



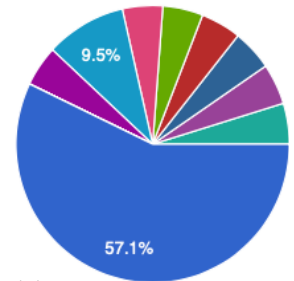
Results of the spring 2020 survey by Alaska Sea Grant on impacts of COVID-19 pandemic on the aquaculture industry in Alaska

1. Is your farm currently in operation? 21 responses

- 18 Yes
- 3 No

2. What species are you farming? 21 responses

- 12 Oysters
- 1 Ribbon Kelp
- 2 Sugar Kelp
- 1 Pinto Abalone
- 1 Ribbon and Sugar kelp: you should allow multiple species here
- 1 Oysters, mussels, ribbon kelp, sugar kelp
- 1 We work on an oyster farm and are planning to submit permits for shellfish and seaweed
- 1 This should be multiple answer, not multiple choice: bull kelp and ribbon kelp
- 1 Clams, crabs, abalone, halibut



3. Were your February/March 2020 revenues adversely affected by COVID-19? 21 responses

- 12 Yes
- 7 No
- 2 Not sure

3b. If so, what percent per month do you think revenues are down in comparison to this period last year? 14 responses

- 4 1-25%
- 3 26-50%
- 2 51-75%
- 5 75-100%

4. Did you lay off any employees because of due to the COVID-19 situation in February/March 2020? 21 responses

- 8 Yes
- 13 No

4b. If yes, how many employees did you lay off in February/March 2020? 9 responses

- 4 1 employee
- 2 2 employees
- 2 3 employees
- 1 n/a

5. What was your total number of employees (before layoffs)? 13 responses

- 4 0 employees
- 2 1 employee
- 3 2 employees
- 1 3 employees
- 1 5 employees
- 1 8 employees
- 1 12 employees

The purpose of this survey was to quantify the effects of Coronavirus disease (COVID-19) on the commercial aquaculture industry in Alaska.

Responses from this survey are being used to help Alaska Sea Grant address the impacts and concerns that the aquaculture industry is facing both nationally and locally. Your input was greatly appreciated.

Questions? Please contact:
Melissa Good, Alaska Sea Grant
melissa.good@alaska.edu
(907) 486-1517

6. Do you anticipate laying off more employees?

21 responses

- 1 Yes
- 13 No
- 7 Maybe

7. Has your farm or business had employees miss work due to the current COVID-19 situation?

21 responses

- 7 Yes
- 14 No

8. Has your farm or business had state or federal government contracts canceled for 2020 because of COVID-19?

21 responses

- 1 Yes
- 20 No

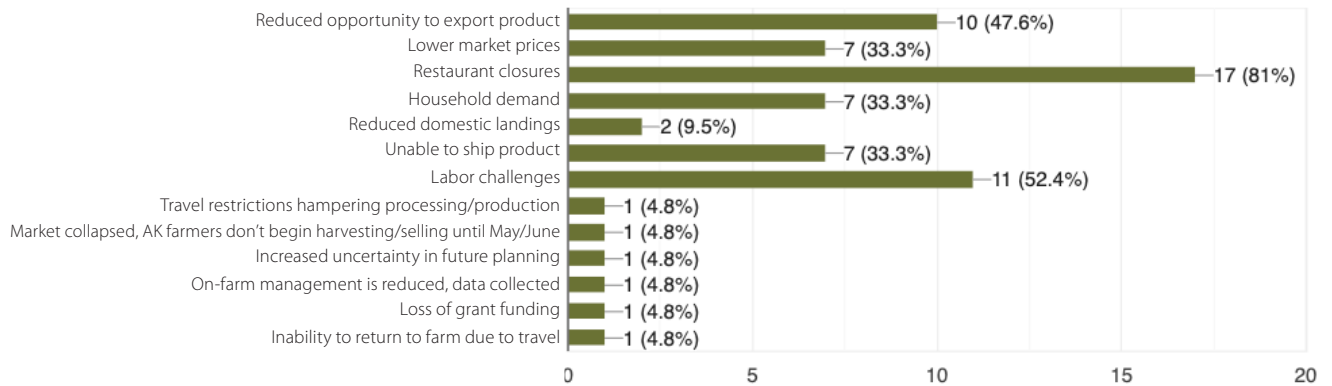
9. Was market product returned or destroyed in February/March 2020?

21 responses

- 1 Yes
- 18 No
- 1 We don't harvest until may but it is clear that the seaweed market, which was already tough, is more cautious than before
- 1 The period stated is not accurate. The market has collapsed, but most Alaska farmers, like us, don't begin harvesting and selling product until May and June. So, while the answers for February and March reflect no change in revenues, the actual impact of COVID isn't going to be felt until May/June/July and beyond. It's desperate. Seriously.

10. What COVID-19 factors are currently impacting your business?

21 responses



11. From the list above, what has been the most critical challenge?

21 responses

- | | |
|---------------------------|--|
| 7 Restaurant closures | 1 Primary managers/leaders cannot make it to the farm site to monitor progress of the operations or the product. |
| 3 Unable to ship products | 1 Processing kelp is being moved back |
| 3 Market loss | 1 Travel restrictions |
| 1 Funding | 1 No ability to plan for future costs or revenues |
| 1 Household demands | 1 With this virus and the social isolation, it is impossible to move product |
| 1 Labor | |

12. What percentage are your customers behind on payments?

20 responses

- 15 None
- 3 1-25%
- 1 26-50%
- 0 51-75%
- 1 76-100%



13. How many months can your farm or business hold market-ready product in response to COVID-19, before it becomes an issue?

20 responses

- | | | | |
|---|---|---|--|
| 1 | Only until mid-May, then quality begins to decline. | 6 | 6 months |
| 1 | 1 1/2 months | 1 | 8 months |
| 1 | 12 months, but the carry costs of holding frozen product make it more difficult to be profitable, assuming that the market reopens. | 1 | 12 months |
| 2 | 2 months | 1 | Depends on how much plankton they are eating. |
| 1 | 3 months | 1 | Immediate issue, freezer storage is limited and expensive. |
| 1 | 4 months | 1 | Not sure |
| 1 | 5 months | 1 | None. Lost sales are gone. |

14. Are you interested in starting a farm stand or other type of direct sales, or are you already selling in this manner?

20 responses

- 5 Interested
- 8 Already doing
- 7 Not doing/not interested

15. Are there any other impacts from COVID-19 on your business that we should know?

12 responses

1. I'm hitting the market for the first time this month.
2. Innovation on farm and in processing is extremely difficult without ability of experts to travel in AK. Seaweed is nascent sector that needs lots of R&D to mature and expand. Retains lots of upside and rapid growth potential beyond crisis, but already faced many hurdles. Requires special attention so that development of this promising new industry can continue uninterrupted. Very critical for the future economic opportunities of communities like Kodiak and Ketchikan.
3. We typically add an additional 4-6 summer employees. With no sales we will not be adding seasonal labor.
4. All season preparation work has slowed to a crawl.
5. Moving the harvest from April 20 to mid-May shortage yet to be seen.
6. NO SALES!
7. We are having difficulty setting up processing because key personnel cannot travel to Alaska.
8. Farmers discouraged from buying seed from us.
9. This is a nascent industry and the timing and impact of COVID-19 on our operations is profound and fundamentally threatening the long term prospects of continuing, both in short term cash needs and marketing and sales endeavors. The constantly changing crew and processing safety requirements to mitigate COVID-19 exposures is an ongoing challenge and challenges our ability to have processing personnel available to run the product.
10. If the State ferry system were still operating normally, COVID-19 impacts would be drastically reduced. Without the ferries, we cannot afford to ship product, import goods, or plan for future transportation.
11. It isn't just the farm; coordinating with processing floors has become very tough because they now lack the people power and flexibility to meet the demands of a new and, so far, unpredictable product and market
12. Whether we sell the oysters or not, we need to have crew to move them. For us that crew is seasonal, not sure how to hire seasonal crew with no cash flow. Question above assumes full time crew, not anticipated seasonal swings common in farming.

16. What issues are you most concerned about in the near term (over the next few weeks)?

20 responses

1. Sales, labor
2. Ability to find new markets. As a startup we are at least used to having to make dramatic changes. But what had happened to food service is unprecedented. Need new market channels, with better distribution terms for actual food suppliers. Distribution was already a dysfunctional model, crisis offers new opportunity to improve value for brands by overhauling system. We typically add an additional 4-6 summer employees. With no sales we will not be adding seasonal labor.
3. Because of the high cost to pull product and get PSP testing the minimum order needs to be in the 200 dozen range to be cost effective. It's unlikely that there will be such a demand this season.
4. Markets.
5. Fewer or no customers coming to farm.
6. No sales which means no cash flow and no room freed up for growing stock.
7. Processors and employees.
8. Same as everybody, labor.
9. Closing/going out of business due to lack of business.
10. Being able to process/sell our kelp.
11. Economy reopening.
12. Labor.



13. Crew availability and cash flow.
14. Making PPE for my local community: my focus is on the health and stability of my overall community and not on future business plans.
15. Does COVID19 get transferred to and survive on kelp tissues?
16. No idea if we should start destroying product to make room for next generation or try to hold and have reduced quality and higher mortality.
17. Safety for employees.
18. Without wholesalers being able to sell, our product will be too large to sell in the future.
19. Alaska's new budget forces farmers to pay for PSP testing starting in July—most will go out of business if this goes through—this and COVID-19 will kill industry in Alaska.
20. Continued restaurant/store closures, delayed tourism schedule, price decrease.

17. What issues are you most concerned about in the medium term (over next few months)?

18 responses

1. PSP test fees, labor.
2. Will there be a real rebound of economy? Double dip? Will restaurants reopen and will customers return? Will buyers return to previous enthusiasm for new healthier/more sustainable products like seaweed.
3. We are entering the growing season and the oysters need to be tended to keep them thinned out and free of fouling organism to stay alive so it is necessary to keep working the gear or we could potentially loose 6 million oysters to predation and fouling. With no revenue we will be looking at all possible loans/grants etc to pay for this labor.
4. Product demand, short time frame.
5. No sales which means no cash flow and no room freed up for growing stock.
6. Selling kelp in general losing product due to it degrading.
7. Closing/going out of business due to lack of business.
8. Being able to process/sell our kelp- lack of sales/market due to restaurant closures.
9. Loss in revenue.
10. Market downturn.
11. Cash flow, since the prospect of selling the harvest which occurs in May and June is subject to the prospect of significant delay as we wait for restaurants and food service venues to reopen.
12. Harvesting and hunting to fill our freezers: food security is a major issue in Southeast Alaska (where we live); we must focus on harvesting and hunting, and we will have less time to devote to aquaculture.
13. Harvesting and processing this spring.
14. Paying crew, can't move them all alone. Paying leases and insurance.
15. Uncertainty with getting back to normal.
16. Product growing too large.
17. Alaska's new budget forces farmers to pay for PSP testing starting in July—most will go out of business if this goes through—this and COVID-19 will kill industry in Alaska.
18. Continued restaurant/store closures, delayed tourism schedule, price decrease.

18. What issues are you most concerned about in the long term (over six months)?

19 responses

1. PSP test funds
2. Food prices. The form of the food industry post-COVID. Investment climate, availability of financing for expansion.
3. We are concerned that many restaurants will fold and demand for 1/2 shell oysters will be way down creating a large surplus that could potentially lower prices to the point that we will need to cease operations.
4. Markets/price.
5. Trying to catch up and keeping employees.
6. No sales which means no cash flow and no room freed up for growing stock.
7. Hatchery impacts loss of market.
8. Labor.
9. Closing/going out of business due to lack of business.
10. Lack of sales/market due to restaurant closures.
11. Loss in revenue.
12. Reduced tourism to Alaska, reduced oyster sales.
13. Cash flow. It is very difficult to fund the next planting if we aren't able to sell the currently growing pack.
14. Whether to invest in business expansion, or hunker down for the next year and try to maintain extra savings. COVID-19 is exacerbating a budget crisis and mismanagement in Alaska, such that we no longer feel that spending money on a permit application for aquaculture in Alaska is viable in the next year or more.
15. Feasibility of seed collection and nursery operations in late summer and early fall.
16. Restaurants not coming back online in the same way, putting off needed infrastructure and gear expenses since there is no cash flow, and even with loans, our business plan in the perfect world did not support taking on more debt than we already have. Paying mortgage (FSA loans due in fall).

17. Alaska's new budget forces farmers to pay for PSP testing starting in July—most will go out of business if this goes through—this and COVID-19 will kill industry in Alaska. Unable to sell product.
18. Same as above - not sure if more than 3 or 4 farmers will stay operating if this happens.
19. Continued restaurant/store closures, delayed tourism schedule, price decrease.

19. Without external intervention (e.g., government assistance), will your farm/ business survive over the next 3 months?

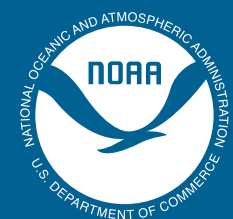
21 responses

- 10 Yes
- 1 No
- 5 Unsure
- 1 We will probably fold at the three month point if things don't change.
- 1 Barely
- 1 I'd hope so; just may lose a years worth of product, and I had to pay for lease fees, etc.
- 1 Maybe 3 months, but not more than that.
- 1 I will survive the COVID-19 issues, but not the PSP fee issue.

20. Suggest ways that NOAA, Alaska Sea Grant, or the State of Alaska can assist you with the issues you identified above.

14 responses

1. Grant funds
2. Consider seaweed a special case. A new sector with almost unlimited growth potential within Alaska. But we started from scratch only a few years ago- so efforts already involve a lot of risk and hard lessons. The state needs to look at its seaweed policies and begin to tailor them to this very unique product/business. Updating/streamlining/digitizing permitting processes would help medium/long term. Short term it would be very helpful for the state to support efforts to make sure adequate processing labor is available in Kodiak- which obviously requires strict health protocols. Also it would be great to have more ventilators on the island. We plan to harvest and process this spring, and believe if we can get through this crop it will be a major proof of seaweed's viability in Alaska.
3. Funding to ADEC to ensure that the PSP testing remains free to farmers will help. It would also help to have some grants to cover some expenses and possibly relief of lease fees and other payments.
4. Do not add fees to PSP lab tests.
5. Defer next years lease fees to help offset losses this year. Provide assistance to those who have invested heavily in this years harvest. Not much we can do in the short run. Stay healthy; that's what's important for ourselves and our community.
6. I applied for the \$10,000 assistance; will I get it or not?
7. The state of Alaska should forgive aquatic lease payments to ADNDR for a year.
8. Help us figure out how to freeze product for direct marketing.
9. If some party would purchase the seaweed, perhaps for research, product development or to provide for lunch programs, etc., that cash flow would likely enable the company to continue employing folks and properly prepare for the fall 2020 crop planting. Other aid, including marketing and product development funding, would also be very helpful for the industry to expand into new spaces and provide for long term stability.
10. Sea Grant and NOAA could work with legislators and the State/Federal agencies to decrease costs of permitting, leasing water and land, and the time it takes to get through all of these steps. We are not asking for cash handouts. We just want a reasonable permit and leasing system, commensurate to the expected revenues from aquaculture operations in Alaska. And we need ferries.
11. Either buy product (can experiment with) or pay for storage space in the immediate turn. Assist in research of operations that require fewer people.
12. We're just entering our season, so a lot of the questions above are not relevant yet (customers behind on payments, layoffs, # crew etc.) You could buy oysters. Support our state shellfish authority, lab and testing, make sure that is available. Push state and federal government for loan and lease payment relief. Offer grants for gear and infrastructure improvements and/or 0% loans. I can't seem to get access to any of the funding currently offered, websites down, my bank WFB stopped accepting applications nearly the day they became available, and other banks only work with existing customers. SBA website down/ non-responsive, no one answering any phones - I've listened to two webinars (one for aquaculture and one for farmers), and read tons of articles on the programs, but a lot of the key questions asked were met with, "we don't know yet." So I went ahead and applied for EIDL, but I'm not even sure that will provide the assistance we need as small family farm (Sole Proprietor husband/wife, LLC filing schedule F with no full-time employees, only seasonal crew, and not drawing salary from the LLC only reporting net income gained). And I've heard nothing back yet—hearing it could be weeks out. No way to get the information I need or even access information to make the right decision about what would even work. SBA loans are reputed to be notoriously bad for borrowers...with extreme penalties if you default and permanent damage to your credit history. And who wants to take on a 3% loan in times as uncertain as these, for a business in an industry that may not exist in 6 months? Will people ever go back to restaurants? Who even will have money to eat out with \$10M unemployed. These loan programs feel like tying a noose to hang myself with. And the forgiveness piece may end up being tiny or nothing for us. At the same time, I'm not sure that printing money for us all will help...Buy our oysters...we need to move them off the farm, to make room for the next generation, assuming the hatcheries survive to send us a next generation...
13. NOAA is doing a good job with getting information out.
14. You are already doing all you can with reference to COVID-19. What we need now is for you to push to get approval for a cheaper PSP test (rather than the mouse bio-assays) and an accurate PSP test for use at the harvest site.



UA is an AA/EO employer and educational institution and prohibits illegal discrimination against any individual: www.alaska.edu/nondiscrimination.