

**National Seaweed Hub Seaweed Symposium. March 2020.
Market Opportunities Work Group Notes**

Work group facilitators:

Gabby Bradt, New Hampshire Sea Grant – gabriela.bradt@unh.edu

Jaclyn Robidoux, Maine Sea Grant – jaclyn.robidoux@maine.edu

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.).
 - 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.
 - Smaller volume = “niche market”, larger volume = “commodity market”.
 - 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.

CHALLENGES	OPPORTUNITIES
Tapping into new markets (chefs, the larger eating population, etc.)	<ul style="list-style-type: none"> • Consumer education • Distinguish/differentiate “niche” markets from commodities (pitch geography, origin story, etc.)

Access to infrastructure – growers may be far from end users/markets	<ul style="list-style-type: none"> • Diversify into multiple product lines • Partner with other local products for distribution
Access to value added processing	<ul style="list-style-type: none"> • Co-op/collective opportunities for shared processing equipment
Consumer interest may be short-term	<ul style="list-style-type: none"> • Focus on developing products that are already familiar to most customers

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.

CHALLENGES	OPPORTUNITIES
Need to know markets before producing at scale Current “large scale” operations can’t meet supply demands of “small” markets (ex. Pet food)	<ul style="list-style-type: none"> • Consumer validation, focus groups – life cycle analysis, consider market first then start farming • Identify points of entry so multiple growers can access • Cooperatives or collectives? • Operations scale-up to meet supply needs of identified markets
Certain scales might not be able to support diverse markets No supply chain standards/grading exist – large buyers need consistent grade and different markets require different quality	<ul style="list-style-type: none"> • Develop protocols for handling product to ensure quality grade(s) in the marketplace

SHARED CHALLENGES

- Challenges that both large and small volume producers experience

CHALLENGES	OPPORTUNITIES
Public is not familiar with seaweed	<ul style="list-style-type: none"> • Consumer education • Need to develop consumer familiar/friendly products • Marketing campaign like other food products (beef, milk, blueberries, etc.) – USDA?
Competition with other products (ex. specialty vegetables, imported seaweed)	<ul style="list-style-type: none"> • Unified messaging to distinguish seaweed in the marketplace (ex. id buzzwords, associate with sustainable eating, “US brand” and quality, etc.)

Seaweed contents and nutrition are not accurately reflected in labeling – nutritional profiles are costly to growers and markets need to know contents	<ul style="list-style-type: none"> • Use nutritional profiles to form the basis of product stories (ex. high in calcium) • Open source consumer information/database – nutritional profiles that are regional, seasonal, etc.
Seasonal production	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 (*fo*)
- 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:

CHALLENGES	OPPORTUNITIES
No coordinated messaging for marketing US seaweed	<ul style="list-style-type: none"> ● 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.

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

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:

GOALS	OBJECTIVES
Trade association: Support the creation of a trade group to address cross-cutting industry needs	<ul style="list-style-type: none"> • Identify pathway to trade group formation or inclusion in existing groups • Identify possible existing groups – ABO ISA, aquaculture/agriculture groups, etc.

	<ul style="list-style-type: none"> • 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
Standards and grading: Support the formation of standards and grading for US farmed seaweed	<ul style="list-style-type: none"> • 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
Ecosystem services: Use ecosystem services as a value-added marketing tool for seaweed	<ul style="list-style-type: none"> • 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.
Universal messaging: Establish a value proposition for farmed seaweed products	<ul style="list-style-type: none"> • 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
Regional outreach strategies: Educate the public about seaweed benefits and uses	<ul style="list-style-type: none"> • Collaborate with existing public-facing efforts (ex. Seaweed Week) to broaden the impact or replicate regionally

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.