Bivalve Shellfish
Aquatic Farming in Alaska

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Overview

- Authorizations
- Permits/Approvals
- Industry at a Glance
- Benefits
- New Developments
Dept. of Fish and Game Authorizations

- **Aquatic Farm Act, 1988**
  - Allowed aquatic farming of shellfish and aquatic plant for commercial use
  - Moratorium and later prohibition on finfish farming

- **Statutes – AS 16.40.100–199**
  - Promote efficient development AND
  - Manage and protect fish and wildlife resources

- **Regulations – 5 AAC 41.200–400**

- **Regulations – 5 AAC 41.070**
Operation Permit

Review Criteria Determination

- Site suitability for proposed species and gear
- Established fishery resources uses not altered
- Compatibility with fish and wildlife resources
  - Eel grass or kelp beds maintained
  - Anadromous fish streams > 300 ft away
  - Herring spawning areas
  - Sea bird colonies, eagle nests, sea mammal haulouts
- Feasible operation and development plan
- On-bottom sites - insignificant populations of existing wild stock shellfish of species to be cultured
Managed Cultivation

Good Husbandry Practices

- Acquire Seed
- Cleaning/Sorting/Defouling
- Density Manipulation
- Predator Removal
Approved Culture Gear

Raft & Trays

Longlines & Lantern Nets

Longlines & Trays

Flip-flop Bags

PVC Tubes

Predator Netting
Stock Transport and Acquisition Permits

- Overarching Principles
  - Protect health of Alaskan shellfish
  - Protect genetic integrity of stocks
  - Prevent the introduction of invasive species

- By applicant, location, species, life stage

- Acceptable disease history

- Issued by calendar year
Seed Source Approvals

- **Out-of-state Seed Import Certifications**
  - Pacific oysters only (< or = 20 mm)
  - Acceptable disease history
  - Pathology examinations of all stocks
  - Prevents import of exotic diseases
  - Issued by calendar year

- **Instate Seed Distributor Approvals**
  - Acceptable disease history
  - Pathology examination of stock
  - Issued yearly to every 3 years
Industry at a Glance

Locations

Southcentral

31% in SC

Northern Southeast

69% in SE

Southern Southeast
Industry at a Glance
No. and Size

- 68 aquatic farms, 2 hatcheries and 8 nurseries

- Small-scale Aquatic Farm Operations
  - 5 acre average, range: 1 – 24 acres, 346 total
  - 83% seasonal or part-time operations

- Work Force
  - 161 workers at aquatic farms (22% ↑)
  - 37 workers at hatcheries/nurseries (124% ↑)
Industry at a Glance
Aquatic Farm Production and Sales

- Production
  - 1.2 million Pacific oysters (49%)
  - 9,722 lbs of blue mussel, Pacific littleneck clam, and Pacific geoduck combined (65%)

- Sales* = $769,146 (37%)
  - Average $6,309/acre
  - Average Price Per Unit
    - Oysters – $9.35/dz, Clams – $5.96/lb, Mussels – $5.55/lb

*Farm gate value
Industry at A Glance
Seed Source Contribution

- Production by Hatcheries and Nurseries
  - 5.9 million Pacific oysters
  - 164 thousand Pacific geoduck

- HA and NU Seed Sales = $157,283 (46%)

Overall Sales for Permitted Operations = $926,429
Shellfish Aquatic Farming

Benefits

- Sustainable
- Economic opportunity
- Habitat for other species
- Opportunity to innovate
- Opportunity to transfer technology
- Opportunity to educate
- Quality of life
- Heritage
New Developments

- Littleneck Clam Managed Cultivation Study
- Alaska Mariculture Initiative
  - NOAA Grant to AK Fisheries Development Foundation
  - Economic analysis and strategic planning
  - Adds enhancement and restoration components
- Mussel Demonstration Farm and Workshop
- Alaska Shellfish Growers Association Annual Conference – Anchorage, Nov 5–7