



# Shellfish Aquaculture

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## Clamania

Clam production in Florida has exceeded all expectations. In less than a decade this emergent industry has gone from producing less than 10 million clams a year to 150 million clams last year. From a handful of growers, there are now over 400 industry members in the state and the number of individuals who enter this business continues to grow. A number of spin-off businesses (hatcheries, bag suppliers, wholesalers) have also developed in support of this production. The economic "foot print" of the industry was recently captured and estimated to have a \$34 million impact to the state's economy. Clam farming has become an important agribusiness.

So it was bound to happen sooner or later....this year the industry ran "head-on" into its first significant road block. Dockside prices are down by 30% or more. Clams remain on the bottom unsold. The problems encountered may be simply a matter of supply and demand. Clams can be found everywhere now, not just in Florida. Production is on the rise in about every state along the Atlantic coast. This happens to coincide with an economic recession. Since clams are considered to be a luxury seafood item, demand is on the downside. Is this just a temporary obstacle? Or is it time to look to the future of this industry?

With that in mind, local growers associations are starting to activate. Now is the time for regional groups to unite to face common industry challenges. A forum is planned in Tampa next month to introduce growers to several successful agribusiness organizations (see page 3 for details). Further development of local, state, and national markets for Florida cultured clams needs to be achieved. Recent state funding allocated to the Bureau of Seafood and Aquaculture Marketing in the Department of Agriculture and Consumer Services will allow for the initiation of a comprehensive advertising and promotional campaign this year.

In addition, finding ways to reduce production costs and increase production efficiency is needed to enhance profitability for growers. Can a cheaper clam be produced? The recently implemented CLAMMRS Project, in which "real time" water quality monitoring stations have been deployed at major growing areas throughout the state, will assist in this effort. Reducing production risk by utilizing USDA crop assistance programs developed over the past few years for cultured clams, will allow growers to plan better for the

uncertainties that characterize farming.

Just as timely is the need for awareness of the importance of this industry. Here's a few examples of what some communities are doing in support of their shellfish aquaculture-

based economy. In September, the City of Sebastian hosted its first Clam Bake. The weekend event held at their Riverside Park attracted over 10,000 people, all clamoring to consume clams steamed, raw, in chowder, and over pasta. At the 33<sup>rd</sup> Annual Seafood Festival held in Cedar Key this month, the newly formed aquaculture association served clams under a banner proclaiming "We're USA's #1 Producer of Farm Raised Clams!" This boast is also proudly displayed on roadway signs entering the island community.

Public exposure was also gained in the September issue of *Southern Living Magazine* in an article entitled "Welcome to Clamalot." The upcoming issue of *Florida Monthly Magazine* will highlight clam recipes by Chef Tom Thomas with DACS. In the national spotlight, over 5 pages of scrumptious clam recipes were featured in the September issue of *Gourmet Magazine*.

Attention to each of these factors (industry unification, market expansion, optimizing production practices) is needed to provide for sustainability of the cultured clam industry, which has so quickly grown to be an important source of economic activity in Florida's coastal communities.



## Update on Crop Assistance Programs for 2003

### Pilot Crop Insurance Program

The pilot crop insurance program for cultured clams will begin its fourth year of evaluation. Growers in Brevard, Dixie, Levy, and Indian River Counties are eligible to purchase federally subsidized insurance for unavoidable crop damage. Regrettably the program can not be expanded to other counties during the evaluation phase. According to the USDA Risk Management Agency (RMA), 420 growers participated in the program last year with crop liabilities exceeding \$25 million. The total number of claims filed and payments made is not yet available for 2002. However, a summary of business completed for 2001 indicated an overall loss ratio (ratio of indemnity to premium) of 1.53 for participating states, Massachusetts, Virginia, South Carolina, and Florida. The loss ratio, a means of evaluating the validity of the program, was 2.16 for Florida in 2001.

### Policy provisions and actuarial changes

Policy changes identified by industry, such as a proposed nursery seed replant program, will not be tested this upcoming year. It is likely the pilot program may be extended to a fifth year so these provisions can be evaluated. Survival rates are still 65% for clams planted in nursery bags and 70% for clams planted in growout bags at less than 1,200 per bag. For growout bags stocked at a greater rate, a survival factor of 50% will be applied. If a grower can provide production records for two years, those records can be used to determine the survival factor. Price values for nursery and growout clams have changed. Seed clams in nursery bags will be valued at \$0.0125; whereas clams in growout bags will be valued at \$0.11 (east coast) and \$0.10 (west coast). Contract information is posted on the RMA's web site, [www.act.fcic.usda.gov/](http://www.act.fcic.usda.gov/).

### Important dates

The last date to purchase the policy for the 2003 crop year is November 30, 2002. New growers, be aware it takes 15 days for the policy to attach after the application has been submitted. For growers who were insured last year, this is also the last date to renew, make changes in coverage levels, or to cancel the policy. The 2003 crop year begins on December 1. An inventory value report must be submitted to the insurance agent by this date.

### Crop insurance agents

For a list of agents who intend to sell the crop insurance policy this year, contact the Shellfish Aquaculture Extension Office. The RMA also maintains a list of crop insurance providers at their web site, [www.rma.usda.gov/](http://www.rma.usda.gov/).

### Non-insured Assistance Program

For those growers ineligible for the pilot crop insurance program as well as land-based nursery operators statewide, the non-insured assistance program, or NAP, provides limited compensation in the event of a natural disaster. This program, administered by the USDA Farm Service Agency (FSA), requires the grower to register annually and file an inventory report with the county office. The last day to file for the 2003 crop year was September 30, 2002. A listing of county FSA offices is available at their web site, [www.fsa.usda.gov/](http://www.fsa.usda.gov/).

The FSA's state committee recently determined to use the standards, or actuarials, established by RMA for both field nursery and growout clams in crop year 2003. Further, the committee adopted policy for seed clams in land-based nurseries. Survival factors that will be applied include 53% for  $\geq 1.0$  mm sieved seed, 75% for  $\geq 1.2$  mm sieved seed, and 90% for  $\geq 2.2$  mm sieved seed.

### Status of Tumbling Clams

Harvested clams are typically washed prior to processing in order to remove accumulated sand, debris, and shells. This step is effectively accomplished by using a tumbler. Recent clarification regarding tumbling activities came from the DACS Division of Aquaculture, who regulates shellfish harvesting activities in Florida. Clam tumbling may only



occur on the lease or at a certified shellfish wholesaler. In certain areas of the state, where harvesting is restricted to a narrow time frame due to tides or other limitations, this creates a "bottleneck" at the processing plant. Industry members recently met with David Heil in Cedar Key to petition their objections to the existing rule. A proposal to license a "land-based" washing

facility through the aquaculture certification program is currently under review by the Division. In the proposal, the certified facility would operate under best management practices. BMPs could include routine microbiological testing of the water source, shading, and operation under the existing time-temperature matrix. For more information, contact David Heil or Kal Knickerbocker with DACS at (850) 488-4033.

*The United States Department of Agriculture Risk Management Agency recently announced grant funding through their Targeted Commodity Partnerships for Risk Management Education Programs for the Florida Clam Culture Industry. These programs will be introduced at a*



# Clam Growers Forum

*to be held*

**Friday, November 8, 2002**

**11:00 AM - 2:00 PM**

**Hillsborough Community College, Dale Mabry Campus,  
Student Services Building, Rooms 108-110  
Tampa, Florida**

## Grant Overview: Organizational Structures and Strategies for Industry Development

*Leslie Sturmer, University of Florida, Shellfish Aquaculture Extension Program*

### **Presenters:**

**The Catfish Farmers of America**, *Mike McCall, Editor, Catfish Journal*

The CFA represents the nation's largest fish farming industry, including farmers, processors, feed mills and researchers. CFA has more than 1,000 members in over 20 states. The Catfish Institute, funded through feed mill contributions, is the industry's marketing arm. The following topics will be discussed: a history of CFA, what can be learned from the catfish industry experience, what works and what doesn't, why it is important to have a strong producer organization, and competing in the market place versus competing against each other.

**Florida Strawberry Growers Association**, *Chip Hinton, Executive Director*

The FSGA is a voluntary organization that has over 90% of Florida strawberry growers as members. Growers pay a 2-cent assessment per flat as dues through which growers are represented on a wide variety of issues and policies working to keep strawberry production profitable in Florida. Member services include promotions, marketing campaigns, research programs, lobbying, representation on regulatory issues, and more.

**Florida Tropical Fish Farmers Association**, *David Boozer, Executive Director*

The FTFFA was initiated in 1964 and is the largest organization of aquatic farmers in the state. The organization operates a real purchasing coop. With revenues generated from shipping box commissions, dues, and the coop store, the organization has assets approaching \$1 million. This funds marketing, lobbying, research, and more.

**Working Lunch:** Introductions and discussions with representatives from clam growers associations

## Grant Overview: Marketing Education for Florida Clam Farmers

*John Easley, Florida Department of Agriculture and Consumer Services,  
Bureau of Seafood and Aquaculture Marketing*

Preferences of potential national buyers for Florida farm-raised clams are to be identified and characterized. The best approach to reach these buyers will be based on what is learned through focus group meetings with each segment - wholesaler, foodservice, retailer, and consumer. The means and message content needed for the producer to positively influence purchasing decisions will be determined.

**This forum is a FREE educational workshop being held in conjunction with the Florida Aquaculture Association Conference.**

## Southern Seed Stocks Banned for Importation into Virginia

The Virginia Marine Resources Commission voted in August to enact an emergency prohibition on the importation of hatchery-reared clam seed from all states south of Virginia for a period of 180 days. The ban is a result of a study on QPX susceptibility in clams conducted by researchers at the Virginia Institute of Marine Sciences. During the three-year study, clam strains produced at VIMS from brood stocks originating from Massachusetts, New Jersey, Virginia, South Carolina, and Florida were grown at sites and evaluated for survival, growth, condition, and QPX disease susceptibility. The southern strains had significant higher prevalence of QPX and higher mortality than the others. Virginia is advising their growers to consider the geographic origin of clam seed as a component of their QPX disease avoidance strategy. It must be emphasized that southern stocks are not carriers of the QPX disease. However, since these strains have never been exposed to the disease, they are more vulnerable.

This ban impacts several hatcheries here in Florida whose businesses include supplying seed to Virginia growers. A representative from the DACS Division of Aquaculture in a presentation to the VMRC stated Florida seed suppliers are certified through the Division and operate under the agency's Best Management Practices program. Through these programs, specifically the bivalve genetics BMP, hatcheries could use Virginia brood stocks to comply with the prohibition. The VMRC denied any consideration of brood stock source documentation questioning the fallibility of a "paper trail." This decision is even more disheartening after a successful workshop was conducted in Charleston, SC earlier this year in which representatives from the eastern United States gathered to address responsible and reasonable guidelines for interstate shellfish seed transport (see July 2002 Newsletter). This prohibition sets a precedent with unforeseeable repercussions to the shellfish aquaculture industry.

### What is QPX?

QPX stands for Quahog Parasite Unknown. It is a disease caused by a single-cell parasite that possesses characteristics of both a fungus and an animal. QPX is thought to be a species-specific disease where it is only infectious and fatal to the hard clam. It is not thought to be a threat to other shellfish and marine organisms. **QPX is not a threat to human health!**

QPX was first documented in wild quahogs in Canada during the 1950s where it was thought to be the primary cause of a clam population collapse. Since that time, QPX

has been intermittently observed in Massachusetts and New Jersey and has caused sporadic mortalities in both wild and cultured stocks. More recently, the parasite was found in stocks from both Virginia and New York. This year the parasite caused extensive clam mortalities at several farmsites along the Eastern Shore and halted relaying of clams in Long Island Sound. **QPX has not been identified in Florida stocks!**

The origin of QPX in waters is currently the subject of scientific debate. Some believe that it is a recently introduced organism and is spread throughout the range of the clam when infected animals are transferred from one location to another. Others suggest that the organisms are routinely present in the sediment or water column in clam-growing areas. In this case, the disease would not flare up in clam populations until there was an extra environmental stress or other factors where the individual clam is less able to counteract the invasion of the parasite. **QPX does not originate in shellfish hatcheries or nurseries!**

At present the life history of the QPX organism is not known. Further, the infectious form of this organism is not well understood. However, several symptoms have been found in infected clams. Gross symptoms include decreased new shell growth, swollen, tan-colored retracted mantle edges, and occasional 2-5 mm round yellow-tan nodules in the mantle tissues. Some diseased clams unearth themselves and show mucus and sand granules between the swollen mantle edges and shell edges. Microscopically, clams harbor the parasite most commonly in the mantle and gills. To date, QPX infected clams have exhibited a high level of mortality. **QPX-type symptoms have not been observed in either farmed or wild Florida clams!**

*Source: QPX Fact Sheet. 2002. J.M. Hickey, D.F. Leavitt and R. Smolowitz, Southeastern Massachusetts Aquaculture Center. 5 pp.*

## Health Assessment Program for Cultured Clams in Florida

A health monitoring program for Florida cultured clams will be established in 2003 through funding from the USDA (see February 2002 Newsletter). In this program, aquaculture veterinarians at UF/IFAS will develop expertise with the clam industry and provide baseline information on the presence and absence of important shellfish pathogens in Florida waters. Educational programs will also be delivered to increase awareness of potential health problems.