

Kodiak Farmer Knowledge Exchange Trip Notes

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Kodiak Kelp Fest Public Kelp Tasting Event on 6/20/25:

- It's important to promote a diversity of kelp products when you bring the community together to celebrate kelp. Many people still have not tasted dishes featuring kelp.
- Products showcased included: Kodiak Brewery Kelp Gose, North Coast Seaweedish Meatballs, Kelp Kimchee, Kelp Miso, Kelp with Popcorn, various kelp salsas from Barnacle, Barnacle Chocolate Kelp Shortcake, and Kelp-filled Pierogi.
- We helped serve the Kelp Kimchee to participants, explaining how many different species of kelp can be used in dishes like this, as well as the nutritional benefits of them.
- Additionally SeaGrant had a great table, where participants could taste five different kelp species in dried, flaked form, experiencing the different flavors of all.
 - The bowls of kelp flakes were accompanied by attractive one-page "sell sheets" highlighting the flavor profiles and providing a couple ways of preparing each kelp species. This was a really beneficial learning tool to show the public how different they can taste, and that even if you don't like the taste of one species, it doesn't mean you won't like them all.
 - We actually discovered that dragon kelp was our favorite flavor and are interested in seeking potential markets for this species..
- "Seaweedish" meatballs were a highlight – everyone liked them regardless of being vegetarian or not.
 - We learned that because of the main ingredients, they are healthier than other meat alternatives, such as the Impossible Burger.
 - Kodiak farmer Nick Mangini is collaborating with the producer to help get these out to the public, aiming to have them be served in public schools in Alaska.
 - We are really interested in the proposed model of Alaskan communities creating their own meatballs using the same recipe but utilizing kelp grown locally.

Seaweed Identification Session & Meeting with Marine Biologics on 6/21/25:

- Kodiak's coastlines contain an impressive variety of seaweed species – many of which we do not see in the same abundances in Prince William Sound.
 - Notably, ribbon kelp seems to grow much larger in Kodiak.
- We learned from Dr. Tiffany Stephens about the life cycle stages of a range of green, red, and brown seaweeds native to Kodiak.
- Marine Biologics' Dr. Spencer Serin discussed the chemical structures and compositions of several of the species found on this coastline, as well as their potential commercial applicabilities based on their composition.
- We learned that Marine Biologics is currently working on creating a database that will serve to match buyers to farmers based on the composition they need for their products.
- Marine Biologics got a Joint Innovation Project grant to test new farmed species in Alaska (such as dragon kelp) through tissue analysis, seeking to answer the question: *What does the data tell us about different species' compositions across regions?*

- They have now made compositional profiles for 17 seaweed species that will be showcased on Hatch website.
- Next they are going to be working on buyer-targeted specification sheets, detailing the levels of nutrients (full mineral panel), heavy metals, carbohydrates, heavy metals, etc. These will be extremely helpful for farmers like us when we are looking for markets/new buyers.

Harbor Tour & Seaweed Industry Gathering 6/22/25

- We met with the visiting industry professionals from Scotland: Jemima Cooper (EcoCascade – processors), Iain Matheson (Kaly Group – kelp farmers), Leigh Isler (Southwest Mull & Iona Development – kelp farmers), and Rob Grisenthwaite (SAMS Group – seed nursery), and Rhianna Rees (Scottish Seaweed Industry Association).
- This group offered us insights into how kelp farming is going in Europe. We learned that they have similar struggles to us, especially finding reliable market commitments.
- In Scotland, they also face issues of community buy-in as kelp farms expand. There is an attitude of seaweed being a “poverty food” and being considered a nuisance.
- Leigh asked a really valuable question for us all to consider: *How do we get rural, coastal communities to not only be the primary beneficiaries of the mariculture industry, but ultimately to be the champions of it?* In other words, not just buy-in, but championing.
- Direct seeding is working well for them and eliminates the need for unwinding string around each kelp grow line.

Kodiak Seafood & Marine Science Center (KSMSC) & Kelp Farm Tour 6/23/25

- KSMSC is a UAF building, mandated to support seafood processing, and has historically focused on new product development, as well as by-product utilization.
- It has a very useful pilot plant space, where businesses can do R&D at no cost.
- Currently Alaska Ocean Farms, Marine Biologics, and Blue Evolution are using it. Blue Evolution has an office in the building, and is currently the only dedicated seaweed processor in the state (that is not also farming, etc.)
- They have a shredder, Urschel miller, dehydrator, blender, conveyor belts, oyster tumblers, freeze dryer, walk-in cooler, -20 degree freezer, and flash freezer. These are essential pieces of equipment that we need for a community processing space.
- There is also a Seafood Analysis Lab, where samples can be sent from anyone in Alaska to be tested for food safety, as they are a State Processing Authority.
- Education tools: SeaGrant has developed a “Kelp Farm in a Box” that can be sent to different communities as a teaching tool. It shows a model kelp farm and explains the different systems used in kelp farming. They also have a Google Folder with lessons.
- We learned that kelp farms in Kodiak are participating in NOAA’s research project studying: *“What are the ecosystem benefits of seaweed farms (especially for juvenile fish, such as salmon)? Can kelp farms create enhanced ecosystem resiliency and connectivity as wild kelp beds decline in some areas?”* When this research project is over, they will create a series of short videos to explain the results. These can be disseminated to communities and hopefully will help with social licensing.
- There is also a dive program in place to look at benthic impacts of kelp farms.

- There is also a study going on at NOAA to investigate: *“How can we minimize stress from abiotic factors when growing bull kelp (from hatchery to harvest)?”* They are growing bull kelp sporophytes at various degrees of light and temperature.
- They found that bull kelp might not be fully adhering to string in hatchery and are testing to find out why.

Visit to Blue Evolution’s Warehouse Space 6/24/25

- Seaweed bubble washer pushes steam in. Fresh water is used to both rinse and blanch kelp before it goes through continuous roll stock to make blanched 1 lb. packages to be sold frozen.
- Nick Mangini shared that Blue Evolution is moving away from food products now.
- We learned that to make our processing line more efficient in Cordova we need a conveyor belt that feeds kelp into the shredder hopper (too time-consuming to do by hand).