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**Growing New Farmers**

**A northeast service providers consortium**  
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**Program:** Rhode Island Shellfish Aquaculture Extension

**Organization:** Roger Williams University - Center for Economic and Environmental Development

**Dates:** Began February 1, 2003

**Targeted to:** Recruits through Establishers

**Need**

Shellfish aquaculture is a well-established aquatic farming effort, but it is under-represented within Rhode Island's farming community. Although the farming of oysters and clams accounts for the vast majority of Rhode Island aquacultured product, the overall amount is relatively low compared to its neighboring states of Massachusetts and Connecticut.

**Response**

The Rhode Island Shellfish Aquaculture Extension program is designed to support, advance and encourage startups and established farmers in the shellfish aquaculture industry. It will also provide information and educational resources to the general public on all aspects of aquaculture.

Roger Williams University (RWU) supports the Rhode Island shellfish aquaculture industry in a variety of ways. It is currently constructing a small-scale shellfish hatchery for research and production at the University. The products from this hatchery will contribute to on-going programs in shellfish restoration throughout Rhode Island. For example, seed quahogs grown at the hatchery are used for planting in selected areas in support of wild commercial and recreational fisheries.

The hatchery will enhance technology for existing and new shellfish farmers through research and development in such areas as advanced disease resistance in shellfish lines, improved growth characters of shellfish species and an expanded number of species available for shellfish growers to farm.

In conjunction with this effort, courses and workshops in shellfish farming and other aspects of aquaculture are presented for a range of audiences, including high schoolers, undergraduates and established shellfish farming businesses that benefit from technical workshops.

Shellfish aquaculture encompasses technologies ranging from growing microalgae for feeding early larval stages of shellfish in the hatchery through nursery systems to field grow-out of shellfish to a harvestable/marketable size. The Center's first effort involved installing technology that can be used to produce shellfish for the industry and for demonstration during educational activities.

Shellfish aquaculture goes beyond farming technology to include skills such as business management, marketing, accounting and all of the ancillary disciplines farmers need to run their business.

The RWU Center for Economic and Environmental Development's aquaculture program is working to meet the needs of farmers to acquire a working knowledge of both the technical and business skills required.

To initiate educational programs, the Center currently runs two courses: an undergraduate survey course in aquaculture and an applied course in "Practical Shellfish Farming." This later course is presented to adults who want to enhance their skills in shellfish farming, with the thought of establishing a shellfish farming business in Rhode Island.

### **Funding**

The RWU shellfish program operates on funds derived from a variety of sources: direct internal funding from the University, competitive research grants from state and federal agencies, donations and contractual work from private industry, and federal funds from the Rhode Island Aquaculture Initiative.

### **Partners**

We consult and collaborate with a variety of partners: the Ocean State Aquaculture Association; Rhode Island Shellfishermen's Association; private non-profit, non-governmental organizations, such as Save the Bay; aquaculture industry members; other academic and research institutions, such as Woods Hole Oceanographic Institution and University of Rhode Island; and many knowledgeable individuals.

### **Outreach**

To create awareness of Rhode Island Shellfish Aquaculture Extension programs, we use public media, industry association meetings, scientific symposia presentations and technical publications.

### **Analysis**

**SUCSESSES:** Although our program has operated one year, we have had a few successes to date. We are currently working with commercial fishermen to train them in the technology of rearing shellfish with the objective that they will help restock and restore commercially important species in local waters. We have approximately 15 trainees in the Practical Shellfish Farming course who have the potential to expand the shellfish farming industry in Rhode Island. Lastly, we have transitioned a demonstration project

growing fish in a modified cranberry bog into a commercial enterprise. This serves as an example of how cranberry growers can diversify.

CHALLENGES: We must identify ways to expand our influence and to find the people who need the information we can provide. Also, we must identify the current and future needs of the aquaculture industry in Rhode Island, then respond to those needs.

### **Next Steps**

We plan to investigate the possibility of starting an oyster gardening program where private citizens can learn to rear the critical early stage oysters for use in oyster bed restoration in the bay.

### **Resources**

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Also see these websites:

- Roger Williams University  
<http://www.rwu.edu>
- Rhode Island Aquaculture Initiative  
<http://seagrant.gso.uri.edu/research/rhodyaquaculture/rhodyaquaculture.html>
- AQUANIC  
<http://aquanic.org/>

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