

SEAWEED HUB - Production Systems Work Group Meeting

Dec 15, 2020; 10:30am Pacific/1:30pm Eastern

Summary:

Discussion centered on the mission and objectives of Seaweed Hub work groups, examples of work plans being developed by other groups, and what kinds of production-specific challenges this work group might pursue.

Agenda:

- Welcome & Introductions
- National Updates
 - USDA Aquaculture Listening Sessions
 - National Sea Grant Law Center Seaweed Food Safety Workshops
 - NOAA Aquaculture Education Mini-Grants
- Greenwave: Site Selection Workbook (update)
- Work Plan Development
- 2021 Meeting Schedule

Participants:

Meg Chadsey, Washington Sea Grant
Josh Reitsma, Woods Hole Sea Grant, MA
Holly Turner, Bridgeport High School, CT
Mike Doall, Stonybrook Univ, CT
John Lovett, Duxbury Sugar Kelp, MA
Natalie Sahli, Pacific Shellfish Institute, WA
Rick Milliard, Spartan Sea Farms, ME
Kendall Barbery, Greenwave, CT
Bob Simmons, Washington State Univ. Extension, WA
Matt Harding, WA
Dave Bailey, Woods Hole Oceanographic Inst., MA
Scott Bluedorn, Artist, Long Island, NY
Mark Donohue, Salish Seaweeds, WA
Dawn Kotowicz, Rhode Island Sea Grant
Nicole Naar, Washington Sea Grant
Shannon Kelly, Connecticut Bureau of Agriculture
Gabriella Bradt, New Hampshire Sea Grant
Dave Hanson, Oregon Sea Grant
Anoushka Concepcion, Connecticut Sea Grant

MEETING NOTES

National Updates - Meg Chadsey, Work Group co-Lead

[USDA Aquaculture Listening Sessions](#)

The USDA held a series of eight listening sessions in November 2020 to collect stakeholder input on how this agency can better support aquaculture. Meg attended the 'Aquaculture Production Research' session to represent seaweed farming interests. Topics discussed in the seaweed-focused breakout session included contaminants, lower-cost processing alternatives, and the need for USDA support for genetics, nutrition and tank culture research. Written summaries of all USDA listening session findings will be published on the [USDA Aquaculture website](#) in 2021

[USDA 'Aquaculture is Agriculture' Webinar](#),

This culminating USDA webinar on Dec 11 included findings from the above listening sessions and presentations from federal aquaculture partners, including Seaweed Hub member Stephanie Showalter. Stephanie shared a summary of the [National Seaweed Needs Assessment](#) we conducted prior to last year's Seaweed Hub Symposium. Stephanie's presentation, titled *What US (Aquatic Plants) Aquaculture Needs from the USDA* highlighted challenges identified by growers at the Symposium (these should sound familiar!), and ways that the USDA could assist the US seaweed industry.

Challenges:

- Finding buyers for products;
- Access to infrastructure;
- Economics on costs of production or market value;
- Scaling farm and processing operations to meet new and existing market demand;

Role for USDA in Addressing these Challenges

RESEARCH

- Fund research and extension projects targeting the development of processing and distribution capacity.
- Fund research projects designed to improve domestic and international market opportunities for U.S. seaweed growers, producers, and processors.
- Fund production research (i.e., biosecurity, crop disease, genetics and breeding, IMTA).

FUNDING PROGRAMS

- Increase USDA loans and grants available to seaweed farmers and processors.
- Include seaweed farmers and processors as eligible participants in promotion and marketing programs, where appropriate and legally permissible.

STANDARDS AND CERTIFICATIONS

- Clarify scope, process, and resources available for USDA organic certification of seaweed crops and products.
- Support the development of supply chain standards and accurate labeling to ensure consumer and market consistency.

MARKET DEVELOPMENT

- Support a unified marketing campaign to brand US farmed seaweed as a novel sustainable food/agriculture product.
- Invest in development of open-source nutritional profiles to differentiate and elevate US farmed seaweed in the market.
- Provide assistance or identify and provide a process for facilitating opportunities/relationships with international markets.

All of this information will be available on the USDA Aquaculture webpage eventually. Anoushka reminded us that USDA Aquaculture Program leader Caird Rexroad is on the Seaweed Hub Steering Committee; and is available to respond to questions from work group members and facilitate introductions to other federal experts.

[Best Practices for Regulating Seaweed as Food](#)

This fall, the National Sea Grant Law Center (NSGLC) facilitated a series of workshops for state and tribal regulators about the food safety frameworks governing the sale of seaweed in its whole form for human food. The series concluded with an [Industry Member Panel Discussion](#) in November. The NSGLC will share findings from all of the workshops with state agencies, tribal regulators and federal partners via webinar in mid-March, 2021. Seaweed industry members may still [provide input via this link](#). Anoushka recommends that questions about regulatory structure or food safety be brought to the Seaweed Hub Regulations Work Group, led by Stephanie Showalter Otts and Catherine Janasie.

NOAA Aquaculture Education Mini-Grants

The NOAA Office of Education will announce this competitive funding opportunity in early 2021. Eligible projects will “propose a NOAA/Sea Grant-Industry-Aquarium collaboration that will identify and support innovative ways to engage the public in discussions about aquaculture topics”. \$10-15k/per award, for a period of up to 12 months. Contacts: [Brianna Shaughnessy](#) and [Christos Michalopoulos](#)

Greenwave Site Evaluation Workbook - [Kendall Barbery](#)

Kendall reviewed improvements that have been made to the GW Site Evaluation Workbook since her initial [presentation about this tool](#) at our April 2020 meeting.

- Workbook is a component of a larger GW online platform intended to serve as a hub for training and education resources.
- [Link to beta version](#); registration required, but access is currently free.

- Designed to help people develop their farm concept, understand required components and investments, and provide some direction around permitting and leasing resources in various states.
- New features allow users to input data/requirements related to marine factors, array options, anchor and growline details, and farm design.
- Output includes equipment lists, costs, high-level design considerations and links to local leasing and permitting resources.
- [Contact Kendall](#) for more information.

Work Plan Development - Josh Reitsma, Work Group co-Lead

Josh recapped Production Systems Work Group progress to date

- Formed at March 2020 Seaweed Hub Symposium
- One of four work groups (others are Post-Harvest, Marketing, and Regulations)
- Intentionally diverse (not just producers), to facilitate relationship-building and bring perspectives from processing, marketing, regulations to bear on production-specific challenges.
- Three priorities selected from a [broad list of grower-specific challenges/opportunities](#) identified by this work group at the symposium:
 - Improve seed string supply
 - Improve guidance for farm selection and site design
 - Improve efficiency of gear and operations
 - (a fourth priority--some kind of online grower communication platform--added at our [April meeting](#), but since determined to be beyond the scope of our group)

Josh and Meg's role going forward:

- **Convene** regular working meetings (members not expected to work outside of meetings)
- **Assist** members in narrowing down the current set of priorities to 1-2 *actionable* items
- **Facilitate** development of a work plan/strategy/recommendations to address those items
- *Critical that these decisions and plans are led by you--the stakeholders--not Sea Grant!*

Approach:

- Identify specific challenges or barriers related to top priority(ies)
- Form sub-work groups to research/discuss ways to address these barriers
- Identify products that would be useful in addressing these challenges (should be achievable and broadly applicable)
- *Work groups can apply for up to \$10k of Seaweed Hub funding to pursue these projects!*

Examples from other work groups:

- **Regulations** formed three sub-work groups to look at 1) multiple jurisdictions and permitting efficiencies for lease sites; 2) evaluating food safety hazards; and 3) permits for processing facilities and market-related regulatory restrictions.
- **Post-Harvest & Processing** is investing Seaweed Hub funding in a feasibility study of a regional processing model, and how it could be adapted for different states. A second sub-work group is looking at adapting existing processing technologies for seaweeds.
- **Marketing** is envisioning what an industry association might look like, and is considering developing outreach materials on product standards and grading, and/or promoting ecosystem services.

Kendall asked for clarification about the role of work groups: is it to actually accomplish things collectively, or use our time together to share updates and spark new ideas that could be pursued independently by members/organizations?

Answer: Definitely the former! Work groups are a place for *all* members to engage in the development of a widely-beneficial strategy or product from start to finish, in a fully transparent manner. Work group outputs should reflect the diverse perspectives and information needs of their members, and will be made freely available through the Seaweed Hub.

Some members of this work group are already developing tools that address some aspects of production-related challenges we've identified. Even if we collectively decide to tackle something similar, given our purpose and approach, we're unlikely to reinvent any wheels. There are also aspects of production-related challenges that *aren't* being addressed that this work group could take on.

Dave Bailey noted that a lack of diversity of strains available to commercial growers, while challenging for producers, is actually more of a regulatory issue.

Meg invited members to review the challenges, goals and potential actions from our April meeting ([page 5 of the meeting summary](#)), and think of one research question or information product that would help address one of these areas.

- Kendall agreed to look for opportunities that Greenwave is *not* pursuing.
- Rick Millard proposed simple boat modifications that would enhance safety.
- Nicole Naar proposed an analysis of growers' day-to-day activities, to identify best practices, opportunities for efficiencies
- Natalie Sahli agreed that a producer focus group could help define challenges. Could this work group host a workshop?
- Dave Bailey thinks the biggest challenge isn't growing or harvesting (which have been largely mechanized), it's front end (e.g. hatchery issues) or post-harvest (e.g. lack of processing capacity/markets).
- Shannon Kelly's concerns as a regulator are: 1) where is seed coming from (needs to be local) and 2) food safety (needs to be handled in a sanitary manner)

- Holly Turner requested an alternative way for this group to share updates outside of meetings, via email or a separate meeting.
- Dave Bailey suggested surveying producers about information needs and challenges. Anoushka: the industry is really survey-fatigued right now. Josh: there's a lot of good information in the 2020 Seaweed Hub Needs Assessment; let's start there.
- Rick Millard pointed out that few people on today's call have any experience with production. Meg, Josh and Anoushka will tap our networks to recruit more producers. Invite Atlantic SeaFarms, Pacific SeaGrove, University of New England.

2021 Meetings

- Frequency: 90-minute meeting every other month, starting in February
- Schedule: at our next meeting, we'll do a live poll to identify a regular day and time
- Every meeting will have a specific objective, and we'll get straight to work (save updates/round the room until the end, if time)