AQUATIC FARMING
INDUSTRY STATUS

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ALASKA SHELLFISH GROWERS ASSOCIATION
CONFERENCE
DECEMBER 7, 2018
CORDOVA, AK
WHERE ARE PERMITTED AQUATIC FARMS IN ALASKA?
OPERATION LOCATIONS

- 58 Aquatic Farms
- 5 Hatcheries
- 7 Nurseries
- 70 Total Operations
AQUATIC FARM SHELLFISH PRODUCTS CULTURED AND SOLD

PACIFIC OYSTER
(Magallana gigas)
~1.8 million produced
29 operations
36% INC
1⁰ species sold (95.2%)

BLUE MUSSEL
(Mytilus trossulus)
1,790 lbs. produced
7 operations
64% DEC

PACIFIC GEODUCK
(Panopea generosa)
11,181 lbs. produced
4 operations
74% DEC

Data based on 2017 annual reports provided by operators
In 2016, the 1st kelp farm operations were permitted in Alaska.

SUGAR KELP (Saccharina latissima)

By 2017, 4 farms produced 16,570 lbs. of these 2 kelp species combined.

RIBBON KELP (Alaria marginata)

Data based on 2017 annual reports provided by operators
<table>
<thead>
<tr>
<th>Production</th>
<th>Number of Permits in this Range</th>
<th>% of Total Permits</th>
<th>Avg Farm Acreage</th>
<th>Total Production (no. of oysters)</th>
<th>Total Production (no. of oyster dozen)</th>
<th>% of Total Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Small (0 - &lt;100,000 oysters)</td>
<td>23</td>
<td>79.3%</td>
<td>3.22</td>
<td>497,089</td>
<td>41,424</td>
<td>27.6%</td>
</tr>
<tr>
<td>2. Medium (100,000 - &lt;332,000 oysters) &amp; Large (332,000-631,000 oysters)</td>
<td>6</td>
<td>20.7%</td>
<td>13.78</td>
<td>1,305,348</td>
<td>108,779</td>
<td>72.4%</td>
</tr>
<tr>
<td>Grand Total</td>
<td>29</td>
<td>100.0%</td>
<td>5.41</td>
<td>1,802,437</td>
<td>150,203</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Comparison to 2016: 45% Small Production 55% Medium Production

* Based on 2017 Annual Reports from Permitted Operators
AQUATIC FARM PRODUCTION REGIONAL DISTRIBUTION

Based on 2017 Annual Reports from Permitted Operators
In 2017:

41 operations with production*

Aquatic Farms = $1.34 Million
Hatcheries = $91,519
Nurseries = $104,448
Total Sales = $1.53 Million

4% increase from 2016

* Farm gate value
ALASKA DEPARTMENT OF FISH AND GAME
AQUATIC FARMING ROLE*

Permit and regulate aquatic farming in the state in a manner that ensures:

a. the protection of the state's fish and game resources (and uses of those resources) and

b. improves the economy, and well being of the citizens of the state.

* AK Statutes 16.40.100-199; 1988, Aquatic Farm Act Implementation
**Purpose**: Required to transfer stock to, from, or between an aquatic farm, hatchery, or stock acquisition site (waters of the state)

**Why Needed**: 1. To minimize risk of disease transmission that may impact aquatic farm stock and wild stock. 2. To monitor and track movement and nos. of stock. 3. Determine consistency with permit and operation plans.
Shellfish Seed Supplier Verification:

✓ Acceptable disease history report
  No pathogens of transport concern
✓ Low risk of transmitting diseases site to site.

Note: This is not a disease-free verification.

Alaska does not have Denman Island Disease, Haplosporidium sp., or Herpes virus (OsHV-1).
Aquatic Plant Verification:

- No pathology experience for species and also genetic data gaps for seaweed

Implementation of Precautionary measures:

1. 50 km by water transport zone (broodstock and outplanting location) and
2. ≥50 broodstock used to produce progeny met.
ADF&G - Operation Permit Process

ADF&G Request for Additional Information

ADF&G Comments TO DNR

ADF&G Preliminary Review

20 days

Complete Appl

Agency Review

Prelim. Decision

Public Notice

Final Finding & Decision

Appeal Period

Final Admin. Order

Lease Issued

Effective in 30 days

20 days

ADF&G Operation Permit Issued no later than 30 days after lease

Approval Decision

Operation Permit Issued
OPERATION PERMIT REVIEW CRITERIA

OPERATION, DEVELOPMENT, AND STAFFING PLANS MUST DEMONSTRATE TECHNICAL AND OPERATIONAL FEASIBILITY

1. One operation and development plan for each species intended to be cultured
2. Demonstrates technical and operational feasibility – plans show improvement of productivity of the culture organism over time by increase harvestable biomass.
3. Summarizes installation and maintenance of support facilities / culture gear / anchoring systems
4. Schedule is consistent with life history of species intended to be cultured
PUBLIC ACCESS TO ESTABLISHED USES FISHERY AND WILDLIFE

- Known Conflicts: Dive Fishery, Crab Fishery, Duck Hunting

OPERATION PERMIT CONDITION

- The permit holder must prevent aquatic farm operations from significantly altering an established use of fish and wildlife resources. (5 AAC 41.250(a)(5))

  - The project may not impede access to plants, fish, and wildlife resources, and shellfish, other than the species being cultured at the site, to the extent that such access does not disrupt the operation of the aquatic farm, disturb the species being cultured, or damage any of the shellfish aquatic farm culture equipment, facilities, or gear.
QUESTIONS

For additional assistance, please contact:
Aquaculture Section/Commercial Fisheries Division
Alaska Department of Fish and Game
P.O. Box 115526, Juneau, AK 99811-5526

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