

Premium Aquatics d/b/a Seagrove Kelp Co. cont.

various stages of development, now is the time to build on Seagrove's success so that Alaska can emerge as the nation's leader in mariculture.

Next Steps

The Administration's continued support for the Alaska mariculture industry is warranted. The industry has the significant potential to provide Alaska with its next large-scale export product and provide the State with jobs and business growth. Alaska's pioneer kelp farmers are forming the nexus of a new industry for the State alongside the Alaskan manufacturers who already have a history of making great kelp products.

Seagrove's success provides a model for other growers to emulate by proving that scalable Alaska mariculture farms are viable. According to the DNR, there are 11 additional farms in excess of 75 acres that either have permits issued or are in the review process who could build on this model as well as benefit from the experience that Seagrove and the State of Alaska can provide.

The State has already taken an active role in fostering the Alaskan mariculture industry, by having the Department of Commerce, Community, and Economic Development participating in the Governor's Mariculture Task Force and making Alaska mariculture a key industry in its application for the State Trade Expansion Program. Additionally, the Governor's office as well as the Commissioner of the Department of Natural Resources have also been instrumental in helping to improve the efficiency of the State's permitting process by adding more DNR staff to reduce the backlog of permits. Meanwhile, the Alaska Development Team in the Department of Commerce has also interfaced with the State, industry, and the Mariculture Task Force to remain current on the progress of Alaska mariculture farms and market advancements while also being an active participant in finding solutions to the industry's challenges.

Yet despite all the progress that's been made more will have to be done to facilitate the expansion of the industry to accommodate many more farms like Seagrove Kelp.

As such, we recommend the State build on these steps and lend its support to the Alaska mariculture industry in opening new markets and drawing attention to the industry. Funding remains a key shortfall for the Alaska mariculture industry and the State could play a role in reaching out to large-scale operators like Seagrove. Scalability is a key component to profitability in the mariculture industry, a component which Seagrove Kelp has successfully crafted. By building on Seagrove's success and endorsing cooperative partnerships between large- and small-scale farms, the State can foster the growth of this industry and encourage it to scale into larger markets as large and small-scale farms combine their inventories of their kelp stock into a single, large sale. This approach would ensure maximum profitability among all participants and is like the current practice of fish processors combining the catch of multiple fishermen to satisfy subsequent sales and market demand.

We also recommend the State reach out to export markets overseas via trade missions and letters from the Governor and Commissioner of Commerce to encourage use of Alaska-grown mariculture products. This same outreach would also be used to explore ways in which to source Alaska-grown aquatic plants for use in value-added manufactures such as pharmaceuticals and nutraceuticals as well as fertilizers and food manufactures. The

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Department of Commerce could then support the industry's efforts to access processing facilities and encourage the installment of value-adding activities such as the operation drying systems and kelp hanging systems in-State.

These steps can help educate various economic development partners, such as AIDEA, of Seagrove Kelp Company's success as well as the Legislature. Accordingly, we recommend the Administration support the passage of CS for HB41 to allow for ASMI to help market Alaska mariculture and allow in-state hatcheries (nurseries) to be created. At present, ASMI is unable to market on behalf of the Alaskan mariculture industry and, with over 30,000 miles of Alaskan coastline on which to produce, ASMI would have a critical role in both marketing to demand markets as well as drawing the attention of potential investors to the industry.

Furthermore, we recommend the State engage with fish processors as to how their facilities could be a potential catalyst for the industry's growth while also providing processors with year-round operations and revenue. The seafood processing industry already has a robust capacity of boats and equipment that, if able to process an additional product like kelp, could enhance employment opportunities in the growing, processing, product development, and retail sales sectors for Alaska-grown mariculture products.

With a reduced permitting review time, access to financing, and assistance in marketing Alaskan kelp as the high-quality product it is, Alaska can become a material player in the global marketplace, using our pristine water, existing infrastructure, and capable workforce to develop an industry that could provide thousands of new jobs as well as economic opportunity for Alaskans.

Seagrove's Growth Process

The road to Seagrove's success has been the methodical approach it took to developing its capability.

First, Seagrove built a nursery to propagate the juvenile kelp "seedlings" for planting in the farm, essentially creating a greenhouse for baby kelp plants. Notably, the construction of the facility which houses the nursery was partially funded by the State of Alaska, a prior investment in infrastructure that is directly paying dividends and supporting economic growth and job creation in Southeast Alaska.

Seagrove, using "seed stock" sourced from indigenous seaweed populations near the farm site, then successfully fertilized and grew more than 25 miles of seeded twine in their self-designed aquaria made of high pressure, see-through acrylic tanks as well as a proprietary water filtration and circulating system. These unique seawater circulation systems allow Seagrove to control the water temperatures in which the kelp is grown as well as the light, oxygen, and nutrient levels which nourish it. This highly controlled nursery environment required 24-hour, 7-days-a-week monitoring to incubate the kelp seed lines and keep them maturing to size for ocean planting.

After growing in the nursery, Seagrove then transferred their kelp to a growing array located in Doyle Bay approximately six miles from Craig, Alaska, stringing lines of kelp along throughout 3,000-foot long, 600-foot wide network in which the kelp could mature. This array, the single largest kelp planting site in North America, is where Seagrove staff then tended the kelp lines for the next 5-7 months, lowering the lines into the water column by more than a foot a day to account for the rate at which the kelp would grow.

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Economic Benefits of the Seagrove Development

The buildout and operation of Seagrove's vertically integrated mariculture operation provided new employment opportunities for more than 30 Alaskans and injected nearly \$2,000,000 into the economies of Ketchikan and Prince of Wales. In addition, Seagrove's Doyle Bay site is permitted to produce 20,000,000 oysters per year (which, when implemented, would make it the largest oyster farm in Alaska and among the largest on the West Coast). Seagrove also has applications for four other site leases on the west coast of Prince of Wales Island. These applications are currently pending before the DNR and ADF&G. Each site is larger than the Doyle Bay site, and total more than 700 acres of additional production area. If granted and fully developed, these sites are projected to employ several hundred Alaskans and would represent a substantial step toward achieving the stated goals of the Alaska Mariculture Task Force's Mariculture Development Plan.