



# Import notifications by causes (2022)

In the United States of America, in 2022, there were recorded 787 import notifications of fisheries and aquaculture products through the Import Refusal Report (IRR) system of the Food and Drug Administration (FDA). The cause of notifications was organized into four categories, including: chemical, histamine, microbiological and a broad category called "other causes". As summarized in the table below, most import notifications were due to the "others" category (428 cases), followed by microbiological issues (243 cases). The third largest cause of notifications was due to chemicals with 93 cases, followed by the presence of histamine above the maximum levels with 23 cases. It is important to note that import notifications decreased from 1 012 in 2021 to 787 in 2022.

Import notifications by category (Number cases - 2021)

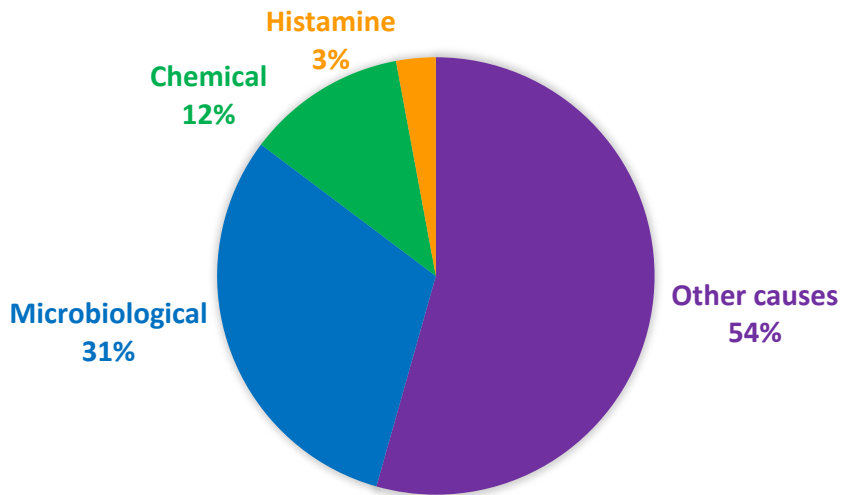
Month	Others	Microbiological	Chemical	Histamine	Total
January	17	8	7	1	33
February	14	15	20	0	49
March	23	17	8	0	48
April	51	37	10	0	98
May	48	14	9	1	72
June	35	27	10	7	79
July	14	47	8	2	71
August	37	15	7	3	62
September	24	12	2	5	43
October	48	19	4	1	72
November	69	14	4	2	89
December	48	18	4	1	71
<b>Total</b>	<b>428</b>	<b>243</b>	<b>93</b>	<b>23</b>	<b>787</b>

(Source: FDA)



## Percentage of the causes

As shown in the figure, the “other causes” category was the main category in terms of number of notifications, accounting for 54 percent of the total. Microbiological causes accounted for 31 percent, followed by chemical causes (12 percent) and histamine (three percent).



## 2022 Import notifications: Other causes

Other causes	Cases
Unfit for human consumption	378
Labelling	45
Packaging	5
<b>Total</b>	<b>428</b>

(Source: FDA)

Among the other causes category, the main problems were associated with products that were found unfit for human consumption with 378 cases, 104 of which detected in tuna: representing 88 percent of this category, and 48 percent of the total import notifications of fisheries and aquaculture products in 2022. The second cause of notifications was due to labelling issues with 45 cases, mostly found in undefined fish and followed by packaging issues with five cases, mainly detected in anchovies. The other causes category decreased from 476 in 2021 to 428 in 2022.

## 2022 Import notifications: Microbiological causes

Microbiological causes	Cases
<i>Salmonella</i>	201
<i>Listeria monocytogenes</i>	41
<i>Escherichia coli</i>	1
<b>Total</b>	<b>243</b>

(Source: FDA)

The main microbiological issue was *Salmonella* with 201 cases, 74 of which detected in shrimp, followed by *Listeria monocytogenes* with 41 cases, 35 of which detected in undefined fish. The last cause of import notifications under this category was the presence of *Escherichia coli* with one case in crab. Cases due to microbiological issues strongly decreased 400 cases in 2021 to 243 in 2022.

## 2022 Import notifications: Chemical causes

Chemical causes	Cases
Residues of veterinary drugs	43
Nitrofurans	33
Additives	8
Chloramphenicol	5
Pesticides	4
<b>Total</b>	<b>93</b>

(Source: FDA)

The main chemical issues recorded were residues of veterinary drugs, with 43 cases, 22 of which recorded in shrimp. They were followed by nitrofurans with 33 cases, 30 of which found in shrimp. The third chemical issue was additives with eight cases mainly in shrimp, followed by five cases due to the presence of chloramphenicol, all cases recorded in shrimp. The last case of import notifications under this category was the presence of pesticides mostly in shrimp. Although nitrofurans and chloramphenicol are residues of veterinary drugs, they are identified as a separate cause by FDA in this category. Chemical causes have increased from 90 cases in 2021 to 93 cases in 2022.

## 2021 Import notifications: Histamine

In 2022, there were 23 cases of import notifications due to the presence of histamine being above the maximum levels, 13 of which detected in tuna. It is important to note that cases due to the presence of histamine halved from 46 in 2021 to 23 in 2022.

## Import notifications by products (2022)

Product	Number of cases
Shrimp	168
Tuna	162
Fish (not specified)	131
Snapper	67
Mahi mahi	47
Oysters	27
Tilapia	19
Bass	18
Lobster	17
Eel	12
Grouper	12
Sardines	12
Crab	9
Octopus	9
Sole	9
Anchovy	8
Croaker	7
Mackerel	7
Herring	6
Salmon	6
Perch	5
Barracuda	4
Crayfish	4
Scallops	3
Barramundi	2
Clams	2
Cod	2
Goby	2
Sea cucumber	2
Bonito	1
Bream	1
Cuttlefish	1
Mussels	1
Pollack	1
Saury	1
Shark	1
Wahoo	1
<b>Total</b>	<b>787</b>

(Source: FDA)

## Import notifications by causes (2016 - 2022)

Causes	2016	2017	2018	2019	2020	2021	2022	Total
Others	1 553	1 114	917	864	419	476	428	5 771
Microbiological	253	281	275	230	219	400	243	1 901
Chemical	233	156	241	151	72	90	93	1 036
Histamine	32	25	24	59	20	46	23	229
Toxins	1	1	0	0	0	0	0	2
<b>Total</b>	<b>2 072</b>	<b>1 577</b>	<b>1 457</b>	<b>1 304</b>	<b>730</b>	<b>1 012</b>	<b>787</b>	<b>8 939</b>

(Source: FDA)

## Other causes

Causes	2016	2017	2018	2019	2020	2021	2022	Total
Unfit for human consumption	1 365	836	681	679	313	366	378	4 618
Labelling	103	116	70	100	58	71	45	563
Packaging	54	59	57	48	25	34	5	282
Adulteration	14	78	88	22	11	0	0	213
Allergens	6	18	3	5	12	5	0	49
No process	11	7	18	10	0	0	0	46
<b>Total</b>	<b>1 553</b>	<b>1 114</b>	<b>917</b>	<b>864</b>	<b>419</b>	<b>476</b>	<b>428</b>	<b>5 771</b>

(Source: FDA)

## Microbiological causes

Causes	2016	2017	2018	2019	2020	2021	2022	Total
<i>Salmonella</i>	213	246	202	177	166	384	201	1 589
<i>Listeria monocytogenes</i>	10	33	38	52	53	16	41	243
<i>Hepatitis A</i>	0	2	35	1	0	0	0	38
<i>Escherichia coli</i>	0	0	0	0	0	0	1	1
<b>Total</b>	<b>223</b>	<b>281</b>	<b>275</b>	<b>230</b>	<b>219</b>	<b>400</b>	<b>243</b>	<b>1 871</b>

(Source: FDA)

## Chemical causes

Causes	2016	2017	2018	2019	2020	2021	2022	Total
Residues of veterinary drugs	160	117	192	81	49	44	43	686
Nitrofurans	45	14	21	55	15	42	33	225
Additives	12	14	13	9	0	3	8	59
Chloramphenicol	10	10	3	5	5	0	5	38
Pesticide	0	1	12	1	3	0	4	21
Sulphites	0	0	0	0	0	1	0	1
<b>Total</b>	<b>227</b>	<b>156</b>	<b>241</b>	<b>151</b>	<b>72</b>	<b>90</b>	<b>93</b>	<b>1 030</b>

(Source: FDA)