





TOXIC BUFFET

HOW THE TPP TRADES AWAY SEAFOOD SAFETY



About Food & Water Watch

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Lood & Water Watch champions healthy food and clean water for all. We stand up to corporations that put profits before people, and advocate for a democracy that improves people's lives and protects our environment. We envision a healthy future for our families and for generations to come, a world where all people have the wholesome food, clean water and sustainable energy they need to thrive. We believe this will happen when people become involved in making democracy work and when people, not corporations, control the decisions that affect their lives and communities.

Food & Water Watch has state and regional offices across the country to help engage concerned citizens on the issues they care about. For the most up-to-date contact information for our field offices, visit *foodandwaterwatch.org*.

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American Seafood: At A Glance **6% DOMESTIC** 94% IMPORTED *৻*৾ড়৾৾৻ড়৾৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড় *৻*৾ড়৾৾৻ড়৾৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৾৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড়৻ড় 2% of imports INSPECTED 514141414

SOURCE: F&WW Analysis of FDA, NOAA Data.

Executive Summary

Americans eat billions of pounds of seafood each year, but few know that almost all of the fish on our dinner plates is imported. Fish is nutritious and provides important health benefits, but seafood also is the largest identified source of foodborne illness, according to the U.S. Centers for Disease Control and Prevention (CDC).

International trade deals have brought a rising tide of imported seafood, which has overtaxed the ability of U.S. border inspectors to ensure that it is safe to eat. By 2015, the United States imported 5.5 billion pounds of seafood, representing more than 90 percent of U.S. seafood consumption.

A large portion of the imported seafood is not caught by fishing fleets but is raised on large-scale fish farms. These factory farms on water raise hundreds of thousands of tightly packed carp, shrimp, tilapia, crab and catfish in one location in often unhygienic conditions. To combat wide-spread disease, fish farmers in the developing world that supply the U.S. market often use drugs and chemicals that are banned in the United States.

Border inspectors with the U.S. Food and Drug Adminis-

tration (FDA) examine only a tiny portion of these imports, and the FDA conducts even fewer tests in laboratories to screen imports for illegal drug residues, pathogens like *Salmonella* or other contaminants. The currently pending Trans-Pacific Partnership (TPP) would only increase imports further — including from major fish farming nations like Vietnam and Malaysia that already have a checkered safety record.

1 in 9 REJECTED

Food & Water Watch examined a decade of FDA seafood import shipment, inspection, laboratory test and refusal data from 2006 to 2015, exposing substantial weaknesses in the inspection system for imported seafood. Key findings include:

- The FDA inspects only 2 percent of imported seafood; more than 5.3 billion pounds of seafood entered the U.S. food supply without even a cursory examination in 2015;
- Less than 1 percent of seafood imports are tested by the FDA at a laboratory for pathogens like *Salmonella* or *Listeria* or the presence of illegal veterinary drugs;
- Although few imports are examined, the FDA rejected 11 percent of inspected shipments for significant food safety problems;

- Salmonella, Listeria, filth and illegal veterinary medicines were the most common reasons that imported seafood was rejected; and
- The number of imports rejected for illegal veterinary drugs nearly tripled over the past decade, and made up one-fourth of all FDA refusals between 2014 and 2015.

Seafood imports have exceeded the FDA's ability to ensure that the fish that reaches our supermarkets and restaurants is safe to eat. More trade deals like the TPP would further overtax FDA inspectors and deliver more uninspected seafood to the U.S. food supply.

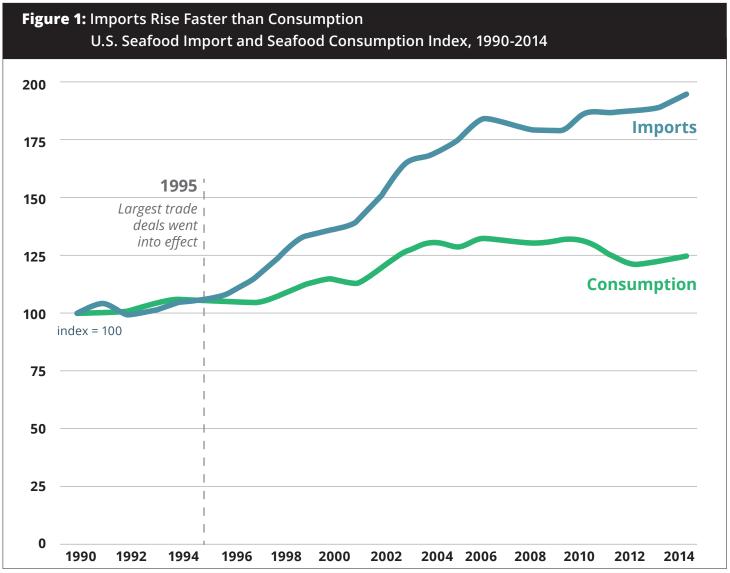
Introduction

Americans ate 4.6 billion pounds of fish and seafood in 2014 — about 15 pounds per person.¹ But most people are unaware that almost all of the seafood sold in the United States is imported and that federal safety inspectors examine only about 2 percent of the imports.²

Increasingly, these imports are not caught by fishing fleets but are raised on high-density fish farms. The growing fish farming industry (known as aquaculture) can present new hazards to consumers. In the developing world, a thriving fish farming industry generates lucrative export opportunities for high-value shrimp, tilapia, crab and other fish.

But the pursuit of profits can encourage aquaculture facilities to cut corners and compromise food safety. The crowded and unsanitary conditions on factory fish farms make the fish vulnerable to disease. Fish farms often use drugs and chemicals that are banned in the United States to ensure that their products survive to harvest. The overuse of some of these antibiotics contributes to the growing public health threat from antibiotic-resistant bacteria.

Americans know that fish and seafood are an important part of a healthy diet and contribute to cardiovascular health.³ But foodborne illnesses from seafood are far from uncommon. In 2013, the CDC estimated that fish and



SOURCE: F&WW Analysis of USDA, NOAA Data.

seafood caused more than one-third of foodborne illness outbreaks — and fish and shellfish individually were the cause of more outbreaks than any other single food source identified as a cause of illness.⁴ Between 2004 and 2013, fish and seafood products instigated more than 540 foodborne illness outbreaks that sickened almost 5,200 people.⁵

U.S. import inspectors are responsible for ensuring the safety of the seafood that Americans eat. Seafood consumption has grown modestly over the years, but seafood imports have skyrocketed, driven largely by international trade deals that have globalized the seafood industry. Since 1995, when the largest trade deals went into effect, U.S. seafood consumption has grown by about 1 percent annually, but seafood imports have jumped by 84 percent — more than 4 percent a year (see Figure 1 on page 3).6

In 2015, the United States imported 5.5 billion pounds of fish and seafood products.⁷ The rising tide of imports now represents the vast majority of seafood that Americans eat — 94 percent in 2014.⁸ Half of these imports are not wild-caught but are farm-raised in squalid conditions in ponds and river cages.⁹

Americans are largely unaware of the health concerns associated with imported farmed fish. High-density fish farms frequently use antibiotics and chemicals to combat disease outbreaks in the crowded, unsanitary conditions that foster bacteria and parasites. To fight these diseases, many major fish farming countries use veterinary drugs and fungicides that are unapproved in the United States. The FDA is increasingly concerned that U.S. fish imports contain residues of these drugs and chemicals, which can cause cancer and allergic reactions and contribute to the creation of antibiotic-resistant bacteria.¹⁰

U.S. border inspectors do not examine enough imports to find these unapproved and dangerous chemicals and other food safety problems on imported fish. FDA officials have blamed past trade deals for the steep increase in imports that have overtaxed the ability of U.S. border inspectors to protect the food supply.¹¹ Proposed trade deals like the pending Trans-Pacific Partnership would only further increase the volume of imported fish and overtax U.S. border inspectors.

Seafood Imports Rise, Inspections Barely Keep Pace

U.S. border inspectors struggle to keep up with the massive volume of products coming across the border, making it harder to prevent pathogens, filth and antibiotic residues on seafood from entering the food supply. Much of the increase in imports was facilitated by international trade deals that went into effect in the mid 1990s, bringing



cheap — and often risky — fish imports. In 1995, just over half (54 percent) of fish consumed in the United States was imported. By 2014, 94 percent of the seafood that Americans ate was imported.¹²

Imports make up the vast majority of many kinds of commonly eaten fish and seafood products (see Figure 2).¹³ Shrimp is the most popular seafood in the United States — consumption doubled over the past 30 years — and while shrimp make up one-fourth of the seafood that Americans eat, 93 percent of that shrimp was imported.¹⁴

The U.S. import safety inspection system is unable to ensure that imported seafood is safe. The U.S. Government Accountability Office (GAO) has reported that, "Given the volume of imports into the country, there is considerable potential for violative items — products that do not meet U.S. safety standards or labeling requirements — to enter the U.S. food supply."¹⁵

The FDA is responsible for inspecting virtually all imported fish. But the FDA lacks the resources necessary to inspect and sample all — or even a sufficiently large sample of — seafood imports. Instead, the FDA focuses on the imports that it believes are the riskiest. This strategy may prevent some of the most dangerous seafood imports from entering the food supply, but the FDA's pitifully low level of inspection cannot guarantee that all dangerous imports are blocked at the border. The FDA also performs far too few inspections of foreign seafood processors and exporters — fewer than 90 annual inspections of 17,000 foreign seafood plants. Is

More importantly, the absence of statistically valid random testing means that the FDA cannot be certain that the uninspected seafood is safe to eat. The FDA uses a computer program to screen seafood import risks based on the type of fish, the safety record of the exporting company, foreign inspection records (if any), the country of origin and the safety history of the importing company. If the FDA determines that an import shipment poses a safety risk, it can physically inspect the shipment and take a sample for laboratory analysis. 20

But the steady surge of imported seafood has overtaxed the FDA's border inspectors. There are fewer than 100 FDA inspectors assigned to examine the 5.5 billion pounds of imported seafood — meaning that each inspector monitors 220,000 pounds of seafood every day.²¹

Food & Water Watch found that the FDA inspected less than 2 percent of seafood import shipments between 2006 and 2015. Although the number of inspections has risen

Figure 2: Import Share of Selected Seafood, 2014

DOMESTIC IMPORTED

83%

87%

93%

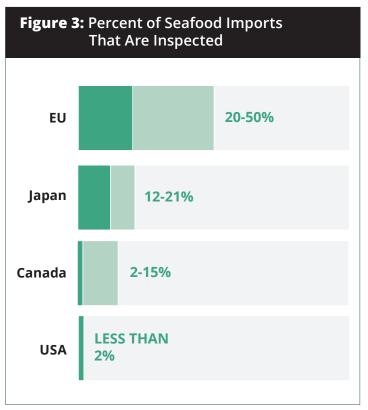
Catfish Salmon frozen fillets fresh & frozen

Tuna

Shrimp

Tuna

 $\begin{tabular}{ll} \textbf{SOURCE}: NOAA; Auburn University; imported tuna share includes imported tuna canned in United States. \end{tabular}$



SOURCE: F&WW analysis of FDA FOIA data; Love; see endnote 22.

in recent years, because imports have continued to rise, the FDA still inspected only 2.1 percent of shipments between 2014 and 2015 (see Figure 3 on page 5).^a The U.S. inspection rate is far below that of other major seafood importers. The European Union (EU) inspects between 20 and 50 percent of seafood imports (based on product type), Japan inspects between 12 and 21 percent, and Canada inspects between 2 and 15 percent.²²

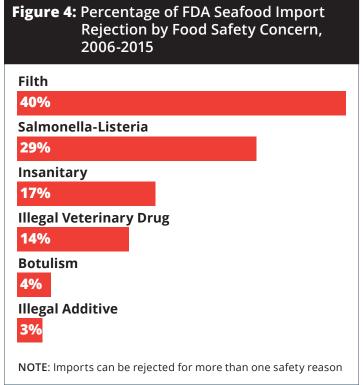
Even fewer imports get tested in a laboratory, which is necessary to discover pathogens like *Salmonella* and *Listeria* as well as illegal drug or chemical residues. Over the past decade, fewer than 1 percent (0.9 percent) of imported seafood shipments received laboratory tests of any kind. This consistently low level of laboratory testing has continued even as the FDA has recognized the growing public health risk from illegal veterinary drug and chemical residues.

Although the FDA allows the overwhelming majority of seafood imports into the country without any inspection, when the FDA does inspect seafood imports, it routinely rejects a substantial number for food safety problems. Seafood was the most commonly rejected food by the FDA from 2005 to 2013, according to a recent study from the U.S. Department of Agriculture (USDA).²³

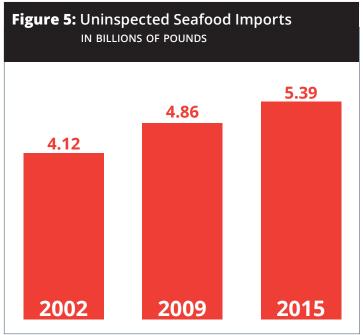
Food & Water Watch found that between 2006 and 2015, the FDA rejected 11.1 percent of all the seafood shipments that were inspected for failing to meet U.S. safety standards. The most common reasons that the FDA rejected seafood imports were for harmful pathogens like *Salmonella* and *Listeria*, filth and decomposition, insanitary processing and packaging, unsafe additives, illegal veterinary drugs and other food safety concerns (see Figure 4). Although the refusal rate has fallen somewhat over the years, the USDA says that this decline is not necessarily because imported safety is getting safer; instead, it "may reflect [the] FDA's limited resources and capacity to inspect, detain and refuse imported food."²⁴

The paltry inspection rate allows billions of pounds of uninspected seafood into the U.S. food supply. The volume of uninspected seafood that entered the United States rose to 5.3 billion pounds in 2015 (see Figure 5).²⁵ The FDA's limited and targeted risk-based inspection does not examine enough imports to know that the uninspected

seafood is safe. In 2016, the USDA found that the FDA's failure to "randomly sample import shipments for inspection" meant that it is impossible to know if the FDA's import inspection system was adequately protecting the food supply. ²⁶ In 2014, the GAO found that the FDA's testing of imports for pesticides was not a statistically valid random sample sufficient to detect illegal pesticide levels in the food supply. ²⁷



SOURCE: F&WW analysis of FDA data.



SOURCE: F&WW Analysis of USDA, FDA data.

a The FDA does not always inspect, perform laboratory tests or determine whether or not to refuse import shipments in the same calendar year that the shipments enter the country. Food & Water Watch used rolling two-year averages to account for FDA evaluations and determinations that occur in more than one calendar year.

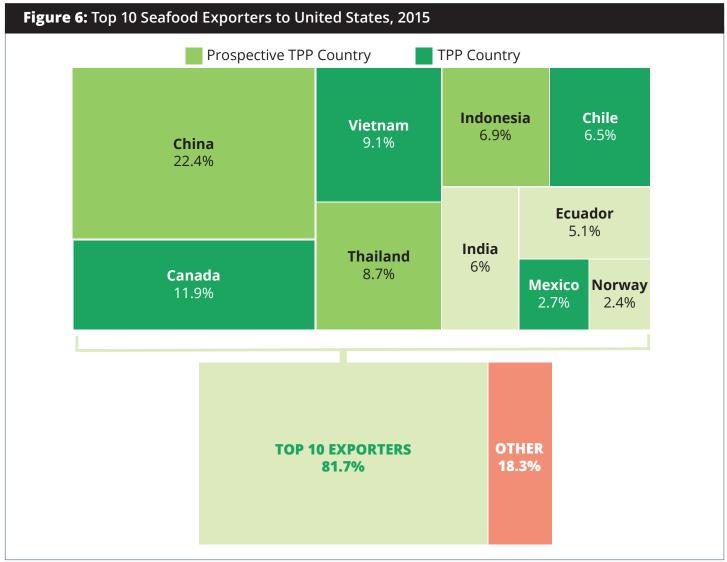
We know that the FDA's inspection screening is not catching all of the unsafe imported seafood because tainted seafood ends up on supermarket shelves and restaurant tables. The USDA noted that the persistent detection of the same problems means that the FDA's border inspections are not "deterring producers and importers from offering food shipments that violate U.S. laws." Between 2006 and 2015, the FDA issued more than 60 recalls of imported fish that made it to supermarkets and restaurants for problems including botulism, *Listeria* and *Salmonella*. ²⁹

Studies also have found foodborne hazards on imported seafood sold in supermarkets. In 2015, *Consumer Reports* found that at least 70 percent of shrimp samples from Bangladesh, India, Indonesia and Vietnam tested positive for at least one pathogen such as *E. coli* and *Salmonella*. A 2013 study from North Carolina State University found the carcinogen formaldehyde on one-quarter of imported fish bought at a local supermarket. 31

The limitations of the FDA's seafood import regime are especially troubling because of the emerging public health threat from antibiotic-resistant bacteria. More U.S. seafood imports are coming from large-scale fish farms that rely on a constant supply of antibiotics to maintain production, and these antibiotics are often still on the fish when they arrive at the U.S. border.

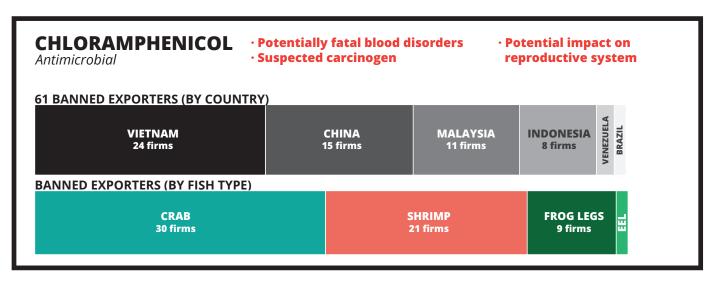
The Rise and Risk of the Global Trade in Farmed Fish

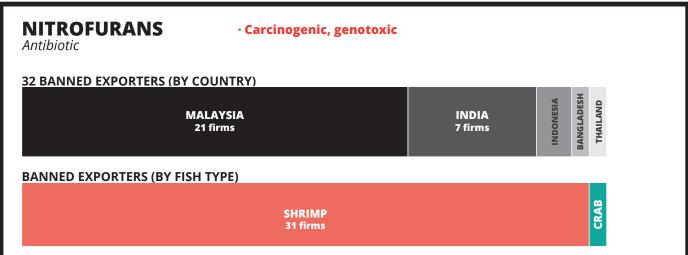
Fish farming — or aquaculture — has become a major force in the global seafood trade. Aquaculture is not new. Coastal communities have farmed fish, crustaceans and shellfish for centuries on a small scale. However, today's industrial-scale fish farming raises fish intensively in densely packed ponds and pens that allow pathogens and disease to flourish.

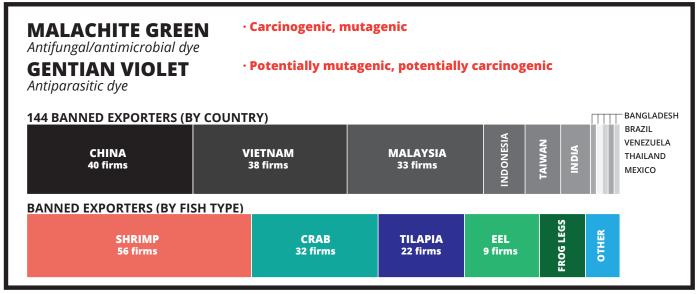


SOURCE: F&WW analysis of USDA GATS database.

Figure 7: Exporters Banned for Repeat Violations of Prohibited Veterinary Drugs with Human Health Hazards







SOURCE: FDA; F&WW analysis of FDA Import Alerts as of August 2016; FDA banned 144 exporting firms for violations of both Malachite Green and Gentian Violet.

Since 2000, worldwide fish farming production has more than doubled to 155 billion pounds in 2013.³² Aquaculture is one of the fastest-growing food production industries, supplying nearly half (42.2 percent) of worldwide seafood consumption.³³ The industry has ballooned as ocean catches have stagnated due to overfishing.³⁴

The high-value farmed fish like shrimp, crab, tilapia and salmon can generate substantial export earnings.³⁵ The top-five fish farming countries — China, India, Indonesia, Vietnam and Bangladesh — produced 79.8 percent of the farmed fish worldwide in 2012, and they increasingly dominate the global seafood trade (see Figure 6 on page 7).³⁶ Vietnam exports almost all (96 percent) of its farmed fish.³⁷ Over the past two decades, U.S. imports from these top fish farming countries surged nearly seven-fold to 2.4 billion pounds in 2015, supplying 44 percent of U.S. imports.³⁸

The drive to promote aquaculture export earnings has led to a global fish farming industry that pushes increased production but often skimps on food safety and environmental protection. Too many fish raised intensively in often dirty water is a recipe for disease and has encouraged the use of drugs and chemicals that are banned by the FDA. These problems easily land on our plates, since 47 percent of the seafood that Americans eat is imported from fish farms.³⁹

Crowded fish farms, pervasive disease and rampant antibiotic use

The growth in global fish farming was fueled by intensifying production: cramming more and more fish into the same ponds or pens. High-density fish farming causes more frequent infectious disease outbreaks. Health problems spread rapidly in tightly packed, unhygienic conditions as highly contagious diseases can transfer easily from sick to healthy fish. The fish farming industry has been overwhelmed by viruses, bacteria, fungi and parasites. These conditions can create "massive disease outbreaks" that can destroy the fish farm's production—sometimes killing half of the fish.

The fish are raised in water that is often far from pristine, only making disease more likely. Industrial toxins, agrochemical runoff and sewage can all taint water used for fish farms. 45 Some Asian fish farms fill ponds with wastewater, including animal manure and human sewage. 46 In Vietnam, the use of wastewater is widespread, and a survey found that two-thirds of the Mekong River delta toilets — approximately 360,000 toilets used by more than 6 million people — emptied into fish ponds. 47

Box 1: Antibiotics on fish farms contribute to antibiotic-resistant bacteria

The widespread use of antibiotics on fish farms contributes to the growing public health threat from antibiotic-resistant infections. The antibiotics used by fish farms in the developing world are the same antibiotics used for humans; if bacteria develop resistance to these antibiotics, then they won't work for people when they get sick. The most common antibiotics used on fish farms are all on the World Health Organization's list of critical or highly important antibiotics for humans, and there already is significant resistance to some of these antibiotics.⁷²

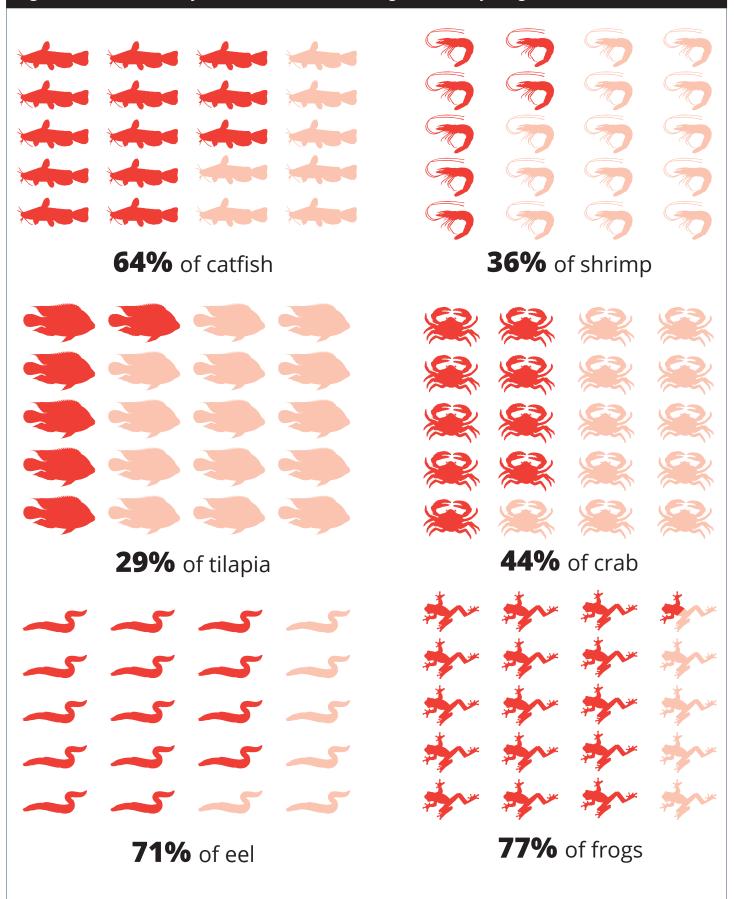
The CDC estimates that at least 2 million Americans experience antibiotic-resistant infections every year.⁷³ These infections lead directly to at least 23,000 deaths annually and to many more deaths from antibiotic-resistant complications.⁷⁴ Approximately 22 percent of those infections originate from foodborne pathogens.⁷⁵

Antibiotic-resistant bacteria can be transferred directly to people through tainted fish.⁷⁶ Consumers can be exposed to antibiotic-resistant strains by eating or simply preparing seafood.⁷⁷ A 2012 study by FDA researchers found that the consumption of shrimp treated with antibiotics could expose consumers to antibiotic-resistant bacteria that would be harder to treat with common medicines.⁷⁸ The number of different antibiotic-resistant strains of bacteria found in fish has been increasing significantly.⁷⁹ To reduce the risk of infection, the USDA urges consumers to cook fish fully and to avoid cross-contamination between the fish and other foods.⁸⁰

Beyond the risk to individuals eating or preparing fish, the overuse of antibiotics in aquaculture is driving a larger public health risk. The high doses of unnecessary antibiotics given to fish have to end up somewhere either as residues in the fish or discharged into water and soil through the fish waste.81 These antibiotics accumulate in the water and sediment surrounding the fish farms.82 The long-term exposure to antibiotics pushes the bacteria in the fish, water and soil to develop resistance to these antibiotics, creating a reservoir of antibiotic-resistant bacteria on fish farms and in the surrounding environment.83 Fish farming in Vietnam's mangrove regions has led to high levels of antibiotic residues and resistant bacteria in the surrounding ecosystems.84 Even wild-caught fish can contain antibiotic-resistant bacteria from exposure to fish farm runoff that reaches distant waterways.85

(continued on page 11)

Figure 8: Chance that Rejected Seafood Contains Illegal Veterinary Drugs, 2006-2015



SOURCE: F&WW analysis of FDA data.

To combat these pervasive diseases, the fish farming industry in the developing world often resorts to antibiotics, fungicides and antiparasitics that are prohibited in the United States. The antibiotics may keep the fish alive, but they pose significant human health risks. The FDA has prohibited several classes of antibiotics for fish farming and banned the import of fish raised with these drugs and chemicals into the United States. The FDA is increasingly concerned that U.S. fish imports contain residues of these drugs and chemicals, which can cause cancer and allergic reactions and contribute to the development of antibiotic-resistant bacteria (see Figure 7 on page 8 and Box 1 on page 9).

Antibiotics help prevent and control the diseases common on fish farms. ⁵¹ They are typically administered in the fish feed or water, indiscriminately dosing both diseased and healthy fish alike. ⁵² These drugs also promote growth, so the farmed fish can quickly grow and gain weight, increasing the fish farms' earnings. ⁵³ Fish farming exporters often deploy banned drugs and chemicals to maximize profits — and they can get away with it because of the FDA's weak import inspection system.

The use of antibiotics that are illegal in the United States is widespread in fish farming in the developing world.⁵⁴ A 2013 study found that all surveyed Vietnamese catfish farms used antibiotics that were unapproved in the United States.⁵⁵ A 2015 survey found widespread use of antibiotics in Vietnamese carp, tilapia and catfish hatcheries as well as catfish farms.⁵⁶ The robust farmed salmon industry in Chile was fueled with heavy antibiotic use.⁵⁷ A 2003 study found that three-quarters of shrimp farmers in Thailand used antibiotics.⁵⁸ The countries that supply the vast majority of U.S. shrimp imports use antibiotics that are prohibited in the United States.⁵⁹ The FDA frequently rejects eel, catfish, crab, tilapia and shrimp for illegal drug residues (see Figure 8 on page 10).

Most fish farming occurs in countries with little oversight of antibiotic use.⁶⁰ In Malaysia, aquaculture antibiotic use is poorly regulated with little enforcement of its lax rules.⁶¹ Chile neither effectively regulates nor tracks antibiotic use in the salmon industry and allows several classes of antibiotics that are banned in the United States.⁶² In 2008, FDA inspectors in Vietnam found that the government allowed the use of 38 veterinary drugs banned in the United States and asked the government to test all U.S.-bound seafood, but Vietnam refused and only promised additional enforcement.⁶³ In 2015, the Vietnam Association of Seafood Exporters and Producers acknowledged persistent problems with antibiotic use in fish farming.⁶⁴ Although China banned several antibiotics for aquaculture in 2002, the FDA continues to find illegal antibiotic residues on Chinese imports.⁶⁵

Weak inspection allows tainted fish to enter the food supply

The FDA's weak inspection system is exposing consumers to illegal antibiotics. The combination of exporters' widespread antibiotic use and exporting countries' weak oversight puts the burden of preventing these illegal drugs and chemicals entirely on U.S. border inspectors.

The volume of imported seafood containing illegal antibiotic residues has skyrocketed. Food & Water Watch found that the number of imported seafood shipments that the FDA rejected for illegal veterinary drugs nearly tripled over the past decade, rising from just under 200 in 2006 to 535 in 2015 (see Figure 9 on page 12). These illegal drug residues made up one-fourth (24.8 percent) of all FDA refusals between 2014 and 2015. But despite the rapid emergence of a new public health risk, the FDA has not increased the number of laboratory tests of imported seafood. Over the past five years, the FDA has performed an average of 8,700 laboratory tests — but laboratory tests declined by 19.3 percent over the past three years, from 10,591 in 2013 to 8,539 in 2015.

Box 1: Antibiotics on fish farms contribute to antibiotic-resistant bacteria (continued from page 9)

The overuse of antibiotics promotes resistance not only in fish bacteria, but also in human pathogens.⁸⁶ When bacteria in the aquaculture reservoirs develop antibiotic resistance, the genes for the resistance can be transferred to other human pathogens such as *Salmonella*, making them resistant as well.⁸⁷

Many countries with intensive fish farming industries are already facing problems with antibiotic resistance. Vietnam has the one of the highest levels of antibiotic resistance in the world, with several "super-bugs" that are completely resistant to all antibiotics, making them impossible to treat.⁸⁸ In Chile, the antibiotic resistance found in farmed salmon has spread to people living near salmon farms and to the surrounding environment.⁸⁹

The lower level of laboratory scrutiny likely means that the FDA is letting shipments containing illegal drug residues into the food supply.^b The United States tests for a smaller number of antibiotics and veterinary drugs than the EU and Japan and is likely missing violations that these other countries found.⁶⁶ The EU found four times the number of veterinary drug violations on imported seafood annually than the United States, likely because it inspects 10 times more imported fish (at least 20 percent of fish is inspected in the EU, compared to 2 percent in the United States).⁶⁷

Studies of imported fish collected from U.S. grocery stores demonstrate that the FDA is allowing seafood containing illegal antibiotic residues to enter the food supply. The low level of FDA border inspections and laboratory tests allows these illegal antibiotic residues to enter the U.S. food supply. In 2015, *Consumer Reports* tested shrimp from grocery stores across the country and found antibiotics and antibiotic-resistant bacteria on about 80 percent of the samples from Vietnam, Bangladesh and Ecuador.⁶⁸ A 2012 study found antibiotic-resistant bacteria on about one-fifth of imported shrimp samples from U.S. supermarkets.⁶⁹ In 2012, researchers from Texas Tech University found antibiotics on 10 percent of imported farm-raised fish sampled from U.S. supermarkets.⁷⁰

Despite the low level of inspection and laboratory testing, the FDA has been concerned enough about illegal antibiotics to ban seafood imports from companies because of repeated problems with illegal antibiotics and antiparasitics that pose significant public health threats. As of August 2016, the FDA had four "Import Alerts" banning seafood imports from 70 exporters in 8 countries for shipping seafood containing illegal veterinary drugs to the United States (see Figure 10 on page 13).⁷¹ Four-fifths of the firms (82.8 percent) banned for illegal antibiotics were from China, Malaysia and Vietnam. More than half of the Import Alerts prohibited companies from exporting shrimp and crab for longstanding problems with illegal antibiotic residues.

Trans-Pacific Partnership Will Make It Harder to Stem a Rising Tide of Dangerous Fish Imports

Many of the problems caused by aquaculture production are due to the continued globalization of the food supply. New trade deals, like the proposed Trans-Pacific Partnership, will

Figure 9: Number of Imported Seafood
Shipments Rejected for Illegal
Veterinary Drugs

600
500
400
200
100

2009

2015

SOURCE: F&WW analysis of FDA data.

2002

only increase the volume of imported seafood and further overwhelm U.S. border inspectors. Moreover, the TPP makes it easier for foreign governments to challenge U.S. food safety rules — including border inspection protocols and prohibitions against certain fish farming drugs and chemicals — as illegal trade barriers. And because the TPP food safety dictates are stronger than in prior trade deals, it would be easier for exporting countries to successfully challenge U.S. food safety laws and would make it even harder to stop unsafe fish shipments at the border.

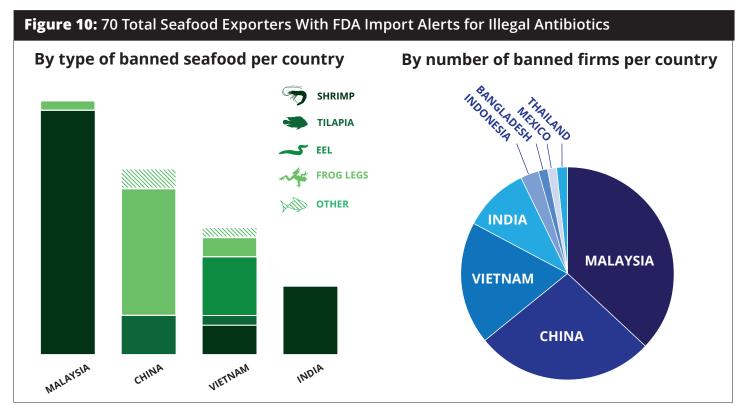
The TPP is a 12-nation trade deal with some of the biggest seafood exporters to the United States including Vietnam, Canada, Mexico and Malaysia.^c

The TPP lowers tariffs (taxes levied on imports) on nearly 140 kinds of seafood, and the United Nations has found that existing trade pacts that reduced seafood tariffs fueled the rise in fish exports from the developing world. U.S. seafood imports increased nearly twice as fast in the 15 years after the North American Free Trade Agreement and World Trade Organization went into effect. Even the U.S. International Trade Commission estimates that the TPP would increase seafood imports from countries like Vietnam and Malaysia by 9.0 percent. Page 140 percent.

Even more alarming is that the TPP is designed to allow additional countries to join in the future. Already, the major fish farming countries China, Indonesia, the Philippines, South Korea, Taiwan and Thailand are interested in joining the TPP. These aquaculture powerhouses — along with TPP members Vietnam and Malaysia — have some of the worst seafood safety records of any exporters.

b The term "shipment" refers to the entry of a single customs entry of seafood products into the United States. Shipments can be any size, from a shipping container of canned tuna to a crate of frozen shrimp. In 2015, the average shipment weighed 5,400 pounds.

The other TPP nations are Australia, Brunei, Chile, Japan, New Zealand, Singapore and the United States.

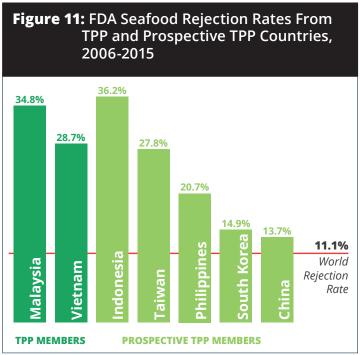


SOURCE: FDA; F&WW analysis of FDA Import Alerts as of August 2016.

The FDA rejects shipments from many of these countries more frequently than average. Over the past decade, Malaysian seafood exports to the United States have been rejected three times more frequently than average, and Vietnam's exports have been rejected twice as frequently (see Figure 11). And the FDA finds antibiotics on large portions of the exports from some countries. From 2006 to 2015, illegal antibiotics were the reason for a large portion of the FDA rejections from Malaysia, China and Vietnam (64.1, 43.5 and 17.2 percent, respectively), far above the overall detection of illegal antibiotics.

FDA ban on antibiotics on fish farms could be unraveled by the TPP

The TPP food safety language presumes that protecting consumers from unsafe food can be an illegitimate trade barrier. The TPP limits our ability to establish strong food safety standards and makes it easier for foreign countries to successfully challenge food safety rules as illegal trade barriers. The TPP's tougher rules could be used to challenge U.S. seafood border inspection and laboratory testing rules and prohibitions on illegal antibiotics in fish farming. The TPP only permits food safety standards that "facilitat[e] and expan[d] trade" — meaning that rules that interfere with the speedy shipment of suspicious or unsafe seafood could be challenged as illegal trade barriers.⁹⁵



SOURCE: F&WW analysis of FDA data.

Under the TPP, standards must meet tough burdens of scientific proof.⁹⁶ Food safety rules must be "based on scientific principles" and on "appropriate" risk assessments and use all "reasonably available and relevant scientific data."⁹⁷ In addition, food safety standards cannot be



"more trade restrictive than required," making it difficult to establish protections stronger than international guide-lines. These provisions make it more difficult to establish reasonable food safety protections under the TPP and are similar to the "sound science" red herring that delayed or derailed regulations over well-understood public health threats including asbestos, tobacco, lead and dioxin. 99

The FDA's prohibition against using some veterinary drugs on fish farms, including fluoroquinolones (the class of antibiotics that includes Cipro) and clenbuterol, is vulnerable to a TPP challenge. The FDA standard is higher than the international standard, the underlying science is hotly disputed by the food animal industry, and the outright ban is far from the least trade-restrictive policy. ¹⁰⁰ If Vietnam brought a TPP challenge against the FDA ban on fluoroquinolones, it likely would prevail and the United States could be forced to weaken or eliminate the ban.

The TPP also allows exporters to challenge decisions made by border inspectors who stop suspicious food imports — including detaining suspect shipments pending laboratory test results. ¹⁰¹ The TPP requires FDA inspectors to notify exporters within seven days of restricting an import shipment. ¹⁰² But FDA laboratory testing can take a week or two — or longer — before dangerous food shipments are identified and safe shipments are released into the food supply. ¹⁰³

Under the TPP, exporters must get an "opportunity for a review of the decision" by border inspectors — essentially letting foreign governments second-guess U.S. inspectors. This means that if the FDA stops a shipment of farmed fish to test for illegal antibiotics, the exporting country could challenge the FDA's detention and push potentially unsafe seafood into the U.S. food supply. The U.S. trade ambassador described the new TPP tool as a way for trade experts to "clear up the problem and allow the shipments to move forward." 10.5

Conclusions and Recommendations

More of the seafood that Americans eat is imported than ever before, and about half of these imports are raised on fish farms in the developing world that commonly use veterinary drugs and chemicals that are banned in the United States. U.S. border inspectors are overwhelmed by the rising tide of imported seafood. The FDA inspects only about 2 percent of imported seafood shipments and tests only 1 percent in a laboratory for bacteriological or chemical hazards.

International trade deals have driven the rise in seafood imports and further compromise the FDA's ability to ensure that seafood imports are safe. Additionally, the trade deals allow foreign governments to challenge our food safety laws, rules and procedures as illegal trade barriers, potentially eroding U.S. food safety standards. The federal government needs to strengthen and provide sufficient funding for U.S. seafood import inspection and ensure that international trade deals do not undermine U.S. food safety standards.

Food & Water Watch recommends:

- Strengthen oversight of imported seafood: The FDA needs to increase the volume and percentage of imported seafood that is inspected at the border and to implement a statistically valid random sampling program to supplement its current risk-based inspection system. Other governments inspect much more imported seafood (the EU inspects at least 20 percent of seafood imports, and Japan inspects at least 12 percent of imports). Congress should provide the necessary funding and directives for the United States to inspect at least 10 percent of seafood imports far greater than the 2 percent currently inspected at the border.
- Strengthen laboratory testing of imported seafood for illegal veterinary drugs and chemicals: The number of seafood shipments rejected for illegal veterinary drugs has tripled over the past decade, and these illegal drug residues now account for one-fourth of all imported seafood rejections. But over the past few years the number of laboratory tests has declined, and the United States tests less than 1 percent of seafood imports in a laboratory. The FDA needs to increase the number of laboratory tests and to test for a wider range of illegal veterinary drugs and chemicals.
- Increase and sustain the number of domestic and foreign seafood inspections: The FDA inspects an estimated 80 foreign seafood processing plants

annually, and few domestic processing plants receive FDA inspections. The FDA performs very few — if any — inspections of feed mills that supply fish farms either in the United States or overseas, but these feed mills can be the source of the illegal veterinary drugs and chemicals. Congress must provide more funding for the FDA to perform more physical inspections of foreign facilities, and the FDA needs to prioritize these inspections at its foreign offices and to coordinate with other agencies as necessary to inspect foreign seafood processing plants. This oversight must be sustained and not merely rise at times when public scrutiny is heightened.

- Increase the transparency of the FDA's seafood inspection program: The FDA should annually disclose the number of foreign and domestic facility inspections, the number of feed mill inspections and the results of those inspections, as well as the number of seafood border inspectors.
- Congress should reject trade deals that undermine U.S. food safety standards: The trade deals of the past quarter-century have brought a tidal wave of imported food that has overwhelmed border inspectors. But more importantly, past trade deals and the proposed Trans-Pacific Partnership have included language that allows foreign governments to challenge U.S. food safety laws, rules and practices as illegal trade barriers. The TPP makes it easier to successfully attack U.S. food safety standards at foreign trade tribunals. Our food safety standards should be determined through Congress and executive branch agencies that can be held accountable by the public not adjudicated by international trade tribunals.

Methodology and Data

Food & Water Watch examined all import shipments, FDA border inspections, FDA and FDA-contracted laboratory tests and FDA import refusals for food safety reasons and import tonnage for all fish and seafood imports by country from 2006 to 2015. This included 51.8 billion pounds of seafood imports, 8.8 million import shipments, 169,400 FDA border inspections, 80,670 laboratory tests and 18,760 import rejections. The term "shipment" refers to the entry of a single customs entry of seafood products into the United States. Shipments can be any size, from a shipping container of canned tuna to a crate of frozen shrimp. In 2015, the average shipment weighed 5,400 pounds.

Food & Water Watch examined only refusals for food safety reasons (adulteration) and undeclared allergens



(the only examined misbranding violation) but not refusals for other labeling and misbranding problems. The USDA found that 80 percent of import seafood refusals were for adulteration. ¹⁰⁶ Similarly, Food & Water Watch excluded laboratory tests aimed at economic deception, labeling, narrative record, net contents, nutrition, product security and integrity, standard of identity and standard of quality. The type of seafood by FDA rejection was determined based on the description recorded by the import certificates included in the FDA refusal data.

The analysis does not cover imports from the United States or territories of the United States including American Samoa, Puerto Rico and the U.S. Virgin Islands. Territories of other exporters were aggregated: Australia includes Christmas Island, Cocos Islands, Heard and McDonald Islands and Norfolk Island; China includes Hong Kong and Macao; and New Zealand includes Cook Islands, Niue and Tokelau.

Food & Water Watch combined publicly available data with data received from Freedom of Information Act (FOIA) requests. The import tonnage volume was downloaded from the USDA's Global Agricultural Trade System database, available at apps.fas.usda.gov/GATS/default.aspx. The FDA import refusals were downloaded from the FDA Import Refusal Reports for OASIS database, available at accessdata. fda.gov/scripts/importrefusals. Food & Water Watch filed FOIAs with the FDA for the seafood import shipment, inspection and laboratory test data by year by country.

Appendix: Top 25 Seafood Exporters to the United States, 2006-2015

		Seafood Imports (millions of pounds)		FDA Border Inspection Rate		Lab Test Rate	Food Safety Rejections and Rejection Rates		
Country	2015	10-Year Total (2006- 2015)	2006- 2015 Change	2014- 2015 [‡]	10-Year (2006- 2015)	10-Year (2006-2015)	2014-15‡	10- Year (2006- 2015)	Total Rejections (2006-2015)
World	5,516.4	51,751.7	8.2%	2.1%	1.9%	0.9% 8.1% 11.1%		11.1%	18,763
Top 20 Aquaculture Countries*	4,063.2	37,344.3	13.5%	2.5%	2.3%	1.5%	10.6%	15.4%	15,009
Top Ten 2015 Exporters	4,510.2	41,138.6	15.1%	2.2%	1.9%	1.1%	5.9%	10.0%	10,501
TPP Members [†]	1,848.0	16,159.5	21.2%	1.5%	1.7%	0.4%	6.3%	6.0%	4,911
China	1,238.4	12,016.3	7.4%	4.4%	3.3%	3.7%	7.9%	13.7%	2,608
Thailand	481.2	7,109.5	-39.7%	4.4%	2.6%	1.6%	5.9%	9.7%	1,057
Canada	658.4	6,469.8	-3.5%	1.3%	1.2%	0.1%	0.3%	0.9%	277
Vietnam	503.1	3,508.2	144.8%	3.1%	3.0%	2.9%	16.6%	28.7%	2,171
Indonesia	380.0	2,967.4	50.2%	3.5%	2.7%	2.5%	12.8%	36.2%	2,669
Chile	358.9	2,762.2	20.1%	0.6%	0.8%	0.7%	4.8%	8.5%	248
Ecuador	283.4	2,546.9	16.9%	1.9%	1.4%	0.7%	4.6%	7.3%	425
India	330.4	1,597.8	212.1%	2.7%	2.4%	3.1%	14.2%	22.4%	654
Mexico	146.6	1,363.1	10.1%	2.9%	3.4%	0.6%	1.3%	2.0%	360
Philippines	86.0	1,114.8	-41.9%	3.9%	3.0%	1.9%	8.6%	20.7%	887
Taiwan	77.7	878.4	-20.7%	5.2%	4.0%	4.7%	33.8%	27.8%	755
Norway	129.8	797.4	182.4%	1.2%	1.2%	0.6%	2.3%	3.4%	32
Russia	52.2	594.3	-34.8%	4.5%	3.2%	1.4%	4.4%	6.2%	54
Malaysia	28.0	555.1	-52.8%	10.7%	4.5%	3.4%	64.8%	34.8%	777
Argentina	57.3	524.4	-16.1%	2.3%	2.4%	1.7%	2.0%	4.5%	28
Peru	64.9	492.8	138.0%	3.8%	2.8%	1.9%	15.0%	17.7%	305
New Zealand	35.7	455.3	-39.2%	0.7%	0.6%	0.4%	0.0%	2.3%	12
Japan	44.1	430.6	11.6%	1.0%	1.7%	0.1%	2.4%	2.6%	514
South Korea	50.3	420.0	43.4%	3.6%	2.8%	1.2%	7.9%	14.9%	820
Honduras	37.3	414.3	-9.5%	2.1%	2.0%	0.6%	1.7%	18.6%	206
Iceland	40.8	347.6	-10.0%	0.6%	0.4%			2.2%	11
United Kingdom	31.8	336.9	61.0%	0.6%	0.7%	0.2% 2.6% 33.3		33.3%	209
Panama	23.5	266.0	-29.5%	1.6%	1.6%	0.4%	2.5%	4.7%	82
Denmark	31.0	251.5	633.7%	2.1%	2.8%	1.2%	19.4%	5.0%	7
Costa Rica	21.1	228.0	8.0%	0.6%	0.7%	0.2%	7.2%	5.7%	54

^{*} Top 20 aquaculture countries in italics, total includes Bangladesh, Brazil, Burma, Egypt, Nigeria, Spain and Turkey that are not among the top 25 seafood exporters to the United States; † TPP countries in bold, total includes Australia, Brunei and Singapore; † Inspection rate is percent of import shipments examined; 2014-2015 rate combines inspections and shipments for two years to account for inspections that occur across calendar year. Source: Food & Water Watch analysis of FDA and USDA data, see Methodology at 15.

Appendix: Top 25 Seafood Exporters to the United States, 2006-2015

		spections, R Rejections	Illegal Veterinary Drugs/Chemicals			
Country	% of Veterinary Drug Rejections	% of Rejections	% of Inspections	% of Exports	Share of Rejections From Vet. Meds.	10-Year Vet. Med. Rejections
World					13.6%	2,550
Top 20 Aquaculture Countries*	43.5%	80.0%	57.7%	72.2%	16.8%	2,523
Top Ten 2015 Exporters	1.0%	56.0%	61.7%	79.5%	18.4%	1,936
TPP Members [†]	0.7%	26.2%	48.5%	31.2%	18.3%	900
China	44.5%	13.9%	11.3%	23.2%	43.5%	1,135
Thailand	0.4%	5.6%	6.4%	13.7%	1.0%	11
Canada	0.1%	1.5%	17.3%	12.5%	0.7%	2
Vietnam	14.6%	11.6%	4.5%	6.8%	17.2%	373
Indonesia	11.6%	14.2%	4.4%	5.7%	11.1%	297
Chile	0.6%	1.3%	1.7%	5.3%	6.0%	15
Ecuador	0.2%	2.3%	3.5%	4.9%	1.4%	6
India	3.4%	3.5%	1.7%	3.1%	13.3%	87
Mexico	0.4%	1.9%	10.4%	2.6%	2.5%	9
Philippines	0.5%	4.7%	2.5%	2.2%	1.6%	14
Taiwan	2.5%	4.0%	1.6%	1.7%	8.5%	64
Norway	0.0%	0.2%	0.6%	1.5%	3.1%	1
Russia	0.0%	0.3%	0.5%	1.1%	0.0%	-
Malaysia	19.5%	4.1%	1.3%	1.1%	64.1%	498
Argentina	0.0%	0.1%	0.4%	1.0%	0.0%	-
Peru	0.0%	1.6%	1.0%	1.0%	0.3%	1
New Zealand	0.0%	0.1%	0.3%	0.9%	0.0%	-
Japan	0.1%	2.7%	11.5%	0.8%	0.4%	2
South Korea	0.0%	4.4%	3.3%	0.8%	0.1%	1
Honduras	0.0%	1.1%	0.7%	0.8%	0.0%	-
Iceland	0.0%	0.1%	0.3%	0.7%	0.0%	-
United Kingdom	0.0%	1.1%	0.4%	0.7%	0.0%	-
Panama	0.0%	0.4%	1.0%	0.5%	0.0%	-
Denmark	0.0%	0.0%	0.1%	0.5%	0.0%	-
Costa Rica	0.0%	0.3%	0.6%	0.4%	0.0%	-

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More Food & Water Watch Research on Food Safety and Global Trade



How the Trans-Pacific Partnership (TPP) Unravels U.S. Food Safety Protections

The Trans-Pacific Partnership (TPP) puts agribusiness and food industry interests ahead of keeping our food safe, with TPP food safety language presuming that protecting consumers from unsafe food can be an "illegitimate trade barrier." The TPP limits our ability to establish strong food safety standards and makes it easier for foreign countries to successfully challenge food safety rules as illegal trade barriers. The TPP's tougher rules could be used to challenge domestic food safety laws and regulations including border inspection laboratory testing and standards on chemicals, additives and pesticides.



How Factory Fish Farms Misuse Antibiotics

The frightening public health impacts of the overuse of antibiotics to raise animals for food are becoming clear, with the Centers for Disease Control and Prevention (CDC) estimating that over 2 million Americans contract an antibiotic-resistant infection each year, learning to at least 23,000 deaths. Fewer people realize that the aquaculture industry also has an antibiotics problem. Just like raising livestock and poultry, many large-scale fish farming operations rely on the misuse and overuse of antibiotics to compensate for crowded, stressful conditions.



TPP: Big Giveaway for Agribusiness, Big Risk for Farmers

The Trans-Pacific Partnership primarily benefits the agribusiness and food manufacturing companies that buy, process and ship raw agricultural commodities. The controversial deal poses more risks than benefits for American farmers and ranchers. While agribusiness has promoted the TPP as an export bonanza, farmers will receive only a tiny fraction of any export gains. Instead, the modest agricultural export opportunities for farmers would be outweighed by competition from rising food and farm imports. The surge in often low-priced farm imports would worsen today's already precarious farm economy, with falling prices, declining income and rising debt burdens.



The TPP Pushes the GMO Industry's Global Agenda

The Trans-Pacific Partnership is the first trade deal that includes special provisions on genetically engineered (GMO) crops. It would encourage countries to approve and cultivate GMO crops and would make it harder to regulate GMO crops or foods, including overseeing the safety of GMO ingredients and requiring labeling. The TPP fulfilled the GMO industry's demands on food safety and seed patents, giving seed companies more leverage over farmers. The GMO industry can use the TPP to challenge and eliminate other countries laws and to promote the export of GMO crops and foods.



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