# Supporting Resilient Coastal Economies through Impactful Aquaculture Communications

## PURPOSE

Public health officials are now encouraging Americans to increase the amount of seafood they eat due to its nutritional benefits. Yet the U.S. cannot produce enough seafood to meet even present demand. Although the nation has the ninth longest coastline in the world, the harvest of wild-caught fisheries has reached sustainable limits. The volume of domestically cultured seafood in the U.S. has been relatively flat, and the nation remains a relatively minor producer. To make up the difference, more than 90 percent of the seafood that Americans eat is imported, resulting in an annual seafood trade imbalance of $16 billion.

The options U.S. consumers have for obtaining enough seafood to meet new dietary guidelines are poor -- expensive, wild-caught fish from domestic waters; expensive, farm-raised fish from Europe and Canada; canned or processed fish; or no fish at all.

Domestic aquaculture offers another, more attractive option: fish, shellfish, and seaweed raised close to home, at affordable prices. The production of domestically raised seafood follows U.S. environmental requirements and creates local jobs that will grow along with the industry. Aquaculture can also sustain the economies and proud heritage of coastal communities steeped in the traditions of seafood harvest.

Over the next decade, Sea Grant expects to invest $50 million to $100 million in aquaculture research and technology transfer. In 2016 the Sea Grant Association published the *10-Year NOAA Sea Grant Aquaculture Vision* to guide that investment. The document describes a research, extension and education approach that fosters the expansion of a sustainable marine and Great Lakes aquaculture industry in the U.S.

**The goal of this aquaculture communication plan** is to help the network achieve its vision by effectively communicating the results and impacts of Sea Grant aquaculture projects to key constituencies and partners involved in the aquaculture industry.

## ANTICIPATED BENEFITS OF IMPLEMENTING THIS STRATEGY

Clear, coordinated, and consistent messaging will amplify the network's voice as the nation's premier aquaculture extension resource, and ensure outreach materials are helping to educate the public about aquaculture. Crafting messages for specific target audiences to convey the impact and value of Sea Grant's aquaculture efforts strengthens and enhances partnerships, builds trust, and increases the visibility of Sea Grant's aquaculture efforts. Appropriate communications methods will be consistently applied and practiced helping to strengthen Sea Grant's role in aquaculture development.

## CURRENT SITUATION

Sea Grant has played a strong role in the development of U.S. aquaculture and continues to support growth of the industry. Sea Grant specialists provide research-based information and technology transfer to aid both prospective and established producers, supply educational

resources to consumers, and work closely with a number of entities to ensure sustainable and responsible expansion of the industry.  Despite serving an important role, we lack a cohesive plan to promote Sea Grant efforts between programs and the national office with respect to supporting U.S. aquaculture development. This situation needs to change immediately to take advantage of current and anticipated federal initiatives.

The Sea Grant Network Aquaculture Communications Visioning workgroup convened in April 2018 and conducted Strengths, Weaknesses, Opportunities and Threats (SWOT) and Political, Economic, Social, and Technological (PEST) analyses to identify factors relevant to the current state of Sea Grant aquaculture communications. Many of the strengths, opportunities and needs identified related to Sea Grant's diverse network of state-level programs with conflicting interests, the speed with which programs respond with information to aquaculture events in the news, and utilizing partnerships. Using the information in the analyses below, Sea Grant can transform current aquaculture communications practices to amplify strengths, improve areas of weakness, take advantage of opportunities, mitigate threats and account for external factors that affect the way Sea Grant communicates about aquaculture. This self-analysis of our efforts could be useful as a benchmark to gauge our success in achieving our objectives over the long term.

| STRENGTHS | WEAKNESSES | OPPORTUNITIES | THREATS |
|---|---|---|---|
| Network of 33 programs across the United States & its territories, each with the ability to tailor their program to local needs

Status as a non-regulatory, credible source of practical scientific information generated through rigorous applied research

Grant process with flexibility to address local, regional and national needs

Funding for aquaculture extension and research indicates constituent support and allows for job creation

Extension program bridges the gap between university research and application by translating scientific information into practical solutions for diverse audiences

Training programs foster seafood production and seafood safety | Poor brand identity which creates misperceptions of Sea Grant's role in aquaculture development

Lack consistency between and within programs in aquaculture support and communication

Staffing does not reflect investment and desire in achieving projected impacts

Shifting of priorities and objectives creates inconsistency in program delivery and diminishes Sea Grant's ability to be a leader in the industry

Tendency to avoid the topic when aquaculture gets controversial

Poor digital communications including use of social media reach and outdated websites | Aquaculture is a priority for the Department of Commerce, NOAA, and federal government administration

Better utilize digital communications tools (social media, YouTube, update websites)

Use existing state publications, programs, etc. as templates for creating national consistency in communications about aquacultured seafood (i.e. DE seafoodhealthfacts.org, FL 'Teach Aquaculture' program)

Create and enhance partnerships with external organizations to generate stories based on Sea Grant impacts

Capitalize on current support for aquaculture to increase funding for Sea Grant staffing and grant programs

Be a proactive leader in marine aquaculture communications by using media partners to reach more diverse audiences | Poor public perception, awareness and understanding of aquaculture and its role in meeting demand for a healthful and sustainable domestic supply of seafood

Loss of aquaculture science personnel and facilities and lack of ability for Sea Grant state programs to help re-build capacity due to shrinking state budgets

Sea Grant communications are slow, or absent, in responding with science-based information when crisis events are highlighted in the media

Reactive, instead of proactive, aquaculture communications which sometimes leads to Sea Grant being perceived as advocates

Attrition of aquaculture experts in Sea Grant

Overburdensome regulatory environment and cost of regulatory compliance threaten industry development |

| POLITICAL | ECONOMIC | SOCIAL | TECHNOLOGICAL |
|---|---|---|---|
| Increased targeted budget | Increased coastal development | Partnerships with NGO community | Social media evolution |
| Legislative changes | Increased focus on working waterfronts | Changes in public perception, causing changes in message amplification | New devices or inventions |
| Increased congressional outreach | Increased access to small business funding | | Security breaches, impacting the methods we use to communicate |
| Shift in Democrat/Republican power in Senate and House to move legislation forward | Trade tariffs | Changes in how people think about where food comes from | New business openings, utilizing new technology |
| Boost in industry due to Sea Grant | Big marketing campaigns for aquaculture | Conflicts in marketing and messaging | Industry innovation |
| | Water quality | Consumer preferences | New certification or labeling |
| | Increased reach in rural communities | Changes in population | New uses for existing resources |
| | Ability to grow industry with a larger Sea Grant staff and more resources | Environmental disasters, either natural or man-made | |
| | | New business openings with hatcheries or farms | |
| | | Perception of farm size | |
| | | New certification or labeling | |
| | | Bad actors | |

**OBJECTIVES**

Three overarching objectives for this aquaculture communications plan were identified by the team, they include:

1.  Improve nationwide consistency in how Sea Grant communicates about its aquaculture efforts.

2.  Increase public awareness of aquaculture by leveraging relationships with external partners and stakeholders while maintaining the Sea Grant brand in partners' products

3.  Advance the reputation of the National Sea Grant program as a trusted source of science-based information by disseminating current and forthcoming results and impacts of Sea Grant aquaculture projects through external-facing channels to key consumer and decision-oriented audiences.

A pathway for achieving each objective as well as a means by which to evaluate success is presented in the following pages.

## OBJECTIVE 1

**Improve nationwide consistency in how Sea Grant communicates about its aquaculture efforts.**

> *Rationale:* Sharing information and resources across the Sea Grant network is important for improving and expanding aquaculture efforts in each state. Establishing internal communications platforms through which to share information will ensure that information is widely distributed and accessible.

Target Audiences

- Internal Sea Grant audiences, including state program directors, aquaculture researchers, extension faculty and staff, educators and communicators
- Internal NOAA audiences

Messages

- Sea Grant has a long history working with aquaculture researchers and growers to help ensure locally-sourced aquaculture is safe and sustainable.
- Aquaculture aligns with the Sea Grant network's mission to create and maintain a healthy coastal environment and economy.
- The Sea Grant network's aquaculture and extension expertise makes it well placed to address the challenges and opportunities of seafood farming.

Actions

- Host aquaculture communications training events for members of the Sea Grant Network, including communicators, directors, extension agents, and anyone who may discuss aquaculture.
- Make audio and visual materials more readily available and shareable, including a stronger content bank/archive (for example, Flickr).

- Develop better internal communications strategy for entire Sea Grant Network, which may include listservs, scheduling quarterly meetings, establishing a centralized database for aquaculture resources and other methods.
- Improve the internal communication structures for sharing existing and new aquaculture information and outreach resources across state Sea Grant programs and NOAA offices. National Sea Grant will house central resources and make them accessible across NOAA and Sea Grant programs
- Foster communication throughout the Sea Grant aquaculture network and between various NOAA offices with a mandate for further developing US Aquaculture
- Better promote existing and new aquaculture resources within the Sea Grant network
- Develop consistent aquaculture messaging across the Sea Grant network while recognizing regional variations in aquaculture topics, systems, and species.

Evaluating our Efforts

Six months after implementation of this plan, the Sea Grant network aquaculture lead will:

- Verify the creation of the network, and the centralized database for aquaculture resources.
- Perform a TrendKite analysis of the terms 'Sea Grant' and 'aquaculture' to gauge coverage of Sea Grant initiatives in print and broadcast media. A similar analysis will be conducted one year later to measure percent change in coverage.

One year after implementation, the Sea Grant aquaculture communications lead will:

- Conduct a survey of the Sea Grant aquaculture communications network members to gauge members' awareness of aquaculture news and their satisfaction with the quality of the communication exchanges among network members.

At one-year intervals the aquaculture communications lead will:

- Report on the number (and nature) of aquaculture-related program impacts and accomplishments, products from the National Sea Grant library, web visits, and other social media indicators, and report back to the aquaculture network.

 OBJECTIVE TWO

**Increase public awareness of aquaculture by leveraging relationships with external partners and stakeholders while maintaining the Sea Grant brand in partners' products.**

> *Rationale*: Crafting messages to specific target audiences to convey the impact and value of Sea Grant's aquaculture efforts will strengthen and enhance partnerships, build trust, and increase the visibility of Sea Grant's aquaculture efforts. The national Sea Grant office needs to coordinate with state programs to developing cohesive communication efforts across programs including

establishing a branding and promotion strategy for the overall agency. Sea Grant continues to suffer from an identification standpoint among stakeholders and this situation needs to be addressed and rectified going forward.

Target Audiences

- Growers, producers and processors can benefit from the expertise of Sea Grant extension staff and prosper from adopting new and/or proven techniques and technologies.
- Organizations such as aquariums, non-governmental organizations, coastal education centers, and food-related organizations can use Sea Grant for story content, further extending our science to audiences we don't typically reach.

Messages

- By providing funding for aquaculture research, the network is addressing industry bottlenecks and helping growers find answers to their questions.
- Sea Grant is committed to working with growers and supporting them in the valuable work of producing high quality protein raised in a sustainable manner for people of United States.
- Sea Grant Extension agents have local knowledge and access to a national network of experts in marine issues. Find your local extension agent, have a conversation, and they will figure out how Sea Grant can help you answer questions.
- Sea Grant is committed to assisting the aquaculture industry with increasing the amount of domestically produced product and with reducing the $12 billion deficit in annual seafood trade
- Sea Grant's science-based, non-regulatory approach and its long history of engagement with local communities have made the network a trusted source of information.
- By supporting aquaculture research grants, the network is addressing industry bottlenecks and helping growers find answers to their questions.

Actions

- Establish best practices for communicating science-based information about aquaculture to stakeholders to reduce the spread of misinformation and establish Sea Grant as a leader in sustainable U.S. aquaculture
- Work more closely with local institutions to use and expand such existing networks to better communicate and promote shared messages.
- Schedule in-person meetings between Sea Grant communicators and our partners throughout the aquaculture industry.
- Develop a proactive and assertive strategy to form stronger media partnerships.
- Conduct field and farm visits in co-operation with effective industry partners
- Be present at major aquaculture events and festivals to endorse Sea Grant brand.

Evaluating our Efforts

- One year and five years following implementation of this plan, the national Sea Grant aquaculture coordinator will measure the percent change in national performance metrics related to adoption of new aquaculture techniques and technologies by producers.

- One year and five years following implementation of this plan the aquaculture communications lead will assess the change in use of Sea Grant content by entities external to Sea Grant.

OBJECTIVE THREE

**Advance the reputation of the National Sea Grant program as a trusted source of science-based information by disseminating results and impacts of Sea Grant aquaculture projects through external channels identified by the Sea Grant Aquaculture Communications Visioning group.**

> *Rationale:* Developing strategies for communicating research findings and technological advancements in aquaculture to external audiences will increase scientific literacy among coastal citizens. Sea Grant communicators, extension agents and researchers will work together to develop best practices for communicating with different target audiences using appropriate communications outlets (website, blog, newsletter, print, earned media, etc.).

Target Audiences

- State legislators who will have to craft laws that make aquaculture possible, or easier, in certain states.
- Federal lawmakers who can help steer loan and grant programs to public-private partnerships that include research, business and educational components.
- Federal agency managers who can work together and ease the regulatory burden for aquaculture, so that farmers can acquire permits in time to get crops in the water.
- Natural resource agencies could support the idea of growing a sustainable product, as a way to reduce pressure on fished stocks and enhance the marine environment.
- Municipal government staff and officials

Messages

- Aquaculture creates new jobs, diversifies seafood supplies, relieves fishing pressure on wild populations, and restores species and their habitat.
- Aquaculture extension and education is an important aspect of our sustainable seafood work and is part of our stakeholder's strategy for economic and environmental resiliency in coastal communities.
- Sea Grant's strong research focus, local knowledge and on-the-ground work to advance sustainable aquaculture makes the network a trusted source of aquaculture extension in coastal communities.
- Sea Grant helps consumers understand that responsible aquaculture combined with wild capture fisheries are creating a safe, secure and sustainable seafood supply.
- Sea Grant is committed to assisting the aquaculture industry with increasing the amount of domestically produced product and with reducing the $12 billion deficit in annual seafood trade
- Rural coastal communities and community leaders may want to use aquaculture to provide jobs while preserving the tradition of working on the water.
- Tourism offices may use aquafarms to bolster visitation in waterfront communities.

Actions

- Increase social media/digital and national web presence.
- Repeat "50th Anniversary" style communications campaign to create cohesiveness among programs
- Engage the media and press in a more proactive manner.
- Conduct field and farm visits in co-operation with effective industry partners
- Be present at major aquaculture events and festivals to endorse Sea Grant brand.
- Increase legislative and congressional outreach.

Evaluating our Efforts

In the first six months following implementation of this plan the aquaculture communications lead will:

- Conduct a TrendKite analysis of the terms 'Sea Grant' and 'aquaculture' to gauge coverage of Sea Grant initiatives in print and broadcast media from coastal states.

By the end of each successive year, we hope to increase by 20 percent the coverage of aquaculture topics in media outlets in Sea Grant states.

## IMPLEMENTATION PLAN

The aquaculture communications team discussed ways to implement communications strategies described in this plan. Parts of this strategy can be implemented through existing network and state program activities. Much of the plan's success will require additional funding and resources to fully implement and evaluate, including obtaining financial resources to support a part-time communicator or coordinator to implement and evaluate this plan. It was agreed that the strategies described herein can be incorporated into state program strategic plans, extension work plans, communications strategies, omnibus proposals, and research requests for proposals. This implementation strategy also allows each state to tailor its involvement based on state-specific needs such as workforce, staffing, research environment, and community needs.

The team discussed potential outcomes if the strategies discussed were successfully implemented, and metrics for measuring performance. The intent of network members is to evaluate and document the success of their efforts to the extent possible, using a combination of key indicators that measure how the plan's performance is helping the National Sea Grant aquaculture network achieve its performance metrics and overall aquaculture vision. If appropriate funding is made available, strategies will be monitored at six-month intervals and year-long intervals, at the discretion of either the Sea Grant national aquaculture coordinator, or the communicator contracted to implement this plan. Updates will be made to reflect what we have learned is working, and where the plan is not hitting its benchmarks. Strategies will be adjusted as appropriate.

## ACKNOWLEDGEMENTS

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