Seaweed Hub Virtual Workshop  
*Post Harvest and Processing Workgroup*  
April 29, 2021  
2:00 – 3:00 pm EST (11:00 am – 12:30 pm PST)

**Agenda**

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<tr>
<th>Time</th>
<th>Session Title</th>
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<tr>
<td>2:00 pm</td>
<td>Welcome and Introductions</td>
<td>Use Zoom chat to introduce participants and create meeting registry</td>
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| 2:10 pm| Recap and Miro Overview                           | • Recap process used to build consensus  
• Remind participants about basics Miro whiteboard navigation |
| 2:20 pm| Priority 1: Invest in feasibility study to recommend framework to establish Regional Processing Model that may be adapted by states | • Breakout group discussion with access to Miro whiteboard  
• Request volunteer in each breakout group to capture consensus and other major issues on Miro whiteboard |
| 3:05 pm| Gallery Walk                                       | Review whiteboard comments and invite participants to elaborate            |
| 3:20 pm| Next Steps and Seaweed Hub website updates         | • Review plans for next meeting  
• Highlight Seaweed Hub website updates                           |
| 3:30 pm| Conclusion                                         |                                                                             |

Whiteboard Notes: **Seaweed RPM SWOT**

**Strengths:** What must be done well to achieve the objective?

*What is our advantage?*

- Collaboration and shared resources
- Help encourage people to advance the industry
- Vertical integration: tank culture, nursery, processing; the one stop shop
- Cost sharing, less of a financial burden on individuals
- Utilize existing infrastructure that is not being used
- Coastal communities have existing infrastructure (ex. Alaska, Maine, etc.)
- Research in food hubs in other raw ag, leeks
- Food Venture Center or other centers can provide research
- Work has started on document on seaweed regulations – policies, National Sea Grant group, NY specific local group
- Fighting algae blooms, livestock feedstock feed, other positives; consider end use of seaweed to help drive processing facilities; list application and types that can be grown locally, volume that is needed to be processed
- Infrastructure and expertise of existing fishing communities

**What resources do we have?**
- Optimal growing conditions
- Already have processors making products – WA
- Smaller growers can sell to processor or utilize facility
- Marine research institutions

**What markets or products do well?**
- Lots of value added products and consumer packaged goods
- Locally fresh kelp can be successful/earn high prices, but is lower volume for food use

**Use this space to add new questions.**
- What products do well?

**Weakness: What is harmful to achieve our objectives?**

**Where can we improve?**
- No regional governance structure
- Getting word out that kelp is a viable research topic
- Streamline permitting
- Seasonality
- Processing facilities may not have seasonal capacity
- Seaweed is very wet and therefore unique challenges
- Market access – many small individuals difficult to obtain market access
- Safe storage

**Where are we lacking resources?**
- Volume may not be enough to tap into established processing opportunities
- Site map
- Distance to transport
- Different state considerations/regulations (if regions encompass multiple states)
- Information about at what point does volume justify changes to existing processing (ex. outfitting vegetable processing)
- Investment in processing facilities
- Lots of funding/efforts to “getting farms in the water” (training programs, grants, etc.); less funding/efforts to innovative processing/processing-focused research, etc.

**What markets are underperforming?**

- What consumer trends threaten business
- Lack of processing facilities makes raw kelp the only market
- Need more research on multi-trophic aquaculture
- Need seed banks

**Opportunities: What are our goals for growth or success?**

**What technologies can be used to improve operations?**

- Tank culture
- Improved filtration
- What are processing facility roles in marketing and sales?
- Renewable energy
- Market access – many small individuals difficult to obtain market access
- Understand demands of market or farmers needs; providing for the needs of the farmer
- Connecting the dots among communities – both infrastructure and regulatory
- Seasonality
- Opportunity to explore new models
- New model to raise crops
- What is the publicly available information about kelp processing?
- Basic scientific knowledge might also allow farmers to stabilize product themselves.

**How can we expand core operations?**

- Knowledge sharing of processing techniques among processors
- Tender boats in Alaska do processing/have freezing capacity on boats
- Training for processing (lots of training for farming, but none yet); expertise might not exist yet, and those that are processing could see it competitively
- What equipment/boats do we need to support larger harvests to meet demand (infrastructure to go from the farm to the dock)?

**What new market segments can we explore?**

- Pharmaceuticals, fertilizer, bioplastics, biofuels
• Positive regional messages
• Positive (or no) environmental impacts
• Biofuels

Use this space to add new questions.

• Mobile processing units? (Maine is working on a mobile drying unit but this is logistically very challenging; drying is relatively low-cost in greenhouses)
• What market segments can we explore? Bioplastics?
• Can we have a processing facility that is processing for multiple product types (raw bioplastics, value-added, etc.)?

Threats: What are the obstacles?

What new or existing regulations threaten operations?

• No standards
• If regulations change, only one facility would need to adapt
• Shared use concerns can be a challenge for farms/species (ex. farms need to be out by a certain time)
• Lack of clarity in permitting process
• Wet product in transportation has limited lifespan – needs to be processed close to farms
• Some statesregions may not be able to produce high volumes needed to meet alternative processing

Who are our competitors and what do they do well?

• Asia – already into genetic selection
• Need to streamline process and use vertical integration
• Other countries may not have as strict of regulations
• Large farms that can meet processing demands might be red flags in certain regions (ex. large leases in Maine bumping up against lobster industry)

What consumer trends threaten business?

• Social licensing
• Nutritional issues – iodine
• Heavy metal concentrations
• Large amount of global seaweed, no testing on global supply chains; can local producers capture this untested market?
• General mistrust in aquaculture
Parking Lot

Important issues that are NOT immediately relevant to this discussion.

- Wild harvest vs. aquaculture
- Food safety

Participants List

(Participants who responded to Zoom chat)

Anoushka Concepcion, CT Sea Grant (PI)
Antoinette Clemetson, NY Sea Grant (Co-facilitator)
Melissa Good, AK Sea Grant (Co-facilitator)
Kathryn Carovano, Saltwater Inc. Anchorage AK
David Carey, CT
Aaron Milstein, WA State Seaweed Coop
Linda LaViolette, NYS Dept Agr & Markets (economic development)
Jacyln Robidoux, ME Sea Grant
Louie Krak, LIS Ocena Cluster
Kate Alfanso, ME
John Roach, Observer/interested party
Casey Emmett, The Crop Project
Sam Garwin