

## Surimi Paste Supply Track Executive Summary, Q2 2022

Prepared by Urner Barry Consulting for the  
Genuine Alaska Pollock Producers, GAPP



### Highlights

- Global surimi paste production estimates thru Q2 suggest a contraction of about 2 percent year-over-year.
- Alaska pollock surimi production was down 12.5 percent thru Q2 2022 year-over-year;
  - Through week 42, AKP surimi production is down 16.5 percent year-over-year.
- Japanese pollock surimi production estimates through Q2 suggest a decrease of about 35 percent.
- Tropical surimi production estimates through Q2 suggest a slight increase of about 2.3 percent year-over-year.
  - Itoyori production estimates suggest a 6 percent contraction through Q2 year-over-year.
  - Chinese production estimates suggest a 1 percent increase through Q2 year-over-year to about 118.5 thousand metric tons.
- Chinese carp surimi production estimates suggest a 6 percent decline through Q2 year-over-year.
- Import and export prices for AKP surimi, and itoyori surimi, declined in Q2 2022, but preliminary data in Q3 indicates a new record high.

The following report is only an executive summary of all the data points analyzed. Because of the many ways the data analyzed can be presented, these summaries only provide a general overview of each data series. However, the data requested by the members is available in many ways in the excel files provided. All data can be easily manipulated to fit each member's presentation preference, whether in tables, charts, or raw data.

The nuances for many calculations are many, as these vary widely from species to species, origins, destinations, etc. The methodologies for many species are relatively simple since trade data can be assumed to be a function of its production in many cases. However, this is not always the case for specific countries and species. Also, some calculations with limited data and rudimentary methods had to be used to arrive at a "best estimate." Don't hesitate to contact the analyst directly to make changes, suggestions, or corrections for details on each species or market. After exhausting most options available to obtain reliable data, we firmly believe that the estimates presented here are a good approximation of the species, origins, and destinations requested.

**Important notice: There were revisions to production estimates from Indonesia and Malaysia due to tariff code changes.**

Angel Rubio, Sr. Analyst  
[arubio@urnerbarry.com](mailto:arubio@urnerbarry.com)  
 Akash Pandey, Data Scientist  
[apandey@urnerbarry.com](mailto:apandey@urnerbarry.com)  
 Chris Ashley, Senior VP  
[cashley@urnerbarry.com](mailto:cashley@urnerbarry.com)

### Table of Contents

<b>Global Surimi Production Estimates</b>	
Production.....	1
<b>Alaska Pollock Surimi</b>	
Production.....	2
Trade (Imports).....	3
Import price.....	4
Trade (Exports).....	5
<b>Japanese Pollock &amp; Atka Mackerel Surimi Estimates</b>	
Japanese Pollock Surimi Prod. and Inv.....	6
Atka Mackerel Surimi Production.....	7
Tom Asakawa on Surimi Seafood.....	7
<b>Pacific Whiting Surimi Estimates</b>	
Production.....	8
Trade (Imports and Exports) and Pricing.....	9-10
<b>Southern Blue Whiting and Hoki Surimi Estimates</b>	
Production.....	11
Trade (Imports & Exports).....	12
<b>Northern Blue Whiting Surimi Estimates</b>	
Production and Trade (Exports).....	13
<b>Tropical Surimi Production and Trade</b>	
Intro, Price.....	13
Thailand.....	14
India.....	15
Vietnam.....	16
Indonesia.....	17
Malaysia.....	18
Pakistan.....	19
Myanmar.....	20
<b>Sardine Production and Trade, Peru to Japan.....</b>	<b>21</b>
<b>Surimi Production Estimates, China, Trade.....</b>	<b>22</b>

Estimates suggest a production decrease of about 2 percent through Q2 2022 compared to last year, totaling 415.4 thousand metric tons. Production thus far this year is the second-lowest in the last four years.

During Q2, Alaska Pollock surimi production decreased considerably, and year-to-date figures now point to a 12.5 percent reduction compared to last year. Similarly, Japanese pollock production contracted steeply by about 35 through Q2 year-over-year. Itoyori production estimates suggest a 6 percent decrease during the first six months of the year compared to last year. Production of all tropical species, counted under the "tropical" category, increased slightly by only 2 percent year-over-year.

## Global Surimi Production Estimates by Category

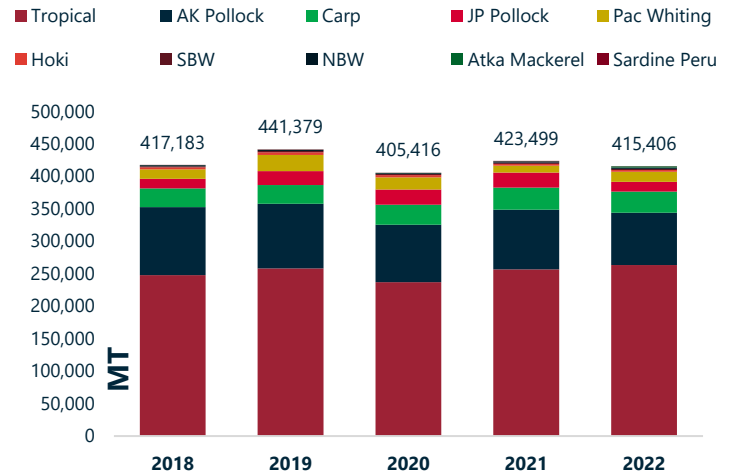
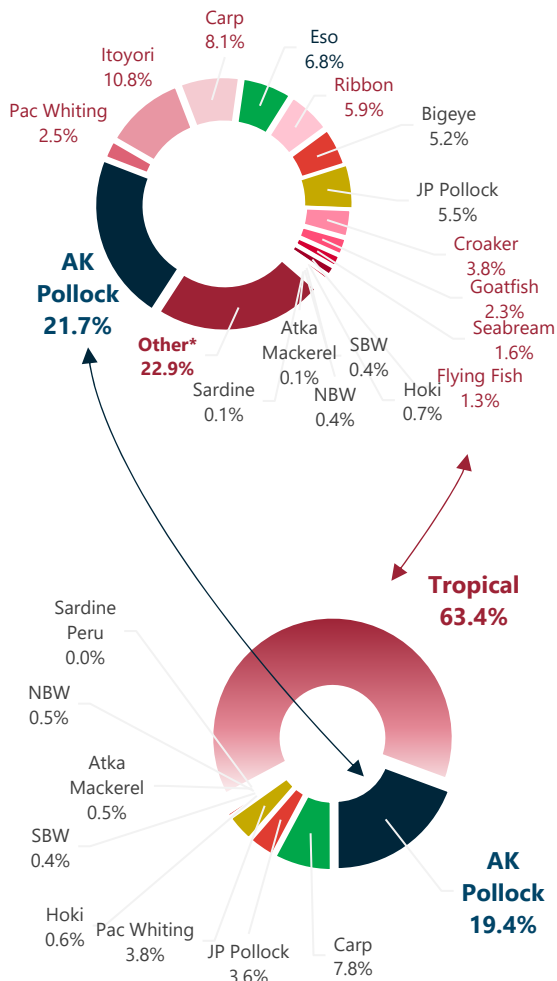


Figure 0. Overall surimi production estimates by species' category. Source: Customs, Urner Barry Consulting, GAPP.



	2018	2019	Y-o-Y Chg	2020	Y-o-Y Chg	2021	Y-o-Y Chg	2022	Y-o-Y Chg
<b>AK Pollock</b>	104,899	99,665	- 5.0%	88,559	- 11.1%	91,837	+ 3.7%	80,402	- 12.5%
<b>Pac Whiting</b>	14,589	24,989	+ 71.3%	18,648	- 25.4%	10,458	- 43.9%	15,623	+ 49.4%
<b>Itoyori</b>	32,752	29,790	- 9.0%	28,838	- 3.2%	45,924	+ 59.2%	43,278	- 5.8%
<b>Carp</b>	28,625	28,698	+ 0.3%	30,656	+ 6.8%	34,171	+ 11.5%	32,582	- 4.6%
<b>Eso</b>	27,401	30,267	+ 10.5%	23,298	- 23.0%	28,613	+ 22.8%	31,022	+ 8.4%
<b>Ribbon</b>	30,134	29,745	- 1.3%	28,415	- 4.5%	25,123	- 11.6%	28,311	+ 12.7%
<b>Bigeye</b>	19,513	19,715	+ 1.0%	16,342	- 17.1%	21,949	+ 34.3%	25,753	+ 17.3%
<b>JP Pollock</b>	14,824	21,343	+ 44.0%	23,527	+ 10.2%	23,173	- 1.5%	14,917	- 35.6%
<b>Croaker</b>	10,692	18,089	+ 69.2%	17,269	- 4.5%	15,933	- 7.7%	12,952	- 18.7%
<b>Goatfish</b>	8,314	8,704	+ 4.7%	7,538	- 13.4%	9,834	+ 30.5%	11,034	+ 12.2%
<b>Seabream</b>	6,938	8,307	+ 19.7%	7,036	- 15.3%	6,748	- 4.1%	6,001	- 11.1%
<b>Flying Fish</b>	5,758	6,595	+ 14.5%	5,830	- 11.6%	5,531	- 5.1%	4,874	- 11.9%
<b>Hoki</b>	3,193	4,164	+ 30.4%	3,407	- 18.2%	2,824	- 17.1%	2,596	- 8.1%
<b>SBW</b>	1,463	1,956	+ 33.7%	1,799	- 8.0%	1,894	+ 5.3%	1,719	- 9.3%
<b>NBW</b>	1,686	1,686	-	1,186	- 29.6%	1,886	+ 59.0%	2,105	+ 11.6%
<b>Atka Mackerel</b>	240	258	+ 7.8%	351	+ 35.9%	368	+ 4.8%	1,954	+ 431.1%
<b>Sardine</b>	76	648	+ 752.6%	442	- 31.8%	383	- 13.3%	192	- 49.9%
<b>Other*</b>	106,087	106,762	+ 0.6%	102,274	- 4.2%	96,850	- 5.3%	100,093	+ 3.3%
<b>Total</b>	<b>417,183</b>	<b>441,379</b>	<b>+ 5.8%</b>	<b>405,416</b>	<b>- 8.1%</b>	<b>423,499</b>	<b>+ 4.5%</b>	<b>415,406</b>	<b>- 1.9%</b>

Other\* includes all tropical surimi produced in China, as well as sardine and other species not listed mainly for tropical surimi

Table 1. World surimi production estimates by species. Source: Urner Barry Consulting, GAPP.

	2018	2019	Y-o-Y Chg	2020	Y-o-Y Chg	2021	Y-o-Y Chg	2022	Y-o-Y Chg
<b>Tropical</b>	247,589	257,973	+ 4.2%	236,841	- 8.2%	256,505	+ 8.3%	263,317	+ 2.7%
<b>AK Pollock</b>	104,899	99,665	- 5.0%	88,559	- 11.1%	91,837	+ 3.7%	80,402	- 12.5%
<b>Carp</b>	28,625	28,698	+ 0.3%	30,656	+ 6.8%	34,171	+ 11.5%	32,582	- 4.6%
<b>JP Pollock</b>	14,824	21,343	+ 44.0%	23,527	+ 10.2%	23,173	- 1.5%	14,917	- 35.6%
<b>Pac Whiting</b>	14,589	24,989	+ 71.3%	18,648	- 25.4%	10,458	- 43.9%	15,623	+ 49.4%
<b>Hoki</b>	3,193	4,164	+ 30.4%	3,407	- 18.2%	2,824	- 17.1%	2,596	- 8.1%
<b>SBW</b>	1,463	1,956	+ 33.7%	1,799	- 8.0%	1,894	+ 5.3%	1,719	- 9.3%
<b>NBW</b>	1,686	1,686	-	1,186	- 29.6%	1,886	+ 59.0%	2,105	+ 11.6%
<b>Atka Mackerel</b>	240	258	+ 7.8%	351	+ 35.9%	368	+ 4.8%	1,954	+ 431.1%
<b>Sardine Peru</b>	76	648	+ 752.6%	442	- 31.8%	383	- 13.3%	192	- 49.9%
<b>Total</b>	<b>417,183</b>	<b>441,379</b>	<b>+ 5.8%</b>	<b>405,416</b>	<b>- 8.1%</b>	<b>423,499</b>	<b>+ 4.5%</b>	<b>415,406</b>	<b>- 1.9%</b>

Other Species\* is included under tropical surimi, including China

Table 2. World surimi production estimates by species' category. Source: Urner Barry Consulting, GAPP.

Figure 1 and 2. Pie chart of world surimi production by species and category. Source: Urner Barry Consulting, GAPP.

Production of Alaska pollock surimi decreased 12.5 percent through Q2 this year compared to last year. Our previous report's preliminary data through Q2 indicated a similar decrease. Now, data through week 42 revealed a further contraction of about 16.5 percent year-over-year, totaling 161 thousand metric tons. This year's production figure is the lowest since at least 2017.

US Production, Alaska Pollock Surimi (MT)									
	2018	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1	78,451	86,026	+ 9.7%	73,647	-14.4%	59,033	-19.8%	65,191	+ 10.4%
Q2	26,448	13,639	-48.4%	14,912	+ 9.3%	32,804	+ 120.0%	15,211	-53.6%
Q3	86,666	82,858	-4.4%	69,935	-15.6%	95,932	+ 37.2%		
Q4	4,653	16,928	+ 263.8%	19,048	+ 12.5%	7,241	-62.0%		
Total	196,218	199,451	+ 1.6%	177,542	-11.0%	195,010	+ 9.8%		
YTD	104,899	99,665	-5.0%	88,559	-11.1%	91,837	+ 3.7%	80,402	-12.5%

Table 3. Alaska Pollock Surimi Production by Quarter. Source: NOAA Fisheries, Urner Barry. Q4 2021 data is complete.

## US Production

### Alaska Pollock Surimi

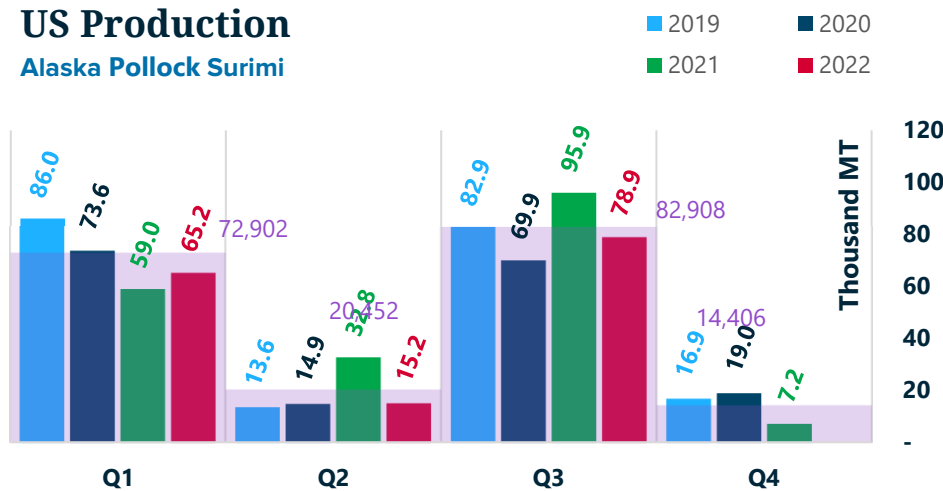


Figure 3. Alaska Pollock Surimi Production by Quarter. Source: NOAA, Urner Barry. Q4 2021 data is complete.

## Alaska Pollock Surimi from week 1 to week 42

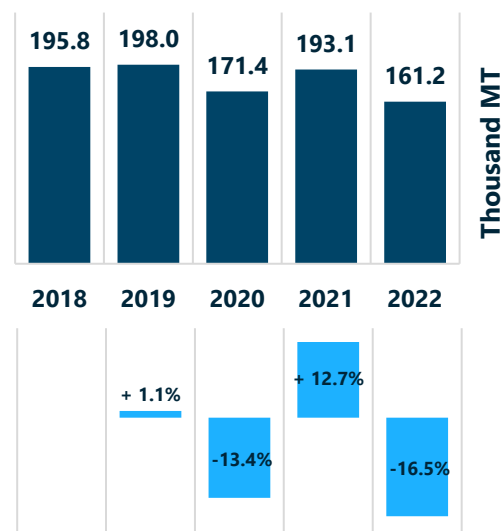


Figure 4. Total Alaska Pollock Surimi Production and YTD through week 32. Source: NOAA Fisheries, Urner Barry Consulting.

## US Production

### Alaska Pollock Surimi

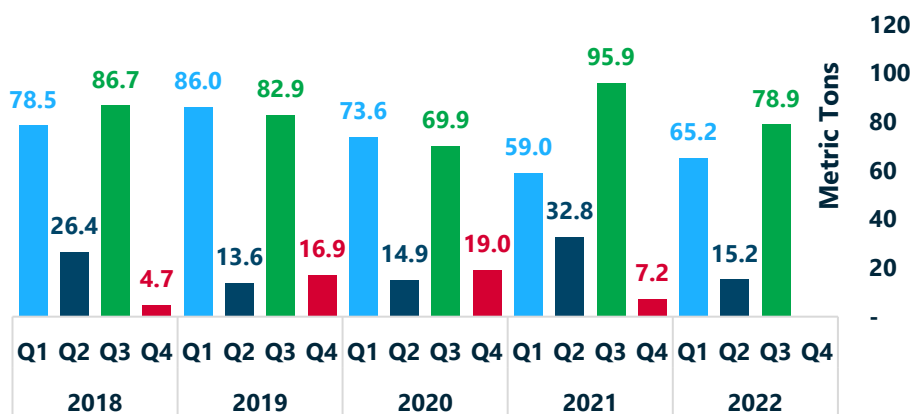


Figure 5. Alaska Pollock Surimi Production by Quarter, linear. Source: NOAA Fisheries, Urner Barry. \*Q 2021 data is incomplete.

Countries declaring imports of Alaska pollock surimi decreased substantially by about 9 percent through Q2 compared to last year and about 20 percent compared to the same quarter year-over-year. Japan, the leading importer of Alaska pollock surimi by far, decreased its purchases by about 16 percent, from 39.7 to 33.4 thousand metric tons. South Korea's imports remained virtually unchanged, while France's purchases of AKP surimi increased by 51 percent, from 5.5 to 8.3 thousand metric tons year-over-year through Q2.

Alaska Pollock Surimi Imports		*YTD from (Q1 to Q2)					
All Countries							
	2019	2020	'19 vs. '20	2021	'20 vs. '21	2022	'21 vs. '22
Q1	18,726	15,333	-18.1%	17,201	+12.2%	21,039	+22.3%
Q2	57,757	53,638	-7.1%	49,340	-8.0%	39,288	-20.4%
Q3	34,814	30,683	-11.9%	34,694	+13.1%		
Q4	47,683	46,338	-2.8%	52,598	+13.5%		
<b>Total</b>	158,980	145,992	-8.2%	153,833	+5.4%		
<b>*YTD</b>	76,483	68,971	-9.8%	66,541	-3.5%	60,327	-9.3%

Table 4. Alaska Pollock Surimi Imports. Aggregate by declaring countries' customs.

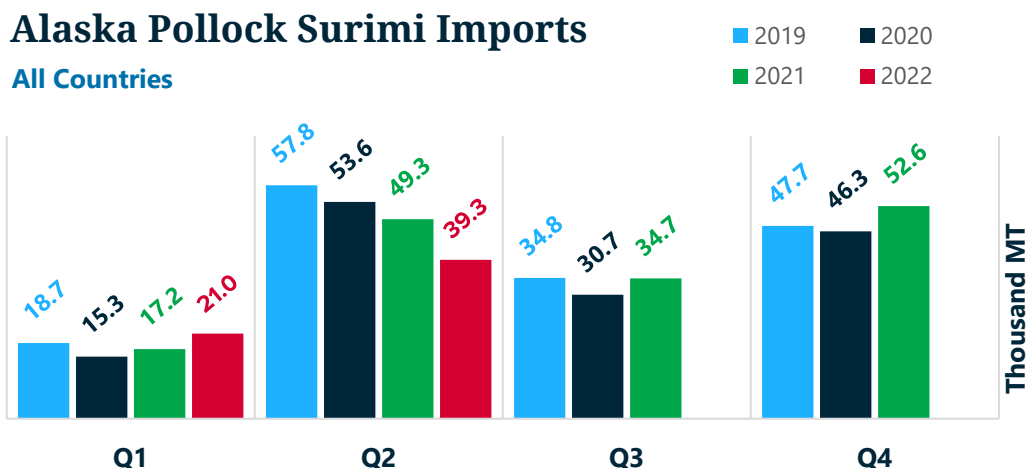


Figure 6. Alaska Pollock Surimi Imports. Aggregate of declaring countries by quarter.

Alaska Pollock Surimi Imports		(Q1 to Q2)					
By Declaring Country through Q2							
	2019	2020	'19 vs. '20	2021	'20 vs. '21	2022	'21 vs. '22
Japan	49,369	38,822	-21.4%	39,791	+2.5%	33,448	-15.9%
S. Korea	10,970	10,953	-0.2%	10,420	-4.9%	10,607	+1.8%
France	7,661	8,351	+9.0%	5,501	-34.1%	8,304	+51.0%
Spain	1,282	2,430	+89.5%	3,424	+40.9%	2,903	-15.2%
Lithuania	2,501	3,257	+30.2%	4,012	+23.2%	1,918	-52.2%
Thailand	2,488	2,692	+8.2%	1,537	-42.9%	1,638	+6.6%
Poland	618	1,203	+94.7%	724	-39.8%	676	-6.6%
Taiwan	615	483	-21.5%	568	+17.6%	446	-21.5%
Belarus	457	548	+19.9%	406	-25.9%	297	-26.8%
Norway	158	132	-16.5%	138	+4.5%	70	-49.3%
Ukraine	364	100	-72.5%	20	-80.0%	20	-
<b>Total</b>	<b>76,483</b>	<b>68,971</b>	<b>-9.8%</b>	<b>66,541</b>	<b>-3.5%</b>	<b>60,327</b>	<b>-9.3%</b>

Table 5. Alaska Pollock Surimi Imports by declaring country.

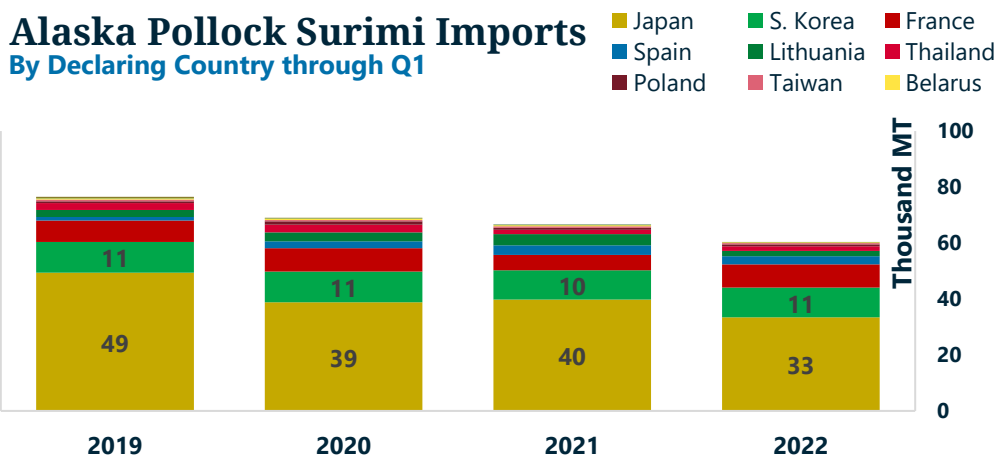
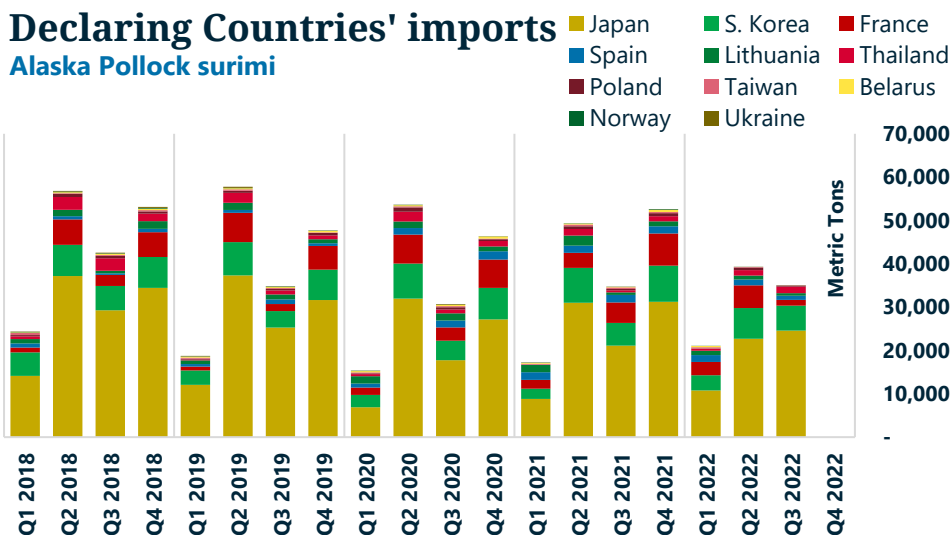


Figure 7. Alaska Pollock Surimi Imports by declaring country.

## Declaring Countries' imports

Alaska Pollock surimi



When using the declared value by the importing country, we noticed price decreases from all markets except Japan. However, incomplete data in Q3 suggest prices reached a new record high through August and, in some cases, September.

Figure 8. Alaska Pollock Surimi Imports. Linear imports by declaring countries. Q3 2022 data is incomplete.

## Declaring Countries' imports vs. U.S. Exports

Alaska Pollock surimi Imports Exports

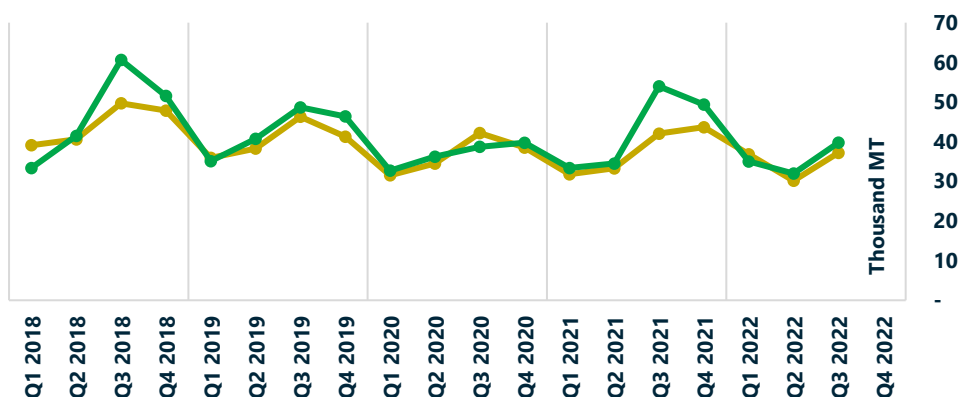


Figure 9. Alaska Pollock Surimi Imports vs. U.S. Alaska Pollock Surimi Exports. Smoothed average.

## Declaring Countries'

Alaska Pollock surimi

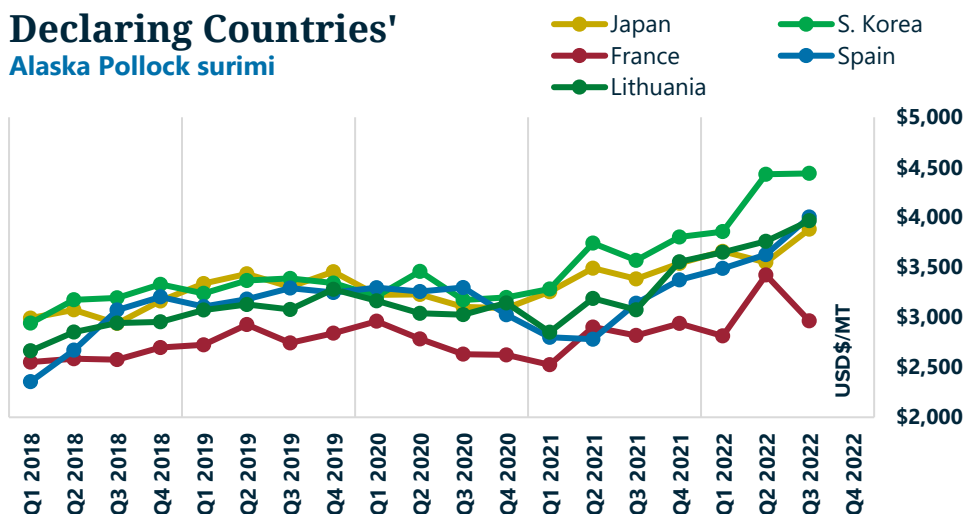


Figure 10. Alaska Pollock Surimi Import Price per MT by declaring country. Q3 2022 data is incomplete.

Exports declared by U.S. customs in Q2 2022 revealed a 43 percent decrease compared to last year, while recently published data for Q3 pointed at a further 7 percent decrease year-over-year. Such decreases in Q2 and Q3 indicate an overall 7 percent contraction year-over-year through Q3, totaling 131.4 thousand metric tons. When comparing destinations, we believe it is of more value to look at countries declaring imports for a better assessment.

## U.S. Alaska Pollock All Countries

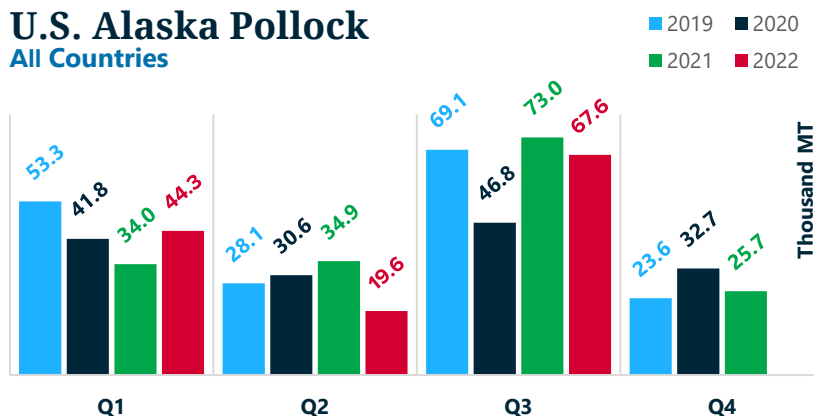


Figure 11. Alaska Pollock Surimi Exports. Aggregate of destination countries by quarter.

## U.S. Alaska Pollock Surimi Exports By Declaring Country through Q2

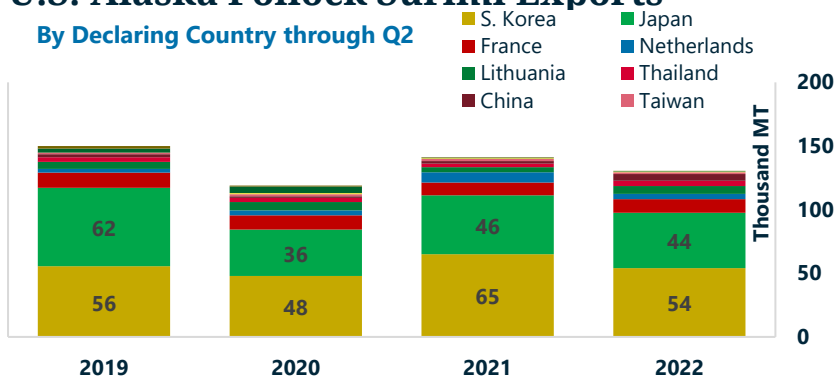


Figure 12. Alaska Pollock Surimi Exports by destination country.

U.S. Alaska Pollock Surimi Exports *YTD from (Q1 to Q3)							
All Countries							
	2019	2020	'19 vs. '20	2021	'20 vs. '21	2022	'21 vs. '22
Q1	53,299	41,806	-21.6%	34,010	-18.6%	44,268	+ 30.2%
Q2	28,123	30,634	+ 8.9%	34,944	+ 14.1%	19,632	-43.8%
Q3	69,145	46,755	-32.4%	72,953	+ 56.0%	67,581	-7.4%
Q4	23,564	32,705	+ 38.8%	25,723	-21.3%	-	-
<b>Total</b>	174,131	151,900	-12.8%	167,630	+ 10.4%	-	-
<b>*YTD</b>	150,567	119,195	-20.8%	141,907	+ 19.1%	131,481	-7.3%

Table 6. Alaska Pollock Surimi Exports (U.S.) by quarter. U.S. Customs, Urner Barry.

U.S. Alaska Pollock Surimi Exports (Q1 to Q3)							
By Declaring Country through Q3							
	2019	2020	'19 vs. '20	2021	'20 vs. '21	2022	'21 vs. '22
S. Korea	55,514	47,784	-13.9%	64,928	+ 35.9%	53,958	-16.9%
Japan	61,520	36,498	-40.7%	46,185	+ 26.5%	43,531	-5.7%
France	12,027	11,163	-7.2%	10,056	-9.9%	10,626	+ 5.7%
Netherlands	2,864	3,900	+ 36.2%	8,075	+ 107.1%	4,196	-48.0%
Lithuania	5,489	6,487	+ 18.2%	4,019	-38.0%	6,109	+ 52.0%
Thailand	3,659	3,319	-9.3%	2,825	-14.9%	4,137	+ 46.4%
China	2,422	1,260	-48.0%	1,960	+ 55.6%	5,328	+ 171.8%
Taiwan	1,186	1,615	+ 36.2%	1,602	-0.8%	1,355	-15.4%
India	47	909	+ 1834.0%	730	-19.7%	630	-13.7%
Spain	3,115	5,085	+ 63.2%	333	-93.5%	346	+ 3.9%
Germany	1,984	812	-59.1%	335	-58.7%	95	-71.6%
<b>Total</b>	150,567	119,195	-20.8%	141,907	+ 19.1%	131,481	-7.3%

Table 7. Alaska Pollock Surimi Exports (U.S.) by destination declared.

In-house estimates suggest Japanese pollock surimi production decreased 38 percent through Q3 compared to the same period last year, totaling 21 thousand metric tons. Production out of Hokkaido during Q2 and Q3 showed a decline of 32 and 25 percent, respectively, compared to last year.

Despite a contraction in production, surimi inventories through June and July recovered to the highest level since November 2019.

## Japanese Pollock Surimi Production

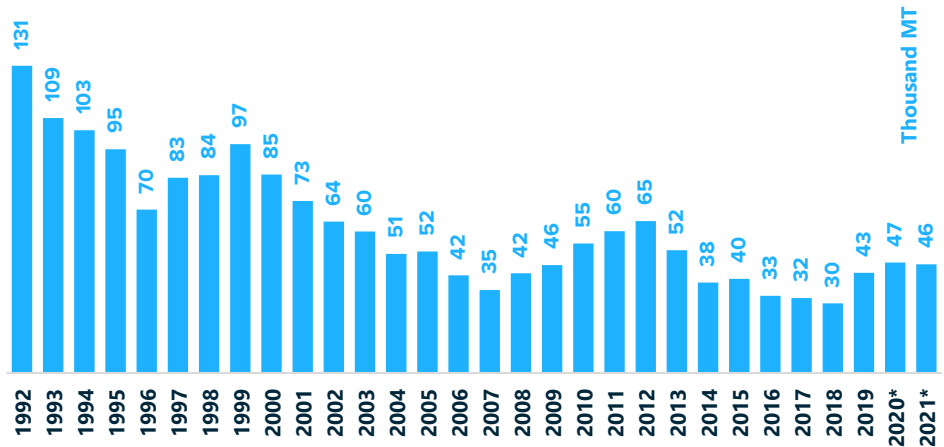


Figure 13. Japanese surimi production estimates. FAO, Japan MOF, Tom Asakawa, TA Pacific Co., and Kambako News, Urner Barry Consulting.

## Hokkaido JPS Production

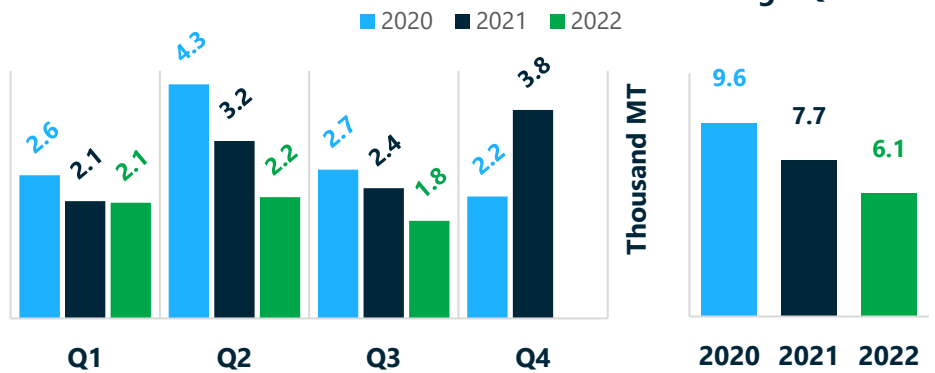


Figure 14. Hokkaido, Japanese pollock surimi production, Tom Asakawa, TA Pacific Co., and Kambako News, Urner Barry.

## All Surimi Inventory, Japan

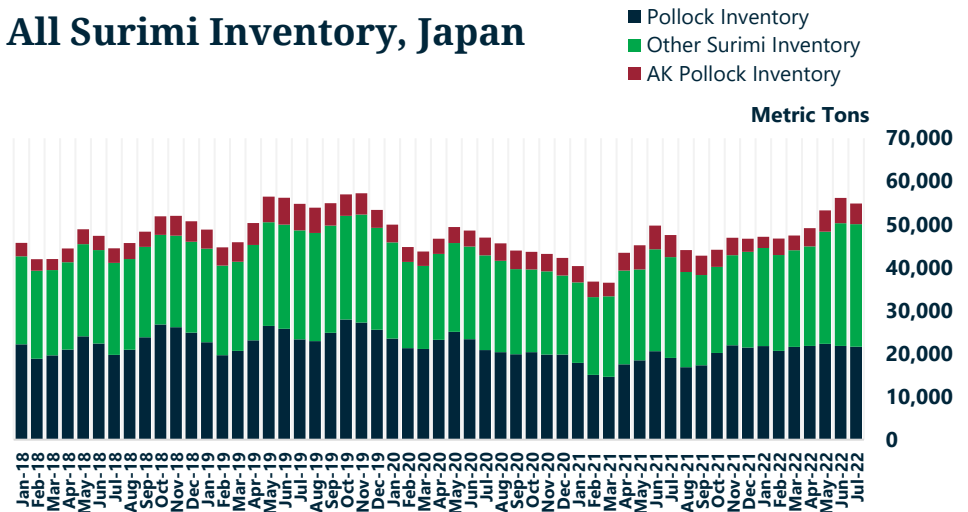


Figure 15. All surimi inventory in Japan. Tom Asakawa, TA Pacific Co., Japan MOF. Urner Barry. Monthly through July 2022.

According to our estimates, although nearly insignificant compared to Japanese pollock volumes, Atka mackerel surimi production increased significantly in Q2 and is 246 percent higher through Q3 than last year.

## 2022 Japanese Surimi Market

by Tom Asakawa

Q2 surimi products output increased by 10.7% to 235,384 MT from the same period a year ago, according to the Food Marketing Research and Information Center. While national brand manufacturers increased prices by 5-15%, the Ministry of Internal Affairs and Communications announced that the period's cumulated consumer spending per household rose 2.5% to JPY 3,910 (\$26.54). Although many manufacturers face difficulties and will increase prices again in Q3 due to increasing costs, they are diversifying product variety, including smoked salmon flavored sticks, squid analogs, fried oysters, grilled eels, sea urchin roe, etc.

### Pollock TAC and catch

Q2 total pollock catch was 46,384.6 MT. In February, the Fishery Agency of Japan held a consultation meeting and approved 250,500 MT Alaska pollock TAC for Fishery Year (FY) 2022, down by 1.3% from 253,900 MT for FY 2021. The total pollock catch in the 2021 calendar year was 160,325 MT, up 4.1% from the previous year.

### Pollock exports

Japan's only export destination of fresh Alaska pollock is South Korea. Japan exported 773 MT to Korea in Q2 2022, down 14% from a year ago. Frozen pollock exports doubled to 12,568 MT over a year ago, of which 11,427 MT were exported to China, a double increase from 6,067 MT in Q2 2021.

### Pollock surimi exports

In Q2 2022, Japan exported 185 MT of frozen pollock surimi, down 67%.

### Surimi imports

According to the Ministry of Finance's trade statistics, the total surimi brought into Japan in Q2 was 114,899 MT, an increase of 10.3% from the same period of the previous year. Imports from the US were 35,317 MT, a decrease of 12.7% from the previous year. From Southeast Asia, Thailand was 9,492 MT, down 11.4%. Vietnam 9,828 MT, up 13.3%. Malaysia 1,432 MT, up 3.0%. Indonesia 1,351 MT tons, up 1.5%, and Myanmar 476 MT, up 18.1%. Imports from Russia were 6,237 MT, a 16.5-time increase from a year ago. From China were 10,336 MT, up 8.6%, and India 32,590, up 30.8%.

## Atka Mackerel Surimi Production

TOTAL ESTIMATE

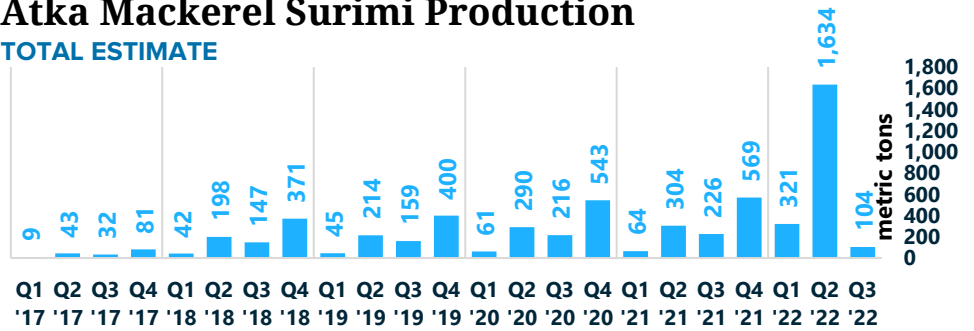


Figure 16. Japanese Atka Mackerel Harvest. FAO, Japan MOF, Tom Asakawa, TA Pacific Co., and Kambako News, Urner Barry.

## Atka Mackerel Surimi Production

TOTAL ESTIMATE

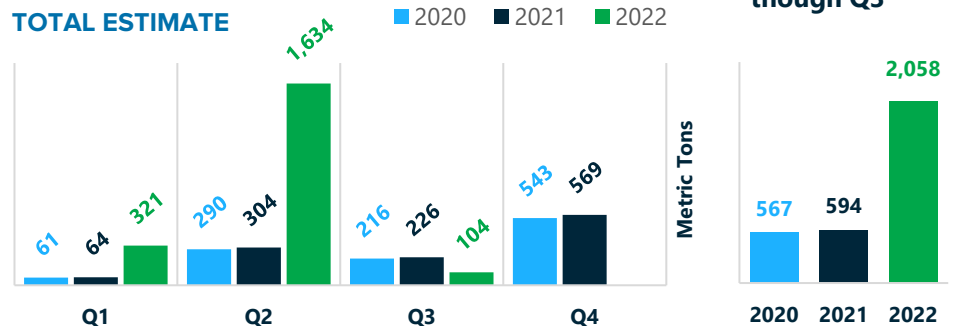


Figure 17. Hokkaido, Atka Mackerel surimi production, Tom Asakawa, TA Pacific Co., and Kambako News, Urner Barry.

### Surimi product production

2022 Q2 surimi product production totaled 235,384 MT, up 10.7% from a year ago. According to these statistics, the production of surimi products is doing well. Still, the reality is that small and medium-sized manufacturers, in particular, are hardly making any profit due to the rise in the price of surimi and various costs.

Fuji Keizai, a market research firm, estimates that analog surimi products such as crabs and scallops will grow to 58.8 billion yen (\$397.94 million) in 2026 (up 10.9% from 2020). The company believes the analog surimi products will expand by capturing health demand and launching high-value-added products such as grilled eel, squid, sea urchin roe, fried oysters, and smoked salmon flavored sticks.

**Fish Protein:** All Japan Kamaboko Makers Association is pushing the health advantage of surimi products such as Fish Protein. According to the association's recent press release, surimi products are low-fat and contain high-quality protein with balanced amino acids. They are easy to prepare and serve. They are also quickly digested and recommended to athletes and senior citizens who want to strengthen their muscles.

### Surimi product exports

According to the Ministry of Finance Trade Statistics, the cumulative export volume of Japanese-made surimi products (excluding fish sausage) from January to June 2022 was 6,917.8 MT, an increase of 13% from the same period of the previous year, and the export value was 6,157.6 million yen (\$41.68 million), up 16%. The volume and the value reached a record high for the cumulative period from January to March. The sales increased to China, Taiwan, Australia, Saudi Arabia, South Korea, and the United States, the largest export destination.



Production estimates of Pacific whiting surimi in Q2 suggest an increase of about 49.4 percent compared to last year, totaling 15.7 thousand metric tons. Estimates for Q3 increased 66 percent year-over-year, totaling nearly 24 thousand metric tons. These estimates suggest production increased nearly 60 percent through Q3 to nearly 40 thousand metric tons year-to-date. Public data is no longer available; therefore, our estimate's margin of error has increased considerably.

Another round of changes in how regional offices of the NMFS report this information complicated this process further. As a result, we recurred to even more rudimentary methods to calculate surimi production by category. Please refer to the disclaimer for further information.

## Pacific Whiting Surimi Production Estimates

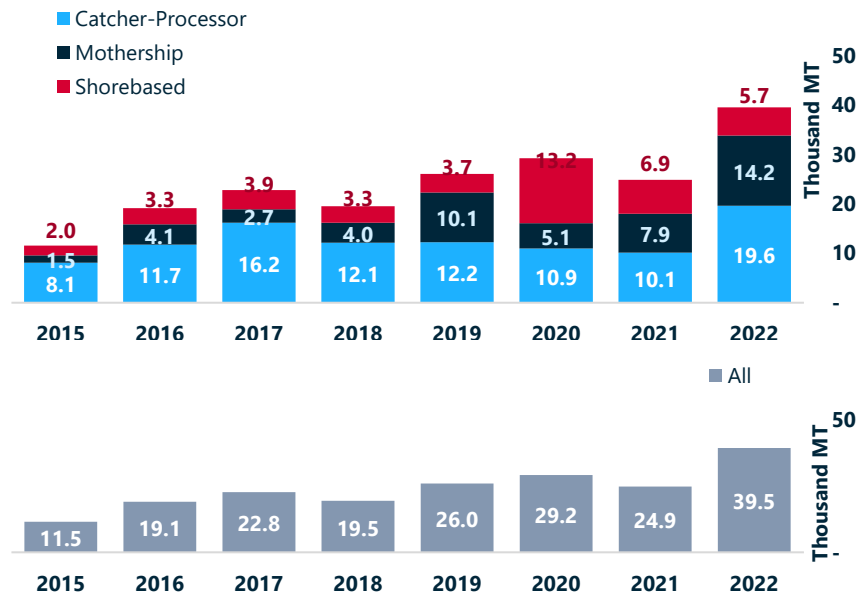


Figure 18. Pacific Whiting Surimi Production. NOAA Fisheries, Northwest Fisheries Science Center, and UB Consulting estimates for \*2020, \*2021 and \*2022.

## PW Surimi Production Estimate

### PW Surimi Production Estimate

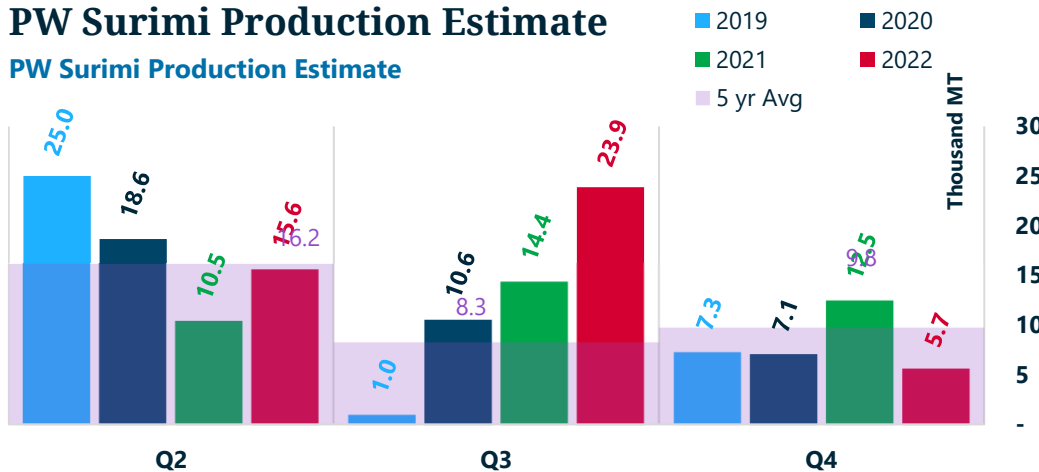


Figure 19. PW Surimi Production Estimate. NOAA, Northwest Fisheries Science Center, Urner Barry Consulting. \*Q4 2022 is incomplete.

UB Estimated Production, Pacific Whiting Surimi					**YTD (Q1 to Q3)				
	2018	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1								3	
Q2	14,589	24,989	+ 71.3%	18,648	-25.4%	10,458	-43.9%	15,620	+ 49.4%
Q3	4,899	1,038	-78.8%	10,573	+ 918.4%	14,395	+ 36.2%	23,871	+ 65.8%
Q4	10,928	7,314	-33.1%	7,133	-2.5%	12,495	+ 75.2%		
<b>Total (UB Est.)</b>	<b>30,415</b>	<b>33,341</b>	<b>+ 9.6%</b>	<b>36,354</b>	<b>+ 9.0%</b>	<b>37,349</b>	<b>+ 2.7%</b>		
<b>*Official thru '18</b>	<b>37,010</b>	<b>33,341</b>	<b>-9.9%</b>	<b>36,354</b>	<b>+ 9.0%</b>	<b>37,349</b>	<b>+ 2.7%</b>	<b>45,165</b>	
<b>**YTD</b>	<b>19,488</b>	<b>26,027</b>	<b>+ 33.6%</b>	<b>29,221</b>	<b>+ 12.3%</b>	<b>24,853</b>	<b>-14.9%</b>	<b>39,494</b>	<b>+ 58.9%</b>

\* UB Estimates

Table 8. Estimated Production from Pacific Whiting Monthly Landings. NOAA Fisheries, Northwest Fisheries Science Center, Urner Barry Consulting.

Disclaimer: There have been no updates on NOAA's Northwest Fisheries Science Center data beyond 2020. As a refresher, although shore-based production figures were suppressed before the most recent update that included 2020 production figures, total production figures were available, making it easy to calculate the remaining variable. However, "All" was also suppressed in the update mentioned above, making it difficult to approximate the missing values. As a result, we had to estimate the remaining figures by using a previously used method. Although this method is relatively rudimentary due to the lack of available data, we feel this approximation is a decent "best estimate" given the limitations. As of August 2021, the FISHEYE app is no longer being regularly updated. Data were last updated on August 4, 2021. Therefore, our estimate method changed again.

## Imports (countries declaring imports of Pacific whiting Surimi)

Countries declaring imports of Pacific whiting surimi in Q2 2022 increased 28 percent compared to last year, totaling nearly 8 thousand metric tons. Japanese imports surged significantly from last year but remained below pre-pandemic levels. Imports from Spain surged 12 percent, while those from Lithuania dropped over 30 percent year-over-year.

After two consecutive quarterly price declines in imports from Japan, incomplete data through Q3 suggest another price increase and hovers now close to record highs.

Pacific Whiting Surimi Imports		*YTD from (Q1 to Q2)						
All Countries		2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1	8,339	4,817	-42.2%	3,269	-32.1%	3,298	+ 0.9%	
Q2	5,101	3,680	-27.9%	3,291	-10.6%	4,210	+ 27.9%	
Q3	7,745	6,424	-17.1%	4,699	-26.9%			
Q4	7,008	4,911	-29.9%	5,398	+ 9.9%			
<b>Total</b>	<b>28,193</b>	<b>19,832</b>	<b>-29.7%</b>	<b>16,657</b>	<b>-16.0%</b>			
<b>*YTD</b>	<b>13,440</b>	<b>8,497</b>	<b>-36.8%</b>	<b>6,560</b>	<b>-22.8%</b>	<b>7,508</b>	<b>+ 14.5%</b>	

Table 9. Pacific Whiting Surimi Imports, all declaring countries, from the U.S.—each country's customs, Urner Barry Consulting.

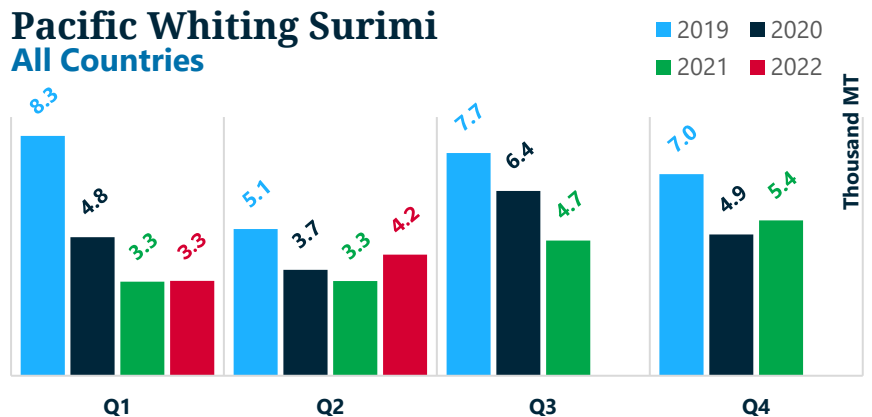


Figure 20. PW surimi imports, all countries by quarter from the U.S. —each country's customs, Urner Barry Consulting.

Pacific Whiting Surimi Imports		*(Q1 to Q2)						
By Declaring Country		2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Spain	5,014	3,091	-38.4%	2,464	-20.3%	2,769	+ 12.4%	
Lithuania	4,099	3,069	-25.1%	3,131	+ 2.0%	2,163	-30.9%	
Japan	2,268	771	-66.0%	60	-92.2%	1,257	+ 1995.0%	
Poland	946	622	-34.2%	437	-29.7%	516	+ 18.1%	
France	196	455	+ 132.1%	105	-76.9%	391	+ 272.4%	
Canada	231	146	-36.8%	191	+ 30.8%	154	-19.4%	
Taiwan	242	63	-74.0%	166	+ 163.5%	168	+ 1.2%	
Latvia	22	70	+ 218.2%	6	-91.4%	67	+ 1016.7%	
S. Korea	411	205	-50.1%			22		
<b>*Total</b>	<b>13,440</b>	<b>8,497</b>	<b>-36.8%</b>	<b>6,560</b>	<b>-22.8%</b>	<b>7,508</b>	<b>+ 14.5%</b>	

Table 10. Pacific Whiting Surimi Imports, by declaring country, from the U.S.—each country's customs, Urner Barry Consulting.

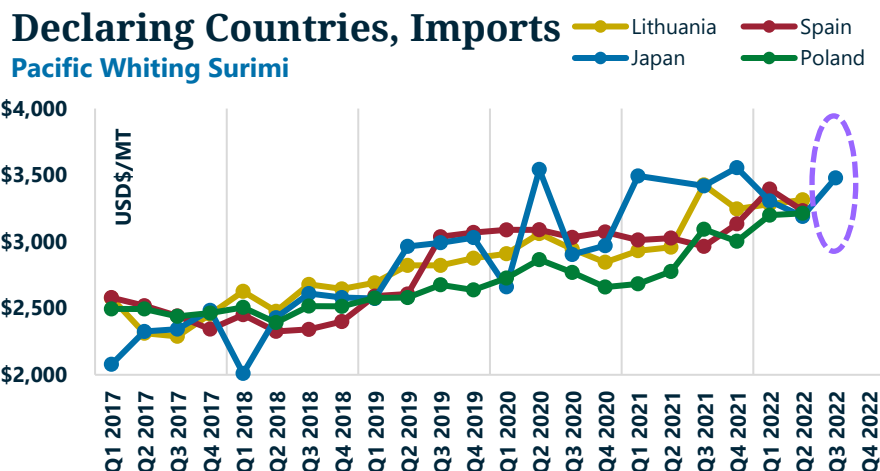


Figure 21. PW surimi import \$/MT—each country's customs, Urner Barry Consulting.

As expected, U.S. export data showed a very different picture from countries declaring imports during Q2 2022. This year, exports revealed a contraction of 65 percent compared to last year through Q2

Pacific Whiting Surimi Exports		*YTD from (Q1 to Q3)					
All Countries							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1	782	495	-36.7%	1,778	+ 259.2%	238	-86.6%
Q2	2,350	1,779	-24.3%	3,218	+ 80.9%	1,499	-53.4%
Q3	4,016	859	-78.6%	741	-13.7%	3,085	+ 316.3%
Q4	1,115	2,383	+ 113.7%	6,810	+ 185.8%		
<b>Total</b>	<b>8,263</b>	<b>5,516</b>	<b>-33.2%</b>	<b>12,547</b>	<b>+ 127.5%</b>		
<b>*YTD</b>	<b>7,148</b>	<b>3,133</b>	<b>-56.2%</b>	<b>5,737</b>	<b>+ 83.1%</b>	<b>4,822</b>	<b>-15.9%</b>

However, data published on November 3rd revealed that U.S. exports increased considerably in Q3, closing the year-to-date gap to about 16 percent. Again, seasonal behavior suggests these volumes can vary widely.

Tables 11. Pacific Whiting surimi Exports. All countries. U.S. Customs, Urner Barry Consulting.

Pacific Whiting Surimi Exports							
Spain							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1				716			
Q2	1,360	781	-42.6%	1,821	+ 133.2%	668	-63.3%
Q3	916					2,424	
Q4	120	1,228	+ 923.3%	2,696	+ 119.5%		
<b>Total</b>	<b>2,396</b>	<b>2,009</b>	<b>-16.2%</b>	<b>5,233</b>	<b>+ 160.5%</b>		
<b>YTD</b>	<b>2,276</b>	<b>781</b>	<b>-65.7%</b>	<b>2,537</b>	<b>+ 224.8%</b>	<b>3,092</b>	<b>+ 21.9%</b>

Table 12. Pacific Whiting surimi exports to Spain. Source: U.S. Customs, Urner Barry Consulting.

Pacific Whiting Surimi Exports		*(Q1 to Q3)					
By Reported Destination Country through Q3							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Spain	2,276	781	-65.7%	2,537	+ 224.8%	3,092	+ 21.9%
Netherlands	819	618	-24.5%	1,872	+ 202.9%	495	-73.6%
Canada	1,545	348	-77.5%	424	+ 21.8%		
S. Korea	549	330	-39.9%	493	+ 49.4%	362	-26.6%
Thailand		93		274	+ 194.6%	137	-50.0%
India	279	118	-57.7%			329	
Lithuania	212			117			
France	1,269	777	-38.8%	11	-98.6%	159	+ 1345.5%
China						204	
<b>*Total</b>	<b>7,148</b>	<b>3,133</b>	<b>-56.2%</b>	<b>5,737</b>	<b>+ 83.1%</b>	<b>4,822</b>	<b>-15.9%</b>

Table 13. Pacific Whiting surimi exports by country U.S. Customs, Urner Barry Consulting.

## Pacific Whiting Surimi Exports

All Countries

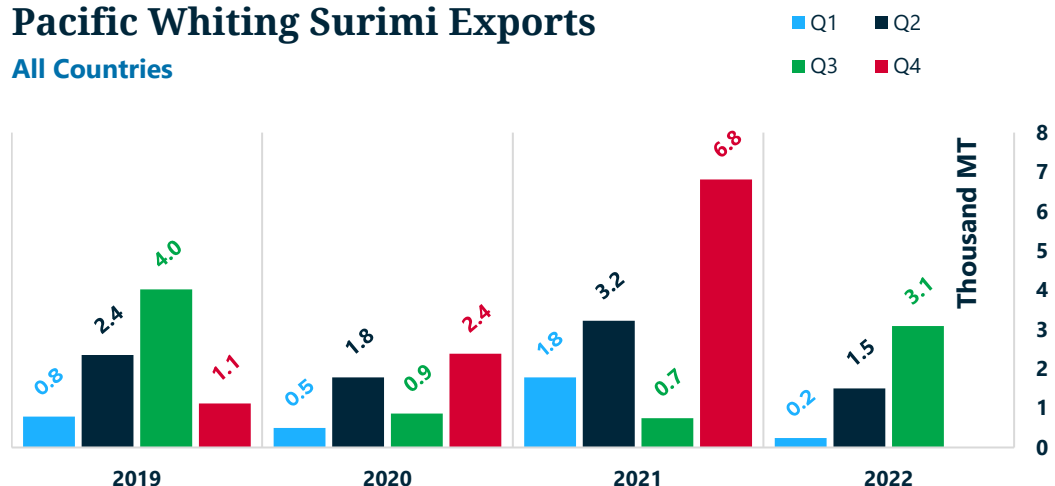


Figure 22. Pacific Whiting surimi exports by quarter. U.S. Customs, Urner Barry Consulting.

## SBW

Production estimates of southern blue whiting surimi decreased by about 26 percent in Q2 2022 compared to last year, totaling 510 metric tons. On a year-to-date basis, production estimates indicate an overall contraction of about 9 percent compared to 2021. Revised production figures from Argentina suggest a slight decrease compared to last year through Q2 of about 1.4 percent. Production estimates from Chile revealed a decrease of nearly 28 percent year-over-year.

## Hoki

Hoki surimi production estimates suggest a significant decrease in Q2 of over 30 percent compared to last year. Such contraction shows a year-to-date decrease of 8 percent through Q2. Production from Argentina and New Zealand decreased significantly, while Chile was able to increase its production to offset some of the production shortfalls.

Southern Blue Whiting Surimi Production				*YTD from (Q1 to Q2)			
All Countries							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1	952	934	-1.9%	1,199	+ 28.4%	1,208	+ 0.8%
Q2	1,004	865	-13.9%	695	-19.6%	510	-26.6%
Q3	823	690	-16.1%	521	-24.5%		
Q4	1,635	1,119	-31.5%	1,069	-4.5%		
<b>Total</b>	<b>4,414</b>	<b>3,608</b>	<b>-18.3%</b>	<b>3,484</b>	<b>-3.4%</b>		
<b>*YTD</b>	<b>1,956</b>	<b>1,799</b>	<b>-8.0%</b>	<b>1,894</b>	<b>+ 5.3%</b>	<b>1,719</b>	<b>-9.3%</b>

Table 14. Southern Blue Whiting surimi estimated production.

Southern Blue Whiting Surimi Production				(Q1 to Q2)			
Production by Country							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Argentina	1,956	1,702	-13.0%	1,330	-21.8%	1,312	-1.4%
Chile		97		564	+ 481.4%	407	-27.8%
New Zealand							
<b>Total</b>	<b>1,956</b>	<b>1,799</b>	<b>-8.0%</b>	<b>1,894</b>	<b>+ 5.3%</b>	<b>1,719</b>	<b>-9.3%</b>

Table 15. Southern Blue Whiting surimi estimated production by country, year-to-date.

Hoki Surimi Production				*YTD from (Q1 to Q2)			
All Countries							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Q1	2,431	1,727	-29.0%	1,384	-19.9%	1,613	+ 16.5%
Q2	1,733	1,680	-3.0%	1,440	-14.3%	984	-31.7%
Q3	1,859	1,570	-15.6%	1,384	-11.9%		
Q4	1,228	1,400	+ 14.0%	1,402	+ 0.2%		
<b>Total</b>	<b>7,251</b>	<b>6,377</b>	<b>-12.1%</b>	<b>5,610</b>	<b>-12.0%</b>		
<b>*YTD</b>	<b>4,164</b>	<b>3,407</b>	<b>-18.2%</b>	<b>2,824</b>	<b>-17.1%</b>	<b>2,596</b>	<b>-8.1%</b>

Table 16. Hoki surimi estimated production by country, year-to-date.

Hoki Surimi Production				(Q1 to Q2)			
Production by Country							
	2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Argentina	2,934	2,552	-13.0%	1,995	-21.8%	1,967	-1.4%
Chile	74	9	-87.8%	63	+ 600.0%	139	+ 120.6%
New Zealand	1,156	846	-26.8%	766	-9.5%	490	-36.0%
<b>Total</b>	<b>4,164</b>	<b>3,407</b>	<b>-18.2%</b>	<b>2,824</b>	<b>-17.1%</b>	<b>2,596</b>	<b>-8.1%</b>

Table 17. Hoki surimi estimated production by country. Each country's customs, Urner Barry Consulting.

## Southern Blue Whiting Surimi

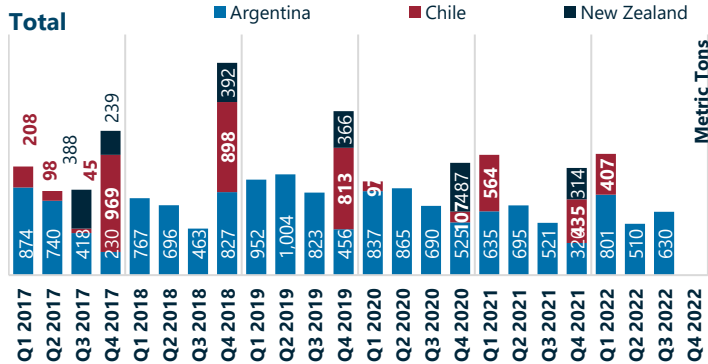


Figure 23. Southern Blue Whiting surimi estimated production by country. \*Q3 2022 data is incomplete.

## Hoki Surimi

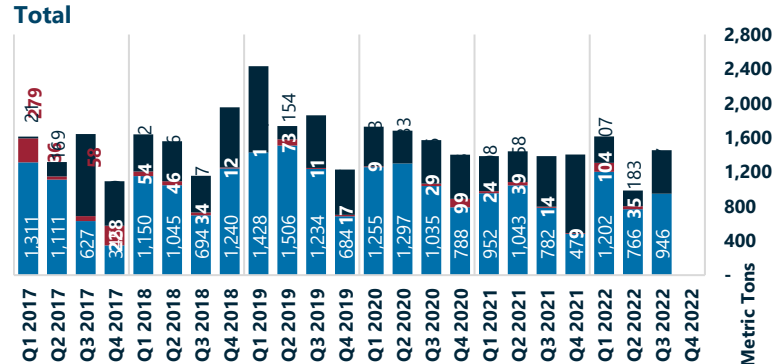


Figure 24. Hoki surimi production estimates. Each country's customs, Urner Barry Consulting. \*Q3 2022 data is incomplete.

Disclaimer: Southern blue whiting (SBW) and Hoki surimi production were assumed as a function of trade. There was consensus in which domestic markets for the three leading producers—Argentina, Chile, and New Zealand—were too small to be significant. As such, we utilized the following methodology:

- Use recipient countries' volumes of surimi from Argentina and assume a 60/40 percent split between Hoki and SBW surimi, respectively
- Use Chilean exports as declared, which are divided by species.
- Use New Zealand exports as declared, which are also divided by species.

Surimi Imports from Argentina		*(Q1 to Q2)						
Countries Importing from: Argentina		2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Japan		4,245	3,705	-12.7%	2,943	-20.6%	3,255	+10.6%
Russian Federation		572	496	-13.3%	280	-43.5%		
Spain								
Belarus		48	53	+10.4%	77	+45.3%	24	-68.8%
South Africa		25			25			
*Total		4,890	4,254	-13.0%	3,325	-21.8%	3,279	-1.4%

Table 18. Surimi imports from Argentina by country.

## Countries importing from Argentina All Surimi

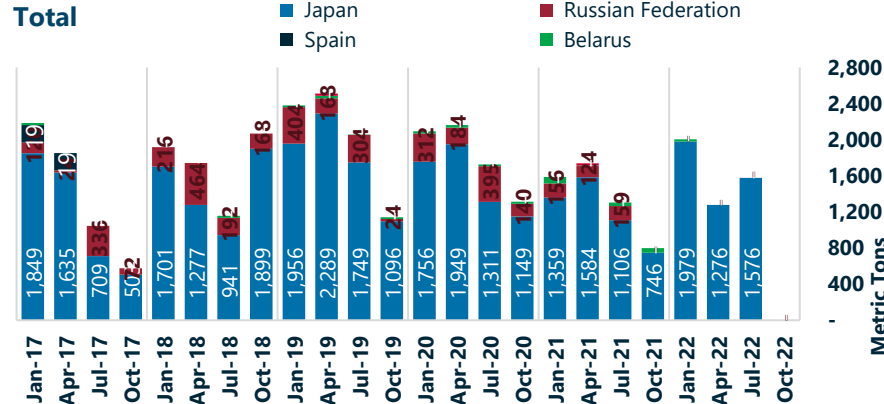


Figure 25. SBW and Hoki Surimi imports from Argentina. \*Q2 2021 data is incomplete.

Surimi Imports from Chile		*(Q1 to Q2)						
Countries Importing from: Chile		2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Japan		1,082	908	-16.1%	1,497	+64.9%	1,928	+28.8%
Russian Federation		88	43	-51.1%	72	+67.4%		
Spain							26	
Belarus								
*Total		1,170	951	-18.7%	1,569	+65.0%	1,954	+24.5%

Table 19. Surimi imports from Chile by country.

Surimi Imports from New Zealand		*(Q1 to Q2)						
Countries Importing from: New Zealand		2019	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Japan		289	164	-43.3%	184	+12.2%	276	+50.0%
South Africa		20						
*Total		309	164	-46.9%	184	+12.2%	276	+50.0%

Table 20. Surimi imports from New Zealand by country.

## Countries importing from Chile All Surimi

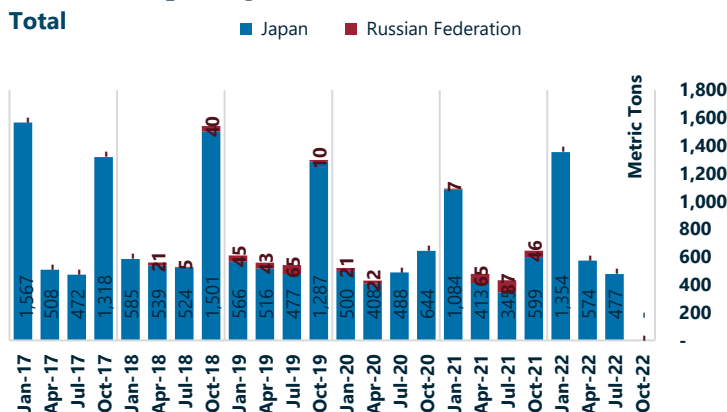


Figure 26. Surimi imports from Chile by country. \*Q3 2022 data is incomplete.

## Countries importing from New Zealand All Surimi

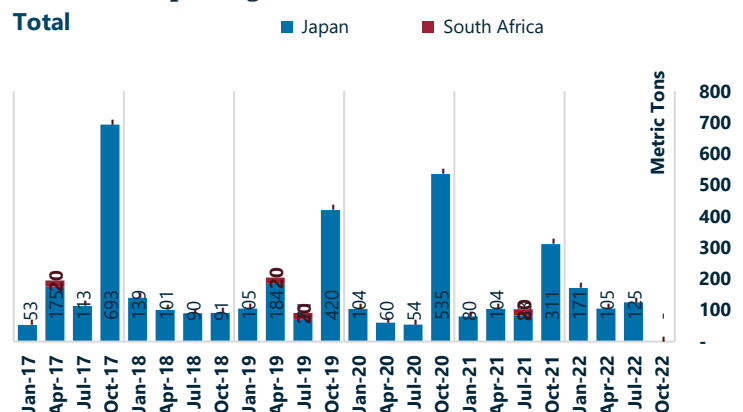


Figure 27. Surimi imports from New Zealand by country. \*Q3 2022 data is incomplete.

## Imports from Argentina:

Because trade figures are a production function, countries declaring imports from Argentina would have naturally shown a move in the same direction. However, Japan, the largest importer of Argentinean surimi increased its purchases by about 10 percent. Russian imports of Argentinean surimi, however, contracted to zero.

## Imports from Chile:

Countries declaring imports from Chile increased 24 percent in Q2 2022, mainly led by purchases from Japan.

## Imports from New Zealand:

Only Japan declared imports from New Zealand, and in Q2 2022, these figures revealed an increase of 50 percent year-over-year

Northern blue whiting surimi production estimates from the working group and UBC out of France are shown below. These estimates suggest production through Q2 2022 increased 11.6 percent compared to last year.

## France's Northern Blue Whiting Surimi Production

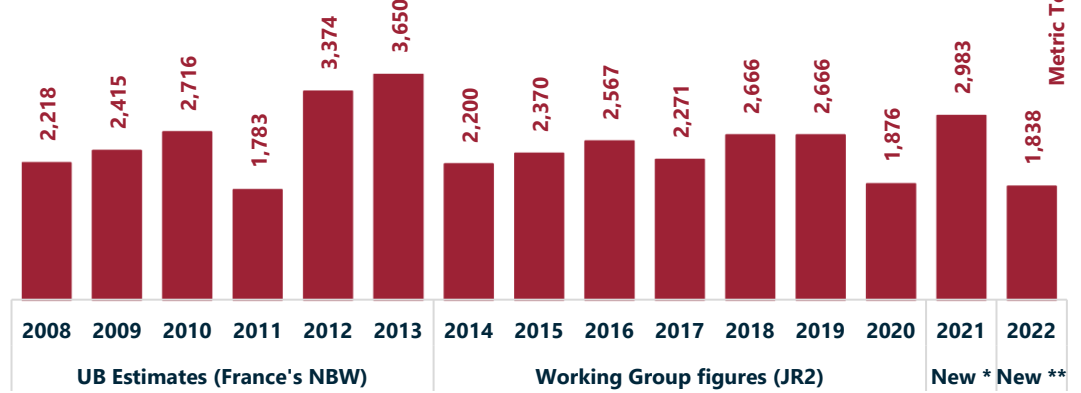


Figure 28. Northern blue whiting surimi production estimates. Source: GAPP, Urner Barry Consulting. \*extrapolated + working group feedback, \*\*extrapolated through Q2 only.

### Countries importing from France from Q1 to Q2

Metric Tons	2016	2017	2018	2019	2020	2021	2022
<b>nbw surimi</b>							
Japan	670	814	452	599	120	24	599
Belarus	-	-	112	340	98	273	156
China (People's Republic of)	-	48	70	24	-	-	-
Spain	-	-	-	43	22	-	48
Poland	-	-	-	-	-	75	-
Other	-	-	-	1	2	-	21
<b>Total</b>	<b>670</b>	<b>863</b>	<b>634</b>	<b>1,007</b>	<b>242</b>	<b>372</b>	<b>823</b>

Table 21. Imports by declaring countries of northern blue whiting surimi from France.

Disclaimer:  
\*\*Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

## Tropical Surimi

Production of tropical surimi remained virtually flat through Q2 2022 compared to 2021, rising only 2 percent. Of notice, we continue to notice persistent price increases for all surimi paste. Although such increases make sense, given the global inflationary environment, particularly for food commodities, fundamentals also explain price increases. Despite a slight decrease in Q2 for prices of Itoyori, the main substitute species for A.K. pollock surimi, incomplete data through Q3 point out at another record-high.

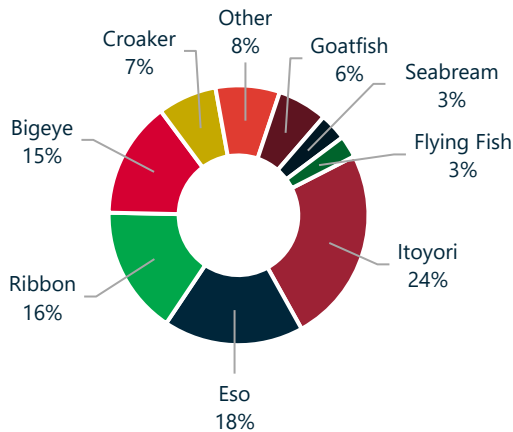


Figure 29. Tropical Surimi estimated breakdown by species. \*Does not include China.

### Price Comparison

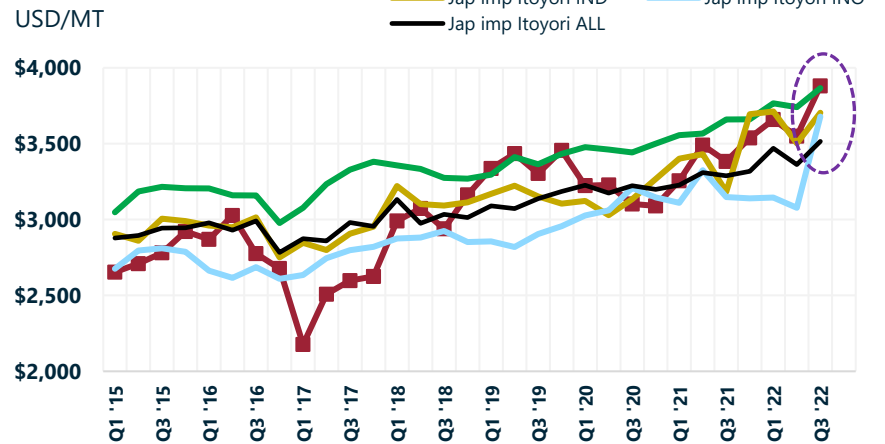


Figure 30. Itoyori vs. AK Pollock of Japan import \$/mt comparison. Source: Urner Barry Consulting

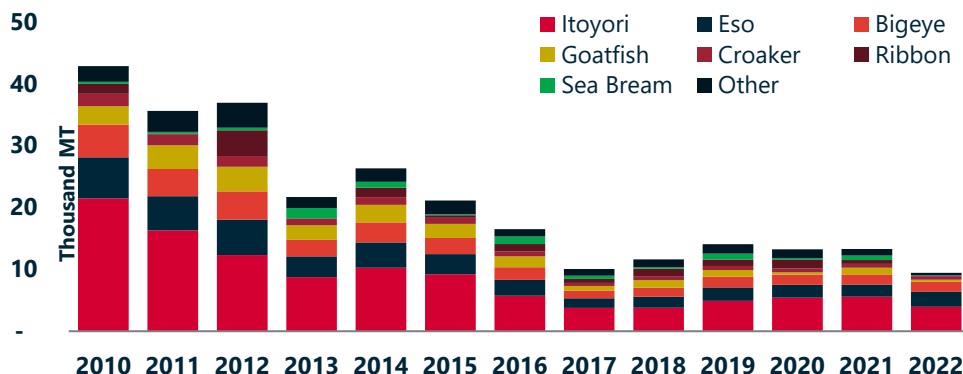
Thailand's surimi production estimates indicate a decrease of about 29 percent through Q2 2022 compared to last year, totaling roughly 9.5 thousand metric tons. The largest contributor to such a decline came from itoyori production, which declined by about 30 percent. Production estimates of eso suggest an increase of over 20 percent. Regarding trade, volumes from countries declaring importing surimi from Thailand decreased by 13 percent through Q2 compared to last year. Japanese imports of Thai itoyori surimi decreased by 11 percent through Q2 compared to 2021. However, South Korean purchases of Thai surimi were up significantly from 336 metric tons in 2021 to 1,032 metric tons this year through Q2. Russian imports of Thai surimi were down nearly 80 percent through Q2. It makes sense that prices from Itoyori, a vital substitute for A.K. pollock surimi, continue to increase and reach quarterly record highs amid lower Thai production. As a result, it makes sense for Japanese buyers to look elsewhere, particularly where the resource appears available, like in India, Vietnam, and others.

**Thailand's estimated Production by Species (Imports and Exports) thru Q2**

Year	Itoyori	Eso	Bigeye	Goatfish	Croaker	RibbonSea	Bream	Other	Total
2010	21,438	6,641	5,277	2,947	2,024	1,604	324	2,542	42,797
2011	16,269	5,518	4,384	3,825	1,742	178	269	3,371	35,557
2012	12,291	5,724	4,548	3,967	1,732	4,162	423	4,041	36,888
2013	8,709	3,364	2,673	2,331	1,062	74	1,670	1,789	21,673
2014	10,239	4,078	3,240	2,827	1,242	1,535	956	2,163	26,280
2015	9,175	3,271	2,599	2,267	997	393	160	2,217	21,079
2016	5,725	2,556	2,031	1,771	779	1,192	1,212	1,202	16,468
2017	3,749	1,558	1,237	761	492	641	500	1,100	10,037
2018	3,776	1,799	1,429	1,209	568	1,312	231	1,270	11,593
2019	4,884	2,179	1,731	1,067	668	1,030	946	1,538	14,044
2020	5,420	2,050	1,628	379	621	1,494	209	1,405	13,208
2021	5,568	1,964	1,635	1,061	631	627	715	1,058	13,260
2022	3,930	2,407	1,617	335	591	33	76	429	9,418

**Table 22. Yearly estimates of Thailand's surimi production by species.**

**Thailand's estimated Production by Species (Imports and Exports) thru Q2**



**Figure 31. Yearly estimates of Thailand's surimi production by species.**

**Countries declaring surimi imports from Thailand from Q1 to Q2**

Reporter Name	Species	2016		2017		2018		2019		2020		2021		2022	
		'16 vs. '15	'17 vs. '16	'18 vs. '17	'19 vs. '18	'20 vs. '19	'21 vs. '20	'22 vs. '21							
Japan	Barrac, Sea Breams, Kingclip	26 ▼ 58.1%	25 ▼ 3.8%	8 ▼ 68.0%	7 ▼ 12.5%	9 ▲ 28.6%	8 ▼ 11.1%	36 ▲ 350.0%							
	Itoyori	4,646 ▼ 59.6%	3,960 ▼ 14.8%	3,375 ▼ 14.8%	3,877 ▲ 14.9%	4,510 ▲ 16.3%	4,392 ▼ 2.6%	3,924 ▼ 10.7%							
	Other	9,303 ▼ 50.6%	7,292 ▼ 21.6%	7,462 ▲ 2.3%	7,531 ▲ 0.9%	6,877 ▼ 8.7%	6,326 ▼ 8.0%	5,568 ▼ 12.0%							
	Sardine, Other	17	3	3	12	12	12	12							
S. Korea	All	1,603 ▼ 48.4%	816 ▼ 49.1%	720 ▼ 11.8%	840 ▲ 16.7%	672 ▼ 20.0%	336 ▼ 50.0%	1,032 ▲ 207.1%							
Russia	All	1,949 ▼ 61.7%	531 ▼ 72.8%	1,350 ▲ 154.2%	1,415 ▲ 4.8%	1,165 ▼ 17.7%	1,810 ▲ 55.4%	388 ▼ 78.6%							
Malaysia	All	236 ▼ 50.2%	249 ▲ 5.5%	258 ▲ 3.6%	430 ▲ 66.7%	424 ▼ 1.4%	435 ▲ 2.6%	380 ▼ 12.6%							
China	All	258 ▼ 58.3%	163 ▼ 36.8%	294 ▲ 80.4%	240 ▼ 18.4%	326 ▲ 35.8%	508 ▲ 55.8%	225 ▼ 55.7%							
Taiwan	All	116 ▼ 68.4%	54 ▼ 53.4%	16 ▼ 70.4%	162 ▲ 912.5%	414 ▲ 155.6%	359 ▼ 13.3%	228 ▼ 36.5%							
Hong Kong	All	60 ▼ 73.9%	75 ▲ 25.0%	56 ▼ 25.3%	115 ▲ 105.4%	189 ▲ 64.3%	314 ▲ 66.1%	256 ▼ 18.5%							
Canada	All	22 ▲ 0.0%		66	124 ▲ 87.9%	174 ▲ 40.3%	138 ▼ 20.7%	400 ▲ 189.9%							
Philippines	All			197	21 ▼ 89.3%	92 ▲ 338.1%	142 ▲ 54.3%	109 ▼ 23.2%							
New Zealand	All	243 ▼ 75.5%	51 ▼ 79.0%	29 ▼ 43.1%	35 ▲ 20.7%	33 ▼ 5.7%	29 ▼ 12.1%	12 ▼ 58.6%							
France	All	60 ▼ 88.8%	260 ▲ 333.3%	210 ▼ 19.2%	307 ▲ 46.2%										
Lithuania	All		54		381	182 ▼ 52.2%	122 ▼ 33.0%	23 ▼ 81.1%							
Other		283 ▼ 30.8%	159 ▼ 43.8%	119 ▼ 25.2%	204 ▲ 71.4%	173 ▼ 15.2%	23 ▼ 86.7%	424 ▲ 1743.5%							
<b>Total</b>		<b>18,822 ▼ 55.5%</b>	<b>13,689 ▼ 27.3%</b>	<b>14,163 ▲ 3.5%</b>	<b>15,689 ▲ 10.8%</b>	<b>15,240 ▼ 2.9%</b>	<b>14,942 ▼ 2.0%</b>	<b>13,017 ▼ 12.9%</b>							

**Table 23. Countries declaring surimi imports from Thailand. Source: each country's customs, authority, UB Consulting.**

\*\*UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

According to our surimi production estimates, volumes out of India increased by about 40 percent in Q2 2022 compared to 2021. On a year-to-date basis, India's surimi production estimates suggest an increase of 28 percent compared to 2021. Such an estimate brings total surimi production out of India at about 65 thousand metric tons. Regarding trade, Japanese imports of Indian itoyori surimi increased by 24 percent through Q2 2022 compared to last year, totaling 4,666 metric tons.

Japan represents about 50 percent of all countries declaring surimi imports from India.

Aside from resource availability, it is reasonable to suggest that current record-high prices incentivize efforts to increase the production of itoyori surimi relative to other species.

**India's estimated Production by Species thru Q2**

Year	Itoyori	Eso	Bigeeye	Goatfish	Croaker	Ribbon	Other	Total
2015	7,588	6,825	3,854	1,336	-	9,882	2,465	31,950
2016	4,812	8,397	3,919	1,447	-	13,265	3,485	35,324
2017	6,114	13,037	5,809	2,137	-	21,097	3,955	52,148
2018	10,939	8,360	5,604	2,186	-	21,859	5,334	54,282
2019	5,320	13,020	5,807	2,135	-	20,591	5,208	52,082
2020	1,876	10,125	4,662	1,691	-	19,456	3,282	41,092
2021	8,804	9,565	7,040	3,264	-	17,839	4,367	50,879
2022	10,029	11,742	9,530	5,435	-	22,299	6,118	65,153

Table 24. Yearly estimated surimi production from India by species.

**India's estimated Production by Species thru Q2**

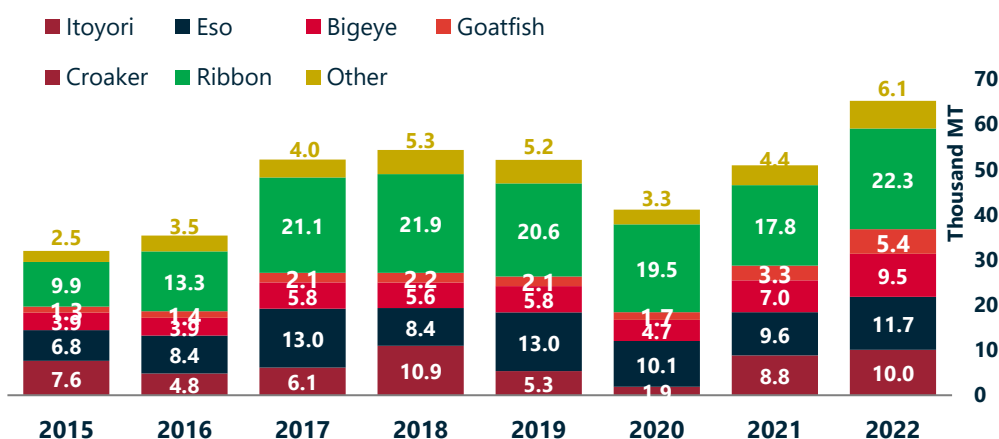


Figure 32. Yearly estimated surimi production from India by species

**Countries declaring surimi imports from India from Q1 to Q2**

Reporter Name	Species	2016		2017		2018		2019		2020		2021		2022	
		'16 vs. '15	'17 vs. '16	'18 vs. '17	'19 vs. '18	'20 vs. '19	'21 vs. '20	'22 vs. '21							
Japan	Itoyori	2,540 ▼ 61.1%	2,326 ▼ 8.4%	4,831 ▲ 107.7%	2,430 ▼ 49.7%	857 ▼ 64.7%	3,744 ▲ 336.9%	4,666 ▲ 24.6%							
	Other	17,774 ▼ 43.8%	18,796 ▲ 5.7%	21,214 ▲ 12.9%	22,875 ▲ 7.8%	17,905 ▼ 21.7%	21,175 ▲ 18.3%	27,926 ▲ 31.9%							
Taiwan	Sardine, Other	All	6,321 ▼ 46.1%	7,461 ▲ 18.0%	9,402 ▲ 26.0%	8,287 ▼ 11.9%	7,473 ▼ 9.8%	7,424 ▼ 0.7%	7,764 ▲ 4.6%						
		All	182 ▼ 16.5%	2,957 #####	2,014 ▼ 31.9%	3,900 ▲ 93.6%	4,109 ▲ 5.4%	8,293 ▲ 101.8%	10,524 ▲ 26.9%						
Thailand	Other	All	338 ▼ 19.3%	328 ▼ 3.0%	229 ▼ 30.2%	53 ▼ 76.9%	366 ▲ 590.6%	75 ▼ 79.5%							
		All	3,200 ▲ 36.8%	3,616 ▲ 13.0%	5,841 ▲ 61.5%	4,093 ▼ 29.9%	1,152 ▼ 71.9%	4,090 ▲ 255.0%	225 ▼ 94.5%						
S. Korea	All	1,314 ▼ 69.0%	2,834 ▲ 115.7%	3,945 ▲ 39.2%	3,090 ▼ 21.7%	2,900 ▼ 6.1%	2,614 ▼ 9.9%	3,096 ▲ 18.4%							
Belarus	All	1,975 ▼ 29.0%	2,033 ▲ 2.9%	2,119 ▲ 4.2%	2,154 ▲ 1.7%	2,775 ▲ 28.8%	2,235 ▼ 19.5%	2,475 ▲ 10.7%							
Malaysia	All	247 ▼ 60.8%	2,754 ▲ 1015.0%	2,371 ▼ 13.9%	1,093 ▼ 53.9%	2,172 ▲ 98.7%	2,110 ▼ 2.9%	2,129 ▼ 0.9%							
China	All	634 ▼ 63.1%	1,877 ▲ 196.1%	1,820 ▼ 3.0%	1,517 ▼ 16.6%	1,785 ▲ 17.7%	987 ▼ 44.7%	954 ▼ 3.3%							
Lithuania	All	1,190 ▲ 11.6%	832 ▼ 30.1%	612 ▼ 26.4%	507 ▼ 17.2%	526 ▲ 3.7%	157 ▼ 70.2%	1,261 ▲ 703.2%							
Singapore	All	25 ▲ 0.0%	930 #####	691 ▼ 25.7%	1,309 ▲ 89.4%	1,191 ▼ 9.0%	1,967 ▲ 65.2%								
Spain	All	614 ▲ 274.4%	452 ▼ 26.4%	511 ▲ 13.1%	388 ▼ 24.1%	244 ▼ 37.1%	25 ▼ 89.8%	532 ▲ 2028.0%							
Poland	All				24	336 #####	576 ▲ 71.4%	444 ▼ 22.9%							
Other	All	364 ▼ 35.5%	1,118 ▲ 207.1%	378 ▼ 66.2%	317 ▼ 16.1%	665 ▲ 109.8%	669 ▲ 0.6%	686 ▲ 2.5%							
<b>Total</b>		<b>36,718 ▼ 42.7%</b>	<b>48,314 ▲ 31.6%</b>	<b>55,978 ▲ 15.9%</b>	<b>52,104 ▼ 6.9%</b>	<b>44,456 ▼ 14.7%</b>	<b>56,141 ▲ 26.3%</b>	<b>62,682 ▲ 11.7%</b>							

Table 25. Countries declaring surimi imports from India. Source: each country's customs, authority, UB Consulting

\*\*UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.



Data estimates suggest Vietnam's surimi \*\*production through Q2 2022 decreased slightly compared to last year. However, according to these estimates, production of itoyori surimi remained virtually flat compared to last year at about 23 thousand metric tons. We must mention that itoyori's production increased considerably from 2020 to 2021.

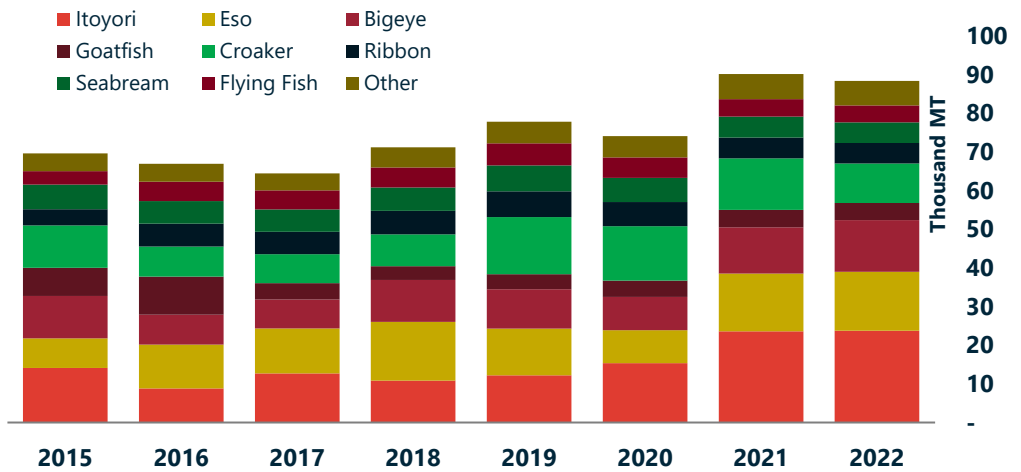
Regarding trade, South Korean purchases of Vietnamese surimi paste declined 6 percent through Q2 2022 compared to 2021, totaling 23.6 thousand metric tons. However, Thai imports of Vietnamese surimi paste increased by 19 percent, totaling 22.1 thousand metric tons through Q2 year-over-year. Japanese imports of all types of surimi from Vietnam also increased. Chinese purchases of Vietnamese surimi declined by 28 percent through Q2 vs. last year.

**Vietnam's Estimated Production by Species thru Q2**

	Itoyori	Eso	Bigeeye	Goatfish	Croaker	Ribbon	Seabream	Iying Fish	Other	Total
2015	14,093	7,651	10,973	7,262	10,973	4,173	6,362	3,478	4,600	69,564
2016	8,825	11,303	7,756	9,849	7,756	5,929	5,839	4,974	4,632	66,863
2017	12,684	11,649	7,471	4,227	7,471	5,792	5,792	4,942	4,374	64,403
2018	10,843	15,188	10,820	3,556	8,251	6,060	6,060	5,157	5,192	71,127
2019	12,196	12,104	10,139	3,889	14,778	6,683	6,683	5,690	5,617	77,778
2020	15,342	8,529	8,586	4,221	14,064	6,250	6,250	5,316	5,465	74,021
2021	23,570	14,926	11,984	4,504	13,289	5,405	5,405	4,504	6,501	90,089
2022	23,746	15,222	13,355	4,415	10,242	5,298	5,298	4,415	6,306	88,295

**Table 26. Yearly estimated surimi production from India by species.**

**Vietnam's Estimated Production by Species thru Q4**



**Figure 33. Yearly estimates of Vietnam's surimi production by species.**

Countries declaring surimi imports from Viet-Nam from Q1 to Q2															
Reporter Name	Species														
		2016	'16 vs. '14	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
S. Korea	All	24,060	▼ 57.2%	24,309	▲ 1.0%	26,595	▲ 9.4%	24,138	▼ 9.2%	25,996	▲ 7.7%	25,248	▼ 2.9%	23,599	▼ 6.5%
Thailand	All	10,269	▼ 60.0%	13,665	▲ 33.1%	15,514	▲ 13.5%	13,295	▼ 14.3%	12,206	▼ 8.2%	18,619	▲ 52.5%	22,119	▲ 18.8%
	Other	1,564	▼ 51.3%	1,160	▼ 25.8%	1,214	▲ 4.7%	259	▼ 78.7%	119	▼ 54.1%				
China	All	4,946	▼ 65.5%	5,530	▲ 11.8%	7,611	▲ 37.6%	11,086	▲ 45.7%	14,608	▲ 31.8%	14,289	▼ 2.2%	10,221	▼ 28.5%
Japan	Barrac, Sea Breams, Kingclip	179	▼ 80.2%	138	▼ 22.9%	153	▲ 10.9%	183	▲ 19.6%	88	▼ 51.9%	108	▲ 22.7%	357	▲ 230.6%
	Itoyori	1,024	▼ 69.6%	1,322	▲ 29.1%	1,249	▼ 5.5%	1,458	▲ 16.7%	1,468	▲ 0.7%	2,266	▲ 54.4%	2,665	▲ 17.6%
	Other	6,695	▼ 48.3%	5,359	▼ 20.0%	6,944	▲ 29.6%	7,865	▲ 13.3%	5,452	▼ 30.7%	6,412	▲ 17.6%	7,164	▲ 11.7%
	Sardine, Other	70	▼ 82.4%	2	▼ 97.1%			1		10	▲ 900.0%				
Malaysia	All	2,169	▼ 64.8%	3,121	▲ 43.9%	3,123	▲ 0.1%	5,026	▲ 60.9%	2,778	▼ 44.7%	6,358	▲ 128.9%	6,381	▲ 0.4%
Taiwan	All	2,562	▼ 59.9%	1,619	▼ 36.8%	2,015	▲ 24.5%	2,746	▲ 36.3%	2,318	▼ 15.6%	3,433	▲ 48.1%	4,652	▲ 35.5%
Lithuania	All	1,123	▲ 53.8%	1,105	▼ 1.6%	380	▼ 65.6%	794	▲ 108.9%	780	▼ 1.8%	760	▼ 2.6%	1,158	▲ 52.4%
Philippines	All					1,191		1,907	▲ 60.1%	1,258	▼ 34.0%	1,567	▲ 24.6%	1,725	▲ 10.1%
Indonesia	All	1,851	▼ 1.0%	1,839	▼ 0.6%	369	▼ 79.9%	748	▲ 102.7%	347	▼ 53.6%	1,159	▲ 234.0%	5,285	▲ 356.0%
	Other													75	
Ukraine	All	510	▼ 42.0%	685	▲ 34.3%	694	▲ 1.3%	1,200	▲ 72.9%	950	▼ 20.8%	1,399	▲ 47.3%	450	▼ 67.8%
Other	All	9,841	▲ 19.4%	4,549	▼ 53.8%	4,075	▼ 10.4%	7,072	▲ 73.5%	5,643	▼ 20.2%	8,471	▲ 50.1%	2,444	▼ 71.1%
<b>Total</b>		<b>66,863</b>	<b>▼ 52.7%</b>	<b>64,403</b>	<b>▼ 3.7%</b>	<b>71,127</b>	<b>▲ 10.4%</b>	<b>77,778</b>	<b>▲ 9.4%</b>	<b>74,021</b>	<b>▼ 4.8%</b>	<b>90,089</b>	<b>▲ 21.7%</b>	<b>88,295</b>	<b>▼ 2.0%</b>

**Table 27. Countries declaring surimi imports from Vietnam. Source: each country's customs, authority, UB Consulting**

\*\*UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Surimi \*\*production estimates from Indonesia suggest a steep decline of about 35 percent through Q2 2022 compared to 2021, from 9 to 5.7 thousand metric tons. In April 2022, Indonesia separated its HS code for all minced meat into two: surimi and minced meat. After the calculations, we adjusted previous production estimates using a constant of 81 percent of all production destined to surimi. This figure will be revised again in our next update.

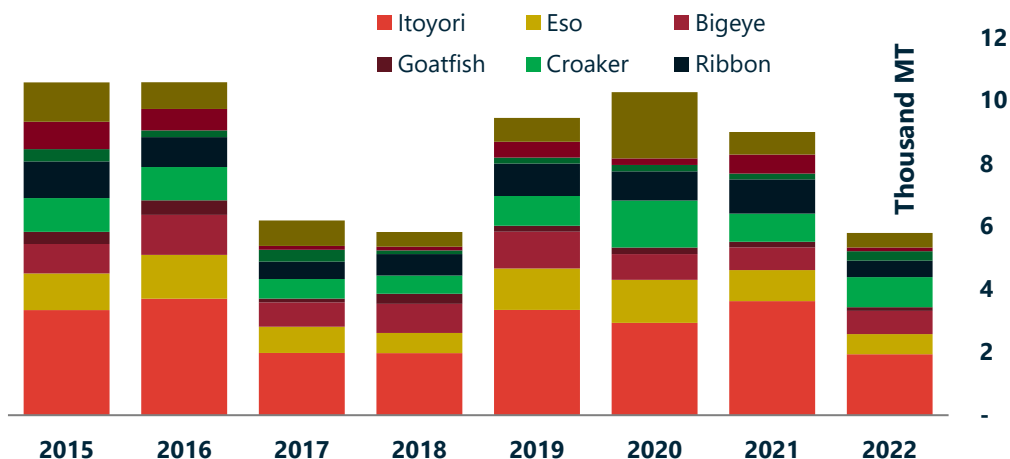
Regarding trade, volumes from countries declaring imports declined by about 36 percent through Q2 2022 compared to last year. Although minimal in volume, Japanese imports of itoyori from Indonesia were down by 20 percent. Imports declared by Malaysia, the largest market for Indonesian surimi paste, contracted nearly 32 percent year-over-year through Q2.

**Indonesia's Estimated Production by Species thru Q2**

	Itoyori	Eso	Bigeeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	3,339	1,163	934	389	1,072	1,161	393	868	1,251	10,569
2016	3,696	1,396	1,271	461	1,057	952	211	684	846	10,575
2017	1,975	833	771	124	618	557	374	124	808	6,184
2018	1,971	640	923	320	582	683	116	116	465	5,816
2019	3,344	1,313	1,170	189	944	1,032	189	505	755	9,441
2020	2,932	1,365	821	205	1,499	923	205	205	2,105	10,260
2021	3,622	987	718	179	897	1,088	179	608	718	8,998
2022	1,933	640	738	116	956	523	302	116	465	5,789

**Table 28. Yearly estimates of Indonesia's surimi production by species.**

**Indonesia's Estimated Production by Species thru Q2**



**Figure 34. Yearly estimates of Indonesia's surimi production by species.**

**Countries declaring surimi imports from Indonesia from Q1 to Q2**

Reporter Name	Species	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Malaysia	All	3,575	▼ 46.8%	1,912	▼ 46.5%	1,796	▼ 6.1%	2,662	▲ 48.2%	3,070	▲ 15.3%	3,862	▲ 25.8%	2,635	▼ 31.8%
	Itoyori	1,314	▼ 65.0%	1,303	▼ 0.8%	848	▼ 34.9%	878	▲ 3.5%	800	▼ 8.9%	829	▲ 3.6%	671	▼ 19.1%
Japan	Other	2,546	▼ 48.8%	1,565	▼ 38.5%	1,858	▲ 18.7%	1,793	▼ 3.5%	1,016	▼ 43.3%	502	▼ 50.6%	680	▲ 35.5%
	Sardine, Other			21		20	▼ 4.8%								
S. Korea	All	3,115	▼ 50.6%	2,467	▼ 20.8%	1,368	▼ 44.5%	2,222	▲ 62.4%	2,856	▲ 28.5%	1,697	▼ 40.6%	1,622	▼ 4.4%
China	All	1,148	▼ 41.9%	539	▼ 53.0%	1,245	▲ 131.0%	2,664	▲ 114.0%	3,589	▲ 34.7%	2,260	▼ 37.0%	877	▼ 61.2%
Taiwan	All	1,520	▼ 60.5%	874	▼ 42.5%	991	▲ 13.4%	1,011	▲ 2.0%	949	▼ 6.1%	561	▼ 40.9%	327	▼ 41.7%
Thailand	All	1,948	▲ 13.8%	219	▼ 88.8%	640	▲ 192.2%	1,880	▲ 193.8%	1,173	▼ 37.6%	1,463	▲ 24.7%	225	▼ 84.6%
	Other	133	▼ 59.7%	30	▼ 77.4%	16	▼ 46.7%	18	▲ 12.5%	1	▼ 94.4%	2	▲ 100.0%	5	▲ 150.0%
Hong Kong	All	132	▼ 28.3%	78	▼ 40.9%	90	▲ 15.4%	124	▲ 37.8%	126	▲ 1.6%	162	▲ 28.6%	143	▼ 11.7%
Australia	All	170	▼ 38.6%	49	▼ 71.2%	63	▲ 28.6%	58	▼ 7.9%	46	▼ 20.7%	71	▲ 54.3%	41	▼ 42.3%
Philippines	All					96		126	▲ 31.3%	54	▼ 57.1%	148	▲ 174.1%	125	▼ 15.5%
Singapore	All	39	▼ 80.3%	102	▲ 161.5%					4					
Canada	All	49	▲ 19.5%	18	▼ 63.3%			25							
Other		45	▲ 50.0%	52	▲ 15.6%	23	▼ 55.8%	5	▼ 78.3%			25		27	▲ 8.0%
<b>Total</b>		<b>15,734</b>	<b>▼ 48.2%</b>	<b>9,229</b>	<b>▼ 41.3%</b>	<b>9,054</b>	<b>▼ 1.9%</b>	<b>13,466</b>	<b>▲ 48.7%</b>	<b>13,684</b>	<b>▲ 1.6%</b>	<b>11,582</b>	<b>▼ 15.4%</b>	<b>7,378</b>	<b>▼ 36.3%</b>

**Table 29. Countries declaring surimi imports from Indonesia. Source: each country's customs, authority, UB Consulting**

\*\*UB Consulting developed a model to estimate total production figures. Thereafter, production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Similar to Indonesia, HS codes for Malaysia were updated during Q2. The code was split into meat and surimi as well. At a constant of 84 percent, surimi \*\*production estimates for Malaysia suggest no significant change compared to last year through Q2. Still, at about 2 thousand metric tons, this year's estimates are the lowest since at least 2015.

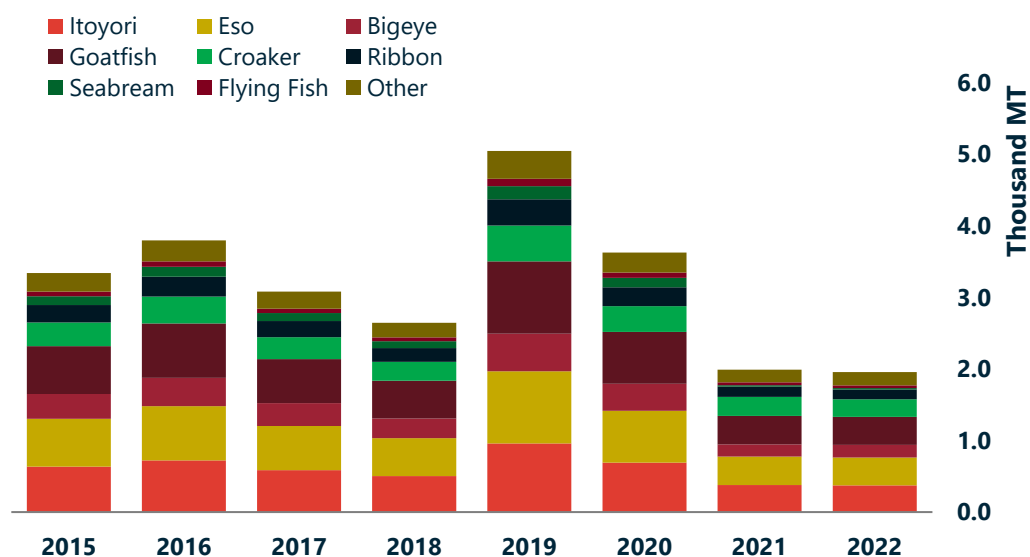
Regarding trade, volumes from countries declaring imports from Malaysia in 2022 decreased by about 6 percent through Q2 year-over-year. Japanese imports of Malaysian itoyori added 118 metric tons.

**Malaysia's Estimated Production by Species thru Q2**

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
<b>2015</b>	634	668	348	668	332	244	122	67	258	3,339
<b>2016</b>	721	759	395	759	377	277	138	76	293	3,796
<b>2017</b>	585	616	321	616	306	225	112	62	238	3,080
<b>2018</b>	502	529	275	529	263	193	96	53	204	2,644
<b>2019</b>	959	1,009	525	1,009	501	368	184	101	389	5,046
<b>2020</b>	689	725	377	725	360	265	132	73	280	3,626
<b>2021</b>	378	398	170	398	266	144	20	40	176	1,989
<b>2022</b>	371	391	175	391	246	137	20	39	185	1,955

**Table 30. Yearly estimates of Malaysia's surimi production by species.**

**Malaysia's Estimated Production by Species thru Q2**



**Figure 35. Yearly estimates of Malaysia's surimi production by species.**

**Countries declaring surimi imports from Malaysia from Q1 to Q2**

Reporter Name	Species	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
Japan	Itoyori									12				118	
	Other	3,023	▼ 63.4%	2,712	▼ 10.3%	2,166	▼ 20.1%	2,547	▲ 17.6%	2,521	▼ 1.0%	1,390	▼ 44.9%	1,314	▼ 5.5%
Hong Kong	Sardine, Other							12		15	▲ 25.0%	20	▲ 33.3%	35	▲ 75.0%
	All	8	▼ 90.0%			10				272		199	▼ 26.8%	121	▼ 39.2%
China	All	463	▼ 51.5%	420	▼ 9.3%	340	▼ 19.0%	417	▲ 22.6%	390	▼ 6.5%	398	▲ 2.1%	177	▼ 55.5%
Canada	All											34		68	▲ 100.0%
Australia	All	1	▲ 0.0%					5						26	
Singapore	All	22	▼ 66.2%	27	▲ 22.7%	54	▲ 100.0%	11	▼ 79.6%	29	▲ 163.6%	1	▼ 96.6%		
Thailand	All	72	▼ 74.2%					149		25	▼ 83.2%				
Taiwan	Other	7													
	All	73	▼ 63.9%	62	▼ 15.1%			49		60	▲ 22.4%	42	▼ 30.0%		
Malaysia	All														
Philippines	All					7								23	
S. Korea	All	120	▼ 57.1%	208	▲ 73.3%	84	▼ 59.6%	80	▼ 4.8%	359	▲ 348.8%	174	▼ 51.5%		
Other		52								25		25	▲ 0.0%	273	▲ 992.0%
<b>Total</b>		<b>3,841</b>	<b>▼ 62.1%</b>	<b>3,429</b>	<b>▼ 10.7%</b>	<b>2,661</b>	<b>▼ 22.4%</b>	<b>3,270</b>	<b>▲ 22.9%</b>	<b>3,708</b>	<b>▲ 13.4%</b>	<b>2,283</b>	<b>▼ 38.4%</b>	<b>2,155</b>	<b>▼ 5.6%</b>

**Table 31. Countries declaring surimi imports from Malaysia. Source: each country's customs, authority, UB Consulting**

Disclaimer: Trade data for Malaysia seems to match at times between countries declaring imports and official domestic data exports. We used total export figures as a function for \*\*production and use countries declaring imports mainly for trade—although both sets of data are included for all analyzed countries.

\*\*Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Pakistan's surimi production estimates suggest a significant decrease through Q2 year-over-year of about 22 percent or roughly 1,500 metric tons. Production of all species decreased.

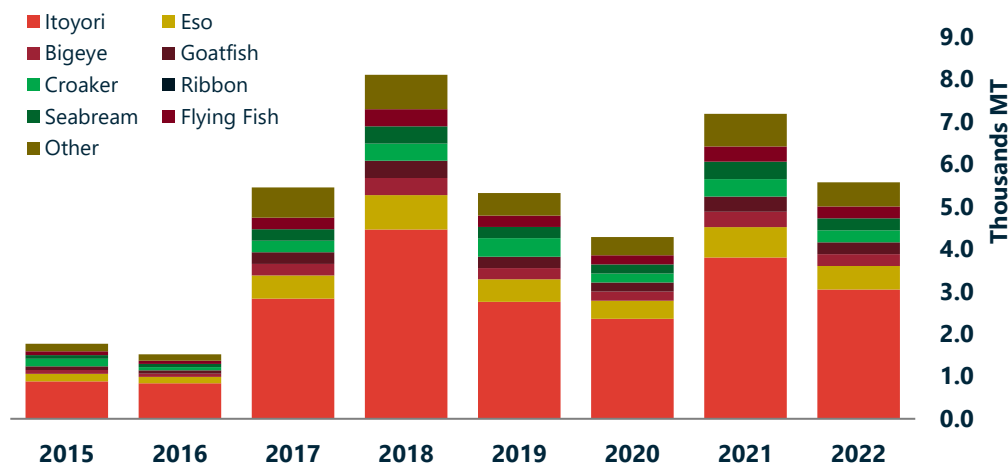
Regarding trade, volumes from countries declaring imports from Pakistan show an increase of about 3 percent through Q2 year-over-year. The two largest markets, Thailand and South Korea, increased their purchases of Pakistani surimi by 7.7 and 16.8 percent, respectively, during the first half of the year compared to 2021. Similarly, Japanese imports of Pakistani itoyori surimi surged by 12.6 percent.

**Pakistan's Estimated Production by Species thru Q2**

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	884	177	88	88	177	-	88	88	177	1,767
2016	837	152	76	76	76	-	76	76	152	1,521
2017	2,832	545	273	273	273	-	273	273	712	5,453
2018	4,458	811	405	405	405	-	405	405	811	8,106
2019	2,755	532	266	266	437	-	266	266	532	5,319
2020	2,355	428	214	214	214	-	214	214	428	4,281
2021	3,799	719	359	359	410	-	410	359	770	7,186
2022	3,045	557	279	279	282	-	282	279	570	5,571

**Table 32. Yearly estimates of Pakistan's surimi production by species.**

**Pakistan's Estimated Production by Species thru Q2**



**Figure 36. Yearly estimates of Pakistan's surimi production by species.**

**Countries declaring surimi imports from Pakistan from Q1 to Q2**

Reporter Name	Species	2016	'16 vs. '15	2017	'17 vs. '16	2018	'18 vs. '17	2019	'19 vs. '18	2020	'20 vs. '19	2021	'21 vs. '20	2022	'22 vs. '21
S. Korea	All	1,548	▼ 66.9%	2,282	▲ 47.4%	2,342	▲ 2.6%	1,650	▼ 29.5%	1,078	▼ 34.7%	1,343	▲ 24.6%	1,446	▲ 7.7%
	Other	33	▼ 31.3%	19	▼ 42.4%							155			
Thailand	All	82	▼ 79.4%	577	▲ 603.7%	2,258	▲ 291.3%	2,215	▼ 1.9%	1,857	▼ 16.2%	2,334	▲ 25.7%	2,727	▲ 16.8%
	Other														
Japan	Itoyori	206	▼ 78.0%	379	▲ 84.0%	832	▲ 119.5%	515	▼ 38.1%	389	▼ 24.5%	1,008	▲ 159.1%	1,135	▲ 12.6%
	Other					81		166	▲ 104.9%	177	▲ 6.6%	115	▼ 35.0%	205	▲ 78.3%
China	All	34		48	▲ 41.2%	759	▲ 1481.3%	1,072	▲ 41.2%	1,551	▲ 44.7%	901	▼ 41.9%	677	▼ 24.9%
Malaysia	All	100	▼ 34.2%	117	▲ 17.0%	185	▲ 58.1%	204	▲ 10.3%	97	▼ 52.5%	312	▲ 221.6%	120	▼ 61.5%
Hong Kong	All							23		66	▲ 187.0%	68	▲ 3.0%	89	▲ 30.9%
Taiwan	All					24		24	▲ 0.0%						
Singapore	All			25						25					
Philippines	All													26	
Other	All														
<b>Total</b>		<b>2,003</b>	<b>▼ 68.2%</b>	<b>3,447</b>	<b>▲ 72.1%</b>	<b>6,481</b>	<b>▲ 88.0%</b>	<b>5,869</b>	<b>▼ 9.4%</b>	<b>5,240</b>	<b>▼ 10.7%</b>	<b>6,236</b>	<b>▲ 19.0%</b>	<b>6,425</b>	<b>▲ 3.0%</b>

**Table 33. Pakistan exports by species. Source: Pakistan's customs, authority, UB Consulting**

Disclaimer: For Pakistan, we included the table that includes Pakistan exports by destination and the production table. Again, exports are a function of production. Still, since we are assuming that nearly 100 percent of production is exported out of this country, we could not cross-examine countries reporting imports and this country's exports before 2020. Still, they are a decent indicator to see, but we only included exports in this report.

\*\*Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2020.

Myanmar's surimi production estimates show an increase of 43 percent through Q2 2022 year-over-year, totaling 1,194 metric tons. Imports from the top three markets, Japan, Taiwan, and Thailand, increased their volumes through Q2 year-over-year

## Myanmar's Estimated Production by Species thru Q2

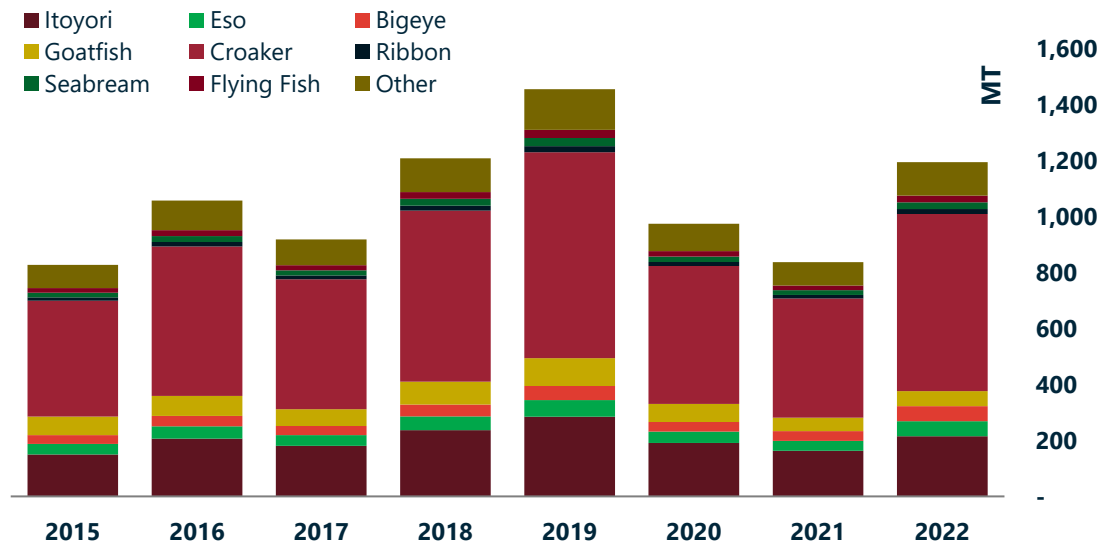


Figure 37. Yearly estimates of Myanmar's surimi production by species.

## Myanmar's Estimated Production by Species thru Q2

	Itoyori	Eso	Bigeye	Goatfish	Croaker	Ribbon	Seabream	Flying Fish	Other	Total
2015	150	38	31	67	414	12	17	17	83	827
2016	206	44	37	71	534	16	21	21	106	1,057
2017	181	38	32	60	464	14	18	18	92	918
2018	237	49	42	82	611	18	24	24	121	1,208
2019	285	59	50	99	736	22	29	29	146	1,455
2020	191	41	34	65	493	15	19	19	97	974
2021	163	35	35	48	426	13	17	17	84	837
2022	215	54	54	54	633	18	24	24	119	1,194

Disclaimer: Myanmar's production is calculated using import data from declaring countries as Myanmar does not publish trade data

Table 34. Yearly estimates of Myanmar's surimi production by species.

Countries declaring surimi imports from Myanmar from Q1 to Q2																																	
Reporter Name	Species	2016		'16 vs. '15		2017		'17 vs. '16		2018		'18 vs. '17		2019		'19 vs. '18		2020		'20 vs. '19		2021		'21 vs. '20		2022		'22 vs. '21					
		Japan	Barrac, Sea Breams, Kingclip					8		57	▲ 612.5%	33	▼ 42.1%	29	▼ 12.1%	8	▼ 72.4%	39	▲ 387.5%														
	Itoyori	381	▼ 26.0%	305	▼ 19.9%	285	▼ 6.6%	468	▲ 64.2%	198	▼ 57.7%	224	▲ 13.1%	189	▼ 15.6%																		
	Other	182	▼ 49.6%	167	▼ 8.2%	303	▲ 81.4%	288	▼ 5.0%	195	▼ 32.3%	178	▼ 8.7%	287	▲ 61.2%																		
S. Korea	All	449	▼ 3.6%	242	▼ 46.1%	384	▲ 58.7%	283	▼ 26.3%	342	▲ 20.8%	77	▼ 77.5%	77	▲ 0.0%																		
Thailand	All			111		95	▼ 14.4%	252	▲ 165.3%	38	▼ 84.9%	19	▼ 50.0%	224	▲ 1078.9%																		
	Other																																
Taiwan	All							45		62	▲ 37.8%	133	▲ 114.5%	95	▼ 28.6%	340	▲ 257.9%																
China	All			28		19	▼ 32.1%	50	▲ 163.2%	9	▼ 82.0%	25	▲ 250.0%																				
Malaysia	All	25	▼ 45.7%	26	▲ 4.0%			9		26	▲ 188.9%	7	▼ 73.1%																				
Other	All	20	▲ 150.0%	31	▲ 55.0%	20	▼ 35.5%	10	▼ 50.0%	13	▲ 30.0%	18	▲ 38.5%	13	▼ 27.8%																		
<b>Total</b>		1,057	▼ 36.0%	918	▼ 13.2%	1,208	▲ 31.6%	1,455	▲ 20.4%	974	▼ 33.1%	837	▼ 14.1%	1,194	▲ 42.7%																		

Table 35. Countries declaring surimi imports from Myanmar. Source: each country's customs, authority, UB Consulting

Disclaimer: Myanmar's production is calculated using import data from declaring countries as Myanmar does not publish trade data

\*\*Production estimates by species use an internal working group approximation that was then calculated using an in-house non-linear model. The estimates provided by the working group were collected in 2021.

## Peru to Japan

Since it is assumed that all Peruvian exports of Peruvian sardine surimi are a production function, we will refer to them interchangeably. Japanese imports of Peruvian sardine surimi declined 50 percent through Q2 year-over-year, from 383 metric tons in 2021 to 192 metric tons this year. This number has been steadily declining since. However, Japanese imports of “other” surimi from Peru increased by 223 percent during the same period, which leads us to believe there could be an error in reporting figures. However, total Japanese imports of Peruvian surimi are up 27 percent through Q2 year-over-year.

### Japan importing Sardine, Other surimi from Peru

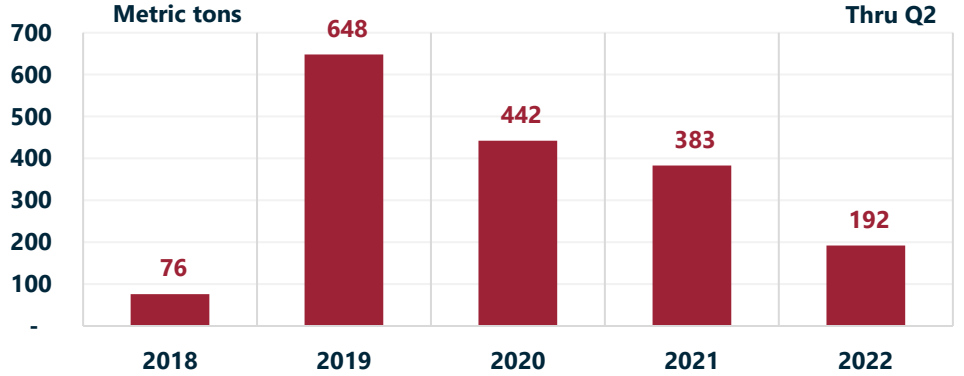


Figure 38. Japanese imports of sardine surimi from Peru. Source: Japan’s customs, UB Consulting

### Japan importing Sardine, Other surimi from Peru

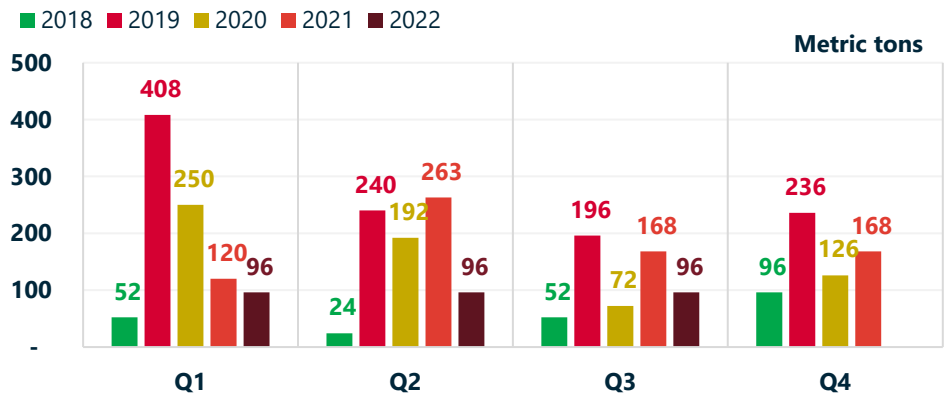


Table 39. Japanese imports of sardine surimi from Peru. Source: Japan’s customs, UB Consulting

## Sardine surimi, to Japan, Q1 to Q2

- Japan importing Sardine, Other surimi from Peru
- Japan importing Other surimi from Peru
- Japan importing, total surimi from Peru
- Japan importing Sardine, Other surimi from all countries
- Peru exporting All surimi to Japan

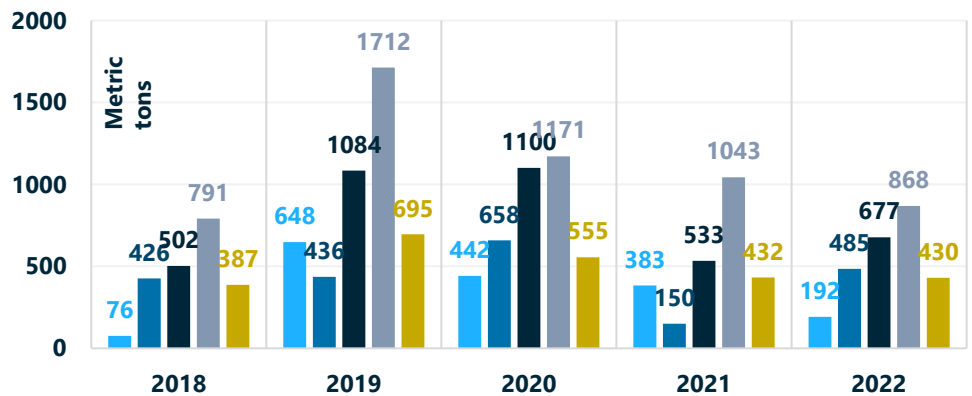


Figure 40. Japanese imports of sardine surimi from Peru, and Peruvian exports of surimi to Japan Source: Japan’s customs, Peru’s customs, UB Consulting

As a reminder, although we were able to make some estimates for China’s production, we could not break them down by species for tropical surimi. For carp, we made some assumptions based on price.

We must also mention that we made significant revisions to these numbers during the last report, in which careful revisions—albeit with a large margin of error due to the lack of comparable data—our new production estimates suggest carp surimi to be on the uptrend while tropical surimi to be on the downtrend on a yearly basis.

However, through Q2 this year, tropical surimi production estimates suggest an increase year-over-year while still below estimates prior to 2020. Meanwhile, carp surimi production estimates through Q2 this year suggest a decline of about 6 percent year-over-year but above estimates before 2020.

Regarding trade, we noticed an increase in Japanese imports of Chinese surimi paste of about 9 percent during the first half of the year, totaling 10.7 thousand metric tons; this is assumed to be tropical surimi. Furthermore, we also noticed a significant increase in South Korean imports of Chinese surimi paste of about 62 percent in Q1 year-over-year; this is assumed to be carp.

## Surimi Production Estimates, China Q1 to Q2

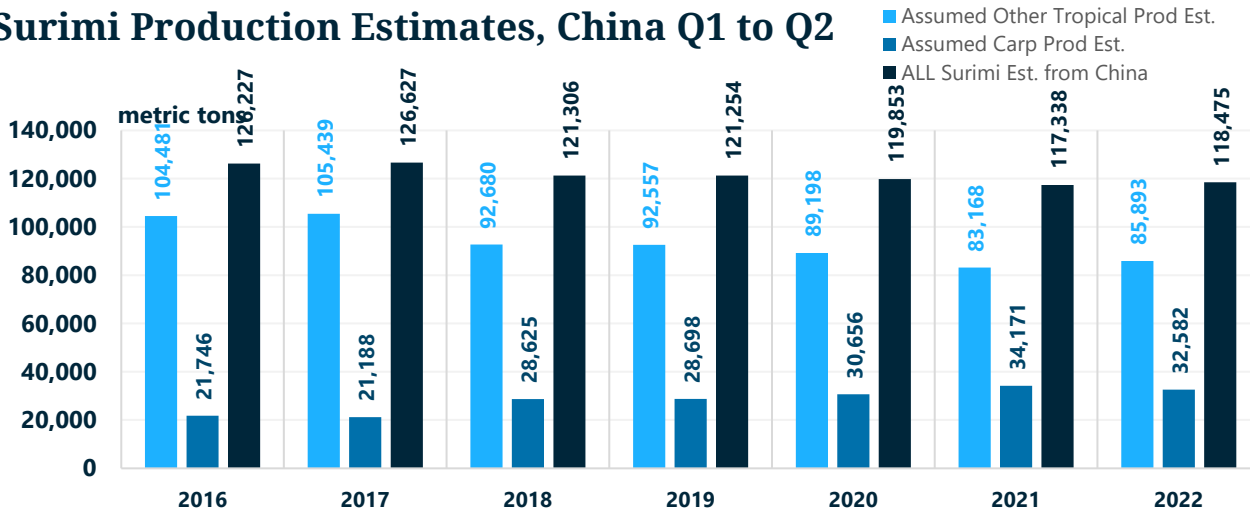


Figure 41. Production estimates of Chinese surimi. Source: Customs, UB Consulting.

## Surimi Imports from China Q1 to Q2

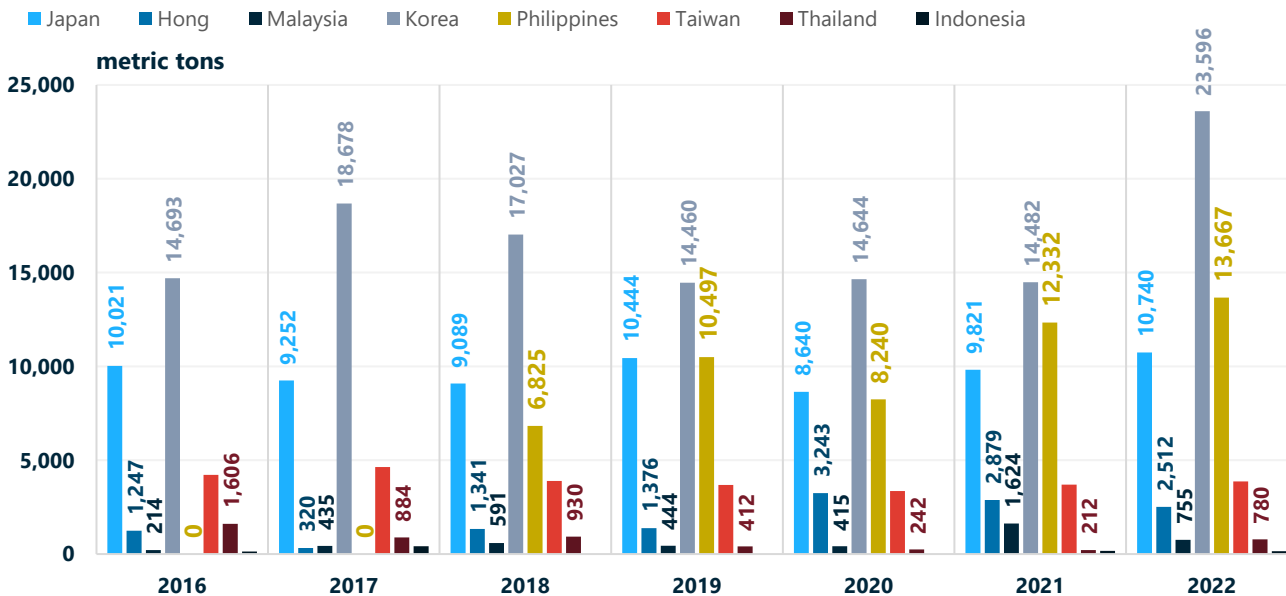


Figure 42. Countries declaring imports of Chinese surimi. Source: Customs, UB Consulting.

## About Urner Barry Consulting

Urner Barry Consulting provides tailored solutions to identify growth opportunities within the fast-paced protein commodity sectors. Combining the expertise of our analytical team, our warehouse of proprietary and trusted data, and unparalleled insight into market forecasting.

## Contact Urner Barry

Please contact, Senior Vice President, Chris Ashley ([cashley@urnerbarry.com](mailto:cashley@urnerbarry.com) or 732-240-5330) for additional product or subscription related services in the surimi or associated seafood markets and industries.

## Report Terms and Conditions

The information and data contained herein are intended solely for the confidential and exclusive use of members of the Association of Genuine Alaska Pollock Producers (GAPP). All GAPP Members expressly agree that they will not sell, communicate, or give any of said information or data to any other person, firm, or corporation, including any governmental agent or agencies whatsoever and any news distributing or communications company or service outside the scope of the original agreement.

The use of data for contractual or other purposes is beyond the publishers' control and they will in no case assume any responsibility for such use. They represent in the judgment of the publishers an accurate picture of current business, but they are not "official" in any sense of the word. The publishers disclaim and do not assume responsibility for any damages, alleged or otherwise, that may result or claim to have resulted from any use made by any person or any reliance made by any person upon any of the statements of data appearing at any time herein.

While the data contained in this report is gathered from reliable sources, accuracy and completeness cannot be guaranteed. The publisher does not give investment advice or act as an investment advisor. All data, information, & opinions are subject to change without notice. This publication is protected by U.S. copyright laws. Do not copy or redistribute this information without permission.

While the data contained in this report is gathered from reliable sources, accuracy and completeness cannot be guaranteed. The publisher does not give investment advice or act as an investment advisor. All data, information, & opinions are subject to change without notice. This publication is protected by U.S. copyright laws. Do not copy or redistribute this information without permission.

**Angel Rubio, Sr. Analyst**

[arubio@urnerbarry.com](mailto:arubio@urnerbarry.com)

**Akash Pandey, Data Scientist**

[apandey@urnerbarry.com](mailto:apandey@urnerbarry.com)

**Chris Ashley, Senior VP**

[cashley@urnerbarry.com](mailto:cashley@urnerbarry.com)