price, by $(p^e - p')$ in figure A-3. Importantly, while the marketing loan program raises the producer incentive price, the market price at the new equilibrium is lower.

Other crops are affected as well. These effects reflect both the higher producer incentive price provided to farmers of the crop eligible for marketing loan benefits as well as the reduced market price for that crop. The higher producer incentive price for the marketing loan crop shifts the supply curve to the left for other crops that compete with the marketing loan crop for planted acreage. The reduction in market prices for the marketing loan crop moves the demand curve to the left for crops that compete with (are substitutes for) the marketing loan crop in uses, while moving the demand curve to the right for crops that are demand complements with the marketing loan crop. Empirically, supply adjustments dominate in these cross-commodity effects.

### *Model Simulations and Results*

To illustrate the effects of marketing loan provisions, an analysis was conducted for the soybean program. Projections in the 1999 USDA baseline indicate soybean market prices that are lower than the soybean loan rate for 1999 and 2000, resulting in marketing loan benefits for soybean producers.

The analysis uses simulations of a U.S. agricultural sector model, FAPSIM (see box). FAPSIM was initially simulated to depict the 1999 USDA baseline scenario that includes the effects of soybean marketing loans. A second model simulation was then conducted with FAPSIM that removed marketing loan provisions. The simulation without marketing loan provisions provides a reference scenario from which to measure effects of marketing loans.

As a simplifying assumption in the model, marketing loan benefits were assumed in the simulations only when the season average price was below the loan rate. Since marketing loan gains and loan deficiency payments are based on daily or weekly prices, benefits can exist within a crop year even if the season average price exceeds the loan rate due to the seasonal movement of prices. Additional benefits of the program reflect the reduction of downward revenue risk even when expected prices exceed the loan rate. As such, program impacts are somewhat under-represented in the model

## The Modeling Framework—FAPSIM

The Food and Agricultural Policy Simulator (FAPSIM) is an annual econometric model of the U.S. agricultural sector. The model was originally developed at the U.S. Department of Agriculture during the early 1980s (Salathe, Price, and Gadson; Gadson, Price, and Salathe). Since that time, FAPSIM has been continually re-estimated and re-specified to reflect changes in the structure of the U.S. food and agricultural sector. Because of the model's size (over 700 equations), only a brief discussion of the general structure and content of the model is presented here.

The model contains three broad types of relationships: definitional, institutional, and behavioral. Definitional equations include identities that reflect mathematical relationships that must hold among the data in the model. For example, total demand must equal total supply for a commodity at any point in time. The model constrains solutions to satisfy all identities of this type.

Institutional equations involve relationships between variables that reflect certain institutional arrangements in the sector. This would include commodity loan rates, for example, that are announced annually for major crops, using fixed formulas established by U.S. farm programs.

The two preceding types of equations reflect known relationships that necessarily hold among the variables in the model. Behavioral equations are quite different because the exact relationship is not known and must be estimated. Economic theory is used to determine the types of variables to include in behavioral equations, but theory does not indicate precisely how the variables should be related to each other. Examples of behavior relationships in FAPSIM are the acreage equations for different field crops. Economic theory indicates that production should be positively related to the price received for the commodity and negatively related to prices of inputs required in the production process. Producer net returns are used in the FAPSIM acreage equations to capture these economic effects. The net returns measures also include policy features, such as marketing loan provisions, that can influence planting choices. Additionally, net returns for other crops that compete with each other for land use are included in the acreage equations.

For the most part, a linear relationship is used to approximate the general functional form for each behavioral relationship. All of the parameters in the linear behavioral relationships were estimated by single equation regression methods. The large size of the model precludes the use of econometric methods designed for systems of equations. Ordinary least squares was used to estimate the majority of the equations. If statistical tests indicated the presence of either autocorrelation or heteroscedasticity in the error structure of an equation, maximum likelihood methods or weighted least squares were used.

Commodities included in FAPSIM are corn, sorghum, barley, oats, wheat, rice, upland cotton, soybeans, cattle, hogs, broilers, turkeys, eggs, and dairy. Each commodity submodel contains equations to estimate production, prices, and the different demand components. The submodels are then linked together through common variables that are important to the different commodities. The model solution computes the market prices that equilibrate supply and demand in all of the commodity markets simultaneously.

The ability of the FAPSIM model to simulate different policies lends itself to analysis of marketing loan provisions. Further, the variables in the model reflect USDA's baseline projections, which are a Departmental consensus on a long-run scenario for the U.S. agricultural sector. The baseline projections are based on specific assumptions regarding the macroeconomy, international developments, weather, and agricultural policies. Thus, the baseline provides a well-defined scenario from which alternative scenarios can be compared. The analysis in this article is based on long-term projections from USDA's February 1999 baseline (USDA).

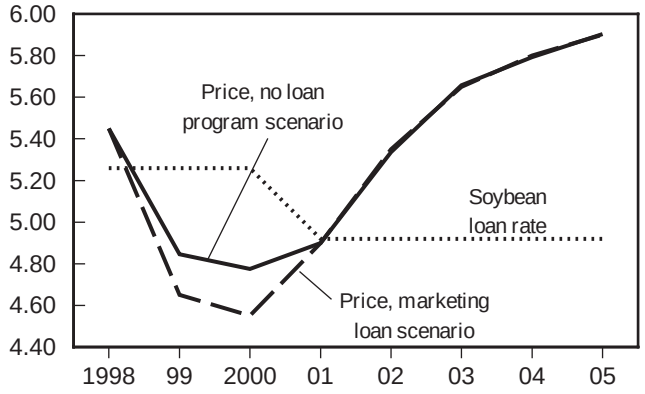
simulations. However, this modeling simplification allows the analysis to focus on effects of marketing loan provisions for just one crop since soybeans is the only crop in the 1999 USDA baseline with season average prices projected lower than its loan rate.

The marketing loan scenario introduces program benefits to soybean producers in 1999 and 2000 because loan rates exceed market prices in those 2 years (fig. A-4). The higher implicit producer incentive price in those years raises soybean net returns as well as relative net returns compared with other crops. In response, soybean producers plant more soybeans. With soybean price expectations initially 40 to 50 cents below the soybean loan rate in 1999 and 2000, soybean marketing loans are estimated in the model simulations to add 1.1 to 1.2 million acres to soybean plantings in those years (fig. A-5).

Cross-commodity effects draw much of the increase in soybean plantings from competing crops, particularly corn, sorghum, and upland cotton, reflecting the effects of soybean marketing loan benefits on relative net returns among the cropping alter-

Figure A-4
**Soybean prices and loan rates**

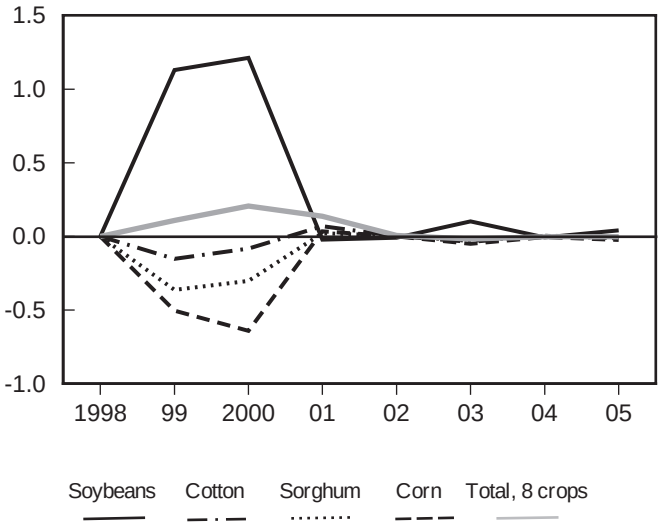
$ per bushel




Source: Economic Research Service, USDA.

Figure A-5
**Acreage impacts of soybean marketing loans**

Million acres




Reflects effects of soybean marketing loan benefits in 1999 and 2000.

Source: Economic Research Service, USDA.

natives. However, total planted acreage for eight major field crops increases 100,000 to 200,000 acres, as the aggregate effect on acreage reflects the addition of a subsidy to the sector.

Importantly, acreage effects are largely confined to those years where prices are below the loan rate for soybeans (1999 and 2000 in the model simulations), years when marketing loan benefits augment expected market returns and distort production incentives. Only small dynamic, carryover effects on plantings occur in subsequent years (2001 and beyond) when prices rise above loan rates and soybean marketing loan benefits are no longer present in the simulations.

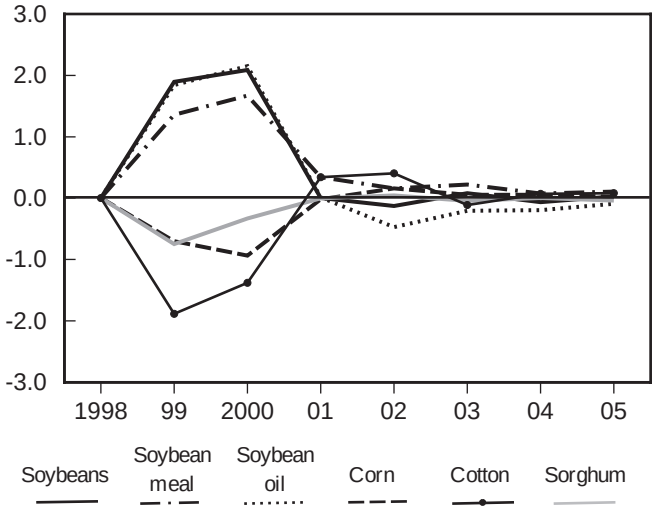
Trade-distorting effects of soybean marketing loan provisions result from the effects on planted acreage. With increased production, the soybean market clears at lower prices with a higher equilibrium quantity demanded, including soybean exports. Domestic soybean crush is also increased with exports of soybean meal and soybean oil raised as well. U.S. exports for soybeans, soybean meal, and soybean oil for 1999 and 2000 are generally 1 to 2 percent higher in the model simulations (fig. A-6). For corn, sorghum, and cotton, however, reduced production leads to lower exports at somewhat higher prices. Cotton exports decline by 1 to 2 percent in the simulations, while corn and sorghum exports decline by less than 1 percent. These soybean sector and cross-commodity impacts on exports provide trade-distorting effects to global markets for those crops. However, as for the acreage effects, U.S. export and trade impacts are primarily in the 2 years in the scenarios when marketing loan benefits existed, with limited effects in subsequent years.[3]

Higher soybean production pushes prices further below the soybean loan rate. Soybean prices are reduced 20 to 25 cents a bushel in 1999 and 2000 in the simulations (fig. A-7), with corresponding higher marketing loan benefits resulting. Lower production for crops that lose acreage to soybeans pushes their prices up. Price increases for corn and

[3] This result differs from the effects of price-supporting loan programs as existed prior to the introduction of marketing loans. For such programs, stock accumulation by the government through loan defaults in lower-priced years leads to release of government stocks at a later time, thus extending market impacts, including exports effects, over a longer time period. However, multi-year, cumulative impacts under a price-supporting loan program are largely offsetting.

Figure A-6
**Export impacts of soybean marketing loans**

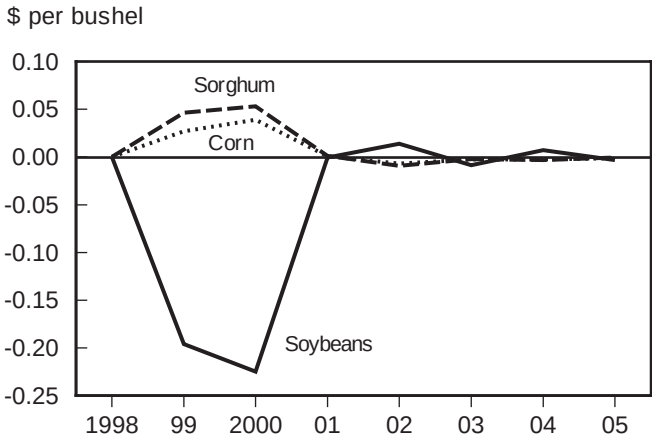
Percent




Reflects effects of soybean marketing loan benefits in 1999 and 2000.

Source: Economic Research Service, USDA.

Figure A-7
**Price impacts of soybean marketing loans**




Reflects effects of soybean marketing loan benefits in 1999 and 2000.

Source: Economic Research Service, USDA.

sorghum are less than 6 cents a bushel, while cotton prices rise by less than 1 percent. Again, impacts are mostly in years when soybean marketing loan benefits occur in the model simulations.

## *Conclusions*

The marketing loan program in the United States has the potential to distort domestic production, U.S. exports, and global trade. Consequently, the program is classified as an amber box, domestic support policy in WTO notifications. Market effects primarily reflect increased production incentives provided to farmers through the loan program or loan deficiency payments when market prices fall below commodity loan rates. Because marketings of crops are not directly affected by the program, increased production that results for the marketing loan crop leads to a new equilibrium with a lower price and an increased quantity demanded. That is, most distortions for the supported crop derive from the increase in its production and reflect the market response to the larger supply. Additionally, most of the effects of marketing loan programs occur in the years when prices are below the loan rates and marketing loan benefits exist. Only small dynamic, carryover effects occur in later years after prices rise above loan rates.

Cross-commodity effects also are important. Increased acreage for the marketing loan crop draws land from competing crops, reflecting program-related changes in relative net returns. This results in reduced production, lower exports, and higher market prices for crops that lose acreage to the supported crop.

For the soybean marketing loan scenario analyzed in this article, acreage and export impacts are generally below 2 percent and price impacts are lower than 5 percent. Because of modeling simplifications assumed in the empirical analysis, these impacts are likely to somewhat under-represent the full effects of marketing loans. Additionally, the magnitudes of these impacts are dependent on the size of the initial marketing loan benefits analyzed in the scenario, 40 to 50 cents a bushel. Larger impacts would result for scenarios with lower prices and larger marketing loan benefits. Conversely, smaller effects would result with higher prices and smaller marketing loan benefits. Nonetheless, the results illustrate some of the key properties of how marketing loan programs affect agricultural commodity markets.

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# Upcoming World Trade Organization Negotiations: Issues for the U.S. Oilseed Sector

*Linwood Hoffman, Erik Dohlman, and Mark Ash*[1]

**Abstract:** Output of oilseeds and oilseed products in the United States has risen substantially in the past 20 years. U.S. exports of these oilseeds and products have fluctuated over this period, but the U.S. share of global exports has experienced a downward trend. Forthcoming World Trade Organization (WTO) negotiations in Seattle are likely to include issues important to the U.S. oilseed industry's trade prospects. Issues could include increased market access, continued reduction in domestic support programs and export subsidies, tighter disciplines on State Trading Enterprises, and uniform world trading rules and regulations for genetically engineered commodities. The possibility of WTO accession by China and Taiwan is also an important related issue. Enhanced market opportunities for the U.S. oilseed sector depend, in part, upon progress on these issues.

**Keywords:** Oilseeds and products, trade, policy, WTO, market access, tariffs, tariff-rate quota, export subsidy, domestic support.

## *Introduction*

The next round of multilateral trade negotiations under the World Trade Organization (WTO) begins in Seattle, Washington, on November 30, 1999. Officials from member countries of the WTO will initiate negotiations on agricultural trade and other trade-related topics. These discussions will continue the process of reforming agricultural trade rules begun in the Uruguay Round, which concluded in 1994. Although world trade in whole oilseeds is generally characterized by low to moderate applied tariffs, "bound" tariff rates—the maximum allowable under a country's WTO commitments—are in many cases still quite large among major consumers and importers of oilseeds. In addition, applied tariff rates on oilseed products, particularly on oils, are often greater than on whole oilseeds, a situation referred to as tariff escalation. Non-tariff policies, such as domestic price supports and differential export taxes, also have the potential to distort trade in these products. With more than one-fifth of U.S. agricultural export revenue coming from oilseeds and oilseed products, the U.S. oilseed sector naturally is interested in the outcome of the new round of negotiations. (Glossary of terms can be found in U.S. Department of Agriculture 1996 and Nelson 1997).

This article examines trade in the world oilseed market, identifies important producer, exporter, and importer countries, and assesses policy's role in affecting trade. Next, accomplishments of the Uruguay Round are examined. Lastly, issues affecting oilseed sector trade that may be a part of the upcoming WTO Round will be discussed.

## *Trade in the U.S. and World Oilseed Market*

U.S. oilseed crops represent a significant share of total U.S. field and miscellaneous crop output, accounting for about one-third of this category's output (U.S. Department of Agriculture 1999c). In 1997 and 1998, U.S. oilseed and oilseed product sales averaged over $34 billion, with $20 billion coming from the sale of whole oilseeds, and the remainder about equally divided between oilseed meal and oils. In the United States, production of soybeans far outstrips that of all other oilseeds combined. Between 1995 and 1998, whole soybean output averaged 68 million metric tons, followed distantly by cottonseed (5.9 tons), sunflowerseed (1.8 tons), peanuts (1.6 tons), and other oilseeds (0.4 ton). The distribution of oilseed meal and oil production is naturally similar, with soymeal accounting for 93 percent and soy oil 86 percent of these oilseed products by volume (U.S. Department of Agriculture, 1999a).

Oilseed and oilseed product exports represent a significant source of demand for U.S. producers and make a large net contribution to the U.S. agricultural trade surplus. Between 1995 and 1998, exports accounted for an average 30 percent of domestic oilseed output, 20 percent of meal, and 17 percent of vegetable oil production by volume. In fiscal 1998, U.S. oilseed and product exports were nearly $11 billion,

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representing more than one-fifth of all U.S. agricultural exports by value, and over half ($8.85 billion) of the trade surplus recorded by the agriculture sector (U.S. Department of Agriculture, 1999b). Among all agricultural products, only grains and feeds outrank the oilseed sector in total export value and net exports.

Main export destinations for U.S. oilseeds, oilseed meal, and vegetable oil include the European Union (EU), Japan, Mexico, Canada, China and Taiwan. Together, these countries accounted for $6.8 billion, or two-thirds, of U.S. oilseed and product exports in the last several years. Other important markets include South Korea, Indonesia, and Thailand. The Philippines, Saudi Arabia, and Venezuela also import significant quantities of U.S. oilseed meals. Vegetable oil exports are more dispersed and were heavily influenced in the early 1990s by U.S. export programs such as the Export Enhancement Program (EEP) and concessional export programs such as P.L. 480 that target developing nations. Imports of oilseeds and products are a less important part of U.S. agricultural trade, amounting to $2.2 billion in 1997-98. Imports are composed mainly of rapeseed and rapeseed products from Canada, olive oil from the EU, and tropical oils from the Philippines, Indonesia, and Malaysia. Major export markets for U.S. oilseeds and oilseed products, and important suppliers to the U.S. market are shown in table B-1.

Table B-1--U.S. oilseed and product trade by major destination or source countries, 1997-98 average

| Item | U.S. exports | | | U.S. imports | |
|---|---|---|---|---|---|
| Destination | Value | Share of U.S. exports | Source | Value | Share of U.S. imports |
| | Million dollars | Percent | | Million dollars | Percent |
| Oilseeds 1/ | | | | | |
| EU15 | 2,241 | 32.4 | Canada | 226 | 62.0 |
| Japan | 1,047 | 15.1 | Guatemala | 19 | 5.2 |
| Mexico | 869 | 12.6 | Mexico | 14 | 3.8 |
| Taiwan | 480 | 6.9 | Other | 102 | 28.0 |
| China | 376 | 5.4 | Total | 365 | |
| S. Korea | 361 | 5.2 | | | |
| Indonesia | 200 | 2.9 | | | |
| Other | 1,340 | 19.4 | | | |
| Total | 6,914 | | | | |
| Oilseed Cakes and Meals 2/ | | | | | |
| EU15 | 372 | 20.5 | Canada | 174 | 96.1 |
| Taiwan | 200 | 11.0 | Other | 7 | 3.9 |
| Canada | 180 | 9.9 | Total | 181 | |
| Philippines | 145 | 7.9 | | | |
| China | 122 | 6.7 | | | |
| Saudi Arabia | 101 | 5.6 | | | |
| Venezuela | 98 | 5.4 | | | |
| Japan | 74 | 4.1 | | | |
| Other | 523 | 28.8 | | | |
| Total | 1,815 | | | | |
| Vegetable Oils 3/ | | | | | |
| Mexico | 262 | 13.1 | EU15 | 430 | 25.7 |
| China | 242 | 12.1 | Canada | 403 | 24.1 |
| Canada | 208 | 10.4 | Philippines | 304 | 18.1 |
| EU15 | 156 | 7.8 | Malaysia | 226 | 13.5 |
| Japan | 76 | 3.8 | Other | 312 | 18.6 |
| Saudi Arabia | 72 | 3.6 | Total | 1,675 | |
| Turkey | 59 | 2.9 | | | |
| S. Korea | 56 | 2.8 | | | |
| India | 47 | 2.4 | | | |
| Other | 825 | 41.2 | | | |
| Total | 2,003 | | | | |

1/ Imports are primarily rapeseed and linseed from Canada, Sesame seed from Mexico and Guatemala, and soybeans from Brazil and Canada. Soybeans account for 88 percent of U.S. oilseed exports by value. 2/ Imports consist primarily of rapeseed meal from Canada. Soybean meal accounts for 96 percent of U.S. exports by value. 3/ Main imports include coconut oil, canola and rape oil, and olive oil. Data on U.S. vegetable oil exports includes Corn Oil as well as Other Vegetable Oils and Waxes, in addition to oils derived from oilseeds.

Sources: USDA, Economic Research Service, Foreign Agricultural Trade of the United States (FATUS), 1997 and 1998 calendar years average. Composition of U.S. imports is from the Food and Agriculture Organization (FAO) of the United Nations website (http://apps.fao.org/cgi-bin/nph-db.pl?subset=agriculture)

### *World Oilseed Market*

The United States, China, Brazil, India, Argentina, the EU, and Canada produce about 70 percent of the nearly 300 million metric tons of global oilseed output, and the United States, Brazil, Argentina, and the EU account for over 80 percent of world oilseed exports. With world oilseed output dominated by a small group of nations, trade in whole oilseeds has been less restricted by tariffs and other border measures than many other agricultural products, but the same is less true with oilseed products—meal, but vegetable oils in particular. Applied tariffs on soybean oil, for example, average about 20 percent for the world's top consumers and importers of the commodity, compared to rates typically at or below 10 percent for soybeans (table B-8). Both exporters and importers have also used other trade distorting policies—such as differential export taxes in Argentina and in Brazil (prior to 1996) or production subsidies in the EU—that have been the source of trade complaints by WTO member countries. These policies, which create incentives to boost domestic oilseed production and encourage exports of processed products, tend to displace U.S. oilseed exports and shift the composition of U.S. exports towards whole oilseeds and away from higher value-added oilseed meals and vegetable oils.

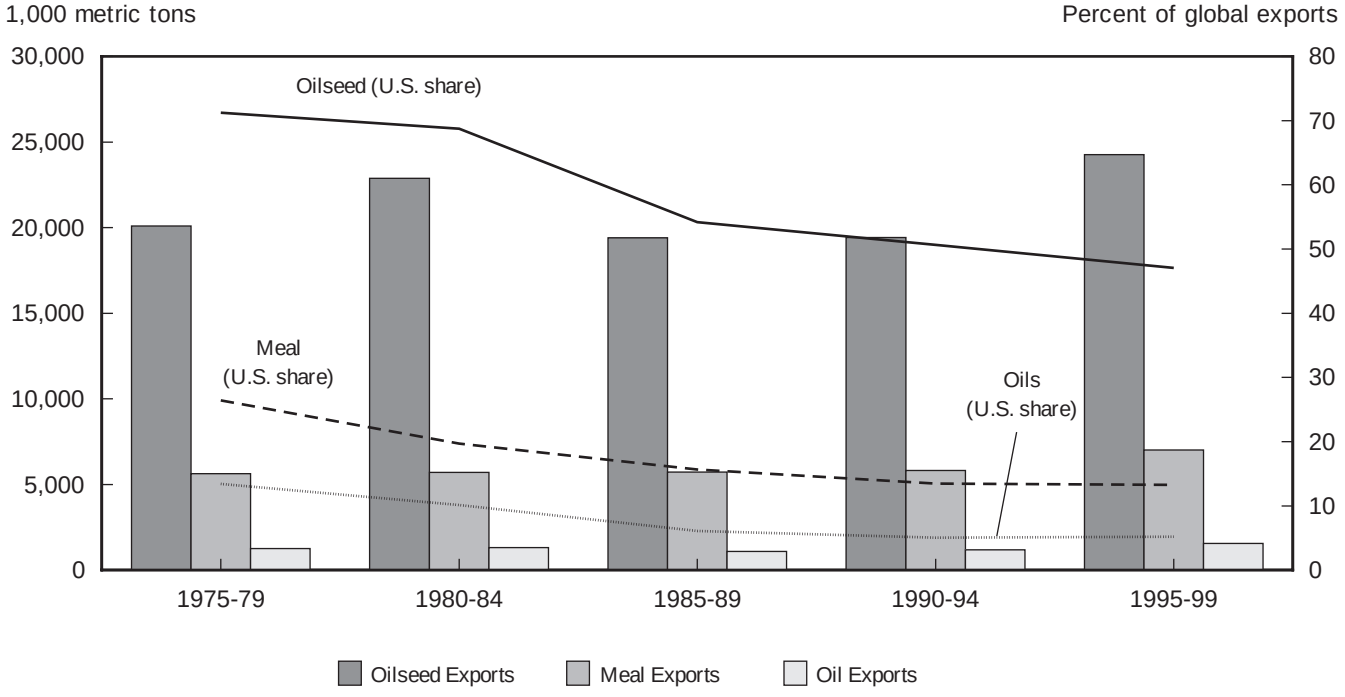
One issue for U.S. producers is that despite substantial growth in oilseed and product output in the past 25 years and recent gains in export volume, the U.S. share of global exports has steadily diminished (figures B-1 and B-2). In the mid- to late 1970's, the United States dominated world (whole) oilseed trade, with a market share of more than 70 percent. Recently, this figure has fallen below one-half. From a smaller base, the United States has seen its share of oilseed meal and vegetable oil exports fall even more sharply, particularly before 1990.

There are a number of reasons for the declining share of global exports. Domestic price support policies in the EU and differential export taxes by Argentina and, until recently, Brazil have altered the volume and composition of U.S. exports. Another reason is the recent expansion of U.S. meat exports, thereby increasing domestic meal use rather than contributing to exports of soybeans or soybean meal. Perhaps the most important cause of the relative decline in U.S. exports is simply the increased foreign output of competing oilseeds and products. U.S. oilseed and product output and share of global production are illustrated in figure B-2.

**Soybeans and Products—**A particularly important development has been the phenomenal growth of foreign soybean output and exports, particularly by Brazil and Argentina. Since soybeans represent nearly 90 percent of total U.S. whole oilseed output and just below three-quarters of world whole oilseed trade, production and trade developments for this commodity and its derivatives are particularly important to the U.S. oilseed sector. Foreign soybean output now exceeds that of the United States, and Brazil and Argentina currently share approximately 30 percent of the soybean

Figure B-1

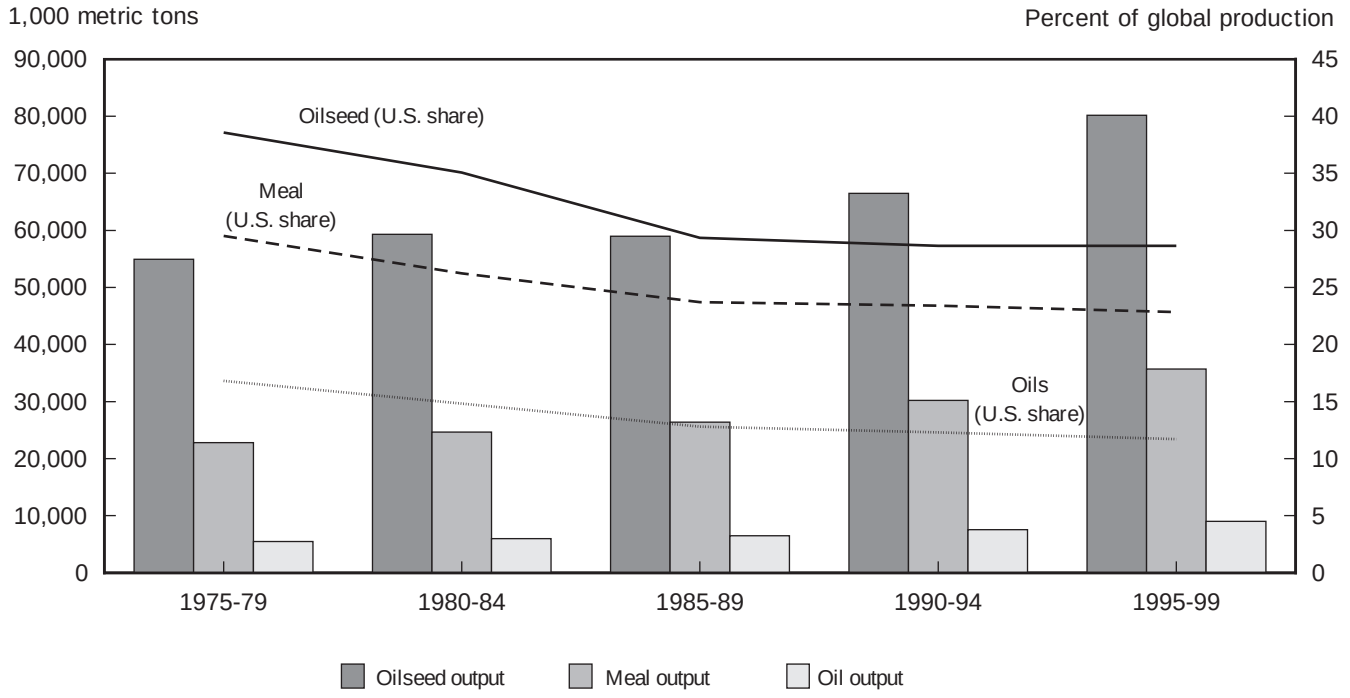
**U.S. oilseed and product exports: Volume and share of global trade**




Source: Economic Research Service, PS&D View.

Figure B-2

**U.S. oilseed and product output: Volume and share of global output**




Source: Economic Research Service, PS&D View.

export market, up from less than 15 percent before 1980. With increased foreign production, and more rapid expansion of trade in soy products than whole beans, Brazil and Argentina have each overtaken the United States in soymeal exports, and the United States now ranks fourth in soyoil exports behind these two countries and the EU.[2]

Other notable developments in the export markets include the growth of Paraguay as an exporter of whole beans, and China's shift from an important exporter of soybeans and meal in the late 1980's, to a top importer of soy products, particularly oil. India has also expanded soybean production since the mid-1970's, but its presence in export markets is limited to soymeal, as domestic demand for oil far exceeds that of meal.

Changes in soybean import markets in recent decades have been characterized by slow stable growth among the major developed economy importers (EU, Japan) and more rapid growth among the East Asian developing economies (China, Taiwan, Korea, Indonesia). The growth of soymeal imports in the last several decades has been widely dispersed, with the EU, Southeast Asia, and the Middle East and North Africa accounting for most of the gains. China, and to a certain extent the Middle East and North Africa, have provided much of the new demand for soyoil exports.

[2] In this article, trade data referring to the EU include intra-EU shipments.

**Other Oilseeds and Products—**In addition to new competition from foreign soybean growers, U.S. producers also compete for customers with other oilseed crops and products that are primarily grown abroad, such as rapeseed and products from the EU and Canada, and palm oil from Malaysia and Indonesia. Soybeans have maintained their share of global oilseed production at around 50 percent over the past 20 years, but soybean exports have diminished somewhat as a share of global oilseed exports, as has soybean oil (U. S. Department of Agriculture 1999c).

Cottonseed (12 percent), rapeseed (12), peanuts (10), and sunflowerseed (9) each account for a significant portion of global oilseed production (table B-2). Of these, only rapeseed (13 percent) and sunflowerseed (8), however, capture more than 5 percent of global oilseed trade. Among oilseed meal, soybean meal is again first with 64 percent of world meal production, followed by rapeseed meal (12 percent), cottonseed meal (8), sunflowerseed meal (6), and peanut meal (4), with copra and palm kernel each accounting for less than 2 percent (table B-3). Again, other than soybean meal, only rapeseed meal (8 percent)—mostly from the EU, Canada, and India—and sunflowerseed meal (6)—mostly from Argentina and the EU—capture more than 5 percent of global oilseed meal trade.

The composition of major vegetable oils and the distribution of world production and exports are quite different from the oilseed and protein meal markets. Vegetable oils is the only

Table B-2--Major world oilseed producers, exporters, and importers 1/

| Commodity | Commodity's share of world oilseed trade | Leading exporters (Share of world exports) | | Leading importers (Share of world imports) | | Commodity's share of world oilseed production | Leading producers (Share of world production) | |
|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | |
| Soybeans | 74.0 | | | | | 53.3 | | |
| | | United States | 59 | EU15 | 41 | | United States | 48 |
| | | Brazil | 23 | Japan | 13 | | Brazil | 20 |
| | | Paraguay | 6 | Mexico | 8 | | Argentina | 11 |
| | | Argentina | 6 | China | 8 | | China | 9 |
| | | | | Taiwan | 6 | | | |
| | | | | S. Korea | 4 | | | |
| Rapeseed | 12.9 | | | | | 12.1 | | |
| | | Canada | 44 | EU-15 | 36 | | China | 27 |
| | | EU-15 | 39 | Japan | 30 | | EU-15 | 25 |
| | | | | China | 12 | | Canada | 19 |
| | | | | Mexico | 9 | | India | 17 |
| Sunflower | 7.8 | | | | | 8.7 | | |
| | | Russia | 25 | EU-15 | 74 | | Argentina | 24 |
| | | EU-15 | 24 | Turkey | 13 | | EU-15 | 16 |
| | | Ukraine | 22 | Mexico | 4 | | Russia | 12 |
| | | Argentina | 11 | | | | E. Europe | 11 |
| | | | | | | | Ukraine | 9 |
| | | | | | | | US | 8 |
| Peanut | 2.9 | | | | | 10.0 | | |
| | | China | 21 | EU-15 | 38 | | China | 38 |
| | | US | 20 | Indonesia | 16 | | India | 29 |
| | | Argentina | 14 | Canada | 8 | | US | 6 |
| | | Vietnam | 11 | Japan | 8 | | Indonesia | 4 |
| | | India | 8 | | | | | |
| Cottonseed | 1.8 | | | | | 12.1 | | |
| | | Australia | 29 | EU-15 | 25 | | China | 23 |
| | | EU-15 | 12 | Japan | 20 | | US | 17 |
| | | US | 10 | US | 10 | | India | 16 |
| | | Tajikistan | 4 | | | | Pakistan | 9 |
| | | Turkmenistan | 4 | | | | Uzbekistan | 6 |
| Other | 0.6 | | | | | 3.8 | | |

1/ All numerical references are to 1996/97-1998/99 averages. 1998/99 data are preliminary. Totals may not equal 100 percent due to rounding.
Data for the European Union (EU) include intra-EU trade.

Source: Economic Research Service, PS&D View.

Table B-3--Major world oilseed meal producers, exporters, and importers 1/

| Commodity | Commodity's share of world meal trade | Leading exporters (Share of world exports) | | Leading importers (Share of world imports) | | Commodity's share of world meal production | Leading producers (Share of world production) | |
|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | |
| Soymeal | 70.7 | | | | | 63.5 | | |
| | | Argentina | 30 | EU-15 | 46 | | US | 34 |
| | | Brazil | 28 | M.E. & N.A 2/ | 9 | | Brazil | 16 |
| | | US | 19 | China | 8 | | Argentina | 12 |
| | | EU-15 | 13 | E. Europe | 5 | | EU-15 | 12 |
| | | | | Philippines | 3 | | China | 8 |
| Rapemeal | 7.9 | | | | | 11.9 | | |
| | | EU-15 | 35 | EU-15 | 53 | | China | 30 |
| | | Canada | 31 | US | 26 | | EU-15 | 24 |
| | | India | 17 | Korea | 11 | | India | 19 |
| | | E. Europe | 10 | | | | Canada | 9 |
| Sunflower meal | 6.0 | | | | | 6.3 | | |
| | | Argentina | 65 | EU-15 | 83 | | EU-15 | 29 |
| | | EU-15 | 24 | M. East | 6 | | Argentina | 22 |
| | | E. Europe | 6 | Thailand | 4 | | E. Europe | 12 |
| | | | | | | | Russia | 6 |
| | | | | | | | Ukraine | 5 |
| | | | | | | | US | 5 |
| Peanut meal | 1.0 | | | | | 3.7 | | |
| | | India | 46 | EU-15 | 46 | | India | 46 |
| | | Sudan | 13 | Thailand | 24 | | China | 38 |
| | | Argentina | 12 | Indonesia | 14 | | Burma | 2 |
| | | Senegal | 10 | | | | US | 2 |
| | | EU-15 | 7 | | | | | |
| Cottonseed meal | 1.5 | | | | | 7.6 | | |
| | | Argentina | 28 | EU-15 | 38 | | China | 25 |
| | | China | 27 | S. Korea | 34 | | India | 17 |
| | | US | 13 | Mexico | 9 | | US | 12 |
| | | Zimbabwe | 6 | | | | Pakistan | 10 |
| | | | | | | | Uzbekistan | 7 |
| Other | 12.9 | | | | | 7.0 | | |

1/ All numerical references are to 1996/97-1998/99 averages. 1998/99 data are preliminary. Totals may not equal 100 percent due to rounding.
Data for the European Union (EU) include intra-EU trade.

2/ Middle East and North Africa.

Source: Economic Research Service, PS&D View.

Table B-4--Major world vegetable oil producers, exporters, and importers 1/

| Commodity | Commodity's share of world oils trade | Leading exporters (Share of world exports) | | Leading importers (Share of world imports) | | Commodity's share of world oils production | Leading producers (Share of world production) | |
|---|---|---|---|---|---|---|---|---|
| | Percent | | | | | | | |
| Palm oil | 40.2 | | | | | 23.2 | | |
| | | Malaysia | 62 | EU-15 | 21 | | Malaysia | 50 |
| | | Indonesia | 21 | India | 13 | | Indonesia | 30 |
| | | Singapore | 7 | China | 11 | | Nigeria | 4 |
| | | | | Pakistan | 8 | | | |
| Soy oil | 22.4 | | | | | 29.0 | | |
| | | Argentina | 35 | China | 23 | | US | 35 |
| | | EU-15 | 21 | Iran | 9 | | Brazil | 17 |
| | | Brazil | 19 | EU-15 | 7 | | EU-15 | 12 |
| | | US | 16 | India | 6 | | Argentina | 11 |
| | | | | Brazil | 3 | | China | 7 |
| Rape oil | 9.0 | | | | | 15.6 | | |
| | | EU-15 | 58 | EU-15 | 36 | | EU-15 | 27 |
| | | Canada | 29 | US | 19 | | China | 26 |
| | | US | 5 | China | 11 | | India | 15 |
| | | | | Russia | 5 | | Canada | 11 |
| Sunflower oil | 11.9 | | | | | 11.2 | | |
| | | Argentina | 44 | EU-15 | 20 | | EU-15 | 26 |
| | | EU-15 | 29 | India | 10 | | Argentina | 25 |
| | | US | 9 | Iran | 8 | | E. Europe | 11 |
| | | | | Egypt | 8 | | Russia | 8 |
| | | | | Mexico | 7 | | Ukraine | 6 |
| Peanut oil | 0.9 | | | | | 5.6 | | |
| | | EU-15 | 21 | EU-15 | 67 | | India | 42 |
| | | Senegal | 20 | Hong Kong | 11 | | China | 39 |
| | | Argentina | 19 | US | 6 | | Burma | 2 |
| | | Sudan | 12 | China | 5 | | US | 2 |
| Cottonseed oil | 0.9 | | | | | 4.8 | | |
| | | Uzbekistan | 29 | India | 14 | | China | 25 |
| | | US | 29 | Egypt | 10 | | India | 16 |
| | | Argentina | 20 | El Salvador | 10 | | US | 13 |
| | | | | S. Korea | 8 | | Uzbekistan | 7 |
| Other (Coconuts, Palm kernel, linseed, olive oils) | 14.7 | | | | | 10.6 | | |

1/ All numerical references are to 1996/97-1998/99 averages. 1998/99 data are preliminary. Totals may not equal 100 percent due to rounding.
Data for the European Union (EU) include intra-EU trade.

Source: Economic Research Service, PS&D View.

market in which soybeans do not make up more than half of product output, and the only market where soybeans do not rank first in world trade. Soybean oil accounts for 29 percent of world vegetable oil output, followed by palm oil (23 percent), rapeseed oil (16), sunflower oil (11), peanut oil (6), cottonseed oil (5), coconut oil (5), and olive oil (3) (table B-4). Palm oil, produced mostly by Malaysia and Indonesia, is the number one traded oil, with about 40 percent of the global export market. Soybean oil exports, with 22 percent of the market, are also concentrated among a small group. Argentina, the EU, the United States, and Brazil share over 90 percent of the soyoil export market. Sunflower oil (12 percent), rapeseed oil (9), and coconut oil (7), are the other commodities important in world oil trade. Tables B-2 through B-4 summarize information on the leading producers, exporters, and importers of the major oilseeds and their products.

### *Major Trade Agreements Affecting the World Oilseed Market*

With so many countries producing closely substitutable oilseed products, many attempts have been made to favor domestic oilseed production at the expense of imports or to encourage domestic processing of imported oilseeds versus imports of oilseed products. In the past decade, the United States has been involved in several major bilateral or multilateral initiatives to reduce trade barriers and other trade-dis-

torting practices affecting U.S. oilseed and product exports. Most notable among these agreements is the Uruguay Round Agreement on Agriculture (URAA). The U.S.-European Community Blair House Agreement on oilseeds and the North American Free Trade Agreement (NAFTA) with Mexico and Canada have also had an impact on oilseed trade (see accompanying boxes for more details).

### *Accomplishments of Uruguay Round*

The Uruguay Round continued the process of reducing trade barriers achieved in seven previous rounds of GATT negotiations. Among its most significant accomplishments was the Uruguay Round Agreement on Agriculture (URAA), under which signatories committed to cut average tariff levels on all agricultural products, lower the volume of and expenditures on subsidized exports, and reduce aggregate spending on domestic support programs for agriculture (Normile 1998). In addition, the Uruguay Round established new disciplines on the use of sanitary and phytosanitary (SPS) measures that could be used to restrict trade based on health and safety concerns, and created a new process for settling trade disputes. The following sections summarize each of these key accomplishments.

### *Market Access*

The URAA required participating countries to reduce existing tariffs on agricultural products by an average of 36 percent for developed countries and 24 percent for developing nations (table B-5). It also required signatories to convert all non-tariff agricultural trade barriers to tariffs, a process referred to as tariffication. Countries doing so established a two-tiered tariff system (tariff-rate quota, or TRQ) in which

## U.S.—European Community (EC) Blair House Agreement on Oilseeds

The negotiations preceding the final URAA also produced an important bilateral agreement on oilseeds that resolved a long-standing dispute between the United States and European Community (now EU) on oilseed production subsidies. As part of the (November 1992) "Blair House Agreement," the United States and EC signed a separate "Memorandum of Understanding on Oilseeds" under which the EC agreed to limit the area planted to oilseeds (rapeseed, sunflower seed, and soybeans). Prior to the agreement, the EU nearly tripled oilseed production between 1980 and 1990, which contributed to a 53-percent drop in the volume of U.S. soybean and soybean meal exports for the period (U.S. Department of Agriculture 1999b).

Although the EC granted oilseed and oilseed meal duty-free status under the Dillon Round of GATT negotiations in 1961, the dispute with the United States emanated from the introduction of EC oilseed production subsidies under the Common Agricultural Policy (CAP) just several years later. U.S. producers argued that the high EC support prices and rising production had displaced U.S. exports to the EC and filed a complaint under Section 301 of U.S. trade law against the EC in 1987. After a GATT panel twice found that EC oilseeds policy had "nullified and impaired" concessions made under the Dillon Round, the United States threatened the EC with $1 billion in retaliatory tariffs early in 1992 if the EC position did not change. The Blair House accord on oilseeds later that year ended the dispute when the EC agreed to internal policy reforms that would limit the area planted to oilseeds.

The key elements of the agreement include:

- The EC (EU) agrees to limit the planting of subsidized oilseeds to a base area of 3.966 million hectares in 1994/95, with additional limits for Spain and Portugal totaling 1.533 million hectares.
- Beginning in 1995/96, the total base area devoted to subsidized oilseeds (inclusive of Spain and Portugal) shall not exceed the 1989-91 average of 5.126 million hectares.
- The EU agrees to set aside a minimum of 10 percent of oilseed base in all subsequent years.
- If the guaranteed area is exceeded, the EU will reduce oilseed payments by 1 percent for each 1 percent that the planted area exceeds the agreed upon limit.
- Oilseeds grown for nonfood (industrial) purposes are exempt from the maximum area limits, but the output is not to exceed 1 million tons annually (soymeal equivalent).

The impact of the accord on U.S. oilseed and product exports is difficult to gauge given the many other factors affecting trade, but it appears to have had a beneficial effect for U.S. exports. Soybean exports to the EU returned to near historical highs between 1996 and 1998, and the United States has captured much of the increase of EU soybean imports from all sources. Soybean meal exports to the EU are still well below the levels reached in the 1980's, but have more than doubled between 1990-93 and 1995-98 (Bickerton and Glauber; Normile, 1993; and Herlihy, Glauber, and Vertrees).

## Impact of NAFTA on U.S. Oilseed and Product Trade

Under GATT and WTO rules, member countries are required to extend trade concessions granted to one country to all other WTO members. Exceptions are permitted so long as two or more countries agree to substantially lower all trade barriers and refrain from violating other WTO commitments. The North American Free Trade Agreement (NAFTA) is an example of such an agreement. Under NAFTA, which became effective January 1, 1994, the United States and Mexico agreed to eliminate over a 15-year period all tariffs, quotas, and import licenses that act as barriers to agricultural trade between the two nations. NAFTA also incorporated the agricultural trade liberalizing provisions agreed to by the United States and Canada in the 1989 Canada-U.S. Free Trade Agreement (CFTA). Provisions of the NAFTA agreement affecting trade in oilseeds and oilseeds products can be found in Plunkett and Valdez (1995).

The import policy changes under NAFTA appear to have contributed to the overall growth of oilseed and oilseed product trade between the United States and its regional trade partners. During 1995-98, U.S. exports of these goods to Mexico and Canada averaged about $1.5 billion, or about 16 percent of all such U.S. exports—up from $900 million (13.5 percent) between 1991 and 1993. Much of the growth is due to increased soybean imports by Mexico, which absorbs about 70 percent of total U.S. oilseed and product exports to the region.

Exports by Canada and Mexico to the United States have also grown, from $375 million during 1991-93 to an average of $790 million between 1995 and 1998. Canada and Mexico now supply about 40 percent of all U.S. oilseed and product imports, with the bulk of these imports being rapeseed oil and rapeseed from Canada. U.S. imports of Mexican oilseeds and products (consisting mainly of sesame seeds, and sunflower or safflower oil) remain small, fluctuating between $45 and $65 million since 1991 (Link 1997 and 1999).

Table B-5--URAA targets for tariff and subsidy reduction

| Items | Developed countries | Developing countries 1/ |
|---|---|---|
| | Percent | |
| Tariffs | | |
| Average cut for all Agricultural products | 36 | 24 |
| Minimum cut per tariff | 15 | 10 |
| Base period (1986 for existing tariffs) (1986-88 for non-tariff barriers) | | |
| Export subsidies | | |
| Reduction in volume | 21 | 14 |
| Reduction in budget expenditures | 36 | 24 |
| Base period (1986-90) | | |
| Domestic support | | |
| Reduction in total AMS | 20 | 13 |
| Base period (1986-88) | | |
| Implementation period | 6 years 1995-2000 | 10 years 1995-2004 |

1/ Least developed countries are not required to make commitments to reduce tariffs or subsidies.

Source: WTO (http://www.wto.org/wto/about/agmnts3.htm)

a lower tariff applies to imports below a certain quantitative limit and higher tariffs to imports beyond that limit (Wainio, Hasha, and Skully). Tariff levels are to be reduced from the base period levels to a final bound level by the end of the implementation period. For the case of tariff-rate quotas, only the higher out-of-quota rates would be reduced. The bound levels set a maximum tariff that can be imposed by each country, but in practice applied tariff levels (those that are actually charged) are often lower for many countries.

Among major consumers and importers of soymeal, for example, the bound tariff generally exceeds the applied rates by a large margin (table B-7).

It is also interesting to note that applied tariff rates on oilseed products generally exceed those of whole oilseeds, an example of tariff escalation. For example, Japan, a country with very limited domestic oilseed production, has a tariff amounting to about $122 per metric ton (12.9 yen/kg.) on soyoil/rapeoil in order to protect domestic crushers, but no tariff on whole oilseeds. The highest tariffs also appear to be imposed by developing countries, which had committed to smaller average tariff cuts and were granted a longer transition period than developed nations (table B-5). Tables B-6 through B-8 illustrate selected countries tariff structures with a listing of base, bound, and applied tariff rates on soybeans, soymeal, and soyoil.

Because base tariff rates were in many cases quite high to begin with, and bound rates often exceed applied tariffs, a main accomplishment of the URAA was to provide disciplines on the tariff rate increases member nations were permitted. In some cases though, tariff reductions—whether or not required by the URAA—have shown the impact that trade liberalization can have on trade flows. The Philippines, for example, reduced applied tariffs on soybean meal from 10 to 3 percent. With increased market access and lower prices, total soybean meal imports increased by nearly 50 percent from the 1991-93 average to 1996-98 and U.S. exports more than doubled to over $130 million over the same interval. In 1998, India reduced its applied tariff rate

on vegetable oils to 15 percent, down from 65 percent in 1994. Vegetable oil imports surged from well under 1 million metric tons per year between 1990 and 1994 to over 4 million metric tons in 1998 (U.S. Department of Agriculture 1999d). While much of the increase was in palm oil, soybean oil imports also grew, and U.S. soybean oil exports to India reached $50 million in 1998 compared to $25 million in 1994 (U.S. Department of Agriculture 1999a).

The idea behind the establishment of TRQs was to increase the transparency of protection in agriculture, and to ensure that historical trade levels were maintained. New trade opportunities were also created in some cases. The URAA required that the size of the quota be equal or greater than actual import levels (or some percentage of domestic consumption) during a recent period, and mandated that out-of-quota bound tariff rates be reduced from base rates. As of September 1997, about 40 percent of the 1,366 TRQs notified by WTO members were scheduled to have the quotas increased over the course of the implementation period, implying some increased market access.[3]

Of these TRQs, 124 of them applied to oilseeds and products, fourth largest among the eleven agricultural sectors identified by the WTO. Twenty-one of the 36 member nations notifying TRQs had at least one TRQ on oilseeds or products, led by Iceland with 22, Colombia with 20, and followed by Venezuela (19), South Africa (8), Guatemala (7), and Thailand and Morocco with 6 each (WTO Secretariat, 1997a). The U.S. notified the WTO of two oilseed TRQs, on peanuts and peanut butter and paste.

[3] The URAA required that imports meet a minimum of 5 percent of domestic consumption by the end of the implementation period. Countries already importing over that amount are not required to raise their quota level.

Table B-6--Base, bound, and applied WTO tariff levels on soybeans, selected countries

| | Base tariff rate | Bound tariff rate | Applied tariff 1/ |
|---|---|---|---|
| | | Percent | |
| Country: | | | |
| Mexico 2/ | 10 or 50 (seasonal rate) | 9 or 45 | 5 |
| Thailand | 89 | 80 | 20.5 |
| S. Korea | 541% or 1,062 won/kg, whichever is greater | 487% or 956 won/kg, whichever is greater | 530.2 |
| Malaysia | 15 | 10 | 0 |
| Colombia | 139 | 125 | 10 |
| Venezuela | 135 | 117 | 10 |
| Indonesia | 30 | 27 | 2.5 |
| Bolivia | n/a | 40 | 10 |
| Paraguay | n/a | 35 | 4 |
| Israel | 30 | 25 | 0 |
| Brazil | n/a | n/a | 5.5 |
| Argentina | n/a | n/a | 5.5 |
| U.S., EU15, Japan, Canada | 0 | 0 | 0 |
| Simple average: | | | |
| Selected top consumers/importers 3/ | 77.4 | 69.5 | 37.5 |
| | 41.8 4/ | 37.4 4/ | 4.8 4/ |

1/ Most Favored Nation (MFN) average. Sources: For Base and Bound Tariffs - WTO, The Results of the Uruguay Round (CD-ROM), 1996; and FAS, USDA (http://www.fas.usda.gov/wto/ve/ve15.pdf); For Applied Tariffs - UNCTAD, Trade Analysis and Information System (TRAINS, CD-ROM), Winter 98/99. Percentages refer to over quota tariff rates when a TRQ exists.

2/ Mexico has a lower WTO Most Favored Nation tariff for soybean seeds and the higher seasonal tariff for all other soybean imports.

3/ The average base and bound tariffs were calculated as follows: a simple unweighted average of the tariff levels for the selected countries was used. When both base and bound tariff rates were not available (n/a), that country was excluded from the calculations. If only the bound rate was available, the base tariff rate was assumed to be the same as the bound rate when calculating the average. If only a specific tariff is given, the data is not used in calculating the average. If a specific tariff or ad valorem tariff are given, the ad valorem tariff is used. For countries with more than one tariff line for the product, a simple average of those tariff rates was used for that country. Calculations do not include any other import fees. The selected nations include the top 15 consumers and importers (based on 1998/99 PS&D View database information) of the product for which information was available. Information for non-WTO members was not used.

4/ Excludes S. Korea.

Table B-7--Base, bound, and applied WTO tariff levels on soybean meal, selected countries

| Country | Base tariff rate | Bound tariff rate | Applied tariff 1/ |
|---|---|---|---|
| | | Percent | |
| United States | 0.7 cents/kg | 0.45 cents/kg | 0.53 cents/kg |
| Mexico | 25 | 22.5 | 15 |
| S. Korea | 20 | 1.8 | 3 |
| Thailand | 148 | 133 | 6 |
| Columbia | 108 | 97 | 15 |
| Philippines | 10 | 5 | 3 |
| India | 100 | 100 | 40 |
| Poland | 10 | 5 | 8 |
| Malaysia | 13 | 10 | 0 |
| Venezuela | 108 | 97 | 15 |
| Brazil | n/a | n/a | 9 |
| Indonesia | 50 | 30 | 0 |
| Egypt | 15 | 10 | 5 |
| EU-15, Japan, Hungary, Canada | 0 | 0 | 0 |
| Simple average: Selected top consumers/importers 2/ | 40.5 | 34.1 | 7.2 |

1/ Most Favored Nation (MFN) average. Sources: For Base and Bound Tariffs - WTO, The Results of the Uruguay Round (CD-ROM), 1996; and FAS, USDA (http://www.fas.usda.gov/wto/ve/ve15.pdf); For Applied Tariffs - UNCTAD, Trade Analysis and Information System (TRAINS, CD-ROM), Winter 98/99. Percentages refer to over quota tariff rates when a TRQ exists.

2/ The average base and bound tariffs were calculated as in table B-6. Calculations do not include any other import fees. The selected nations include the top 15 consumers and importers (based on 1998/99 PS&D View database information) of the product for which information was available. Information for non-WTO members was not used.

Table B-8--Base, bound, and applied WTO tariff levels on soybean oil, selected countries

| Country | Base tariff rate | | Bound tariff rate | | Applied tariff 1/ | |
|---|---|---|---|---|---|---|
| | Crude | Refined | Crude | Refined | Crude | Refined |
| | | | Percent | | | |
| United States | 22.5 | 22.5 | 19.1 | 19.1 | 20.8 | 10.4 |
| Mexico | 50.0 | 50.0 | 45.0 | 45.0 | 10.0 | 20.0 |
| S. Korea 2/ | 30.0 | 30-35.5 | 5.4 | 5.4-27 | 8.0 | 8.0 |
| Brazil | 55.0 | 70.0 | 35.0 | 35.0 | 13.0 | 14.0 |
| India | 45.0 | 45.0 | 45.0 | 45.0 | 30.0 | 30.0 |
| EU-15 2/ | 5-8 | 10-15 | 3.2-5.1 | 6.4-9.6 | 5.7 | 7.9 |
| Japan 2/ | 17-20.7 | 20.7 | 10.9-13.2 | 13.2 | n/a | n/a |
| (specific tariff) | (yen/kg) | | (yen/kg) | | | |
| Canada 2/ | 0-7.5 | 15.0 | 0-4.8 | 9.6 | 5.5 | 5.5 |
| Morocco 2/ | 45-283.5 | 45-311 | 34-215 | 34-236 | 45.5 | 62.3 |
| Malaysia | 6.0 | 6.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Turkey 2/ | 25-40 | 25-40 | 19.5-31.2 | 19.5-31.2 | 12.0 | 23.0 |
| Egypt | 20.0 | 20.0 | 15.0 | 15.0 | 10.5 | 8.7 |
| Bangladesh | n/a | n/a | n/a | n/a | 60.0 | 86.7 |
| Algeria | n/a | n/a | n/a | n/a | 10.0 | 45.0 |
| Peru | n/a | n/a | n/a | n/a | 12.0 | 12.0 |
| Venezuela | 83.0 | 75.0 | 83.0 | 75.0 | 20.0 | 20.0 |
| Chile | 35.0 | 35.0 | 31.5 | 31.5 | 11.0 | 11.0 |
| Simple average: Selected top consumers/importers 3/ | 42.6 | 45.7 | 32.7 | 35.8 | 17.4 | 23.1 |

1/ Most Favored Nation (MFN) average. Sources: For Base and Bound Tariffs - WTO, The Results of the Uruguay Round (CD-ROM), 1996; and and FAS, USDA (http://www.fas.usda.gov/wto/ve/ve15.pdf); For Applied Tariffs - UNCTAD, Trade Analysis and Information System (TRAINS, CD-ROM), Winter 98/99. Percentages refer to over quota tariff rates when a TRQ exists.

2/ When a range of tariffs is given, the country has more than one category on the tariff schedule for that product. Soybean oil, for example, is often categorized into industrial and non-industrial (food) uses. Typically, the industrial use imports have the lower bound tariff.

3/ The average base and bound tariffs were calculated as in table B-6. Calculations do not include any other import fees. The selected nations include the top 15 consumers and importers (based on 1998/99 PS&D View database information) of the product for which information was available. Information for non-WTO members was not used.

### Domestic Support

Domestic policies that support prices or subsidize production may encourage excess production and distort trade flows. This could reduce world imports, increase export subsidies, or encourage low-price selling (dumping) on world markets. The URAA required countries to reduce outlays, termed aggregate measure of support (AMS), on many domestic policies that provide producers with direct economic incentives to increase production (table B-5). Based on information from 1997, all WTO member countries are meeting their commitments to reduce these outlays and most countries have reduced this type of support by more than the required amount (Nelson, Young, Liapis, and Schnepf).

The EU, a net oilseeds and products importer, and the United States, a major exporter, have the most substantial domestic support programs of all oilseeds producing countries. Recently, though, the EU enacted major legislation that changed the support regime for oilseeds. Under the EU's Agenda 2000 reforms, compensatory payments of 92.24 ECU/MT on oilseeds are to be reduced over 3 years to 66 ECU/MT, which would be equivalent to aid for cereals. Expectations are that Agenda 2000 will cause a decline in EU's oilseed production, as wheat becomes more profitable, but a lower set-aside percentage on oilseed area may offset this decline (Kelch).

The support for EU oilseeds is not counted towards its AMS limit, however, because the program falls into the exempted "blue box" category of domestic support. This classification occurs because the EU's oilseed support program is tied to production limitations based on fixed area and yields. The oilseed component of the EU's AMS is therefore counted as zero, although actual oilseed support levels for the EU's soybeans and flaxseed totaled about ECU 2.5 billion in both 1995 and 1996.[4]

The major domestic support policy affecting the U.S. oilseed industry (excluding peanuts) has remained unchanged since the 1990 FACT Act. All oilseeds have a price support program with marketing loan provisions. In contrast to wheat, feed grains, upland cotton, and rice, oilseeds do not receive production flexibility contract payments. Since prices in the 1990's have generally been above the price support loan rate, expenditures for this program have been quite low. Expenditure levels for the price support program have recently increased, however, due to declining prices, which have caused marketing loan deficiency payments and marketing loan gains to be paid to U.S. producers. In contrast to the EU, the U.S. oilseed price support program with marketing loan provisions is subject to spending disciplines as an "amber box" policy. Despite this situation, the oilseed component of the U.S.'s AMS has been zero because it did not exceed any given year's *de minimis* level (5 percent of commodity's value of production) (Nelson, 1999). Actual outlays were $ 16.5 million for 1995, $ 14.2 million for 1996, and $ 45.7 million for 1997.

[4] The exchange rate was 1.308 $/ECU in 1995 and 1.268 $/ECU in 1996.

### Export Subsidies

Countries using export subsidies agreed to reduce the volume of their subsidized exports and outlays on subsidized exports over the implementation period (table B-5) (Leetmaa and Ackerman). Some of the major oilseed exporters, such as the EU (rapeseed, olive oil), Canada (oilseeds, vegetable oils, and oilcakes), United States (vegetable oils), and Brazil (vegetable oils and oilcakes) have reported WTO export subsidy commitments on oilseeds and/or products. Subsidies on these commodities have not been very large due to high world prices, however. For example, only Hungary and South Africa in 1995, and Hungary in 1996, notified the WTO of oilseed export subsidies, but outlays amounted to less than $315,000 in each year (World Trade Organization 1997b and 1999). Subsidies on vegetable oils by the EU, South Africa, and Turkey totaled about $83 million in 1995, and about $50 million for EU olive oil exports in 1996. The United States has significantly reduced its use of the Export Enhancement Program (EEP), since the early 1990's, notifying no vegetable oil export subsidies between 1995 and 1997, although it was permitted nearly $53 million in 1995 and $45 million in 1996. Canada's transport export subsidy for rapeseed has been eliminated. Thailand is currently subsidizing its palm oil exports, but has smaller obligations as a developing country.

### Sanitary and Phytosanitary Agreement (SPS)

The Uruguay Round Sanitary and Phytosanitary (SPS) Agreement imposed new rules and procedures on measures countries may take to protect human, animal or plant life or health. Such regulations can be used as a pretext for protection. Some have argued that India's ban on the importation of whole soybeans due to phytosanitary concerns acts as a trade barrier. Although it does permit 1 million metric tons of split soybeans to be imported, it is impractical for exporters to provide the beans in this form. The SPS agreement required that regulations be based on science and should not be arbitrary or discriminate between countries where there are similar conditions. This Agreement could increase the transparency of countries' SPS regulations and provides an improved means for settling SPS-related trade disputes (Roberts).

### Dispute Resolution

Compared to GATT procedures, the Uruguay Round improved the multilaterial dispute resolution process by limiting the ability of a single country to block the formation of a dispute resolution panel or veto an adverse ruling. This procedural change occurred nearly 50 years after the founding of the GATT.

### *Issues for the Upcoming World Trade Negotiations*

Although the URAA helped to identify and discipline barriers to trade, Article 20 of the Agreement on Agriculture states that long-term fundamental reform requires continual reduction of agricultural support and protection, and that new negotiations should be initiated one year before the conclusion of the URAA's implementation period (in 2000).

These negotiations will take into account:

a) "the experience to that date from implementing the reduction commitments;
b) the effects of the reduction commitments on world trade in agriculture;
c) non-trade concerns, special and differential treatment to developing country members, and the objective to establish a fair and market-oriented agricultural trading system, and the other objectives and concerns mentioned in the preamble to this Agreement; and
d) what further commitments are necessary to achieve the above mentioned long-term objectives." (World Trade Organization 1995, page 55).

Important issues pertaining to the U.S. oilseed industry include those remaining from the last round such as increased market access, continued reduction in domestic support and export subsidies. Developments in new areas—such as creating tighter disciplines on State Trading Enterprises, disciplining use of export credit guarantees, and uniform world trading rules and regulations for products of biotechnology could also be important for the U.S. oilseed sector.

### *Continuing Issues*

**Market Access—**Many tariffs remain higher on agricultural goods than manufactured items and some observers have noted that the reduction of agricultural trade barriers by the URAA was actually quite modest (Josling). Although the agreement fixed an upper bound on tariff levels for agricultural commodities, these limits are often quite high, and vary by country and commodity. The establishment of TRQs served to increase the transparency of non-tariff barriers to trade, and was a major achievement, but the level of trade creation resulting from these TRQs appears to be modest.

Some countries have discussed a "zero for zero" approach for oilseed products in the upcoming WTO round. This strategy, which involves a reciprocal elimination of duties among major trading countries, was successfully used in the URAA to bring about complete elimination of tariffs on selected industrial goods. During the Uruguay Round some members explored using this approach for the oilseed market but an agreement was not reached. Several exporting countries, including the United States, are calling for a gradual reduction and eventual elimination of tariffs.

**Tariffs—**Bound tariff levels for soybeans are duty-free for most developed countries (United States, Canada, EU-15, and Japan) but are much higher for developing countries. In each case, though, the tariffs for seed are less than for meal and oils (table B-6 through B-8). Higher tariffs on processed goods are intended to protect the domestic crushing industry within a particular country. An equalization of tariffs along the processing chain may create an incentive for more processing of oilseeds in those major producing countries possessing a comparative advantage in the production of oilseeds, and less processing in major importing countries. Consequently, the United States and its competitors may gain additional processing demand at the expense of the major importers.

**Tariff-Rate Quotas—**High over-quota tariff rates remain a barrier to trade in oilseeds and products. If TRQs are not eliminated, trade could still be liberalized by reducing tariffs assessed on imports above the quota, and/or by increasing the quota level. In addition, the administration of tariff rate quotas has been both challenging and controversial, and will most likely be a topic of negotiation. For example, allocating the quota to suppliers based on the historical distribution of trade perpetuates past patterns of trade into the future, even though market conditions have changed. Some countries have assigned import rights to State Trading Enterprises or producer associations. These organizations may lack the incentive to increase market access, resulting in quota "underfill," or may bias the quota distribution to favored suppliers (Skully).

**Export subsidies—**Many countries, including the United States, have called for the complete elimination of export subsidies. Export subsidies were an important policy tool in agricultural trade, particularly in grains and dairy products, but less so for the oilseeds and products, especially in recent years. Consequently, elimination of these subsidies would probably have minimal effects on most world oilseed and product trade and specifically U.S. soybean oil exports, but would serve to restrain the use of export subsidies in the future.

**Domestic support—**Domestic support policies were recognized as a source of distortion to markets and trade under the URAA. Policies that were deemed most distorting were limited and those appearing to have a smaller impact on trade were permitted. The URAA had little direct effect in reducing domestic support for oilseeds in the EU and United States because policy changes since the 1986-88 base period put the EU oilseed support program into the exempt "blue box" category, and the U.S. oilseed support payments have remained below the *de minimis* levels. Although many countries have remained below their domestic support levels, some countries, such as South

Korea, Japan, and Switzerland have recently had to change policies to avoid exceeding AMS commitment ceilings. There will likely be further interest in disciplining domestic support activity presently categorized under the "blue box" or "amber box".

The URAA disciplined aggregate spending on trade-distorting domestic support programs, rather than spending on a commodity-by-commodity basis. It is difficult to say what impact further reductions on aggregate spending would have on a given commodity, but this feature does give countries some discretion on how to establish individual commodity policies.[5] If the particular commodity persistently exceeds its *de minimis* level (5 percent of its annual value of production), then further reductions in the AMS could affect policies oriented towards the commodity in question.

If further reduction of domestic support requires policy changes affecting U.S. oilseed producers, other risk management policies that are considered minimally trade distorting or exempt from reduction are available. For example, revenue insurance is classified as a permitted "green box" policy. Crop insurance, on the other hand, is considered a non-commodity specific "amber box" program, but has been exempt from reductions because its outlays are less than its *de minimis* level, 5 percent of total U.S. agricultural production.

**Differential Export Taxes—**Another issue not currently covered by WTO rules is the differential export taxation on oilseeds and products practiced by Argentina, Malaysia, and Indonesia. Argentina and, until 1996, Brazil have used differential export taxes to stimulate the export of soybean oil and meal over whole soybeans, and Malaysia and Indonesia have encouraged exportation of refined palm oil at the expense of crude palm oil. Although export taxation has the effect of reducing the volume of exports and acts as a negative export subsidy on the taxed product, the policy does distort trade by favoring the export of processed products. One example of how these policies can, in part, alter the composition of exports is the shift in Brazil's export mix following the elimination of the state sales tax (ICMS) on primary and semi-manufactured exports in 1996. Exports of whole soybeans more than doubled the following year from 3.6 to 8.3 million tons and soybean oil and meal exports were both reduced. The next round of negotiations may include discussions on how to limit such trade-distorting practices. In addition, discussions could also include limitations on non-differential export taxes, such as the tax on wheat exports imposed by the EU in 1995 and 1996. Export taxes restrict the quantity of a commodity available on world markets and tend to raise world prices above what would otherwise be seen.

[5] A country's total AMS is the sum of approved support for each supported commodity and non-product specific support that can't be attributed to individual commodities.

### *Other Issues*

**Export Credits—**A potential issue for discussion in the upcoming negotiations is the definition of export subsidies. Export credit guarantees are not considered export subsidies under the URAA, but some U.S. competitors may argue that export credits and credit guarantees be treated as a subsidy.

**State Trading Enterprises (STEs)—**Many countries would like to define certain trading activities of State Trading Enterprises (STE) as a factor affecting export competition. The lack of transparency in the pricing and operational activities of STEs has caused concern that some WTO member countries use STEs to circumvent URAA export subsidy commitments or will use them in the future as traditional protection policies become more disciplined. While STEs are not as significant for the world oilseed market as they are for grains, sugar, or dairy, there are several that influence world oilseed trade. India's State Trading Commission (STC) has the greatest potential effect on trade because it controls imports of oilseeds and exports of vegetable oil. India recently ended import licensing requirements on vegetable oils and permits imports by entities other than the STC. In Korea, a number of STEs control imports of soybeans and soybean products. China issues import licenses to only a few companies, most of them state-owned. In 1998, Indonesia's BULOG made an agreement with the International Monetary Fund (IMF) that ended BULOG's monopoly on soybean imports. It is important to note that several countries seeking membership to the WTO, including China, Taiwan, Russia, and Vietnam, use STEs extensively.

**Trade in Genetically Engineered Commodities—**Foreign regulations and labeling initiatives governing products from genetically engineered organisms concern the U.S. oilseed industry because about 55 percent of domestic soybean acreage went to genetically engineered varieties in 1999 (U.S. Department of Agriculture 1999g). Science-based risk assessment and a uniform set of rules and standards for all countries could facilitate world trade of genetically engineered organisms.

Major oilseed importers that are drafting or planning to establish regulations include Japan, the EU, South Korea, and Thailand.

- About 80 percent of Japan's soybean imports come from the United States. Recently, Japan proposed a law requiring that foods made from genetically engineered crops be labeled beginning in April 2001. Animal feeds, and food products for which genetically engineered content is difficult to verify, such as vegetable oils and alcoholic beverages, are exempt from this requirement.
- Although the EU has approved glyphosate-tolerant soybeans, the EU has temporarily halted the approval of new licenses for genetically engineered foods and has proposed but not implemented labeling requirements for all

food and animal feed products containing genetically engineered organisms.

- South Korea and Thailand are developing their positions regarding genetically engineered products of biotechnology.

**Country Accession to WTO—**Although the WTO counts most of the world's major trading partners among its members, several nations, including China, Taiwan, Russia, and Vietnam are not yet members and are therefore not bound to its rules. Recently, though, China has been engaged in discussions on the terms of entry to the WTO. As the world's leading soybean oil importer and a substantial importer of whole soybeans and meal, China's entry could have a large impact on world oilseed trade and may provide export opportunities to the United States. China currently maintains low tariffs on whole soybeans (3 percent) and soybean meal (5 percent). Most of the impact on U.S. oilseed sector exports is therefore likely to be on soyoil exports, as China currently carries a 13-percent tariff on soybean oil. If China joins the WTO, it would also be subject to export subsidy disciplines.

A recent U.S. International Trade Commission (USITC) report evaluated the anticipated U.S. trade effects of China's accession, based on China's negotiating offer in April 1999 (U.S. International Trade Commission). The report concluded that trade opportunities for the U.S. oilseeds sector would be largely unaffected except for soybean oil exports, which could increase by nearly $300 million if China's current tariff is replaced with a tariff-rate quota (TRQ) with a lower in-quota tariff.

## Conclusions

Issues important to the U.S. oilseed industry in the upcoming round of WTO negotiations include, in part, increased market access, continued reductions in domestic support and export subsidies, tighter disciplines on State Trading Enterprises, and uniform world trading rules and regulations for genetically engineered oilseeds and products. Progress on these issues could enhance market opportunities for the U.S. oilseed sector, which has experienced a decline in global export market shares in recent decades.

Further examination of all domestic support policies and their WTO classification schemes appears likely. Additional disciplines on trade-distorting domestic support policies may encourage member countries to use minimally trade distorting "green box" support policies rather than the "amber" or "blue" box policies. Finally, global export subsidies of oilseeds and oilseed products have largely been curtailed in recent years, but additional reductions would restrain their future use.

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# Issues Facing the U.S. Peanut Industry During the Seattle Round of the World Trade Organization

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**Abstract:** The U.S. peanut industry will likely face several challenges during the Seattle Round of negotiations of the World Trade Organization. Basic issues stemming from the current peanut farm program, the level of domestic support, market access, and tariff rates for peanuts and peanut products will come under scrutiny.

**Keywords:** Two-tier peanut price support program, WTO, tariff-rate quota, market access, domestic support.

The ninth round of international trade talks will begin at the World Trade Organization (WTO) Ministerial Conference in Seattle, Washington this November. While agriculture has been included in each of the previous rounds, it was not until the Uruguay Round of Multilateral Trade Negotiations (1986-94) that real progress was made in negotiating overall reductions in barriers to agricultural trade. The Uruguay Round created the WTO, which replaced the General Agreement on Tariffs and Trade (GATT) as an institutional framework for overseeing trade negotiations and adjudicating trade disputes.

## *Uruguay Round Commitments for Peanuts and Peanut Products*

Uruguay Round agricultural agreement established disciplines in the areas of market access, export subsidies, internal support, and sanitary and photosanitary measures. Several countries made commitments to reduce trade barriers, and these commitments have had a positive impact on the U.S. peanut industry. Switzerland agreed to eliminate the duty on peanuts for human consumption over a period of 6 years beginning in 1995. Poland also will eliminate the 15-percent duty on shelled peanuts over a period of 6 years. Korea reduced the in-quota tariff on shelled peanuts from 40 percent to 24 percent. On July 1, 1996, Korea also liberalized imports of roasted peanuts. Thailand agreed to halve the tariff on peanut butter to 30 percent or 2.5 baht per kilogram, and to cut the tariff for edible peanuts to 30 percent or 1.5 baht per kilogram. Norway agreed to cut its tariff on peanut butter from 30 percent to 6 percent. Finland agreed to bind its tariff for roasted peanuts at duty free and reduce its tariff for peanut butter from 4.3 percent to duty free.

Under the tariffication discipline the United States replaced Section 22 import quotas for peanuts with an *ad valorem* tariff equivalent of 155 percent for shelled peanuts and 192.7 percent for in-shell peanuts. These tariffs will be reduced by the required minimum of 15 percent in equal annual installments over 6 years starting in 1995, to 131.8 percent for shelled peanuts and 163.8 percent for in-shell peanuts.

The United States agreed to establish a tariff-rate quota for peanuts of 33,770 metric tons in 1995, growing to 56,821 metric tons at the end of 6 years. Argentina was allocated 78 percent of this quota and 3,377 metric tons were reserved for Mexico in accordance with the North American Free Trade Agreement (NAFTA).

The United States agreed to establish a tariff-rate quota for peanut butter that started at 19,150 metric tons in 1995, and will increase to 20,000 metric tons over 6 years. This quota is allocated among current exporting countries (Canada 14,500 metric tons and Argentina 3,650 metric tons) with an additional amount permitted for less developed countries (750 metric tons increasing to 1,600 metric tons) and 250 metric tons for other countries. The over-quota *ad valorem* rate of 155 percent for peanut butter will be reduced by the required minimum of 15 percent to 131.8 percent in equal annual installments by the year 2000. The in-quota rate was set at 2 cents per kilogram in 1995 and reduced to duty free in 1998 (Foreign Agricultural Service).

The remainder of this article identifies issues confronting the U.S. peanut industry during the Seattle Round negotiations. These issues include domestic support, market access, and tariff-rate quotas.

## *The Current Peanut Program*

The U.S. peanut program is a two-tier price support program that has a high support rate for peanuts for food use

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(quota peanuts) and a much lower rate for peanuts grown for export or crushed (additional peanuts). The program is administered through nonrecourse loans available to all peanut producers. Production controls and quotas on imports are essential in making the peanut program effective. While any farmer may grow peanuts in any quantity, only those farmers with a peanut quota may market their production into food channels and only in an amount up to an individual quota.

Prior to the 1996 Farm Act, the quota peanut support rate was tied to the cost of production. The rate could increase up to 5 percent per year but could not decrease. The 1996 Act eliminated the cost-of-production escalator and reduced and fixed the quota support rate at $610 per short ton (30.5 cents per pound) for the 1996-2002 crops. The 1996 Act established a "no net cost" Commodity Credit Corporation (CCC) loan program.

The national quota poundage equal to the amount estimated for food, seed, and related uses was retained in the 1996 Act. However, a separate quota for seed was established and made available to all peanut producers (quota and additionals). The 1996 Act eliminated the minimum national quota poundage (1.35 million short tons). The annual quota is set to equal estimated domestic food and related uses. In 1996, the USDA set the national quota at 1.1 million short tons, 18.5 percent below the quota poundage in 1995. Since the 1996 crop year, the national quota has increased each season with the 1999 quota set at 1.18 million short tons. In addition, the 1996 Act eliminated the quota peanut undermarketing carryover allowance. That is, if a producer fails to produce sufficient peanuts to market the farm's quota for a particular marketing year, the producer may no longer carry the undermarketings forward and thereby overmarket the farm's basic quota for the following year.

### *Issues Related to WTO Trade Negotiations*

During the next round of WTO negotiations, further reductions in the level of trade-distorting domestic support likely will be one of the issues addressed. The Aggregate Measurement of Support (AMS), designed during the Uruguay Round is a tool to help member countries implement commitments to reduce and limit the amount of assistance provided to agriculture from production-distorting domestic programs that affect trade. The AMS measures the monetary value of trade distorting support provided to agriculture. The AMS includes both budgetary outlays and revenue foregone from consumers to producers resulting from policies that distort market prices. Member countries are required to reduce their support during the implementation period.

For peanuts the value of support is based on a price-gap method where the price gap is the difference between administered prices (announced program support price) and a fixed world price (the average price of U.S. peanuts cif Rotterdam during 1986-88). This price gap is multiplied by eligible production (quota poundage) to determine the market price support. In addition, estimated interest subsidies on CCC peanut loans are included in the measure.

The calculated AMS for peanuts is presented in table C-1 for the base period (1986-88) and for the past 3 marketing years. The AMS was over $400 million during the 1995/96 season and represented 41 percent of the total value of U.S. peanut production. During the past two seasons, the AMS totaled about $300 million or 30 percent of the value of production. The calculated AMS for peanuts during the 1997/98 season accounted for almost 5 percent of the AMS for all commodities. While essentially all of the cost of the peanut program is paid by consumers through higher prices, government costs were substantial during the 1995/96 and 1996/97 marketing years with net CCC outlays of $100 million or more in both years.

Table C-1--Estimated domestic support for the U.S. peanut program

| Item | 1986-88 | 1995/96 | 1996/97 | 1997/98 |
|---|---|---|---|---|
| | | Million dollars | | |
| Value of production | 1,079.1 | 1,013.3 | 1,029.8 | 1,001.6 |
| Calculated measure of U.S. assistance | | | | |
| Price support/quota 1/ | 347.22 | 412.35 | 308.14 | 315.27 |
| Plus loan Interest subsidy 2/ | 00.06 | 10.54 | 00.17 | 00.16 |
| Less feed and levies 3/ | 00.00 | 08.26 | 09.26 | 09.67 |
| Aggregate measurement of support (AMS) | 347.28 | 414.63 | 299.05 | 305.76 |
| Program Costs 4/ | 12.6 | 120.0 | 100.0 | 06.0 |
| | | Percent | | |
| AMS/Value of production | 32 | 41 | 29 | 31 |

1/ The value of support is estimated as the administered price (loan rate) minus the fixed world price (1986-88 peanut prices based on U.S. c.i.f. in Rotterdam). Eligible production includes marketing quota plus additional peanuts supported through the buyback system, plus the seed quota after 1995. 2/ Interest subsidy is based on loans outstanding as reported in the CCC General Ledger. 3/ Assessment equal to 1.1 percent of the of the national average price support level for the 1995 crop, 1.15 percent for the 1996 crop, and 1.2 percent for the 1997 through 2002 crop--on each pound of domestically produced quota and additional peanuts. 4/ Net CCC outlays.

Source: National Agricutural Statistics Service and Farm Service Agency, USDA.

The Federal peanut program's two-tier pricing system that differentiates between quota producers and additional producers may be an issue when negotiators are seeking to expand trade for other agricultural commodities. Quota peanuts are supported by a guaranteed loan rate of $610 per short ton for domestic edible peanuts. Additional peanuts are currently supported at $132 per short ton and must be crushed into meal and oil or sold in the export market (table C-2).

On March 17, 1999, in a WTO case, the United States and New Zealand successfully challenged the Canadian dairy policy of using dual pricing as an export subsidy. In this case, both the United States and New Zealand claimed that the volume of Canadian exports of certain dairy products, under a scheme known as Special Milk Classes, exceeded Canada's export subsidy commitments. Canadian milk is classified according to its end use and market destination. Classes 5(d) and (e) of Canadian industrial milk are exclusively for use in export markets and are priced significantly lower than dairy products available domestically in Canada. Milk pricing in Canada involves a system of classification according to intended use, as well as the pooling of sales proceeds. A final ruling after a Canadian appeal was announced October 13 which upheld the original decision.

The WTO determined that Canada's dairy pricing system of different prices for its domestic market versus its export market constituted an export subsidy. This finding may raise issues about the two-tier pricing system for U.S.-grown peanuts. Although the 2 systems are by no means identical, the United States system that provides a higher price for quota peanuts in the domestic edible market compared to a lower price for additional peanuts for the export market has led some to suggest the U.S. peanut program could be challenged as providing an export subsidy (Pasco).

### *Issues on Tariff-Rate Quota Placed on Peanut Imports*

The absolute quota on imports of peanuts was converted to a tariff-rate quota (TRQ) in the Uruguay Round negotiations. The within-quota rates are 9.35 cents per kilogram for peanuts in the shell and 6.6 cents per kilogram for shelled peanuts. The over-quota tariff rate for shelled peanuts began at 151.1 percent *ad valorem* in 1995, with reductions of 15 percent over 6 years (table C-3). A tariff rate of 131.8 percent *ad valorem* will apply in 2000 and thereafter. The over-quota tariff for peanuts in the shell started at 187.9 percent *ad valorem*, declining to 163.8 percent by year 2000. These tariff rates have been effective at limiting over-quota shipments. The volume of peanuts that could be imported under quota was 42,981 metric tons in 1997 and 47,591 metric tons in 1998. Total peanut imports were near the quota level in both years. Argentina, with the largest quota, slightly exceeded its quota in 1997 and 1998. Mexico nearly filled its quota in 1997 and exceeded its quota by 552 metric tons (14.5 percent) in 1998. (For a more complete discussion on tariff-rate quotas see the article by David Skully on U.S. tariff-rate quotas for peanuts.)

Peanut butter imports are significant in that they are equivalent to over one-third of the total quantity of peanuts imported into the United States. During the Uruguay Round negotiations for peanuts, the United States granted "minimum access opportunities" of at least 3 percent of domestic consumption and increasing to 5 percent of consumption by the year 2000 (table C-4) by establishing a new tariff-rate quota for imports of peanut butter and paste. Peanut butter and peanut paste imports were limited to the base level of calendar year 1993. An over-quota tariff is imposed on imports above 20,000 metric tons in the year 2000 and thereafter (tables C-5 and C-6).

Since 1996, peanut butter and paste imports have been at or slightly above the quota level. Canada, the largest supplier (with a quota of 14,500 metric tons) has usually filled its quota each year. Similarly, trade data indicate Argentina exceeded its quota in 1996 and 1997 and reached it in 1998. In addition, Mexico began shipping peanut butter and paste to the United States in 1998. Mexico exported 658 metric tons of peanut butter and paste in calendar year 1998 and 352 metric tons during the first 7 months of 1999. Mexico is not subject to quota restrictions if peanut butter and paste are produced from Mexican-grown peanuts.

Table C-2--U.S. peanut prices, farmers stock basis, August-July

| Item | 1993/94 | 1994/95 | 1995/96 | 1996/97 | 1997/98 | 1998/99 (f) |
|---|---|---|---|---|---|---|
| Support price | | | | | | |
| Quota | 38.8 | 33.9 | 33.9 | 30.5 | 30.5 | 30.5 |
| Additional | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 |
| Farm price | 30.4 | 28.9 | 29.3 | 28.1 | 28.3 | 28.0 |
| CCC export price | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Export unit value 1/ | 33.0 | 28.6 | 29.2 | 32.2 | 32.7 | 32.8 |
| Rotterdam, c.i.f. 2/ | 37.1 | 29.2 | 33.6 | 31.6 | 36.0 | 29.0 |

f = Forecast.

1/ Exports include edible and oilstock peanuts, shelled basis, converted to farmers stock basis. 2/ U.S. runners 40/50 percent c.i.f.

Source: Oilseeds: World Markets and Trade, Foreign Agricultural Service, Interagency Commodity Estimates Committee for Oilseeds, Oils and Meals, USDA.

Table C-3--Over-quota tariff rates for peanuts 1/

| Year | In-shell peanuts MFN 2/ | Shelled peanuts MFN | In-shell peanuts, valued 28.4 c/kg or less Mexico | In-shell peanuts, valued more than 28.4 c/kg Mexico | Shelled peanuts, valued 28.4 c/kg or less Mexico | Shelled peanuts, valued more than 28.3 c/kg Mexico |
|---|---|---|---|---|---|---|
| | ---------Percent---------- | | Cents/kg | Percent | Cents/kg | Percent |
| 1994 | | | 51.7 | 191.4 | 78.3 | 120.0 |
| 1995 | 187.9 | 151.1 | 50.4 | 176.8 | 76.3 | 116.9 |
| 1996 | 183.1 | 147.3 | 49.0 | 172.1 | 74.3 | 113.9 |
| 1997 | 178.3 | 143.4 | 47.7 | 167.5 | 72.3 | 110.8 |
| 1998 | 173.4 | 139.5 | 46.4 | 162.8 | 70.3 | 107.7 |
| 1999 | 168.6 | 135.7 | 45.1 | 158.2 | 68.3 | 104.6 |
| 2000 | 163.8 | 131.8 | 40.0 | 140.6 | 60.7 | 93.0 |
| 2001 | 163.8 | 131.8 | 35.0 | 123.0 | 53.1 | 81.4 |
| 2002 | 163.8 | 131.8 | 30.0 | 105.5 | 45.5 | 69.8 |
| 2003 | 163.8 | 131.8 | 25.0 | 87.9 | 37.9 | 51.8 |
| 2004 | 163.8 | 131.8 | 20.0 | 70.3 | 30.3 | 46.5 |
| 2005 | 163.8 | 131.8 | 15.0 | 52.7 | 22.8 | 34.9 |
| 2006 | 163.8 | 131.8 | 10.0 | 35.2 | 15.2 | 23.3 |
| 2007 | 163.8 | 131.8 | 5.0 | 17.6 | 7.6 | 11.6 |
| 2008 | 163.8 | 131.8 | Free | Free | Free | Free |

1/ The within-quota rates are 9.35 cents/kg for peanuts in the shell and 6.6 cents /kg for shelled peanuts. 2/ The U.S. Canada Free Trade Agreement provided for the total elimination of import duties on trade between the two countries. However, WTO tariff-rate quotas on agricultural goods are being applied pursuant to the decision of a NAFTA panel.

Source: U.S. Department of Commerce.

The high over-quota tariff rates, of well over 100 percent, on peanut and peanut products are in stark contrast to the *ad valorem* tariffs on other "import sensitive" products such as sugar, tobacco, and dairy. Most agricultural products, items ranging from soybeans to fresh unprocessed hams to apples, enter the United States duty free. A comparison of over-quota tariff rates are presented in table C-7. The U.S. trade objectives of reducing tariffs and increasing tariff-rate quotas to gain increased market access for U.S. exports could result in changes in tariff-rates and tariff-rate quotas of U.S. peanuts and peanut products.

Table C-4--WTO and NAFTA tariff-rate quota quantities for peanuts

| Year 1/ | Mexico 2/ | Argentina | Other | Total |
|---|---|---|---|---|
| | | Metric tons | | |
| 1995 | 3,377 | 26,341 | 4,052 | 33,770 |
| 1996 | 3,478 | 29,853 | 5,043 | 38,374 |
| 1997 | 3,583 | 33,365 | 6,033 | 42,981 |
| 1998 | 3,690 | 36,877 | 7,024 | 47,591 |
| 1999 | 3,801 | 40,388 | 8,015 | 52,204 |
| 2000 | 3,915 | 43,901 | 9,005 | 56,821 |
| 2001 | 4,032 | 43,901 | 9,005 | 56,938 |
| 2002 | 4,153 | 43,901 | 9,005 | 57,059 |
| 2003 | 4,278 | 43,901 | 9,005 | 57,184 |
| 2004 | 4,406 | 43,901 | 9,005 | 57,312 |
| 2005 | 4,538 | 43,901 | 9,005 | 57,444 |
| 2006 | 4,675 | 43,901 | 9,005 | 57,581 |
| 2007 | 4,815 | 43,901 | 9,005 | 57,721 |
| 2008 | Unrestricted | 43,901 | 9,005 | 52,906 |

1/ For Mexico, the quota year is a calendar year; for other countries, it is an April 1 to March 31 year. 2/ The NAFTA provides for expanding tariff-rate quotas on "peanuts (ground nuts), shelled or not shelled, blanched or otherwise prepared or preserved (except peanut butter), that are qualifying goods entered under subheadings 9906.12.04 9906.12.04 and 9906.20.03 in any calendar year." Peanuts in the shell are charged against the quota on the basis of 75 kilograms for each 100 kilograms of peanuts in the shell. Beginning in calendar year 2008, quantitative limitations will cease to apply.

Source: U.S. Department of Commerce.

### *Issues on Imported Confectionery Products*

Market access, particularly concerning confectionary imports, will be a major issue in the upcoming negotiations. Currently, confectionary items containing peanuts or peanut products enter the United States outside of any quota. In January 1999, six new harmonized tariff schedules were established covering several types of confectionery products: (1) confections or sweetmeats ready for consumption and containing peanuts, peanut butter or peanut paste, for retail sale, (2) confections or sweetmeats ready for consumption and containing peanuts, peanut butter or peanut paste, not for retail sale, (3) chocolate and other food preparations containing cocoa, confectionery in blocks, slabs, or bars, weighing 2 kilograms or less and containing peanuts, peanut butter, or peanut paste, (4) cocoa preparations, not put up for retail sale, and containing peanuts, peanut butter, or peanut paste, (5) sweet biscuits, waffles, and wafers, frozen, and containing peanuts or peanut products, and (6) sweet biscuits, waffles, and wafers, other than frozen, and containing peanuts or peanut products.

The category "confections or sweetmeats ready for consumption not put up for retail sale" is the most important. In 1998, the United States imported over 117 million pounds,

Table C-5--Over-quota tariff rates for peanut butter and paste, blanched peanuts, and other peanuts prepared or preserved

| Year | Peanut butter and paste Mexico | Peanut butter and paste MFN | Blanched peanuts-valued 65.2 cents/kg or less Mexico | Blanched peanuts-valued more than 65.2 65.2 cents/kg Mexico | Blanched peanuts-MFN | Other peanuts-prepared or preserved valued 65.2 cents/kg or less-Mexico |
|---|---|---|---|---|---|---|
| | Cents/kg | Percent | Cents/kg | ----------Percent---------- | | Cents/kg |
| 1994 | 5.9 | | 78.3 | 120.0 | | 78.3 |
| 1995 | 5.3 | 151.1 | 76.3 | 116.9 | 151.1 | 76.3 |
| 1996 | 4.6 | 147.3 | 74.3 | 113.9 | 147.3 | 74.3 |
| 1997 | 3.9 | 143.4 | 72.3 | 110.8 | 143.4 | 72.3 |
| 1998 | 3.3 | 139.5 | 70.3 | 107.7 | 139.5 | 70.3 |
| 1999 | 2.6 | 135.7 | 68.3 | 104.6 | 135.7 | 68.3 |
| 2000 | 2.0 | 131.8 | 60.7 | 93.0 | 131.8 | 60.7 |
| 2001 | 1.3 | 131.8 | 53.1 | 81.4 | 131.8 | 53.1 |
| 2002 | 0.7 | 131.8 | 45.5 | 69.8 | 131.8 | 45.5 |
| 2003 | Free | 131.8 | 37.9 | 58.1 | 131.8 | 37.9 |
| 2004 | Free | 131.8 | 30.3 | 46.5 | 131.8 | 30.3 |
| 2005 | Free | 131.8 | 22.8 | 34.9 | 131.8 | 22.8 |
| 2006 | Free | 131.8 | 15.2 | 23.3 | 131.8 | 15.2 |
| 2007 | Free | 131.8 | 7.6 | 11.6 | 131.8 | 7.6 |
| 2008 | Free | 131.8 | Free | Free | 131.8 | Free |

1/ The within quota rates are 9.35 cents/kg for peanuts in the shell and 6.6 cents/kg for shelled peanuts.

Source: U.S. Department of Commerce.

Table C-6--Peanut butter and past tariff-rate quota quantities 1/

| Year 2/ | Canada | Argentina | GSP 3/ | Other | Total |
|---|---|---|---|---|---|
| | | | Metric tons | | |
| 1995 | 14,500 | 3,650 | 750 | 250 | 19,150 |
| 1996 | 14,500 | 3,650 | 920 | 250 | 19,320 |
| 1997 | 14,500 | 3,650 | 1,090 | 250 | 19,490 |
| 1998 | 14,500 | 3,650 | 1,260 | 250 | 19,660 |
| 1999 | 14,500 | 3,650 | 1,430 | 250 | 19,830 |
| 2000 and thereafter | 14,500 | 3,650 | 1,600 | 250 | 20,000 |

1/ This TRQ does not apply to imports from Mexico. 2/ Calendar year.
3/ Countries that were designated beneficiary countries under the Generalized System of Preference.

Source: U.S. Department of Commerce.

with Mexico and Canada accounting for nearly 70 percent of the total (table C-8). Shipments during 1999 have totaled 65 million pounds with Mexico and Canada remaining the dominant suppliers. Imports of "confections and sweetmeats for retail sale" were also substantial in 1998 and 1999, with Mexico and Canada accounting for 60 percent of total shipments.

Imports of the six categories containing peanuts or peanut products totaled nearly 241 million pounds in 1998 and have reached 119 million pounds during the first 7 months of 1999 (table C-9). U.S. peanut industry sources estimate the peanut content of these products has been estimated at 25 percent. Thus, in 1998, the equivalent of 40,000 tons of

Table C-7--Comparision of bound tariff rates on U.S. imports of various agricultural products

| Product | Bound tariff rate | Uruguay round reduction |
|---|---|---|
| | | Percent |
| Peanuts, in shell, over-quota | 153.8 ad val. | 15 |
| Sugar, refined, over-quota | $0.3574/kg (141.3% ad val.) | 15 |
| Peanuts, shelled, over-quota | 131.8 ad val. | 15 |
| Peanut butter and paste | 131.8 ad val. | 15 |
| Butter, over-quota | $1.541/kg (90.6 ad val.) | 15 |
| Cheddar cheese, over-quota | $1.227/kg (61.35% ad val.) | 15 |
| Boneless beef, over-quota | 26.4 ad val. | 15 |
| Rice, in the husk | $0.018/kg (10.9% ad val.) | 36 |
| Wheat | $0.0035/kg (3.78% ad val.) | 55 |
| Corn, yellow dent | $0.0005/kg (0.6% ad val.) | 75 |
| Beer | Duty free | 100 |
| Soybeans | Duty free | N/A |
| Pasta, uncooked, not prepared | Duty free | N/A |
| Ham, fresh, unprocessed | Duty free | N/A |
| Apples | Duty free | N/A |
| Cherries | Duty free | N/A |

Source: U.S. Department of Commerce.

Table C-8--U.S. imports of confection products containing peanuts, peanut butter, or peanut paste

| Country | 1998 | 1999 (Jan-Jul) |
|---|---|---|
| | 1,000 pounds | |
| | Confections or sweetmeats containing peanuts or peanut products for retail 1/ | |
| Mexico | 39,500 | 13,479 |
| Canada | 8,538 | 4,722 |
| Spain | 6,702 | 3,287 |
| Sweden | 3,721 | 1,402 |
| Taiwan | 3,415 | 71 |
| Switzerland | 3,298 | 1,850 |
| Germany | 3,898 | 1,413 |
| Argentina | 2,881 | 322 |
| Other | 12,004 | 4,877 |
| Total | 83,958 | 31,422 |
| | Confections or sweetmeats containing peanuts or peanut products not for retail 2/ | |
| Mexico | 62,051 | 32,319 |
| Canada | 17,820 | 11,069 |
| Colombia | 9,273 | 4,383 |
| Argentina | 4,661 | 1,874 |
| Netherlands | 3,937 | 2,434 |
| Brazil | 3,351 | 1,413 |
| UK | 3,120 | 3,166 |
| Spain | 2,884 | 743 |
| China | 2,491 | 1,953 |
| Italy | 1,559 | 1,687 |
| Other | 6,182 | 4,153 |
| Total | 117,327 | 65,194 |
| | Chocolate & other food preparations containing peanuts or peanut products 3/ | |
| Canada | 16,135 | 16,049 |
| Germany | 763 | 187 |
| Mexico | 370 | 183 |
| UK | 62 | 60 |
| Belgium | 75 | 13 |
| Switzerland | 88 | 1 |
| Spain | 33 | 0 |
| Other | 42 | 4 |
| Total | 17,568 | 16,497 |
| | Cocoa preparations not for retail sale containing peanuts or peanut products 4/ | |
| Canada | 5,831 | 3,558 |
| Italy | 6,616 | 2 |
| Argentina | 1,102 | 29 |
| UK | 278 | 66 |
| Chile | 163 | 57 |
| Hungary | 121 | 0 |
| Sweden | 110 | 0 |
| Ireland | 66 | 35 |
| Mexico | 53 | 4 |
| Other | 289 | 88 |
| Total | 14,630 | 3,840 |
| | Sweet biscuits, waffles & wafers, frozen containing peanuts or peanut products 5/ | |
| Canada | 298 | 0 |
| Dominican Republic | 1 | 0 |
| Hong Kong | 4 | 0 |
| Japan | 2 | 0 |
| Total | 305 | 0 |
| | Sweet biscuits, waffles & wafers, containing peanuts or peanut products 6/ | |
| Canada | 3,388 | 1,336 |
| Mexico | 2,758 | 615 |
| Austria | 57 | 141 |
| Hong Kong | 196 | 0 |
| Indonesia | 75 | 13 |
| Poland | 90 | 31 |
| Saudi Arabia | 37 | 31 |
| Denmark | 77 | 0 |
| Other | 201 | 97 |
| Total | 6,881 | 2,264 |

1/ HTSUS 1704903520.

2/ HTSUS 1714903590.

3/ HTSUS 1806310041.

4/ HTSUS 1806909011.

5/ HTSUS 1905300021.

6/ HTSUS 1905300041.

Source: U.S. Bureau of the Census.

Table C-9--U.S. imports of all confectionary products containing peanuts, peanut butter or peanut paste

| Country | 1998 | 1999 (Jan-Jul) |
|---|---|---|
| | 1,000 pounds | |
| Mexico | 104,732 | 46,601 |
| Canada | 52,011 | 36,735 |
| Spain | 9,586 | 4,030 |
| Colombia | 9,273 | 4,383 |
| Argentina | 8,644 | 2,224 |
| Italy | 8,175 | 1,689 |
| Brazil | 7,249 | 2,826 |
| Germany | 4,061 | 2,037 |
| Netherlands | 3,937 | 2,434 |
| Sweden | 3,832 | 1,402 |
| Taiwan | 3,415 | 71 |
| UK | 3,459 | 3,291 |
| Switzerland | 3,386 | 1,850 |
| Other | 60,248 | 25,238 |
| Total | 240,668 | 119,218 |

Source: U.S. Department of Commerce.

peanuts on a farmers' stock basis were contained in these products (20,000 tons during January-July 1999).

None of the peanuts contained in these products count toward fulfilling a country's peanut quota. In addition, most products enter duty free because of trade agreements such as NAFTA, the Caribbean Basin Initiative, and the Andean Trade Pact. However, tariff rates range from duty free to 6.2 percent ad valorem and probably do not inhibit imports of these products. While it is not possible to estimate imports of these products prior to 1998, current shipments represent about 50 percent of the total access negotiated by the WTO for peanuts. U.S. negotiations will likely seek to include discussions about subjecting these products to quotas.

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# U.S. Tariff-Rate Quotas for Peanuts

*David Skully*[1]

**Abstract:** The U.S. Tariff-rate quota (TRQ) for peanuts was created to meet the United States' obligations under the Uruguay Round Agreement of the WTO. This article traces the development of the U.S. peanut TRQ from its Section 22 quota origins. It explains how a TRQ operates in general and then explains the operation of the U.S. peanut TRQ, and its expansion and liberalization under the Uruguay Round. The influence of the TRQ on the volume, timing and country origin of U.S. peanut imports is examined. The U.S. TRQ for peanut butter and paste and the U.S. NAFTA TRQ for peanuts are also discussed. The article concludes with a discussion of potential issues in the next Round of WTO negotiations. In particular, it considers the various ways a TRQ can be liberalized.

**Keywords:** Tariff-rate quota, quota, peanuts, peanut imports, trade liberalization, WTO.

## *Background to the U.S. Peanut TRQs*

The U.S. tariff-rate quotas (TRQs) for peanuts and peanut butter are products of the domestic peanut program. The domestic peanut program, in attempting to increase producer prices, restricts the quantity of domestic peanuts that may be produced and marketed for human consumption in the United States. Because unrestricted imports of peanuts would have undermined the domestic price support program, imports were restricted by means of a quota. In the Uruguay Round Agreement on Agriculture, the United States and all other signatories agreed to a ban on 'quantitative restrictions' on imports. In other words, they agreed to give up the use of quotas.

The U.S. peanut TRQ stems from the *tariffication* of a Section 22 quantitative restriction. Section 22 of the Agricultural Adjustment Act of 1933 (as amended in 1935) allowed the President to impose fees or quantitative restrictions on imports of products that could materially interfere with the operation of domestic agricultural price support programs. Moreover, the legislation (as amended in 1948, 1950 and 1951) specified that the right to impose such restrictions could not be abridged by "any treaty or other international agreement to which the United States is or hereafter becomes a party." The decline in commodity prices following the Korean War triggered Section 22 actions. Quantitative trade restrictions on peanuts, among other agricultural products, were initiated on July 1, 1953. The restrictions were challenged in the General Agreement on Tariffs and Trade (GATT). In 1955, the GATT granted the United States an indefinite waiver from its GATT obligations for actions taken under Section 22.[2]

Because Section 22 quotas were initially imposed to prevent disruption of domestic price support or production control programs, it was necessary to restrict not merely the controlled commodity, but also many of its processed derivatives and substitutes. The peanut program supports the price of raw, in-shell peanuts for human consumption, not for oil or meal or other uses. In contrast, the peanut TRQ covers raw, in-shell peanuts and shelled, blanched, and 'other' peanuts. There is also a separate TRQ for peanut butter.[3]

The North American Free Trade Agreement (NAFTA) and the Uruguay Round Agreement of the World Trade Organization (WTO) required changes to the U.S. peanut quotas. NAFTA grants preferential access to the products of Canada and Mexico. In addition, the United States has a free trade agreement with Israel, and preferential agreements with the Caribbean Basin and the Andean Pact trade groups. Finally, the United States has a bilateral agreement with Argentina on peanuts. All of these agreements as well as the WTO Uruguay Round Agreement on Agriculture are recognized and incorporated in the U.S. TRQs for peanuts and for peanut butter and

[1] Agricultural Economist, Market and Trade Economics Division, Economic Research Service, USDA.

[2] See Jackson (1969): 733-737. Besides peanuts, in 1951-55 other restrictions under Section 22 were in effect for: cotton and certain cotton waste; wheat and wheat products; dairy products, including dried milk, cheese, butter, chocolate crumb, and certain animal feed containing milk or milk derivatives; barley, rolled barley, and barley malt; oats and ground oats; shelled and prepared almonds; shelled filberts; peanut oil; flaxseed and linseed oil; and rye, rye flour, and meal.

[3] The peanut butter TRQ was not created under Section 22; see Borges (1995: 600 ff.) for an explanation of the convolutions of U.S. trade policy for peanut butter and paste.

paste. As the various obligations sometimes overlap, it leads to a complicated bundle of tariffs and preferences.

### *How a Tariff-Rate Quota Operates*

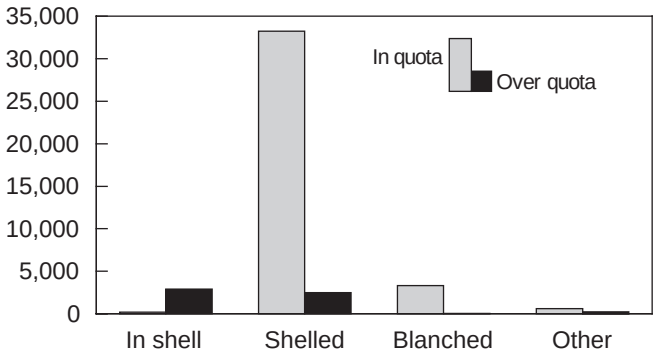
A tariff-rate quota is a two-tiered tariff. In a given period, a lower, in-quota tariff {t} is applied to the first Q units of imports and a higher over-quota tariff {T} is applied to all subsequent imports. From a legal point of view, tariff-rate quotas are not quantitative restrictions because they do not limit the quantity that may be imported. One may always import by paying the over-quota tariff. This opportunity is not available under a regular (or absolute) quota, which simply bans imports once the quota is filled. If the over-quota tariff is set at a sufficiently high rate, no importer will find it profitable to import beyond the quota, and it therefore yields exactly the same import volume as a traditional absolute quota. The over-quota tariffs for the U.S. peanut TRQ are not prohibitive: there are over-quota imports, see figure D-1.

Figure D-2 shows how a TRQ operates. It shows the stylized demand by the United States for imported peanuts. The import demand curve represents demand in excess of consumption of domestically produced peanuts. The supply curve is the supply of peanuts exported by other countries. The drawing assumes, as a simplification, that an infinite amount of peanuts is available for import at the world price, represented by 'W'. On the first $Q^{TRQ}$ units of peanuts imported an in-quota tariff of t cents per unit is applied. Thus, the price a U.S. importer faces is W+t per unit, and the effective supply curve is the bold horizontal line at W+t. The effective supply curve has a vertical jump at the quantity $Q^{TRQ}$. The first unit in excess of the quota is charged the over-quota tariff of T cents per unit. Thus the supply curve continues at the horizontal line at W+T. Because one observes over-quota peanut imports, the over-quota tariff is not prohibitively high and the import demand curve intersects the over-quota horizontal segment of the supply curve at the point marked 'A'. This means that the in-quota volume is not the binding constraint on peanut imports. Rather, the over-quota tariff determines the volume of trade. The over-quota tariff also determines the domestic price of peanuts. The domestic price equals the world price plus the over-quota tariff.

Three rectangles are shaded and labeled in figure D-2. In-quota tariff revenue is simply the in-quota import tax (t) times the volume of in-quota imports. Over-quota tariff revenue is the over-quota import tax (T) times the volume of over-quota imports. The sum of these two rectangles represents the amount of revenue collected by the U.S. Customs Service. The rectangle labeled RENT shows the profit gained by those importers who are able to import within the quota at the price W+t and sell on the domestic market at the price W+T. The rent per unit is simply T-t. As the next section documents, the right to import within the quota is valuable and there is considerable competition over gaining these rights. In fact, most of the disputes involving quotas and tariff-rate quotas concern how the quota import rights are distributed.

Figure D-1
**Average Peanut Import Volumes: 1995/96-1998/99**

Metric tons




Source: Economic Research Service, USDA.

### *The U.S. WTO Peanut TRQ*

The formal specification of the U.S. TRQ for peanuts is found in Chapter 12, note 2b of the Harmonized Tariff Schedule of the United States [HTSUS]. The relevant information is reproduced here. First, the quota year for peanuts starts April 1 and ends March 31 of the following year. Second, the peanut TRQ includes four categories of peanuts. Their descriptions and tariff codes are listed in table D-1. In-quota imports have a different tariff code than over-quota imports. Thus shelled, (not roasted or otherwise cooked) peanuts in quota are designated 1202.20.40 and, if over quota, 1202.20.80. The different tariff lines correspond to the different forms and levels of tariff charged. In addition, they allow one to monitor the rate and level of quota fill.

The third aspect of the TRQ is the volume of in-quota imports allowed. Table D-2 shows the initial tariffication of the Section 22 quota and its liberalization under the Uruguay Round Agreement on Agriculture. On April 1, 1995 the in-quota volume was set at 30,393 metric tons. The in-quota volume increases each year until April 1, 2000 when it reaches 52,906 metric tons.[4] Similarly, the initial over-quota tariffs for in-shell and all other peanuts were set at 192.7 percent and 155 percent. These rates are reduced by 15 percent over the course of 6 years to 131.8 percent and 163.8 percent in 2000. (A 15-percent reduction means the 2000 rate equals the initial rate times the factor, 0.85: .85 = 1.00 - 0.15.)

In-shell peanuts are measured at the rate of 75 lbs. per 100 pounds (one quarter of the weight is credited to shell).

[4] These volumes exclude peanuts from Mexico.

Figure D-2
## Tariff-Rate Quota

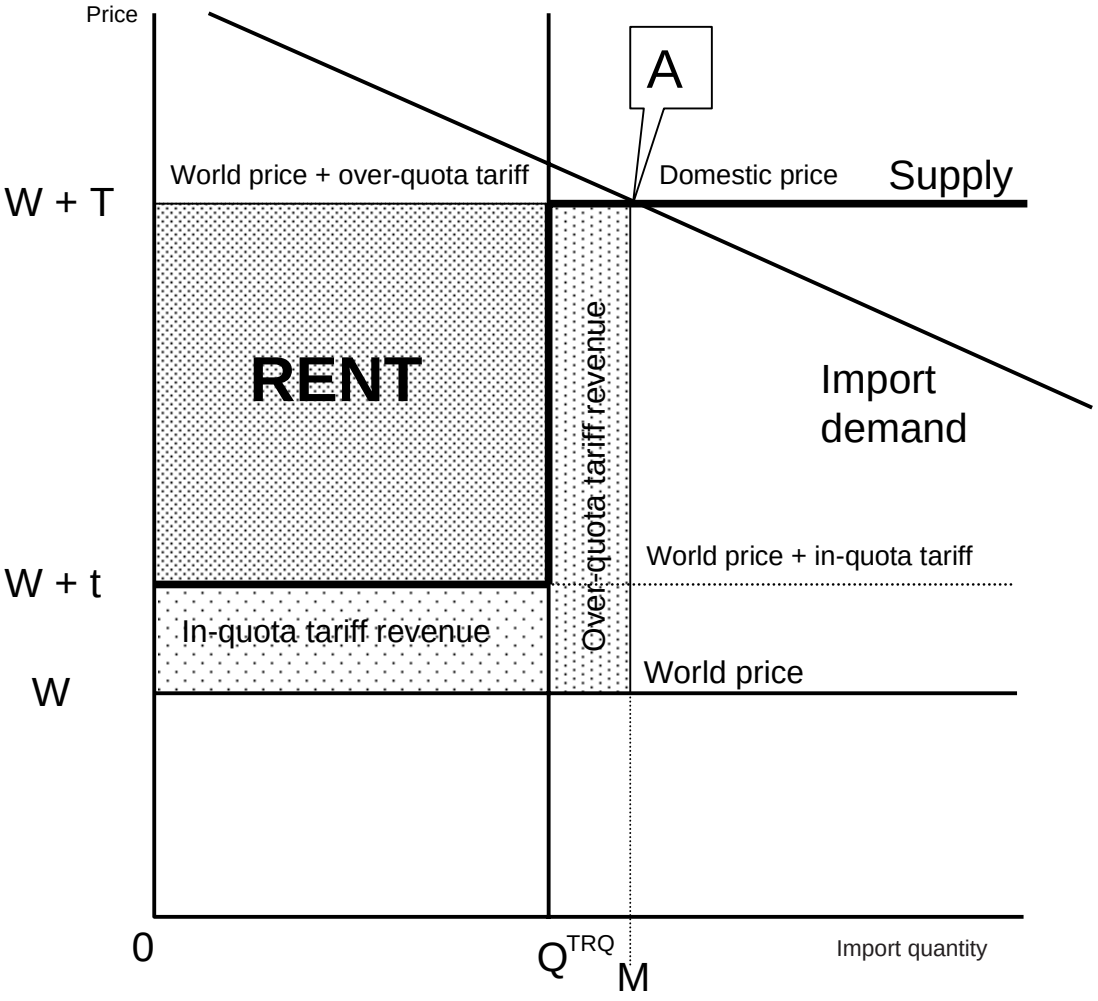



Table D--1 Peanut types and tariff codes under the peanut TRQ

| In-quota | Product description | Over quota |
|---|---|---|
| 1202.10.40 | Peanuts not roasted or otherwise cooked, in shell | 1202.10.80 |
| 1202.20.40 | Peanuts not roasted or otherwise cooked, shelled | 1202.20.80 |
| 2008.11.25 | Blanched peanuts | 2008.11.35 |
| 2008.11.45 | Peanuts, other | 2008.11.60 |

Fourth, the rules for administering the TRQ are outlined. The WTO grants member countries broad discretion over how they administer TRQs. This is a potentially contentious issue and one that is likely to be addressed in the upcoming round of trade negotiations.[5] The peanut TRQ is a hybrid of two general forms of TRQ administration: it mixes historical allocation—where specific countries are granted a fixed share or amount of the total in-quota volume—and first-come first-served allocation—where access to the in-quota volume is granted to whomever imports first. The total in-quota volume is apportioned among several countries or groups of countries. In particular, the allocation respects a bilateral agreement between the United States and Argentina that guarantees Argentina 78 percent of the minimum access

[5] See Skully (1999) for more detail on the economics of TRQ administration.

Table D-2--The liberalization of the U.S. peanut tariff-rate quota

| | Over quota tariff | | In quota |
|---|---|---|---|
| | In-shell peanuts | Shelled peanuts | volume |
| | Percent ad valorem | | Metric tons |
| Year | | | |
| Base | 192.7 | 155.0 | |
| 1995 | 187.6 | 150.9 | 30,393 |
| 1996 | 182.5 | 146.8 | 34,896 |
| 1997 | 177.7 | 142.9 | 39,398 |
| 1998 | 172.9 | 139.1 | 43,901 |
| 1999 | 168.3 | 135.4 | 48,403 |
| 2000 | 163.8 | 131.8 | 52,906 |

Source: Additional Note 2, Chapter 12 HTSUS.

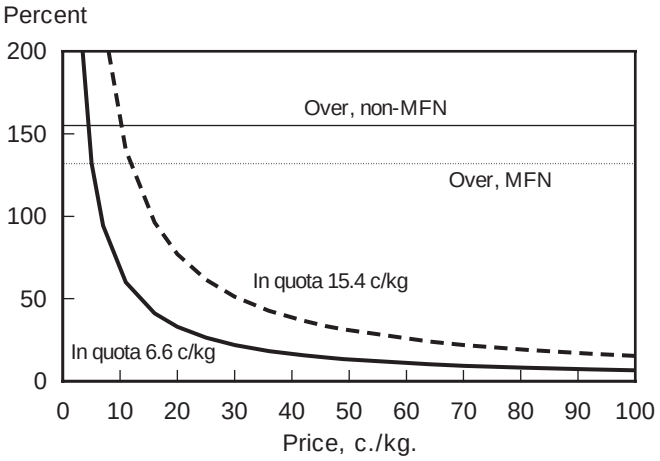
(in-quota) volume. Similarly, the U.S.-Israel Free Trade Agreement is accommodated through an amount apportioned to Israel duty-free, and member nations of the Caribbean Basin and Andean Pact Trade Areas are accorded duty-free in-quota access. Peanuts from Mexico are excluded from the WTO peanut TRQ as Mexican peanuts have a separate TRQ. Finally, peanuts from all other WTO members and peanuts from nonmembers each face a separate set of tariffs. In sum, the peanut TRQ has four classes of peanuts, six countries or groups of countries, and distinct tariffs for in-quota and over-quota imports. Table D-3 displays the various tariffs for all potential imports for the quota year starting April 1, 2000.

Table D-3 also shows that both fixed (or specific) and *ad valorem* tariffs are used. Because almost all in-quota imports are of shelled peanuts, the discussion below focuses on this commodity. The TRQ has five tariffs for shelled peanuts, three fixed tariffs for in-quota imports—0, 6.6 and 15 cents per kilo—and two over-quota tariffs—131.8 percent and 155 percent. The rates are the same for blanched and other peanuts. Fixed tariffs (a fixed charge per kilo imported) are applied to in-quota imports while *ad valorem* tariffs (a fixed percentage of the unit value of the imported good) are applied to over-quota imports. Figure D-3 plots the *ad valorem* equivalent of the in-quota fixed tariffs for shelled peanuts for a range of import prices as well as the over-quota rates. The lower the import price, the higher the *ad valorem* equivalent tariff rate. At very low prices (less than 5 cents per kilo) the in-quota *ad valorem* equivalent of 6.6 cents per kilo is higher than the over-quota tariff rate of 131.8 percent. In recent years, however, the unit value of shelled peanut imports has been around 90 cents per kilo and yields a realized *ad valorem* equivalent of about 7 percent. Blanched peanuts have averaged about $1.08 per kilo and 'other' peanuts about $1.90.

The tariff-rate quota reserves fixed amounts for peanuts from Argentina and Israel. Peanuts from all other sources share access to the balance of the in-quota volume. The first-come first-served method of administration allocates the in-quota volume to whomever imports first. Thus, there is a powerful incentive to import as early in the quota year as possible and, predictably, there is a surge of imports on April 1. The URAA allowed the United States to change the 'quota year' for peanuts from an August-July year, used under Section 22 to coincide with the domestic peanut marketing year, to an April-March year. The Section 22 quota was administered on a first-come first-served basis, which resulted in a surge of imports coinciding with the U.S. peanut harvest. The April-March year shifts the import surge to later in the domestic marketing year and occurs just after Argentina's peanut harvest.

A vast majority of U.S. peanut imports (in quota) occurs in April, based upon a monthly distribution of quota fill for the U.S. peanut TRQ in the years 1996 through 1998. Virtually all the 1997 quota was filled in April. Here, in part, is how: In the first 3 months of 1997, North American Trading & Drayage warehoused 4.5 million pounds of peanuts from Argentina at its facility in Foreign Trade Zone 34 in Niagara County, NY.

Figure D-3
**Effective Ad Valorem Tariffs on Shelled Peanuts**




Source: Economic Research Service, USDA.

Table D-3--Tariffs charged under the peanut TRQ

| Peanuts | | Peanuts, not roasted or otherwise cooked | | | | Blanched and other | |
|---|---|---|---|---|---|---|---|
| | In quota | In-shell | | Shelled | | 2008.11.25 | 2008.11.35 |
| | volume | 1202.10.40 | 1202.10.80 | 1202.20.40 | 1202.20.80 | 2008.11.45 | 2008.11.60 |
| | | In quota | Over quota | In quota | Over quota | In quota | Over quota |
| | Metric tons | Cents/kg | Percent | Cents/kg | Percent | Cents/kg | Percent |
| Total | 52,906 | | | | | | |
| Argentina | 43,901 | 9.35 | 163.8 | 6.6 | 131.8 | 6.6 | 131.8 |
| All others, except Mexico | 9,005 | | | | | | |
| Caribbean Basin, Andean Pact | | Free | 163.8 | Free | 131.8 | Free | 131.8 |
| Canada | | Free | 163.8 | Free | 131.8 | Free | 131.8 |
| Israel | 113 | Free | 163.8 | Free | 131.8 | Free | 131.8 |
| Others | | | | | | | |
| With MFN status | | 9.35 | 163.8 | 6.6 | 131.8 | 6.6 | 131.8 |
| Without MFN status | | 9.35 | 192.7 | 15 | 155.0 | 15 | 155.0 |

> The peanuts came from Argentina via Nutco Inc. of Markham, Ontario. The large-scale maker of peanut butter warehoused the nuts in the zone to meet a U.S. Department of Commerce quota limiting Argentine peanuts sold in the United States. When the peanut quota opened April 1, Nutco filed an application with the Commerce Department, enabling the company to sell 3.9 million of the 4.5 million pounds of nuts warehoused in the zone.
>
> "I could not have applied if I had them sitting in my warehouse in Toronto," said Dwight Dehne, Nutco president.
>
> He said the zone's proximity to Toronto is beneficial for his company. He plans to use it again, he said.[6]

Nutco's 3.9 million pounds are about 6 percent of the Argentine quota [65.8 million pounds in 1997]. Taking the very conservative estimate of 5 cents per pound for the gap between the domestic and world prices for shelled edible peanuts yields a $200,000 arbitrage rent.[7] This is a very profitable transaction—so profitable that such trades have ignited a minor trade dispute between the United States and Argentina. On January 8, 1998, the following WTO document was released. The text is reproduced here to give a flavor of how TRQ disputes are addressed to the WTO.[8]

> The following communication, dated 19 December 1997, from the Permanent Mission of Argentina to the Permanent Mission of the United States and to the Dispute Settlement Body, is circulated in accordance with Article 4.4 of the DSU.
>
> I have the honour to contact you on instruction from my Government to request consultations with the United States pursuant to Article 4 of the Understanding on Rules and Procedures Governing the Settlement of Disputes (DSU), Article XXII:1 of the GATT 1994, Article 19 of the Agreement on Agriculture, Article 7 of the Agreement on Rules of Origin and Article 6 of the Agreement on Import Licensing Procedures with respect to the trade damage sustained by my country as a result of the way in which the United States administers the tariff-rate quota for the import of groundnuts (peanuts) for confectionary and peanut paste negotiated between the two Governments during the Uruguay Round.
>
> The Government of Argentina considers that the particularly narrow interpretation by the United States both of the obligation contained in its national schedule and of the requirements for Argentina to benefit fully from the concessions granted, nullifies or impairs the benefits accruing to Argentina directly or indirectly under the GATT 1994 and various WTO Agreements, and impedes its attainment of the objectives of those Agreements and of the GATT 1994.
>
> In Argentina's view, the way in which the quota is administered could be inconsistent with certain provisions including, but not limited to, the following:
>
> (a) Articles II, X and XIII of the GATT 1994;
> (b) Articles 1, 4 and 15 of the Agreement on Agriculture;
> (c) Article 2 of the Agreement on Rules of Origin; and
> (d) Article 1 of the Agreement on Import Licensing Procedures.

In the URAA, the United States allocated 78 percent of the in-quota TRQ volume to Argentina. What it did not do, however, is allocate the quota rights to the Government of Argentina or to particular Argentine organizations or firms. The U.S. tariff schedule merely specifies that only peanuts of Argentine origin are eligible to fill the Argentine share of the TRQ. If Nutco, Inc. procured peanuts from Argentina at the world price, imported them into the United States, and sold them at the domestic U.S. price, Nutco—not Argentina or Argentine firms—captured the rent on 3.9 million pounds. From the Government of Argentina's point of view, the quota rights and the rents belong to Argentina or Argentine firms.

The U.S.-Argentine peanut dispute has not been resolved. The dispute is primarily over who should obtain the rents from the in-quota trade. While rents are at the heart of most TRQ disputes, the WTO is only concerned about whether member countries are abiding by their WTO obligations; it is indifferent to distribution of quota rents. WTO is principally concerned with whether in-quota imports are impeded and whether market access is allowed to all member nations on a non-discriminatory basis. However, the WTO also allows for and respects trade agreements among its member nations. The peanut TRQ is an example of how the principle of nondiscrimination and preferences among subsets of countries can conflict.

From the perspective of economic efficiency and nondiscrimination, the market shares of peanut exports to the

[6] Troester (1997).

[7] At about 37 cents per pound on the world market, the 5 cent margin gives a 13.5 percent return in less than 3 months. This conservative estimate generates an ample margin to cover storage, interest, and the risk of being too late in the queue.

[8] The document is cross-registered as: WT/DS111/1; G/L/217 ; G/AG/GEN/16 ; G/RO/D/2 ; G/LIC/D/16. These documents are available at http://www.wto.org/wto/ddf/ep/public.html

United States should be determined solely by competition: the least-cost suppliers (adjusting for quality) will supply the market. The various preferences established among trading partners conflict with pure competition. Consider first, the allocation of market shares under the TRQ. Argentina, for example, is one of the world's leading exporters of peanuts; it would almost certainly have a substantial share of U.S. imports no matter how the TRQ were administered. Suppose, for example, that the quota is unallocated, that is, there is no assignment of market shares. The present TRQ grants Argentina a 78-percent share of the in-quota market. Market conditions could lead Argentina to have a greater or lesser market share in different years, but the long-run average market share would probably not be 78 percent. So the allocated market share can be to or against Argentina's advantage, depending on competitive conditions. Tariff preferences—charging different tariffs to different suppliers—also bias trade away from a competitive market outcome. For example, there are three in-quota tariffs for shelled nuts. The tariff free access—zero tariff—allowed to imports from Canada, Israel, the Caribbean Basin and Andean Pact gives these suppliers a 6.6-cent per kilo advantage relative to other MFN trading partners, and a 15-cent per kilo advantage relative to non-MFN countries.

In 1997, the WTO found the administration of the banana TRQ of the European Union to be inconsistent with WTO principles. As yet it is not clear how the European Union will bring its banana TRQ into compliance with the WTO.[9] The banana case is complicated and involves a number of issues, several of which are not directly relevant to TRQ administration. One key issue is whether preferences granted to a subset of countries are consistent with non-discriminatory TRQ administration as required by Article XIII of the GATT. The European Union banana TRQ grants trade preferences to signatories of the Lomé agreement (essentially former colonies of France and the United Kingdom). The Lomé preferences are quantitative (select countries are apportioned shares of the in-quota volume) and tariff-based (Lomé countries face lower tariffs). The quantitative preferences effectively exclude bananas from non-Lomé Central and South American sources: The in-quota allocation has been determined to be inconsistent with the WTO. The tariff preferences, in contrast, are consistent with the WTO. How the European Union addresses the complaints of Central and South American banana exporters may provide a model for the resolution of future TRQ disputes. Because WTO disputes are resolved on a case by case basis, the banana case cannot be considered a strict precedent for future cases. However, it is likely to influence future decisions and frame much of the debate in the next round of negotiations.

[9] The European Union was to bring its Banana trade regime into compliance by January 1, 1999. The issue remains under discussion in Brussels and Geneva.

### *The WTO Peanut Butter and Paste TRQ*

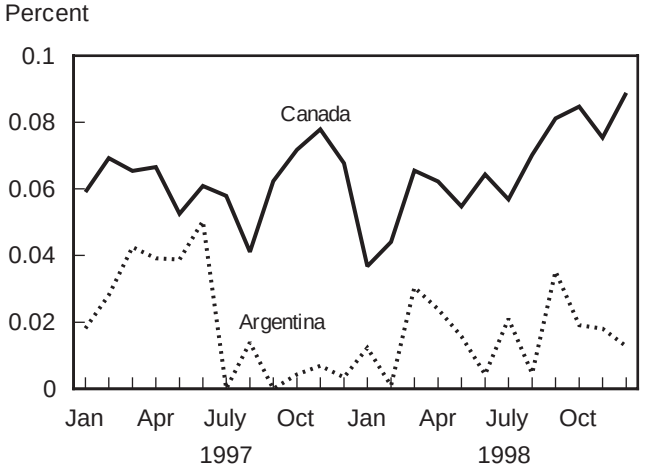
The formal specification of the U.S. TRQ for peanut butter and paste is found in Chapter 20, note 5 of the Harmonized Tariff Schedule of the United States. As of January 1, 2000, 20,000 metric tons are allowed in-quota access. The quota year for peanut butter and paste is the calendar year. The quota is apportioned among Canada, Argentina, countries granted Generalized System of Preference (GSP) status by the United States, and all other countries (table D-4). NAFTA gives special status to both Canada and Mexico regarding peanut butter and paste. Canada does not produce peanuts. Under NAFTA rules of origin, Canadian exports of peanut butter and paste to the United States may be made from peanuts of any country and still be considered to be of Canadian origin. This rule does not apply to blanched or otherwise cooked peanuts. Mexican peanut butter and paste must be made from peanuts of Mexican origin to qualify.

The rate of quota fill for peanut butter and paste is relatively steady year-round (figures D-4 and D-5). This contrasts with the annual April surge for in-quota peanut imports. The most likely explanation is that there are few Canadian or Argentine firms that manufacture peanut butter or paste and export it to the United States, and that these few firms are in a contractual arrangements with distributors or food manufacturers in the United States. Figures D-4 and D-5 plot the same underlying data: Each month's import volume is

Table D-4--Peanut butter and paste TRQ

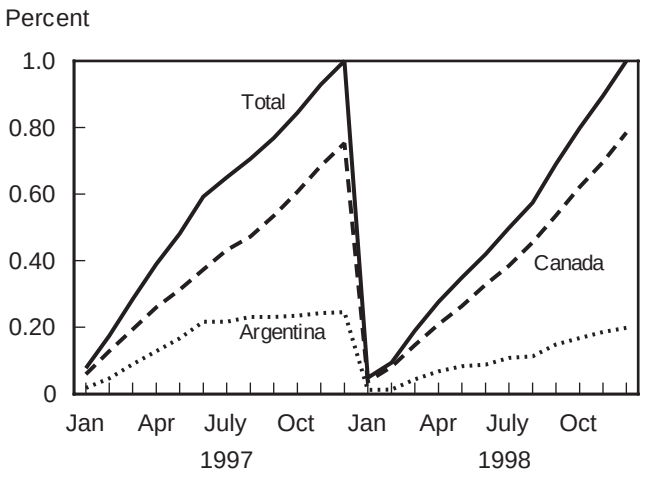
| | | 2008.11.05 In quota | 2008.11.15 Over quota |
|---|---|---|---|
| | Metric tons | Cents/kg | Percent |
| TOTAL in quota volume | 20,000 | | |
| Canada | 14,500 | Free | 131.8 |
| Argentina | 3,650 | Free | 131.8 |
| GSP | 1,600 | Free | 131.8 |
| Other | 250 | Free | 131.8 |
| If not MFN | | | 155.0 |

Figure D-4
**Peanut Butter TRQ Fill Profile, Fill Density**



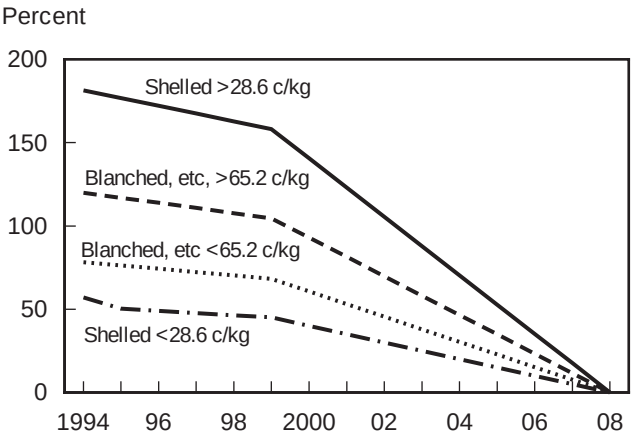

Source: Economic Research Service, USDA.

Figure D-5
**Peanut Butter TRQ Fill Profile, Cumulative Fill**



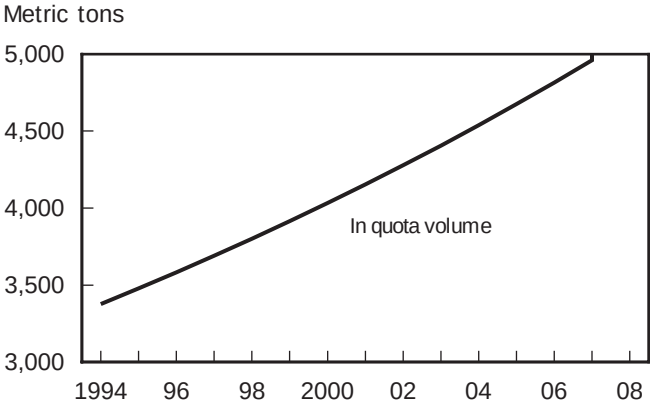

Source: Economic Research Service, USDA.

Figure D-6
**U.S. NAFTA Peanut TRQ for Peanuts of Mexican Origin**




Source: Economic Research Service, USDA.

Figure D-7
**U.S. NAFTA Peanut TRQ for Peanuts of Mexican Origin**




Source: Economic Research Service, USDA.

divided by the annual total. The upper figure plots these values—the density of imports by month. The lower figure plots the cumulative sum of imports for each month, thus December of each year equals 1.

### *NAFTA TRQ for Peanuts of Mexican Origin*

The long-run objective of NAFTA is the full economic integration of North America. Toward this end the degree of market access accorded to Canada and Mexico is greater than that allowed to non-NAFTA members. The NAFTA preference is particularly apparent in the case of the U.S. TRQ for Mexican peanuts. While the gradual liberalization of the WTO peanut TRQ ceases in April 2000, the NAFTA peanut TRQ for Mexico continues to liberalize. Indeed, the TRQ effectively vanishes in 2008, when imports of peanuts of Mexican origin are scheduled to be completely free.

The base in-quota volume for Mexico was 3,377 in 1994. This volume increases at 3 percent a year through 2007 when it reaches 4,959 tons. In 2008 the quota is removed. The over-quota tariffs are reduced in two phases. They are reduced 15 percent, in equal increments, during the first 6 years (i.e., in 1999 the applied rate = .85 times the base rate). Then, starting in 2000, the rates are reduced in equal increments, to zero over the 9 years ending in 2008. In-quota imports are free. The next section discusses the economic effects of liberalizing a tariff quota by expanding the quota and reducing the over-quota tariff. Figures D-6 and D-7 plot the reduction of the over-quota tariffs and the expansion of the in-quota volume.

### *Potential Issues in the Next Round of WTO Negotiation*

TRQ administration and TRQ liberalization are two topics that are likely to be the focus of negotiations for TRQ in the next round of trade negotiations. TRQ administration is addressed above and primarily relates to how the opportunity to import in-quota is allocated. TRQ liberalization is discussed below. The nuts and bolts of liberalization are standard: How much a tariff should be reduced, over what period of time, and at what rate. The same three questions also apply to increasing the in-quota volume. What distinguishes TRQ liberalization is that the two instruments, tariffs and quotas, interact.

### *Liberalization: Increasing Q and/or Reducing T*

There are two ways to liberalize a TRQ: 1) increase Q, the volume of imports charged the lower, in-quota tariff; and 2) decrease T, the over-quota tariff. The two methods can also be applied jointly. Indeed, the U.S. peanut TRQ was liberalized by both methods between 1995 and 2000. However, no

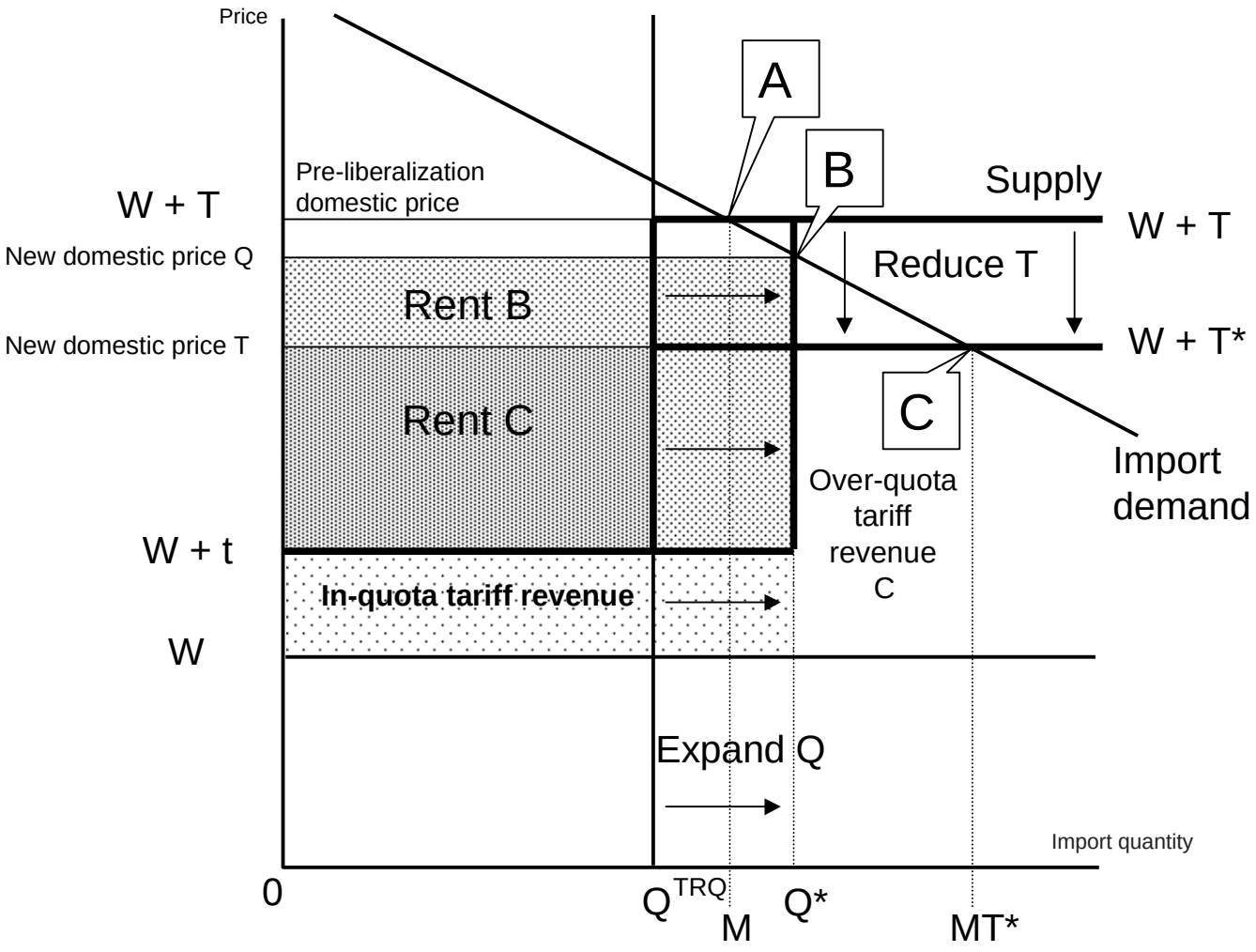
further liberalization has been negotiated for peanuts or peanut butter and paste. Figure D-8 shows how liberalization might affect peanut imports and the domestic peanut market. With the current peanut TRQ there are over-quota imports of the four kinds of peanuts in the TRQ, thus T, the over-quota tariff(s) is the binding constraint on imports. This situation is represented by point A. The volume of peanut imports equals M, because M is greater than $Q^{TRQ}$. Q, the quota component of the TRQ is not a binding constraint on imports. Imports of M cause the domestic price equal to the world price plus the over-quota tariff: W+T.[10]

[10] The domestic peanut program prevents domestic prices from falling below the support price and, with imports, provides a floor to import prices at the domestic support price less the over-quota tariff (adjusted for quality and transportation). See the previous article, "Issues Facing the U.S. Peanut Industry During the Seattle Round of the World Trade Organization."

Consider liberalizing the TRQ by increasing the in-quota volume $Q^{TRQ}$ to Q* (and hold t and T constant). Point B is the new equilibrium. The larger in-quota volume, Q*, is now the binding constraint on trade. Imports increase from M to Q*, and the domestic price falls from the W+T to the line marked "New Domestic Price Q." The second liberalization method is to reduce T (and hold t and $Q^{TRQ}$ constant at pre-liberalization levels). Call the new, lower over-quota tariff T*. Reducing T to T* shifts the equilibrium from A to C. Imports increase from M to MT* and cause the domestic price to fall from W+T to W+T* (also marked "New Domestic Price T"). If one increases Q *and* decreases T, the new equilibrium will also be at point C. This follows because the over-quota tariff is the binding constraint on trade.

The amount and distribution of rent also depends on how the TRQ is liberalized. If the quota is expanded, the amount

Figure D-8
## TRQ Liberalization



of rent increases.[11] The new rectangle of rent is labeled "Rent B." When the over-quota tariff is reduced, the block of rent decreases. The new rectangle of rent is labeled "Rent C." Finally, when the quota is increased and the over-quota tariff decreased, the rectangle of rent stretches "Rent C" horizontally so that it covers the length 0 to Q*.

Finally, the amount of tariff revenue depends on how liberalization is implemented. For example, if point C is reached by both an expansion of Q to Q* and a reduction of T to T*, the over-quota tariff revenue will be represented by the shaded area labeled "over-quota tariff revenue 'C'." The in-quota revenue will be represented by the shared area labeled 'in-quota tariff revenue' extended to the length, 0 to Q*. In contrast, if the in-quota volume is not expanded (if it remains fixed at $Q^{TRQ}$) then the in-quota revenue is reduced to the length 0 to $Q^{TRQ}$ and the over-quota revenue is increased to the length, $Q^{TRQ}$ to MT*.

Figure D-8 and the present discussion are based on a simplification of the stylized facts about the U.S. peanut TRQ. The two alternatives discussed are frankly arbitrary. A large expansion of the in-quota volume or a small decrease in the over-quota tariff would generate different results as would a different slope or placement of the import demand curve. Even with the foregoing caveats, the fact that over-quota imports occur indicates that the over-quota tariff is the binding constraint on trade. Thus, reducing the over-quota tariff will have a proportionately greater effect on expanding market access than an increase in the in-quota volume. Also, quota rents are indicative of a distorted market, and the magnitude of quota rents is proportional to the degree of distortion. If one wishes to minimize market distortions, and this is an objective of the WTO, a policy that decreases quota rents should be preferred to a policy that increases them. By this criterion, reduction of the over-quota tariff is preferred to increasing the in-quota volume. Note however, that this conclusion holds only for this specific case and cannot necessarily be generalized to other TRQs.

[11] Rent will increase when import demand is elastic; if inelastic, it will decrease.

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