

DRAFT

Mariculture Workforce Development Situation Analysis (drafted by Paula Cullenberg, Alaska Sea Grant, September 2016)

Objectives for Workforce Development for shellfish farmers and hatchery workers

- Encourage new entry into industry
- Increase profits and business success for those already in it
- Ensure hatcheries have skilled workforce to draw from

Background

Shellfish farmed from Alaska are not market limited. The product has the reputation of coming from clean, cold, non-polluted coastal waters. Delicious product.

Shellfish farms are primarily found in Southeast and Southcentral. Young industry. There are open sites in Southeast, but sites for new farms in Southcentral are less available.

State added mariculture financing to state fisheries loan program last year and streamlined regulations. State is considering linking financing to training requirements to make investment more likely to succeed.

2015, according to ADF&G, there were 65 aquatic farms (SE, PWS and Kachemak Bay – either small businesses or part of a Native corporation enterprise), 7 nurseries and 2 hatcheries (Alutiiq Pride and OceansAlaska). The farms ranged in size from .6-23.6 acres, with average of 4.67 acres.

Value in 2015 was \$1.13M, In 2014, there were 1.2M oysters produced, 16,700 lbs mussels (a 400% increase) and 25 lbs of seaweed.

In 2015 – 21 farms reported oyster sales (15 in Southcentral and 11 in Southeast). The other farms are still developing (growing) product. 41 annual reports were submitted out of 46 farms producing oysters (5 farms were closed or transferred).

Shellfish hatcheries produce oysters, geoducks.

Shellfish farm operators must be multi-skilled or a large enough operation to employ people who specialize.

The Mariculture Workforce

Direct employment at aquatic farm operations includes owners, partners, employees, interns and family members. Positions include paid, part time, full-time , seasonal and year round. Most operations include volunteers, family members or interns to help keep labor costs down. Hatchery and nursery operations have more paid full-time and seasonal employees.

In 2015, 138 people were working at shellfish farms; 55 were paid employees. Paid positions, including laborers participated in 3,500 workdays (average 63 days or 12-13 weeks) and total workdays (including non-paid owners etc) were 9,600.

Hatchery and nursery operations had 36 workers; 3,420 days of paid workers (average 95 days employment or 23 weeks). 11 positions worked more than 150 days. 92% of the positions were reported as laborers. Overall seed supply employment opportunities grew with an increase in number of workers and number of days working.

Skills needed by mariculture operators include:

- Growing,
- harvesting,
- processing,
- marketing (selling bivalve seafood products, potentially macro algae)
- regulatory issues
- financial management

In 2014, the Alaska Maritime Workforce Development Plan was published. Shellfish farmers surveyed during the development of the plan identified the following occupation-specific action steps to expand the workforce:

- Increase awareness about small business loans to support entrepreneurs, by providing information about what loans are available and points of contacts and other references that can provide access to capital
- Provide access and support for financial management and business training.
- Explore the need for a program similar to the reduced loan fee incentive for an Alaska Housing Finance Corporation loan, linking financing to financial training.

Current training and education available:

Alaska Sea Grant offers workshops, technical assistance and training depending on demand. ASG's Aquaculture website is a good resource site for beginning and current farmers.

UAS has a Fisheries Technology program that targets hatchery technicians (primarily salmon enhancement).

Virginia Institute of Marine Sciences has an Oyster Aquaculture Training Program

<http://www.vims.edu/research/units/centerspartners/abc/oat/index.php>

Participants rotate through the stages of oyster aquaculture from the hatchery to field grow out operations. Brief classroom lectures on major topics will provide background information. This program will also include field trips to other research facilities and industry sites.

The Oyster Aquaculture Training (OAT) program is funded by non-State private funding. It offers prospective shellfish aquaculturists an opportunity to learn about all aspects of oyster culture, from hatchery to field operations—essentially, it is oyster culture “boot camp.” In the past, many of these trainees have ended up in local businesses, and some have gone far afield. Consideration is afforded all applicants who demonstrate a desire and aptitude for oyster aquaculture. The program draws from a national pool.

Maryland Extension has a broad suite of classes:

<http://extension.umd.edu/aquaculture/educational-programs>

Maine Sea Grant has extensive seaweed culture resources, other Sea Grant programs around the country have a range of aquaculture resource materials.

Roger Williams College (Dale Leavitt) also teaches a beginning shellfish growing class.

Potential Workforce Development partners: Haa Aani, Alaska Sea Grant, Alaska FFA

Alaska Mariculture Workforce Development Needs: