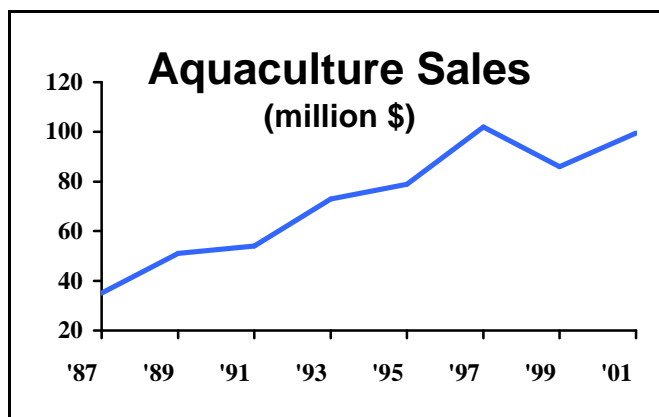


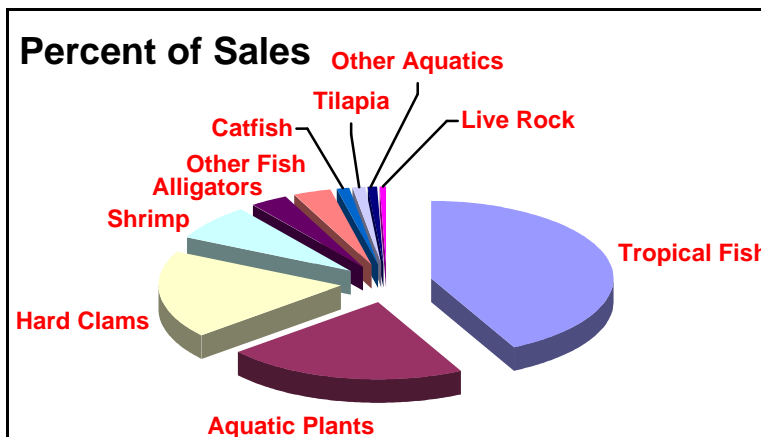


## Florida Aquaculture Continues to Grow

The Florida Department of Agriculture and Consumer Services and Florida Agricultural Statistics Service have released the 2001 production year aquaculture sales, farm number, labor and production figures. Total sales were \$99.5 million from 531 operations. This is 16 percent higher than the \$86 million reported in 1999 and is the second highest sales year since the survey was first conducted for production year 1987 when sales were \$35 million.



The leading segment of the industry continues to be tropical fish, which accounted for 43 percent of total sales. Aquatic plants ranked second with 21 percent and hard clams ranked third with 18 percent.



There were 684 farms in operation during 2001 and 531 reported sales for this survey. Twenty new producers reported they will be selling products in 2002.

The complete survey can be found at <http://www.nass.usda.gov/fl> or to request a copy via mail or fax, contact Ceda Rudd at 850-488-4033 or [ruddc@doacs.state.fl.us](mailto:ruddc@doacs.state.fl.us).

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## Foreign Practices can Impact Florida Farms

Florida farmers should adopt certain commonsense business practices as the globalization of trade creates cost reduction pressure on producers of goods, products and live species around the world.

The Food and Drug Administration has increased the sampling of imported shrimp and crawfish for the presence of chloramphenicol. FDA is taking this action because low levels of chloramphenicol have been detected by some states (including Florida) and other countries in imported shrimp and crayfish.

Chloramphenicol is a potent, broad-spectrum antibiotic drug used only at therapeutic doses for treatment of serious infections in humans. Due to the unpredictable effects of dose on different patient populations, it has not been possible to identify a safe level of human exposure to chloramphenicol. Therefore, Federal regulations prohibit its use in food producing animals, animal-feed products and food for human consumption.

Following the appearance of koi herpes virus in Europe and the United States during the late 90's, the Indonesia government recently reported a serious disease outbreak among koi carp and common carp (*Cyprinus carpio*) occurring in Indonesia, having started in the area of Blitar in East Java in mid-April. Since then, the disease has spread rapidly throughout Java Island, causing very high mortality (80-90 percent) in both common carp and koi carp, with an estimated loss of more than \$5 million. Preliminary investigations conducted by the Fish Health Officers from the Indonesian Ministry of Marine Affairs and Fisheries, suggest a viral infection based on the pattern of outbreak and the clinical signs characteristic of koi herpes virus.

These recent discoveries of chloramphenicol and koi herpes virus are clear signals that Florida producers should be vigilant when importing from unfamiliar sources. Use commonsense when importing: purchase from familiar sources or thoroughly investigate the seller before buying, develop product specifications that include drug or disease prohibitions, frequently visit the Florida Department of Agriculture and Consumer Services (<http://web.doacs.state.fl.us/>) or FDA (<http://www.fda.gov/>) web sites for drug and disease alerts, and contact Dr. Denise Petty of the Department's Division of Animal Industry for current aquatic animal health information and assistance (407-846-5200 or [pettyb@doacs.state.fl.us](mailto:pettyb@doacs.state.fl.us)).

## HAB Seminars Bring Info to Farmers

Seminars were recently held in Cocoa and Port Charlotte to bring information to clam producers on harmful algae blooms (HABs) and their impacts. HABs pose a very real problem for producers on both Florida's east and west coasts. Macroalgae (drift algae) can cover crops and result in oxygen poor environments. Red tide algae exist throughout the state, but are a chronic problem for producers on Florida's southwest coast. Long-term closures have been devastating to the industry.

Speakers for the seminars were invited to give the practical results of their experience studying harmful algae blooms. These seminars were funded through a grant from the USDA Risk Management Agency enabling us to bring in speakers from other states. The goal of the program was to bring additional information to clam producers to better enable them to deal with HABs and their impacts.

Dr. Peter Barile of Harbor Branch Oceanographic Institution discussed the linkages between water quality, macroalgal blooms and clam culture. He showed the increased incidences of these blooms and indicated that the most direct way to control the blooms is to improve water quality in the Indian River region (or any region with declining water quality) by reducing the input of nutrients from land-based sources.

Dr. Sandy Shumway from the University of Connecticut has traveled extensively working with shellfish producers impacted by HABs. Her presentation gave an overview of how producers worldwide deal with these blooms. Her message to Florida producers was that people across the world are impacted by HABs but they have found ways to deal with the problem and are successful producers.



Other speakers discussed the potential and problems associated with control measures for red tide (Dr. Marion Sengco from Woods Hole Oceanographic Institution) and results of work to find the source of a hatchery mortality event (Drs. Bill Arnold and Steve Geiger from the Florida Marine Research Institute (FMRI)). Dr. Jan Landsberg from FMRI discussed HABs in Florida and updated producers on the recent ban on harvest of puffer because of toxicity related to HABs.

Speakers also included Shellfish Environmental Assessment Section staff from the Division of Aquaculture. There was dis-

(Continued on page 3)

## EPA Update

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The following update provided by Gary Jensen of USDA on the U.S. Environmental Protection Agency (EPA) activities associated with the proposed effluent limitations guidelines and standards rule for aquaculture facilities.

- EPA has mailed out the long, detailed questionnaire to selected facilities.
- EPA received approval for an extension to complete the proposed rule. The new extension deadline date is August 14 for signature of the proposed rule by EPA administration. The proposed rule will likely be published in the Federal Register for public review and comment in early to mid-September. The comment period will be specified in the notice. In addition to the proposed rule, other documents also available for public review will include, the Small Business Regulatory Enforcement Fairness Act (SBREFA) report, rule supporting documents and other materials submitted for the record.
- EPA is currently engaged in a federal agency planning and review process for this proposed rule as prescribed in Executive Order 12866 that can be reviewed with a web search. This process is coordinated by Office of Management and Budget (OMB) and provides other federal agencies the opportunity to review the proposed rule and provide comments prior to formal release.
- The SBREFA report was approved by EPA, OMB and Small Business Administration on June 21.

Additional information is available from <http://www.epa.gov/waterscience/guide/aquaculture/> or <http://ag.ansc.purdue.edu/aquanic/jsa/effluents/index.html>.

## Offshore Aquaculture Permit Filed

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During January, a St. Petersburg-based company filed for permits from the U.S. Army Corps of Engineers and U.S. Environmental Protection Agency to farm cobia in federal waters. The applicants have selected a square mile of water 33 miles southwest of John's Pass with a depth of 110 feet to anchor four submersible sea cages. The applicants estimate annual production to be 400,000 pounds. As part of the permitting process additional federal agencies and the State of Florida are providing comments to the Corps.

There are no commercial aquaculture operations producing fish in federal waters off of the continental United States. Florida has several live rock operations located in federal waters. Two separate research efforts headed by Mississippi-Alabama Sea Grant Consortium and the University of New Hampshire are investigating offshore production, engineering and environmental issues in the Gulf of Mexico and Atlantic Ocean, respectively. Information regarding these efforts can be found at <http://www.org.usm.edu/~ooa/>.

## HAB Seminars

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*(Continued from page 2)*

cussion of the Department's rules related to red tide closures, relaying of product and new alternative management of clams produced in waters closed due to red tide. Dan Leonard of Bull Bay Clam Farm discussed his work to bring this new management alternative to Florida. Dr. Karen Steidinger from the Fish and Wildlife Conservation Commission discussed FMRI's intent to assist the industry with testing related to the alternative management option.

Producers with questions about red tide closures and management of shellfish harvesting areas should contact John McDowell at 850-488-4033 or [mcdowej@doacs.state.fl.us](mailto:mcdowej@doacs.state.fl.us). For information on about the workshops or contact information for any of the speakers, contact Karen Metcalf at the same phone number or [metcalk@doacs.state.fl.us](mailto:metcalk@doacs.state.fl.us).

Regularly-updated red tide information may be found on [www.FloridaAquaculture.com](http://www.FloridaAquaculture.com) and clicking on "Red Tide Information". Technical bulletins and links to FMRI are also available on this site.



### BMP Notes

#### Multiple Facilities and Aquaculture Certification

Each aquaculture facility location requires a separate Certificate of Registration. Compliance with the Aquaculture Best Management Practices is determined at each facility location ensuring that a problem at one location does not jeopardize the compliance status of another location. Please verify that you have a certificate for each location of your operation.

#### Identifying Aquaculture Products

The Aquaculture Certification Number (AQ#) must be on all receipts, bills of sale, bills of lading or other such manifests connected with the possession, transportation or sale of aquaculture products. Shipping boxes or shellfish tags must also be marked with the AQ#.

**If you have a question about BMPs, call or send them to Kal Knickerbocker, 850-410-0875 or [knickek@doacs.state.fl.us](mailto:knickek@doacs.state.fl.us).**

## *Pomacea canaliculata*: An Agricultural Pest Member of the Apple Snail Family

The State of Mississippi has prohibited all members of the family Ampullaridae calling them “destructive plant eating apple snails.” The states of Texas, Hawaii and Louisiana have identified a member of the family, *Pomacea canaliculata*, as an agricultural pest because it consumes rice and taro. The U.S. Department of Agriculture, Animal and Plant Health Inspection Service, is considering nationwide regulations for this same species.

Apple snails are popular aquarium species because of their colorful appearance and their value



Color variants of *P. bridgesi*

as tank cleaners. The most common apple snail in aquarium shops is *Pomacea bridgesi*, the spike-topped apple snail. This species comes in different colors from brown to albino or yellow and even blue, with or without banding. The body color of these snails also shows great variation from black to yellow and gray. Another common apple snail is *P. canaliculata*, this snail is bigger, rounder and is more likely to eat plants, which makes it less suitable for many aquaria.

These snails also have a variety of shell and body colors. The Florida apple snail, *P. paludosa*, is in the U.S. aquarium



*P. canaliculata* (yellow phase)

trade, but is less common in global trade than *P. bridgesi* and *P. canaliculata*.

Florida aquaculturists producing and selling apple snails out-of-state should become familiar with destination state regulations. Selling a snail that is legal in Florida but illegal in a destination state is a federal violation under the Lacey Act. Farmers should also determine the identity of the snails being sold. For assistance with identification contact Paul Zajicek at 850-410-0849 or zajicep@doacs.state.fl.us.

Information and images courtesy Stijn Ghesquiere and his web site <http://www.applesnail.net>.

### ***Division of Aquaculture***

The Division of Aquaculture’s primary responsibilities include certifying all legitimate aquaculturists through an annual registration, implementing a program of Aquaculture Best Management Practices to meet the State of Florida’s environmental goals, managing 1.4 million acres of coastal waters for the harvest or culture of wholesome shellfish, implementing the National Shellfish Sanitation Program through periodic inspection of shellfish processing plants and product, and issuing submerged sovereign land leases for the culture of shellfish or live rock.

The aquaculture and shellfish industry can acquire assistance through a variety of means. The Division can be contacted by telephone, 850-488-4033 and 488-5471, or fax 850-410-0893. Tallahassee and the seven state offices are open five days a week from 8:00 AM to 5:00 PM. Offices are located in Apalachicola, Bartow, Cedar Key, Murdock, Orlando, Palm Bay and Panama City. Internet users can visit the Division’s web site at <http://www.FloridaAquaculture.com> for industry and program information.

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