UF IFAS

Sea Grant Florida

USDA

YOU ARE INVITED TO PARTICIPATE!

Wednesday, September 24, 2008
Community Center (old Lion's Club)
809 6th Street, Cedar Key

10:30 AM—1:00 PM

Statewide Clam Industry Task Force Meeting

1:00—1:30 PM

Lunch: *Sponsored by the Cedar Key Aquaculture Association*

1:30—5:30 PM

Clam Industry Workshop

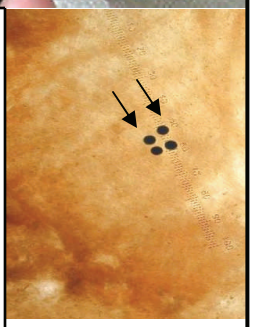
5:30—6:30 PM

Social Hour: *Sponsored by UF Shellfish Extension Program and industry suppliers*

In Addition

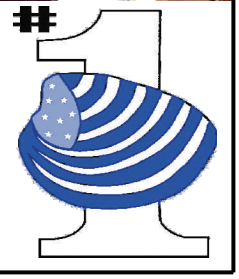
A Special Session on Clam Seed Heath Assessment

Meeting agenda, workshop topics, lodging, and other information can be found on pages 3-4 of this issue of The Bivalve Bulletin.



SFRC

University of Florida Department of Fisheries & Aquatic Sciences IFAS



Florida Department of Agriculture and Consumer Services
Division of Aquaculture

Price$ and Cost$ *by Dr. Jerry Osteryoung, Outreach Director, Jim Moran Institute for Global Entrepreneurship at FSU*

"It's not the load that breaks you down — it's the way you carry it." — Lou Holtz

In this economy, most businesses are caught between rapidly increasing prices of commodities and raising prices for their goods and services. For one firm that we are assisting, the cost of steel increases almost every month. It has already gone up by ten percent in the first six months of the year. Competition has also increased, so the firm feels that it cannot raise prices despite the fact that it is being squeezed by both steel and fuel price increases. Clearly, the owner is very concerned about maintaining their positive profits. So many firms in today's economy are experiencing a similar squeeze. Forced to raise their prices in response, firms are now worried about losing sales and profits. However, there is so much a business owner can do to mitigate the damage caused by price increases.

If you are competing with other firms, it is important to remember that they have to buy the same products you do and are experiencing the same price increases. If many firms in an industry begin raising prices, consumers will be able to understand and tolerate the increases that you implement. Most consumers understand that in order to stay in business, a firm needs to make a profit and cover its costs. Most will tolerate a five percent increase in price, especially if you clearly explain why you are doing this. Most understand as they are seeing costs increase all over, particularly in food and fuel. Increasing price because of the higher costs of fuel and other commodities is clearly understandable. For example, we are working with one service industry firm that increased its prices mid-year by six percent. Following their price increase, they saw no decrease in sales. In fact, some customers wondered why they waited so long to raise prices.

Firms should consider unbundling as many products or services as they can. Doing so will allow you to mask the price increase. For example, one service company previously included transportation in its pricing. They removed it from the bundle and began billing transportation costs separately. While some customers were unhappy, the majority understood what the firm was doing–especially following the nice letter that was sent out to announce the price increase. What is important to remember here is that receiving complaints from a limited number of customers does not necessarily mean that the price increase was not tolerated. Rather, certain customers are just always going to complain about price increases. Paying too much attention to the vocal minority could be very dangerous to the financial health of a business.

Clearly every business needs to be profitable over the long run. Raising prices to cover cost increases is simply good business and economics. If you are, however, in an environment that prohibits you from increasing your prices, you may need to think about the products or services that you are providing. It may be that you are in a much too competitive environment, in which case you will need to find better ways to differentiate your products and services from others in the market. You may also find that certain products or services are no longer viable for your business.

With costs rising all over, each and every business must make sure that they are covering all of their costs in order to stay in business. Now go out and make sure that your prices are sufficient to cover your costs. You can do this.

All of Dr. Jerry Osteryoung's articles can be found in a searchable form at www.cob.fsu.edu/jmi. He can also be reached by e-mail at jerry.osteryoung@gmail.com or by phone at (850) 644-3372.

Increases in Aquaculture Fees

USDA Farm Service Agency NAP Fee

The administrative service fee for the Non-insured Crop Disaster Assistance Program, or NAP, has increased from $100 to $250 per crop per county. The annual deadline to sign-up for NAP coverage and report crop acreage is September 1. Because of the delay in announcing the 2008 Farm Bill, the deadline has been extended this year to December 1. If you sign-up after September 1, crop coverage will not be continuous as it will take 30 days to attach. Contact your local USDA Farm Service Agency (FSA) office for more information.

DACS Aquaculture Certificate of Registration Fee

Revenue short-falls forced the Florida Legislature in the 2008 session to cut the state budget as well as increase license fees. The annual fee for the Aquaculture Certificate of Registration, or "AQ Card," has increased from $50 to $100 as of July 1, 2008. If you have any questions, contact the DACS Division of Aquaculture at (850) 488-4033.

FWC Wholesale Dealer License Fee

The annual fees for wholesaler dealer licenses have also increased. Check with the Fish and Wildlife Conservation Commission (FWC) for the new fee schedule.

Tips for Saving Money on Boat Fuel

Saving money on boat fuel can be as easy as simply slowing down or as complicated as replacing a boat engine, and results can vary depending on the boat. The Alaska Sea Grant Marine Advisory Program has prepared a list of steps that can lessen the impact of high fuel costs. Tips include:

- **Slow down.** Seems obvious, but savings can be dramatic, especially for boats that plow through the water. But for boats that plane or displace little water, slowing too much causes the boat to ride lower, lowering fuel efficiency
- **Check your prop.** Bent blades, dings, or eroded edges can cause fuel-robbing cavitation. Excess turbulence of the prop wash suggests it's too small or has too little pitch.
- **Maintain the bottom.** Marine growth saps power, and wastes fuel. The smoother the hull, the less friction.
- **Check your steering.** If there's play, adjust it to eliminate as much as possible. Go the shortest distance.
- **Reduce boat weight.** On short trips it may not be necessary to run with full fuel tanks. Use trim tabs, shift gear and people to achieve proper vessel trim.

For more information, visit the Alaska Boating Fuel Efficiency Resources website, http://seagrant.uaf.edu.

STATEWIDE CLAM INDUSTRY TASK FORCE MEETING — AGENDA

Wednesday, September 24, 2008 Community Center, 809 6th Street, Cedar Key

10:30 AM — 1:00 PM

Regional Updates
Updates presented by Task Force members. Agenda items are identified by members prior to the meeting. If you have a topic of concern or issue, contact your regional representative.
East Coast: Charlie Sembler and Tom McCrudden; Southwest Florida: Dan Leonard and Tony Heeb; Cedar Key: Rose Cantwell, Sue Colson, Ricky Cooke, Mike Hodges, Bill Leeming, Chris Toppings, Rick Viele; Florida Panhandle: Bill Lartz; and, Aquaculture Review Council Representative: Dan Solano

Report on survey of shellfish wholesalers' clam sales in 2007 and economic impact
Chuck Adams, UF/IFAS Food and Resource Economics Department

Status of 2008 Shellfish School—Oyster and Clams, Apalachicola, October 7-9
Victor Garrido, UF/IFAS Aquatic Food Products Lab

Extension Update
East Coast Shellfish Growers Association's Meeting on Best Management Practices, Proposed Clam Tasting to be held with National Shellfisheries Association's 2009 Annual Meeting in Savannah Georgia
Leslie Sturmer, UF/IFAS Shellfish Aquaculture Extension Program

1:00—1:30 PM LUNCH: Sponsored by the Cedar Key Aquaculture Association

CLAM INDUSTRY WORKSHOP — PRESENTATIONS

1:30 — 3:00 PM

Welcome and Introduction of Presenters
Dr. Karl Havens, Director, Florida Sea Grant College Program

Consistent hatchery and nursery yields for bivalve molluscs through health management principles and analysis of production systems
Ralph Elston, President, AquaTechnics, Inc., Sequim, Washington

Temperature monitoring and chlorophyll mapping of high-density lease areas in Cedar Key
Chuck Mulligan, Citrus County Academy of Environmental Science

Monitoring of clam health during summer months of 2007-8 at high-density lease areas in Cedar Key
Denise Petty, UF/IFAS College of Veterinary Medicine

Effects of multiple stressors (freshets, high temperatures, and red tide) on clam survival and physiology in southwest Florida
Vincent Encomio, Florida Oceanographic Society and Aswani Volety, Florida Gulf University

3:15 BREAK

3:30 — 4:45 PM

Initial assessment of soil landscapes in clam lease areas
Rex Ellis, Todd Osborne, and Mark Clark, UF/IFAS Soil and Water Science Department

Enhancing stress resistance of cultured clams through triploidy: Final report on field trials and laboratory challenges
John Scarpa, Harbor Branch Oceanographic Institute at Florida Atlantic University (FAU) and Shirley Baker, UF/IFAS School of Forest Resources and Conservation, Fisheries and Aquatic Sciences Program

Evaluation of clam stock improvement through use of hybridization
John Scarpa, Harbor Branch Oceanographic Institute at FAU and Leslie Sturmer, UF/IFAS Shellfish Aquaculture Extension Program

CLAM INDUSTRY WORKSHOP — PRESENTATIONS (continued)

3:30 — 4:45 PM

Evaluation of alternative bivalve species for diversification: ark clams and sunray venus
John Scarpa, Harbor Branch Oceanographic Institute at FAU and Leslie Sturmer, UF/IFAS Shellfish Aquaculture Extension Program

4:45—5:30 PM

Discussion Groups: Presenters and industry members will break out into smaller groups to allow for feed-back and discussion of presentations. Each group will provide a summary of their comments.

5:30—6:30 PM

SOCIAL: Sponsored by industry suppliers, including Delta Laboratories, Island Bags, Southern Belle Clam Bags, Summit Textiles, and Supertex Liberty Industries

SPECIAL SESSION: Clam Seed Health Assessment

To assist commercial clam seed suppliers in Florida, Dr. Denise Petty, a University of Florida aquatic animal veterinarian, has traveled to participating facilities over the past year. Management related to health of clam seed was reviewed and a baseline for future reference in the event of production problems was initiated. With funding obtained through USDA, an internationally recognized shellfish health expert will visit Florida hatcheries and nurseries this month and conduct a "hands-on" laboratory session, as well as provide the keynote address at this year's Clam Industry Workshop (see page 3). Dr. Ralph Elston, president of AquaTechnics, Inc. located in Sequim, Washington, has over 25 years of experience providing diagnostic services and solving problems in hatchery production of bivalve molluscs around the world. Many Florida seed suppliers have used Dr. Elson for health issues in the past and will now have the opportunity to receive his expert advice at their facilities.

Hatchery and Nursery Site Visits

East Coast: Monday and Tuesday, September 22-23
Cedar Key: Thursday, September 25 1:00—5:00 PM

Dr. Denise Petty will escort Dr. Elston and his lab technician, Ildiko Polyak, to participating hatcheries to review protocols relating to health management. Participation is strictly on a voluntary basis. As health professionals, they adhere to a code of medical ethical conduct, which protects the privacy of patient information. Be assured all information collected will be confidential and not released to the public. If you would like to participate, contact Dr. Petty at (352) 392-9617, extension 229 or email her at pettyd@ufl.edu.

"Hands-on" Laboratory Session

Thursday, September 25 8:30—11:30 AM Senator George Kirkpatrick Marine Lab, Cedar Key

Methods for monitoring shellfish larval and juvenile health in hatcheries will be demonstrated. This will include interpretation of results and discussion of using such methods to maintain acceptable rearing conditions. Participants will leave this session with useable tools for managing water and health to improve production output. The demonstration will be informal and offer ample opportunity for discussion of specific problems or questions from participants. There is no fee for this session, but to assure there are adequate materials, please pre-register by contacting either Dr. Petty or Leslie Sturmer at (352) 543-5057 or lnst@ufl.edu.

LODGING IN CEDAR KEY

Reasonably priced accommodations in Cedar Key include the following: Beachfront Motel (Phone:352-543-5113), Cedar Inn (Phone: 352-543-5455), Dockside Motel (Phone: 352-543-5432), Faraway Inn (Phone: 352-543-5330), Gulfside Motel (Phone:352-543-5308), and Park Place Condominiums (Phone: 352-543-5737). Visit the Chamber of Commerce's website for more information, www.cedarkey.org.

Thanks to these sponsors: Sea Grant Florida, USDA, UF University of Florida IFAS Extension, Florida Department of Agriculture and Consumer Services Division of Aquaculture

RESEARCH UPDATE: Metabolism of Triploid and Diploid Clams *by Kerry Webster and Dr. Shirley Baker*

Background: Researchers at the University of Florida (UF) and Harbor Branch Oceanographic Institute at FAU have been investigating triploidy, a basic breeding technique, for improvement of hard clam production in subtropical waters. Most organisms are diploid, meaning they have two sets of chromosomes. Triploids are organisms with three sets in each cell. Three features may occur in triploid organisms: 1) triploid cells may be larger to accommodate the increase in genetic material; 2) triploids may be more heterozygous, meaning that the extra chromosome may override "bad genes" or mutations; and 3) triploids are typically reproductively sterile and do not spawn. Therefore, triploidy can be beneficial when reproductive output results in a decline in product quality, impedes growth, or causes mortality. In Florida, the need for increased growth or meat quality is minimal. However, there is a need for increased stress (heat) resistance in subtropical waters. Combined environmental stresses of heat and low food availability following spawning may be the underlying cause of increased summer mortality.

Objectives: Ms. Kerry Weber, a UF graduate student, spent the last year investigating the metabolism of triploid and diploid clams. Metabolism is the complete set of biochemical reactions that takes place in cells, allowing animals to grow, reproduce, and respond to their environment We wanted to better understand why summer mortality occurs and to determine if triploids might have a metabolic advantage over diploids that will help them survive summer stressors. To do so, Kerry measured oxygen uptake rates of diploid and triploid clams at various water temperatures and salinities.

Results: No differences in metabolism between triploid and diploid clams were found when oxygen uptake rates were measured at water temperatures of 68, 77, 81, 86, and 90°F at 25 ppt salinity. However, when oxygen uptake rates were measured at 81°F and 15 ppt we found that triploid clams had lower metabolism than they did at 25 ppt, although diploid clams did not. As expected for cold-blooded animals like clams, oxygen uptake increased with temperature between 68 and 81°F. However, at temperatures above 81°F, oxygen uptake did not continue to increase. The clams also remained closed for much more of the time. When we attempted to examine metabolism at 95°F and 25 ppt, all the clams died.

Conclusions: These findings indicate that triploid clams may offer some advantage when exposed to dual stressors of low salinities and high water temperatures. Lower metabolism may allow triploid clams to survive longer than diploids under these stressful conditions. Triploid clams may use less energy for basic life processes and may be able to reserve energy stores. Over the year, even small advantages by triploids could result in significant gains in survival.

This research also contributed to a better understanding of clam physiology, especially at high water temperatures. First, clam metabolism increased five-fold between 68 and 81°F. This means that at high water temperature clams need a great deal of food just to maintain basic life processes without using energy stores. However, during the summer months, phytoplankton (micro algae) availability may be insufficient to meet the clams' needs. This mismatch between increased energy requirements and phytoplankton supply could lead to depletion of the clams' energy stores and may contribute to summer mortalities. Second, we observed that oxygen uptake by the clams did not continue to increase at water temperatures above 81°F. This suggests that this temperature is a metabolic threshold at which the clams begin to use anaerobic metabolism to meet a portion of their basic energy needs. Anaerobic metabolism (cellular reactions that do not use oxygen) may deplete energy stores at a rapid rate and result in noxious end products. Again, this may contribute to summer mortalities.

For more information, contact Dr. Shirley Baker with the UF/IFAS Fisheries and Aquatic Sciences Program at (352) 392-9617, extension 264. This research was conducted in 2007-08 with funding from the USDA and Florida Sea Grant College Program.

"Derelict" Clam Bag Removal Project Receives NOAA Federal Funding for 2008-9

In 2007, a pilot project to remove damaged clam farming equipment (bags, clam shell, live oysters) from aquaculture leases was developed and implemented by the Cedar Key Aquaculture Association working with a number of partners, including the Levy Soil and Water Conservation District (LSWCD), Suwannee River RC&D Council, Suwannee River Water Management District, Department of Environmental Protection's Aquatic Preserve, Department of Agriculture and Consumer Services' Division of Aquaculture, U.S. Fish and Wildlife Services, and UF Shellfish Extension Program. Over 1,700 "derelict" clam bags were removed from 28 leases in Levy County by seven bag removers and reused as components to construct a 0.08-acre oyster reef off Atsena Otie Key.

Recently, the partnership was awarded $60,000 by the National Oceanic and Atmospheric Administration (NOAA) through their Community-based Marine Debris Prevention & Removal Project Grants to continue the project. The federal funding will allow for 2,500 derelict bags to be relocated to the Atsena Otie oyster reef and to be used in enhancing natural oyster reef habitat during 2008-9. Again, the LSWCD will enter into sub-contracts with clam growers and approved bag removal vendors. The guidelines developed in the pilot project will be used in carrying out this project. **The deadline to sign-up is September 2.** If you have not done so yet, contact Darlene Smith with the LSWCD at (352) 486-2151 ext. 3, or the Shellfish Extension Office at (352) 543-5057.

CLAMmunications

Florida Clam and Wine Promotions

Saturday and Sunday, September 20-21, 2008
Friday to Sunday, February 20-22, 2009
Lakeridge Winery and Vineyards, Clermont

The Bureau of Seafood and Aquaculture Marketing in the Department of Agriculture and Consumer Services will partner with Lakeridge Winery in promoting clams and wine at two of Winery's upcoming festivals. The first event will be promoted as "Cool Beats and Eats—Florida Clams and Wine" at the Winery's Jazz Festival with an anticipated attendance of 2,000. The second event, "Perfect Pairings," is scheduled during their annual Winefest which draws a crowd of 8,000. Bureau staff will conduct cooking demonstrations and provide educational and purchasing information.

International Coastal Cleanup

Saturday, September 20, 2008

Sponsored by the Ocean Conservancy, this annual event is a grassroots movement that depends upon the participation of individuals in coastal areas throughout the world. It is an opportune time for clam growers to work with members of their community in removing abandoned cover netting, debris, and trash from around lease areas. To find out who is coordinating the event in your county, visit the website, www.oceanconservancy.org. Volunteer and make a difference.

Shellfish School – Oysters and Clams

Tuesday to Thursday, October 7-9, 2008
Community Center, Apalachicola

The Shellfish School is dedicated to advancing molluscan shellfish product quality and safety through education of wholesale and retail buyers nationwide. Presented jointly by Florida Sea Grant and the UF/IFAS Aquatic Food Products Lab, the technical program features current and basic topics through lecture, actual hands-on training, demonstrations, and facility tours. The first school last year featured oysters; this year, clams will be included in the training. For more information, contact Victor Garrido at (352) 392-1991, extension 305 or vmga@ufl.edu.

International Conference on Shellfish Restoration

November 19-22, 2008
Charleston, South Carolina

This conference provides an opportunity for resource managers, shellfish farmers, and community activists to exchange ideas and information on restoring molluscan shellfish populations while improving water quality and the environmental health of our coastal systems. The highlighted theme this year is the role shellfish has played in the development of society. For more details, visit the conference's website, www.scseagrant.org.

The Clam Industry Workshop is set for September 24 in Cedar Key.
Plan to attend! See pages 3-4 for details.

Bivalve Bulletin
September 2008
This newsletter is published through the University of Florida Cooperative Extension Service. For more information, contact

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