Supplement to Livestock, Dairy, and Poultry Situation and Outlook

Aquaculture Outlook

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Domestic Production, Imports, and Exports Expected Higher in 2001

The outlook for favorable conditions for domestic aquacultural production and exports and imports of aquaculture products is based on a number of factors. First is that the growth in the U.S. economy will slow in 2001, but will continue. Second, demand strength is expected in from continued, albeit slower, expansions of the U.S. and Asian economies and food safety scares in the European Union (EU). Third, some aquaculture producers are expected to benefit from continued low grain prices.

The expectation of a relatively strong domestic economy and continued growth in Asian economies are necessary to help aquaculture production and trade opportunities expand in 2001. Growing personal income helps boost sales in restaurants and raises consumption of relatively high-priced protein products. Higher away-from-home food sales have been beneficial to aquaculture demand, as a high percentage of aquaculture products are sold in this sector. Moreover, the restaurant and foodservice sectors are also major sales vectors for imported aquaculture products such as shrimp, salmon, and tilapia. Exports of U.S. aquaculture products would be aided by growth in Asian economies. Aside from Canada, Asian countries are the largest markets for U.S. aquaculture products. However, the U.S. dollar is expected to remain strong against the Canadian dollar, restricting growth in exports to this market.

Lower beef production in the EU and consumer concerns over its safety are expected to boost demand for alternative protein products. While the U.S. aquaculture industry has not traditionally exported a large amount of products to the EU, the current situation may provide an opportunity to gain an entry to those markets. An increase in demand for seafood in the EU might also lower the exports of such things as farmed salmon. Grain prices in the United States are expected to remain relatively close to those from the previous year. This will be especially helpful to the catfish industry in maintaining low feed costs. While most indications are for expanding sales during 2001, aquaculture producers will again be faced with strong competition from the livestock and poultry industries. While beef supplies are expected to fall in 2001, forecasts call for expansion in pork and poultry production.

With the exception of the catfish industry, the United States is not one of the world's larger aquacultural producers. However, this does not mean that there is not a large market for aquaculture products in the United States. Over the last several years the markets for imported tilapia and Atlantic salmon have expanded very rapidly, and imports of shrimp have continued to grow, although at a slower pace. While not all the shrimp imported is farm-raised, almost 100 percent of the tilapia and Atlantic salmon are. If even only 50 percent of the shrimp imported is farm-raised, the total value of imported farm-raised shrimp, tilapia, and Atlantic salmon in 2000 was $2.7 billion. To put that in perspective, the total estimated value of all U.S. poultry exports (broiler, turkeys, and eggs) in 2000 was $2.1 billion, 22 percent lower. So, there is a large domestic market for aquaculture products, but domestic growers will have to come up with innovative methods to compete effectively with foreign producers.

Catfish Sales Expected To Increase in 2001

Sales of catfish by growers to processors are expected to increase in 2001 and reach between 605 million and 617 million pounds, 2 to 4 percent higher than in 2000. Sales in 2000 had been relatively strong through the first half of the year and then slowed markedly in the second half. As this happened, processor inventories increased to levels well above the previous year. This increase in inventories put downward pressure on both prices paid to farmers and wholesale prices received by processors. However, by the

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end of January 2001, the large inventories held by processors had been reduced and ending stocks for January 2001 were below those of the previous year.

Based on grower inventories reported for the beginning of January, grower sales are expected to show modest increases during first-half 2001 compared with the previous year. However, the large inventory of foodsize fish held by growers is expected to place downward pressure on prices. Grower sales to processors in the second half of 2001 will be affected by both the general performance of the economy and what growth is realized in red meat and poultry supplies. Higher meat and poultry supplies especially affect catfish sales in grocery stores. Farm prices for catfish are expected to be in the mid 70 cents a pound range during the first 4 months of 2001, somewhat lower than in 2000. In the second half of 2001 prices may strengthen somewhat, as stockers and fingerlings inventories at the beginning of 2001 were slightly lower than a year earlier.

Over the last several years, low prices for both corn and soybeans have benefited most catfish farmers by reducing average feed prices. Lower feed costs have been especially beneficial, as the average farm prices for catfish between 1990 and 2000 have been between 70.9 and 78.6 cents per pound, with the exception of 1991 and 1992 when prices fell into the low 60 and upper 50 cents a pound range. The combination of lower feed costs and relatively low interest costs over the last several years has given catfish producers the incentive to expand pond acreage. The latest forecasts indicate that soybean meal and corn prices are expected to be only slightly higher than in 2000. While overall feed prices may not change much from their 2000 levels, they are expected to remain low on a historical basis.

Catfish Production Forecast Up in 2001

Catfish growers indicated that at the start of 2001 their stocks of broodfish and all classes of foodsize fish were higher than the previous year. The January 1 survey is the only one that reports data from States other than the four largest producing States, although these four States account for the vast majority of catfish production. This is the third year in a row that inventory levels of foodsize fish have increased, with the level of grower held inventories in 2001 up considerably from 2000.

At the beginning of 2001, the total number of foodsize fish held by growers was estimated at 334 million, up 18 percent from the previous year. There were large inventory increases in each of the three categories of foodsize fish. The inventory of large foodsize fish was up 18 percent above the beginning of 2000. The strong increases in inventory numbers in Alabama and Mississippi were moderated by lower inventory holds in Arkansas and Louisiana. The number of medium foodsize fish held by growers totaled 88 million, up 14 percent from the previous year. In this case, a 36-percent increase in inventory holdings in Mississippi was partially offset by lower grower stock in Arkansas and Louisiana. Stocks of small foodsize fish form the bulk of grower inventories. These fish average right around 1 pound and form the core of the fish that will be processed during the first quarter of 2001. At the beginning of 2001 growers estimated that they held 240 million foodsize fish on their farms. This is about 40 million or 20 percent more small foodsize fish than had been in inventory at the beginning of 2000.

The inventory of foodsize fish held by growers at the beginning of each year forms the basic supply of catfish available to be sent to processing plants during the first quarter of the year. Colder water temperatures at the beginning of the year greatly reduce the growth and weight gain of the fish. Thus, the catfish that have reached market size by the beginning of the year represent the bulk of marketable supplies. With the strong increases in the inventories of foodsize fish and a somewhat slower economy than the previous year, there is likely to be some downward pressure on catfish prices. This is expected to occur even though from the beginning of the year through Easter normally is the period of strongest demand.

The January 1, 2001, inventory report indicated a 1-percent increase from the previous year in the number of stockers held by growers. The number of fingerlings in inventory at the start of 2001 was 1.023 billion, a decrease of 3 percent from the previous year. The number of stockers and fingerlings held in inventory at the beginning of the year represent the bulk of the fish available for processing from about the middle of the second quarter through the end of the year. The slightly higher inventory of stockers and the decrease in fingerlings held by growers indicates that, barring any adverse weather conditions, off-flavor, or disease problems, there is expected to be a somewhat smaller supply of fish available for processing in the second through the fourth quarters of 2001. Again, depending on the strength of the economy and supplies of meat and poultry, the smaller supply of catfish is expected to put some upward pressure on prices, especially in the second half of the year.

Farm Prices Expected To Be Lower in 2001

In 2000, the average farm price for catfish was 75.1 cents a pound, up 2 percent from the previous year. Prices in the beginning of 2000 were relatively strong, the average for the first half of the year was 78 cents per pound. However, prices declined in the second half of 2000, pressured by large grower supplies, large processors' inventories, and seasonal declines in processor sales. Farm prices at the start of 2001 have been somewhat lower than the previous year. Prices in January were 69 cents per pound, down 5 cents from January 2000. Barring any extended harvesting or feeding disruptions, farm prices are expected to average in the low 70 cents per pound range over the first half of 2001. The larger supplies of foodsize fish are expected to place downward pressure on prices, however they are expected to be moderated by lower beef production and relatively slow growth in pork and poultry output. The expected scenario for the second half of 2001 is considerably different. In the second half of 2001, available supplies of catfish are expected to tighten and begin to place some upward pressure on both farm and wholesale prices. Prices at the wholesale level will be influenced by changes in the domestic economy and how it affects sales in the foodservice sector, the primary purchaser of processed catfish products.

In 2001, processors are expected to face stable prices for most inputs, with the exception of energy costs. If the economy remains relatively strong, the stable input costs combined with lower farm prices for catfish are expected to help processors maintain their margins even if wholesale prices show little growth.

During 2000, farm sales to processors totaled 594 million pounds, with an average price of 75.1 cents per pound. This implies gross sales of $446 million for catfish growers, up just over 1 percent from a year earlier. Including sales of broodfish, stockers, and fingerlings to other producers and other outlets, catfish growers reported total sales of $501 million in 2000, up 2.4 percent from 1999. For 2001, with the expected increase in sales and overall flat farm prices, grower sales of catfish to processing plants are expected to generate between $455 million and $465 million.

Acreage up 2 Percent

Strong sales and favorable prices through the first half of 2000 led catfish growers to continue to expand their pond acreage. The drop in farm prices in the second half of 2000 is expected to greatly reduce the incentive to increase acreage in the second half of 2001. The January survey of growers reported that pond acreage was 2 percent higher at 190,320 acres. In addition, the growers indicated they expected to add 5,065 acres of new ponds, which would be available for production by the beginning of the second half of 2000. Most of the increase in pond acreage from 1999 to 2000 was the result of expansions in Alabama and Mississippi. These two States reported that they would have a combined 5,000 additional acres in production in first-half 2001 compared with the previous year. The breakout for the acreage estimated to be in production in the first half of 2001 is 156,855 acres for foodsize fish, 24,580 acres for fingerlings, and 5,615 for broodfish.

Processor Revenues Up 3 Percent

During 2000, catfish processors sold 297.2 million pounds of product, up 1.5 percent from a year earlier. For 2000, the weighted average price for processed catfish products was $2.38 per pound, 1.5 percent above 1999. This is the third consecutive year that the average processor price has risen after falling in both 1996 and 1997. Much of the increase in the average price is due to stronger sales in the fresh market where the average price rose by 6 cents. The weighted average prices for frozen products rose only 1 cent. With an increase in sales volume and a higher average price, gross processor revenues from catfish sales reached $707 million in 2000, 3 percent higher than in 1999. With the expectation of slightly higher sales levels and relatively stable prices, processor revenues are forecast to reach between $720 million and $735 million in 2001.

During 2000, processor sales were strong through the first 5 months of the year. After that, sales began to slow and dropped below their year-earlier levels in most categories. Overall sales of fresh and frozen catfish were higher than in 1999, but sales fell in a number of categories. Most of the increase in sales came from higher sales of “other” products. Sales of fresh other products rose by 2 percent and sales of frozen other products were up 11 percent. Together, sales of other products were up about 5 million pounds, which helped to partially offset the loss of sales in some of the other categories. The higher growth in other sales put downward pressure on the weighted average price for all products, as prices for other products are considerably lower than prices for filleted products and sometimes lower than prices for whole catfish.

Trout Sales at $76 Million in 2000

The most recent survey of the domestic trout industry by the National Agricultural Statistics Service (NASS) showed total sales of trout at $76 million, down slightly from 1999. The survey also included 271 operations that distributed trout in 2000. The trout are distributed for restoration or conservation purposes. Many of these operations are State or Federal hatcheries. The value of the fish distributed for these purposes was estimated at $60.9 million in 2000 and is separate from the figure for the value of trout sold.

Most of the decrease in sales came from lower sales of foodsize fish. In terms of the trout report, foodsize fish are those 12 inches or more in length. Sale of foodsize fish were $59.2 million, down 2 percent from the previous year. Most of this was lower sales in Idaho, the largest trout producer. Partially offsetting the decline in Idaho were higher foodsize fish sales in California, Pennsylvania, and Washington.

Sales of stockers (fish 6 to 12 inches) total 7.6 million pounds with a value of $6.7 million, both figures are increases from the previous year. Stockers are either sold to trout farmers for further growout or sold to private groups for stocking of specific lakes or rivers. In 2000, both the sales volume and the value of fingerling sales (fish under 6 inches) were about the same as the previous year. Trout eggs sales in 2000 were valued at $4.0 million, down 19 percent from 1999.

Tilapia Increase 8 Percent in 2000

Tilapia were not tracked individually until 1992, in 1993, the first full year of import data, only 18 million pounds of tilapia were imported. By 2000, imports had grown by 394 percent. In 2000 imports of tilapia and tilapia fillets reached 89.2 million pounds, 8 percent higher than the previous year. The value of tilapia imports increased even faster, growing 24 percent in 2000, to $101.4 million. Imports of tilapia were higher in all the categories, with imports of whole fish up 2 percent, fresh fillets up 41 percent, and imports of frozen fillets up 44 percent. Frozen whole tilapia continues to dominate imports and accounted for 69 percent of imports on a quantity basis, but imports of filleted products have been growing at a rapid rate and on a value basis accounted for 67 percent of all tilapia imports. The actual poundage of tilapia products imported understates the size of the industry supported by the U.S. market. To supply the U.S. market in 2000 required the production of 152 million pounds of live fish.

Taiwan’s tilapia industry has traditionally been the major supplier of products to the U. S. market. Up until the last 2 years, the Taiwanese industry dominated shipments of frozen whole fish to the United States. However, this segment of the import industry is rapidly changing. China began shipping frozen whole fish to the United States in 1997 and by 2000 this had grown to 25.6 million, 42 percent of the total. Shipments from China are expected to become even a larger percentage of total tilapia imports in 2001. China is by far the world’s largest aquacultural producer and is always looking for new export opportunities for its domestic industry.

Changes are also occurring in the fresh and frozen fillet markets. Up through 1999, Costa Rica had been the dominant supplier of fresh fillets, accounting for over half of U.S. imports. Honduras and Ecuador had been secondary suppliers. In 2000, imports from Ecuador increased by 80 percent to 7.2 million pounds. Ecuador, with its large farmed shrimp industry, is looking to diversify their aquacultural production, and if tilpaia prices continue to remain strong, it is expected to continue to increase production, possibly converting more shrimp ponds to tilapia production. Imports from Honduras were up 35 percent to 2.3 million pounds, or 14 percent of fresh tilapia fillet imports.

In the frozen fillet segment of the tilapia import market, imports from China have been expanding the fastest. Shipments from China have gone from zero in 1997 to 4.0 million pounds in 2000. Imports from

China are expected to continue to grow in 2001 as it vies for a larger proportion of this segment of U.S. fish imports. While the market for frozen whole fish continues to increase, producers in China are looking to capture a larger segment of the potentially larger market for filleted products. Moving to the filleted product market also allows them to sell a value-added product with a much higher unit value.

Tilapia imports for 2001 are expected to reach 93 million to 95 million pounds on a product-weight basis and 155 million to165 million pounds on a live-weight basis. The value of imports is expected to reach between $106 and $108 million in 2001. Average import values are expected to increase slightly as imports of fillets continue to grow, but prices in the different categories are not expected to show much increase, and they should be pressured by rising imports from China.

U.S. Salmon Imports Up 19 Percent in 2000
U.S. imports of Atlantic salmon in 2000 totaled 289 million pounds and $741 million. These are increases of 19 percent in quantity and 18 percent in value. All three Atlantic salmon import categories (fresh whole fish, frozen whole fish, and fresh and frozen fillets) showed increased quantities, but the average unit values for both fresh and filleted products fell in 2000 after rising in 1999. Unit values for frozen products rose, as the total value of frozen Atlantic salmon imports increased 22 percent. Imports of filleted products continue to be the fastest growing segment of Atlantic salmon imports. In 2000, imports of filleted products grew 35 percent to 159 million pounds. Imports of Atlantic salmon fillets have risen rapidly over the last several years, and between 1998 and 2000 have grown 38 percent. This rapid growth has changed imports of filleted products into the largest of the three product categories, surpassing imports of fresh products. The value of filleted products reached $443 million in 2001, topping those of fresh whole fish and accounting for 60 percent of all Atlantic salmon imports.

The biggest change in the Atlantic salmon market in 2000 was that almost all the growth in imports came from either Canada or Chile. Imports from Canada were up 8 percent to 106.7 million pounds and shipments from Chile rose by 51 percent to 139.3 million pounds. Chile is the dominant supplier of filleted products to the United States. In 2000 Chile supplied 80 percent of all Atlantic salmon fillets. This represents a market worth $332.9 million to Chilean producers.

While economic growth in the United States in 2000 is not forecast to be as strong as for the previous year, imports of Atlantic salmon are expected to continue to expand in 2001. Shipments are expected to approach 300 million pounds and $770 million in value. Demand is expected to remain relatively strong, especially from the restaurant industry, where Atlantic salmon has become a featured product for many businesses. Also a strong dollar versus the currencies of major suppliers, especially Canada is expected to hold down any increases in per-unit values.

Shrimp Imports Up 4 Percent in 2000
U.S. shrimp imports continued to grow in 2000, with the quantity of imported shrimp up 4 percent to 761 million pounds and the value of shrimp imports reaching $3.8 billion, an increase of 20 percent. The average import value of a pound of shrimp rose 15 percent to $4.94, 65 cents higher than the previous year.

Shrimp imports are aggregated into three main categories, frozen, fresh, and prepared products. While the value of imported shrimp rose in all three categories, most of the growth has come from higher imports of prepared shrimp products. This growth in the prepared shrimp category mirrors changes that have also been occurring in the salmon and tilapia markets. Producers in other countries are trying to increase revenues by moving away from producing a generic commodity to more specialized value-added products. In 2000, the quantity of prepared shrimp imports increased by 23 percent and the value rose by 35 percent. Between 1998 and 2000 the shrimp imports have expanded by 65.3 million pounds, higher imports of prepared shrimp products have accounted for 72 percent of the increase. Imports of frozen whole shrimp still constitute the bulk of the import market at about 80 percent, but imports of various prepared products are expected to continue to provide a large percentage of the growth in imports and gradually become a major proportion of shrimp imports.

While the type of shrimp products being imported was changing, the source of these products has also changed. Until recently Ecuador had been the second largest U.S. shrimp supplier behind Thailand. In 1998, imports from Ecuador accounted for 20 percent of all shrimp imports on a quantity basis. In 2000 imports from Ecuador totaled 42 million pounds, only 6 percent of U.S. shrimp imports. The decreases in imports from Ecuador are the combined result of disease problems, the weather effects of El Nino, and diversification into other products like tilapia. Imports from Mexico have also declined, but to a lesser extent. Although the quantity of shrimp imported from Mexico has dropped, the value has risen as prices for large shrimp, Mexico's major export, has continued to be strong.

Over the last 2 years, while imports from Ecuador and Mexico have declined, the totals have risen as imports from Thailand, China, and a number of Central American countries such as Panama, Costa Rica, and Honduras have taken their place. Thailand continues to increase its total market share. In 1997, Thailand's share of total U.S. shrimp imports was 25 percent, by 2000 it had increased to 37 percent. The total value of shrimp imported from Thailand has also increased rapidly and in 2000 accounted for 40 percent of the value of imported shrimp. Imports from Thailand dominate the prepared shrimp market and accounted for 80 percent of the value of imports in that category. Rebounding from disease problems in the early 1990's, China's shrimp industry seems to be strongly expanding. Shipments in 2000 reached 40 million pounds, up over 100 percent from the previous year and around the same quantity level as Ecuador and Indonesia, although the value is not as high. Imports from China are expected to be a major factor in coming years as China is by far the world's largest aquacultural producer.

Imports of shrimp in 2001 are expected to increase only modestly on a quantity basis and on a value basis are expected to be flat or decline somewhat as unit values decline. Slower expected growth in the United States economy is expected to lower the demand for shrimp, especially at the higher priced end of the market. However, the shrimp market is also impacted by changes in market demand in Japan and Europe. The Japanese economy is not expected to give any boost to shrimp demand, but the uncertainties surrounding red meat supplies in Europe may boost shrimp consumption as consumers look for alternative products.

Exports of Oysters Rise
Mussel and Clam Exports Down in 2000

In 2000, the value of oyster exports was up 10 percent from the previous year and the volume rose by 18 percent. After rising in 1999, both mussel and clam exports fell in 2000. It had been expected that economic growth in Asian countries would result in a stronger export market for U.S. mussels and clams, as the majority go to either Japan, Korea, or Hong Kong/China. Part of the reason that the value of clam exports has fallen in each of the last 4 years is that shipments to Canada have fallen. Shipments to Canada are down due to the strength of the U.S. dollar relative to the Canadian dollar, which has increased the price of U.S. products. Mussel exports declined in 2000, but the export levels (quantity and value) were still higher than in either 1997 or 1998. Domestic mussel producers have been facing a growing domestic demand for their products as witnessed by the continued growth in mussel imports.

Imports Rise for All Mollusks

A strong domestic economy and a strong dollar relative to most currencies boosted imports of oysters, mussels, and clams. This is the second year in a row that the value and quantity of imports have risen for each of the three types of mollusks. If the domestic economy remains strong in 2001 and foodservice expenditures expand, then mollusk imports are expected to again increase.

In 2000, mussel imports continued to be the largest segment of mollusk imports on a quantity basis. In addition, with its continued growth in import value, mussels passed oysters and became the most valuable of mollusk imports. Mussel imports were 43.1 million pounds in 2000, up 23 percent from the previous year, after increasing only slightly in 1999. The value of mussel imports rose 41 percent to $47.4 million, almost doubled that of 1997. The majority of mussels are farm-raised, in either Canada or New Zealand. With the U.S. dollar remaining strong against the Canadian dollar mussel imports are expected to expand again in 2001.

After increasing 15 percent in 1999, clam imports rose by 7 percent to 20.8 million pounds in 2000. The quantity of clam imports has risen in each of the last 4 years. Canada is also the largest supplier of clams to the U.S. market, and like mussels, imports of clams are expected to increase in 2001.

Ornamental Fish Exports Decrease

After recording a small increase in 1999, U.S. exports of ornamental fish decreased by 24 percent in 2000. Since 1997, U.S. ornamental fish exports have fallen by 44 percent. About the only major market that has managed to stay at about the same level is Canada. With the decline in exports to most markets, shipments to Canada accounted for 51 percent of all exports. Shipments to Canada in 2000 were down 3 percent from the previous year to $4.2 million. It is surprising that shipments to Canada have remained as stable, with the price of U.S. ornamental fish being made higher by the relative weakness of the Canadian dollar.

Exports to most major countries had been down over the last several years due to a combination of economic uncertainties in a number of the major Asian export markets such as Singapore, Japan, and Hong Kong. The strong U.S. dollar has also made U.S. exports less competitive in a number of markets. Even with an improvement in the economic situations for many Asian countries, exports of ornamental fish fell strongly in 2000. Shipments to Japan, previously our second largest market, have rapidly spiraled downward. Shipments have gone from $3.9 million in 1997 to $715,000 in 2000, a drop of 82 percent.

The value of ornamental fish imports rose 6 percent in 2000 to $40.8 million. The increase was primarily from Asian countries. The top five exporters are Asian countries, and combined, they accounted for 70 percent of total exports to the United States. Greater shipments from these countries (Thailand, Singapore, Indonesia, Philippines, and Hong Kong) offset smaller shipments from most countries in the Western Hemisphere. Thailand was the largest exporter to the United States in 2000, with shipments valued at $9.2 million. This is a 19-percent increase from the previous year, but still less than they exported in 1997.

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Catfish: Supply, sales, prices, and inventory

Item	2000 Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	2001 Jan.
Supply							1,000 lbs.						
Grower sales 1/	50,552	50,942	56,856	48,781	48,424	48,011	49,023	53,204	49,422	51,412	45,535	41,441	46,999
Processor sales	25,412	25,354	29,161	24,924	24,763	25,342	24,911	25,847	23,743	25,036	21,911	20,752	24,507
Fresh	9,611	9,686	11,673	10,408	9,946	9,672	9,481	9,882	9,228	10,260	8,597	8,290	9,843
Whole	3,496	3,396	4,031	3,655	3,483	3,581	3,491	3,545	3,246	3,504	2,971	2,993	3,516
Fillets	4,686	4,853	5,957	5,206	5,099	4,792	4,650	4,899	4,650	5,283	4,355	4,099	4,884
Other	1,429	1,437	1,685	1,547	1,364	1,299	1,340	1,438	1,332	1,473	1,271	1,198	1,443
Frozen	15,801	15,668	17,488	14,516	14,817	15,670	15,430	15,965	14,515	14,776	13,314	12,462	14,664
Whole	1,231	1,302	1,421	1,219	1,212	1,168	1,308	1,108	976	1,032	944	877	1,156
Fillets	10,654	10,287	11,651	9,910	10,275	10,349	10,076	10,830	9,674	9,410	8,563	7,970	9,831
Other	3,916	4,079	4,416	3,387	3,330	4,153	4,046	4,027	3,865	4,334	3,807	3,615	3,677
Processor inventory 2/	12,862	12,568	11,921	11,138	10,996	10,313	9,749	10,264	11,588	12,450	13,920	13,598	11,855
Fresh	799	894	788	614	768	759	779	892	757	932	718	538	916
Whole	234	233	203	145	232	212	203	187	151	188	188	116	222
Fillets	460	520	494	399	428	448	462	578	495	591	449	336	586
Other	105	141	91	70	108	99	114	127	111	153	81	86	108
Frozen	12,063	11,674	11,133	10,524	10,228	9,554	8,970	9,372	10,831	11,518	13,202	13,060	10,939
Whole	1,403	1,639	1,552	1,419	1,291	1,620	943	714	527	484	521	661	727
Fillets	7,640	7,498	6,886	6,163	5,596	5,084	5,598	6,200	7,605	8,340	9,624	9,617	7,787
Other	3,020	2,537	2,695	2,942	3,341	2,850	2,429	2,458	2,699	2,694	3,057	2,782	2,425
Prices													
Farm price 3/	0.74	0.79	0.79	0.79	0.79	0.79	0.76	0.74	0.73	0.71	0.70	0.68	0.69
Processor prices	2.35	2.40	2.45	2.45	2.45	2.38	2.39	2.40	2.37	2.33	2.32	2.27	2.32
Fresh	2.21	2.27	2.30	2.28	2.30	2.27	2.27	2.28	2.26	2.26	2.25	2.20	2.20
Whole	1.63	1.67	1.69	1.70	1.68	1.63	1.65	1.70	1.67	1.64	1.62	1.58	1.59
Fillets	2.82	2.87	2.89	2.88	2.88	2.90	2.90	2.88	2.85	2.83	2.83	2.81	2.80
Other	1.66	1.69	1.69	1.66	1.71	1.71	1.72	1.69	1.62	1.68	1.71	1.68	1.64
Frozen	2.44	2.48	2.54	2.56	2.54	2.44	2.46	2.47	2.44	2.38	2.37	2.32	2.40
Whole	2.02	2.06	2.08	2.07	2.06	2.00	2.00	2.01	2.01	1.98	2.02	1.99	1.98
Fillets	2.81	2.86	2.88	2.88	2.86	2.86	2.86	2.82	2.80	2.78	2.74	2.70	2.72
Other	1.55	1.67	1.81	1.81	1.74	1.53	1.60	1.64	1.66	1.59	1.64	1.55	1.67

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

Catfish: Inventory as of January 1, in thousands

State	Broodfish 1999	Broodfish 2000	Broodfish 2001	Fingerlings/fry 1999	Fingerlings/fry 2000	Fingerlings/fry 2001	Stockers 1999	Stockers 2000	Stockers 2001
Alabama	120	138	155	41,220	54,170	57,000	53,470	55,440	60,000
Arkansas	180	260	210	185,000	131,000	167,000	128,000	126,500	95,100
California	21	25	15	1/	5,910	4,350	1/	2,880	2,820
Florida	1/	1/	1/	1,340	1,200	240	1/	410	1/
Georgia	4	6	20	4,840	1/	4,250	1/	2,160	2,050
Illinois	1/	2	2	1/	1/	1/	1/	1/	633
Kentucky	1/	1/	1	1/	180	750	1/	1/	1/
Louisiana	82	1/	1/	68,180	36,600	39,400	33,960	32,400	27,700
Mississippi	650	870	860	653,720	805,000	737,000	450,470	561,500	601,400
Missouri 3/	5	1/	10	13,180	1/	7,400	2,990	1/	4,500
North Carolina	12	8	9	1,760	1,920	1,850	1/	3,840	2,920
Oklahoma 3/	13	0	0	1/	0	0	700	0	0
South Carolina	1/	10	7	1,730	1/	1/	1,060	1/	1/
Tennessee 3/	12	0	0	1/	0	0	587	0	0
Texas	9	16	7	6,150	750	570	730	320	1,025
Other 2/	47	42	31	9,248	16,570	3,723	6,715	5,233	1,039
Total	1,155	1,377	1,327	986,368	1,053,300	1,023,533	678,682	790,683	799,187

State	Small food-size 1999	Small food-size 2000	Small food-size 2001	Medium food-size 1999	Medium food-size 2000	Medium food-size 2001	Large food-size 1999	Large food-size 2000	Large food-size 2001
Alabama	27,170	26,010	32,800	9,970	12,600	13,100	920	510	1,090
Arkansas	26,000	36,900	34,200	14,000	19,500	17,800	1,700	1,800	1,600
California	1,020	870	1,900	1/	840	860	1/	340	380
Florida	400	400	820	200	200	480	1/	1/	1/
Georgia	570	1/	930	125	290	400	25	45	80
Illinois	53	80	68	10	29	1/	3	1/	1/
Kentucky	91	132	192	78	75	93	21	2	49
Louisiana	11,520	11,000	13,900	6,660	7,600	6,500	1,060	670	640
Mississippi	112,740	120,500	150,200	29,720	34,360	46,900	4,710	1,830	2,420
Missouri	630	1,150	1,750	490	590	580	85	130	165
North Carolina	960	1,360	2,570	630	660	900	300	135	140
Oklahoma 3/	57	0	0	1/	0	0	1/	0	0
South Carolina	590	1/	170	150	330	1/	31	1/	1/
Tennessee 3/	20	0	0	61	0	0	30	0	0
Texas	410	340	155	200	75	105	63	50	24
Other 2/	20	1,290	0	755	0	208	318	300	284
Total	182,251	200,032	239,655	63,049	77,149	87,926	9,266	5,812	6,872

1/ Data not published separately to avoid disclosing individual operations. 2/ Included Kansas in 1999.
3/ Discontinued after 1999.

Source: Catfish and Trout Production Report, NASS, USDA.

U.S. trout sales, weight, and value of foodsize fish 1/

State	Total pounds sold 1999	Total pounds sold 2000	Total value of sales 1999	Total value of sales 2000
	-- 1,000 --		-- $1,000 --	
California	2,310	2,360	4,574	4,508
Colorado	774	595	2,020	1,446
Connecticut	20	2/	115	2/
Georgia	317	370	542	729
Idaho	46,000	44,500	37,260	36,935
Maine	2/	2/	2/	2/
Massachusetts	99	102	351	362
Michigan	352	388	859	776
Missouri	2/	2/	2/	2/
New York	93	80	374	329
North Carolina	4,510	3,640	5,728	4,696
Oregon	219	426	394	805
Pennsylvania	1,510	1,677	3,941	4,260
Tennessee	166	159	359	452
Utah	656	464	1,220	858
Virginia	883	758	1,810	1,546
Washington	872	2,100	1,718	2,331
West Virginia	395	346	679	571
Wisconsin	368	502	1,251	1,401
Other 3/	646	697	1,492	1,685
Total	60,190	59,164	64,687	63,690

U.S. trout sales, weight, and value of stockers 4/

State	Total pounds sold 1999	Total pounds sold 2000	Total value of sales 1999	Total value of sales 2000
	-- 1,000 --		-- $1,000 --	
California	163	195	328	396
Colorado	180	300	558	801
Connecticut	2/	2/	2/	2/
Georgia	2/	2/	2/	2/
Idaho	2/	2/	2/	2/
Maine	10	21	85	122
Massachusetts	22	2/	89	2/
Michigan	65	78	174	207
Missouri	2/	2/	2/	2/
New York	63	54	293	245
North Carolina	98	150	141	195
Oregon	40	110	134	528
Pennsylvania	372	319	1,246	1,053
Tennessee	2/	2/	2/	2/
Utah	250	231	450	467
Virginia	69	2/	161	2/
Washington	278	155	678	450
West Virginia	4	16	8	35
Wisconsin	164	99	399	268
Other 3/	402	1,418	732	1,911
Total	2,180	3,146	5,476	6,678

U.S. trout sales, weight, and value of fingerlings 5/

State	Total pounds sold 1999	Total pounds sold 2000	Total value of sales 1999	Total value of sales 2000
	-- 1,000 --		-- $1,000 --	
California	10	10	181	129
Colorado	8	11	64	42
Connecticut	2/	2/	2/	2/
Georgia	2/	2/	2/	2/
Idaho	2/	2/	2/	2/
Maine	4	2/	74	2/
Massachusetts	3	2/	19	2/
Michigan	10	8	80	54
Missouri	2/	2/	2/	2/
New York	3	5	29	41
North Carolina	71	58	261	356
Oregon	2	2	33	32
Pennsylvania	15	14	198	126
Tennessee	2/	2/	2/	2/
Utah	7	38	27	71
Virginia	2	2/	28	2/
Washington	9	52	70	252
West Virginia	2	1	8	5
Wisconsin	13	12	39	63
Other 3/	97	37	287	222
Total	256	248	1,398	1,393

U.S. trout sales, number, and value of eggs 6/

Region 7/	Number of eggs 1999	Number of eggs 2000	Total value of sales 1999	Total value of sales 2000
	-- 1,000 --		-- $1,000 --	
Northeast	1,540	1,127	39	31
South and Central	604	940	13	19
West	309,620	284,770	4,893	3,979
Total	311,764	286,837	4,945	4,029

1/ Foodsize refers to fish 12 inches or greater.
2/ Included in "Other" to avoid disclosure of individual operations.
3/ Includes Arkansas.
4/ Fish between 6 and 12 inches long.
5/ Fish between 1 and 6 inches long.
6/ Data published at a regional level to avoid disclosure of individual operations.
7/ Regions: Northeast - CT, MA, ME, NY, PA, WV. South - AR, GA, NC, TN, VA. Central - MI, MO, WI. West - CA, CO, ID, OR, UT, WA

Source: Catfish and Trout Production report, NASS, USDA.

Quantity and value of U.S. exports of selected seafood products

Commodity	1997	1998	1999	2000	1997	1998	1999	2000
Exports	$1,000				1,000 lb			
Ornamental fish	14,540	10,532	10,834	8,189	0	0	0	0
Trout, live	872	365	340	185	0	0	0	0
Trout, fresh & frozen	2,516	2,165	2,855	2,893	1,709	1,453	1,697	1,816
Atlantic salmon, fresh	18,310	18,993	23,557	34,471	7,504	7,978	10,717	15,942
Pacific salmon, fresh 1/	29,127	44,186	47,989	37,048	25,529	34,645	40,683	38,750
Atlantic salmon, frozen	771	432	458	583	322	243	182	299
Pacific salmon, frozen 1/	251,812	183,874	296,391	273,271	152,516	105,869	157,278	161,515
Canned & pre. salmon 2/	136,187	143,712	198,518	147,127	81,407	77,201	113,556	81,098
Shrimp, frozen	46,826	45,179	60,794	62,891	11,967	11,323	13,607	15,162
Shrimp, fresh & pre. 3/	52,967	48,127	44,444	52,738	14,826	13,882	13,153	14,229
Oysters 4/	6,128	5,941	6,563	7,227	2,890	2,496	2,727	3,229
Mussels 5/	1,401	1,559	2,228	1,681	1,157	1,347	1,861	1,513
Clams 6/	8,909	8,383	8,169	5,649	4,916	5,375	5,240	3,413
Imports	$1,000				1,000 lb			
Ornamental fish	49,311	45,097	38,462	40,761	0	0	0	0
Trout, live	84	81	109	131	0	0	0	0
Trout, fresh & frozen	7,545	9,022	8,504	11,291	5,403	5,670	5,259	7,083
Atlantic salmon, fresh	359,410	461,738	567,977	654,725	150,135	190,131	217,948	257,218
Pacific salmon, fresh 1/	82,143	70,234	51,556	42,633	38,999	38,486	26,467	19,908
Atlantic salmon, frozen	34,926	46,437	60,883	85,658	14,956	19,092	24,222	32,089
Pacific salmon, frozen 1/	27,067	20,355	22,590	20,527	25,662	17,134	16,596	12,866
Canned & pre. salmon 2/	18,615	16,243	23,582	32,021	3,675	3,430	5,627	8,893
Shrimp, frozen	2,558,061	2,727,977	2,612,811	3,035,173	572,111	599,466	617,089	621,231
Shrimp, fresh & pre. 3/	395,530	474,462	524,566	707,565	76,213	95,942	114,191	139,526
Oysters 4/	36,616	35,723	38,350	40,763	14,531	18,049	18,325	20,810
Mussels 5/	24,170	31,413	33,629	47,359	26,903	34,099	34,969	43,141
Clams 6/	5,768	5,705	6,167	7,504	5,703	6,541	7,537	8,074
Tilapia 7/	49,465	52,738	81,897	101,378	53,890	61,336	82,837	89,218

1/ Also contains 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/ Tilapia, frozen whole fish plus fresh and frozen fillets.

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

Quantity of U.S. tilapia imports by country, in pounds

	Whole, frozen			Fillets, fresh			Fillets, frozen			Total		
Country	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
Belize	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	53,038	0	18,519	960,317	1,700,842	2,287,868	102,569	44,246	0	1,115,924	1,745,089	2,306,386
Nicaragua	701	0	0	14,522	25,554	0	48,312	11,720	919	63,534	37,273	919
Costa Rica	7,412	0	0	4,863,987	5,092,941	5,916,899	0	0	0	4,871,399	5,092,941	5,916,899
Jamaica	0	0	0	401,202	387,130	389,218	218,846	105,102	46,660	620,048	492,232	435,878
Colombia	0	0	0	0	6,678	64,824	0	0	0	0	6,678	64,824
Ecuador	68,883	329,312	53,424	1,423,843	3,981,492	7,170,492	175,821	123,852	375,770	1,668,547	4,434,657	7,599,686
Thailand	77,679	104,172	43,155	0	0	0	303,505	253,359	393,492	381,184	357,531	436,647
Indonesia	0	0	5,714	0	0	0	1,951,724	2,527,201	2,685,079	1,951,724	2,527,201	2,690,794
China	959,572	10,891,374	25,621,665	0	83,889	130,997	84,000	1,652,103	3,991,254	1,043,572	12,627,367	29,743,916
Taiwan	46,286,287	48,622,707	35,089,439	187,089	341,186	181,820	2,941,834	6,076,171	3,814,503	49,415,210	55,040,063	39,085,761
Other	21,263	223,593	414,676	62,897	86,059	396,440	117,490	166,141	125,168	201,650	475,792	936,285
Total	47,474,835	60,171,158	61,246,592	7,913,857	11,705,771	16,538,559	5,944,100	10,959,896	11,432,846	61,332,792	82,836,824	89,217,997

Value of U.S. tilapia imports by country

	Whole, frozen			Fillets, fresh			Fillets, frozen			Total		
Country	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
Belize	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	132,566	0	41,303	2,501,822	3,971,944	5,914,932	259,439	57,639	0	2,893,827	4,029,583	5,956,235
Nicaragua	1,875	0	0	40,398	68,216	0	94,786	19,508	2,200	137,059	87,724	2,200
Costa Rica	5,579	0	0	10,265,503	10,654,438	13,583,112	0	0	0	10,271,082	10,654,438	13,583,112
Jamaica	0	0	0	1,212,093	1,122,091	1,205,593	356,876	186,590	86,559	1,568,969	1,308,681	1,292,152
Colombia	0	0	0	0	8,831	154,578	0	0	0	0	8,831	154,578
Ecuador	90,716	538,637	120,703	2,512,811	9,291,048	21,831,348	274,212	272,007	849,799	2,877,739	10,101,692	22,801,850
Thailand	48,489	60,047	30,759	0	0	0	873,409	552,560	858,058	921,898	612,607	888,817
Indonesia	0	0	7,349	0	0	0	4,258,091	5,551,407	6,183,550	4,258,091	5,551,407	6,190,899
China	437,364	6,342,190	13,654,567	0	55,590	287,410	217,510	3,026,096	7,090,948	654,874	9,423,876	21,032,925
Taiwan	23,002,925	26,808,791	19,570,564	449,110	437,747	325,537	5,447,635	12,324,971	7,794,830	28,899,670	39,571,509	27,690,931
Other	9,548	117,190	275,459	69,405	231,349	1,152,333	177,854	198,082	356,362	256,807	546,621	1,784,154
Total	23,729,062	33,866,855	33,700,704	17,051,142	25,841,254	44,454,843	11,959,812	22,188,860	23,222,306	52,740,016	81,896,969	101,377,853

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

Quantity of U.S. Atlantic salmon imports by country, in pounds

Country	Fresh 1998	Fresh 1999	Fresh 2000	Frozen 1998	Frozen 1999	Frozen 2000	Fillets 1/ 1998	Fillets 1/ 1999	Fillets 1/ 2000	Total 1998	Total 1999	Total 2000
Canada	81,871,366	85,931,490	89,325,529	8,552	13,234	45,459	8,735,436	12,203,133	17,391,424	90,615,354	98,147,857	106,762,411
Chile	16,643,831	6,363,208	8,923,059	1,831,635	1,776,356	2,970,851	81,134,937	84,200,352	127,397,970	99,610,402	92,339,916	139,291,879
Iceland	2,839,935	7,151,972	2,845,495	0	0	0	186,408	874,613	160,274	3,026,343	8,026,585	3,005,769
Norway	150,795	979,857	650,670	3,538,090	4,932,949	6,423,479	3,071,923	14,912,320	11,209,075	6,760,807	20,825,126	18,283,224
Faroe Islands	0	2,136,390	5,240,429	840,722	1,541,181	360,948	9,195	164,190	329,081	849,917	3,841,760	5,930,458
United Kingdom	5,585,039	11,763,419	12,054,451	48,234	82,864	57,593	1,069,090	4,850,717	2,562,563	6,702,363	16,697,001	14,674,607
Other	209,971	289,080	323,179	1,177,283	1,345,216	785,065	265,828	657,209	249,971	1,653,082	2,291,505	1,358,214
Total	107,300,935	114,615,415	119,362,811	7,444,515	9,691,801	10,643,394	94,472,818	117,862,535	159,300,357	209,218,268	242,169,750	289,306,563

Value of U.S. Atlantic salmon imports by country

Country	Fresh 1998	Fresh 1999	Fresh 2000	Frozen 1998	Frozen 1999	Frozen 2000	Fillets 1/ 1998	Fillets 1/ 1999	Fillets 1/ 2000	Total 1998	Total 1999	Total 2000
Canada	199,571,723	221,139,393	219,321,871	35,374	81,479	71,362	30,948,682	46,272,636	64,057,623	230,555,779	267,493,508	283,450,856
Chile	30,659,592	12,869,576	17,088,534	4,623,855	4,450,614	7,265,531	202,636,829	224,719,311	332,854,757	237,920,276	242,039,501	357,208,822
Iceland	4,948,331	12,445,344	5,661,438	0	0	0	619,675	2,023,767	588,370	5,568,006	14,469,111	6,249,808
Norway	277,193	1,808,768	1,225,479	7,207,670	9,185,791	12,916,553	9,709,929	45,452,333	37,114,524	17,194,792	56,446,892	51,256,556
Faroe Islands	0	3,637,128	9,721,636	1,493,023	2,571,301	695,389	37,504	576,067	933,317	1,530,527	6,784,496	11,350,342
United Kingdom	9,739,904	23,471,879	22,047,035	150,578	141,626	67,896	2,409,490	13,040,236	6,941,893	12,299,972	36,653,741	29,056,824
Other	528,987	595,891	623,205	2,162,424	2,722,994	1,569,830	380,182	1,654,398	616,660	3,071,593	4,973,283	2,809,695
Total	245,725,730	275,967,979	275,689,198	15,672,924	19,153,805	22,586,561	246,742,291	333,738,748	443,107,144	508,140,945	628,860,532	741,382,903

1/ Includes both fresh and frozen fillets.

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

Quantity of U.S. shrimp imports by country, in 1,000 pounds

Country	Frozen 1998	Frozen 1999	Frozen 2000	Fresh 1998	Fresh 1999	Fresh 2000	Other 1998	Other 1999	Other 2000	Total 1998	Total 1999	Total 2000
Mexico	77,474	76,632	63,752	609	606	302	36	24	44	78,120	77,263	64,097
Ecuador	141,805	110,956	40,939	7	0	0	490	185	1,162	142,302	111,141	42,101
India	38,058	43,039	56,739	673	207	374	5,695	4,863	5,443	44,425	48,109	62,556
Bangladesh	35,912	19,224	22,520	5	0	4	2	66	12	35,919	19,291	22,536
Thailand	136,102	164,870	178,089	516	412	373	66,788	87,151	100,305	203,407	252,433	278,767
Indonesia	31,116	33,636	34,240	215	17	222	2,366	1,682	2,480	33,697	35,336	36,942
Philippines	3,300	2,874	3,436	35	29	3	580	712	688	3,916	3,614	4,126
China	14,457	17,974	38,373	153	604	931	813	924	827	15,422	19,502	40,130
Others	121,249	147,884	183,143	4,585	1,474	1,061	12,382	15,234	25,297	138,216	164,592	209,501
Total	599,473	617,089	621,231	6,800	3,349	3,269	89,151	110,842	136,256	695,424	731,280	760,756

Value of U.S. shrimp imports by country, in $1,000

Country	Frozen 1998	Frozen 1999	Frozen 2000	Fresh 1998	Fresh 1999	Fresh 2000	Other 1998	Other 1999	Other 2000	Total 1998	Total 1999	Total 2000
Mexico	380,181	383,689	401,867	2,142	2,265	1,044	195	150	104	382,517	386,104	403,014
Ecuador	570,296	402,342	186,348	33	0	0	1,718	589	4,044	572,047	402,932	190,393
India	124,396	148,230	222,211	9,730	2,285	4,573	16,721	10,242	12,797	150,847	160,758	239,582
Bangladesh	90,829	111,927	145,211	7	0	5	12	301	92	90,847	112,228	145,307
Thailand	715,029	768,197	944,880	2,961	4,323	3,415	370,072	424,453	550,058	1,088,062	1,196,972	1,498,353
Indonesia	174,037	159,062	179,258	1,367	120	630	13,335	8,146	10,839	188,739	167,327	190,727
Philippines	19,441	16,599	22,286	20	17	12	612	719	593	20,073	17,335	22,891
China	33,489	45,123	127,837	677	3,250	6,974	1,770	899	1,641	35,936	49,272	136,451
Others	530,255	577,642	819,865	5,879	3,367	3,086	47,210	64,510	107,658	583,343	645,519	930,609
Total	2,637,952	2,612,811	3,049,763	22,816	15,627	19,738	451,644	510,008	687,827	3,112,411	3,138,447	3,757,328

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