

# CHINA: TOP GLOBAL PRODUCER AND NET IMPORTER OF SHRIMP

By Fatima Ferdouse

**China, the world's biggest producer of farmed shrimp, imported a record volume of frozen shrimp during the last five years mostly to meet the rising domestic demand. Global suppliers have benefited greatly from this huge market; in 2023, Chinese shrimp imports reached one million tonnes, creating a historic moment for the international trade. At the same time, domestic production of farmed shrimp in China increased significantly in 2023, causing an oversupply situation in the market and weakening prices in the international trade. On the other hand, increased availability of raw material at lower prices helped to revive shrimp exports from China, particularly to the Asia-Pacific regional markets. Nonetheless, China remains a net importer of shrimp, with a widening gap between imports and exports.**



For decades, China has been among the world's biggest producers of farmed marine shrimp. During 2019–2022, annual production of marine shrimp in China ranged between 800 000 to 900 000 tonnes, with the main species being *P. vannamei* (83%), *P. mondon* (9%), *P. chinensis* (3–4%) and kuruma or *P. japonicus* (3–4 %). Annual production of giant freshwater prawn (*M. rosenbergii*) is also substantial at 100 000 tonnes.

In 2023, there was a sudden surge in *vannamei* shrimp production in the country that crossed one million tonnes, enabled through the greenhouse aquaculture technique. Overall production of the species increased by 8–10% in comparison with 2022. Industry reports indicated a supply of 3.5 million tonnes in 2023, including from local production and imports.

## 15 years of unbridled growth

The history of Chinese shrimp exports over the past 15 years shows incredible growth—almost unparalleled to any other seafood sector in the international trade. At the same time, rising domestic demand and the easing of stringent import policies and procedures for foreign shrimp, have facilitated a huge rise in imports.

Frozen shrimp imports in China displayed a quantum leap, from 103 000 tonnes in 2015 which had an import value of USD 755 million, to 258 000 tonnes (USD 1.8 billion) in 2018. Imports crossed 700 000 tonnes in 2019, just one year before the COVID-19 pandemic crisis, which made China a net importer of shrimp for the first time and one of the top three importers in the global shrimp trade. With the exception of the 2020 “pandemic year”, shrimp imports have increased every year until 2023 when China broke the world record (and its own record) with an import volume of 1 072 800 tonnes.

China: Imports and exports of shrimp, 2009–2023  
(quantity in tonnes; value in million USD)

	Imports		Exports	
	Quantity	Value	Quantity	Value
2009	42 891	154.8	246 369	1 483.4
2010	57 573	220.0	274 945	1 800.6
2011	53 109	268.2	305 236	2 188.9
2012	54 698	307.5	273 656	2 253.4
2013	71 292	440.7	269 940	2 538.7
2014	78 168	555.1	233 240	2 555.2
2015	102 846	754.8	191 945	1 920.5
2016	106 998	777.1	205 331	2 153.7
2017	118 917	856.3	214 982	2 288.3
2018	258 051	1 810.8	216 640	2 419.3
2019	721 990	4 462.0	165 317	1 834.3
2020	619 726	3 462.9	159 152	1 664.7
2021	829 300	4 057.7	179 706	2 100.3
2022	955 600	6 281.3	145 470	1 903.8
2023	1 072 800	6 015.6	148 388	1 941.2

Source: China Customs

In 2022, China superseded the United States as the number one importer of shrimp with a 113 500-tonne gap with the latter. In 2023, the import gap between the two countries was wider, at 284 000 tonnes.

World top importers of shrimp, January–December (quantity in 1 000 tonnes)

Importers	2018	2019	2020	2021	2022	2023	% change 2022/2023
China	258.1	721.9	700.0	829.3	955.6	1 072.8	12.3
EU	829.8	804.4	814.8	829.3	835.9	883.3	-0.2
US	698.3	700.8	748.0	897.9	842.1	788.5	-5.6
Japan	221.6	223.4	221.9	221.1	224.0	199.9	-1.7
Rep. of Korea	98.7	99.5	98.1	102.4	105.5	96.3	-8.7
World total, incl. others	2 710.3	3 097.8	3 561.0	3 561.05	3 808.61	3 776.01	-0.85

Source: China Customs

World top importers of shrimp, January–December (value in billion USD)					
Importers	2019	2020	2021	2022	2023
US	6.19	6.65	8.43	8.38	6.66
China	4.46	3.47	4.7	6.3	6.01
EU	N/A	4.89	6.26	6.12	5.58
Japan	2.29	2.11	2.24	2.30	1.92
Republic of Korea	0.66	0.64	0.74	0.85	0.70
<b>World total</b>	<b>24.79</b>	<b>23.61</b>	<b>28.47</b>	<b>31.47</b>	<b>27.08</b>

During the 2020–2022 pandemic crisis, stringent controls on human movement and business activities in the country severely restricted domestic aquaculture in China and led to increased imports to supplement the supply chain. Home-cooking of shrimp increased during this period as retail trade flourished through online sales.

## Leading shrimp exporters to China

In 2023, the top ten exporters had a 95% share (1 023 620 tonnes) in the total imports of shrimp into China, with the leading suppliers being Ecuador, India, Canada, Argentina and Thailand.

During 2019–2023, Ecuador increased its farmed shrimp (*vannamei*) exports to China by 116%, reaching almost 700 000 tonnes in 2023 with a 65% share in the total imports. Ecuador is the leading supplier of head-on shrimp to China, increasing its exports of the product from 115 000 tonnes in 2020 to 200 000 tonnes in 2023 (+74%). Coldwater shrimp from Canada, Argentina, Greenland, the Russian Federation, Denmark and Norway comprised 10% (86 000 tonnes).

India, the second leading exporter to China, exhibited fluctuating supplies during the last five years.

Top ten shrimp exporters to China, 2019–2023 (quantity in tonnes)					
Exporters	2019	2020	2021	2022	2023
Ecuador	322 797	318 667	379 005	564 747	697 863
India	155 521	105 438	116 390	136 764	141 799
Canada	27 802	23 724	20 995	32 273	31 352
Argentina	35 145	26 306	13 913	18 480	29 965
Thailand	39 418	21 389	24 182	25 603	28 922
Greenland	15 400	18 962	13 842	27 418	24 597
Viet Nam	13 846	38 594	23 897	41 723	19 101
Saudi Arabia	29 140	6 551	11 778	18 847	18 323
Indonesia	9 487	11 933	5 460	16 963	16 488
Peru	5 242	3 620	11 040	13 363	14 999
<b>Total</b>	<b>721 988</b>	<b>619 723</b>	<b>664 670</b>	<b>955 589</b>	<b>1 072 774</b>

Source: China Customs

## The rise of greenhouse and RAS culture systems in China

At the Global Shrimp Forum 2023, Dr Guo Fuci, then-Aquaculture Global Category Manager at the Royal Agrifirm Group, spoke on the low-cost “greenhouse” shrimp farms in China. He said that greenhouse systems are widely used in the more temperate parts of the country; they account for 30 percent of China’s domestic shrimp production, with 10 000 ponds, each 40 x 10 m, being built every quarter. The ponds are covered by transparent plastic sheeting and the water temperature is artificially elevated using crude boiler systems, allowing the pond operators to produce shrimp in the winter months right up to the Lunar New Year when shrimp prices are at their highest.

Guo estimated that there are now 250 000 of these ponds, producing 500 000 tonnes of shrimp. Their fairly low cost of about USD 7 000 to build each greenhouse pond, can be paid off within a year if the operators achieve an 80 percent survival rate. However, the downsides of these greenhouse systems are that they occupy a lot of land, use up too much groundwater, and discharge large volumes of wastewater. For these reasons (and also the fact that the aquaculture sector in the country is increasingly being regulated), Guo predicted that more inland industrial indoor recirculating aquaculture system (RAS) farms will be established. He said that although RAS farms contribute only about three percent of the country’s shrimp at present, the largest eight of these farms are producing an impressive 70 000 tonnes of shrimp between them. One of the largest operators is Tongwei (one of the country’s main manufacturers of solar panels), which aims to hit one million tonnes in 5–10 years, according to Guo. Other big names in the sector include Evergreen and CP.

## Increased production and imports create oversupply in 2024

Largely due to the greenhouse farming technique, China harvested one million tonnes of *vannamei* in 2023, 200 000 tonnes more than a year ago. Imports also increased by 110 000 tonnes during that year, adding another 300 000 tonnes to the availability of shrimp in the country.

In 2024, imports declined after steady growth for many years. Monthly imports in 2024 increased only in January and remained below 2023 levels during February to September 2024. Cumulative imports during the first three-quarters of 2024 were down by 3.6% year-on-year at 730 000 tonnes. With consumer demand remaining weak to moderate during this period, the domestic market is in an over-supply situation.

Nevertheless, during January–June 2024, China ranked as the number one market in the global shrimp trade, with imports of 483 170 tonnes of shrimp. The United States was the second-biggest market with 351 340 tonnes, followed by the European Union (348 560 tonnes).

With regard to the domestic production of farmed *vannamei* shrimp, aquaculture industry experts expect growth of only 2% in 2024 at 800 000 tonnes in comparison with 2023, when the growth rate was estimated at 8%.

China: Monthly shrimp imports, January–September 2022–2024, (quantity in tonnes)			
Year	2022	2023	2024
January	70 967	66 970	104 176
February	55 505	76 653	65 241
March	65 203	114 299	81 621
April	54 931	85 895	73 748
May	63 041	107 683	74 691
June	60 136	93 086	83 694
July	99 028	94 641	87 123
August	100 570	88 926	86 969
September	94 337	93 918	72 561
<b>Total (9 months)</b>	<b>663 718</b>	<b>822 071</b>	<b>729 824</b>

Source: China Customs

## Increased shrimp exports

Shrimp exports from China started to decline from 2019, when a high tariff rate of 25% was imposed by the United States on Chinese shrimp. As a result, China began to focus more on the Asia-Pacific region.

During January–September 2024, Chinese shrimp exports improved to 123 725 tonnes in comparison with 105 342 tonnes and 104 479 tonnes during the same periods in 2023 and 2022 respectively, as a result of increased availability of cheaper raw material through imports. The share of value-added products in the total exports also increased from 61% in 2023 to 64% in 2024. The main markets were Japan, Malaysia, the Republic of Korea, Hong Kong and Spain.

China: Shrimp exports, 2018–2023 (quantity in tonnes)						
Markets	2018	2019	2020	2021	2022	2023
Japan	26 748	21 546	31 919	33 714	22 174	20 277
Malaysia	5 573	4 917	4 354	8 215	13 571	19 715
Hong Kong	15 353	12 423	14 437	19 594	16 002	15 790
Korea (Rep. of)	17 374	13 920	12 576	16 171	9 483	11 871
Taiwan	21 939	14 914	11 834	12 067	10 467	11 401
United States	51 722	29 164	26 475	15 987	11 864	11 138
Spain	12 790	11 411	10 864	13 521	10 449	10 672
Mexico	9 541	7 535	6 589	9 944	6 693	9 506
Chile	6 070	5 193	7 380	14 767	6 908	8 136
Canada	11 320	10 167	7 020	9 146	8 522	7 118
Singapore	4 457	4 882	4 783	5 624	6 344	6 963
Russian Federation	7 824	5 584	3 034	3 759	8 080	3 290
<b>Total, incl. others</b>	<b>216 640</b>	<b>165 375</b>	<b>159 519</b>	<b>179 705</b>	<b>145 469</b>	<b>148 394</b>

Source: China Customs

China: Shrimp exports during January–September, 2020–2024 (quantity in tonnes)					
Year	2020	2021	2022	2023	2024
<b>Destinations</b>					
Japan	23 478	26 724	17 172	15 199	17 852
Malaysia	3 104	5 568	9 947	13 546	17 627
Korea (Rep. of)	7 079	8 202	6 865	7 883	10 550
Hong Kong	9 726	14 485	11 238	11 667	9 938
Spain	7 344	8 677	7 550	7 190	8 933
Mexico	3 946	7 065	4 903	6 922	8 927
Chile	4 420	9 096	5 165	5 738	8 091
United States	19 401	12 414	8 212	7 579	8 075
Taiwan	8 968	8 350	7 468	8 319	7 622
Canada	4 902	6 436	6 568	4 648	5 397
Singapore	3 298	3 982	4 802	5 192	4 927
Russian Federation	1 601	2 899	3 633	2 470	4 118
<b>Total incl. others</b>	<b>109 644</b>	<b>126 610</b>	<b>104 479</b>	<b>105 342</b>	<b>123 724</b>

Source: China Customs

## Positive outlook for 2025

As of end-September 2024, cumulative imports of shrimp into China for the year were 729 828 tonnes, a drop of 11.3% or 93 000 tonnes against the same period a year ago. The import shortfall from the top supplier, Ecuador, was 40 000 tonnes (-7.4%), and imports from all other suppliers have also been below last year's level in the period under review. This trend is likely to persist during the last quarter of the year.

Domestically, consumer demand has been active since the third quarter of the year, associated with the mid-autumn festival in September and the week-long National Day celebration in October 2024. Shrimp prices in the distribution chain have started to firm up from the fourth quarter of the year – a trend likely to continue till the Lunar New Year in January/February 2025. 🍤



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