



FLORIDA
AGRICULTURAL
STATISTICS SERVICE
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AQUACULTURE

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FLORIDA AGRICULTURE

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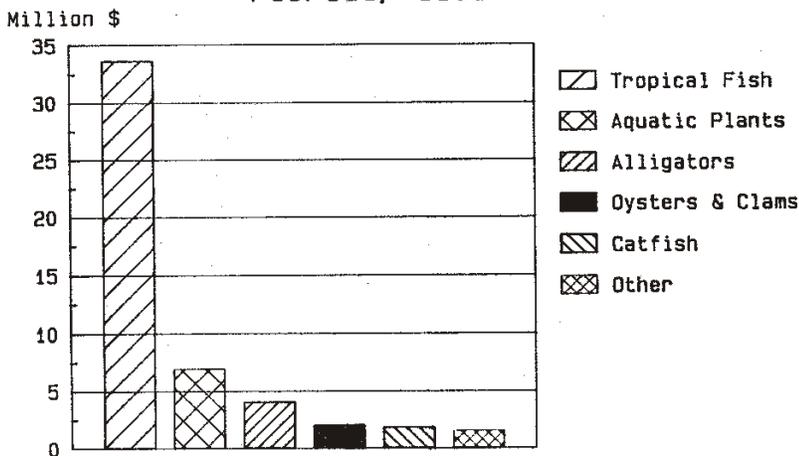
FLORIDA AQUACULTURE SALES TOTAL \$51 MILLION IN 1989

Results of a recent survey conducted by the Florida Department of Agriculture revealed that Florida growers sold \$51 million in aquacultural products during 1989. This compares with \$35 million shown by a similar survey in 1987. There were about 8,100 acres of land, including water surface area, devoted to aquacultural production in 1989. Major species included in the survey were tropical (ornamental) fish, catfish, alligators, oysters, clams, sport and game fish, crawfish, eels, tilapia, other shellfish, aquatic plants, and other minor aquatics. The value is based on farm gate sales of aquatics produced by Florida growers and excludes harvest from open waters or the wild. Growers sold another \$5.8 million worth of tropical fish which they imported for immediate resale. All statistics shown in the tables are for net Florida production and value and exclude imports and purchases from other producers for immediate resale.

There were 400 active producers with sales in 1989. The tropical fish segment as in 1987, continued to dominate Florida's aquacultural industry. There were 193 active growers of tropical fish accounting for \$33.7 million, nearly two-thirds of total 1989 sales. Aquatic plants with 44 growers and \$7.0 million net sales were second in value. Alligators with 32 active growers contributed \$4.5 million. Oysters and clams valued at \$2.1 million were sold by 65 growers. Seventy catfish growers contributed \$1.9 million. All other aquatic sales totaled \$1.6 million from 29 growers.

The survey also identified 104 others expecting to produce aquacultural products for sale in 1990 or later. The largest increase is expected in catfish with 32 new growers, followed by clams with 21 additional growers. There are 9 new tropical fish growers and 5 new alligator producers with intentions to have sales in 1990. Among other species there are 37 other operations expected to have aquatic production for the first time in 1990 or later.

Aquaculture Value of Sales
Florida, 1989



Based on survey findings, production of catfish, alligators, oysters, and clams will show slight increases in 1990. Tropical fish production is already well established in Florida, with orderly growth expected to continue this year. Overall, the aquacultural industry will likely continue substantial growth and development in Florida, with its mild climate and vast waterways. However, hinderances to expansion were reported by some growers including difficulties in obtaining finances, frustrations with government regulations, no market for production, and problems with pilferage.

TROPICAL FISH SALES REACH \$33.7 MILLION IN 1989

Net sales from both egg layers and livebearers totaled \$33.7 million from 193 growers during 1989, up \$12 million from 1987. Egg layers contributed \$22.0 million in net value while livebearers totaled \$11.7 million. Egg layers imported for immediate resale were valued at \$2.8 million, while the value of livebearer imports was \$2.9 million. Net values do not include value of imports or value of purchases from other growers. Producers used 49.6 million square feet of water surface area. Fifty-eight percent of the water surface was used for growing livebearers and the remaining 42 percent was for egg layers.

Tropical fish includes both egg layers and livebearers sold commercially for ornamental use. Some of the more prominent species are guppies, mollies, swordtails, variatus, platies, tetras, gouramies, goldfish, cichlids, barbs, tropical catfish, and many others. Fish harvested from the wild are not included in this survey.

Tropical fish production is centered in Hillsborough and Polk counties with smaller concentrations in Dade and Palm Beach counties. Current growers expect to use 2 percent more water surface area this year than they used in 1989. In addition there are 9 new growers expecting to produce tropical fish this year or later.

AQUACULTURE SALES OUTLETS

Three-fourths of the egg layer tropical fish were sold to wholesale/broker type firms or to other producers. Another 21 percent of the egg layers were sold to retailers. Over 72 percent of the livebearing tropical fish were sold to wholesalers or to other producers, while 27 percent of the livebearers were sold directly to retailers.

Over 67 percent of aquatic plants were sold to wholesale firms while 20 percent were sold direct to consumers. Clam sales to wholesalers, processors etc. totaled 92 percent. On the other hand, 69 percent of the oysters were sold to retailers and only 21 percent were sold to wholesalers. Fifty-nine percent of the alligator hides were sold to processors (tanners).

Over half of the catfish sold for food went to processors while over 36 percent were sold through other outlets which include wholesalers and for fee fishing. About 83 percent of the fingerlings, stockers, etc. were sold to other producers.

AQUATIC PLANTS TOTAL \$7.0 MILLION IN 1989

Sales from aquatic plants reached \$7.0 million during 1989. These sales were made by 44 growers. This compares with sales of \$6.7 million reported by 33 growers in 1987. Aquatic plants include plants for aquariums, watercress for food, and farm produced plants used in wetland restoration. Sales do not include harvest from the wild. Based on growers intentions, 9 new growers are expected to produce aquatic plants in 1990.

TROPICAL FISH AND AQUATIC PLANTS, FLORIDA, 1989

Species	Number of growers	Water surface 1989	Water surface 1990 ^{1/}	Value of sales 1989
	Number	1,000 sq. feet	1,000 sq. feet	1,000 dollars
Egg Layers	151	20,617	20,802	22,006
Livebearers	128	29,024	30,077	11,665
Total				
Tropical Fish	193 ^{2/}	49,641	50,879	33,671
Aquatic Plants	44	9,806	9,781	7,033

1/ Includes area only for growers having sales in 1989.
2/ Total reflects some growers with both egg layers and livebearers.

PERCENT OF SALES BY OUTLET, BY SPECIE, FLORIDA, 1989

Species	Other producers	Re-tailers	Consumers	Processors	All 1/ others	All types
	Percent	Percent	Percent	Percent	Percent	Percent
Tropical fish:						
Egg layers	21.4	20.6	3.2	--	54.8	100.0
Livebearers	20.7	27.4	0.2	--	51.7	100.0
Aquatic plants						
plants	8.2	5.0	19.7	--	67.1	100.0
Clams	1.7	4.5	2.3	40.8	50.7	100.0
Oysters	2.7	69.3	2.6	4.6	20.8	100.0
Alligators (hides)	--	6.2	--	59.0	34.8	100.0
Catfish:						
Food	1.1	6.6	3.8	52.0	36.5	100.0
Other	82.6	8.7	--	--	8.7	100.0

1/ Wholesalers, brokers, etc.

CATFISH PRODUCTION GAINS--TOTALS \$1.9 MILLION

During 1989, catfish sales totaled \$1.9 million from 70 growers. Catfish were produced from 800 acres of water surface. These same growers expect to reduce water area to 672 acres for production in 1990. In addition, there are 32 other growers with intentions to produce catfish in 1990 including several coming into production later. For comparison, sales reported by 55 growers in 1987 amounted to \$1.6 million. Catfish production is concentrated in north Florida and the Panhandle.

Catfish sold for food in 1989 totaled 1,322,595 pounds. This is nearly double the 695,000 pounds sold for food in 1987. Value of sales for food in 1989 was \$1.5 million for an average price of \$1.14 per pound. The remaining \$398,000 was received from sales of fingerling and stocker size fish.

ALLIGATOR SALES REACH \$4.5 MILLION

Sales of alligators during 1989 totaled \$4.5 million from both hides and meat. Thirty-two growers sold over 16,000 hides for an average price of \$219 per hide or a total of \$3.5 million. Number of alligators sold have doubled and the value has increased even more from the \$1.7 million total from hides and meat in 1987. Producers also sold 176,000 pounds of meat, about 11 pounds per gator, for an average of \$5.71 per pound or a total of \$1.0 million. Averages are based on unrounded data. There are 5 new operators who expect to produce alligators in 1990 or later.

The 32 active growers reported a total inventory of nearly 92,000 on February 1, 1990. This suggests continued growth in alligator sales.

COMMERCIAL ALLIGATOR INVENTORY BY AGE, FLORIDA, FEBRUARY 1, 1990

Growers	: Under one year old	: One to two years old	: Over two years old	: Total
Number				
32	36,441	30,385	25,021	91,847

OYSTER SALES TOTAL \$1.1 MILLION

During 1989, Florida growers sold oysters valued at \$1.1 million. There were 74,459 bushels of oysters sold by 24 producers. The average price was \$14.33 per bushel. In addition, 11 other producers were expecting to begin production in 1990 or later. This will help to increase oyster production in Florida. According to the National Marine Fisheries Service, \$3.8 million worth of oysters were harvested from open or public waters off the coast of Florida in 1989. Seeding of oysters is expected to gain. Survival of seeds to harvest averaged 75.0 percent.

CLAM PRODUCTION AMOUNTS TO \$1.0 MILLION

During 1989, sales of clams produced by Florida growers totaled \$1.0 million. The 41 growers sold 5,877,000 clams for an average of 17.6 cents per clam. There are 21 additional growers expecting to produce clams in 1990 or later. The National Marine Fisheries Service reports sales, including both grower produced and open water harvest, of \$2.1 million in 1989. Production is centered along the east central and north-east coastal counties.

Seeding of clams is active. Intentions to seed in 1990 are expected to increase sharply. Survival rate to harvest was reported to average about 58 percent.

NUMBER OF CLAMS AND OYSTERS SEEDED BY YEAR SEEDED, FLORIDA

Year seeded	Clams	Oysters 1/
Thousands		
1988	16,461	28
1989	23,579	468
1990 intentions	74,100	787

Survival to harvest	Percent	
	57.9	75.0

1/ Many growers do not seed oyster beds. They spread shells around in the leased area and oysters from the wild lay eggs on the shells. Thus, the relatively low amount is reported as seeded.

OTHER AQUATICS TOTAL \$1.6 MILLION

During 1989, sales of other aquatics totaled \$1.6 million. Other aquatics include crawfish, sport or game fish, fresh water shrimp, eels, tilapia, and other minor aquatics. Production came from 2,961 acres of water surface used by 29 growers. There are 17 new growers expecting to produce some of the above items in 1990 or later.

CATFISH, ALLIGATORS, OYSTERS, CLAMS, AND OTHER AQUATICS, FLORIDA, 1989

Specie	Number of growers	Water surface 1989	Water surface 1990 ^{1/}	Value of sales 1989
		Acres		1,000 dollars
Catfish:				
Food	61	596	567	1,503
Other	15	204	105	398
Total	70^{2/}	800	672	1,901
Alligators:				
Hides	--	--	--	3,529
Meat	--	--	--	1,007
Total^{3/}	32	406	443	4,536
Oysters	24	1,114	1,117	1,067
Clams	41	276	335	1,031
Other Aquatics	29	2,961	3,030	1,580
Total	196	5,557	5,597	10,115

1/ Includes area only for growers having sales in 1989. 2/ Total reflects some growers with both food type and other. 3/ Hides and meat were sold by all growers.

