Electronic Outlook Report from the Economic Research Service

www.ers.usda.gov

United States
Department
of Agriculture

LDP-AQS-18

Oct. 9, 2003

# Aquaculture Outlook

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## Aquaculture Production Forecast to Grow, but Many Uncertainties Loom

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The next release is March 17, 2004

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Approved by the World Agricultural Outlook Board.

A number of recent of articles in popular newsmagazines, newspapers, and professional journals have dealt with the idea that the oceans are rapidly being overfished. While the idea that wild harvest fisheries are approaching limits is not a new one, these articles have generally failed to see aquaculture as the next logical step. Part of the problem is that while terrestrial-based livestock production has taken hundreds of years to convert over from small-scale subsistence production to today's large-scale operations, aquaculture operations have been trying to make the switch from wild harvest to large-scale farmed production in a matter of decades. Aquaculturalists have also been trying to accomplish this change at a time when all large-scale livestock operations have come under increasing scrutiny related to issues such as antibiotic use, production of nonnative species, use of genetically modified organisms, animal rights, and waste disposal.

Although beset with questions about the production of aquatic species, aquaculture is expected to continue to grow as a source of fish, shellfish, and mollusks. The potential for aquaculture production to expand and compete with wild-harvest seafood and other livestock products is readily evident in the continued growth in imported aquaculture products. Salmon imports in the first 6 months of 2003, at 213 million pounds, were more than double what they were 5 years ago. During the same time, imports of tilapia have risen 230 percent to 100 million pounds. Shrimp imports, which are a mix of farmed production and wild harvest have also grown rapidly, growing 41 percent in the last 5 years. Most of the growth in imports has come from countries that have a large aquaculture industry. If they follow the same import pattern as in previous years, shrimp imports are expected to top 1 billion pounds in 2003 with a value of $3.3 billion.

Domestic production of aquacultural products is also expected to increase. While U.S. producers are at a disadvantage in the production of warm water species that require large expanses of coastal property, they do have some advantages for cool or cold water species, especially those that can be grown in fresh water on a mostly grain-based diet. The catfish industry meets most of these requirements and has become the largest segment of the domestic industry. U.S catfish are also one of the largest segments of the worldwide aquaculture industry.

While the domestic aquaculture industry is expected to face strong competition from imports of aquacultural products for the remainder of 2003 and beyond, it will also face competition from the domestic poultry and livestock industries. Currently, strong prices in the domestic livestock industries have muted direct competition with aquaculture products, but over the long term, livestock, poultry and aquacultural products are battling for much the same portion of consumers' expenditures for food products.

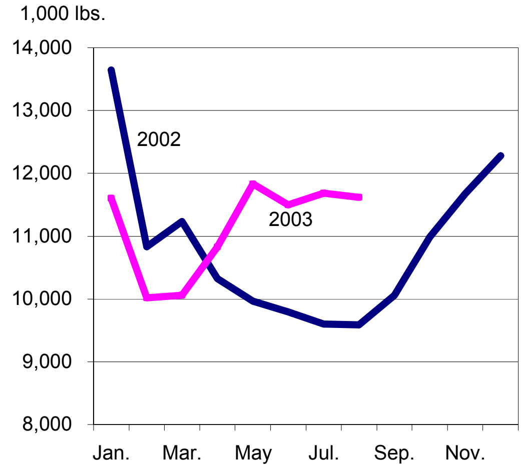
The overall outlook for domestic production, exports, and imports of aquacultural products for the remainder of 2003 and into 2004 hinges on three expectations. The first is that the U.S. economy is expected to slowly strengthen going into 2004. A stronger economy encourages away-from-home food expenditures and provides the discretionary income needed for purchases of higher valued prepared food products. Second, the food service sector is expected to continue to grow as demand for away-from-home meals and replacement meals (fully cooked meals taken home) accompanies rising time demands on consumers. These trends are expected to translate into greater demand for further processed seafood products developed for food service or home preparation. Finally, the dollar has remained strong relative to a number of foreign currencies, a situation that encourages imports and makes U.S. exports less competitive. This may be partially responsible for the growth in aquaculture shipments from China, especially for tilapia and shrimp.

# Domestic Outlook

### *Catfish Sales Higher in 2003, Prices Still Low*

In 2003, catfish sales by growers to processors are expected to reach between 650 and 670 million pounds, up 3 to 6 percent from 2002. Sales over the first 8 months of 2003 have been 452 million pounds, up 7 percent from the same period in 2002. Catfish processor sales through August 2003 have also been higher, totaling 218.7 million pounds, up 1 percent from 2002. The lower processor sales increases has caused an accumulation of inventory similar to the situation in 2001. At the end of August 2003, processor inventories were 11.6 million pounds, only slightly higher than at the beginning of the year, but over 2 million pounds (21 percent) higher than at the same time in 2002.

**Catfish processor inventories**




Source: National Agricultural Statistics Service, USDA.

The increases in grower and processor sales so far in 2003 have come from continued low prices at both the farm and processor levels. Over the first 8 months of 2003, farm prices have been depressed, averaging only 57.6 cents per pound. Average processor prices have also been low over the same period, averaging $2.05 per pound, down 3 cents per pound from the previous year and 26 cents per pound lower than in 2001.

There has been a gradual change in the position of the U.S. catfish industry over the first 8 months of 2003. Although there has not yet been any reversal of the price declines that started in 2001, the scenario for the catfish industry now seems to call for tightening supplies and possibly stronger prices during the remainder of 2003 and into 2004. Grower inventory estimates for July 1, 2003, showed lower holdings in all categories, a situation expected to result in a gradual tightening of supplies over the next 8 to 10 months. The July 1 grower inventories of stockers and fingerlings normally become the majority of fish available to processors toward the end of the current year and the beginning of the next year. Flat or slightly smaller supplies of catfish normally put upward pressure on prices. However, any upward price movements for catfish are likely to be somewhat offset by the falling prices for imported aquaculture products.

In 2001, the United States experienced a large increase in catfish imports from Vietnam. These imports were primarily frozen fillets, which had a strong impact on sales of domestic fillets. In 2002, the average price for frozen fillets was down 11 percent compared with 2001. Over the first 7 months of 2003, catfish imports totaled 4.2 million pounds, down 36 percent compared with the same period a year earlier. However, fillet prices have still not recovered. Prices for frozen fillets so far in 2003 are up less than 1 percent from 2002 and are still 10 percent lower than in 2001.

### *Catfish Inventories Down*

In response to almost 2 years of depressed prices, catfish growers indicated in 2003 that their stocks of fish in all categories were lower than in the previous year. In the latest survey by USDA's National Agricultural Statistics Service (NASS), growers reported their estimated fish holdings as of July 1. The survey included only growers in the four largest producing States, Mississippi, Alabama, Arkansas, and Louisiana. The four States covered in the NASS report account for over 90 percent of U.S. catfish production. In 2002, growers had reported increased inventories for stockers and medium and large foodsize fish, while the number of fingerlings was down from the previous year. As of July 1, 2003, reflecting low prices, growers reported a strong decrease in inventories of stockers and small foodsize fish, along with a continued decline in fingerling stocks.

In the NASS report, catfish growers estimated that, as of July 1, 2003, the total number of foodsize fish in inventory was 347 million, 10 percent lower than a year earlier. Foodsize fish inventories were lower in all the categories covered in the report. The decrease was heaviest in the large foodsize category, which, although down by 28 percent, was still higher than in 2001. The number of medium foodsize fish in inventory was down 92 million or 10 percent. For medium foodsize fish, higher inventories in Louisiana were more than offset by substantial decreases in Alabama, Arkansas, and Mississippi, where inventories fell by 11 percent.

While inventories of large foodsize fish fell by 28 percent, these fish represent only a very small percentage of total foodsize fish. What is probably more significant, the inventory of small foodsize fish declined by 10 percent. The previous year, the inventory of small foodsize fish had fallen, but only by 3 percent, and an amount not enough to put upward pressure on farm prices. The growers' estimates of foodsize fish numbers as of July 1 are a measure of the supply of already marketsize fish available for processing during the third quarter and into the fourth quarter of 2003.

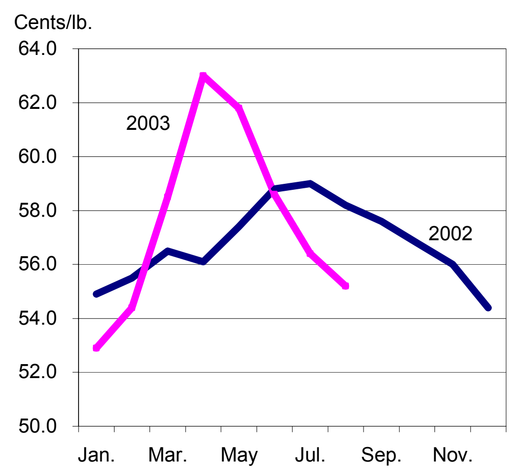
The reduced inventory of foodsize fish means that, in the third quarter of 2003 and into the fourth quarter, catfish processors are likely to have a supply of fish available for processing that is considerably smaller than the previous year. In 2003, stable supplies at the start of the second half of the year are expected to result in a processing volume close to that of the previous year, and possibly allow some upward movement in the prices paid to growers. The forecast is for slightly higher prices in the remainder of 2003, if the growth in farm sales slows and processor inventories decline.

The July 1, 2003, NASS grower survey estimated the number of stockers at 649 million, down 15 percent from the previous year. The number of fingerlings held on farms was estimated at 1.502 billion, down 8 percent from 2002 and 18 percent lower than the 2001 estimate. Grower-held stockers and fingerlings make up the majority of fish that will be marketsize at the end of 2003 and during the first portion of 2004. The numbers for stockers had declined in the previous 2 years. These are the fish that will likely form the bulk of marketsize fish during the fourth quarter of 2003. Unlike in 2002, there was also a decrease in fingerlings, so there will not be a large group of fish placing downward pressure on prices during the first quarter of 2004. The number of fish available for processing is also impacted by such factors as mortality rates, disease outbreaks, off-flavor problems, and feeding rates. The combined number of stockers and fingerlings on hand by growers entering the second half of 2003 points toward reduced supplies of fish heading into 2004.

### *Farm Prices Expected Higher Toward End of 2003*

In 2003, the farm price for catfish is expected to average between 56 and 58 cents per pound, about even with the previous year. Based on the July 1 lower estimates of available marketsize fish at the beginning of the second half of 2003, farm prices for fourth-quarter 2003 are expected to very gradually strengthen and show some increase from the previous year. This scenario of stronger grower prices later in 2003 can continue into 2004 if a number of factors fall into place. First, growers' sales to processors will have to slow from the relatively strong rate seen in the first 8 months of 2003. With a weak domestic economy and lower foodservice sales, it may take some time for the demand for catfish to increase. Second, imports will have to remain close to the low levels of the first 7 months of 2003. Third, processors will have to reduce their inventory levels. The fact that

**Farm prices for catfish**



Source: National Agricultural Statistics Service, USDA.

processors' inventories have been increasing over the last several months has had a depressing effect on both farmer and processor prices. In 2004, catfish processors are expected to again face strong competition from broiler products. But, if current production and export trends continue to strengthen, prices for broiler parts in 2004 could be stronger and direct competition with catfish weaker.

Over the first 8 months of 2003, farm sales to processors totaled 452.2 million pounds, with an average price of 57.6 cents per pound. This implies gross sales of $261 million by catfish growers, up 8 percent from a year ago, as the volume was 7 percent higher and farm prices were marginally higher. This is a reversal from 2002 when farmers' gross sales in the first 8 months fell 12 percent. Over the last 4 months of 2003, farm prices for catfish are expected to average between 56 and 57 cents per pound, around the same price as a year earlier. For 2003, grower sales of catfish to processing plants are expected to generate approximately $375 million, up slightly from 2002, but below the $385 million in 2001.

### *Acreage Expected to Fall in Second Half of 2003*

With low farm prices over the past year, catfish growers in most States have reported plans to use lower acreage in the second half of 2003 than in 2002. In the July 2003 NASS *Catfish Production* report, growers reported that they expected to have 174,900 acres of ponds in use between July 1 and December 31, 2003, 10,000 acres less than the previous year. The acreage reduction is expected to be in Arkansas, Louisiana, and Mississippi, with Alabama acreage about even with the previous year. The total acreage use breakout for the four States is 143,100 acres for foodsize fish production (down 5 percent), 23,860 acres for fingerling production (down 5 percent), and 4,025 acres for broodfish production (down 15 percent). The remainder of the acreage will be from new construction or renovated acreage.

### *Processor Revenues Decline Again*

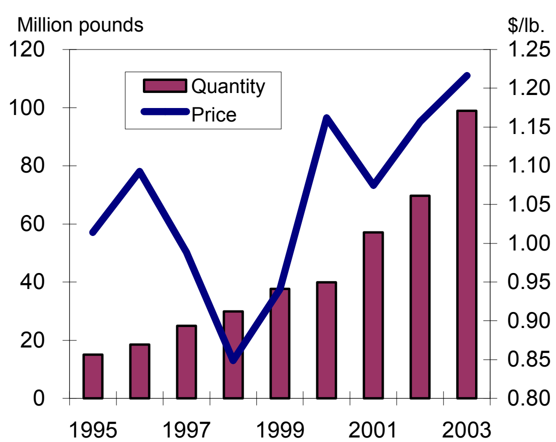
Over the first 8 months of 2003, catfish processors sold 218.7 million pounds of product. This is a 1-percent increase from the previous year, as sales of fresh products set new records, but sales of frozen products decreased. Fresh sales have been especially strong, increasing 4 percent compared with the same period in 2002. For all of 2003, processor sales are forecast at between 320 and 325 million pounds or around 1 percent higher than the previous year. Between January and August 2003, prices for catfish sold by processors averaged $2.05 per pound, down 2 percent from the same period in 2002. With a slightly higher sales volume, but lower average prices, gross processor revenues from catfish products over the first 8 months of 2003 were $448 million, down about $3 million from the previous year and down for the second consecutive year. Processor revenues for all of 2003 are expected to total between $655 and $665 million, as sales volumes are forecast to remain slightly above those of 2002 and processor prices are expected to gradually strengthen over the next 4 months.

During the first 8 months of 2003, processor sales have fallen in a number of categories. Sales of whole fish and other products were mixed. Sales of fresh whole fish reached 30 million pounds, up 3 percent from the previous year, but sales of frozen whole fish were about even with the previous year. Sales of fresh "other products" fell by 2 percent, while sales of frozen "other products" were up 12 percent. As in many recent years, changes in sales of filleted products have been the major factor driving overall catfish sales. In 2001, a large increase in imports of frozen fillets from Vietnam pushed down sales of frozen fillets while fresh fillet sales rose. In 2003, imports from Vietnam were again down from the previous year, but sales of frozen fillets over the first 8 months were 5 percent lower than a year earlier. Sales of fresh fillets, however, rose by 5 percent. Overall, fresh catfish products sales were at a record 88.5 million pounds. Sales of frozen products totaled 130.2 million pounds, down less than 1 percent from the previous year and the second highest ever. Over the long term, sales of frozen products are expected to grow faster than fresh sales, however fresh sales have an advantage in that they do not compete as directly with imported frozen products.

## *Tilapia Imports Jump 43 Percent*

U.S. imports of tilapia continued their strong rate of increase over the first half of 2002. Total imports were almost 100 million pounds, up 43 percent from the same period in 2002. Since 1995 (the first full year of reports on tilapia imports), shipments of tilapia to the United States over the first half of the year have risen from 15 million pounds to 2003's 100 million, up 567 percent. The 100 million pounds of imports required 191 million pounds of fish on a liveweight basis. Although still mostly whole fish, fresh and frozen fillets have risen rapidly. Frozen whole tilapia continue to be the largest category of imports, rising by 26 percent in the first half of 2003 compared with a year earlier. While frozen whole fish accounted for 56 percent of the total quantity of tilapia imports, most of the import growth came from of fresh or frozen fillets. Total imports of fresh fillets increased 35 percent to 19.5 million pounds, and imports of frozen fillets rose 123 percent to 24.7 million pounds. Between 2001 and 2003, imports of fresh fillets have risen 66 percent and shipments of frozen tilapia fillets have risen by 257 percent. To gauge the size of U.S. tilapia imports, it is helpful to compare them with some other areas of livestock agriculture. With 100 million pounds of imports over the first half of 2003, tilapia imports are on target for an annual total of 200 to 210 million pounds. This is comparable to the 200 million pounds of veal that is expected to be produced in the United States in 2003. However, the average unit price for veal is considerably higher than tilapia's $1.20-per-pound average import price.

**U.S. Tilapia imports, January to June**




Source: Bureau of Census, U.S. Dept. Commerce.

Over the first half of 2003, imports of frozen whole tilapia were 55.7 million pounds, an increase of 26 percent from the previous year and 45 percent higher than in the first half of 2001. Taiwan and China account for virtually 100 percent of frozen whole tilapia imports. However, China has become the dominant supplier of whole fish imports over the last 2 years. In the first half of 2001, imports from China accounted for 31 percent of all frozen whole fish imports. In the first half of 2003 the proportion of frozen whole fish coming from China had increased to 61 percent. While imports of frozen whole fish have continued to expand over the last several years, future growth in tilapia imports will likely be concentrated in imports of filleted products.

Over the last 2 years, imports of fresh tilapia fillets have grown by 66 percent, going from 11.8 million pounds to 19.5 million. Most of the increase in shipments of frozen tilapia over the last 2 years has come from three countries, Ecuador, Costa Rica, and Honduras. Shipments from all three countries have increased, but the largest contribution has arisen from greater shipments from Ecuador. In the first half of 2003, Ecuador shipped 10.4 million pounds of fresh fillets, 45 percent more than in the previous year and 53 percent of all fresh fillet imports. Higher tilapia production in Ecuador has resulted from moving its aquaculture industry away from its earlier almost total dependence on shrimp production. Honduras is the third largest source of fresh fillets to the United States, with imports in the first half of 2003 totaling 2.9 million pounds. This is another country that is attempting to diversify from a heavily shrimp-based aquaculture industry. The U.S. market for fresh tilapia is expected to increase in the coming years, but the greatest growth in the tilapia market is likely to be in imports of frozen fillets. Frozen fillet imports in the first half of 2003 were more than double those in the same period the previous year. As with imports of frozen fish, the bulk of the increase has come from China. In the first half of 2001, the majority of frozen fillets came from Indonesia, China, or Taiwan. All three countries had shipments between 2.0 and 2.2 million pounds. However, by 2003, shipments from China had climbed to 15.6 million pounds. This is more than twice the combined shipments of Indonesia and Taiwan and almost two-thirds of all frozen fillet imports.

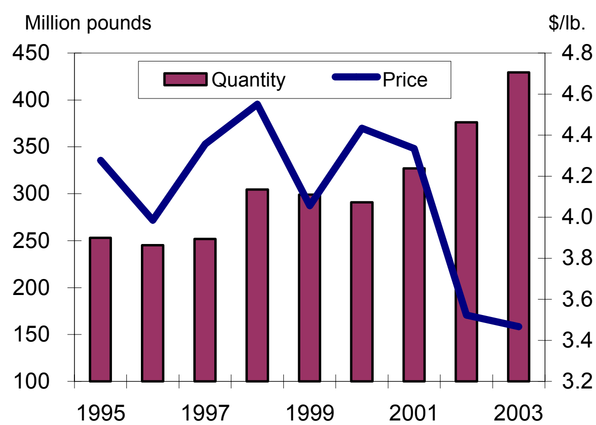
The strong increases in the quantity of tilapia products imported in the first half of 2003, pushed the average unit values down for both fresh and frozen fillets. Even with a 26-percent increase in quantity, the average unit price for frozen whole tilapia in the first half of 2003 was 52 cents per pound. This is up 3 cents per pound from the previous year, but still below the 58-cents-per-pound average for the first half of 2000. The average unit value of fresh tilapia imports was $2.58 per pound, down 11 cents from the $2.69 average of 2002. The average price for frozen fillets fell by 7 cents to $1.73 per pound. Average prices for frozen fillets have fallen for the last four years going from $1.99 to $1.73 per pound, a 13-percent reduction. Overall, tilapia imports averaged $1.16 per pound in the first half of 2002, up 9 cents from the previous year and about the same as in 2000. The average import value continues to increase because of the rising percentage of filleted products relative to total imports. The value of all tilapia imports rose to $120.3 million in the first half of 2003. Tilapia imports are usually slightly stronger in the second half of the year, so total shipments for 2003 are expected to reach between 200 and 210 million pounds on a product-weight basis and 370 to 380 million pounds on a live-weight basis. Overall, prices for imported tilapia products are expected to remain slightly higher than year-earlier levels in the second half of 2003. This is due to continued strong growth in the volume of filleted products being imported. The overall value of tilapia imports for 2003 is expected to reach between $240 and $250 million.

### *Shrimp Imports Up 14 Percent*

U.S. shrimp imports in the first 6 months of 2003 totaled 429 million pounds and were valued at $1.5 billion, a 14-percent increase in quantity and a 12-percent increase in value. Shrimp imports had declined in the first half of 1999 and 2000, but have risen strongly over the last 3 years. The weakness in the U.S. economy had been expected to lead to flat or declining imports, but falling prices for almost all types of shrimp have kept imports expanding. The average unit value of imported shrimp continued to decline in the first half of 2003. After falling strongly in 2002, average prices for imported shrimp fell 5 cents (1 percent), to $3.47 per pound. The decline was in the frozen and processed shrimp categories, as prices for fresh shrimp products rose by 6 percent.

Over the first half of 2003, the quantity of imported frozen and processed shrimp products both increased, while imports of fresh shrimp declined. Once again, imports of processed shrimp products were the fastest growing. Imports of frozen shrimp totaled 344 million pounds making it by far the largest import category. This is a 16-percent increase from the same period in 2002. The value of frozen shrimp also rose, to $1.2 billion, up 14 percent from the previous year, as the average price fell to $3.47 per pound from $3.53 the previous year. Fresh shrimp imports fell 9 percent, but, at only 1.6 million pounds they are only a minor portion of total shrimp imports. Fresh shrimp imports are often from Caribbean or Central American countries and compete with domestic wild harvest catch. Imports of prepared shrimp products (canned, cooked, etc.) continued to expand, but only by 7 percent compared with 39 percent the previous year. Increased imports of processed shrimp products are the result of shrimp farmers' and wild-harvest shrimp processors'

**U.S. Shrimp imports, January to June**




Source: Bureau of Census, U.S. Dept. of Commerce.

searching for value-added product markets, and U.S. firms in the food service sector looking for processed products to use in prepared meals for retail sale or for restaurant meals. The continued expansion of processed shrimp imports as a percentage of total shrimp imports is the same type of shift to higher valued imports that has also characterized the salmon and tilapia markets.

With the exception of Bangladesh and the Philippines, the rest of the major shrimp-exporting countries increased shipments to the United States in the first 6 months of 2003 compared with the previous year. From 2002 to 2003, the largest increases in imports came from Indonesia and China. Shipments from Indonesia rose to 23.8 million pounds, 18 percent higher than in the same period in the previous year. All of the increase in Indonesian imports came from higher shipments of frozen shrimp. Shipments from China continue to be a growth area for U.S. shrimp imports. Over the first 6 months of 2003, total shrimp imports from China were 38.8 million pounds, 61 percent higher than in the first 6 months of 2002 and 138 percent higher than in 2001. After falling for several years due to disease problems, China's production is rapidly expanding. Since most of China's production is smaller cold-water shrimp, the average price of imported shrimp from China is considerably lower than the overall average for all shrimp imports. With this rate of expansion, China is expected to become the second largest shrimp exporter to the United States over the next several years.

Even with the large increases from China, Thailand remains the leading supplier to the United States of both frozen and prepared shrimp products. Over the first half of 2003, frozen shrimp imports from Thailand were 60 million pounds, valued at $219 million. Thailand is also the largest supplier to the United States of processed shrimp products. In this category, Thailand shipped 50 million pounds to the United States in the first half of 2003, up 5 percent from the same period in 2002 and 60 percent of all shrimp shipments in that category. In total, the 110 million pounds of shrimp shipped by Thailand to the United States over the first 6 months of 2003, was valued at $393 million. The total value of shipments was almost identical with the previous year. Thailand's shrimp processors seem to be shifting the focus of their exports from frozen shrimp to prepared shrimp products. This trend is expected to continue even though, over the first half of 2003, the average price for prepared shrimp exports was somewhat lower than for frozen shrimp.

U.S. shrimp imports for all of 2003 are expected to reach between 1.0 and 1.1 billion pounds with a value of between $3.6 and $3.7 billion. This would be a record for shrimp imports on a quantity basis, but still slightly below the record value set in 2000 when average shrimp import prices were almost $5.00 per pound. It is expected that the declining average imported shrimp price will continue to provide incentives to increase shrimp imports, even when the U.S. and Japanese economies are not particularly strong.

While the changes in the quantities of shrimp imported in the first half of 2003 varied depending on the type of product, the average per-unit value of most shrimp products again decreased. The average price for frozen shrimp imports fell 6 cents per pound to $3.47. This followed a strong decrease in the average price for frozen shrimp imports in the first half of 2002, compared with the same period in 2001.

In total, imports of prepared shrimp products rose 8 percent compared with the same period in 2002 and at 83 million pounds, are 27 million pounds higher than in the first 6 months of 2002. Average prices over the first 6 months of 2003 were $3.40 per pound, down about 3 cents per pound from the same period in 2002. In the first 6 months of 2003, the average price for prepared shrimp products was a 3 cents lower than the average price for frozen products. The price for prepared shrimp products can be lower than for frozen shrimp products because most prepared shrimp products make use of relatively small shrimp. In the frozen shrimp market, there are large price differences between the largest and smallest sized shrimp. The average price for the largest shrimp (33 shrimp or less per kilo) was $5.89 per pound. In the smallest size category of frozen shrimp imports (over 155 shrimp per kilo), the average price was only $1.87 per pound.

## *Imports of Atlantic Salmon Fall 1 Percent*

After increasing rapidly over the last several years, U.S. imports of Atlantic salmon in the first half of 2003 totaled 213 million pounds, down slightly more than 1 percent. However, the value of imports rose by 15 percent compared with the previous year and totaled $472 million. Even with the slight decline in overall imports, shipments of Atlantic salmon continued a long-term trend of becoming more concentrated in filleted products. After falling the last 2 years, imports of frozen Atlantic salmon products rose by 97 percent in the first half of 2003. Even with this increase, frozen salmon products were still below their 2000 peak of 5.2 million pounds and remain only a small portion of total imports.

With imports of frozen products increasing, the decline in Atlantic salmon imports was chiefly due to lower shipments of fresh whole fish. Over the first 6 months of 2003, fresh Atlantic salmon imports totaled 75.3 million pounds, down 6 percent from the previous year. Most of the decline was due to lower imports from Canada, but they were partially offset by larger shipments from the United Kingdom. Imports of fresh and frozen filleted products totaled 60.4 million pounds and were basically flat, changing less than 1 percent from the previous year. While the overall quantity of imported Atlantic salmon products fell slightly, the total value of imports rose strongly as unit prices for all three classes of products increased. The value of fresh Atlantic salmon imports in the first half of 2003 was $157 million, 0.5 percent lower than the previous year. However, with an average price of $2.09 per pound, prices for fresh products were 12 cents above 2002. The volume of filleted imports was about even with the previous year, but the value of imported filleted products rose by 24 percent, as the average price increased by 44 cents to $2.30 per pound. Even with this increase, the price of filleted products was still lower than in 2001 and well below the peak of $2.87 per pound in 1999 and 2000.

Over the last 8 years (1995 to 2003), overall imports of Atlantic salmon products in the first half of each year increased 314 percent, going from 51 million pounds in 1995 to 213 million pounds in 2003. Over this period, there have been basically three major trends in Atlantic salmon imports. First, imports have moved from fresh and frozen products to more filleted products. This trend is expected to continue as advances in transportation have made delivering filleted products more practical. In addition, producing countries have an incentive to ship filleted products because of the higher revenues they receive from a value-added product, plus the reduction in weight reduces transportation costs. Second, imports have become concentrated from only two countries, Canada and Chile, a trend that has probably topped. In the first half of 2003, shipments from Canada and Chile accounted for 89 percent of all Atlantic salmon imports on a quantity basis. Third, average unit price for imported Atlantic salmon products has been declining over time. This has occurred even as a growing percentage of total imports were filleted products. While the unit value is not expected to decline every year, the long-term trend is for declining real prices for salmon products, as producers find new ways to increase the overall productivity of their operations.

With imports normally slightly stronger in the second half of the year, imports of Atlantic salmon products in 2003 are expected to be between 430 and 440 million pounds, with a value between $950 million and $965 million. Over the first half of 2003, a flattening in the growth of salmon imports on a quantity basis has resulted in considerably stronger prices. If supplies remain at or near year-earlier levels, prices are expected to remain much stronger than in 2002, especially if the domestic economy continues to strengthen.

## *Most Mollusk Exports and Imports Higher*

Over the first 6 months of 2003, U.S. exports of oysters, mussels, and clams totaled 5.0 million pounds, up 19 percent from the first half of 2002. Oyster exports rose the most, up 29 percent to 2.3 million pounds. Exports of clams and mussels rose in the first half of 2003 after falling in 2002. Mussel exports totaled 726,000 pounds over the first 6 months of 2003, a 2-percent increase from the previous year, but still lower that in most previous years. Even with the exported quantity of all three mollusk species increasing, the average price for oyster and mussel exports rose, and the average price for clam exports was about the same as in 2002. The outlook for mollusk exports is still not very favorable. The Japanese economy is still relatively weak and in Hong Kong the drop in tourist travel has lowered demand.

Unlike previous years, imports of oysters and clams rose, while imports of mussels declined. The quantity of mussels imported had risen in 5 of the 6 previous years. In the first half of 2003, mussel imports were $26.0 million and 24.2 million pounds. This is a 16-percent decrease in the value and an 8-percent decrease in the quantity imported. Most mussels shipped to the United States come from either Canada or New Zealand. In both cases, most of the mussel output comes from farmed production. Unlike the prices for many other aquaculture products, the average price of imported mussel products has been increasing over the last several years, but prices in the first half of 2003 fell to $1.07 per pound, down from $1.19 the previous year.

Imports of oyster and clam products both were up in the first half of 2003. Clam imports rose by 27 percent and totaled 4.4 million pounds. Oyster imports totaled 9.6 million pounds, up 31 percent from the same period in 2002. Even with the strong increases in import volume, the prices for clam and oyster imports were relatively constant. Imports of clams and oysters during the remainder of 2003 and into 2004 are expected to depend on the strength of the U.S. economy and exchange rates with major suppliers, especially Canada.

### *Ornamental Fish Imports and Exports Rise*

Over the first 6 months of 2003, imports of ornamental fish were up 6 percent and exports actually increased. After falling for a number of years, the value of U.S. exports rose slightly in the first half of 2003 to $4.4 million. This is the second year of rising exports. Normally, the largest markets for U.S. ornamental fish had been Hong Kong and other Asian countries. With the economies of many Asian countries relatively weak, the increase in exports was a surprise.

The value of ornamental fish imports totaled $22.0 million in the first half of 2003, up 6 percent from the previous year. In the previous 4 years, the value of ornamental fish imports has been basically flat, ranging from $20.5 to $21.7 million. In the second half of 2003 and into 2004, the demand for imported ornamental fish is expected to remain at about the same levels, with imports for all of 2003 estimated at between $43 million and $44 million.

# Contacts and Links

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Aquaculture Briefing Room, http://www.ers.usda.gov/briefing/aquaculture/

NASS Catfish Production, http://usda.mannlib.cornell.edu/reports/nassr/other/pcf-bbc/

NASS Catfish Processing, http://usda.mannlib.cornell.edu/reports/nassr/other/pcf-bb/

NASS Trout, http://usda.mannlib.cornell.edu/reports/nassr/other/ztp-bb/

National Marine Fisheries Service, Fisheries of the United States (wild harvest data), http://www.st.nmfs.gov/st1/publications.html

## Table 1-Catfish sales and prices

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Annual total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Catfish sold to processors | | | | | | | 1,000 lbs. | | | | | | |
| 1997 | 42,409 | 45,067 | 48,431 | 45,721 | 43,409 | 42,282 | 43,376 | 44,154 | 43,472 | 46,275 | 40,137 | 40,216 | 524,949 |
| 1998 | 46,723 | 47,606 | 53,761 | 49,393 | 45,218 | 46,244 | 46,383 | 47,739 | 46,579 | 47,904 | 43,224 | 43,581 | 564,355 |
| 1999 | 48,723 | 48,891 | 56,310 | 46,830 | 47,703 | 48,445 | 50,074 | 50,372 | 50,414 | 52,407 | 48,118 | 48,341 | 596,628 |
| 2000 | 50,552 | 50,942 | 56,856 | 48,781 | 48,424 | 48,011 | 49,023 | 53,204 | 49,422 | 51,412 | 45,535 | 41,441 | 593,603 |
| 2001 | 46,999 | 50,257 | 57,766 | 52,478 | 51,736 | 47,883 | 47,829 | 51,690 | 49,699 | 52,264 | 44,670 | 43,837 | 597,108 |
| 2002 | 52,551 | 52,856 | 58,340 | 50,694 | 52,902 | 49,450 | 52,363 | 54,383 | 53,366 | 56,576 | 50,072 | 47,048 | 630,601 |
| 2003 | 55,523 | 55,461 | 65,007 | 57,105 | 58,424 | 52,411 | 54,089 | 54,153 | | | | | |
| Average price paid by processors for farm-raised catfish | | | | | | | Cents per pound 1/ | | | | | | |
| 1997 | 73.0 | 73.0 | 73.0 | 73.0 | 73.0 | 72.0 | 71.0 | 70.0 | 69.0 | 69.0 | 69.0 | 69.0 | 71.2 |
| 1998 | 69.0 | 73.0 | 78.0 | 79.0 | 79.0 | 78.0 | 76.0 | 74.0 | 73.0 | 71.0 | 70.0 | 70.0 | 74.2 |
| 1999 | 70.3 | 71.4 | 73.2 | 75.6 | 77.7 | 77.5 | 76.8 | 74.3 | 72.8 | 71.6 | 71.3 | 71.6 | 73.7 |
| 2000 | 74.4 | 78.8 | 78.9 | 78.9 | 78.5 | 78.6 | 76.0 | 74.1 | 72.7 | 71.0 | 69.6 | 68.2 | 75.0 |
| 2001 | 69.3 | 69.6 | 69.7 | 69.4 | 68.7 | 66.9 | 65.6 | 62.4 | 61.0 | 59.6 | 56.6 | 55.4 | 64.5 |
| 2002 | 54.9 | 55.5 | 56.5 | 56.1 | 57.4 | 58.8 | 59.0 | 58.2 | 57.6 | 56.8 | 56.0 | 54.4 | 56.8 |
| 2003 | 52.9 | 54.4 | 58.5 | 63.0 | 61.8 | 58.6 | 56.4 | 55.2 | | | | | |
| Catfish sold by processors | | | | | | | 1,000 lbs. | | | | | | |
| 1997 | 20,746 | 23,058 | 24,624 | 22,154 | 22,444 | 21,471 | 21,866 | 22,548 | 21,518 | 23,408 | 19,645 | 18,278 | 261,760 |
| 1998 | 23,576 | 26,650 | 26,207 | 23,195 | 22,960 | 23,002 | 22,973 | 24,089 | 22,805 | 23,241 | 21,581 | 21,119 | 281,398 |
| 1999 | 23,107 | 25,780 | 28,544 | 23,488 | 23,964 | 23,720 | 25,069 | 24,618 | 24,430 | 25,229 | 22,344 | 22,372 | 292,665 |
| 2000 | 25,412 | 25,354 | 29,161 | 24,924 | 24,763 | 25,342 | 24,911 | 25,847 | 23,743 | 25,036 | 21,911 | 20,752 | 297,156 |
| 2001 | 24,507 | 25,968 | 28,752 | 25,167 | 24,728 | 23,690 | 24,816 | 26,004 | 24,210 | 25,083 | 21,807 | 21,635 | 296,367 |
| 2002 | 27,173 | 29,308 | 28,645 | 25,023 | 27,261 | 24,670 | 26,441 | 27,961 | 26,498 | 27,800 | 23,939 | 22,930 | 317,649 |
| 2003 | 27,584 | 27,586 | 30,485 | 26,135 | 27,370 | 25,487 | 26,427 | 27,627 | | | | | |
| Average price received by processors for all catfish | | | | | | | Cents per pound | | | | | | |
| 1997 | 227.7 | 230.2 | 230.4 | 227.3 | 227.9 | 226.0 | 225.6 | 225.3 | 224.8 | 220.5 | 220.3 | 223.3 | 225.8 |
| 1998 | 220.0 | 227.9 | 236.6 | 237.7 | 239.5 | 234.4 | 234.6 | 232.9 | 229.6 | 226.7 | 226.4 | 224.0 | 230.9 |
| 1999 | 225.6 | 226.2 | 231.8 | 236.2 | 239.5 | 239.9 | 239.7 | 234.6 | 236.9 | 235.9 | 235.6 | 230.9 | 234.4 |
| 2000 | 235.2 | 240.4 | 244.8 | 244.6 | 244.5 | 237.7 | 238.7 | 239.6 | 237.1 | 232.7 | 232.4 | 227.1 | 237.9 |
| 2001 | 231.8 | 236.9 | 233.2 | 234.1 | 232.7 | 227.6 | 226.2 | 223.8 | 218.5 | 216.3 | 211.4 | 209.0 | 225.1 |
| 2002 | 208.4 | 210.3 | 206.6 | 208.2 | 209.0 | 209.4 | 207.2 | 205.9 | 207.5 | 205.2 | 203.8 | 202.5 | 207.0 |
| 2003 | 202.2 | 201.6 | 206.9 | 210.7 | 207.5 | 203.5 | 203.6 | 202.9 | | | | | |

1/ Live weight.

Source: Monthly Catfish Processing Report, National Agricultural Statistics Service, USDA.

## Table 2-Catfish inventory numbers, as of July 1 1/

| State | Broodfish 2001 | Broodfish 2002 | Broodfish 2003 | Fingerling/fry 2001 | Fingerling/fry 2002 | Fingerling/fry 2003 | Stockers 2001 | Stockers 2002 | Stockers 2003 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1,000 | | | | |
| Alabama | 160 | 135 | 65 | 118,500 | 121,700 | 92,500 | 71,600 | 153,900 | 90,800 |
| Arkansas | 160 | 140 | 110 | 349,000 | 297,000 | 220,000 | 119,700 | 128,400 | 109,100 |
| Louisiana | 50 | 27 | 19 | 114,800 | 94,300 | 85,300 | 34,700 | 45,000 | 16,900 |
| Mississippi | 910 | 750 | 700 | 1,248,000 | 1,123,000 | 1,104,000 | 524,800 | 439,600 | 432,000 |
| Total | 1,280 | 1,052 | 894 | 1,830,300 | 1,636,000 | 1,501,800 | 750,800 | 766,900 | 648,800 |

| State | Small foodsize 2001 | Small foodsize 2002 | Small foodsize 2003 | Medium foodsize 2001 | Medium foodsize 2002 | Medium foodsize 2003 | Large foodsize 2001 | Large foodsize 2002 | Large foodsize 2003 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | 1,000 | | | | |
| Alabama | 40,200 | 45,700 | 55,100 | 14,800 | 23,300 | 19,200 | 1,170 | 3,900 | 2,500 |
| Arkansas | 42,200 | 41,800 | 43,800 | 19,800 | 24,800 | 20,300 | 1,700 | 3,100 | 1,130 |
| Louisiana | 13,400 | 8,400 | 12,000 | 8,300 | 4,900 | 8,900 | 860 | 520 | 450 |
| Mississippi | 193,500 | 185,100 | 143,400 | 33,200 | 41,400 | 36,800 | 2,440 | 2,700 | 3,300 |
| Total | 289,300 | 281,000 | 254,300 | 76,100 | 94,400 | 85,200 | 6,170 | 10,220 | 7,380 |

1/ July 1 inventory data are collected only from the four largest producing States.

Source: Catfish Growers Survey, National Agricultural Statistics Service, USDA.

**Table 3-Catfish supply, sales, prices, and inventory**

| | 2002 | | | | | 2003 | | | | | | | 2003 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Item | Aug. | Sept. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. |
| **Supply** | | | | | | 1,000 lbs. | | | | | | | |
| Grower sales 1/ | 54,383 | 53,366 | 56,576 | 50,072 | 47,048 | 55,523 | 55,461 | 65,007 | 57,105 | 58,424 | 52,411 | 54,089 | 54,153 |
| Processor sales | 27,961 | 26,498 | 27,800 | 23,939 | 22,930 | 27,584 | 27,586 | 30,485 | 26,135 | 27,370 | 25,487 | 26,427 | 27,627 |
| Fresh | 10,744 | 10,176 | 10,838 | 8,643 | 8,310 | 10,863 | 10,475 | 12,653 | 10,801 | 11,528 | 10,322 | 10,962 | 10,889 |
| Whole | 3,733 | 3,418 | 3,822 | 3,031 | 2,986 | 3,833 | 3,785 | 4,339 | 3,643 | 3,692 | 3,266 | 3,553 | 3,510 |
| Fillets | 5,442 | 5,317 | 5,420 | 4,447 | 4,119 | 5,362 | 5,158 | 6,715 | 5,700 | 6,364 | 5,737 | 5,984 | 6,013 |
| Other | 1,569 | 1,441 | 1,596 | 1,165 | 1,205 | 1,668 | 1,532 | 1,599 | 1,458 | 1,472 | 1,319 | 1,425 | 1,366 |
| Frozen | 17,217 | 16,322 | 16,962 | 15,296 | 14,620 | 16,721 | 17,111 | 17,832 | 15,334 | 15,842 | 15,165 | 15,465 | 16,783 |
| Whole | 1,285 | 1,420 | 1,328 | 1,101 | 967 | 1,266 | 1,418 | 1,500 | 1,271 | 1,232 | 1,058 | 1,124 | 1,399 |
| Fillets | 11,436 | 10,842 | 11,622 | 9,800 | 9,799 | 11,428 | 11,358 | 11,494 | 10,062 | 10,240 | 9,554 | 9,969 | 10,597 |
| Other | 4,496 | 4,060 | 4,012 | 4,395 | 3,854 | 4,027 | 4,335 | 4,838 | 4,001 | 4,370 | 4,553 | 4,372 | 4,742 |
| Processor inventory 2/ | 9,588 | 10,056 | 10,986 | 11,673 | 12,283 | 11,604 | 10,016 | 10,059 | 10,825 | 11,833 | 11,500 | 11,684 | 11,617 |
| Fresh | 802 | 685 | 799 | 695 | 651 | 994 | 773 | 826 | 924 | 661 | 725 | 760 | 706 |
| Whole | 191 | 185 | 196 | 183 | 152 | 274 | 234 | 211 | 362 | 185 | 205 | 181 | 212 |
| Fillets | 477 | 405 | 498 | 407 | 411 | 561 | 420 | 495 | 445 | 408 | 440 | 442 | 398 |
| Other | 134 | 95 | 105 | 105 | 88 | 159 | 122 | 120 | 117 | 68 | 80 | 137 | 93 |
| Frozen | 8,786 | 9,371 | 10,187 | 10,978 | 11,632 | 10,610 | 9,240 | 9,233 | 9,901 | 11,172 | 10,775 | 10,924 | 10,911 |
| Whole | 767 | 766 | 769 | 902 | 1,015 | 1,265 | 1,596 | 1,794 | 1,749 | 1,617 | 1,454 | 1,290 | 1,066 |
| Fillets | 5,873 | 6,528 | 6,659 | 7,228 | 7,348 | 6,545 | 5,530 | 5,194 | 5,382 | 5,927 | 6,148 | 6,477 | 6,665 |
| Other | 2,146 | 2,077 | 2,759 | 2,848 | 3,269 | 2,800 | 2,114 | 2,245 | 2,770 | 3,628 | 3,173 | 3,157 | 3,180 |
| **Prices** | | | | | | Dollars per pound | | | | | | | |
| Farm price 3/ | 0.58 | 0.58 | 0.57 | 0.56 | 0.54 | 0.53 | 0.54 | 0.59 | 0.63 | 0.62 | 0.59 | 0.56 | 55.00 |
| Processor prices | 2.06 | 2.08 | 2.05 | 2.04 | 2.03 | 2.02 | 2.02 | 2.07 | 2.11 | 2.08 | 2.04 | 2.04 | 2.03 |
| Fresh | 1.96 | 1.99 | 1.93 | 1.92 | 1.89 | 1.87 | 1.88 | 1.95 | 1.98 | 2.01 | 2.03 | 1.98 | 2.00 |
| Whole | 1.32 | 1.32 | 1.28 | 1.24 | 1.25 | 1.28 | 1.30 | 1.35 | 1.37 | 1.36 | 1.39 | 1.33 | 1.33 |
| Fillets | 2.54 | 2.54 | 2.52 | 2.49 | 2.47 | 2.44 | 2.45 | 2.44 | 2.49 | 2.51 | 2.50 | 2.48 | 2.48 |
| Other | 1.50 | 1.53 | 1.48 | 1.55 | 1.46 | 1.40 | 1.41 | 1.51 | 1.53 | 1.47 | 1.54 | 1.52 | 1.58 |
| Frozen | 2.12 | 2.13 | 2.13 | 2.10 | 2.10 | 2.12 | 2.10 | 2.16 | 2.19 | 2.12 | 2.04 | 2.07 | 2.05 |
| Whole | 1.84 | 1.82 | 1.85 | 1.87 | 1.85 | 1.81 | 1.83 | 1.84 | 1.84 | 1.84 | 1.82 | 1.82 | 1.82 |
| Fillets | 2.40 | 2.41 | 2.38 | 2.38 | 2.36 | 2.39 | 2.39 | 2.43 | 2.46 | 2.42 | 2.41 | 2.39 | 2.39 |
| Other | 1.48 | 1.49 | 1.50 | 1.54 | 1.52 | 1.45 | 1.42 | 1.60 | 1.64 | 1.51 | 1.32 | 1.42 | 1.36 |

1/ Total live weight of fish delivered for processing. 2/ Inventory at end of reporting period. 3/ Live weight.
Source: National Agricultural Statistics Service, USDA

## Table 4-Quantity and value of U.S. imports and exports of selected seafood products, January to June

| Commodity | 1999 | 2000 | 2001 | 2002 | 2003 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Exports** | ------------------------------$,1000------------------------------ | | | | | ---------------------------1,000 lb.------------------------------ | | | | |
| Ornamental fish | 6,424 | 4,243 | 3,681 | 4,348 | 4,369 | NA | NA | NA | NA | NA |
| Trout, live | 293 | 148 | 219 | 141 | 205 | NA | NA | NA | NA | NA |
| Trout, fresh & frozen | 1,841 | 1,827 | 917 | 982 | 4,017 | 1,006 | 1,082 | 662 | 744 | 2,042 |
| Atlantic salmon, fresh | 14,175 | 19,127 | 19,954 | 10,462 | 5,509 | 6,402 | 8,899 | 9,388 | 5,583 | 2,738 |
| Pacific salmon, fresh 1/ | 20,254 | 7,529 | 6,280 | 9,459 | 7,005 | 8,967 | 4,792 | 4,173 | 6,103 | 4,936 |
| Atlantic salmon, frozen | 119 | 304 | 47 | 102 | 101 | 50 | 154 | 26 | 47 | 48 |
| Pacific salmon, frozen 1/ | 37,838 | 55,541 | 34,852 | 26,512 | 29,069 | 25,597 | 34,287 | 26,843 | 21,985 | 22,884 |
| Canned & pre. salmon 2/ | 46,176 | 60,537 | 62,294 | 57,937 | 51,384 | 26,975 | 34,599 | 38,015 | 41,244 | 35,761 |
| Shrimp, frozen | 23,552 | 28,866 | 33,194 | 29,913 | 29,712 | 6,715 | 7,563 | 8,512 | 7,891 | 9,366 |
| Shrimp, fresh & pre. 3/ | 19,317 | 24,593 | 30,591 | 24,608 | 31,695 | 5,735 | 6,027 | 7,562 | 6,387 | 8,489 |
| Oysters 4/ | 2,546 | 3,116 | 3,576 | 3,717 | 4,264 | 1,158 | 1,442 | 1,868 | 1,763 | 2,275 |
| Mussels 5/ | 939 | 835 | 898 | 868 | 919 | 803 | 708 | 830 | 709 | 726 |
| Clams 6/ | 3,608 | 3,223 | 3,289 | 2,792 | 4,248 | 2,235 | 1,880 | 2,014 | 1,709 | 2,030 |
| **Imports** | | | | | | | | | | |
| Ornamental fish | 20,533 | 20,534 | 21,648 | 20,811 | 22,000 | NA | NA | NA | NA | NA |
| Trout, live | 78 | 21 | 9 | 52 | 132 | NA | NA | NA | NA | NA |
| Trout, fresh & frozen | 4,232 | 3,782 | 5,992 | 7,025 | 7,353 | 2,547 | 2,278 | 3,702 | 4,408 | 4,318 |
| Atlantic salmon, fresh | 281,142 | 319,636 | 366,803 | 360,246 | 402,343 | 105,386 | 122,993 | 154,470 | 186,435 | 183,206 |
| Pacific salmon, fresh 1/ | 22,470 | 22,786 | 16,424 | 18,803 | 21,202 | 9,690 | 9,550 | 7,825 | 11,305 | 9,662 |
| Atlantic salmon, frozen | 29,558 | 39,536 | 37,428 | 49,083 | 69,963 | 12,099 | 14,624 | 15,766 | 29,320 | 29,834 |
| Pacific salmon, frozen 1/ | 10,860 | 9,007 | 7,530 | 9,947 | 15,070 | 8,706 | 5,397 | 4,585 | 8,936 | 12,058 |
| Canned & pre. salmon 2/ | 9,418 | 14,103 | 16,731 | 18,903 | 30,253 | 2,462 | 4,710 | 5,245 | 7,145 | 11,339 |
| Shrimp, frozen | 1,079,819 | 1,100,383 | 1,176,838 | 1,049,279 | 1,195,738 | 266,799 | 247,068 | 270,193 | 297,307 | 344,736 |
| Shrimp, fresh & pre. 3/ | 133,074 | 189,237 | 252,516 | 276,238 | 292,472 | 32,118 | 43,834 | 57,090 | 78,927 | 84,523 |
| Oysters 4/ | 14,310 | 16,922 | 16,126 | 14,697 | 18,583 | 7,097 | 8,644 | 7,760 | 7,394 | 9,640 |
| Mussels 5/ | 18,232 | 25,429 | 24,318 | 31,107 | 26,013 | 19,136 | 22,955 | 21,420 | 26,189 | 24,170 |
| Clams 6/ | 3,213 | 3,995 | 3,653 | 3,372 | 4,066 | 3,842 | 4,553 | 3,510 | 3,417 | 4,353 |
| Tilapia 7/ | 35,421 | 46,400 | 61,304 | 80,628 | 120,306 | 37,644 | 39,946 | 57,043 | 69,700 | 98,906 |

NA=Not available. 1/ Also includes salmon with no specific species noted. 2/ Includes smoked and cured salmon. 3/ Shrimp, canned, breaded, or prepared. 4/ Oysters, fresh or prepared. 5/ Mussels, fresh or prepared. 6/ Clams, fresh or prepared.
7/ Frozen whole fish plus fresh and frozen fillets.

Source: Bureau of the Census, U.S. Department of Commerce.

**Table 5-U.S. tilapia imports, volume by country (January to June)**

| Country | Whole, frozen | | | Fillets, fresh | | | Fillets, frozen | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 |
| | 1,000 pounds | | | | | | | | | | | |
| Mexico | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Honduras | 0 | 0 | 0 | 1,213 | 2,890 | 2,940 | 0 | 0 | 0 | 1,213 | 2,890 | 2,940 |
| Nicaragua | 0 | 0 | 0 | 8 | 2 | 0 | 11 | 28 | 13 | 19 | 30 | 13 |
| Costa Rica | 0 | 0 | 0 | 3,711 | 3,554 | 4,596 | 0 | 1 | 5 | 3,711 | 3,555 | 4,602 |
| Jamaica | 0 | 0 | 0 | 200 | 36 | 0 | 41 | 28 | 23 | 241 | 64 | 23 |
| Colombia | 0 | 0 | 0 | 71 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 0 |
| Ecuador | 155 | 24 | 199 | 5,882 | 7,169 | 10,421 | 175 | 283 | 198 | 6,211 | 7,476 | 10,818 |
| Thailand | 71 | 413 | 88 | 1 | 11 | 0 | 173 | 188 | 1,278 | 245 | 612 | 1,365 |
| Indonesia | 86 | 6 | 0 | 0 | 0 | 0 | 2,228 | 2,475 | 3,883 | 2,314 | 2,480 | 3,883 |
| China | 11,818 | 18,997 | 33,963 | 271 | 320 | 635 | 2,023 | 4,762 | 15,557 | 14,112 | 24,078 | 50,155 |
| Taiwan | 26,110 | 24,568 | 21,070 | 54 | 200 | 306 | 2,101 | 3,148 | 2,468 | 28,265 | 27,916 | 23,843 |
| Other | 118 | 163 | 410 | 346 | 264 | 594 | 173 | 172 | 1,301 | 637 | 599 | 2,305 |
| Total | 38,358 | 44,170 | 55,729 | 11,759 | 14,446 | 19,492 | 6,924 | 11,085 | 24,725 | 57,041 | 69,700 | 99,946 |

**U.S. tilapia imports, value by country (January to June)**

| Country | Whole, frozen | | | Fillets, fresh | | | Fillets, frozen | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 |
| | 1,000 dollars | | | | | | | | | | | |
| Mexico | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Honduras | 0 | 0 | 0 | 3,292 | 7,992 | 7,988 | 0 | 0 | 0 | 3,292 | 7,992 | 7,988 |
| Nicaragua | 0 | 0 | 0 | 21 | 5 | 0 | 24 | 52 | 20 | 45 | 57 | 20 |
| Costa Rica | 0 | 0 | 0 | 8,283 | 9,346 | 11,843 | 0 | 6 | 14 | 8,283 | 9,352 | 11,857 |
| Jamaica | 0 | 0 | 0 | 642 | 104 | 0 | 79 | 48 | 46 | 722 | 152 | 46 |
| Colombia | 0 | 0 | 0 | 188 | 0 | 0 | 0 | 0 | 0 | 188 | 0 | 0 |
| Ecuador | 157 | 29 | 187 | 17,397 | 19,937 | 27,622 | 364 | 610 | 428 | 17,917 | 20,576 | 28,237 |
| Thailand | 57 | 266 | 51 | 3 | 53 | 0 | 326 | 328 | 2,265 | 386 | 647 | 2,316 |
| Indonesia | 70 | 3 | 0 | 0 | 0 | 0 | 4,995 | 5,590 | 8,832 | 5,066 | 5,592 | 8,832 |
| China | 5,253 | 8,925 | 16,793 | 430 | 506 | 949 | 3,497 | 7,463 | 24,267 | 9,180 | 16,894 | 42,009 |
| Taiwan | 11,718 | 12,465 | 11,760 | 41 | 302 | 595 | 3,032 | 5,543 | 4,777 | 14,792 | 18,310 | 17,133 |
| Other | 63 | 74 | 210 | 982 | 677 | 1,383 | 389 | 305 | 275 | 1,434 | 1,056 | 1,868 |
| Total | 17,319 | 21,762 | 29,001 | 31,279 | 38,921 | 50,380 | 12,707 | 19,945 | 40,925 | 61,304 | 80,628 | 120,306 |

Source: Bureau of the Census, U.S. Department of Commerce.

## Table 6-U.S. shrimp imports in pounds (January to June)

| Country | Frozen | | | Fresh | | | Prepared | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 |
| Mexico | 7,806,248 | 10,559,822 | 10,725,189 | 179,580 | 244,208 | 37,359 | 14,868 | 82,941 | 92,419 | 8,000,696 | 10,886,972 | 10,854,968 |
| Ecuador | 35,567,676 | 36,787,128 | 43,570,367 | 959 | 780 | 2,802 | 1,208,566 | 1,600,332 | 943,485 | 36,777,201 | 38,388,241 | 44,516,654 |
| India | 23,530,803 | 38,201,476 | 38,346,191 | 317,193 | 421,306 | 402,379 | 3,975,361 | 3,564,717 | 3,645,943 | 27,823,357 | 42,187,499 | 42,394,513 |
| Bangladesh | 4,779,183 | 7,174,946 | 4,696,314 | 0 | 0 | 0 | 0 | 0 | 0 | 4,779,183 | 7,174,946 | 4,696,314 |
| Thailand | 74,471,619 | 57,178,497 | 59,694,078 | 100,188 | 47,875 | 143,001 | 38,004,575 | 47,844,683 | 49,946,459 | 112,576,382 | 105,071,055 | 109,783,538 |
| Indonesia | 15,537,375 | 18,039,816 | 22,165,866 | 36,138 | 40,917 | 39,198 | 843,295 | 2,005,655 | 1,577,237 | 16,416,807 | 20,086,388 | 23,782,301 |
| Philippines | 1,388,704 | 1,024,733 | 1,089,183 | 1,327 | 573 | 1,228 | 355,137 | 463,056 | 260,623 | 1,745,168 | 1,488,363 | 1,351,034 |
| China | 15,331,408 | 18,176,993 | 27,876,325 | 463,345 | 452,622 | 370,999 | 474,077 | 5,490,124 | 10,507,229 | 16,268,830 | 24,119,739 | 38,754,553 |
| Others | 91,464,429 | 110,163,928 | 136,572,593 | 461,385 | 523,301 | 577,790 | 10,677,771 | 16,144,248 | 15,975,074 | 102,603,585 | 126,831,478 | 153,125,458 |
| Total | 269,877,445 | 297,307,341 | 344,736,106 | 1,560,116 | 1,731,583 | 1,574,757 | 55,553,649 | 77,195,758 | 82,948,470 | 326,991,210 | 376,234,681 | 429,259,333 |

**Value of U.S. shrimp imports (January to June)**

| Country | Frozen | | | Fresh | | | Prepared | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 | 2001 | 2002 | 2003 |
| Mexico | 55,338,903 | 54,571,896 | 68,829,821 | 334,454 | 398,795 | 96,640 | 76,275 | 477,358 | 503,897 | 55,749,632 | 55,448,049 | 69,430,358 |
| Ecuador | 141,198,580 | 110,872,310 | 125,708,718 | 5,760 | 4,560 | 10,739 | 4,899,951 | 5,187,925 | 2,621,895 | 146,104,291 | 116,064,795 | 128,341,352 |
| India | 95,143,558 | 138,111,213 | 161,422,035 | 3,698,745 | 4,317,477 | 4,189,561 | 6,884,909 | 6,070,244 | 8,451,815 | 105,727,212 | 148,498,934 | 174,063,411 |
| Bangladesh | 25,602,914 | 31,273,712 | 23,581,945 | 0 | 0 | 0 | 0 | 0 | 0 | 25,602,914 | 31,273,712 | 23,581,945 |
| Thailand | 358,333,179 | 221,238,561 | 218,518,852 | 332,038 | 202,975 | 1,003,739 | 169,663,801 | 171,972,654 | 173,729,095 | 528,329,018 | 393,414,190 | 393,251,686 |
| Indonesia | 75,074,175 | 71,674,734 | 84,699,286 | 269,146 | 180,531 | 214,764 | 3,554,380 | 8,457,417 | 4,992,763 | 78,897,701 | 80,312,682 | 89,906,813 |
| Philippines | 8,566,157 | 5,117,669 | 5,479,643 | 6,010 | 2,600 | 5,572 | 411,015 | 485,366 | 291,196 | 8,983,182 | 5,605,635 | 5,776,411 |
| China | 42,640,130 | 42,328,169 | 67,659,593 | 3,579,736 | 3,826,095 | 3,188,646 | 993,075 | 15,598,713 | 25,908,701 | 47,212,941 | 61,752,977 | 96,756,940 |
| Others | 372,984,697 | 374,090,264 | 439,837,972 | 2,149,567 | 2,276,680 | 2,075,798 | 45,649,190 | 56,778,962 | 65,186,688 | 420,783,454 | 433,145,906 | 507,100,458 |
| Total | 1,174,882,293 | 1,049,278,528 | 1,195,737,865 | 10,375,456 | 11,209,713 | 10,785,459 | 232,132,596 | 265,028,639 | 281,686,050 | 1,417,390,345 | 1,325,516,880 | 1,488,209,374 |

Source: Bureau of the Census, U.S. Department of Commerce.

**Table 7-U.S. Atlantic salmon imports, volume by country (January to June)**

| Country | Fresh 2001 | Fresh 2002 | Fresh 2003 | Frozen 2001 | Frozen 2002 | Frozen 2003 | Fillets 1/ 2001 | Fillets 1/ 2002 | Fillets 1/ 2003 | Total 2001 | Total 2002 | Total 2003 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1,000 pounds | | | | | | | | | | | |
| Canada | 53,440 | 68,930 | 57,946 | 0 | 72 | 123 | 14,607 | 20,606 | 19,391 | 68,047 | 89,608 | 77,460 |
| Chile | 3,478 | 2,340 | 2,744 | 707 | 615 | 2,017 | 80,657 | 104,744 | 107,070 | 84,843 | 107,699 | 111,830 |
| Iceland | 779 | 288 | 730 | 101 | 178 | 45 | 101 | 66 | 160 | 980 | 532 | 935 |
| Norway | 379 | 879 | 641 | 2,586 | 1,283 | 2,373 | 5,305 | 7,152 | 5,185 | 8,270 | 9,314 | 8,199 |
| Faroe Islands | 546 | 520 | 280 | 177 | 85 | 6 | 58 | 10 | 2 | 782 | 615 | 288 |
| United Kingdom | 6,383 | 7,208 | 12,103 | 39 | 0 | 0 | 321 | 392 | 738 | 6,743 | 7,600 | 12,841 |
| Other | 41 | 179 | 842 | 454 | 85 | 0 | 76 | 122 | 645 | 570 | 386 | 1,487 |
| Total | 65,046 | 80,346 | 75,285 | 4,065 | 2,318 | 4,565 | 101,125 | 133,092 | 133,190 | 170,236 | 215,755 | 213,040 |

**U.S. Atlantic salmon imports, value by country (January to June)**

| Country | Fresh 2001 | Fresh 2002 | Fresh 2003 | Frozen 2001 | Frozen 2002 | Frozen 2003 | Fillets 1/ 2001 | Fillets 1/ 2002 | Fillets 1/ 2003 | Total 2001 | Total 2002 | Total 2003 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1,000 dollars | | | | | | | | | | | |
| Canada | 130,841 | 143,441 | 131,068 | 0 | 94 | 215 | 50,015 | 58,736 | 60,490 | 180,856 | 202,272 | 191,773 |
| Chile | 6,285 | 3,169 | 4,320 | 1,196 | 798 | 3,630 | 181,029 | 171,367 | 227,893 | 188,510 | 175,334 | 235,843 |
| Iceland | 1,236 | 289 | 986 | 620 | 901 | 294 | 281 | 222 | 508 | 2,136 | 1,413 | 1,788 |
| Norway | 708 | 1,513 | 1,084 | 4,677 | 1,655 | 4,369 | 15,613 | 16,333 | 14,955 | 20,998 | 19,502 | 20,408 |
| Faroe Islands | 693 | 673 | 380 | 265 | 66 | 15 | 115 | 25 | 6 | 1,073 | 764 | 402 |
| United Kingdom | 8,736 | 8,737 | 18,115 | 69 | 0 | 0 | 678 | 738 | 1,869 | 9,483 | 9,475 | 19,984 |
| Other | 81 | 219 | 1,343 | 896 | 97 | 0 | 197 | 254 | 766 | 1,174 | 570 | 2,109 |
| Total | 148,581 | 158,042 | 157,295 | 7,722 | 3,611 | 8,523 | 247,927 | 247,677 | 306,487 | 404,231 | 409,329 | 472,306 |

1/ Includes both fresh and frozen fillets.

Source: Bureau of the Census, U.S. Department of Commerce.