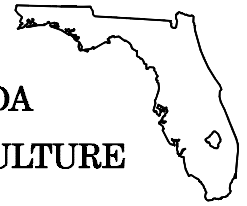




Florida Agricultural Statistics Service  
 1222 Woodward Street  
 Orlando, Florida 32803  
 407 / 648-6013

<http://www.nass.usda.gov/fl>

# AQUACULTURE



**FLORIDA**  
**AGRICULTURE**

June 2000

## FLORIDA AQUACULTURE SALES TOTAL \$86 MILLION IN 1999

Florida producers of aquaculture products reported sales totaling \$86 million dollars in a survey conducted by the Florida Department of Agriculture. This survey has been conducted every other year since 1988, which showed sales of aquacultural products in 1987 of \$35 million. Sales had increased steadily, reaching a high of \$102 million in 1997. Producers sold \$79 million in aquacultural products during 1995 and \$73 million in 1993. The decrease in sales from the previous survey was primarily in sales of tropical fish, especially live-bearers. There were about 7,585 acres of land, including water surface area, devoted to aquaculture production in 1999. Aquatic species identified in the survey were tropical (ornamental) fish, catfish, alligators, oysters, clams, sport and game fish, crawfish, eels, tilapia, shrimp, aquatic plants and other minor aquatics. All sales figures in this report represent farm gate sales of aquatics produced by Florida growers and exclude harvest from open waters or the wild. The sales reported here also exclude value of imports and purchases from other Florida producers for immediate resale.

There were 712 active producers of which 623 reported sales in 1999. Tropical fish continued to dominate Florida's aquaculture industry, although contributing a smaller percentage of total sales than in previous years. There were 178 active growers of tropical fish accounting for \$43.2 million, representing 50 percent of total sales, compared to 67 percent in 1997. Sales of clams and clam seed continued to increase, amounting to \$15.9 million from 351 producers in 1999, compared to 12.7 million from 318 producers in 1997. There were 43 producers of aquatic plants with sales of \$13.7 million in 1999, compared to \$13.2 million in 1997. Other shellfish (primarily shrimp) amounted to \$6.0 million in sales, compared to \$9.3 million in 1997. Alligator sales increased slightly to \$3.4 million from 32 active growers. Sport and game fish sales totaled \$629 thousand, compared to \$1.0 million in 1997. Sales of tilapia also decreased to \$881 thousand from \$1.0 million in the previous survey. Catfish sales totaled \$1.2 million from 58 producers in 1999, up from \$640 thousand in the previous survey.

In addition to the active producers with sales in 1999, the survey identified 47 potential new growers with intentions to produce aquacultural products for sale in 2000 or later. In recent years, the number of producers has been increasing, due in part to training programs in clam production in the Cedar Key and Charlotte County areas. That increase has slowed somewhat, although potential new growers were reported for clams, tilapia, tropical fish, and catfish.

Aquaculture continues to be a major industry in Florida. Survey results indicate potential for slight increases in production of tilapia, catfish, and clams. Tropical fish production is a mainstay in Florida, and the decreased sales in 1999 is not expected to be repeated. The aquaculture industry in Florida benefits from a mild climate and vast waterways. Continued growth and development will depend on the success of producers in obtaining finances, solving production problems, and developing new markets.

<b>AQUACULTURE VALUE OF SALES</b>		
<b>Florida - 1999</b>		
	<b>Net Sales</b>	<b>% of Total</b>
1. Tropical Fish . . . . .	\$43,184,000	50.4
2. Clams . . . . .	\$15,920,000	18.6
3. Aquatic Plants . . . . .	\$13,650,000	15.9
4. Other Shellfish . . . . .	\$6,372,000	7.5
5. Alligators . . . . .	\$3,352,000	3.9
6. Catfish . . . . .	\$1,190,000	1.4
7. Tilapia . . . . .	\$881,000	1.0
8. Sport & Game Fish . . . . .	\$629,000	0.7
9. Other Aquatics . . . . .	\$453,000	0.6

## TROPICAL FISH SALES DECLINE TO \$43.2 MILLION

Net sales of tropical fish totaled \$43.2 million from 178 growers during 1999, down \$14.0 million from 1997. The first survey showed sales at only \$21.7 million in 1987. Sales of egg layers amounted to \$30.3 million while sales of livebearers totaled \$12.9 million. Most of the decrease is from sales of livebearers; production and sale of egg layers has remained mostly steady since 1991. Egg layers imported for immediate resale were valued at \$1.6 million in 1999 while the value of livebearer imports was \$0.37 million. Purchases from other growers totaled \$8.5 million in 1999. Of the 48.2 million square feet of water surface area used to produce tropical fish, 69 percent was used for egg layers and 31 percent was used for livebearers, a significant switch from the results of the previous survey. The livebearers market has been weak.

Some of the more prominent species of tropical fish sold commercially for ornamental use are guppies, mollies, swordtails, variatus, platies tetras, gouramies, goldfish, cichlids, barbs, and tropical catfish. Tropical fish production is centered in Hillsborough and Polk counties with smaller concentrations in Dade and Palm Beach counties. Current growers expect to use less water surface area this year than they used in 1999 and the survey identified eight potential new producers tropical fish this year or later.

<b>TROPICAL FISH AND AQUATIC PLANTS Florida 1999</b>				
Specie	Number of Growers	Water Surface		Value of Sales
		1999	2000 <sup>1/</sup>	
		1,000 sq ft		\$1,000
<b>Tropical Fish</b>	178 <sup>2/</sup>	48,237	46,890	\$43,184
Egg Layers	148	33,474	32,175	\$30,256
Livebearers	89	14,763	14,715	\$12,928
<b>Aquatic Plants</b>	43	13,484	13,549	\$13,650

<sup>1/</sup> Includes area only for growers having sales in 1999; area expected to be used in 2000.

<sup>2/</sup> Some producers with both egg layers and livebearers.

## AQUATIC PLANT SALES TOTAL \$13.7 MILLION

Net sales from 43 growers of aquatic plants reached \$13.7 million during 1999 compared with sales of \$13.2 million reported by 59 growers in 1997. Aquatic plants include plants for aquariums and farm-produced plants used in wetland restoration. Sales also include watercress production for food. Sales do not include harvest from the wild or resales of plants purchased from other growers. Value of aquatic plants for aquariums and farm plants used in wetland restoration have held steady. The survey identified two potential new growers of aquatic plants in 2000.

## CLAM SALES RISE TO \$15.9 MILLION

Sales of clams produced by Florida growers totaled \$15.9 million in 1999, up from \$12.7 million in 1997. The 351 active growers sold 134 million clams in 1999 and averaged 11.4 cents per mature clam sold. The Cedar Key area is the dominant clam producing area. Brevard and Indian River counties continue to provide a good volume of clams. Charlotte County is expected to provide additional production this year, resulting in an increase statewide.

Seeding in 2000 is expected to increase significantly to 422 million clams if intentions materialize. Survival rate to harvest was reported to average 53 percent in 1999, down from 67 percent in 1997. Adverse weather conditions from storms continue to take its toll on clam production. The survival rate will improve significantly in 2000 if there are no storms and predators can be controlled. A multi-county extension agent in the Big Bend area has provided producers with a resource for training and assistance. Clam hatcheries are providing good "seed" clams for growers.

The survey indicated 14 potential new growers expecting to produce clams in 2000 or later. Production has centered along the east central coastal counties, but in recent years, graduates of "PROJECT OCEAN" and "PROJECT WAVE" at Cedar Key harvested a significant volume of clams off the coast of Dixie and Levy Counties.

<b>CLAMS PLANTED BY YEAR Florida</b>		
Year Planted	Number of Clams	Survival to Harvest
1998	227,546,000	67%
1999	284,698,000	53%
2000 (intentions)	421,925,000	--

## CATFISH SALES INCREASE TO \$1.19 MILLION

During 1999 catfish sales totaled \$1.19 million from 58 growers using 680 acres of water surface. These growers expect to use 705 acres in 2000. By comparison, sales reported by 42 growers in 1997 amounted to \$637 thousand. The survey indicated 3 potential new producers with intentions to produce catfish in 2000. Catfish production is concentrated in north Florida and the Panhandle.

Catfish sold for food in 1999 totaled 1,352,500 pounds, up sharply from the 434,269 pounds sold for food in 1997. Value of sales for food in 1999 was \$998,000. The average price was \$0.94 per pound, 15 cents per pound more than in 1997. Growers received \$192,000 from sales of fingerlings and stocker size fish in 1999.

## OYSTER SALES TOTAL \$329 THOUSAND

During 1999, Florida growers sold oysters valued at \$329 thousand, down from \$366 thousand in 1997. Most growers do not seed oysters. They spread shells in leased areas and wild oyster spat falls on the prepared beds. In such a case growers cannot determine the survival rates. Storms continue to pose problems and lead to reduced harvest.

## ALLIGATOR SALES RISE TO \$3.35 MILLION

Combined sales of alligator hides and meat during 1999 increased to \$3.35 million compared with \$3.19 million in 1997. Twenty-six growers sold 27,500 hides at an average price of \$96 per hide, for a total value of \$2.64 million. The value per hide declined 21 percent from the average of \$122 in 1997. Producers also sold 131,591 pounds of meat at an average of \$5.40 per pound, for a total of \$0.71 million. The 32 active growers reported a total inventory of live gators at 112,288 as of February 1, 2000. This compares with 91,786 on hand February 1, 1999. Some hides were harvested but not sold due to relatively low hide prices.

COMMERCIAL ALLIGATOR INVENTORY By Type - Florida		
	2/1/98	2/1/00
Number of producers . . .	26	32
<b>Total alligators</b> on hand	91,786	112,288
Brood Stock . . . .	4,043	6,815
Hatchlings . . . . .	33,484	35,812
All Other . . . . .	54,259	69,661

## TILAPIA SALES DECLINE TO \$881 THOUSAND

During 1999, 29 producers of tilapia reported sales of \$881 thousand compared to \$1.07 million reported by 27 producers in 1997. Growth is expected to be steady or show a slight increase. There are potentially eight new growers expecting to start producing tilapia in 2000.

## SPORT AND GAME FISH SALES TOTAL \$629 THOUSAND

Sales from sport and game fish dropped to \$629 thousand in 1999, compared to \$1.04 million in 1997. There were 16 growers who reported sales in 1999. Survey results indicate three potential new producers expecting to start production in 2000.

## OTHER AQUATICS DECLINE TO \$6.50 MILLION

During 1999, sales of other aquatics totaled \$6.50 million, down sharply from \$12.1 million in 1997. Other aquatics include crawfish, fresh water shrimp, eels and other minor aquatics. Production came from 120 acres of water surface used by 27 growers. The survey identified six potential new producers of some of the above mentioned items in 2000 or later.

CATFISH, ALLIGATORS, CLAMS, OYSTERS, AND OTHER AQUATICS - Florida 1999				
Specie	Number of Growers	Water Surface		Value of Sales
		1999	2000 <sup>1/</sup>	
		Acres		\$1,000
<b>Catfish</b>	58 <sup>2/</sup>	680	705	\$1,190
Food	48	583	600	\$998
Other	13	97	105	\$192
<b>Alligators</b>	34	288	288	\$3,352
Hides				\$2,642
Meat				\$710
<b>Clams</b> <sup>3/</sup>	351	1,086	1,126	\$15,920
<b>Oysters</b>	5	71	71	\$329
<b>Sport/Game fish</b>	16	89	89	\$629
<b>Tilapia</b>	29	2,092	2,332	\$881
<b>Other Aquatics</b>	27	120	122	\$6,496

<sup>1/</sup> Includes area only for active growers in 1999; area expected to be used in 2000.

<sup>2/</sup> Some producers with both food and other.

<sup>3/</sup> Includes a small amount of seed clams.

## LIVE ROCK PRODUCTION CONTINUES

Live rock production continues to be a viable segment of the aquaculture industry in Florida. Survey results indicate at least seven producers of live rock, with sales exceeding 60,000 pounds and \$300 thousand.

## AQUACULTURE LABOR

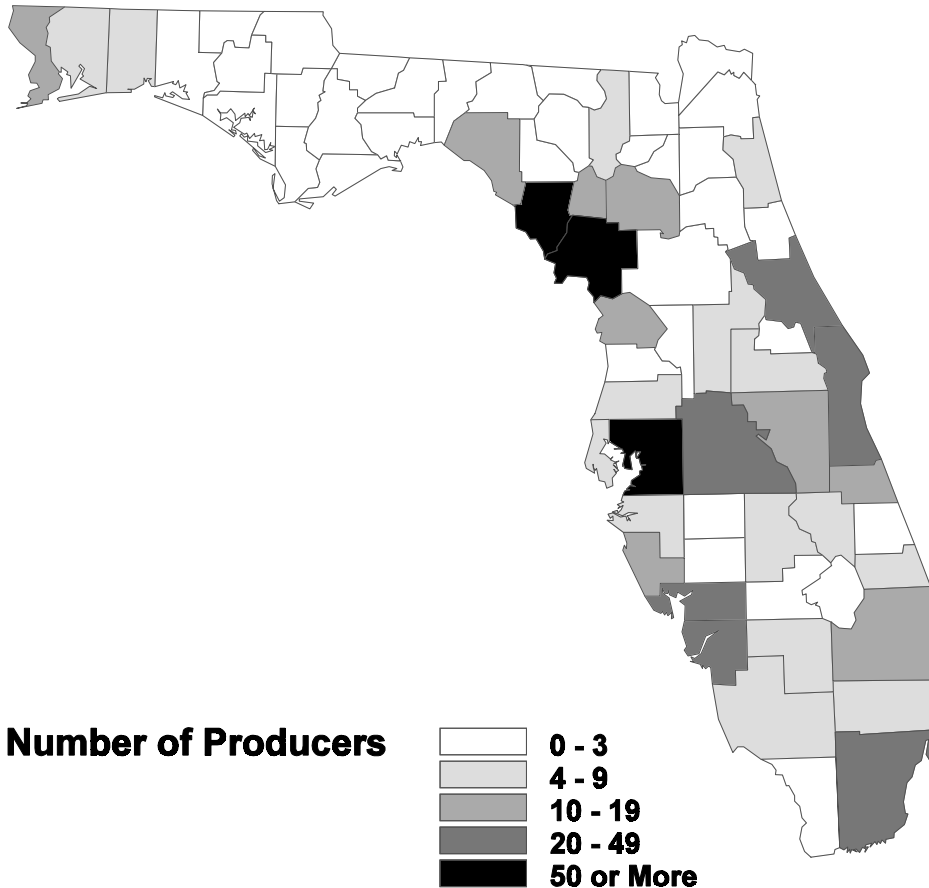
Florida aquaculture operators reported working an average of 30 hours per week on their operations during 1999. This compares with 32 hours per week for 1997. Operators in Hillsborough County, the county with the heaviest concentration of tropical fish, averaged 49 hours per week, down from 54 hours in 1997. Levy County, with a heavy concentration of clam producers, averaged 28 hours during 1999. Dixie County, with the second largest clam concentration, averaged 15 hours per week compared with 13 hours in 1997.

Aquaculture producers employed 900 full-time workers and 372 part-time workers in 1999. This compares with 1,061 full-time and 442 part-time workers in 1997.

In addition there were 443 unpaid workers, primarily family members, reported in the survey. This compares with 446 unpaid workers reported in the survey for 1997.

<b>AQUACULTURE LABOR REQUIREMENTS Florida 1999</b>		
	Farms	Workers
Unpaid	308	443
Paid - Full Time	138	900
Paid - Part Time	168	372

## ACTIVE AQUACULTURE PRODUCERS Florida, 1999



**Total: 712**