Market Opportunities Work Group Notes

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Day 1: March 2, 2020
Agenda:
• Welcome and Review Objectives
• Introductions
• Working agreements
• Generating Ideas: Challenges and Opportunities

Objective for Day 1: Generate Ideas – Identify “Big-Picture” Challenges and Opportunities

Brainstorm: What markets exist for seaweed?
Food          Bioplastics          Cosmetics          Fish/animal feed
Biofuels      Fertilizers         Biotextiles        Pet food
Hydrocolloids Carbon market      Research market      Regenerative medicine
Bioceuticals

Opening thoughts and discussion:
• Scale and volume: Some marketing challenges are universal (ex. consumer education),
  but many are linked to the scale of the operation and the volume of seaweed being
  produced (ex. buyers, products, etc.).
  o Some states and businesses have the capacity to produce large volumes, but
    smaller volume production is the most feasible option for others. Geography
    dictates scale.
  o Smaller volume = “niche market”, larger volume = “commodity market”.
  o Addressing large volume commodity challenges will likely have trickle-down
    benefits to niche markets.
• Opportunity: developing marketing strategies that support growers at various scales
  and/or address shared challenges.

SMALL VOLUME
• Market is local, high-end, niche markets.
• Product gets higher value per pound.
• With limited local markets, producers grow more than they can sell.

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<tr>
<th>CHALLENGES</th>
<th>OPPORTUNITIES</th>
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<td>Tapping into new markets (chefs, the larger eating population, etc.)</td>
<td>• Consumer education</td>
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<td>• Distinguish/differentiate “niche” markets from commodities (pitch geography, origin story, etc.)</td>
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<td>CHALLENGES</td>
<td>OPPORTUNITIES</td>
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<tr>
<td>Need to know markets before producing at scale</td>
<td>• Consumer validation, focus groups – life cycle analysis, consider market first then start farming</td>
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<td>Current “large scale” operations can’t meet supply demands of “small” markets (ex. Pet food)</td>
<td>• Identify points of entry so multiple growers can access</td>
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<td>• Cooperatives or collectives?</td>
<td>• Operations scale-up to meet supply needs of identified markets</td>
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<td>Certain scales might not be able to support diverse markets</td>
<td>• Develop protocols for handling product to ensure quality grade(s) in the marketplace</td>
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<td>No supply chain standards/grading exist – large buyers need consistent grade and different markets require different quality</td>
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**LARGE VOLUME**
- Focus is on growing “biomass”, not “product”. Product is developed from biomass.
- Processing and infrastructure are required to handle larger volumes.
- Commodity markets are still developing.

**SHARED CHALLENGES**
- Challenges that both large and small volume producers experience

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<td>Public is not familiar with seaweed</td>
<td>• Consumer education</td>
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<tr>
<td>• Need to develop consumer familiar/friendly products</td>
<td>• Marketing campaign like other food products (beef, milk, blueberries, etc.) – USDA?</td>
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<td>Competition with other products (ex. specialty vegetables, imported seaweed)</td>
<td>• Unified messaging to distinguish seaweed in the marketplace (ex. id buzzwords, associate with sustainable eating, “US brand” and quality, etc.)</td>
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Use nutritional profiles to form the basis of product stories (ex. high in calcium)

Seaweed contents and nutrition are not accurately reflected in labeling – nutritional profiles are costly to growers and markets need to know contents

Open source consumer information/database – nutritional profiles that are regional, seasonal, etc.

Seasonal production

Value added processing or storage
Diversify species to extend season
Multiple harvests for multiple markets
Carbon markets that require seaweed stays in the water

Different markets for different species

Identify end user preferences and market needs and target production of desired species

Parking lot from Day 1:
- What are related food markets or products (not seaweed) that we can learn from? Ex. German asparagus
- How are we defining value-added?
- How do we bridge the gap between large volume buyers and small volume farms?
- How can we focus on quality not competing on volume?
- What can collectives/ cooperatives offer growers?
- Does “Market Development” fit this group better than “Market Opportunities”?

Day 2: March 3, 2020

Agenda:
- Welcome and Review Objectives
- Introductions and Reflections (from Day 1)
- Review Challenges and Opportunities from Day 1
- Refine Priorities – Short, Medium, and Long-term
- Determine Work Group Goals and Objectives
- Identify Next Steps

Objectives for Day 2: (1) Narrow Ideas – identify priorities and timeframes (2) Plan goals, objectives, and a group framework.

Review: Discussion of volume-related and shared challenges identified in Day 1.

Messaging and Market Needs:
- There is a difference between market needs and consumer wants – consumers may not know what they want because this doesn’t exist yet.
- We need to use a common language to (buzzwords and shared vocabulary) and technology to educate consumers – global positioning.
  - Seaweed benefits from being marketed as a vegetable.
Need to convey that products we are developing are sustainable, farm to table, climate friendly, etc.
  - Balance carbon/nutrient uptake with positive food marketing.
  - Need increased clarity about climate-related impacts of seaweed farming - ex. “mitigates ocean and coastal acidification” and “carbon sequestration” (100 year time-scale, food doesn’t count)
  - What about heavy metals?

• Some seafood economies have strong branding, seaweed can benefit from this branding (ex. lobster and seaweed) and possibly shared infrastructure.
• Stories and sense of place can help deal with social license and public consent.

**Restoration and Ecosystem Services:**
• Ecosystem services distinguish seaweed in the marketplace – can be used as a marketing tool if quantified.
• Carbon, nitrogen, phosphorus markets. Markets don’t currently exist, but there is potential to build toward this market/provide opportunity for farmers to keep seaweed in the water year-round.

**Trade Group:**
• Can organize messaging, marketing campaigns, deal with advocacy and policy (labeling, standards, etc.)
• This is an umbrella under which other challenges we’ve identified fall.
• Seaweed aquaculture is covered under some individual state trade associations (ex. Maine Aquaculture Association), but no group exists that is inclusive of all domestic seaweed farmers/focuses on US seaweed.
• It’s possible that other work groups have identified this – we should collaborate with other groups since this is a cross-cutting idea – trade group idea is a central spoke of the wheel.

**Education:**
• We should be thinking about education as a long-term priority: K-12, farm tours, etc.
• Regionally customized outreach programs to serve as a connection to the resource.

Additional challenges and opportunities based on discussion:

<table>
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| No coordinated messaging for marketing US seaweed | • Develop common language - “buzzwords” or hashtags  
• Create regional outreach strategies – ex. develop a fact-sheet that can convey this information  
• Identify mechanisms for distributing this information – state (ex. MA farm bureau), regional (USDA), etc. |
Restoration: no coordinated base of info to monetize the restoration value of seaweed

• Research on ecosystem services
• Model after other restoration programs – ex. Air transportation and forest restoration partnership. Opportunity to partner with cruise ships or coastal tourism businesses?

No trade group that focuses specifically on farmed US seaweed currently exists – could take on many of these challenges

• Identify potential existing trade groups which could incorporate seaweed farming
• Investigate feasibility of forming a seaweed trade group (is there the critical mass, etc.)

**Narrowing by voting: What are the short, medium, and long-term priorities?**
Definition of timeframes: Short = 0-1 years, Medium = 1-3 years, Long = 3+ years.

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>TOTAL VOTES</th>
<th>SHORT</th>
<th>MEDIUM</th>
<th>LONG</th>
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<tbody>
<tr>
<td>Standards and grading</td>
<td>10</td>
<td>8</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Trade association</td>
<td>26</td>
<td>10</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Regional outreach strategies</td>
<td>14</td>
<td>6</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Market research – focus groups, consumer surveys, etc.</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>4</td>
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<tr>
<td>Nutritional data/profiling</td>
<td>9</td>
<td>4</td>
<td>3</td>
<td>2</td>
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<tr>
<td>Support and recognition from federal agencies</td>
<td>16</td>
<td>2</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Universal messaging and marketing opportunities</td>
<td>14</td>
<td>5</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Better define/market seaweed ecosystem services</td>
<td>34</td>
<td>5</td>
<td>13</td>
<td>16</td>
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Top **SHORT TERM** priorities:
• Trade association
• Standards and grading
• Regional outreach strategies

Top **MEDIUM TERM** priorities:
• Better define/market ecosystem services
• Regional outreach strategies
• Trade association

Top **LONG TERM** priorities:
• Better define/market ecosystem services
• Trade association
• Recognition and support from federal agencies

**Discussion of top priorities:**

**Trade association**

- We need to evaluate if needs of US seaweed farmers can be met in existing trade association or if forming an individual association makes more sense.
  - Joining another trade association
    - Pros: framework is already in place, potentially a shorter timeframe to begin activities. Seaweed farming could become a council of an existing group (ex. shellfish growers associations, microalgal groups - Algal Biomass Organization, etc.)
    - Cons: possibly less flexibility, seaweed farming may not fit in with an existing groups framework, may not be as inclusive as needed (cost for farmers to join, etc.)
  - Forming an independent trade association
    - Pros: Greater flexibility in representing the industry values and pursuing opportunities specific to seaweed farming. Inclusive and adaptable to seaweed farmer needs – could represent farmers from all around US, not regional division. May help distinguish seaweed farming as separate entity (vs. partnering with shellfish, microalgal farming, etc.).
    - Cons: Need critical mass to effectively run this group. Possibly longer time to form/get up and running. Would need funding to get started.
    - Trade associations are usually non-profits (501C3 – charitable non-profit, 501C6 – can lobby and trade).

- Need to identify what options currently exist and identify what the value is to seaweed farmers for each of these options.
- We need to work with other work groups on this, since this is a central idea.

**Ecosystem services as a marketing tool**

- We need to know what ecosystem services matter to consumers.
  - Gather info from other certification labels.
- What do we measure and do we have the capacity to measure these?
  - Look into ongoing research – “kits” being developed
  - To what end does this information matter – for marketing, market opportunities, etc.

**Setting goals and objectives for this work group based on priorities:**

<table>
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<th>GOALS</th>
<th>OBJECTIVES</th>
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<tr>
<td>Trade association: Support the creation of a trade group to address cross-cutting industry needs</td>
<td>• Identify pathway to trade group formation or inclusion in existing groups</td>
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<td>• Identify possible existing groups – ABO ISA, aquaculture/agriculture groups, etc.</td>
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| Standards and grading: Support the formation of standards and grading for US farmed seaweed | • Look at how forming a trade group works – formation documents, what is involved, funding, etc. How much work would this take? Does this make sense?
• Work with other work groups to establish this as a cross-cutting priority/umbrella category that the Seaweed Hub can work on collectively |
| Ecosystem services: Use ecosystem services as a value-added marketing tool for seaweed | • Investigate standards/grading that exist for seaweed worldwide
• Investigate certifying agencies
• Work with Processing and Regulations work groups to identify specific tasks for this group within this cross-cutting goal |
| Universal messaging: Establish a value proposition for farmed seaweed products | • Investigate ongoing research – what information exists, what information do we need?
• Couple scientific knowledge with end-user values: Evaluate consumer information – value of ecosystem services. Look at other products that use ecosystem services as a marketing tool and possibly put together a seaweed-specific survey for consumers. |
| Regional outreach strategies: Educate the public about seaweed benefits and uses | • Develop the “sustainability story”
• Identify buzzwords or hashtags that are effective and can be universally shared
• Use nutritional profiling to develop strategic messages for desired markets |

Process goals for this group moving forward:
• Set up an email list with interested work group participants
• Circulate a google doc with everyone’s contacts
• Host a video conference
• Establish sub-committees
• Look for opportunities to reconvene in person (regional opportunities, funding, etc.)
• For next meeting: discuss setting up a slack, determine how often and when this group or sub-groups would like to meet virtually.