FARMFORWARD

AQUACULTURE ACCOUNTABILITY PROJECT

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Responsibly Farmed, According to Whom?

How Major Grocers and an Industry-Run Certifier Vouch for Their Own "Sustainable" Seafood



Photo: Lilly Agustina / Act For Farmed Animals / We Animals

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Executive Summary

Shoppers who purchase farmed fish and other aquatic animals labeled "sustainable" or "responsible" are mostly taking the seller's word for it. In an audit of 250 farmed seafood products with marketing claims at ten U.S. store chains owned by seven companies, Farm Forward and the Aquaculture Accountability Project (AAP) found that three grocers—Whole Foods Market, Kroger, and Albertsons—sold 97.5 percent of the products that made "sustainable" or "responsible" claims with no outside certification behind them (116 of 119), most under labels the retailers wrote themselves. That's the fox guarding the henhouse, and shoppers are left taking the fox's word for it.

When an outside seal does appear, the industry is usually certifying itself. Four of every five certified products we found in stores carried the seal of Best Aquaculture Practices (BAP), a program founded and funded by the industry it certifies. Its record is hard to square with its seal: BAP-certified facilities accounted for most shrimp import refusals for antibiotic contamination in the first nine months of 2026. No package we found disclosed aquaculture's biggest harms, certification does little to prevent them, and every "no antibiotics" claim we recorded rested on the seller's word alone.

These labels work. In a survey of more than 15,000 shoppers in 14 countries commissioned by the Aquaculture Stewardship Council (ASC), 83 percent said a sustainability label motivates their seafood choices at least somewhat. In a separate 2022 poll, 78 percent of Americans said grocers and restaurants are responsible for verifying the source of the food they sell. Yet no federal agency defines "sustainable" or "responsible" on a seafood package, and FMI—The Food Industry Association, which represents grocers, has urged the Federal Trade Commission not to create a single definition of "sustainable." Shoppers are turning to courts instead: in July and August 2026, consumers sued Amazon over its seafood sustainability claims, and others sued the U.S. arm of a Chilean salmon farmer over its Mama Bear salmon, marketed as "sustainably farm-raised" and "responsibly sourced."

This report picks up where Farm Forward and AAP's earlier report, *The Myth of "Sustainable" Aquaculture: How the Fish Farming Industry Sold a False Promise of Saving Our Oceans*, left off. That report examined the industry's promise; this one follows it to the store shelf. The problem isn't that we caught a retailer making a false statement. It's that no one could. The companies making these promises also write the definitions, pay for the audits, and decide what the public gets to see. As long as that holds, a reassuring word on the package earns the whole industry a reputation it was never required to earn.

Key Highlights

1. **Grocers are vouching for their own seafood.** Whole Foods' "Responsibly Farmed" label appeared on 86.7 percent of its farmed seafood with claims. It is checked by an auditor Whole Foods chooses and doesn't name, paid for by its suppliers, with no results made public. None of the nine Kroger packages labeled "Sustainably Sourced" (a label Kroger says means certification) showed a certification, and just 1 of 27 Albertsons "Responsible Choice" products did.

2. **The leading certifier is run by the industry it certifies.** BAP accounted for 79.5 percent of certified products in stores (101 of 127). Its parent group was founded by seafood and agribusiness companies including Cargill and Monsanto; industry companies hold half its board; 98.5 percent of its $19.6 million in 2024 revenue came from its own programs; and its full audit reports stay confidential.

3. **BAP-certified facilities dominate antibiotic refusals at the border.** They accounted for 73.1 percent of shrimp import refusals for antibiotic contamination from January through September 2026, and 87.3 percent over the same months of 2024. BAP's seal was on most of the frozen shrimp we found at Walmart and ALDI.

4. **"No antibiotics" runs on the honor system.** All 58 antibiotics claims we found were self-declared, with no outside certification or testing behind them, and 22 appeared on certified products whose certification doesn't cover the claim. Both major certifiers allow antibiotics to treat diagnosed disease.

5. **Labels never mention the biggest harms, and certification doesn't stop them.** None of the 250 packages mentioned fish deaths, water pollution, escapes, or how much wild fish went into feed. Both leading certifiers, BAP and ASC, let salmon farms use more wild fish than they produce; ASC's 2022 revision raised its British Columbia sea lice limit by 540 to 1,550 percent; and ASC's stronger standard isn't required until 2028.

6. **Online, "sustainable" is far more common.** Amazon listings used sustainability wording nearly five times as often as store packages (55.6 percent versus 11.6 percent), and on 23.8 percent of listings (15 of 63) the claims appeared only in marketing copy or images, not on a pictured package.

A shopper who sees "sustainable" or "responsibly farmed" could reasonably expect enforceable limits on pollution and disease, audit results the public can see, science-based welfare standards, feed that doesn't use more wild fish than the farm produces, and a certifier that isn't paid by the companies it certifies. No package we photographed in stores promised any of that.

By the numbers

What stands behind "sustainable" and "responsible" farmed seafood

WHO VOUCHES FOR THE LABEL

116 of 119
uncertified "sustainable" or "responsible" products were sold by Whole Foods, Kroger, and Albertsons

0 of 9
Kroger "Sustainably Sourced" packages showed the certification Kroger* says the label stands for

1 of 27
Albertsons "Responsible Choice" products showed any certification

WHO CERTIFIES

4 in 5
certified products in stores carried BAP, whose parent group was founded by seafood and agribusiness companies including Cargill and Monsanto

73.1%
of shrimp import refusals for antibiotic contamination in Jan.–Sept. 2026 traced to BAP-certified facilities, according to the Southern Shrimp Alliance

WHAT THE LABELS DON'T TELL YOU

0 of 58
"no antibiotics" claims were backed by outside verification or testing

0 of 250
packages mentioned fish deaths, pollution, escapes, or wild fish in feed

3 kg
of wild fish BAP allows per kilogram of net-pen salmon (fish-oil limit)

0
federal definitions of "sustainable" or "responsible" for seafood

*Kroger also says its "Sustainably Sourced" label means certification to standards such as ASC or BAP's 4-star level, but none of the Kroger-brand packages we found showed a certification. **Sources:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings); Southern Shrimp Alliance analyses of FDA import refusal data (October 2026); Global Seafood Alliance; BAP Salmon Farm Standard Issue 3.0.

Introduction

Aquaculture has driven nearly all of the growth in global production of fish and other aquatic animals since the late 1980s, and the $184 billion global trade in aquatic animal products now rivals the trade in meat from land animals.[1] According to the United Nations Food and Agriculture Organization, in 2022, aquaculture production of aquatic animals exceeded wild capture for the first time,[2] and farmed animals now account for more than 59 percent of global aquatic animal food output.[3] Global per capita consumption of aquatic animal foods has more than doubled since 1961.[4] Throughout, "aquaculture" refers to the farming of aquatic animals. Fish and shrimp made up 96.2 percent of the products we reviewed in stores and online (301 of 313); the rest were mollusks such as mussels, oysters, and scallops. Farming seaweed and other algae is a different practice that can benefit marine ecosystems, and it is not the subject of this report.

Efforts to convince shoppers that farmed aquatic animals are "responsibly" produced have grown, too, including through certification: marketing seals that tell shoppers a farm or processing plant has passed an audit against a certifier's standards. Between 2023 and 2024, the volume of seafood sold with Aquaculture Stewardship Council (ASC) certification increased by 32 percent,[5] and the Global Seafood Alliance (GSA), the industry group that runs Best Aquaculture Practices (BAP), reported 5 percent growth in the number of facilities certified under its programs during this same period.[6]

Still, certified production remains a small share of global aquaculture. Even by a generous estimate, ASC- and BAP-certified output came to about 5.9 million tonnes in 2024, roughly 5.7 percent of the world's farmed aquatic animal production.[7] Asia produced 91 percent of the world's aquaculture output in 2022, counting seaweed, and accounted for 71 percent of global consumption of aquatic animal foods in 2021,[8] while certification schemes have focused on species and buyers in Europe and North America.[9] Certification is nonetheless prominent in those Western markets. In the U.S. stores we visited, it was the second most common kind of claim on

1 "SOFIA 2026: Global Fisheries and Aquaculture Production Reaches New Highs," Food and Agriculture Organization of the United Nations (FAO), June 16, 2026.

2 *The State of World Fisheries and Aquaculture 2024: Blue Transformation in Action*, FAO, 2024, xviii, xxi.

3 "SOFIA 2026," FAO.

4 *The State of World Fisheries and Aquaculture 2024*, FAO, xxiii.

5 "Seafood Transformation from Feed to Farm: ASC 2024 Impacts Report Captures a Year of Global Progress," Aquaculture Stewardship Council (ASC), October 27, 2025.

6 "GSA Certification Programs Grew 5% in 2024, with 88% Retention Rate," Global Seafood Alliance, February 25, 2025.

7 ASC-certified volume sold of 2.69 million tonnes (2024) and BAP/GSA-certified production of more than 3.2 million tonnes (2024), combined, represent roughly 5.7 percent of the 103 million tonnes of global aquaculture production of aquatic animals reported by FAO for 2024. This is a generous upper-bound estimate, as it does not account for possible overlap between ASC- and BAP-certified farms. The GSA figure is the output of certified processing plants and includes wild-caught seafood, so it overstates certified farm production. "Seafood Transformation from Feed to Farm," ASC; "GSA Certification Programs Grew 5% in 2024," Global Seafood Alliance; "SOFIA 2026," FAO.

8 *The State of World Fisheries and Aquaculture 2024*, FAO, xxi, xxiii.

9 Malin Jonell et al., "Eco-certification of Farmed Seafood: Will It Make a Difference?" *Ambio* 42, no. 6 (2013): 659–674.

farm-raised packages, appearing on 50.8 percent of the products that made any claim (127 of 250). While our sample wasn't exhaustive, we reviewed hundreds of products at several of the largest grocery chains in America, and the results suggest that these labels play an important role in convincing Americans that eating farmed aquatic animals is morally acceptable and socially desirable.

As farming has overtaken fishing as the main source of aquatic animals eaten worldwide, brands and retailers have increasingly framed fish farming as an "environmentally responsible" alternative to wild-caught fish. Retailers have led this effort. Whole Foods puts its own "Responsibly Farmed" mark on most of the farmed aquatic animals it sells, Albertsons prints its "Responsible Choice" logo across its Waterfront Bistro line, and Kroger labels its own brands "Responsibly Sourced" or "Sustainably Sourced." These three companies accounted for nearly all of the in-store products in our sample that paired sustainability or responsibility language with no outside certification (Appendix Table 3).

A substantial share of consumers say they weigh sustainability and responsibility claims when they shop. In a 2025 consumer survey conducted by FMI—The Food Industry Association, 37 percent of seafood shoppers rated third-party sustainability certification as an important attribute in their purchasing decisions, and 34 percent said the same of sustainability claims, broadly defined.[10] In 2022, half of seafood consumers reported that sustainability claims or certification had a major impact on their purchasing decisions.[11] In 2019, 29 percent said the same of "sustainable seafood" certification.[12] And a 2026 global survey commissioned by ASC found that shoppers increasingly associate "sustainable seafood" with health, quality, and food safety.[13] Those findings help explain why retailer labels and certifications matter so much to the industry: they are what many shoppers rely on to decide whether buying farmed fish is a responsible choice.

With no federal definitions for terms like "sustainable" or "responsibly farmed," the industry has filled the gap on its own terms. The grocery industry has argued to keep it that way: in 2023, FMI told the Federal Trade Commission (FTC) it "does not believe the FTC should seek to create a single definition for the term sustainable."[14] Brands, retailers, and certifiers each play a distinct role, but they share a commercial interest in reassuring consumers about the sustainability and responsibility of the fish farming industry. Brands develop and market individual products, retailers determine which products are available to consumers and how they are promoted, and outside certification programs (such as BAP and ASC), which are funded largely by the companies they certify, lend the appearance of independent

10 Christine Blank, "FMI's 2025 Power of Seafood Report Highlights Market Opportunities," *Supermarket Perimeter*, April 30, 2025.

11 "FMI Power of Seafood Analysis Reveals Strong Seafood Sales, Supported by Growing Consumer Demand and Cooking Trends," FMI—The Food Industry Association, March 14, 2022.

12 Madelyn Kearns, "Sustainable Seafood Purchasing Boosted by Younger Generations, Pandemic Pressures," *SeafoodSource*, December 29, 2021.

13 "Quality, Health and Trusted Certification Are Reshaping Seafood Purchasing, New Global ASC Research Reveals," ASC, July 16, 2026; Louisa Gairn, "Seafood Shoppers Increasingly Link Sustainability with Health and Quality, ASC Survey Finds," *We Are Aquaculture*, July 27, 2026.

14 "Re: Guides for the Use of Environmental Marketing Claims; Regulatory Review; Request for Public Comment, Matter No. P954501," FMI—The Food Industry Association, April 24, 2023, 8.

credibility through labels, audits, and standards. Because regulators have no definitions to enforce, shoppers have started turning to the courts. In late July 2026, consumers filed a class action accusing Amazon of making false or unsubstantiated "sustainable" claims on seafood, and in August, a separate suit accused the U.S. subsidiary of Chilean salmon farmer Australis Seafoods of deceptively marketing its Mama Bear farmed salmon as "sustainably farm-raised" and "responsibly sourced."[15]

This report examines the claims used to market farmed aquatic animals, the standards and verification systems, if any, that support them, and whether they address the issues consumers care about. We photographed 250 farm-raised products with marketing claims at ten store chains owned by seven companies (Whole Foods Market; Kroger's Fred Meyer, Ralphs, and Smith's; Albertsons' Safeway and Pavilions; Walmart; ALDI; Costco; and Trader Joe's) and reviewed 63 Amazon listings. Finding #1 looks at the claims themselves and who writes them, Finding #2 at the certifications behind them, and Finding #3 at what both leave out.

15 Mark Hamstra, "Amazon Accused of False Seafood Sustainability Claims," *Supermarket News*, August 3, 2026; Christian Molinari, "Australis' US Subsidiary Sued for Alleged Deceptive Marketing on Mama Bear Salmon Products, Marking Latest Seafood Greenwashing Case," *SeafoodSource*, October 1, 2026.

Finding #1: Three Grocers Vouch for Their Own "Sustainable" Seafood, With Labels They Wrote Themselves

For most of the "sustainable" or "responsible" farmed products we found in stores, the only party standing behind the claim was the company selling it. Whole Foods, Kroger, and Albertsons sold 97.5 percent of the in-store products that made these claims with no outside certification (116 of 119), 83.6 percent of them under labels the grocers wrote themselves (97 of 116): Whole Foods' "Responsibly Farmed," Kroger's "Sustainably Sourced" and "Responsibly Sourced," and Albertsons' "Responsible Choice." Nothing on these packages tells shoppers that no outside certification backs the claim. The language is everywhere. Of the 313 products we reviewed in stores and on Amazon, 69.6 percent (218) used sustainability or responsibility language. Below, we show where these claims appear, what stands behind the labels retailers write for themselves, and why those labels carry weight even though no regulator defines or checks them.

Claims Are Widespread, and Concentrated Among a Few Retailers

To document these claims, we photographed 250 farm-raised products carrying at least one claim: sustainability or responsibility wording, a qualifying certification, a retailer or brand program, welfare language, or an antibiotics claim (see "Guide to the claims" below and Appendix Table 1). The products covered major farmed species, including salmon, shrimp, tilapia, trout, and catfish. We took these photographs during 19 visits to stores in Virginia, the Washington, D.C., area, Washington State, Oregon, Utah, and California, at chains ranging from grocers to discount and warehouse retailers. We also checked 63 listings for farm-raised seafood on Amazon carrying at least one claim, leaving out any listing sold by Whole Foods Market or carrying its seafood-standard language or seal, since the in-store audit already covers its products. We found these claims at all ten chains we visited, across every major farmed species, and on Amazon, which suggests they are a routine part of how farmed aquatic animals are marketed rather than a niche approach.

Guide to the claims: Six kinds of claims, and what each one is meant to tell shoppers

A real example of each from our audit, and how often each appeared on the 250 claim-bearing packages we photographed.

	CLAIM	SHARE BY CHANNEL	REAL WORLD EXAMPLE	IMPLIED MESSAGE
1	**Responsibility Wording** 144 of 250 store packages	57.6% 74.6%	**"Responsibly Farm Raised"** Latitude 45 salmon, Walmart	The product was produced with care for people and the environment.
2	**Outside Certification** 127 of 250 store packages	50.8% 73.0%	**BAP logo** Great Value shrimp, Walmart. BAP was on 101 of the 127 certified products.	An outside body has verified the farm.
3	**Retailer or brand program** 101 of 250 store packages	40.4% 30.2%	**"Responsible Choice"** Albertsons' logo on Waterfront Bistro, Safeway and Pavilions	The retailer or brand has vetted the product for you.
4	**Antibiotics Claim** 45 of 250 store packages	18.0% 20.6%	**"Raised Without Antibiotics"** Marketside coho salmon, Walmart	The fish is cleaner and safer.
5	**Sustainability Wording** 29 of 250 store packages	11.6% 55.6%	**"Sustainably raised for a minimum of 8 years under California sunshine"** Tsar Nicoulai smoked sturgeon, Whole Foods	Buying this product does not harm the environment.
6	**Welfare or Husbandry Language** 8 of 250 store packages	3.2% 11.1%	**"Humane farming"** Kvarøy Arctic salmon, Whole Foods	The animals were treated well.

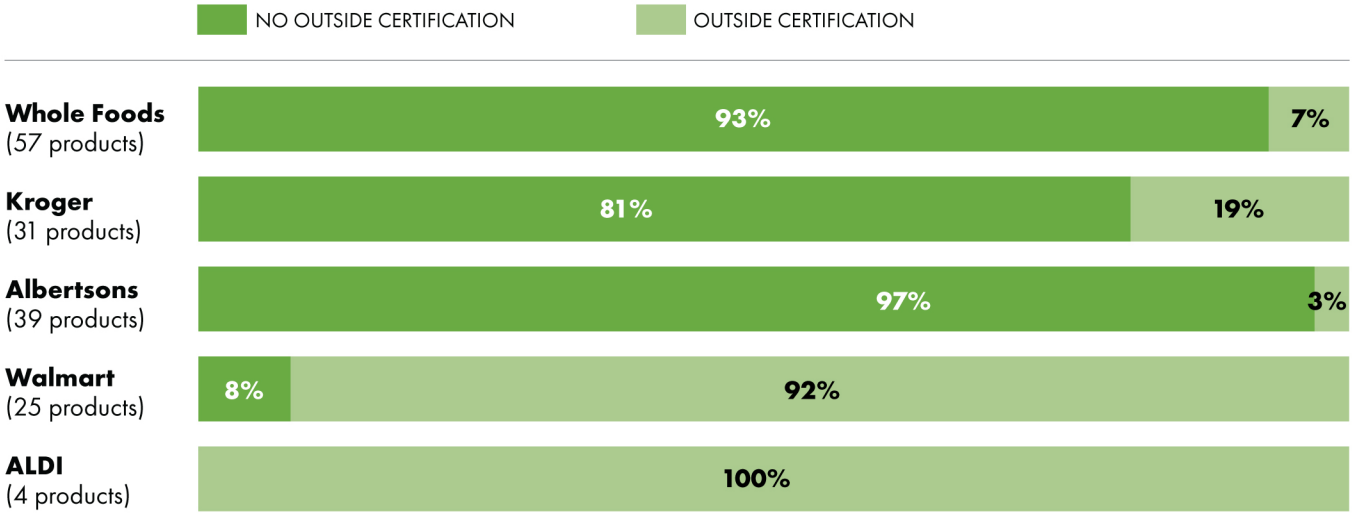
IN-STORE PACKAGES n=250 | AMAZON LISTINGS n=63 | Percent of each sample carrying the claim

Sources: Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings). A product can carry more than one kind of claim. Responsibility wording also counts the "Farmed Responsibly" text in ASC's logo. Full table in Appendix Table 1.

Many of these claims had no outside verification behind them. Out of the 250 claim-bearing products we reviewed in stores, only about half (127, or 50.8 percent) carried a qualifying outside certification, such as BAP, ASC, GLOBALG.A.P., Fair Trade Certified, or a few similar schemes—programs run separately from the brand and the retailer, though not, as Finding #2 shows, independent of the industry. Of the 160 in-store products that used sustainability or responsibility language, 74.4 percent (119) carried none (Appendix Table 2).

The mix of claims varied by species. Tilapia and shrimp were among the most often certified (69.6 percent of claim-bearing tilapia and 59.6 percent of shrimp products in stores); for shrimp, that largely reflects how common BAP certification is on frozen shrimp, from store brands such as Walmart's Great Value and ALDI's Fremont Fish Market to outside brands such as SeaPak. Salmon, the largest category, carried sustainability or responsibility language far more often than shrimp (80.4 percent versus 45.5 percent) but was certified only 38.3 percent of the time, and it accounted for 46 of 58 antibiotics claims across both channels. Products in smaller specialty categories (sturgeon/caviar, oysters, mussels, scallops) were more likely to rely on uncertified language (5 of 7 products, compared with 119 of 250 overall). Tsar Nicoulai's smoked sturgeon, for example, is "sustainably raised for a minimum of 8 years under California sunshine." Appendix Table 2 breaks these claims down by species.

Figure 1. Outside certification on products labeled "sustainable" or "responsible," by retailer

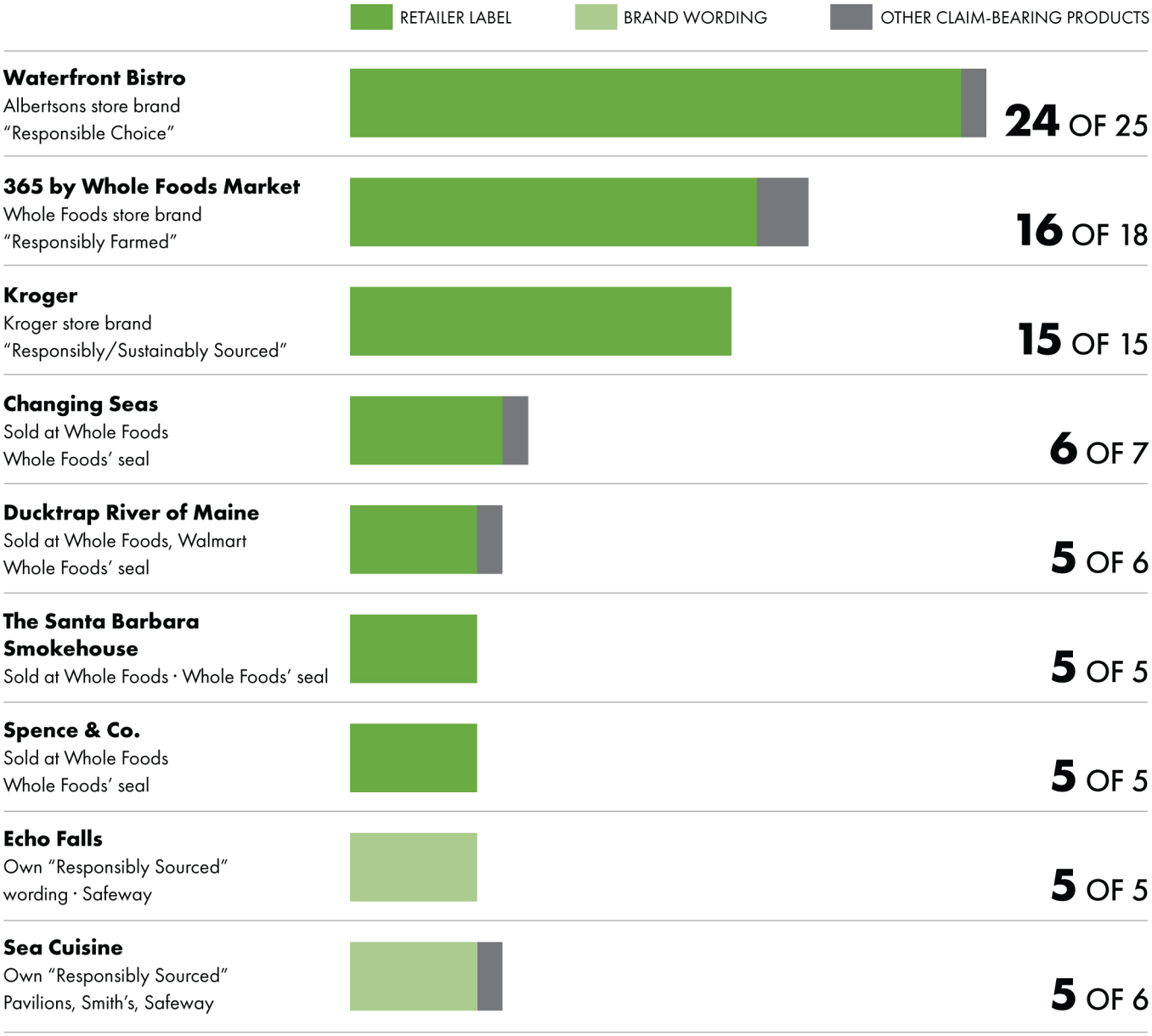


Source: Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits). Percentages are of each retailer's in-store products with sustainability or responsibility wording (160 in all); counts in parentheses. Kroger includes Fred Meyer, Smith's, and Ralphs; Albertsons includes Safeway and Pavilions. ALDI's bar rests on 4 products. Costco (3) and Trader Joe's (1) had too few such products to chart.

Retailers took different approaches to reassuring consumers (Appendix Table 3). Whole Foods relied almost entirely on its own retailer program, a label backed by a standard the chain writes itself (described below): 86.7 percent of its claim-bearing farm-raised products carried a "Responsibly Farmed" label, but only 10 percent carried a qualifying outside certification. Albertsons leaned on its program more than on certification (52.4 percent versus 31 percent of products at Safeway, and 50 percent versus 10 percent at Pavilions; Appendix Table 3). ALDI and Walmart, by contrast, relied overwhelmingly on outside certifiers (most commonly BAP) with comparatively little of their own marketing layered on top. Most uncertified claims came from store brands and retailer seals: 7 of the 9 brands with the most such claims carry a label written by the retailer (Figure 2; Appendix Table 4).

Figure 2. Brands with the most uncertified sustainability and responsibility claims (in-store sample)

Products in stores with sustainability or responsibility language but no outside certification, out of each brand's claim-bearing products. Of the 9, 7 carry a label written by the retailer.

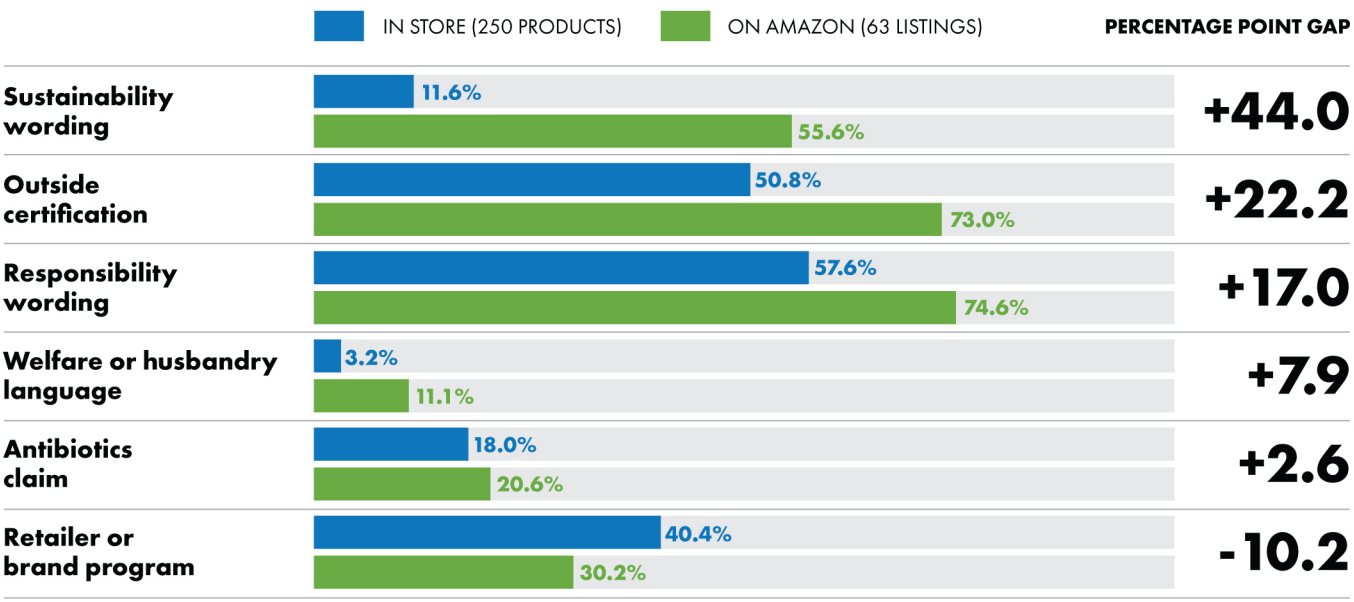


Note: Outside certification = BAP, ASC, GLOBALG.A.P., Fair Trade Certified, or another qualifying program. Brands with five or more such products shown. Kroger's other store brands, Simple Truth (4) and Private Selection (3), bring Kroger-owned brands to 22 (of their 23 claim-bearing products). **Source:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits).

Online, listings layer on even more claims (Figure 3). Among the 63 Amazon listings we reviewed, 55.6 percent used sustainability wording (compared with 11.6 percent of products in stores, where "responsible" wording was far more common), and on 23.8 percent of listings (15) every qualifying claim appeared only in the listing copy or marketing images rather than on a pictured package. Part of this gap reflects the reality that there is more space for marketing online: we counted claims in titles, descriptions, and images as well as on pictured packages. On Amazon, though, more of this language came with a certification: 27.6 percent of the listings with sustainability or responsibility language carried no outside certification (16 of 58), compared with 74.4 percent of such products in stores (119 of 160). Some brands made more claims online than on their packages in stores. For example, Fishwife's smoked salmon with chili crisp carried only responsibility wording on the package at Whole Foods, but its Amazon listing added sustainability wording, "ASC-Certified" in the title, and an antibiotics claim. Cole's Patagonian smoked salmon with vegetables carried only the ASC "Farmed Responsibly" logo on the tin at Ralphs, while its Amazon listing added, "Our ASC-certified salmon is sustainably raised in the pristine waters of Patagonia."

Figure 3. How often each kind of claim appeared on Amazon listings and on store packages

Percent of store packages and Amazon listings carrying each kind of claim.



Sources: Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings). Amazon figures include listing copy and marketing images, which helps explain the higher rates. Listings tied to Whole Foods were excluded. On Amazon, 16 of the 19 listings with a program carry Amazon's own "Responsibly Sourced" label on its private brands; the other 3 carry Aqua Star's "Seafood Forever."

A listing gives brands far more room than a package does to explain how a fish was raised. In the listings we reviewed, that room went primarily to more of the same reassuring and misleading language, much of it missing from the package a shopper would actually purchase (Figure 4).

Figure 4. On Amazon, some claims never make it onto the package

15 of 63
AMAZON LISTINGS WITH CLAIMS

made every one of their claims only online,
in the listing text or marketing images, and none on a pictured package.

6 pictured a package without the claim | 9 pictured no package at all | 48 put a claim on the package



CANNED OYSTERS
GEISHA Whole Oysters

ONLINE (LISTING DESCRIPTION)
"Sustainably grown and harvested in the open ocean"

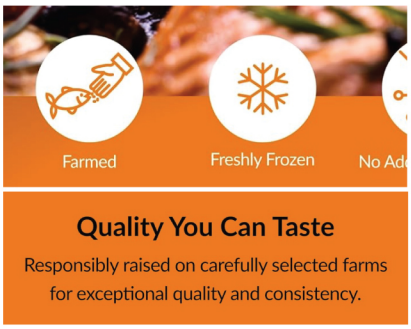
ON THE PICTURED CAN
No sustainability claim and no certification logo



TINNED MUSSELS
Matiz España Mussels

ONLINE (LISTING TITLE AND DESCRIPTION)
"Sustainably Cultivated Mussels" and "Organic Mussels"

ON THE PICTURED CARTON
Neither "sustainably" nor "organic," and no certification logo



FROZEN FARMED ATLANTIC SALMON
Fulton Fish Market

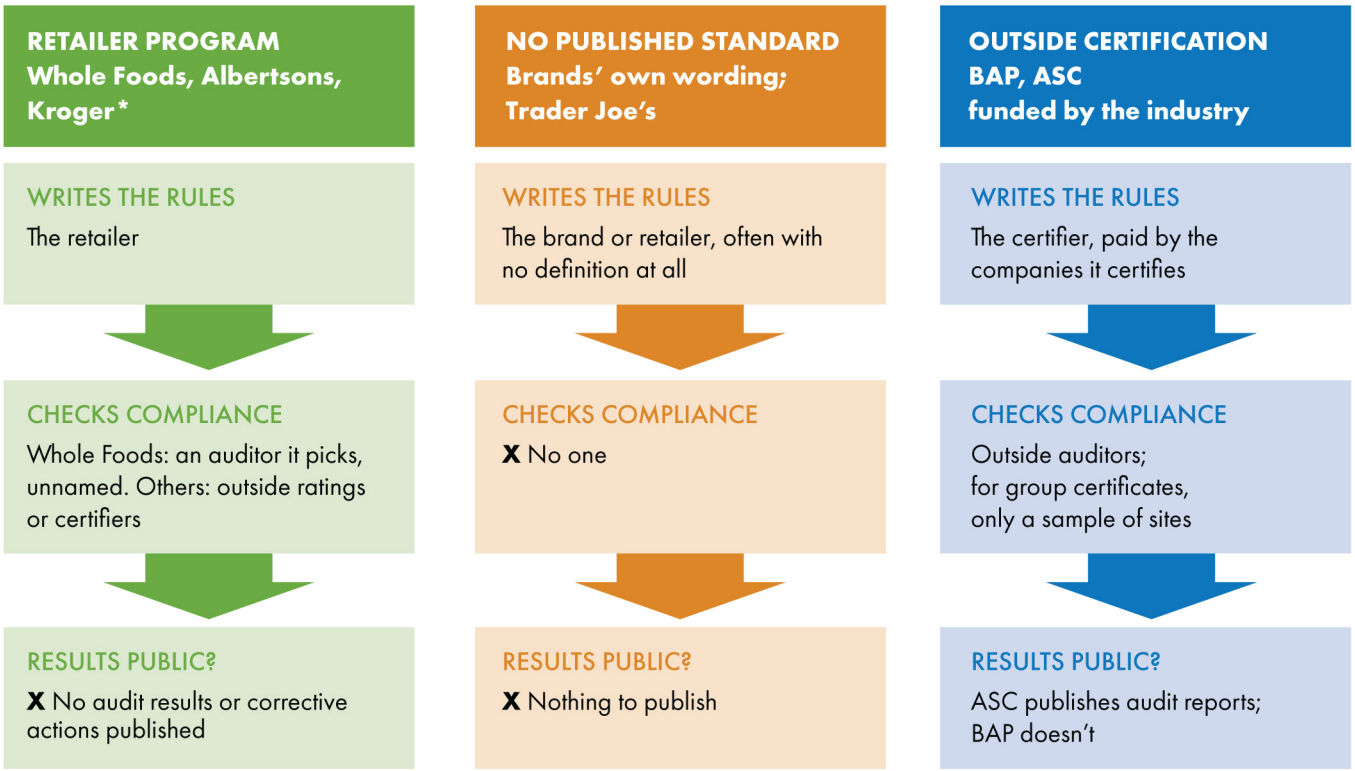
ONLINE (LISTING TEXT AND IMAGES)
"Sustainably & responsibly raised ... adhering to strict third-party NGO sustainability standards"

NO PACKAGE PICTURED
The listing names no NGO or standard, and no package appears in any of its photos

Retailer Marketing Adds a Layer of Assurance Without Adding Accountability

Retailers are a major source of "sustainable" and "responsible" assurances. In-store signs, logos on private-label brands, and website copy communicate to consumers that the farmed products on the shelf were sourced "responsibly" or "sustainably." The retail companies in our investigation handle these claims in three ways, shown in Figure 5 and, retailer by retailer, in Appendix Table 5. Some run a retailer program, setting their own rules and choosing what they disclose about it. Some make claims with no published standard at all, as many brands do. And others rely on outside certifications, which are funded largely by the companies they certify and, in BAP's case, run by an industry group (covered in Finding #2).

Figure 5. Three ways a "responsible" label gets made, and who checks it



*Kroger also says its "Sustainably Sourced" label means certification to standards such as ASC or BAP's 4-star level, but none of the Kroger-brand packages we found showed a certification. **Source:** retailer, brand, and certifier policies as described in this report.

Whole Foods and Albertsons take the first approach, running their own retailer programs, which concentrates control rather than adding oversight. Whole Foods writes its own Quality Standards for Farmed Seafood, verified by an outside certification body that Whole Foods selects, and tells consumers that "all the seafood in our Seafood department is Responsibly Farmed or sustainable wild caught," and that any product failing to meet its standards is not sold, with "no exceptions."[16] Albertsons runs a comparable "Responsible Choice" program, which accepts a green ("Best Choice") or yellow ("Good Alternative") rating from Seafood Watch, certification to a standard recognized by the Global Sustainable Seafood Initiative (GSSI), or sourcing from a fishery or farm in an improvement project making "measurable and time-bound progress."[17] Seafood Watch, the ratings program run by the nonprofit Monterey Bay Aquarium, says its assessments are "never commissioned or funded by seafood producers or processors."[18] But it rates species, regions, and production methods rather than auditing individual farms. Its benchmarks, conducted between 2014 and 2017, rate ASC-certified salmon as a "Good Alternative" or better, and they rate BAP-certified shrimp, tilapia, and Vietnamese pangasius the same way (so long as the product carries two or more BAP stars, meaning at least the processing plant and farm are certified).[19] As a result, Seafood Watch ratings may, in the end, rely on the same certifications examined in Finding #2, inheriting the same weaknesses.

When a product carries an outside certification, at least three different parties are involved: the certifier, the farm, and the retailer. Whole Foods' program works differently, because the retailer owns it: the company writes the rules, chooses the auditor who checks whether farms follow them, and decides what, if anything, to share with the public. It does not publish its audit results, pass/fail rates, or records of

16 "Seafood Standards like Nowhere Else," Whole Foods Market, accessed October 3, 2026; "Whole Foods Market Quality Standards for Farmed Seafood: Finfish and Shrimp," Whole Foods Market, January 2026.

17 "Albertsons Companies Responsible Seafood Policy," Albertsons Companies, accessed October 3, 2026; "Responsible Seafood," Albertsons Companies, accessed October 3, 2026.

18 Seafood Watch, "2024–2026 Standards Review and Revision Terms of Reference and Protocols, Version 3," Monterey Bay Aquarium, June 24, 2025, 6.

19 Seafood Watch, "Seafood Watch Standard for Aquaculture, Version A4.0," Monterey Bay Aquarium, April 1, 2020; Seafood Watch, "Aquaculture Stewardship Council Salmon Standard (Version 1.1 June 2017): Benchmarking Equivalency Results Assessed against the Seafood Watch Aquaculture Standard," Monterey Bay Aquarium, June 2017; Seafood Watch, "Global Aquaculture Alliance Finfish and Crustacean Farms BAP Standards, Guidelines (Rev. 4/13) Applied to Shrimp," Monterey Bay Aquarium, February 20, 2014; "Multi-Star BAP Tilapia Upgraded to Seafood Watch 'Good Alternative' Rating," Global Seafood Alliance, June 5, 2017; "Vietnam BAP Farmed Pangasius Equivalent to Monterey Bay Aquarium Seafood Watch 'Good Alternative,'" Global Seafood Alliance, February 27, 2015.

corrective actions required of farms. Suppliers, not Whole Foods, pay for the audits.[20] When we asked Whole Foods which third-party auditor verifies its standards and whether audit results are public, a customer service representative replied that "we don't have information for the third party auditor that Whole Foods uses to verify its standards"; the reply did not say whether results are public.[21] Whole Foods shoppers, then, have no way to understand what "no exceptions" means.

Whole Foods does publish the standard itself, most recently updated in January 2026. Some of its rules are firm, and several go further than ASC's or BAP's: fish from pens treated with antibiotics or synthetic lice chemicals can't be sold at Whole Foods, and the standard bans hormones, genetically modified fish, copper-treated nets, and acoustic devices used to scare away seals.[22] But much of the rest asks farms to keep records rather than meet limits. Farms report how much wild fish goes into their feed against a target of 1:1 for salmon, and test for polychlorinated biphenyls (PCBs), dioxins, and mercury against levels the standard frames as goals, with no stated consequence for missing either. Farms record how many fish die and why, but the standard sets no limits on deaths. They must measure at least one pollutant in their wastewater each month, but the standard caps none. The only limit on crowding applies to salmon in open net pens. On two harms this report documents, the standard says almost nothing: for workers, it requires only that farms follow local labor law, and for slaughter, it calls stunning "preferred," requiring a specific method only for sturgeon. With no audit results published, shoppers can't see how many farms meet even the firm rules.[23]

Albertsons writes the rules for its logo, but the standards behind it come from others. In 2020, announcing that all seafood in its Waterfront Bistro and Open Nature lines would soon carry the logo, Albertsons said the logo also means its sourcing is "third-party audited." It now says its sustainability partner, FishWise, provides "third-party verification," but it publishes no audit results.[24] The logo itself doesn't say which route a product took. Unless a certification logo also appears on the package, shoppers can't tell whether the Albertsons logo rests on a Seafood Watch rating, a certification, or an improvement project. Only 1 of the 27 products we found with the logo showed a certification. Albertsons' 2026 seafood policy describes these criteria as ones it "en-

20 "Whole Foods Market Quality Standards for Farmed Seafood," Whole Foods Market, sec. 1.5. Neither the standard nor Whole Foods' seafood standards page names the certification body or links to audit results (both accessed October 16, 2026).

21 Whole Foods Market customer service, chat response to Farm Forward inquiry, October 15, 2026.

22 "Whole Foods Market Quality Standards for Farmed Seafood," Whole Foods Market, secs. 3.1, 3.5, 4.1, 7.1.4, 10.7.

23 "Whole Foods Market Quality Standards for Farmed Seafood," Whole Foods Market, Introduction and secs. 1.1, 5.4, 6.1, 7.2.2, 7.2.5, 7.4, 12.4.

24 Albertsons Companies, "Albertsons Companies Own Brands Celebrates Sustainability Milestone: 100% of Waterfront Bistro and Open Nature Seafood Will Soon Display the Responsible Choice Logo for Sustainable Sourcing," press release, GlobeNewswire, June 30, 2020; "Responsible Seafood," Albertsons Companies.

deavors" to meet rather than requirements, says only that it "preferentially sources" ASC-certified farmed salmon, and allows case-by-case exceptions for small or unassessed operations, decided with FishWise.[25] The only third-party audits the policy mentions are for forced labor and human trafficking.

Kroger combines the first and third approaches. It writes its own labels, but says its "Sustainably Sourced" label covers seafood "certified to standards that we consider best-in-class," such as ASC or BAP's 4-star standard (BAP's top tier, which requires certification of the processing plant, farm, hatchery, and feed mill[26]), and it uses "Responsibly Sourced" for fisheries and farms that, in its words, "demonstrate sustainable practices," without saying what those practices are.[27] Yet none of the 23 claim-bearing Kroger, Simple Truth, and Private Selection products we found (22 of which carried one of these Kroger labels) showed a certification on the package, including all nine labeled "Sustainably Sourced" (four at Fred Meyer, five at Smith's). A shopper has no way to confirm the certification the label promises. Kroger says 98 percent of the farm-raised seafood sold in its stores in 2021 met its sourcing policy.[28] Its sustainability policy, last updated in December 2024, sets a goal of sourcing at least 95 percent of the farm-raised products in its Seafood Department from farms certified to BAP's 2-star level or higher, ASC, or GLOBALG.A.P., a lower bar than the 4-star BAP certification Kroger cites for its "Sustainably Sourced" label.[29]

Trader Joe's takes the second approach: it doesn't define a standard at all. In 2010, the company pledged to shift all its seafood purchases to "sustainable sources" by the end of 2012 and to use its purchasing power to encourage change in the seafood supply chain, and it pointed to species it had already stopped selling, such as orange roughy.[30] Without a published standard, its claim rests on values-based language rather than an auditable practice.

None of these approaches offers shoppers what they would need to trust a claim: a standard with enforceable limits, an auditor that is named and independent of the companies it checks, and results the public can see. Whole Foods comes closest on the first, with a detailed published standard, but it names no auditor and publishes no results. Albertsons and Kroger offer less, and Trader Joe's offers the least, with no standard at all. Retailers that rely on outside certification at least point to a named standard and auditing, but as Finding #2 shows, the most common one is run and funded by the industry it certifies.

25 "Albertsons Companies Responsible Seafood Policy," Albertsons Companies.
26 "Understanding the Best Aquaculture Practices Four-Star System," Global Seafood Alliance, April 14, 2026.
27 "Seafood Sustainability at Kroger," Kroger, May 15, 2023.
28 "Seafood Sustainability at Kroger," Kroger.
29 "The Kroger Family of Companies Seafood Sustainability Policy," Kroger, last updated December 2024.
30 "Trader Joe Vows to Become Sustainable," The Fish Site, March 30, 2010.

Claims Lack Shared Definitions, and Company Definitions Say Little

The industry does not set consistent definitions of its own. We examined whether the most common claims appearing across farmed seafood marketing reflected any recognized, publicly available standard (Figure 6).

Figure 6. Who defines the most common claims, and what stands behind them

			
Whole Foods "Responsibly Farmed" 365 Farm-Raised Shrimp, Whole Foods WRITTEN BY Whole Foods CHECKED BY An auditor Whole Foods picks and doesn't name **X** Results not public	**Albertsons "Responsible Choice"** Open Nature Norwegian Atlantic Salmon Fillets, Safeway WRITTEN BY Albertsons QUALIFIES WITH A Seafood Watch rating, a GSSI-recognized certification, or an improvement project **X** Logo doesn't say which	**Kroger "Sustainably Sourced"** Private Selection Tilapia Marinated with Pesto, Smith's WRITTEN BY Kroger KROGER SAYS Certified to standards it calls "best-in-class," such as ASC or BAP 4-star; no standards document **X** No certification shown	**ASC "Farmed Responsibly" logo** Kirkland Signature Blackened Atlantic Salmon, Costco WRITTEN BY Aquaculture Stewardship Council, funded by fees and royalties from companies using its label, plus grants CHECKED BY Outside auditors (only a sample of sites for group certificates) ✓ Audit reports public
On 52 of 60 claim-bearing products we found there; 6 had an outside certification.	**On 27 products** at Safeway and Pavilions; 1 had an outside certification.	**On 9 Kroger-brand products;** none showed a certification on the package.	**Doesn't cover** the "Raised Without Antibiotics" claim printed beside it.

Photos: Farm Forward and AAP in-store audit, March–May 2026 (Whole Foods, Portland, Ore.; Safeway, Omak, Wash.; Smith's, Salt Lake City; Costco, San Diego). Policies as published by each company and certifier.

Responsibility wording appeared on 61 percent of products we reviewed in stores and online (191 of 313), and companies defined it in at least five different ways (see Appendix Table 6). With no shared definitions, the same word can describe very different production practices from one company to the next. Neither consumers nor regulators have a common standard against which to judge any single claim.

When a company does explain its claims, the explanations rarely commit to anything specific. We checked whether brands' definitions of terms like "responsibility," "sustainability," and "humane," on packages and websites, name specific practices, set measurable standards, and make those standards publicly available (see Appendix Table 7).

Across these examples, company definitions tend to describe a feeling or a value, not a practice. There's no way to prove, measure, or audit a claim like "humane farming" or "highest standards of sustainability" without specific practices or standards behind it. A claim like "no antibiotics ever" *does* name a specific practice that could be verified. But every one of the 58 antibiotics claims in our sample (45 in stores and 13 on Amazon) was self-declared by a brand or retailer, with no outside certification or testing to ensure the claims are true. Most of the company language we reviewed gives consumers an impression of responsibility without any concrete information they could use to evaluate it.

Messaging Shapes How Consumers Understand Farmed Seafood

These labels matter because shoppers rely on them. Survey research consistently finds that shoppers say sustainability messaging influences what they buy, even when seafood consumers have limited ability to evaluate the substance behind it. Estimates of how much these claims matter vary: the industry surveys cited above put the share of seafood shoppers who weigh them at roughly a third to half, and research commissioned by certifiers themselves puts it much higher.

For instance, in an ASC survey of more than 15,000 consumers across 14 countries, conducted in late 2023 and published in 2024, 83 percent said they are motivated to some degree by a sustainability label when choosing seafood. Only 2 percent said they think about sustainability on their own while shopping.[31] This suggests that labels do much of the work of getting shoppers to think about sustainability at the moment of purchase.

When consumers see these labels, they tend to trust them. In an earlier 2019 ASC survey, 84 percent of seafood consumers across seven countries said they would trust the ASC label.[32] ASC's 2026 survey, cited

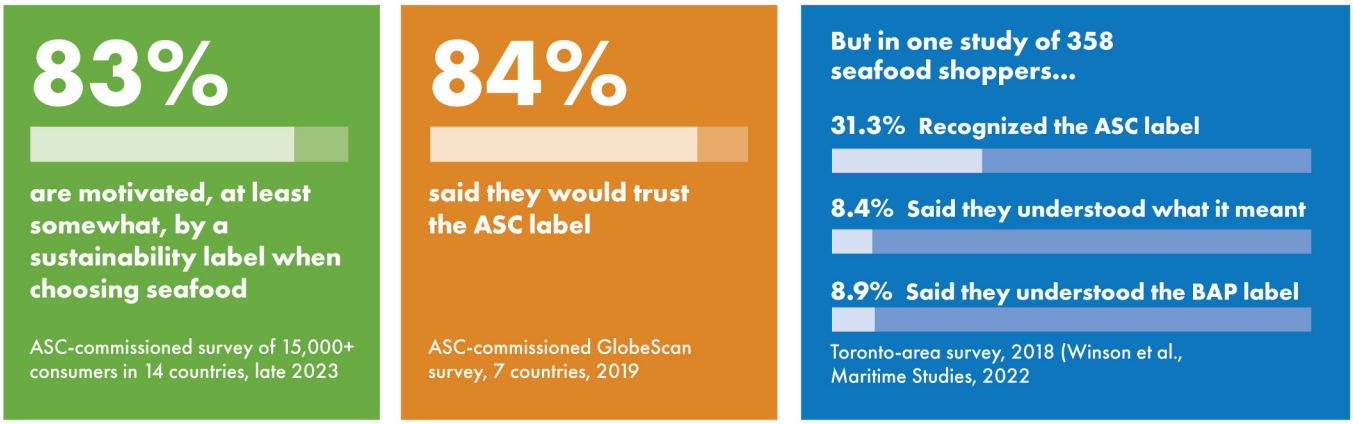
31 "New ASC Research Reveals Shoppers Rely on Trusted Certification Labels," ASC, December 1, 2024.

32 "Two Thirds of Seafood Consumers Call for 'Radical or Significant' Change to Feed Growing Population," ASC, January 29, 2020.

above, found that shoppers rate "independent" certification as their most trusted source of information, ahead of environmental organizations, brands, and retailers.[33] Shoppers also expect retailers to vouch for what they sell. In a 2022 poll commissioned by the Walton Family Foundation, 78 percent of Americans said that grocers and restaurants are responsible for verifying the source of the food they sell.[34]

But few consumers understand what these labels mean (Figure 7). In FMI's 2022 Power of Seafood report, only 28 percent of seafood consumers described themselves as very knowledgeable about "sustainable seafood,"[35] and in 2021, 71 percent said they wanted to be more knowledgeable about seafood sustainability.[36] Understanding of specific labels is even lower. In a 2018 University of Guelph survey of 358 seafood shoppers in the Toronto area and Guelph, Ontario, far more people recognized the ASC and BAP labels than said they understood them: 31.3 percent recognized the ASC label, but only 8.4 percent said they understood what it meant; 22.6 percent recognized the BAP label, but only 8.9 percent said they understood it.[37]

Figure 7. What shoppers say about sustainability labels, and how many understand them



Sources: "New ASC Research Reveals Shoppers Rely on Trusted Certification Labels," ASC, December 1, 2024; "Two Thirds of Seafood Consumers Call for 'Radical or Significant' Change to Feed Growing Population," ASC, January 29, 2020; Anthony Winson et al., "Ecolabeled Seafood and Sustainable Consumption in the Canadian Context," Maritime Studies 21, no. 1 (2022). The three panels come from separate surveys of different populations and aren't directly comparable. Two were commissioned by ASC, a certifier.

33 "Quality, Health and Trusted Certification Are Reshaping Seafood Purchasing," ASC; Gairn, "Seafood Shoppers Increasingly Link Sustainability."

34 "Walton Family Foundation Urges Action on Seafood Traceability Ahead of World Oceans Day," Walton Family Foundation, June 7, 2022.

35 "FMI Power of Seafood Analysis," FMI.

36 "FMI Power of Seafood 2021 Provides Insights on Ways to Maintain Strong Seafood Sales," FMI—The Food Industry Association, February 23, 2021.

37 Anthony Winson et al., "Ecolabeled Seafood and Sustainable Consumption in the Canadian Context: Issues and Insights from a Survey of Seafood Consumers," *Maritime Studies* 21, no. 1 (2022): 99–113.

For most shoppers, then, these claims work as a proxy for trustworthiness rather than specific information they weigh in purchasing decisions. The label suggests "sustainable" or "responsible" production, and most consumers have no way to verify whether that's true. As the next section shows, no government agency checks these claims either.

The Regulatory Vacuum Behind These Claims

Authority for regulating these claims is split across three federal agencies, and none of them has set meaningful standards (Figure 8).

The U.S. Food and Drug Administration (FDA) has primary jurisdiction over voluntary environmental and welfare claims on packaging under its misbranding authority. But beyond a general ban on false or misleading labeling, it has never defined what terms like "sustainable," "responsible," or "humane" mean in practice.[38] In effect, there are no standards against which these claims can be evaluated or enforced.

The agency's enforcement power also has an inherent flaw. The FDA can act only after a product goes to market and reserves its warning letters for "violations of regulatory significance," but it can't force producers to provide the documentation it would need to investigate.[39] It's a catch-22 that leaves the agency needing evidence it has no power to obtain.[40] Follow-up is weak even when safety is at stake: the U.S. Government Accountability Office found the FDA met its own six-month follow-up goal for only 11 percent of its warning letters on significant imported-seafood safety violations (Figure 8).[41] Stronger measures, like recalls or penalties, are rarely used for labeling issues.[42]

The FTC oversees advertising claims, such as those on websites and in ads.[43] It has a more direct route to enforcement: it can require companies to substantiate the claims they have made, instead of having to prove a claim false itself.[44] The third agency, the U.S. Department of Agriculture (USDA), inspects catfish, but otherwise its seafood labeling authority is limited to country of origin and whether a product is farmed or wild-caught[45]—important information, but unrelated to sustainability or responsibility.

38 Federal Food, Drug, and Cosmetic Act § 403(a), 21 U.S.C. § 343(a) (2018).

39 "Regulatory Procedures Manual, Chapter 4: Advisory Actions, § 4-1-1 Warning Letter Procedures," U.S. Food and Drug Administration, July 2024.

40 Hira Jaleel and Saylor Soinski, "Combating Bluewashing in Aquaculture," *Iowa Law Review* 112 (forthcoming 2026).

41 "Imported Seafood Safety: FDA Should Improve Monitoring of Its Warning Letter Process and Better Assess Its Effectiveness," GAO-21-231, U.S. Government Accountability Office, March 19, 2021.

42 Jaleel and Soinski, "Combating Bluewashing in Aquaculture."

43 "Memorandum of Understanding between the Federal Trade Commission and the Food and Drug Administration," Federal Trade Commission, May 14, 1971.

44 "FTC Policy Statement Regarding Advertising Substantiation," Federal Trade Commission, November 23, 1984.

45 7 C.F.R. § 60.200(a), (d) (2024); 7 U.S.C. §§ 1638–1638d (2018); "Country of Origin Labeling (COOL)," U.S. Department of Agriculture (USDA), accessed July 17, 2026; 7 C.F.R. § 60.300(a) (2024) (specifying acceptable terms such as "wild caught" and "farm-raised," and clarifying that terms like "cultivated" or "cultured" do not satisfy the labeling requirement); "Inspection of Siluriformes," USDA Food Safety and Inspection Service, accessed October 1, 2026.

Figure 8. The agencies with a role in seafood claims, and what happened after the FDA's warning letters



When the FDA does act, it rarely follows up on time.

What happened after 125 warning letters for significant imported-seafood safety violations, 2014–2019:



11% on time

44% no follow-up inspection (as of March 2020)

45% followed up late (about 2 years on average)

Sources: GAO-21-231 (2021); FDA Regulatory Procedures Manual; FTC and USDA rules as cited in this report. "On time" = within FDA's own six-month goal.

The agencies that could provide real oversight already exist. The problem is that the FTC's and USDA's authority over these claims is limited, and the FDA has not used its authority to require clearly defined, enforceable standards.

That leaves outside certification, the third approach retailers take, as the main check on these claims. Finding #2 looks at how well that works.

Finding #2: Most "Certified" Seafood Is Certified by the Industry Itself

Four of every five certified products on the shelves we audited (101 of 127) carried the seal of a program the seafood industry built, runs, and pays for: BAP, which does not publish its audits. Its record shows why that matters: most of the shrimp import refusals for antibiotic contamination at the U.S. border in the first nine months of 2026 involved BAP-certified facilities. Certification is presented as a more rigorous alternative to self-defined claims, an outside check that turns vague claims into enforceable standards. But certification falls short of what its logos imply: the industry's role in running and funding the programs keeps standards low, oversight and enforcement are weak, and a logo does not verify the other claims printed beside it. BAP's dominance should tell shoppers how little independent oversight stands behind these logos.

Retailers That Defer to Certifiers Inherit Their Limits

Walmart, ALDI, and Costco take the third approach, relying on outside certification. Walmart's policy calls for its fresh and frozen, farmed and wild seafood to be certified by a GSSI-recognized program such as the Marine Stewardship Council (MSC), BAP, or ASC, or to come from sources working toward certification or in an improvement project.[46] ALDI requires farmed products to be certified by ASC, BAP (at the 4-star level), GLOBALG.A.P., an organic program, or another GSSI-recognized scheme, or to come from an aquaculture improvement project that shows progress.[47] Costco says it seeks to source farmed seafood from ASC-certified farms and supports aquaculture improvement projects working toward ASC standards. By its own count, 76.8 percent of its Kirkland Signature farmed seafood was ASC-certified or came from ASC-certified farms in fiscal 2025, and it gives no date for reaching full certification.[48] Certification logos appeared on 97.1 percent of products with claims at Walmart (67 of 69) and all 31 at ALDI (Appendix Table 3), and most were BAP (83.7 percent, or 82 of 98). Kroger says its "Sustainably Sourced" label rests on certification, too, but as Finding #1 showed, none of the products from Kroger's own brands that we found displayed a certification.

46 "Walmart Sustainable Commodities Report FY2025 Overview and 20x2025 Goal Progress Report," Walmart Inc., last updated February 17, 2026, 16, 25n27.

47 "ALDI US Seafood Buying Policy," ALDI US, accessed October 3, 2026.

48 "Fisheries and Aquaculture Sustainability," Costco Wholesale, accessed October 20, 2026; *Costco 2025 Sustainability Report*, Costco Wholesale, 45–46, 76.

Of the three approaches, this one at least points to a named, external standard instead of wording the retailer invented. But it carries all of the certification limitations described below. An ASC logo at Costco or a BAP logo at Walmart can still appear on products from farms that use more wild fish in feed than they produce. The audits behind either logo reach only a sample of farms in group certificates, and the certifiers depend on fees from the companies they certify.

Certifications Provide More Structure, but Auditing, Transparency, and Standards Often Fall Short

The two largest certifiers in farmed aquatic animal production, ASC and BAP, do specify more detailed, measurable requirements than most self-declared or company-defined claims. But a closer look at both programs reveals that the standards are frequently narrower, more permissive, or less well enforced than their public reputation suggests.

We compared ASC and BAP requirements across seven recurring issues most relevant to the impacts of industrial aquaculture: water quality, feed efficiency (a proxy for how much wild fish a farm uses to produce farmed fish), antibiotic use, animal welfare, sea lice management, disease and mortality, and labor and social standards, along with whether audit results are made public (Figure 9; Appendix Table 8). Where ASC comes out ahead of BAP, it does so against a low bar.

Figure 9. How the ASC and BAP farm standards compare on key issues

■ ENFORCEABLE NUMERIC LIMIT ● PARTIAL: A PLAN, A TRIGGER, OR SOME SPECIES ONLY ▲ NO LIMIT, OR NOT PUBLIC

ISSUE	ASC FARM STANDARD	BAP FARM AND SALMON STANDARDS
Water quality	● Nutrient caps for some species; reduction-plan triggers for some waterbodies	● Effluent limits with other ways to comply; none for marine net pens
Wild fish in feed	■ Capped by species; salmon up to 2.52 kg of wild fish per kg (fish oil)	■ Capped by species; salmon net pens up to 3.0 (fish oil)
Antibiotics	■ No preventive use; treatment caps for most finfish; none allowed for shrimp	● No preventive use; treatment cap for tilapia only
Animal welfare	● New humane-slaughter rules; no stocking-density limit	● Welfare indicators tracked; crowding capped only for salmon (25 kg/m³)
Sea lice	■ Regional limits during sensitive periods for wild salmon	▲ Follows government limits; no limit of its own
Mortality	● Caps for four species groups, set high	● No ceiling; salmon: 85% survival, with exceptions
Labor	● Measures the living-wage gap; doesn't require a living wage	● Legal minimum wage; no living-wage benchmark
Audit reports	■ Published	▲ Full reports not published

A numeric limit isn't the same as a strong one. Both standards' feed caps still let farms feed salmon more wild fish than the salmon they produce, and ASC's mortality caps run as high as 75 percent in some shrimp ponds.

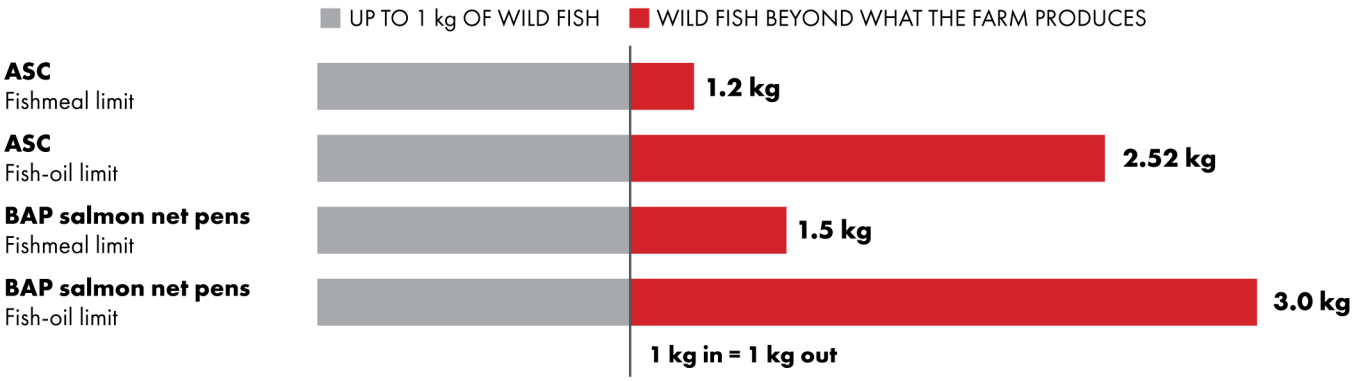
Source: Our reading of ASC Farm Standard v1.0.1A2 (mandatory from May 2028; many farms are still audited to older species standards), BAP Farm Standard Issue 3.1, and BAP Salmon Farm Standard Issue 3.0 (salmon net pens). Full comparison in Appendix Table 8.

Five problems stand out:

Feed efficiency standards permit certifying an inherently resource-intensive practice. Both ASC and BAP allow farms to feed carnivorous species like salmon more wild-caught fish, by weight, than the farmed fish ultimately produced (Figure 10). Certifying these species means endorsing a supply chain that still depletes wild fish populations to produce farmed ones, even as certifiers themselves promote fish farming as a way to spare wild fish. GSA responded to Farm Forward and AAP's earlier report[49] by insisting that "fish farming reduces pressure on wild fisheries," and ASC tells consumers that aquaculture, "when managed," can "reduce pressure on wild fish stocks."[50]

Figure 10. The most wild fish each standard allows per kilogram of farmed salmon

Anything past the 1 kg line means more fish go in than come out.



A fish-oil ratio of 2.52 means up to about 2.5 kg of wild fish can be caught to supply the oil for 1 kg of farmed salmon.

Sources: ASC Farm Standard v1.0.1A2 (marine salmon farms); BAP Salmon Farm Standard Issue 3.0 (net pens). Farms may meet ASC's marine omega-3 cap instead of its fish-oil limit.

Some standards have loosened rather than tightened over time. ASC's sea lice limits are one example: its 2022 revision raised the limit for salmon in British Columbia by 540 to 1,550 percent, from 0.1 adult female sea lice per fish to 3 motile lice (roughly 0.64 to 1.65 adult females)—a threshold critics warn poses a danger to migrating juvenile wild salmon.[51] Farms that exceed even this relaxed limit must notify their certifier by the next working day and bring lice below the limit within 21 days or lose certification, and they can keep selling fish

49 *The Myth of "Sustainable" Aquaculture: How the Fish Farming Industry Sold a False Promise of Saving Our Oceans*, Aquaculture Accountability Project and Farm Forward, January 2026.

50 Elise Avallon, "Responsible Aquaculture Is No Myth," Global Seafood Alliance, February 10, 2026; "Aquaculture & Fish Farming Explained," ASC, accessed October 16, 2026.

51 "New Rules from Fish Farm Certifier Keep Up Status Quo, Harm Wild Salmon, Environmental Coalition Says," *Canada's National Observer*, September 13, 2022; "ASC's New Sea Lice Limits Protects Industry, Not Wild Salmon," SeaChoice, September 6, 2022. The percentage increases and the adult-female equivalence (per Fisheries and Oceans Canada) are from SeaChoice's backgrounder table.

under the ASC label in the meantime. ASC's enforcement of its earlier lice limits was inconsistent (see "Certification retained despite violations," below).[52]

ASC's more rigorous standard won't be required until 2028. ASC is in the process of shifting from its older, species-specific standards (such as the Salmon and Cod Standard[53]) to a single, more comprehensive Farm Standard,[54] which adds animal welfare provisions and broadens many others, including rules on labor, water quality, and the use of antibiotics, hormones, and other veterinary drugs (Figure 9). The new standard was originally set to become mandatory by May 1, 2027, but ASC has since delayed the deadline to May 1, 2028.[55] Yet ASC promotes its new Farm Standard prominently: its 2025 launch announcement presents a standard built around "fish, farm, people and planet."[56] Until 2028, though, certified farms can keep operating under the older, weaker standards.

Conflicts of interest are built into the certification model. Both major certifiers are set up in ways that financially incentivize them to keep standards at a level that is attainable for the companies that pay them, rather than at the level an independent watchdog would set.

GSA was founded by seafood and agribusiness companies including Cargill and Monsanto.[57] Of the 26 directors on GSA's website, 13 (50 percent) represent seafood, aquafeed, retailer, or foodservice companies, from producers and processors such as Cooke, Thai Union, and CP Foods to buyers such as Walmart, Sysco, ALDI, and US Foods, and another four represent seafood industry associations or programs, such as the Alaska Seafood Marketing Institute (Figure 11).[58] Nearly all of GSA's $19.6 million in 2024 revenue (98.5 percent) came from its programs, such as certification, rather than from donations.[59]

52 "ASC Salmon and Cod Standard Version 1.5," ASC, October 13, 2025, indicators 3.1.10–3.1.11; "ASC's New Sea Lice Limits," SeaChoice; Andrew Graham-Stewart, "Aquaculture Stewardship Council's Accreditation Standards Worthless for Salmon Farms," WildFish, April 27, 2022; Kelly Roebuck, Liane Arness, and Karen Wristen, "Accountability in Seafood Sustainability: Improving the Legitimacy of Aquaculture Certifications through Better Transparency and Stakeholder Inclusivity," SeaChoice, April 2021.

53 "ASC Salmon and Cod Standard Version 1.5," ASC.

54 "ASC Farm Standard v1.0.1A2," ASC, August 5, 2026.

55 "ASC Extends Farm Standard Transition Deadline and Releases Interim Update," ASC, July 2, 2026.

56 "Accelerating Change in the Seafood Industry: ASC Launches Farm Standard," ASC, May 12, 2025.

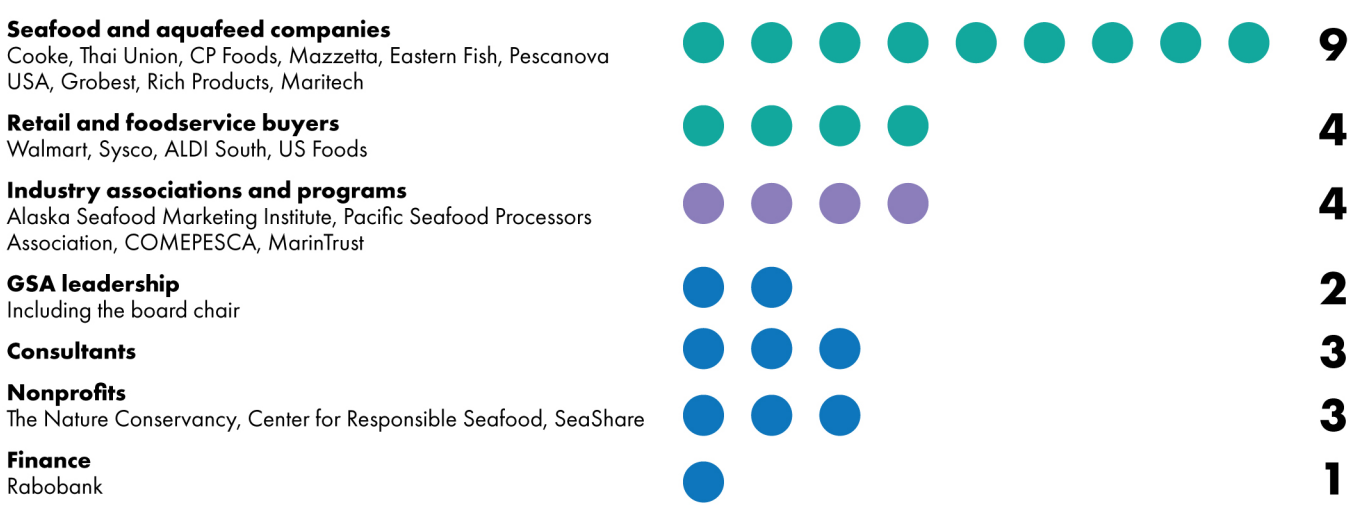
57 "A Brief History of the Global Seafood Alliance," Global Seafood Alliance, accessed July 21, 2026.

58 "The People behind GSA," Global Seafood Alliance, accessed October 1, 2026.

59 "Form 990: Return of Organization Exempt from Income Tax, Fiscal Year 2024," Global Seafood Alliance, October 22, 2025, Part VIII, "Statement of Revenue" (ProPublica Nonprofit Explorer, EIN 54-1853030).

Figure 11. Who sits on the GSA board of directors

The 26 directors of the Global Seafood Alliance, which administers Best Aquaculture Practices, by the organization each represents.



Source: Global Seafood Alliance, "The People Behind GSA / Our Team," accessed October 1, 2026. Classification by Farm Forward and AAP.

ASC presents itself as independent of the industry, but it also depends on the companies it certifies: alongside support from philanthropic funders, it collects annual license fees from companies in the supply chain and royalties on the products that carry the ASC label.[60]

Oversight and enforcement mechanisms often fail. Even the standards that do exist are inconsistently enforced, and BAP keeps its audit results confidential, which limits the public's ability to verify that enforcement independently. Examples of these failures include:

- **Sampling-based audits.** For farms certified as a group, both ASC and BAP have auditors visit only a sample of sites each year,[61] so many farms in group certificates go unvisited by an outside auditor in a given year.

- **Confidential audit results.** BAP's rules for certification bodies treat audit information as confidential; only a summary report, stripped of commercially sensitive information, is available, and only on request. Full reports are released only with the producer's permission, and corrective actions, including withdrawn certificates, are not made public. BAP's public list shows only whether a facility is certified or in assessment.[62]

60 "Funding and Finances," ASC, accessed July 21, 2026; "About the ASC Sustainability Label," ASC, accessed October 1, 2026.

61 "Best Aquaculture Practices: Farm and Hatchery Group Program Policy and Control Document, Issue 2.0," Global Seafood Alliance, April 17, 2026; "ASC Group Requirements for Farms, Version 1.0 (CAR-005)," ASC, May 2025.

62 "Global Seafood Alliance Certification Body Requirements, Issue 1.0," Global Seafood Alliance, September 16, 2025, secs. 3.8.6, 7.8; "GSSI Benchmark Report, Scheme: Best Aquaculture Practices," Global Sustainable Seafood Initiative, March 11, 2026, components B.2.12 and B2.14, 57-59; Roebuck, Arness, and Wristen, "Accountability in Seafood Sustainability," 8-9.

- **Reported labor abuses.** In a 2024 investigation by the Outlaw Ocean Project, a whistleblower alleged that a major BAP-certified Indian shrimp exporter was sourcing from unregistered farms while falsifying documentation, and that some workers had not had a day off in a year, lived in unsafe housing, and were confined to the site; the company denied the allegations. According to the investigation, BAP-labeled shrimp from the exporter's plant was still reaching U.S. shelves after the plant appeared to have dropped off BAP's list of certified facilities.[63] A separate 2024 investigation by Corporate Accountability Lab suggests that this wasn't an isolated case: it documented forced labor, wage violations, gender-based violence, child labor, and groundwater contamination across India's shrimp industry, and found that standards "are regularly violated, including in certified facilities."[64]

- **Certification retained despite violations.** In 2022, WildFish reported that in spring 2021, 5 of 6 ASC-certified Scottish salmon farms it examined breached ASC's own sea lice limit in all but 1 of 61 weekly counts, averaging eight times the limit and reaching as high as 30 times it; as of April 2022, all five were still listed as certified.[65] A 2018 SeaChoice review of 456 ASC salmon-farm audit reports found widespread inconsistencies and lenient enforcement, with numerous farms certified despite failing to meet several core requirements, raising questions about the program's credibility and rigor.[66]

- **Contamination reaching the U.S. border.** According to the Southern Shrimp Alliance, 73.1 percent of shrimp import lines refused at the U.S. border for antibiotic contamination in the first nine months of 2026 came from BAP-certified facilities (Figure 12).[67] The pattern persists: 87.3 percent in the first nine months of 2024[68] and 78.6 percent in January and February 2026.[69] These refusals point to breaches of BAP's own rules, not just gaps in them. BAP allows antibiotics only when they are permitted in both the producing and importing countries, and it requires certified processing plants to test for residues. Yet at the U.S. border, one of the few places where someone other than the companies themselves tests BAP-certified shrimp, BAP-certified facilities account for most of the antibiotic failures.[70]

63 "The Whistleblower," Outlaw Ocean Project, March 20, 2024; "Documents: Miscellaneous," Outlaw Ocean Project, accessed October 1, 2026.

64 "Hidden Harvest: Human Rights and Environmental Abuses in India's Shrimp Industry," Corporate Accountability Lab, March 2024, 2.

65 Graham-Stewart, "Aquaculture Stewardship Council's Accreditation Standards Worthless for Salmon Farms."

66 Kelly Roebuck and Karen Wristen, "Global Review of the Aquaculture Stewardship Council's Salmon Standard," SeaChoice, October 2018, 12.

67 "September 2026: FDA Antibiotic-Contaminated Shrimp Import Refusal Report," Southern Shrimp Alliance (SSA), October 6, 2026.

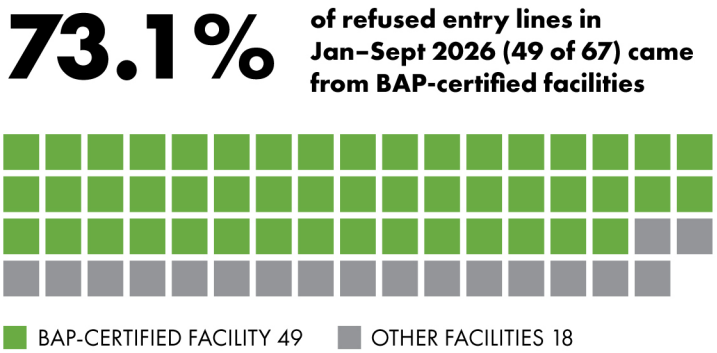
68 "Third Quarter Report 2024: Highlights of SSA's Work on Behalf of the U.S. Shrimp Industry," SSA, October 16, 2024.

69 "February 2026: FDA Antibiotic-Contaminated Shrimp Import Refusal Report," SSA, March 6, 2026.

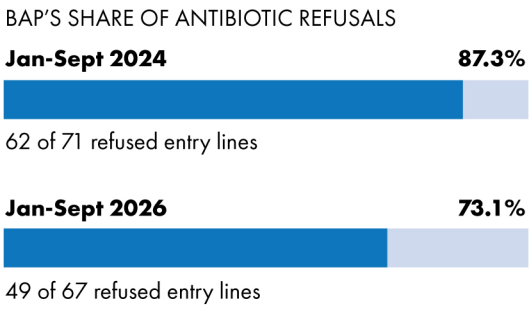
70 "Aquaculture Facility Certification BAP Farm Standard, Issue 3.1: Best Aquaculture Practices Certification Standards, Guidelines," Best Aquaculture Practices (BAP), Global Seafood Alliance, February 7, 2023, Pillar 1, sec. B; "Seafood Processing Standard – Core, Issue 6.0," Global Seafood Alliance, November 4, 2024, clauses 3.2.1–3.2.2, 3.3.2; "September 2026: FDA Antibiotic-Contaminated Shrimp Import Refusal Report," SSA.

Figure 12. Share of shrimp import refusals at the U.S. border for antibiotics that came from BAP-certified facilities

Shrimp import refusals for antibiotic contamination at the U.S. border, by whether the facility was BAP-certified.



Each square is one refused entry line. Refusals are import entry lines turned away at the border, not products found on U.S. shelves.



The same seal was on 101 of the 127 certified products in our store audit, including most of the frozen shrimp we found at Walmart and ALDI.

Sources: Southern Shrimp Alliance analyses of FDA import refusal data (October 2024 and October 2026); Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits).

Certification Does Not Cover the Claims Printed Beside It

Certification logos communicate to consumers that a farm has met a particular standard. But a logo does not verify the other promises on the same package (Figure 13); nothing on the label indicates which claims the logo covers. At Walmart, 13.4 percent of the certified products we found (9 of 67) added an antibiotics or sustainability claim that the certification does not cover (e.g., "Raised Without Antibiotics," "Sustainably farmed without antibiotics"). Across stores and online, 37.9 percent of the antibiotics claims we recorded appeared on certified products (22 of 58), and no outside certification covered any of them. Both major certifiers permit antibiotic use to treat diagnosed disease in farmed fish, so neither logo can stand behind a "no antibiotics" promise on salmon, trout, or tilapia.[71] Shrimp are the exception for ASC: its standards bar antibiotic-treated shrimp and other crustaceans from being sold as ASC-certified,[72] though none of the certified products with antibiotics claims in our sample were ASC shrimp. The border refusals described above illustrate why it matters that no certification stands behind these claims.

71 "ASC Farm Standard v1.0.1A2," ASC; "Aquaculture Facility Certification BAP Farm Standard," BAP, clauses 1.2–1.3.

72 "The Shrimp Standard," ASC, accessed October 27, 2026; "ASC Farm Standard v1.0.1A2," ASC, indicator 1.4.5(a).

Figure 13. One package, two kinds of claim: Walmart's Marketside coho salmon



1 **"Raised Without Antibiotics"**
The company's own claim. No outside party verified it, and the ASC logo beside it doesn't cover it: ASC allows antibiotics to treat diagnosed disease.

2 **ASC "Farmed Responsibly" logo**
An auditor checked the farm against ASC's standard, and ASC publishes its audit reports. For group certificates, auditors visit only a sample of sites.

3 **What the package doesn't say**
How much wild fish went into the feed, how many fish died on the farm, whether fish escaped, how much the farm polluted, or how the fish were killed.

58
antibiotics claims recorded in stores and online

0
outside certification or testing

22
printed on certified products whose certification doesn't check them

Photo: Farm Forward and AAP in-store audit, March–May 2026 (Walmart, Omak, Washington). **Sources:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings).

Finding #3: Labels Are Silent on Fish Farming's Biggest Harms, and Certification Can't Prevent Them

Not one of the 250 packages we photographed told shoppers how many fish died on the farm, what the farm released into the surrounding water, how many fish escaped, or how much wild fish was caught to feed them (Figure 14). The certifications behind many of these packages don't fill that gap. Both ASC and BAP allow salmon farms to use more wild fish than the salmon they produce, up to 2.52 kilograms of wild fish per kilogram of salmon under ASC and 3 under BAP (Figure 10), and BAP's Farm Standard, which covers farmed species other than net-pen salmon, sets no limit on how many fish can die. In effect, the industry has chosen the measures it is judged by, and it has chosen ones it can meet without changing how most fish are farmed. Claims built on these measures mislead shoppers about what they are buying, even when each claim is accurate on its own terms.

Figure 14. The harms no label mentioned

Of the 250 farmed seafood packages with marketing claims we photographed in stores, the number that mentioned each harm

0 of 250 packages mentioned:

Fish deaths on the farm
Water pollution
Fish escaping into the wild
How much wild fish went into feed

Some packages praised their feed, but none said how much wild fish went into it. **Source:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits).

In our sample, "better" seafood was defined almost entirely by the same handful of attributes: most often general references to "responsible" or "improved" farming practices, outside certification, and the absence of antibiotics; less often "sustainable" feed sourcing, traceability, and environmental stewardship.

In marketing, each of these attributes stands in for an abstract promise of responsibility that it can't support on its own. "Traceable"—one of the broader claims—tells consumers a fish can be traced to its farm but nothing about how crowded that farm was, how many of its fish died, or what it released into the surrounding water.

Kvarøy Arctic salmon at Whole Foods, for example, is labeled "100% traceable," but like every package in our store sample, it says nothing about fish deaths or water pollution. A more specific attribute, like "sustainable feed," mentions feed but says nothing about the metrics used to define sustainability in that context, or about water pollution, disease management, or how the fish was killed.

The attributes that the industry does focus on aren't themselves meaningless. Reduced antibiotic use is important, and traceability is, too, when consumers can actually verify it. But each focuses narrowly on just one input in a much larger production system. Using these attributes, a brand can reassure consumers without addressing, or even acknowledging, the full scope of aquaculture's environmental, health, and welfare harms. These attributes likely came to define "responsible" seafood because they are easy to market and comparatively easy to address, not because they tackle aquaculture's most serious harms (Appendix Table 9).

What "Sustainable" and "Responsible" Leave Out: Key Environmental, Health, and Animal Welfare Indicators

The more important question is what falls outside those attributes. When we compared the claims and certification criteria against the available evidence on industrial aquaculture's impacts, we found substantial and consistent gaps across environment, health, and animal welfare, even when a claim or certification does address a specific impact.

The Environmental Costs Left Off the Label

Waste and nutrient pollution from farms is among the best-studied of these impacts. Uneaten feed and fish waste produce nitrogen that is released into surrounding waters. A systematic review of aquaculture wastewater found that this nutrient load can drive oxygen depletion and algal blooms near farms.[73] In one documented case in Bolinao, Philippines, researchers found that a decade of rapid growth in the number of fish pens corresponded with sharp increases in ammonia (56 percent), nitrite (35 percent), nitrate (90 percent), and phosphate (67 percent) in surrounding waters. In 2002, a mass fish kill there coincided with an algal bloom and oxygen depletion.[74] Certifiers know about this risk. ASC's Farm Standard caps nitrogen and phosphorus release per tonne for some species groups and requires farms discharging into what it classifies as "Type A" waterbodies to monitor nutrient and chlorophyll levels and to adopt a nutrient-reduction plan if those levels rise past set triggers.[75] But a reduction plan is not prevention, farms are not required to meet the Farm Standard until 2028, and none of this reaches consumers.

Fish escapes from farms pose another significant environmental risk. When farmed salmon escape their pens and interbreed with wild salmon, they pass on genes shaped by captive breeding, mixing farmed traits into wild populations in a process called introgression. Farmed salmon descend from fish bred

73 Xiaojing Liu et al., "A Systematic Review on Aquaculture Wastewater: Pollutants, Impacts, and Treatment Technology," *Environmental Research* 262, pt. 1 (2024): 119793.

74 Maria Lourdes San Diego-McGlone et al., "Eutrophic Waters, Algal Bloom and Fish Kill in Fish Farming Areas in Bolinao, Pangasinan, Philippines," *Marine Pollution Bulletin* 57, nos. 6–12 (2008): 295–301.

75 "ASC Farm Standard v1.0.1A2," ASC.

in captivity for 12 or more generations, and their offspring survive and reproduce less well in the wild than the offspring of wild salmon do.[76] A large-scale genetic study of 147 Norwegian salmon rivers found significant introgression in nearly half of the 109 rivers with enough recent samples to test (51 of 109), with the highest levels in the most intensively farmed regions.[77] More recent research has found that this introgression alters growth and age at maturation across the wild salmon life cycle, and escaped farmed salmon are among the threats cited in listing Atlantic salmon as "Near Threatened" on both the Norwegian and International Union for Conservation of Nature Red Lists.[78] Certifiers treat escapes as a serious risk. BAP's separate Salmon Farm Standard suspends certification after an escape exceeding 5,000 fish.[79] But net pens sit in open water, so escapes are a recurring risk of the system itself, not an occasional failure. Suspension, BAP's strongest response, comes only after the fish are out and interbreeding with wild salmon may have already begun.

The environmental costs reach beyond the farm to the seafloor. Net pens are commonly treated with copper-based antifouling coatings to keep algae and other organisms from growing on them. Studies have found elevated copper in sediment near salmon farms, in one case above guidelines for protecting marine life and persisting for more than two years after the farm stopped operating.[80] ASC's Salmon and Cod Standard does set a limit on copper in sediment for farms that use copper-treated nets,[81] but a limit caps the level of contamination; it doesn't prevent it. Whole Foods' standard goes further, banning copper-treated nets outright.[82]

Shrimp farming, the source of 39.6 percent of the products in our store sample (99 of 250), carries its own environmental costs. Coastal ponds have been a leading driver of mangrove loss: between 2000 and 2012, conversion to aquaculture accounted for 30 percent of the more than 100,000 hectares of mangroves cleared in Southeast Asia, more than any other land use.[83] Pond overflow adds to the nutrient pollution described above. In a nutrient budget of intensive shrimp ponds in Thailand, only 24 percent of the nitrogen and 13 percent of the phosphorus in the feed ended up in the harvested shrimp; most of the rest built up in pond sediment or was flushed into nearby waters.[84]

76 Kevin A. Glover et al., "Half a Century of Genetic Interaction between Farmed and Wild Atlantic Salmon: Status of Knowledge and Unanswered Questions," *Fish and Fisheries* 18, no. 5 (2017): 890–927.

77 Sten Karlsson et al., "Widespread Genetic Introgression of Escaped Farmed Atlantic Salmon in Wild Salmon Populations," *ICES Journal of Marine Science* 73, no. 10 (2016): 2488–2498.

78 Geir H. Bolstad et al., "Introgression from Farmed Escapees Affects the Full Life Cycle of Wild Atlantic Salmon," *Science Advances* 7, no. 52 (2021): eabj3397; "Norsk rødliste for arter 2021" [Norwegian Red List for Species 2021], Artsdatabanken, November 24, 2021; "Freshwater Fish Highlight Escalating Climate Impacts on Species – IUCN Red List," International Union for Conservation of Nature, December 11, 2023.

79 "Salmon Farm Standard Issue 3.0," BAP, Global Seafood Alliance, published August 4, 2025, effective August 5, 2026, clause 3.42.

80 Kenneth M. Brooks and Conrad V. W. Mahnken, "Interactions of Atlantic Salmon in the Pacific Northwest Environment: III. Accumulation of Zinc and Copper," *Fisheries Research* 62, no. 3 (2003): 295–305; R. H. Loucks et al., "Copper in the Sediment and Sea Surface Microlayer near a Fallowed, Open-Net Fish Farm," *Marine Pollution Bulletin* 64, no. 9 (2012): 1970–1973.

81 "ASC Salmon and Cod Standard Version 1.5," ASC, indicator 4.7.4 (below 34 mg copper per kg of dry sediment).

82 "Whole Foods Market Quality Standards for Farmed Seafood," Whole Foods Market, sec. 7.1.4.

83 Daniel R. Richards and Daniel A. Friess, "Rates and Drivers of Mangrove Deforestation in Southeast Asia, 2000–2012," *Proceedings of the National Academy of Sciences* 113, no. 2 (2016): 344–349.

84 M. R. P. Briggs and S. J. Funge-Smith, "A Nutrient Budget of Some Intensive Marine Shrimp Ponds in Thailand," *Aquaculture and Fisheries Management* 25, no. 8 (1994): 789–811.

Finally, the use of wild-caught fish as feed for carnivorous farmed species remains the most significant, and most consistently obscured, environmental cost of industrial aquaculture. Aquaculture uses about 87 percent of the world's fishmeal and 74 percent of its fish oil.[85] "Reduction fisheries"—those where wild fish are caught and ground into fishmeal and fish oil rather than sold for direct human consumption—account for roughly a quarter of the world's total wild-caught fish volume, drawing on some of the most important forage fish populations in the ocean.[86] An investigation by the Outlaw Ocean Project, published in *The New York Times Magazine* in October 2026 after five years of reporting, followed this supply chain to fishmeal factories and farms in nine countries, including Senegal and the Gambia, and tied it to forced labor, rancid waste, and harmful chemicals.[87] The industry's Fish In:Fish Out ratio is often held up as proof that aquaculture is relying less on wild fish, but the way it's calculated makes it misleading. The ratio depends on assumptions about how much fishmeal and fish oil can be extracted from wild fish and how much of each goes into feed, and those numbers vary widely by species.[88]

A 2024 study in *Science Advances* that recalculated the ratio for the 11 most feed-intensive groups of farmed species found that conventional accounting understates wild-fish use, mainly by subtracting wild-fish processing trimmings as "by-products," leaving out "bycatch" (non-target animals killed in the fishing that supplies feed), and averaging carnivorous species together with largely unfed herbivores.[89] Correcting for by-products alone, the ratio for those 11 groups came out 27 to 307 percent higher than a widely cited earlier estimate of 0.28; also counting fish killed during capture and leaving out unfed farms raised it to 0.57 to 1.78. For carnivorous species like salmon, trout, and eel, wild-fish inputs exceeded twice the farmed fish produced in most scenarios, reaching 5.57 for salmon, or 6.24 when fish killed during capture are counted. In every corrected scenario, farmed salmon and trout consumed more wild fish than they yielded. Feed efficiency can be improved at the margins, but no standard can make farming carnivorous fish a net addition to the world's populations of fish, even as certification treats the problem as managed.

The Health Risks the Industry Doesn't Disclose

Disease is endemic to intensive aquaculture, causing suffering and mass deaths among farmed fish. Crowding large numbers of animals into a shared, enclosed environment creates ideal conditions for pathogens to spread. Certifiers acknowledge this much and require farms to maintain formal health management and biosecurity plans meant to reduce this risk.[90] That risk is also why ASC caps mortality for some species.[91] But a required plan is not a guarantee that disease will be controlled. BAP's Farm Standard sets no mortality ceiling at all; it tracks mortality only as one input in its welfare-indicator framework.[92] Under this system, outbreaks can

85 Patricia Majluf et al., "A Review of the Global Use of Fishmeal and Fish Oil and the Fish In:Fish Out Metric," *Science Advances* 10, no. 42 (2024): eadn5650.

86 Majluf et al., "A Review of the Global Use of Fishmeal and Fish Oil."

87 Ian Urbina, "The Dirty Secret behind the Farmed Fish You Eat," *The New York Times Magazine,* October 8, 2026.

88 Majluf et al., "A Review of the Global Use of Fishmeal and Fish Oil."

89 Spencer Roberts et al., "Feeding Global Aquaculture," *Science Advances* 10, no. 42 (2024): eadn9698.

90 "ASC Farm Standard v1.0.1A2," ASC; "Aquaculture Facility Certification BAP Farm Standard," BAP.

91 "ASC Farm Standard v1.0.1A2," ASC.

92 "Aquaculture Facility Certification BAP Farm Standard," BAP.

worsen without ever triggering a formal consequence from BAP. BAP's separate Salmon Farm Standard is the exception: it requires at least 85 percent survival for most farmed salmon, except under "extenuating circumstances."[93]

Marketing claims about "quality" and "care" do not signal that these problems even exist. And the standards behind them focus on responding after the fact, not on prevention; real prevention would mean significant changes in how the industry operates.

Endemic disease is the reason antibiotics are so widely used in aquaculture.[94] Antibiotic use is also the health issue that most often appears in consumer marketing, just as it does in land-based animal farming, where the absence of antibiotics is framed as a straightforward positive attribute. Major certifiers allow antibiotic use to treat diagnosed disease, supported by sensitivity testing, and, in some cases, set caps on the number of permitted treatments in a given production cycle.[95] Because disease is endemic in crowded farms, that allowance covers routine use: treating sick fish is a regular part of production, not a rare event. In Chile alone, salmon farms used 351 tonnes of antimicrobials in 2024, most of it against a single endemic bacterial disease.[96] Certifications do not ensure a product is antibiotic-free; they leave considerable room for use so long as it is documented.

Marketing also obscures the larger stakes: antibiotic use on farms is fueling antibiotic resistance, which the World Health Organization (WHO) and the Centers for Disease Control and Prevention identify as one of the most significant threats to global public health.[97] Aquaculture systems have been characterized as "genetic hotspots" for the transfer of resistance genes among bacteria, because they combine dense, diverse bacterial communities with antibiotic exposure in shared water.[98] Leftover antibiotics and resistant bacteria don't stay on the farm; they move through surrounding water, sediment, and food chains.[99] One 2020 study notes that about 80 percent of antibiotics given to farmed aquatic animals through feed end up in the surrounding water and sediment, where they can remain active for months.[100] Resistant bacteria can also reach consumers directly. A study of 400 retail shrimp samples from Northern California grocery stores found *Vibrio* bacteria, a common cause of foodborne illness, on 60 percent of them, more often on farmed and imported shrimp, and nearly half of the *Vibrio* isolates tested were resistant to the antibiotic ampicillin.[101] None of the consumer marketing we reviewed mentions this risk.

93 "Salmon Farm Standard Issue 3.0," BAP, clause 4.19.

94 Joy E. M. Watts et al., "The Rising Tide of Antimicrobial Resistance in Aquaculture: Sources, Sinks and Solutions," *Marine Drugs* 15, no. 6 (2017): 158.

95 "ASC Farm Standard v1.0.1A2," ASC; "Aquaculture Facility Certification BAP Farm Standard," BAP.

96 "Informe sobre uso de antimicrobianos y antiparasitarios en la salmonicultura nacional, año 2024" [Report on Antimicrobial and Antiparasitic Use in Chilean Salmon Farming, 2024], Servicio Nacional de Pesca y Acuicultura (Sernapesca), July 2025; Daniel Schar et al., "Global Trends in Antimicrobial Use in Aquaculture," *Scientific Reports* 10 (2020): 21878.

97 "Antibiotic Resistance Threats in the United States, 2019," Centers for Disease Control and Prevention, November 2019; "Antimicrobial Resistance: Key Facts," World Health Organization, accessed October 16, 2026.

98 Watts et al., "The Rising Tide of Antimicrobial Resistance in Aquaculture."

99 "Antibiotic Resistance and Aquaculture: Why It Matters for One Health," ReAct, February 22, 2026.

100 Miriam Reverter et al., "Aquaculture at the Crossroads of Global Warming and Antimicrobial Resistance," *Nature Communications* 11 (2020): 1870.

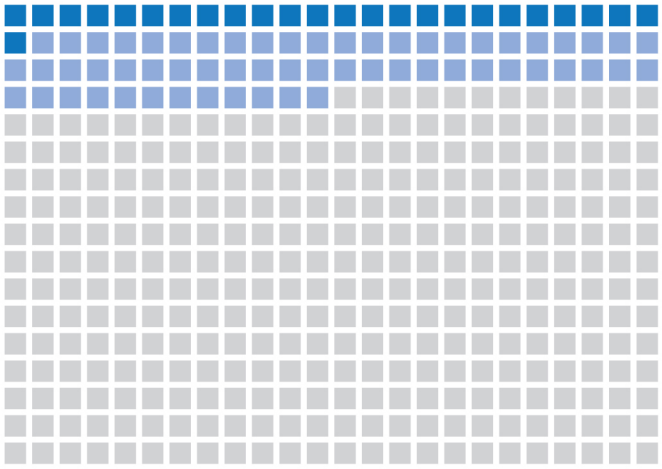
101 Brady Hirshfeld et al., "Prevalence and Antimicrobial Resistance Profiles of Vibrio spp. and Enterococcus spp. in Retail Shrimp in Northern California," *Frontiers in Microbiology* 14 (2023): 1192769.

The Welfare Claims the Industry Can't Support

Welfare receives the least substantive treatment of any of fish farming's harms. What limited attention it does receive rests on a scientific foundation far less robust than marketing claims imply. Of the 408 aquatic animal species farmed globally (fish, crustaceans, mollusks, and others), only 84 have any species-specific welfare research, and only 25 have five or more published studies (Figure 15).[102] With no species-specific welfare research for most farmed species, there isn't yet enough science for certifiers, regulators, or companies to say what good welfare even requires. That makes it difficult, and sometimes impossible, to set standards, let alone check whether a farm meets them.[103] Those gaps are partly a product of how the research is funded and what it has prioritized. In 2026, animal welfare scientists argued that research funding, which often rewards economic impact and industry partnerships, steers the field toward what is economically feasible; that the field's long focus on traditionally farmed mammals and birds left fish and crustaceans, until recently, "profoundly understudied"; and that the resulting gaps carry over into certification schemes.[104]

Figure 15. How much welfare research exists for the 408 species farmed worldwide

The 408 aquatic animal species farmed worldwide (fish, crustaceans, mollusks, and others), one square each



25
have five or more published welfare studies

59
have one to four

324
have no species-specific welfare research at all

At slaughter (finfish only): humane stunning parameters identified for 17 of roughly 360 farmed finfish species (2018)

Even for those 17, the parameters may not stun every fish.

Sources: Franks et al., "Animal Welfare Risks of Global Aquaculture," Science Advances (2021); Humane Slaughter Association, "Humane Slaughter of Finfish Farmed Around the World" (2018).

102 Becca Franks, Christopher Ewell, and Jennifer Jacquet, "Animal Welfare Risks of Global Aquaculture," *Science Advances* 7, no. 14 (2021): eabg0677.

103 Franks, Ewell, and Jacquet, "Animal Welfare Risks of Global Aquaculture."

104 Roi Mandel et al., "Pragmatism Bias in Farm Animal Welfare Science," *Frontiers in Animal Science* 7 (2026): 1841684.

Our product review reflects this. Of the 313 claim-bearing products we reviewed in stores and online, only 4.8 percent (15) used any welfare or husbandry language, and none carried a dedicated animal welfare certification. Just over half (8 of 15 products) made claims about how crowded the fish were ("Low-Density Husbandry," "99% water and 1% fish"). Five used explicit welfare wording ("Raised to the highest standard of animal welfare," "Humane farming," "the most humane techniques"), three of them in stores. The remaining two products, both Amazon listings, mentioned welfare only in passing: a "SEAFOOD WELFARE" heading placed above food-safety text, and a graphic explaining BAP that lists "ANIMAL HEALTH & WELFARE."

Certifiers have added some basic welfare rules, mostly at the end of an animal's life. ASC's Farm Standard, mandatory from 2028, requires that at least 95 percent of fish be unconscious immediately after stunning and bans killing methods such as asphyxiation in air and carbon dioxide baths.[105] BAP added an Animal Welfare Module to its Seafood Processing Standard, effective November 2025, which requires processing plants handling live animals to follow written procedures for transport, holding, and slaughter, including stunning before slaughter and checks that stunning works, but it sets no numeric thresholds and does not apply on farms.[106] BAP's salmon standard, in effect since August 2026, separately requires that farmed salmon be stunned before slaughter and bans killing them in ice slurry or carbon dioxide.[107] Elsewhere in certification standards, welfare provisions usually cover basic operating needs rather than real welfare improvements. Water quality is one example. Farms already have a financial reason to keep it within tolerable ranges, since poor water quality harms fish health and growth, and low oxygen causes more fish kills than any other problem[108]—factors that ultimately affect production yield.

Crowding is measured but rarely capped. ASC requires farms to calculate stocking density, and BAP's salmon standard requires them to record it, but neither program's main farm standard sets a limit (BAP's separate salmon standard does cap net-pen density).[109] How crowding affects welfare depends on the species, life stage, and type of farm.[110] The limited research that does exist links crowding to welfare in species-specific ways: in caged Atlantic salmon, welfare declined above about 22 kilograms per cubic meter, while in rainbow trout both very sparse and very crowded conditions caused problems.[111] Whole Foods' standard, though still limited in its impact on farmed animals, shows a cap is workable: it limits salmon in open net pens to 20 kilograms per cubic meter.[112] Certifiers could set species-specific caps based on that research; the one

105 "ASC Farm Standard v1.0.1A2," ASC, Principle 4.

106 "Seafood Processing Standard – Animal Welfare Module, Issue 1.0," Global Seafood Alliance, published November 4, 2024, effective November 5, 2025.

107 "Salmon Farm Standard Issue 3.0," BAP, sec. F and clause 4.22.

108 "Water Quality: A Priority for Successful Aquaculture," The Fish Site, accessed October 16, 2026.

109 "ASC Farm Standard v1.0.1A2," ASC; "Aquaculture Facility Certification BAP Farm Standard," BAP; "Salmon Farm Standard Issue 3.0," BAP, clause 4.16.

110 João Saraiva et al., "Finding the 'Golden Stocking Density': A Balance between Fish Welfare and Farmers' Perspectives," *Frontiers in Veterinary Science* 9 (2022): 930221.

111 See, for example, James Turnbull et al., "Stocking Density and Welfare of Cage Farmed Atlantic Salmon: Application of a Multivariate Analysis," *Aquaculture* 243, nos. 1–4 (2005): 121–132; B. P. North et al., "The Impact of Stocking Density on the Welfare of Rainbow Trout (Oncorhynchus mykiss)," *Aquaculture* 255, nos. 1–4 (2006): 466–479.

112 "Whole Foods Market Quality Standards for Farmed Seafood," Whole Foods Market, sec. 7.4.

cap BAP has set, 25 kilograms per cubic meter for salmon, sits above the level where salmon welfare declined. On farms designed to keep animals tightly packed, a cap would limit the damage rather than deliver good welfare.

Mortality tracking is another attribute often framed as a welfare measure. But farms have always had reason to minimize deaths and record them, since every animal who dies is lost "product," and thus lost profit.[113] For water quality and mortality alike, certification credits producers for doing what they would already do for financial reasons. Welfare scientists describe a wider bias toward such "easy" measures, like illness and production records, which capture physical problems but overlook animals' mental states.[114]

Some aspects of welfare go unaddressed by any claim we found. Farmed species differ so much in their social dynamics and environmental preferences that no single standard for enrichment (adding the structures, variety, or stimulation that let fish behave naturally) can be meaningfully applied across species,[115] and the research needed to set species-specific requirements, in many cases, does not yet exist. A formulated feed can meet a fish's nutritional requirements but fail to satisfy behavioral needs tied to hunting and foraging.[116] When food is limited, competition among fish in the same pen can escalate into aggression and fin damage. Farms commonly respond by sorting fish by size, a handling procedure that is itself stressful and can damage skin and scales.[117] Even routine handling and transport trigger a stress response, and poorly managed handling causes physical injury.[118] And at slaughter, reliable stunning methods barely exist: a 2018 Humane Slaughter Association report found that scientists had identified "humane" stunning parameters for only 17 of the roughly 360 finfish species farmed worldwide, and even those may not stun every fish (Figure 15).[119]

Package claims like "Humane farming" and "Raised to the highest standard of animal welfare," both of which we found in stores, imply a level of animal well-being the underlying science cannot currently support. Realistically, some welfare interventions achievable today move farmed animals from a state of significant suffering to one of reduced, but still not resolved, suffering—a meaningfully different out-

113 Katy Askew, "Troubled Waters: How High Fish Mortality and Poor Animal Welfare Threaten the Profitability of Aquaculture," *FoodNavigator*, August 5, 2021; David Persson et al., "Analysing Mortality Patterns in Salmon Farming Using Daily Cage Registrations," *Journal of Fish Diseases* 45, no. 2 (2022): 335–347.

114 Mandel et al., "Pragmatism Bias in Farm Animal Welfare Science."

115 Olivia Spiliopoulos et al., "Environmental Enrichment in Aquaculture: Linking Welfare Goals to Practical Applications," *Reviews in Aquaculture* 18, no. 2 (2026): e70142; Lorenzo Fruscella et al., "Fish Welfare in Recirculating Aquaculture Systems (RAS): The Imperative for Environmental Enrichment (EE)," *Animals* 16, no. 4 (2026): 635.

116 Spiliopoulos et al., "Environmental Enrichment in Aquaculture," sec. 2.3.

117 Paul J. Ashley, "Fish Welfare: Current Issues in Aquaculture," *Applied Animal Behaviour Science* 104, nos. 3–4 (2007): 199–235; Catarina I. M. Martins et al., "Behavioural Indicators of Welfare in Farmed Fish," *Fish Physiology and Biochemistry* 38, no. 1 (2012): 17–41; "An HSUS Report: The Welfare of Animals in the Aquaculture Industry," Humane Society of the United States, 2008, 8, 13–14.

118 Edmund Peeler, "Welfare of Farmed Fish: Review of the Relevant Scientific Evidence on the Welfare Aspects of Farmed Fish during Transport, the Stunning and Killing of Farmed Fish for Human Consumption and the Killing of Farmed Fish for Disease Control Purposes," report for the Aquatic Animal Commission, World Organisation for Animal Health, June 26, 2025.

119 "Humane Slaughter of Finfish Farmed around the World," Humane Slaughter Association, February 2018, 2, 12.

come from the positive, thriving conditions that terms like "humane" suggest to a consumer.[120] Language that outpaces the science in this way offers the appearance of humane treatment without evidence to assess whether the treatment behind it makes any difference at all.

Importantly, the lack of robust species-specific welfare science for aquatic animals is not a reason to dismiss welfare as a critical issue to address in industrial aquaculture. It points to the need for independent research into aquatic animals—their cognition, behavior, and emotional experience—and, in the meantime, for skepticism toward any claim that intensive farms can deliver good welfare.

The Consistent Trend Behind Every Omission

The same pattern is visible across environment, health, and welfare. Each harm is real and well documented. Certifiers typically are aware of these risks, which is why their standards often include a monitoring requirement, threshold, or cap meant to address them. On four of these harms (wild fish in feed, deaths, crowding, and slaughter), ASC, BAP, and Whole Foods all leave major gaps (Figure 16). Having a rule makes it seem like the problem has been resolved, when in reality thresholds are often set to match existing industry practices, and audits are too infrequent to confirm that producers are following the rule. At the point of sale, even that acknowledgment of the risks disappears. None of the caps, thresholds, or response plans show up in the marketing built on certification or detailed retailer standards.

120 David J. Mellor, "Updating Animal Welfare Thinking: Moving beyond the 'Five Freedoms' towards 'A Life Worth Living,'" *Animals* 6, no. 3 (2016): 21; David J. Mellor et al., "The 2020 Five Domains Model: Including Human–Animal Interactions in Assessments of Animal Welfare," *Animals* 10, no. 10 (2020): 1870.

Figure 16. Four gaps that ASC, BAP, and Whole Foods all leave open

What each standard allows on four of fish farming's biggest harms

	ASC Farm Standard	**BAP** Farm and Salmon standards	**Whole Foods** "Responsibly Farmed"
WILD FISH IN FEED: **Salmon can eat more wild fish than they produce**	**Up to 2.52 kg** of wild fish per kg of salmon	**Up to 3 kg** of wild fish per kg of salmon in net pens	**1:1 target** a goal farms report against, not a limit
DEATHS: **No firm cap on deaths for most species**	**4 species groups** have caps, as high as 75% in some shrimp ponds	**No firm ceiling** salmon survival rule (85%) allows exceptions	**Records only** farms log deaths and their causes
CROWDING: **Crowding is capped only for salmon**	**No limit** on stocking density for any species	**Salmon only** 25 kg/m³	**Salmon only** 20 kg/m³ in open net pens
SLAUGHTER: **No required pass rate for stunning fish before slaughter**	**Not until 2028** when its rule that 95% of fish be stunned unconscious becomes mandatory	**No pass rate** plants must check stunning, but no share of fish must pass; farms may kill shrimp in ice slurry	**"Preferred"** stunning is required only for sturgeon

Sources: ASC Farm Standard v1.0.1A2 (2026), mandatory from May 1, 2028; until then, many ASC farms are audited to older standards with no slaughter rules. BAP Farm Standard Issue 3.1 (2023), Salmon Farm Standard Issue 3.0 (2025), and Seafood Processing Standard Animal Welfare Module Issue 1.0 (2024; effective November 2025). Whole Foods Market Quality Standards for Farmed Seafood: Finfish and Shrimp (January 2026). The ASC and BAP wild-fish figures are each standard's maximum for Atlantic salmon, set by its fish-oil limit (see Figure 10).

The information shoppers would need to see these gaps already exists, in the protocols, standard documents, and monitoring requirements certifiers have written themselves, so disclosing it would cost little. But this information gets lost in translation. A tool designed to address a known risk gets repackaged, several steps downstream, as a generic claim about quality, responsibility, or care. Shoppers who see a certification logo have no way to determine whether the claim relies on mortality caps that accept disease outbreaks, sediment limits that treat contamination as a given, or welfare rules the existing science can't support. Producers and certifiers understand this more complicated reality, but it does not make for effective marketing.

The "Halo Effect" Shields the Industry's Most Significant Harms

Highlighting a few attributes while obscuring more serious harms works in the industry's favor, resulting in a "halo effect," in which a positive impression in one area gets generalized into an overall impression of goodness or virtue. A shopper who sees "100% non-GMO feed" or an ASC "Farmed Responsibly" logo on a package is unlikely to understand that these terms may be based on one or a few select metrics, and is likely to assume instead that the product, and the company that sells it, is meeting a high standard across the board.[121]

The cumulative effect is that industrial aquaculture has been able to position itself as a "responsible," preferable solution to the problems facing global food production, while many of its most significant harms go unresolved. When claims like "responsible," "sustainable," and "traceable" are used often enough without being challenged, they set the terms for the conversation. The environmental, health, and welfare issues endemic to industrial aquaculture that the industry handles poorly or not at all drop out of view.

The halo effect also curtails the industry's incentive to change. If a few claims, weakly defined, work well enough to earn the industry a reputation for being "sustainable" and "responsible," there is very little pressure to tackle the more difficult, expensive, and, ultimately, less marketable problems.

What Transparency Can and Can't Fix

This is not to say that certification is worthless, or that better disclosure would solve everything outlined in this report. Some of the problems really are about a lack of information. A conscientious consumer is unable to weigh a mortality cap, a sediment contamination limit, or a lice-count threshold if they don't know those measures exist. Real disclosure would go beyond posting standards on a website: it would tell shoppers what a label does and does not require, who pays for the certification, and how often farms actually get checked. That would make it possible to understand more about what a certification logo means in practice. It would also give important information about what the claim leaves out and where the actual requirements fall short of what the marketing suggests.

So disclosure would help, though much of what matters would never fit on a package. But disclosure wouldn't address the harms that are built into the structure of farming aquatic animals at an industrial scale. These harms would remain even in a system that was fully transparent. For instance, a feed ratio that requires more wild fish, by weight, than the farm produces wouldn't become less extractive by being disclosed to consumers. Better reporting on how often farmed salmon escape wouldn't prevent them from breeding with wild salmon. And it's impossible for a label to supply guarantees of animal welfare when the animal welfare science needed to support those claims doesn't yet exist for most species.

121 Ana Lanero, José-Luis Vázquez, and César Sahelices-Pinto, "Halo Effect and Source Credibility in the Evaluation of Food Products Identified by Third-Party Certified Eco-labels: Can Information Prevent Biased Inferences?" *Foods* 10, no. 11 (2021): 2512; Patrik Sörqvist et al., "The Green Halo: Mechanisms and Limits of the Eco-label Effect," *Food Quality and Preference* 43 (2015): 1–9.

Recommendations

The problems outlined in this report stem from a lack of disclosure, from conflicts of interest in the certification model, and, most fundamentally, from the production model itself. There are no easy fixes. Industrial aquaculture is intensive animal farming, and no realistic set of standards would bring it up to what most people would expect a "sustainable" or "responsible" label to mean. The certifiers meant to hold the industry accountable are largely funded by it, so their labels work more as marketing tools than as checks. At this scale, the industry's problems cannot be certified or regulated away. The steps below can reduce the harm and the deception as we work to address the systemic failures of the industry.

Companies and Retailers

Companies and retailers have control over what language appears on packaging, signs in stores, ads, and online product listings. These are most likely the easiest and quickest places to make changes. Companies and retailers should:

- **Drop generic, undefined labels.** Language like "responsibly farmed" or "sustainably sourced" should be retired, not swapped for a certification logo that carries the same weaknesses. Any claim that remains should state plainly what it does and does not verify.

- **Publish the supporting evidence.** Make standards, audit reports, monitoring data, and third-party assessments public so that consumers can verify for themselves what the standards are and whether products have been meaningfully evaluated against them. If a company won't or can't publish the evidence behind a claim, it should say so.

Certification Programs

Certification programs would have to change how they operate, not just what their standards say. As long as certifiers are governed and funded by the companies they certify, they have every incentive to keep certifying intensive farms. A credible certifier would need full independence from the industry: no industry representatives on its board and no funding from the companies it certifies. Standards rigorous enough to address this report's findings would exclude most companies as they currently operate, and because most farmed fish and shrimp come from intensive production, the vast majority of products likely could not be certified at all. With that in mind, certification programs should:

- **Strengthen their standards.** Monitoring requirements should give way to enforceable caps based on independent evidence, not on how the industry already operates.

- **Improve auditing transparency.** Meaningful auditing requires farm-level information, not the current patchwork of group certificates and aggregate disclosures. Audit reports for each farm should be made available to the public, including any documented violations and their resolutions.

- **Address known industry harms directly.** Certifiers should use their existing awareness of the worst harms of industrial aquaculture to create firm and enforceable standards that address them. As a start, this would include tightening symbolic thresholds, extending welfare coverage to more species in response to evolving welfare science, and requiring feed ratios that do not imperil wild fish populations.

Regulators

Only government regulation can ensure that every producer, regardless of its willingness, meets evidence-based standards for environmental protection and animal welfare. Many Americans already want more oversight of the seafood industry: in the 2022 Walton Family Foundation poll cited earlier, 68 percent said stronger regulations are needed to track and trace seafood products.[122] Regulators should:

- **Set comprehensive, legally enforceable standards for all sustainability, responsibility, and welfare claims.** These standards should be based on independent, peer-reviewed science and should be regularly updated to reflect evolving scientific evidence.

- **Consistently enforce these standards.** Implement meaningful penalties for unsubstantiated claims, and mandate the disclosure practices recommended above for companies and retailers rather than leaving them voluntary.

122 "Walton Family Foundation Urges Action on Seafood Traceability," Walton Family Foundation.

Consumers

When shopping for farmed aquatic animal products, consumers can ask of any claim:

- According to whom? Who wrote the standard behind this claim, and who checked that it was met: the company selling the product, an organization it pays, or someone independent?
- What, specifically, does this claim measure?
- Is there a publicly available audit, standard, or certification behind this claim, or is it just a label?
- Do terms like "sustainable" or "responsible" correspond to anything measurable at all?

In the current farmed-fish marketplace, it will likely be very difficult to find any products that meet the bar of adequately addressing the multiple harms described in this report. Reduction, then, is likely the more realistic way to act on these concerns. Given the industry as it stands, for shoppers in the U.S. and other wealthy countries, eating fewer fish and other aquatic animals would do more to align what they buy with the values these claims invoke than searching for a version of the product that resolves the underlying harms.

Conclusion

Ultimately, a standard capable of genuinely verifying industrial aquaculture's claims and addressing the industry's harms would come at a direct cost to scale. This report has not identified a set of fixable oversights inside an otherwise sound system. It has identified an industry whose production model and evaluation methods were never built to be compatible with each other at scale. The clearest use of this report, then, is not to tell consumers which labels to trust, but to make the case for building the kind of evaluation system that doesn't yet exist, and to give those working on that problem a concrete account of what it would need to get right.

Appendix

Data Tables

Table 1. Common claims identified in farmed seafood

Rank	Claim category	In-store claim-bearing products (n=250)	Amazon claim-bearing listings (n=63)	Examples observed	Intended consumer message
1	Responsibility wording	144 (57.6%)	47 (74.6%)	"Responsibly Farmed" (Whole Foods); "Responsible Choice" (Albertsons); "Responsibly Sourced" (Kroger, Amazon Fresh); ASC "Farmed Responsibly" logo	The product was produced with care for people and the environment
2	Outside certification	127 (50.8%)	46 (73.0%)	BAP (101 in stores); ASC (18 in stores, 20 online); Fair Trade Certified; GLOBALG.A.P.; EU Organic (online)	An outside body has verified the farm
3	Retailer or brand program	101 (40.4%)	19 (30.2%)	Whole Foods "Responsibly Farmed" (52); Albertsons "Responsible Choice" (27); Kroger "Responsibly Sourced" (13); Kroger "Sustainably Sourced" (9); Amazon "Responsibly Sourced" (16 online); Aqua Star "Seafood Forever" (3 online)	The retailer or brand has vetted the product for you
4	Antibiotics claim	45 (18.0%)	13 (20.6%)	"No Antibiotics"; "Raised Without Antibiotics"; "No Preservatives/ Antibiotics/Added Hormones"	The fish is cleaner and safer
5	Sustainability wording	29 (11.6%)	35 (55.6%)	"Sustainably Sourced" (Kroger); "sustainably raised" (Cole's); "Sustainably Raised off the Coast of Norway" (PrimeWaters)	Buying this product does not harm the environment
6	Welfare or husbandry language	8 (3.2%)	7 (11.1%)	"Low-Density Husbandry"; "Humane farming"; "99% water and 1% fish"	The animals were treated well

Note: Categories overlap; a product can carry several. For Amazon, we included listing copy, marketing images, and the package photos, which helps explain the higher online rates. Online, 16 of the 19 listings with a program carry Amazon's own "Responsibly Sourced" label on its private brands (Amazon Grocery, Amazon Fresh, Aplenty), counted as a retailer program on the same basis as Kroger's labels; the other three carry a brand's own program (Aqua Star's "Seafood Forever"). **Sources:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings).

Table 2. Claims by species category (in-store claim-bearing products)

Species	Products	Sustainability or responsibility language	Outside certification	Language with no certification	Antibiotics claim
Salmon	107	86 (80.4%)	41 (38.3%)	64 (59.8%)	33 (30.8%)
Shrimp	99	45 (45.5%)	59 (59.6%)	38 (38.4%)	10 (10.1%)
Tilapia	23	12 (52.2%)	16 (69.6%)	7 (30.4%)	1 (4.3%)
Trout/steelhead	12	10 (83.3%)	8 (66.7%)	4 (33.3%)	1 (8.3%)
Catfish	2	1 (50.0%)	1 (50.0%)	1 (50.0%)	0
Other (sturgeon/caviar, mussels, oysters, scallops)	7	6 (85.7%)	2 (28.6%)	5 (71.4%)	0
All species	250	160 (64.0%)	127 (50.8%)	119 (47.6%)	45 (18.0%)

Note: Includes only in-store products that carried at least one claim. "Language with no certification" counts products with sustainability or responsibility wording and no qualifying outside certification. **Source:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits).

Table 3. Retailer use of farmed seafood messaging

Retailer	Claim-bearing products	Sustainability or responsibility language	Outside certification	Retailer or brand program	Messaging observed
Whole Foods Market	60	57 (95.0%)	6 (10.0%)	52 (86.7%)	"Responsibly Farmed" / "3rd Party Verified" retailer mark; most antibiotics (20 products) and welfare (7) language of any retailer
Fred Meyer (Kroger)	12	12 (100%)	1 (8.3%)	11 (91.7%)	Kroger "Responsibly Sourced" and "Sustainably Sourced" program wording
Smith's (Kroger)	14	13 (92.9%)	2 (14.3%)	8 (57.1%)	Kroger "Responsibly Sourced" and "Sustainably Sourced" on Kroger brands; outside brands' own "Responsibly Sourced" wording

Retailer	Claim-bearing products	Sustainability or responsibility language	Outside certification	Retailer or brand program	Messaging observed
Ralphs (Kroger)	7	6 (85.7%)	3 (42.9%)	3 (42.9%)	Kroger "Responsibly Sourced" on Kroger brands; BAP and ASC logos on outside brands
Safeway (Albertsons)	42	29 (69.0%)	13 (31.0%)	22 (52.4%)	"Responsible Choice" (Waterfront Bistro); outside brands' own "Responsibly Sourced" wording (Echo Falls, Sea Cuisine)
Pavilions (Albertsons)	10	10 (100%)	1 (10.0%)	5 (50.0%)	"Responsible Choice" (Waterfront Bistro, Open Nature); outside brands' own "Responsibly Sourced" wording (Sea Cuisine, Northern Chef)
Costco	4	3	3	0	Outside certification on 3 of 4 (ASC logo on Kirkland Signature); brand claims; antibiotics claims on 3 of 4
Walmart	69	25 (36.2%)	67 (97.1%)	0	BAP and ASC logos on Great Value and Marketside; some "Raised Without Antibiotics"
ALDI	31	4 (12.9%)	31 (100%)	0	BAP, ASC, and GLOBALG.A.P. logos (27 BAP, 2 ASC, 2 GLOBALG.A.P.) with little other wording
Trader Joe's	1	1	0	0	One claim-bearing product ("Sustainably raised" smoked oysters, no certification)
Amazon.com (claim-bearing listings only)	63	58 (92.1%)	46 (73.0%)	19 (30.2%)	Listing copy and marketing images; ASC-certified tinned brands; Amazon's own "Responsibly Sourced" label on 16 private-brand listings (counted as a retailer program); Aqua Star's own "Seafood Forever" program on 3

Note: Counts and percentages are of each retailer's claim-bearing farm-raised products. Costco (4) and Trader Joe's (1) had too few claim-bearing products for meaningful percentages. Ralphs (7) and Pavilions (10) also rest on small counts. Products with sustainability or responsibility language and no outside certification, by store: Whole Foods Market 53; Safeway 29; Pavilions 9; Fred Meyer 11; Smith's 11; Ralphs 3; Walmart 2; Trader Joe's 1; ALDI 0; Costco 0 (119 in all). **Sources:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings).

Table 4. Brands with the most uncertified sustainability and responsibility claims (in-store sample)

Brand	Brand type	Uncertified sustainability/ responsibility products	Claim-bearing products (in-store)	Claim written by	Label
Waterfront Bistro	Albertsons store brand	24	25	Retailer	Albertsons "Responsible Choice"
365 by Whole Foods Market	Whole Foods store brand	16	18	Retailer	Whole Foods "Responsibly Farmed" seal
Kroger	Kroger store brand	15	15	Retailer	Kroger "Responsibly Sourced" / "Sustainably Sourced"
Changing Seas	Outside brand (sold at Whole Foods)	6	7	Retailer	Whole Foods "Responsibly Farmed" seal
Ducktrap River of Maine	Outside brand (sold at Whole Foods, Walmart)	5	6	Retailer	Whole Foods "Responsibly Farmed" seal
Echo Falls	Outside brand (sold at Safeway)	5	5	Brand	Brand's own "Responsibly Sourced"
The Santa Barbara Smokehouse	Outside brand (sold at Whole Foods)	5	5	Retailer	Whole Foods "Responsibly Farmed" seal
Sea Cuisine	Outside brand (sold at Pavilions, Smith's, Safeway)	5	6	Brand	Brand's own "Responsibly Sourced"
Spence & Co.	Outside brand (sold at Whole Foods)	5	5	Retailer	Whole Foods "Responsibly Farmed" seal

Note: Brands with five or more such products shown. Kroger's other store brands, Simple Truth (4) and Private Selection (3), bring Kroger-owned brands to 22 (of their 23 products with claims). Outside certification = BAP, ASC, GLOBALG.A.P., Fair Trade Certified, or another qualifying program. **Source:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits).

Table 5. Retailer seafood sustainability claims and what stands behind them

Retailer	Farmed-seafood claim or logo	Underlying standard	Public standards document?	Audit results public?	On the packages we reviewed
Whole Foods Market	"Responsibly Farmed" seal ("3rd Party Verified")	Proprietary: Whole Foods' own Quality Standards for Farmed Seafood, checked by an auditor it selects	Yes	No	Seal on 52 of 60 claim-bearing products; outside certification on 6
Albertsons (Safeway, Pavilions)	"Responsible Choice" logo (Waterfront Bistro and other store brands)	Mixed: Seafood Watch rating, GSSI-recognized certification, or an improvement project making "measurable and time-bound progress"	Policy only	No	Logo on 27 products (22 at Safeway, 5 at Pavilions); 1 of the 27 certified
Kroger (Fred Meyer, Ralphs, Smith's)	"Sustainably Sourced"; "Responsibly Sourced"	Certification to standards Kroger calls "best-in-class" (e.g., ASC or BAP 4-star) for "Sustainably Sourced"; undefined "sustainable practices" for "Responsibly Sourced"	Policy only; labels described on Kroger's website	No	Kroger label on 22 of 23 claim-bearing products from Kroger-owned brands; certification on none
Walmart	BAP and ASC logos (Great Value, Marketside)	Outside certification (MSC, BAP, ASC, or another GSSI-recognized program), work toward certification, or an improvement project	Relies on certifiers' standards	Only what certifiers publish (ASC yes, BAP no)	Certification on 67 of 69 (55 BAP, 12 ASC)
ALDI	BAP, ASC, and GLOBALG.A.P. logos	Outside certification (ASC, BAP 4-star, GLOBALG.A.P., organic, or another GSSI-recognized scheme) or an improvement project showing progress	Relies on certifiers' standards	Only what certifiers publish (ASC yes, BAP no)	Certification on all 31 (27 BAP, 2 ASC, 2 GLOBALG.A.P.)
Costco	ASC logo on Kirkland Signature	ASC certification is the goal (76.8% of Kirkland Signature farmed seafood in fiscal 2025); supports improvement projects working toward ASC; no target date for the rest	Relies on ASC's standard	ASC publishes audit reports	Certification on 3 of 4
Trader Joe's	"Sustainable sources" commitment	Undefined	No	No	One claim-bearing product ("Sustainably raised" smoked oysters), no certification

Note: Policies as described in this report. **Sources:** Retailer seafood policies cited in notes 16–30 and 46–48; Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits), for package counts.

Table 6. Who defines the most common claims, and what stands behind them

Claim	Who defines it	Public standard?	Verification
"Responsibly Farmed" seal	Whole Foods Market	Yes: Whole Foods' own Quality Standards for Farmed Seafood	An auditor Whole Foods selects and does not name; results not published
"Responsible Choice" logo	Albertsons (Safeway, Pavilions)	Policy only: a Seafood Watch "Best Choice" or "Good Alternative" rating, a GSSI-recognized certification, or an improvement project making "measurable and time-bound progress"	Seafood Watch ratings are public; the logo doesn't show which of the three routes a product took
"Sustainably Sourced"	Kroger	Described on Kroger's website as certified to standards it considers "best-in-class," such as ASC or BAP 4-star; no standards document	Relies on certification, but none of the 9 products we found showed one
"Responsibly Sourced" (Kroger brands)	Kroger	Described on Kroger's website as for fisheries and farms that "demonstrate sustainable practices"; criteria not published	None shown
"Responsibly Sourced" (Amazon private brands)	Amazon	The package says seafood is "certified or rated against sustainability criteria"; Amazon's online policy names ASC, organic, or BAP (2 stars or more)	BAP or ASC shown on 13 of 16 listings (11 on the package); none on 3 farmed-salmon listings
Brand wording: "Responsibly Sourced" (Echo Falls, Sea Cuisine); "Sustainably raised" (Tsar Nicoulai, Crown Prince)	The brand	No	None
ASC "Farmed Responsibly" logo	Aquaculture Stewardship Council	Yes	Third-party audits (only a sample of sites for group certificates); audit reports published
BAP logo (1 to 4 stars)	Global Seafood Alliance, founded by seafood and agribusiness companies	Yes	Third-party audits (only a sample of sites for group certificates); audit reports not published
"No Antibiotics," "Raised Without Antibiotics"	The brand or retailer	No; no FDA definition for seafood	None: all 58 claims were self-declared, and ASC and BAP both allow antibiotics to treat diagnosed disease
Traceability and welfare wording: "100% traceable," "Humane farming," "Low-Density Husbandry"	The brand	No; no product carried an animal welfare certification	None

Note: No federal agency defines any of these terms for seafood. "Responsible" means at least five different things, depending on who's using it. **Sources:** Retailer and certifier policies cited in this report; Amazon's policy from "How Amazon Supports Sustainable Grocery Practices," Amazon, July 20, 2022; package and listing text: Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings).

Table 7. Examples of company-defined claims

Company/product	Claim	Company language (verbatim)	Why it provides limited information
Fulton Fish Market Atlantic salmon (Amazon listing)	"Sustainably & responsibly raised"	"Our salmon are raised with no added hormones, no antibiotics, and 100% non-GMO feed, adhering to strict third-party NGO sustainability standards."	Does not name the NGO or the standard, so the claim cannot be checked; the practices listed are self-declared
Scout rainbow trout (Amazon listing)	"Responsibly sourced"	"We work directly with fisheries and sustainable suppliers that meet the highest standards of sustainability. This includes reduced bycatch and minimal ecosystem impact."	"Highest standards" names no standard, and "bycatch" is a wild-fishing issue that says nothing about how farmed trout are raised
Blue Circle Foods Happy Fish salmon (Amazon listing)	"Most humane techniques"	"We use the most humane techniques for raising and harvesting our fish, including clean feed, large, natural water pens and chemical free treatments."	A superlative with no benchmark; names no crowding limit, stunning method, or auditor
Kvarøy Arctic salmon hot dogs (Amazon listing, brand content)	"Without compromising the environment or the welfare of the fish"	"to raise incredible salmon without compromising the environment or the welfare of the fish"	States a goal, not a practice; nothing a shopper or auditor could measure
Tsar Nicoulai Estate Smoked Sturgeon (Whole Foods)	"Sustainably raised"	"Sustainably raised for a minimum of 8 years under California sunshine"	Describes how long and where the fish were raised, not how

Note: Quoted from the package or Amazon listing. **Sources:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings).

Table 8. How the ASC and BAP farm standards compare on key issues

Issue area	ASC Farm Standard	BAP Farm Standard (finfish and shrimp); salmon net pens: BAP Salmon Farm Standard
Water quality	Caps nitrogen and phosphorus release per tonne produced for some species groups (phosphorus only for freshwater salmonids and tilapia; none for marine salmon). Sets minimum dissolved oxygen levels (weekly average saturation of at least 65% in freshwater, 70% in seawater). Farms discharging into what ASC classifies as "Type A" waterbodies must also monitor nutrients, oxygen, water clarity, and chlorophyll, with numeric triggers: a nutrient-reduction plan is mandatory if nitrogen, phosphorus, or chlorophyll rise 15% or more over 24 months (among other triggers), and none of these, or oxygen demand, may rise more than 25% in 24 months.	Sets numeric effluent limits (pH, suspended solids, phosphorus, ammonia, oxygen demand, dissolved oxygen, chloride) for ponds, raceways, and recirculating systems, but offers five other ways to comply, including very low water exchange, and lets two of every 12 monthly readings exceed the limits, as long as the 12-month average stays below them. Cages in fresh or brackish water must instead keep the surrounding water within limits on phosphorus, chlorophyll, clarity, and oxygen, with no more than a 25% change from baseline. Marine net pens and coastal flow-through farms face no BAP numeric limits. They must show that sediment at the edge of a zone extending up to 40 m from the farm is no worse than at reference sites, against trigger levels set by permits or by the farm itself. Salmon sites in water deeper than 60 m are exempt from sediment monitoring unless local rules require it.†
Feed efficiency	Allows marine salmon farms to use up to 1.2 kg of wild fish (as fishmeal) and up to 2.52 kg (as fish oil) per 1 kg of farmed salmon; farms can meet a cap on marine omega-3s in feed instead of the fish-oil limit. Other species have separate limits.	Caps the Fish In:Fish Out ratio (fishmeal and fish oil combined, excluding by-products) by species: 0.3 for catfish and pangasius, 0.5 for tilapia, 1.0–1.2 for shrimp and trout, 1.4 for Atlantic salmon in recirculating systems, and 4 (5 with fish by-products) for species not listed. Salmon net pens: forage fish dependency ratio (FFDR) of no more than 1.5 for fishmeal and 3.0 for fish oil, by-products excluded.†
Antibiotics	Bans preventive use, growth promoters, and WHO "critically important" antibiotics (unless nothing else works and a vet justifies it in writing; even then, the treated fish can no longer be sold as ASC-certified); requires sensitivity testing; caps antibiotic treatments at 3 for most finfish it lists (marine salmon: 3 as smolts plus 3 in grow-out; no cap listed for freshwater trout) and allows none for shrimp and other crustaceans. Other medically important antibiotics remain allowed.	Also bans preventive use (though whole groups may be treated once disease is diagnosed in some animals), growth promoters, and WHO "critically important" antibiotics (the salmon standard only requires that they be minimized and used on a vet's advice†) and requires sensitivity testing, but caps treatments only for tilapia (3 per cycle; no cap in the salmon standard†), and other medically important antibiotics remain allowed. Requires periodic residue testing (guidance: twice a year), which farms can skip by extending the withdrawal period to 1.5 times the published period.

Issue area	ASC Farm Standard	BAP Farm Standard (finfish and shrimp); salmon net pens: BAP Salmon Farm Standard
Animal welfare	Adds humane-slaughter rules (at least 95% of fish unconscious immediately after stunning; asphyxiation in air and CO_2, salt, and ammonia baths banned; crustaceans have separate slaughter rules) and a 15-second limit on time out of water; still no numeric stocking-density limit.*	Requires tracking of welfare indicators (mortality, body condition, injuries, gill condition, behavior), written handling procedures, and a humane slaughter method if fish are killed on the farm (bans CO_2, salt, and ammonia baths and asphyxiation, but permits ice-slurry killing of shrimp and tropical fish); no stocking-density limit in the Farm Standard.* The salmon standard caps stocking density at 25 kg/m^3, though density may exceed it for up to 5% of the production cycle, only during or just before harvest.† A separate processing-plant module (effective 2025) requires stunning before slaughter, with no numeric threshold.
Sea lice	Sets numeric limits by region during sensitive periods for wild salmon (e.g., 0.2 adult female lice per fish in Norway, 0.5 in Scotland, 3 motile lice in British Columbia); farms over the limit must get below it within 21 days.	No numeric limit of its own for salmon farms; farms must follow government limits and keep a pest-management plan.*†
Mortality	Caps mortality for four species groups, but the caps are high: up to 75% in unfed shrimp ponds without permanent aeration (55% if fed, 35% if fed and permanently aerated), 35% for tilapia after 100 g, and 20% for pangasius. Marine salmon: 10% viral-disease mortality, and at sites losing more than 6%, unexplained deaths may not exceed 40% of all deaths. Other species, including freshwater trout, have no cap, and farms set their own mortality-reduction targets.	No fixed limit: deaths are tracked as a welfare indicator but not held to a ceiling, and there are no limits on specific diseases.* The salmon standard requires at least 85% survival for Atlantic salmon, coho, and rainbow trout but excuses "extenuating circumstances"; sites below 80% for two cycles in a row must investigate the cause.†
Labor standards	Newer standard requires farms to measure the gap between pay and a living-wage benchmark each year, report it to ASC, and adopt a wage-improvement plan, but not to pay a living wage; adds explicit rights to unionize and bargain collectively.*	Requires at least the legal minimum or bargained wage and says regular pay must cover workers' basic expenses plus some discretionary income, but sets no living-wage benchmark or gap measure; includes rights to unionize and bargain collectively.*
Public audit reports	Published: audit reports, findings, and certificates are posted on ASC's website, though independent reviews have found ASC's enforcement and audit findings to be inconsistent.	Full reports not published: only a summary report (no commercially sensitive information) is available, on request; full reports only with the producer's permission; a list of certified facilities is public.*

* Marks a requirement with no enforceable numeric standard, or information not made public.

† From BAP's separate Salmon Farm Standard (Issue 3.0), which covers salmon net pens.

Note: The ASC column describes the Farm Standard, set to become mandatory on May 1, 2028. Until then, many certified farms are audited to older species standards; the Salmon and Cod Standard (v1.5), for example, has no animal welfare or slaughter section and lets farms in waters officially rated "good" skip farm-level nutrient monitoring. Feed ratios above 1 mean more wild fish go into the feed than farmed fish come out. A fish-oil ratio of 2.52 means up to about 2.5 kg of wild fish can be caught and processed to supply the oil for 1 kg of farmed salmon.

Sources: "ASC Farm Standard v1.0.1A2," Aquaculture Stewardship Council, August 5, 2026; "Aquaculture Facility Certification BAP Farm Standard, Issue 3.1: Best Aquaculture Practices Certification Standards, Guidelines," Best Aquaculture Practices, Global Seafood Alliance, February 7, 2023; "ASC Salmon and Cod Standard Version 1.5," Aquaculture Stewardship Council, October 13, 2025; for salmon-specific BAP entries (marked †), "Salmon Farm Standard Issue 3.0," Best Aquaculture Practices, Global Seafood Alliance, August 4, 2025. Processing-plant module: "Seafood Processing Standard – Animal Welfare Module, Issue 1.0," Global Seafood Alliance, published November 4, 2024, effective November 5, 2025.

Table 9. What the most common claims emphasize, and what they leave out

Claim	What it emphasizes	Example (where it appeared)	What it leaves out
Responsibility wording	Produced with care for people and the environment	Whole Foods "Responsibly Farmed"; Albertsons "Responsible Choice"; "Responsibly Farm Raised" (Latitude 45, Walmart)	Which practices are required; no limits on mortality or wild fish in feed
Sustainability wording	Buying it does not harm the environment	Kroger "Sustainably Sourced"; "Sustainably raised for a minimum of 8 years under California sunshine" (Tsar Nicoulai, Whole Foods)	No measure of pollution, escapes, or wild fish used in feed
Certification logo	An outside body checked the farm	BAP logo on Great Value shrimp; "ASC certified as responsibly farmed" (Marketside, Walmart)	Group certificates are audited by sample; both standards certify salmon fed more wild fish than the salmon produced; BAP's Farm Standard sets no stocking-density or mortality limit
Antibiotics	The fish is cleaner and safer	"Raised Without Antibiotics" (Marketside, Walmart); "No Antibiotics" (Waterfront Bistro, Safeway)	Not verified by an outside certification program on any product; says nothing about the disease that drives antibiotic use, or about resistance
Feed	The fish ate a clean, natural diet	"consume only natural, high quality feed" (Tsar Nicoulai, Whole Foods); "100% non-GMO feed" (Fulton Fish Market, Amazon)	How much wild fish went into the feed

Claim	What it emphasizes	Example (where it appeared)	What it leaves out
Traceability	You can know where your fish came from	"100% traceable" (Kvarøy Arctic, Whole Foods); a QR code "tracing your order to the sea farm" (PrimeWaters, Amazon)	How the fish was raised (the claim covers only where it came from)
Environmental stewardship	The company protects the planet	"Proud member of 1% For The Planet" (ACME Smoked Fish, Whole Foods); "PROTECTING OUR OCEANS" (Scout, Amazon)	Farm practices (the claims cite only company memberships or donations)
Welfare or husbandry	The animals were treated well	"Low-Density Husbandry" (The Santa Barbara Smokehouse, Whole Foods); "Humane farming" (Kvarøy Arctic, Whole Foods)	Slaughter and stunning, handling, disease, and mortality; no product carried a welfare certification
Water pollution, mortality, escapes, or how much wild fish went into feed	—	Not mentioned on any of the 250 claim-bearing packages in stores	These are the harms certifiers themselves monitor or cap (Table 8 and Finding #3)

Note: Examples are quoted from packages (in stores) or Amazon listings. Table 1 shows how often the six coded claim categories appeared; feed, traceability, and stewardship were not counted separately. **Sources:** Farm Forward and AAP in-store audit, March–May 2026 (250 claim-bearing products, 19 store visits); Farm Forward and AAP Amazon audit, September 25, 2026 (63 claim-bearing listings).

Methods

Retail sample. Between March and May 2026, we made 19 store visits to ten store chains owned by seven companies: Whole Foods Market (owned by Amazon), Kroger (Fred Meyer, Ralphs, and Smith's), Albertsons (Safeway and Pavilions), Walmart, ALDI, Costco, and Trader Joe's. The stores were located in California, Oregon, Utah, Virginia, Washington State, and the Washington, D.C., area, representing a convenience sample based on where we had researchers available at the time. At each store, we photographed the front and back of farm-raised seafood packages that had at least one claim, along with any in-store messaging or signage where it appeared. This produced a sample of 250 claim-bearing products. Salmon (107) and shrimp (99) made up most of the sample, followed by tilapia (23), trout and steelhead (12), catfish (2), and other species (7).

Online sample. To capture claim-bearing farm-raised products sold online, on September 25, 2026, we reviewed Amazon.com's farm-raised seafood offerings and documented 63 listings that carried at least one claim in the title, description, marketing images, or pictured packaging. We omitted any products sold by Whole Foods or carrying its seafood-standard language or seal, so that Whole Foods products were represented only in our in-store sample.

Coding claims. We recorded every claim word for word and sorted them into six categories: sustainability wording, responsibility wording, retailer or brand programs, outside certification, antibiotics claims, and welfare or husbandry language. Some claims fell into more than one category. A certification counted as outside if it met two conditions: (1) it came from an established certification program run separately from the brand and the retailer (BAP, ASC, GLOBALG.A.P., Fair Trade Certified, or a small number of similar schemes), so a retailer's own "3rd Party Verified" seal did not count, and (2) it appeared on the package or listing itself. For each claim, we then asked three questions: Is there a public definition, and who wrote it (the brand, retailer, or certifier)? Is the claim tied to measurable, trackable requirements? Does any party outside the company verify it?

Reviewing standards. ASC and BAP were by far the most common certifications in our sample, so we compared their published standards on seven issues: water quality, feed efficiency, antibiotic use, animal welfare, sea lice, disease and mortality, and labor, along with whether audit results are made public. For ASC, that meant the Farm Standard (v1.0.1A2), the Salmon and Cod Standard (v1.5), and the Shrimp Standard (v1.2.1). For BAP, it meant the Farm Standard (Issue 3.1), the Salmon Farm Standard (Issue 3.0), and the Animal Welfare Module of its Seafood Processing Standard (Issue 1.0). We also reviewed each retailer's public seafood sourcing policy and Whole Foods' own Quality Standards for Farmed Seafood (January 2026). To identify what the claims and standards leave out, we compared them against the scientific literature, government data, and published investigations of aquaculture's major impacts.

Limitations. The study had five main limitations: First, we did not choose the retailers at random, so the results do not represent all farmed seafood sold in the United States. Second, we focused on large chains, so we missed smaller stores or chains that many American consumers rely on. Third, we did not observe conditions on any farm, basing our analysis instead on public standards and documents. Fourth, we recorded only products that made claims, so our data cannot show what share of farmed seafood on the market carries claims. Fifth, the Amazon review is a snapshot of a single day (September 25, 2026); listings and their wording change often.

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Farm Forward was founded in 2007 as the nation's first nonprofit devoted exclusively to ending factory farming. We are a team of strategists, campaigners, and thought leaders guiding the movement to change the way our world eats and farms. More information about our work and other publications can be found at farmforward.com.

The Aquaculture Accountability Project seeks to challenge the myths of "sustainable seafood" that are perpetuating its growth. Industrial fish farming—the fastest-growing form of factory farming—markets itself as the answer to overfishing, yet fuels the very crises it claims to solve. By holding this industry accountable and engaging food and climate leaders, we aim to slow its growth, reduce unsustainable sea animal consumption, and advance a truly ocean-friendly food system. More information is available at aquacultureaccountability.org.

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