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Program: Finfish Aquaculture Demonstration Project

Organization: Finfish Aquaculture Extension

Dates: November 2002 - present

Targeted to: Explorers, Planners & Start-ups

Need

Many people start out keeping fish as a hobby. Then they begin to think about the possibility of moving into a commercial venture of raising fish for profit. These people need basic information on state requirements for commercial fishing businesses, technical knowledge on raising fish and logistical information on how to begin an enterprise.

Response

Randy Mickley of the University of Rhode Island received a Rhode Island Sea Grant to develop and build a demonstration finfish production model. Through the Finfish Aquaculture Demonstration Project, he can provide hands-on courses about what is necessary to produce fish commercially in a cold climate such as Rhode Island's.

Description

Since having built the demonstration project during 2003, Mickley now has a forum where he can demonstrate how to handle fish safely, how to determine the sex of the fish, how to build cages to separate young fish and what materials are necessary to keep the fish warm.

He is able to help people understand the economics of growing fish in a colder climate. Fish farming for food done in colder climates may not be competitive with that in warmer climates. But farmers can grow higher value exotic fish that hobbyists are willing to pay a premium price for. This approach is often successful.

The course educates participants on state regulations and permits. For example, permits are required for people who import nonnative species into the area. Health certificates are required from the seller. The state also inspects fish production farms to

ensure that water discharge will not pollute streams and that nonnative fish cannot escape into the environment.

In response to increasing interest in developing water gardens, a course is taught on how deep to dig a pond so that it can be winterized with an air-stone, allowing fish to survive. The course teaches landscaping techniques and stocking procedures for water gardens. Participants learn how to properly care for the fish by learning to recognize and treat common fish illnesses.

The Japanese fish Koi are frequently used in such gardens, as are ornamental aqua plants such as water lilies. Both the fish and water lily are valuable products to grow. The wastewater from fish tanks can be recycled and used as fertilizer in a hydroponic garden.

A farm pond can also be used for growing fish. There are many options: fish can be feed and raised for family use or sold as fresh fish at a farm market. Ponds can also be stocked with fish and then managed as a “pay for fishing area.” Farmers can make additional income by selling bait and snacks and renting tackle.

Funding

A Rhode Island Sea Grant and fees for courses. The University of Rhode Island Cooperative Extension Service offers support.

Partners

University of Rhode Island Cooperative Extension Service and the state of Rhode Island Sea Grant

Outreach

Specific courses are publicized via the local media, by Fish Hobbyist Groups and through the University of Rhode Island Cooperative Extension Service.

Analysis

SUCSESSES: The development of the Finfish Aquaculture Demonstration Project is a major success. In addition, many people have received basic technical information, business and financial planning, and logistical information on requirements to operate a fish farm. Participants learn the importance of locating an appropriate market. The program helps people write grant proposals for fish startups. And it has also organized tours to fish production operations.

CHALLENGES: Some people call for basic information on costs to set up a fish farm, financial returns from fish farming, what is needed for permits and other information. Then they hesitate and don't take the next steps.

Next Steps

Now that the Finfish Aquaculture Demonstration Project has been completed, Mickley plans to develop more course materials for programs that make the greatest use of this forum.

Resources

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Internet Information Sources for Aquaculture

- American Tilapia Association: <http://ag.arizona.edu/azaqua/ata.html>
- Aquaculture.com: <http://www.aquaculture.com>
- Aquaculture Network Information Center: <http://www.aquanic.org/>
- Cornell Aquaculture Resources: www.bee.cornell.edu/extension/aquaculture/
- FINS Fish/Aquarium Information Service: <http://www.actwin.com/fish/>
- Fish Vet: <http://users.jagunet.com/~fishvet/>
- National Agricultural Library: <http://www.nal.usda.gov/afsic/>
- National Fisheries Institute: <http://www.nfi.org>
- Northeast Regional Aquaculture Center:
<http://www.umassd.edu/specialprograms/nrac/welcome.html>
- Sea Grant: <http://www.mdsg.umd.edu/Extension/index.html>
- Southern Regional Aquaculture Center: <http://www.msstate.edu/dept/srac/>
- U.S. Trout Farmers Association: <http://www.ustfa.org>
- World Aquaculture Society: <http://www.was.org/>

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