



Elodea & Other Invasive Species in Alaska

Senate Natural Resources Sub-Finance Committee

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INVASIVES & PATHOGENS

**The Division of
Agriculture works to
identify, control and**



**eradicate pests and
pathogens in the state
of Alaska**

INVASIVES & PATHOGENS



- **Inspection Services**



- **Export Certification**



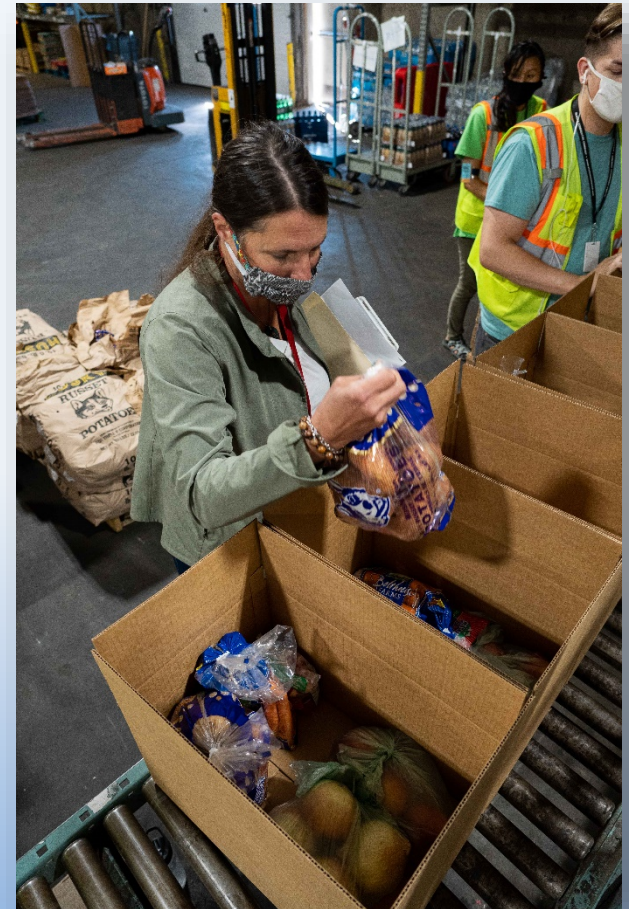
- **Invasive/Pest Detection**



- **Invasive/Pest Eradication**

INSPECTION SERVICES

- **Food Safety Audits:** Good Handling Practices (GHP) and Good Agricultural Practices (GAP)
- **Export Certification Plant Health Inspections**
- **USDA Grade Inspection & Certification**
- **Country of Origin Labeling (COOL)**



INSPECTION SERVICES



- **Potato Seed Certification**
- **Plant Quarantine Enforcement**
- **Shell Egg Inspections**
- **Elk Farm Inspections**
- **Organic Certification Assistance**



EXPORT CERTIFICATION

AK-DoAg certifies agricultural commodities for export, ensuring the plant health requirements meet the country of destination



-In Cooperation with-
USDA (United States Department of Agriculture)
APHIS (Animal Plant Health Inspection Service)
PPQ (Plant Protection and Quarantine)

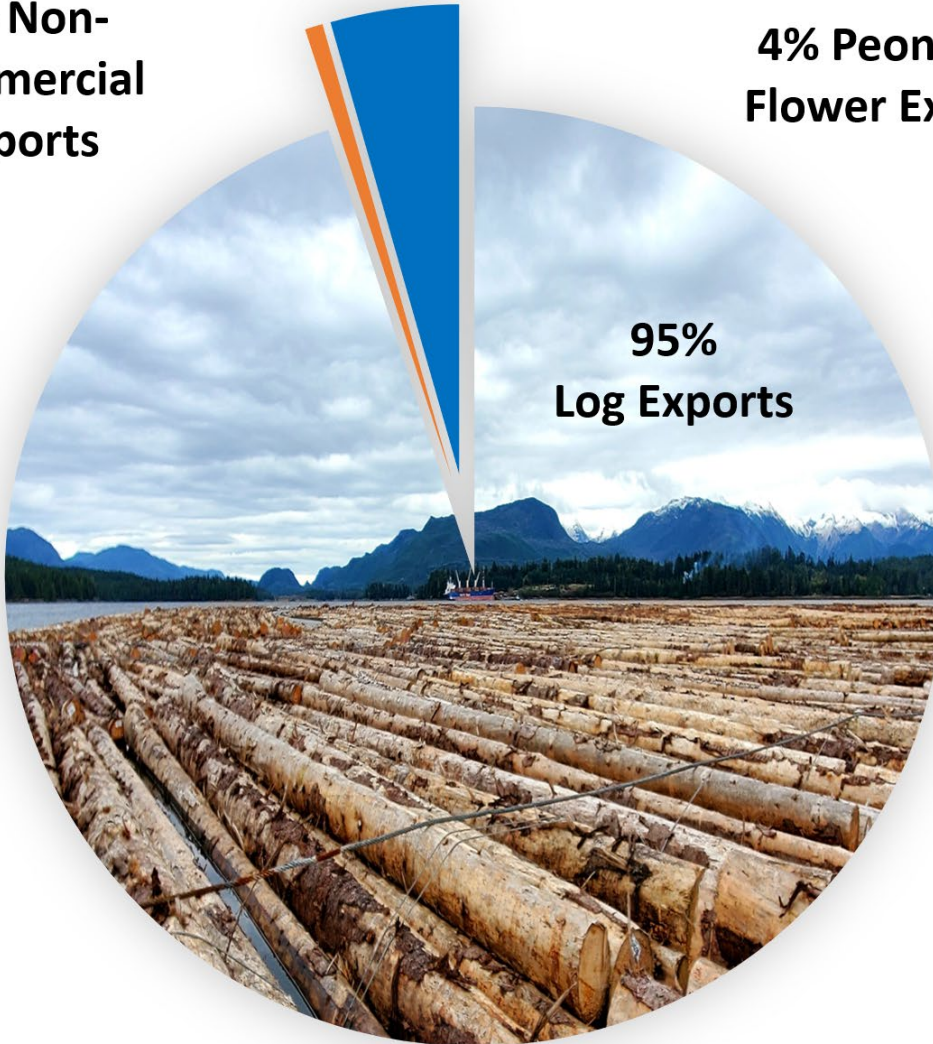
PHYTOSANITARY EXPORTS

Chart Area

1% Non-Commercial Exports

4% Peony Cut Flower Exports

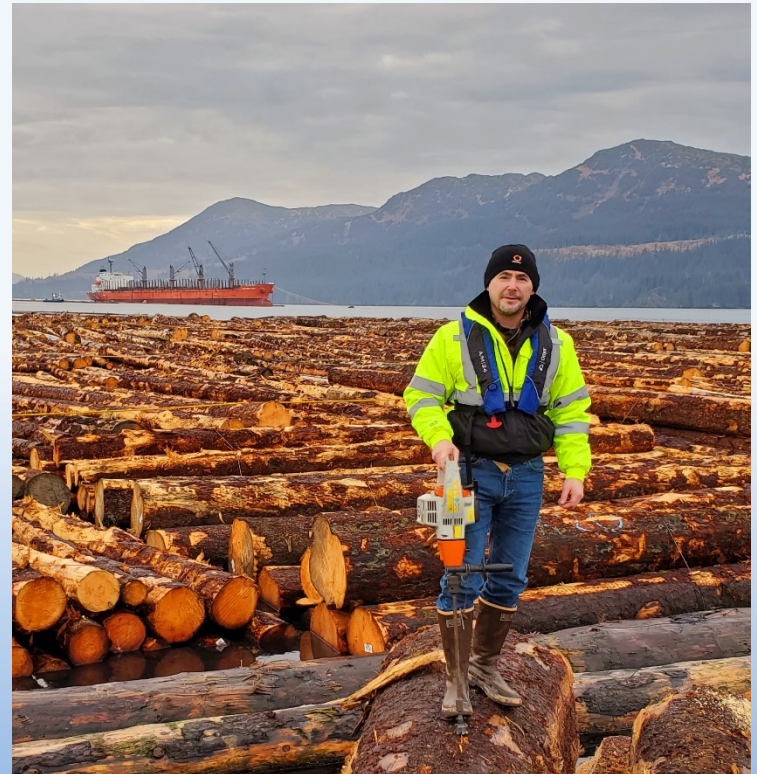
95% Log Exports



LOG EXPORTS

Total Log Volume Certified for Export
127,498.89 Thousand Board feet (MBF)

Est. Market Value
\$124.3 Million Dollars



DEFOLIATING MOTH SURVEYS

Asian Gypsy Moth (AGM) Detection and Surveillance Program:

- Asian gypsy moths are exotic pests not known to occur in the United States. Large infestations of AGM can lead to the death of large sections of forests.
- AK- DoAg AGM program began in 2003. Alaska's forest products, wildlife, and tourist industries represent a significant portion of the state's resources and would be at risk should these moths become established.



DEFOLIATING MOTH SURVEYS

AGM Detection and Surveillance Program

Asian Gypsy Moths are a threat to Alaska, as high-risk pathways exist.

- In July 2020, an egg mass was intercepted by Customs and Border Protection (CBP) on a ship arriving in Yakutat Bay from Penglai, China. The egg masses were identified to be viable, Asian Gypsy moth eggs.
- In 2018, AGM egg masses were identified on two ships in Alaskan waters. The first, was in Klawock with viable egg masses and 20 dead adults. The second, was in Hawk Inlet with three viable egg masses and one dead adult.



PATHOGENS

Trace activities conducted:

Ralstonia Race 3 biovar 2 (R3B2)

- R3B2 is a serious bacterial pathogen, affecting many agricultural and ornamental crops; i.e, potatoes and tomatoes, ornamentals; i.e., geraniums
- R3B2 is listed as a select agent under the USDA Agricultural Bioterrorism Protection Act, as it has the potential to pose a severe threat to plant health.
- Is not known to occur in the United States, considered of quarantine importance, when detected, response is to eradicate.



PEST DETECTION, INSPECTION, REGULATION

Alcan Border interagency efforts:

State and Federal agencies in Alaska continue to evaluate the pathways and/or the movement of pests of concern.

These agencies include US Customs and Border Protection (CBP), USDA APHIS, USFS, US FWS, AK DNR-DOF, AK DFG



PEST DETECTION, INSPECTION, REGULATION

Unsolicited seeds from China and other countries

- In 2020, unsolicited seeds were delivered to households and businesses across the US.
- USDA and State Depts responded, retrieved, and tested the seeds to determine if they contained anything that could be of concern to U.S. agriculture or the environment.
- AK Division of Ag retrieved approximately 50 packages of unsolicited seeds in over 10 communities in Alaska.



INVASIVE: ZEBRA MUSSELS

Marimo Balls

A type of green algae (*Aegagropila* Linnael), commonly referred to as Marimo balls, *Claadophora* ball, moss balls, or lake balls was recently discovered to be infested with zebra mussels.



INVASIVE: ZEBRA MUSSELS

Zebra mussels grow and spread quickly, encrusting their surroundings.

They are imported from at least 18 countries through 17 suppliers in 7 states under permit from the US Department of Agriculture.

Detections of **zebra mussel infested Marimo balls** have been confirmed in at least 26 states.



AQUATIC INVASIVE: ELODEA

- **Alaska's first and only submerged aquatic plant species**
- **Brought to AK via aquarium industry**
- **Transfers easily and establishes new infestations from fragments**

AK-DoAg is the lead agency in Alaska working on elodea eradication efforts



ELODEA PROGRAM: 2020

44 lakes surveyed: no new infestations found.

Treated 5 lakes and 1 stream

Anchorage

- Jewel Lake
- Little Survival Creek

Mat-Su

- Big Lake
- Alexander Lake
- Sucker Lake

Key Partners

ADFG
ADEC
SWCD
USFWS
USFS



ELODEA PROGRAM: 2020

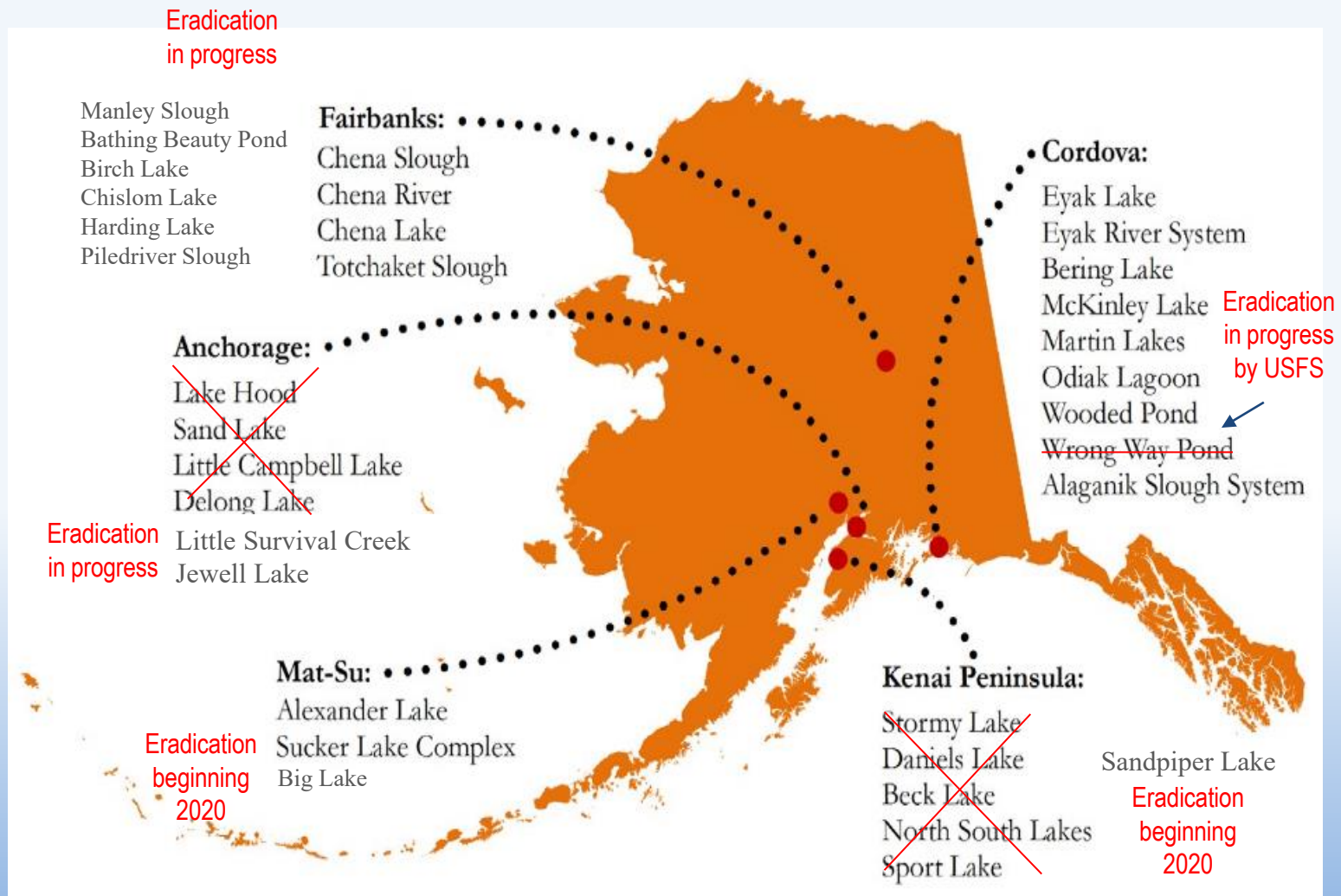
Treatment Methods

- Lakes
- Moving Water



Up to 90% reduction of elodea in treated water bodies.

ERADICATION IN PROGRESS



Map provided by USFWS, March 2021

QUESTIONS?



THANK YOU!

