

FISH, SEAFOOD, AND OCEANS

Seafood is a healthy and relatively environmentally friendly choice. And yet, annual U.S. seafood consumption is less than 15 pounds per year. That's *half* the global average. Despite up to 500 different species of fish and shellfish being available in the U.S., the top 10 types comprise 90 percent of the volume consumed. This year, salmon became the second most consumed seafood behind shrimp, which has been the most consumed seafood for over a decade. Canned tuna decreased to third place, with a minor slip in volume consumed, but still above two pounds per person per year. The majority of shrimp, tuna, and salmon are caught or farmed overseas (largely a result of a search for cheaper and more consistent protein). This has led to a lack of transparency, and concern about environmental practices, which in turn raises questions for chefs and consumers.

Seafood consumption is associated with a host of health benefits. Fish is an important source of low-calorie protein, provides high levels of amino acids, micronutrients, and minerals, and may be beneficial for brain development. Seafood, especially from marine sources, provides a good source of long chain omega-3 fatty acids, which have been linked to lower risk of heart attack and stroke. These health benefits are weighed against how much methylmercury, a neurotoxin, fish contains. This year, the FDA recognized the beneficial health effects, while reporting that pregnant women consume only about one third of the FDA recommended amount of fish, and this can impact their children by not allowing full IQ development. The FDA recommends that consumers including women who are pregnant or breastfeeding eat a minimum of two to three servings of fish a week.



This year, the discussion of seafood sustainability has continued to heighten, and we now see an ever-increasing number of claims that the seafood being sold is sustainable. Yet “sustainable” implies an end of journey, that all necessary work has been done, and there is no longer a need to improve. All sectors of the food industry need to work to continually increase the sustainability of their products, as this is the ever-important process toward food system improvement Certification is an important component of the path to sustainability, but represents only a step along the way. The challenge moving forward will be to determine how to differentiate the rigor of different types of certification so they all do not converge toward a single low bar of sustainability that is passable by all.

Aquaculture: Aquaculture production is important because global demand for seafood exceeds supply of wild species. Of the top 10 seafood species consumed in the U.S., 57 percent is produced in aquaculture. However, most of that is imported. U.S. domestic production is low and focused on shellfish, plus niche production of trout, salmon, and shrimp. The Global Aquaculture Alliance (through its Best Aquaculture Practices (BAP)) and the Aquaculture Stewardship Council (ASC) continue to lead certification initiatives to ensure production meets specific criteria.

To address the fact that, globally, less than ten percent of seafood is certified to an independent third party “eco-label scheme” (e.g., MSC, GAA, ASC), efforts are underway to create Aquaculture Improvement Projects (AIPs) and to engage more aquaculture operations in the certification process, which will ideally reduce poor production practices. A new concept in AIPs is area management, which will address not only production at the farm level, but assure that multiple farms in an area do not interact in a way that cumulatively harms the environment.

Fisheries: As in aquaculture, improvements toward more sustainable fisheries continue. However, the Marine Stewardship Council (MSC), the largest and most widely accepted wild fishery certification program, has only certified about eight percent of the global catch to date as meeting its standard for fishery management. The reasons for this low uptake include but are not limited to: the high cost and time of conducting the certification; the uncertainty for the return on investment; and

the potential for mixed messaging through the appearance of less rigorous programs. To assist in the creation of additional certified product, collaborative efforts— including the fishing industry, retailers, and members of the Conservation Alliance for Seafood Solutions—have spearheaded Fishery Improvement Projects (FIPs). These projects connect environmental organizations, industry, and other stakeholders with troubled fisheries to move them toward sustainable practices and, ultimately, certification.

Because U.S. regulations include mandates to establish sustainable fisheries, some argue that U.S. fisheries do not need additional independent evaluation. However, a number of U.S. stocks are still subject to overfishing and/or are overfished, are inadequately enforced, and, in some cases, are not managed with enough precaution to adequately ensure rebuilding. In the Gulf of Maine, managers suggest again limiting the total allowable catches of cod. This could disrupt the U.S. Gulf of Maine groundfish fishery, prompting much consternation.

RECOMMENDATIONS:

Foodservices leaders must know what they buy and where it is produced, and must communicate this information honestly and effectively to diners. DNA methods are becoming so readily available that high school biology classes now can use them. But DNA methods are only as good as our biological understanding of the species. In most cases, we can tell the species, but not a specific location, and most definitely not the methods used to catch or grow the fish. Widely available methods of testing seafood DNA will increase the social pressure for accurate labeling, and there is a growing interest in developing other labels (such as mineral content) that can provide regional information on fish stocks.

One of the biggest challenges to sustainability is waste. A fish certified as sustainable isn't truly sustainable if it is thrown away. In many situations, frozen instead of fresh fish is a good choice, since it lasts longer. So is serving appropriate portions. Finally, consider greater use of smaller fish and seafoods that are lower on the food chain, such as mollusks and sardines. (Clams are one of the most sustainable options because they are produced within the U.S. and have a very limited environmental impact. Yet, on average, Americans eat only one-third of a pound of clams per year.) Chefs and

foodservice professionals can both serve a greater diversity of species and use their considerable influence to introduce diners to new varieties of fish and seafood, including through teaching American consumers how to cook with more varieties.



SCORE: 3

There are myriad public and private efforts to improve seafood sustainability. Thus, from a nutrition and environment perspective, the seafood category continues to be a leader (suggesting a score of 4). At the same time, however, come troubling claims that suggest the goal of sustainability has already been reached (which will limit further work). These claims arrive in light of continued environmental concerns, social ills on fishing boats (which provide fish meal for aquaculture feed), mislabeling, and a lack of traceability, all of which hinder the path toward true sustainability (suggesting a score of 2). Given the variation in actions across this diverse protein category, the overall score is an average of 3.

IN SUMMARY:

- Despite widely demonstrated health benefits, Americans continue to underconsume seafood both in total and in sufficient variety.
- Chefs and foodservice professionals should reduce waste through the use of frozen fish and reasonable portions, while also introducing diners to seafood choices beyond the typical salmon, shrimp, and tuna. Varieties such as carp, clams, mussels, sand dabs, seaweed, and squid are underconsumed and yet better for the environment.
- Efforts such as Aquaculture Improvement Projects and Fishery Improvement Projects are helping certify a greater number of aquaculture farms and fisheries as sustainable, however, certification does not mean there isn't more work to be done; it is merely an important piece of the movement toward a sustainable seafood system.