



barnacle

FOODS



Evaluating and Sharing Methods to Efficiently Dry Kelp for Rural Communities

Barnacle Foods Joint Innovation Project - 2023

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This Project

Identify sustainable and scalable kelp drying solutions for remote coastal communities in Alaska



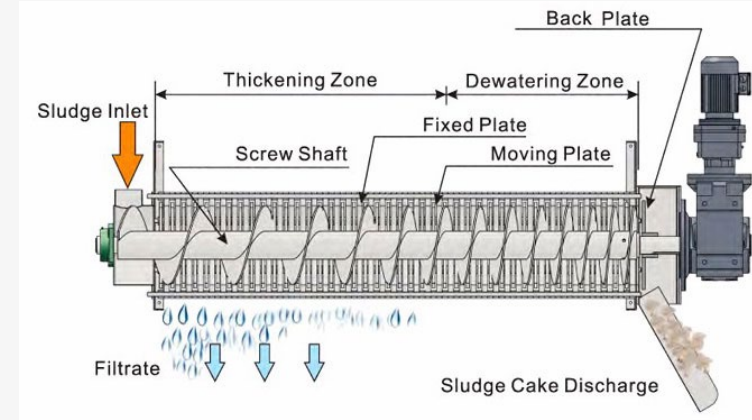
Why Dry?

- Seaweed and kelp are most commonly sold in dried form
- Kelp is high perishable
- Long transportation distances from farm to market
- Steep operational costs, energy, labor costs at remote farms



Testing - Mechanical Dewaterer

- Screw press
- Low throughput
- Minimal liquid extraction
- High capital cost
- Not recommended



Testing - Cabinet Dryer

- Energy Consumption: Moderate to low
- Drying Efficiency: Moderate to high
- Labor Requirements: High
- Capital Cost: Low to High
- Recommended
- Key point: Balancing drying time with labor cost



Further Work

- Further testing, modification, and adaptation of existing technologies will be needed
- Collaborative efforts between farmers, manufacturers, and researchers will continue to be essential
- Containerized thermal dryers and electric heat pump systems demonstrated promise and should be prioritized for future deployment

