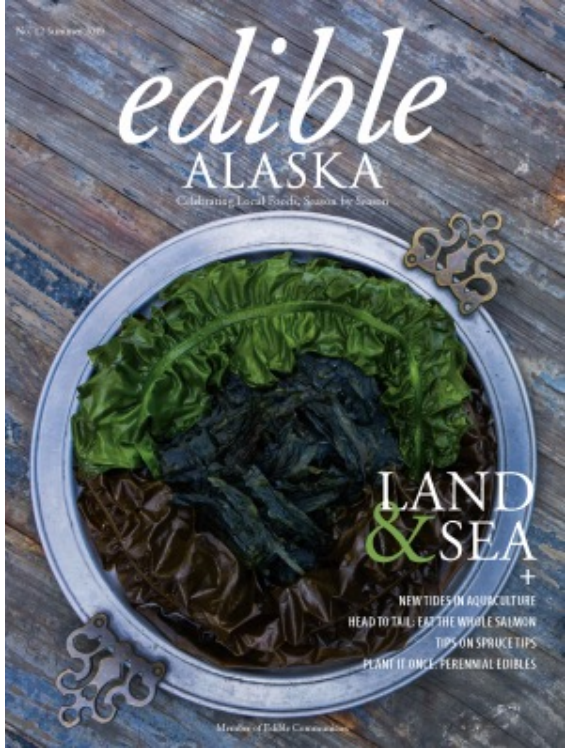
12.10 pm - 12.30 pm

JULIE DECKER

Executive Director,
Alaska Fisheries Development Foundation,
USA

1st International Seaweed Conference USA
Seagriculture
7 - 8 SEPTEMBER 2022
PORTLAND (ME), USA



Alaska Mariculture Initiative

Seagriculture - Portland, Maine

Julie Decker, Ex. Director, AFDF

September 7, 2022

AFDF
Alaska Fisheries Development Foundation, Inc.

AFDF

Alaska Fisheries Development Foundation, Inc.

Mission since 1978 *– to identify opportunities common to the Alaska seafood industry and development efficient, sustainable outcomes that provide benefits to the economy, environment and communities.*

Creating Value

Areas of work:

1) Alaska Symphony of Seafood
2) 100% utilization
3) Seafood sustainability certification
4) Vessel energy efficiency & transition
5) Startup Accelerator (Alaska Ocean Cluster)
6) Alaska Mariculture Initiative

What is Mariculture?

Photo credits: Hump Island Oyster Company

In Alaska, mariculture is enhancement, restoration and farming of shellfish and seaweeds.

Finfish farming is prohibited by Alaska Statute 16.40.210

Why mariculture?

Mariculture = Opportunities & Benefits for Alaskans

economic, environmental, community, cultural, and food security

Seagrove Kelp Company harvesting near Craig, Alaska

Complements & expands existing industries: seafood & tourism

Hump Island Oyster Co. & Bonfire Bay Tours

Ketchikan, Alaska

Alaska Mariculture Initiative

"If we're moving forward together, success takes care of itself." - Henry Ford

Alaska Mariculture Initiative (AMI):

A strategy to accelerate the development of mariculture in Alaska

2013: AFDF Board held strategic planning session; identified mariculture as new area of development
2014: NOAA provided a grant to AFDF to lead the Alaska Mariculture Initiative (AMI)
2016, 2018: Mariculture Task Force established & extended by Administrative Orders #280 and 297
2018: 2nd NOAA grant for AMI Phase 2; Alaska Mariculture Development Plan completed
2020: Five-Year Action Plan completed

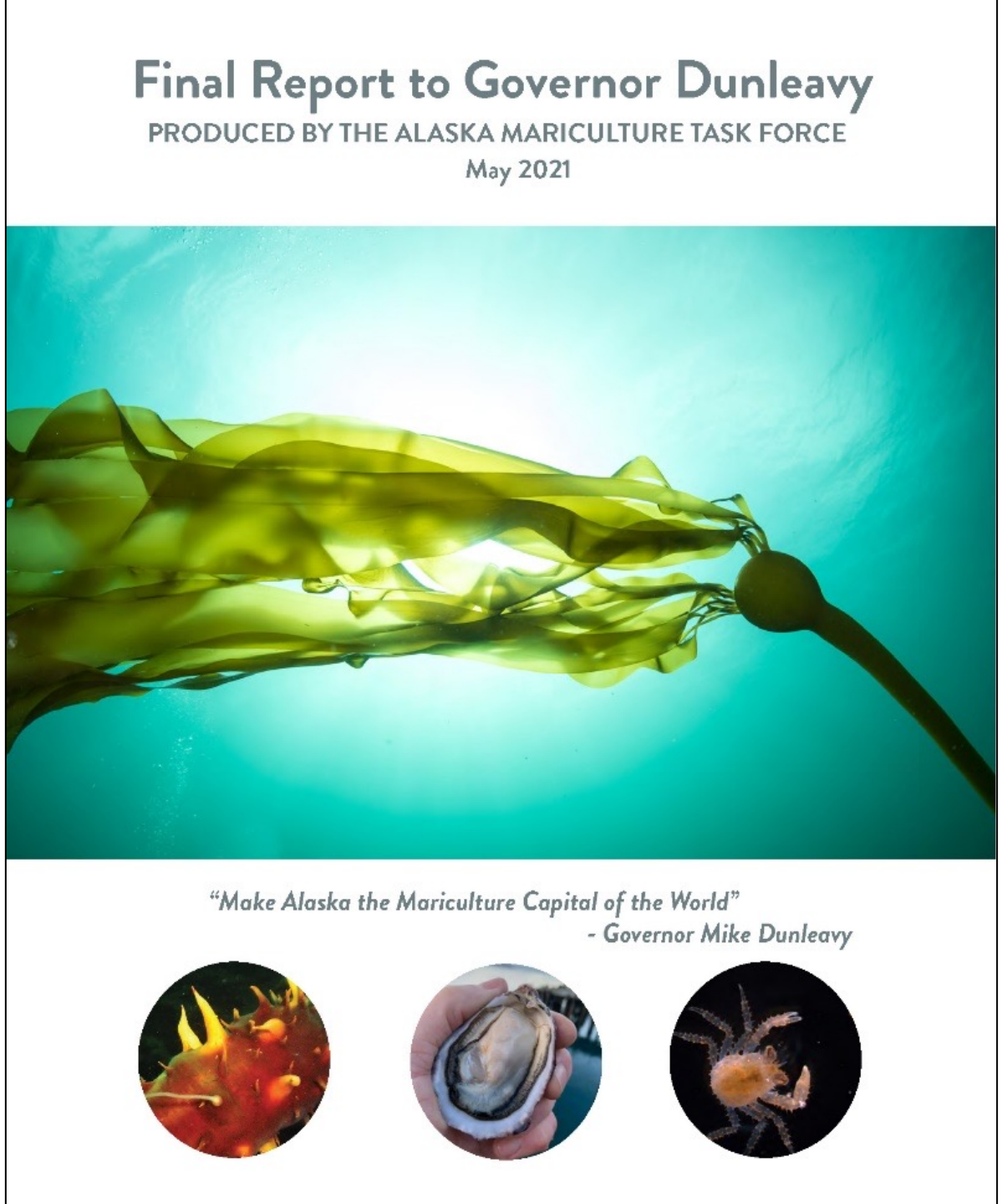
2021: Delivered Final Report to Governor; Task Force sunset & replaced with the **Alaska Mariculture Alliance (AMA)** & the **Mariculture Research and Training Center**

2022: AMA hired Executive Director (**Jason Lessard**) & Sea Grant Fellow (**Doug Shaftel**)

Jakolof Bay Oyster Company, Homer, AK

AMI: Critical Early & Continued Support

Above: Governors Walker and Dunleavy signing three mariculture bills in 2018, 2021, 2022.
Below: Senator Lisa Murkowski at the NOAA Fish Fry sampling kelp salsa.



Final Report & Five-Year Action Plan delivered to Gov. Dunleavy

Goal = Grow a $100 million/yr mariculture industry in 20 years.

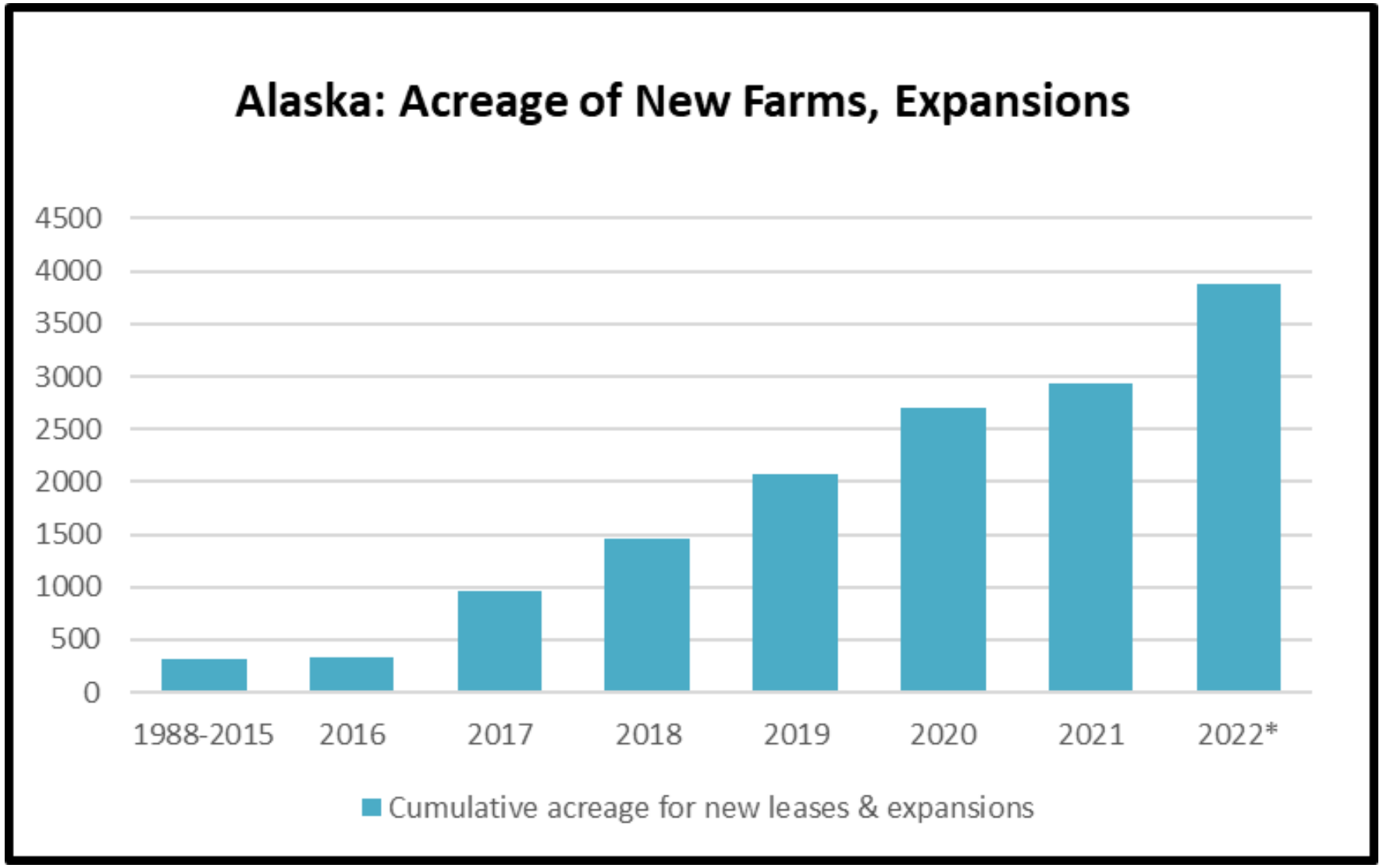
Major Funding Secured:

- **Key new positions created & filled**:
  - NOAA – RAC + Mariculture Research Lead
  - UAF – assistant professor (seaweed)
  - ASG Mariculture Specialist
  - 5 AK Sea Grant Fellows engaged in mariculture (2022-23)
  - AMA Executive Director (Jason Lessard)
- ARPA-E **$2.5 million** seaweed research
- USDA **$500K** for mariculture incubator / processing facility
- EVOS TC **$31.8 million** mariculture research
- EDA BBB **$49 million + 20% match**
- Legislature **$5 million** mariculture matching grant program
- Legislature **$7 million** to University for mariculture training

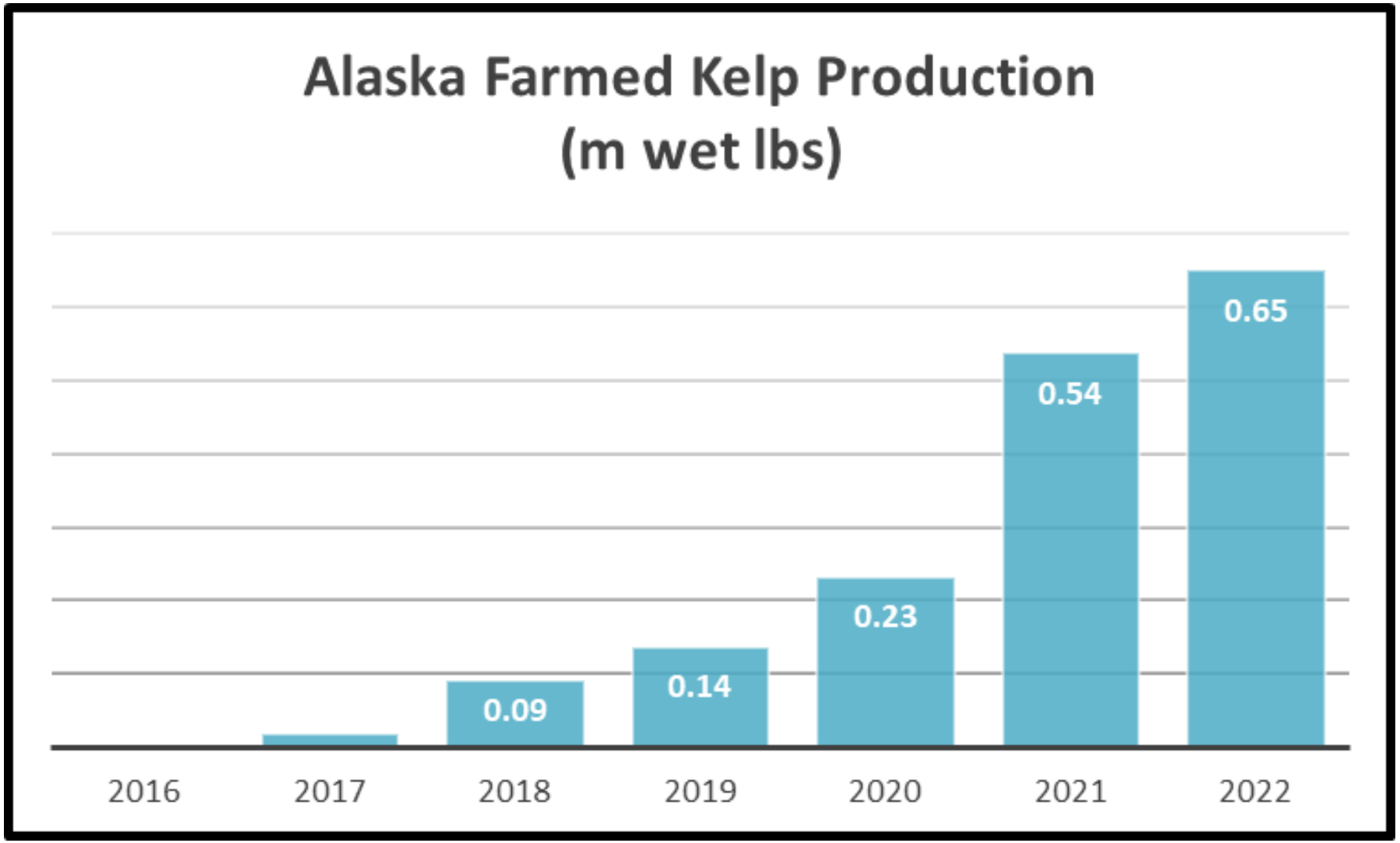
MADE IN ALASKA

MARICULTURE

Indicators of Progress



Indicators of Progress



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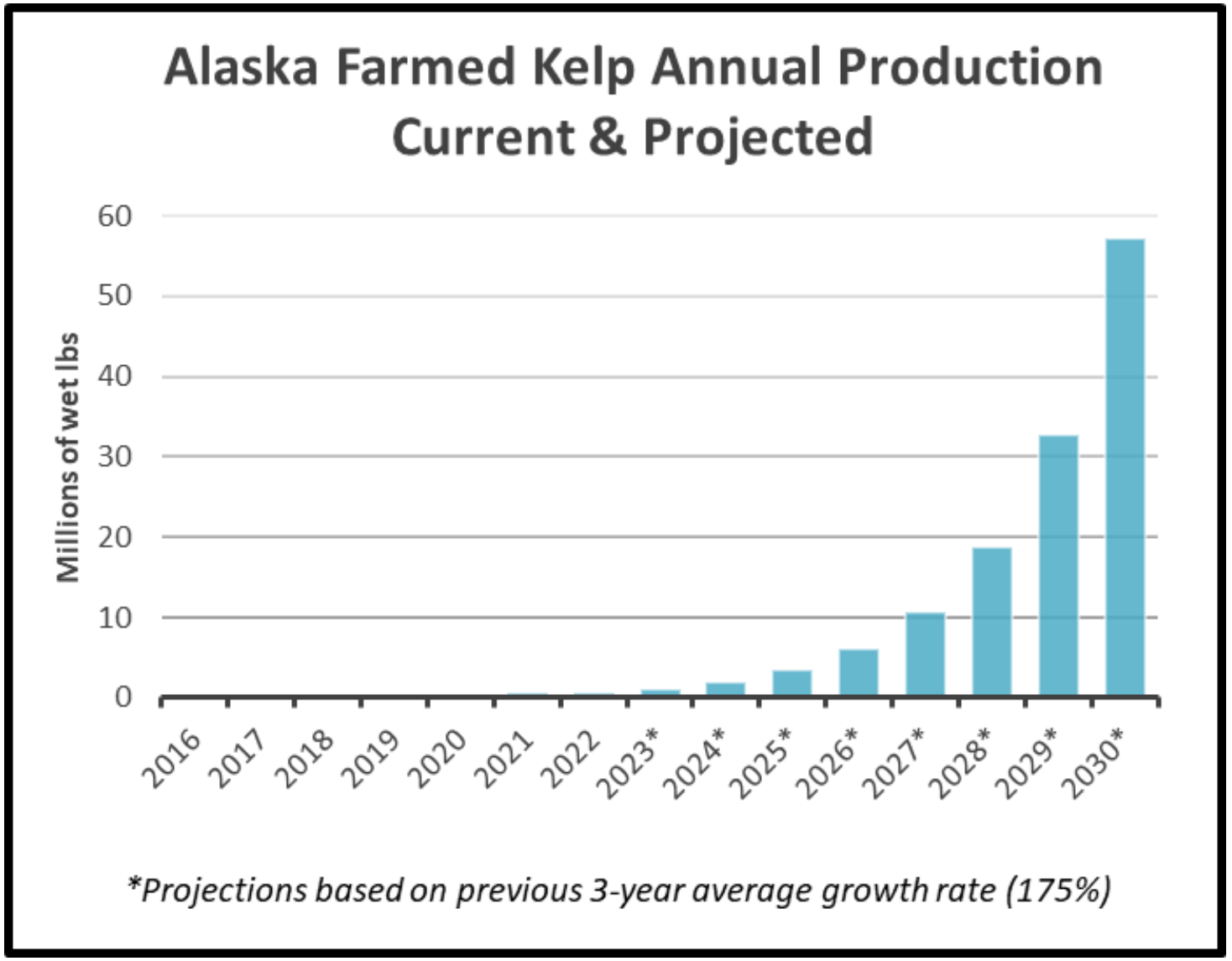

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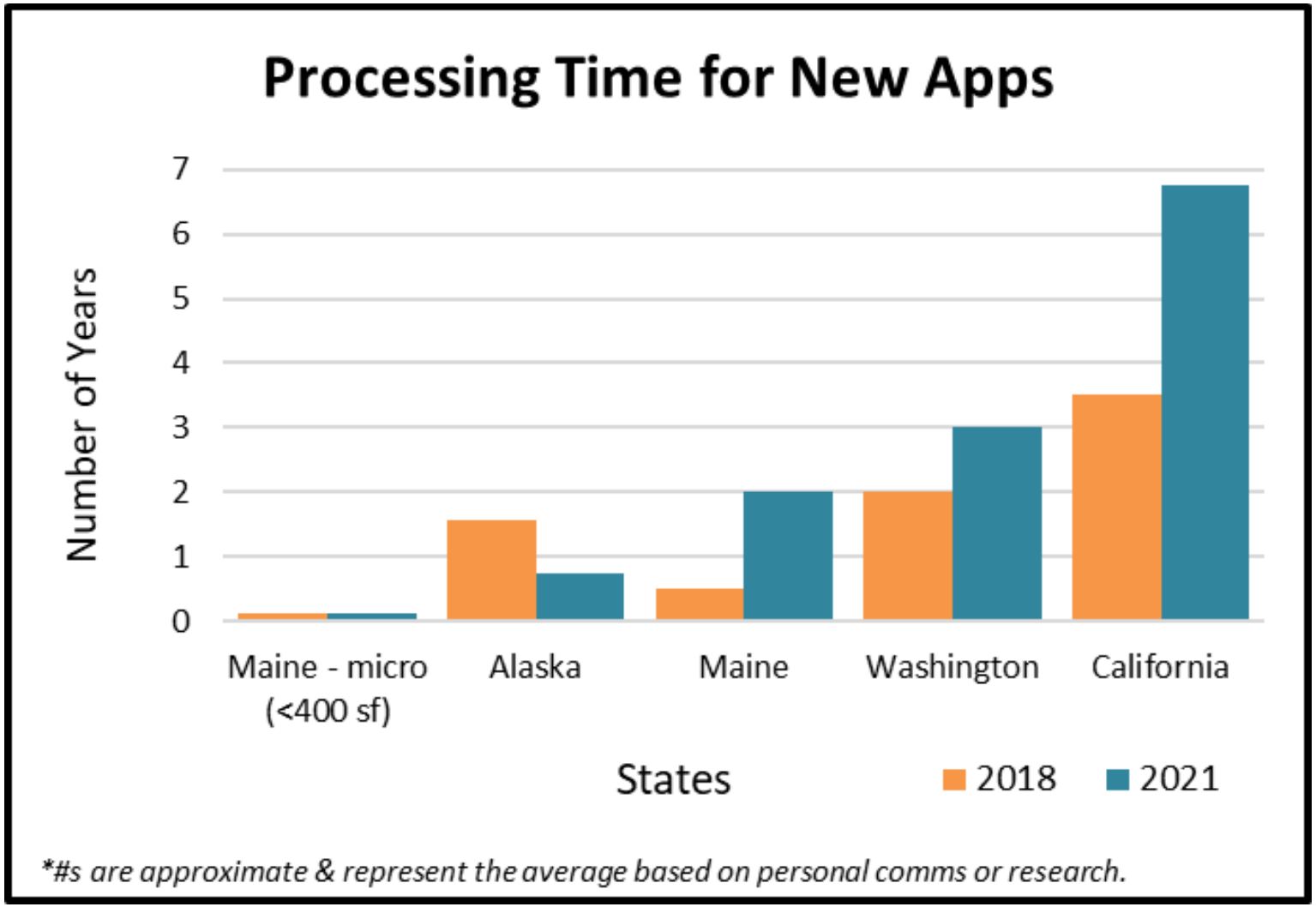
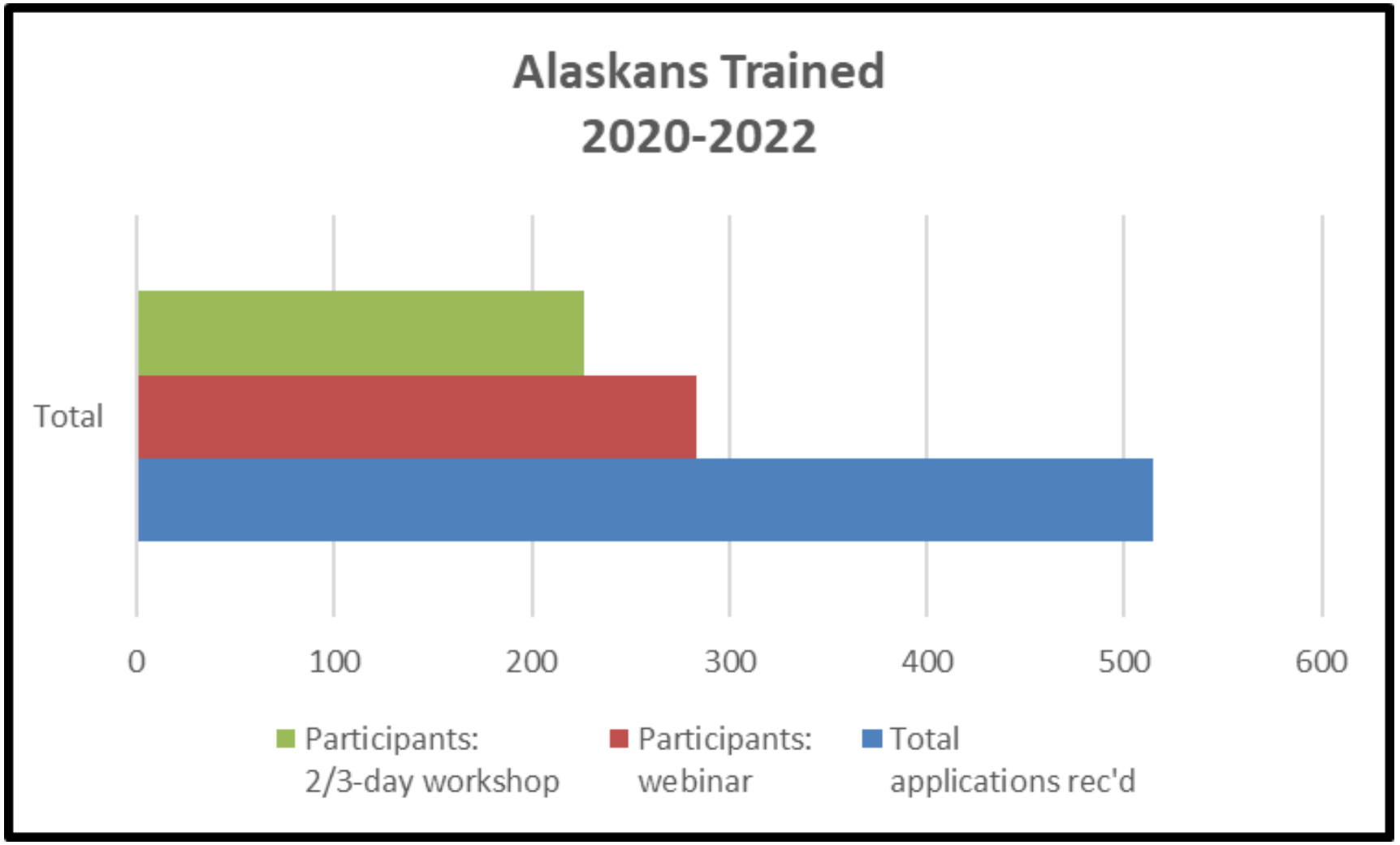
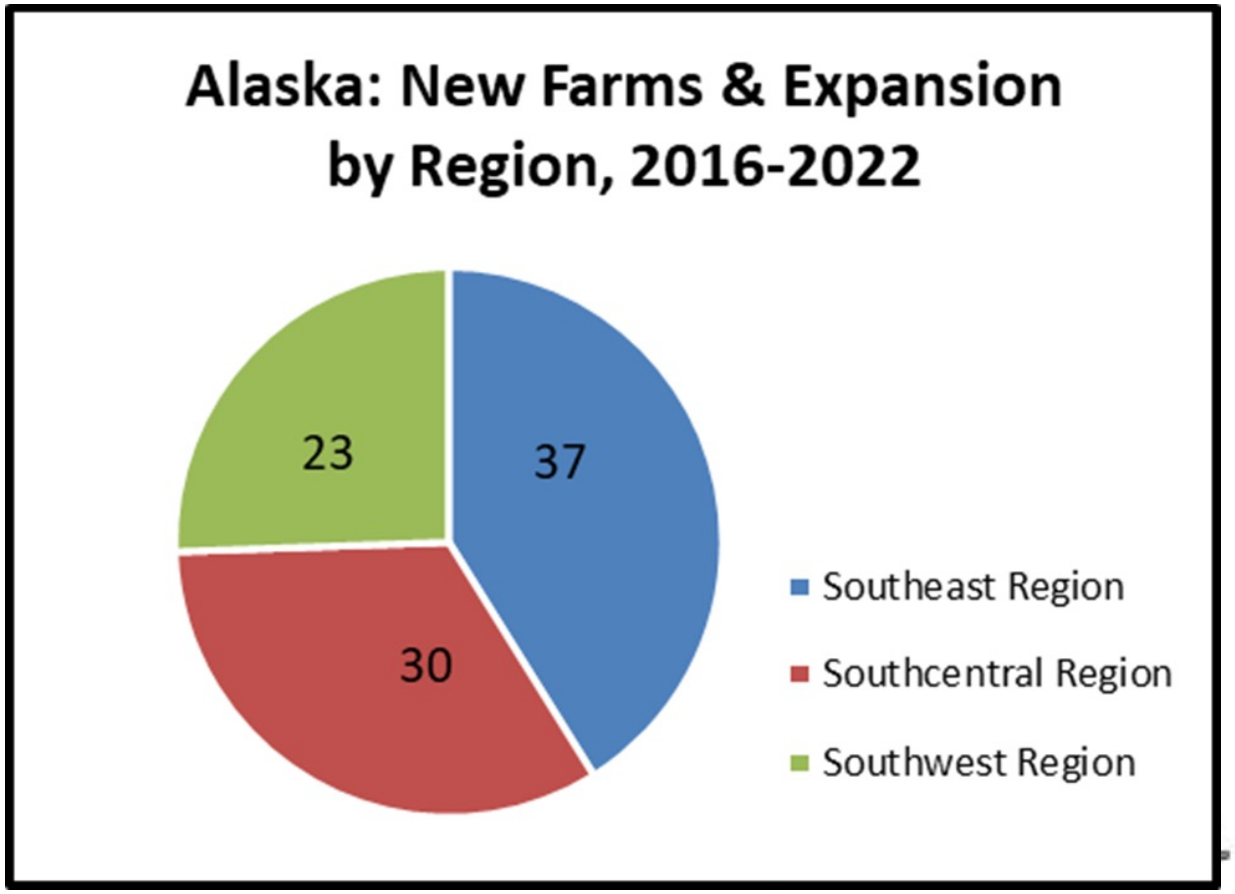
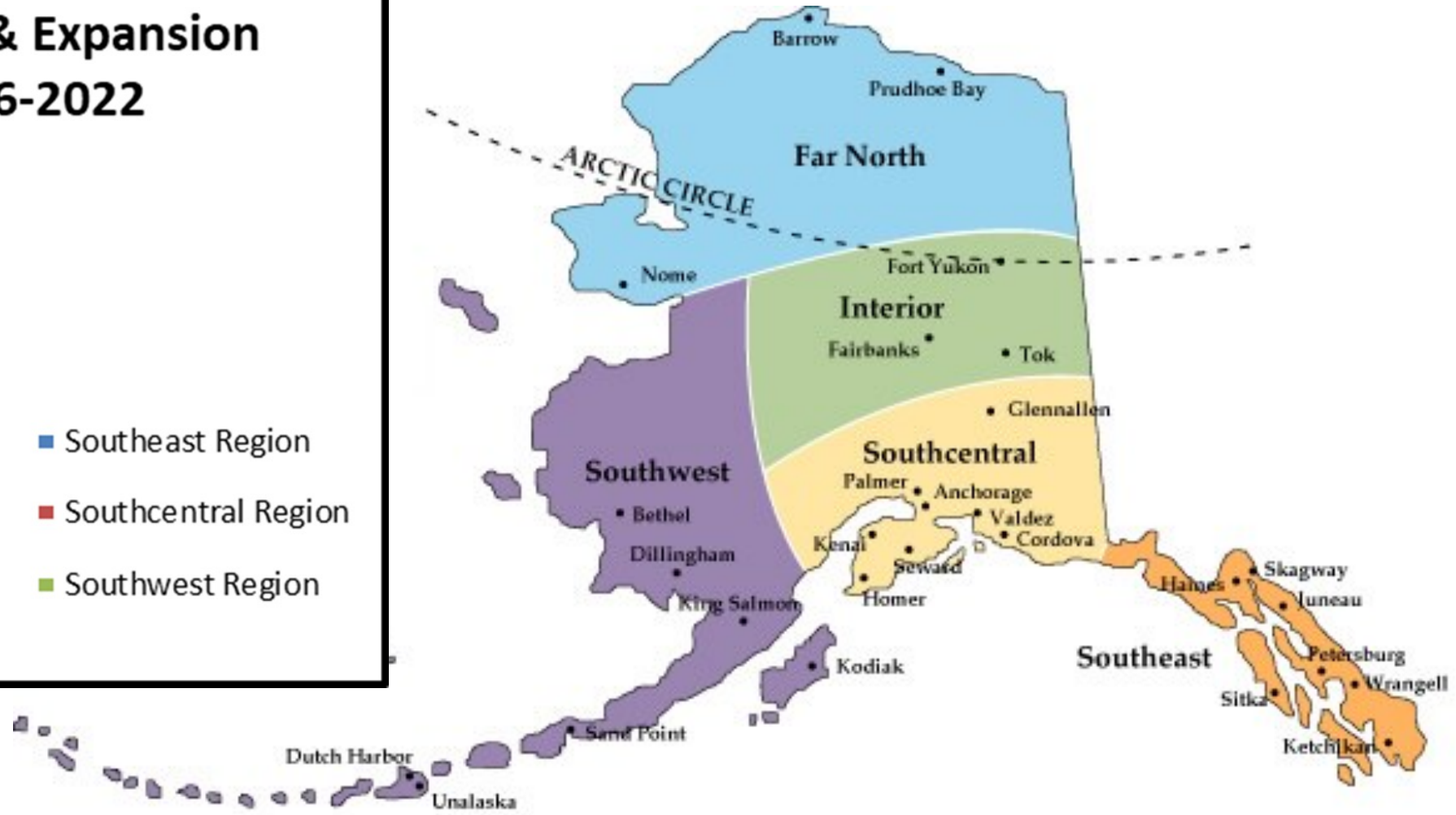


Indicators of Progress



New Farm Applications (2016-2022) by Region



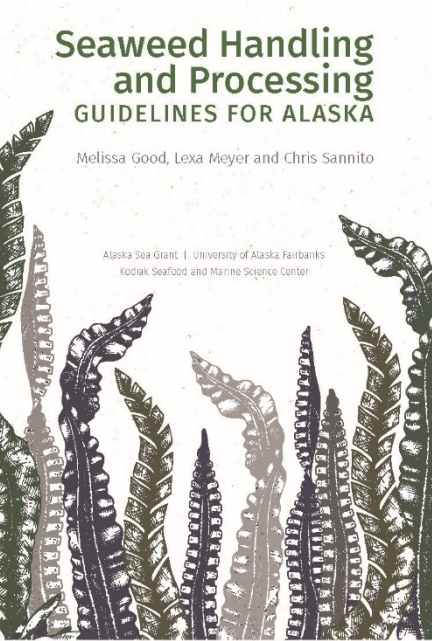


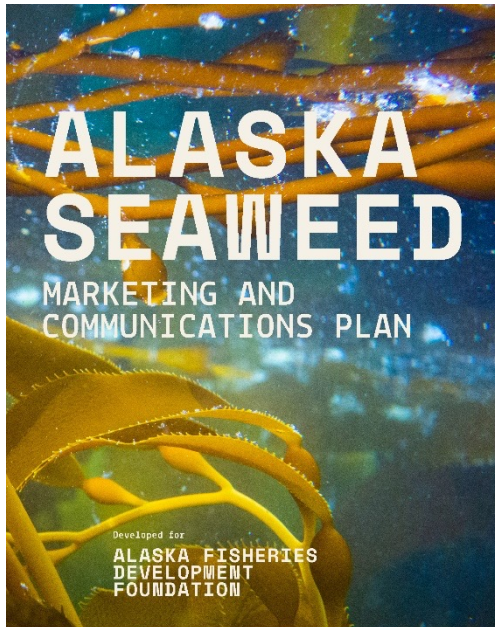
Needed - More seaweed buyers/processing

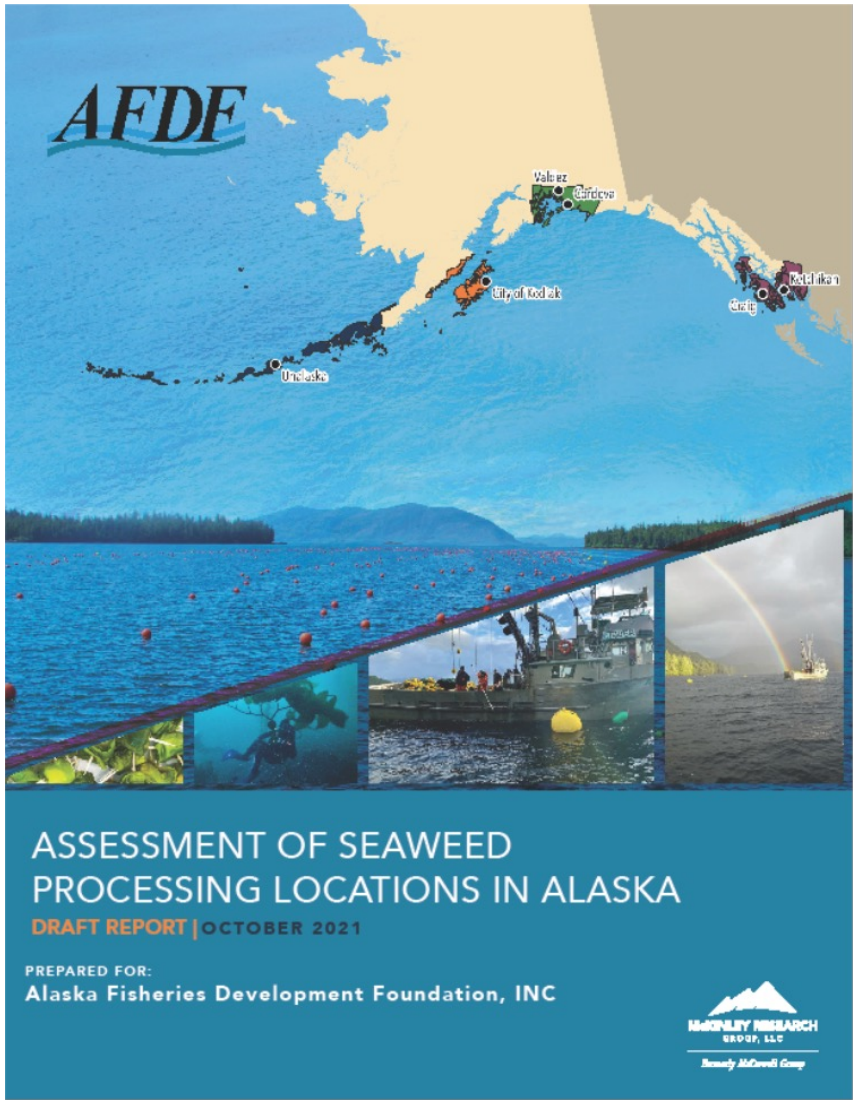
Promote expanded seaweed processing in Alaska: AFDF facilitated site visits between seaweed processors/buyers and Alaska seafood processors/investors

AFDF commissioned:

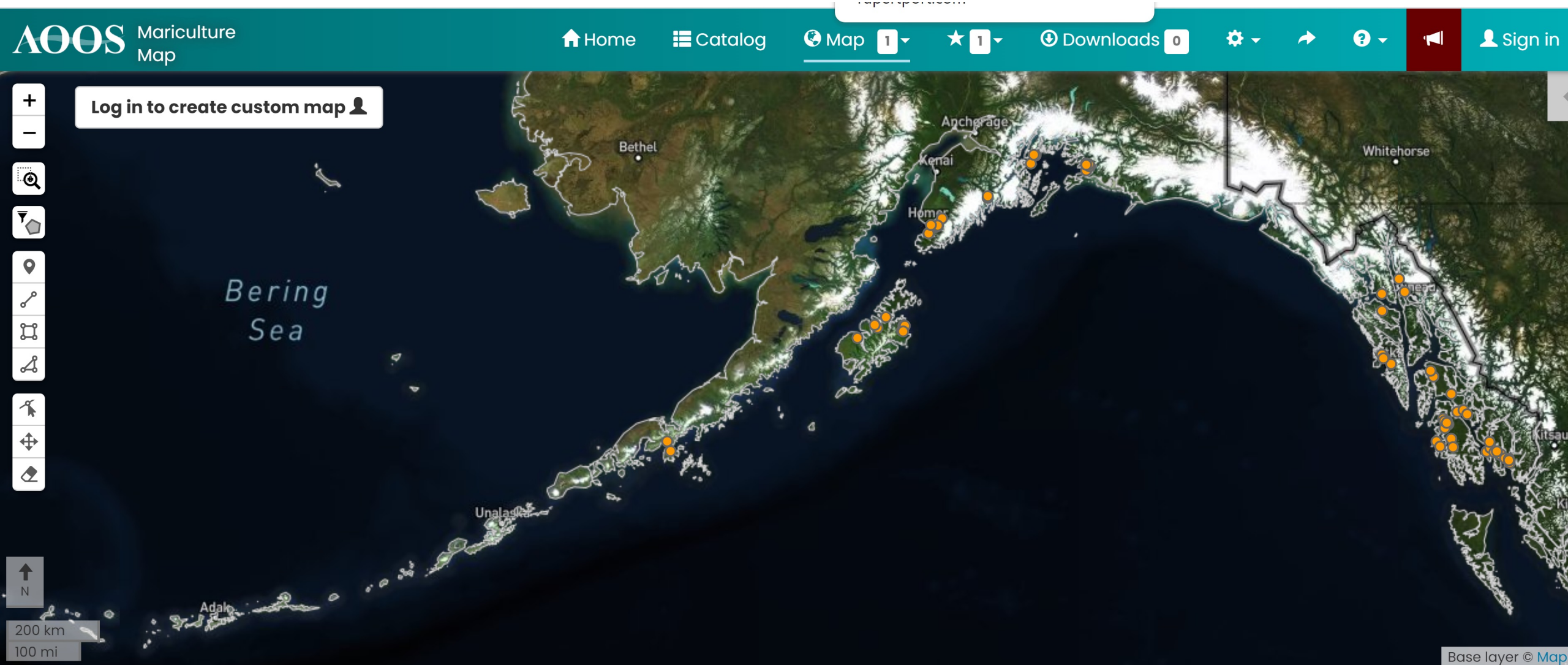
- *Alaska Seaweed Market Assessment*
- *Alaska Seaweed Processing Site Assessment*
- *Communications & Marketing Strategy*
- *Alaska Seaweed Industry Expansion Scenarios*
- *Seaweed Handling & Processing: Guidelines for Alaska*







Target regions in Alaska



ALASKA MARICULTURE CLUSTER VISION

Component Projects: 8 unique yet interdependent projects

Current Project Total: $65 million

Revolving Loan Fund $10 million

Governance, Coordination, and Outreach $3.5 million

Workforce Development $10.5 million

Research & Development $9.5 million

Marketing $1.2 million

Green Energy $.7 million

Equipment & Technology $26 million

Grant Management & Administration $2.5 million

"Develop a viable and sustainable mariculture industry producing shellfish and aquatic plants for the long-term benefit of Alaska's economy, environment and underserved communities"

- Industry-led initiative
- Equitable opportunities & development:
  - 25% Alaska Native +
  - 25% rural communities

COALITION:

Southeast Conference (lead),
Kenai Peninsula Economic Development District, Prince William Sound Economic Development District, Southwest Alaska Municipal Conference, Alaska Fisheries Development Foundation,
Alaska Mariculture Alliance, University of Alaska, Alaska Shellfish Growers Association, Alaska Longline Fishermen's Association,
Central Council Tlingit & Haida Indian Tribes of Alaska, State of Alaska

The “S”-word: Scale

What is a right-sized seaweed economy?

Kodiak, Alaska, ARPA-E Pro

Alaska Salmon Industry Model

- Early 1900's – large corporations/canneries owned the fish traps & processing
- 1959 – Alaska becomes the 49th state, driven by Alaskans reclaiming ownership of salmon & outlawing fish traps (too efficient)
- 1972 Constitutional Amendment passed (by 80%) to allow limited entry
- 1973 Limited Entry Act passed
- 1974 Alaska salmon fishermen (#) were limited; no limitations to processors, except economics
- Other limitations on fishermen: gear, vessel size, areas (cannot fish in more than one area)

- **Evolution of Alaska salmon industry:**
  - Statewide value = $715 M ex-vessel, $1.7 B 1st wholesale, 865 M lbs harvested
  - commercial fishermen remained small businesses (10,000 commercial fishermen total)
  - seafood processors tended toward medium to large businesses (30,000 employees total)
  - Larger scale needed for economics in Western AK
  - coops tried, mixed results; successes = Icicle, Silver Bay Seafoods, SPC

- **Unintended consequences:**
  - vessel size did not limit vessel capacity (tripled)
  - less fuel efficient & other inefficiencies
  - salmon fishermen cannot move to fishing other regions, climate change will make winners/losers

Economics in the Service of Fisheries Policy

Taken from: ***Marine Resource Economics, 2011***
by Susan Hanna, Oregon State University

"The failure to understand fundamental economic issues lies at the core of problems with fishery policy and practice."

"Fishery policy is high-level strategic direction; fishery practice is the implementation of policy. Economics education and outreach can strengthen fishery policy and practice, but they are underutilized as an avenue of influence. The position of economics in fisheries can be understood as a value chain, in which a sequence of activities gives economic information greater added value than the sum of the individual activities. The value chain is weakened by the inadequacy of data and by the delivery of education and outreach at levels insufficient to robustly affect policy and management actions. The three primary reasons for this weakness are inadequate investment, unappealing language, and limited exposure."


ALASKA


ME

USA EEZ: Alaska vs The Rest

Three seaweed farms in Kodiak, Alaska