



Required Report: Required - Public Distribution

Date: March 08, 2024 Report Number: PE2024-0003

Report Name: Oilseeds and Products Annual

Country: Peru

Post: Lima

Report Category: Oilseeds and Products

Prepared By: Miluska Camacho

Approved By: Zeke Bryant

Report Highlights:

After the 2023/24 El Niño cycle, fishmeal production in marketing year (MY) 2024/25 is expected to recuperate back to 1.1 million metric tons (MMT), a 39 percent increase compared to the previous year's estimates. Fishmeal exports in MY 2024/25 are forecast at 1.08 MMT, recovering 35 percent compared to the previous year. Due to the probability of a return to La Niña weather conditions, total catch and fishmeal production are expected to increase in calendar year (CY) 2024.

Meal, Fish	2022/2023		2023/2024		2024/2025	
Market Begin Year	Jan 2023		Jan 2024		Jan 2025	
Peru	USDA Official	New Post	USDA Official	New Post	USDA Official	New Post
Catch For Reduction	5100	2200	5100	3800	0	4900
Extr. Rate, 999.9999	0.1569	0.2445	0.1569	0.2079	0	0.2245
Beginning Stocks	41	41	37	30	0	17
Production	800	530	800	790	0	1100
MY Imports	6	7	4	5	0	4
Total Supply	847	578	841	825	0	1121
MY Exports	800	538	800	800	0	1080
Industrial Dom. Cons.	0	0	0	0	0	0
Food Use Dom. Cons.	0	0	0	0	0	0
Feed Waste Dom. Cons.	10	10	10	8	0	8
Total Dom. Cons.	10	10	10	8	0	8
Ending Stocks	37	30	31	17	0	33
Total Distribution	847	578	841	825	0	1121

Table 1. Fish Meal Production, Supply, and Distribution

(1000 MT), (PERCENT)

Production

The Peruvian fishmeal industry is the country's second largest sector after mining, and therefore vital for Peru's economy. Fishmeal production in marketing year (MY) 2024/25 (beginning January 2025) is forecast at 1.10 million metric tons (MMT), a 39 percent increase compared to previous year estimates. Peru's total catch of anchovy (*Engraulis ringens*), commonly known as *anchoveta*, in MY 2024/25 is forecasted at 4.9 MMT, increasing 29 percent compared to the previous year. After an El Niño cycle in 2023 and early 2024, a cooler water rotation is expected according to historical weather patterns, favoring the growth of biomass in late 2024 into 2025. In any case, total catch and fishmeal production are expected to recover from MY 2022/23 lows, as the latest forecast from the Climate Prediction Center states, "a transition from El Niño to ENSO-neutral is likely by April-June (79% chance) with increasing odds of La Niña developing in June-August 2024 (55% chance)" (NOAA, 2024). Despite the current weaking of El Niño, current coastal observations show an unexpected warming of the Pacific Ocean in early 2024.



Figure 1. Coastal Superficial Temperature in (°C)

Source: Marine Institute of Peru (IMARPE). Updated: Feb 18, 2024

Peru produces two fishmeal grades. Fair Average Quality (FAQ) fishmeal has a protein content of 62 to 65 percent and is dried by direct heat. More valuable Prime Quality fishmeal, indirectly dried by steam, has a protein content of 66 to 67 percent. There are 124 licensed fishmeal-processing plants in Peru (see Annex 1). The Ancash region has the largest number of fishmeal processing plants, currently at 43, and represents 30 percent of total supply. The country's fishing fleet numbers 2,457 vessels, of which 716 are steel hull boats with storage capacity of 500 cubic meters and purse seine nettings. The remaining vessels are wooden with an average storage capacity of only 100 cubic meters. The fishing fleet's processing capacity is about 7,500 metric tons (MT) per hour, an amount that if reached, would be four times greater than the average permissible catch.

The Pacific Ocean off the Peruvian coast is extremely rich in nutrients due to the Humbolt Current, an underwater cold stream that causes the upwelling process which makes the Peruvian waters rich in plankton. Anchovy is a fast-growing species and a fundamental part of the Pacific ecosystem due its role in the food chain for fish, mammals, and even birds. Anchovy schools are mostly found around 37 miles (60 kilometers) off the coast but can be as far as 100 miles (160 kilometers). Under El Niño conditions, anchovy school behavior alters, distancing from the coast and going deeper in the water column. Under regular conditions, anchovy schools are typically found 165 feet (50 meters) deep, however under warm conditions, schools often go down to 620 feet (190 meters). The vertical distribution is related to environmental conditions. During El Nino events, anchovy stocks are reduced as upwelling slows and plankton die off, impacting the available biomass. Between February and May 2023, three studies carried out by the Marine Institute of Peru (IMARPE) showed 80 to 90 percent of juveniles in sample catches, with a severe decrease of total biomass. Minimum catch size is set by law at 12 cm (4.7 inch) in total length. In the last 10 years, a higher proportion of juveniles have been observed compared to adult fish, explaining the reduction in catch totals.

Peru has two major fishing seasons and two main anchovy fishing grounds off its coasts. The first fishing season is April-July for the north-central coast and February-June in the southern coast. The second season is November-January in the north-central coast and July-December in the southern coast. These are only "reference" fishing seasons since they can vary significantly each year depending on fish

availability and size. The quota, according to the technical standard, should not exceed 35 percent of the biomass.

In 2023, facing El Niño and reduced biomass, the Ministry of Production (PRODUCE) decided to cancel the first anchovy fishing season in the north-central coast. The second fishing season lasted from October 26, 2023, to January 13, 2024, accounting for a 1.3 MMT catch for processing. Historically, the catch total in the south is complementary and much smaller than the northern catch. This is partly due the geography of the southern region and the unusual tendency of the anchovy schools to enter within five miles of the coast. As a result of poor samples, the second season in the southern coast was canceled in 2023. These canceled seasons resulted in an estimated loss of \$1 billion for Peru's fishmeal industry.

The government seeks to achieve more sustainable yields by issuing individual quotas per vessel and restricting the number of fishmeal processing plants issued licenses. Peru also bans the catch of anchovies if ten percent of the sampled fish are below a minimum threshold size of twelve centimeters (i.e. juveniles). One of the key reasons why anchovy stocks continue to face pressure from overfishing is due to an exemption granted to small-scale/artisanal vessels (i.e., those whose tonnage are less than ten MT) to fish year-round within ten nautical miles off the coast.

The small-scale/artisanal vessel catch is claimed to be for direct human consumption. However, despite the government's efforts, most of this catch ends up in the more profitable fishmeal processing industry. The lack of regulatory control over these vessels is detrimental to anchovy stocks as they operate during spawning season when juveniles congregate.

First Fishing Season				Second Fishing Season			
	Biomass	Quotas	Catch		Biomass	Quotas	Catch
2008	9.8	3.0	3.2	2008	6.3	2.0	2.1
2009	7.6	3.5	3.4	2009	6.7	2.0	2.0
2010	6.5	2.5	2.5	2010	7.2	2.1	0.8
2011	10.5	3.7	3.7	2011	10.6	2.5	2.5
2012	9.1	2.7	2.7	2012	5.3	0.8	0.8
2013	12.1	2.1	2.0	2013	10.3	2.3	2.3
2014	6.1	2.5	1.7	2014*	4.4	No quota	No cate
2015	9.4	2.6	2.5	2015	6.1	1.1	1.1
2016	7.3	1.8	0.9	2016	6.9	2.0	2.0
2017	7.8	2.8	2.4	2017	6.1	1.5	0.7
2018	10.9	3.3	3.2	2018	7.2	2.1	2.1
2019	7.0	2.1	2.1	2019	8.3	2.8	1.0
2020	10.1	2.4	2.4	2020	8.4	2.8	2.5
2021	9.9	2.5	2.5	2021	7.0	2.0	2.0
2022	9.8	2.8	2.3	2022	6.8	2.3	1.9
2023*	6.5	No quota	No catch	2023	7.2	1.7	1.3
2020	0.5	110 quota	110 cuton	2020	7.2	1.7	

Table 2. Peru Anchovy Seasons and Catches for the North-Central Zone, Million Metric Tons

* Exploratory fishing (incidental)

Source: IMARPE, PRODUCE

Notable El Niño cycles were reported in 2009-2010, 2014-2016, 2018-2019, and 2023.

First Fishing Season			
	Quotas	Catch	
2010	0.400	0.287	
2011	0.400	0.400	
2012	0.400	0.332	
2013	0.400	0.228	
2014	0.234	0.258	
2015	0.375	0.294	
2016	0.382	0.162	
2017	0.515	0.171	
2018	0.535	0.162	
2019	0.540	0.204	
2020*	0.535	No catch	
2021	0.409	0.167	
2022	0.487	0.201	
2023	0.337	0.025	

Second Fishing Season				
	Quotas	Catch		
2010	0.450	0.003		
2011	0.400	0.330		
2012	0.307	0.028		
2013	0.430	0.338		
2014*	No quota	No catch		
2015	0.450	0.005		
2016	0.382	0.030		
2017	0.515	0.010		
2018	0.535	0.072		
2019	0.540	0.005		
2020*	No quota	No catch		
2021	0.409	0.075		
2022	0.487	0.065		
2023*	No quota	No catch		

Table 3. Peru Anchovy Seasons and Catches for the Southern Zone, Million Metric Tons

* Exploratory fishing (incidental)

Source: IMARPE, PRODUCE

Notable El Niño cycles were reported in 2009-2010, 2014-2016, 2018-2019, and 2023.

Consumption

Local fishmeal consumption is insignificant and primarily used for shrimp and trout production. It therefore has little to no impact on the export market. Domestic consumption in MY 2024/25 is forecast at 8,000 MT.

Domestic consumption is expected to decrease due to a decline in demand from Peru's northern shrimp and southern trout production. Peru's aquaculture sector is estimated to have reduced by 20 percent since 2020 due to higher production costs, lower international prices, and social unrest. Also, Peru's own aquaculture feed demand is increasingly filled by more affordable, imported soybean meal.

Trade

Peru is the largest fishmeal producer in the world, accounting for roughly 20 percent of the world's production. Fishmeal exports in MY 2024/25 are forecast to 1.08 MMT, recovering 40 percent compared to the previous year. The average fishmeal price in CY2023 was \$1,723 per MT, increasing five percent compared to the previous year.

Total exports by volume amounted to 1.2 MMT in 2021, 1.1 MMT in 2022, and 0.5 MMT in 2023. By value, exports accounted for \$1.8 billion in both 2021 and 2022, and \$926 million in 2023. In normal years, fishmeal is Peru's fourth largest export in terms of value, behind gold, copper, and petroleum.



Figure 2. Monthly Exports 2021-2023, Thousand Metric Tons

Source: Peruvian Customs Service (SUNAT)



Figure 3. Fishmeal Exports Monthly Comparison in Volume and Value (2023)

China will remain as Peru's leading fishmeal export market for the foreseeable future. China accounted for 79 percent of Peru's CY 2023 fishmeal exports. Other important markets include Ecuador (with a steadily growing shrimp industry), Japan, Germany, and Taiwan.

Source: Peruvian Customs Service (SUNAT)



Figure 4. Destination of Peruvian Fishmeal Exports (2023)

Source: Peruvian Customs Service (SUNAT)

Policy

The Vice Ministry of Fisheries, located within the Ministry of Production (PRODUCE), oversees Peru's fisheries and is responsible for enforcing the fishing quota. Its inspectors monitor the coast to prevent fish from being unloaded at processing plants during the fishing ban. During fishing seasons, inspectors monitor boats to ensure that allotted fishing quotas are not exceeded. Despite these measures, there are still several non-registered plants and boats operating.

Overfishing has forced PRODUCE to reduce fishing quotas over the years and ban large-scale industrial anchovy fishing within 10 miles of Peru's coast. The Vice Ministry of Fisheries has established boat-specific quotas. These individual boat quotas are set based on the vessel's historic catch record and its proven storage capabilities.

IMARPE is a scientific, specialized agency within PRODUCE that advises on the use of the Peruvian sea, its resources, and the conservation of the marine environment. IMARPE monitors anchovy school conditions from its 10 regional offices and three scientific vessels used for expeditions to estimate stock populations. On February 16, 2024, an expedition vessel departed for an evaluation of anchovy and other pelagic resources to determine the first fishing season openings and quotas. The geographical research area will range from Puerto Pizarro (Tumbes) in northern Peru down to Morro Sama (Tacna) in southern Peru. The vessel will travel between 0.3 to 100 miles off the coast to carry out acoustic, biological, and oceanographic sampling with the support of private vessels to strength the evaluation.

Since 1952, the National Fisheries Society (<u>SNP</u>) has advocated for the Peruvian fishing and aquaculture industry. SNP supports and guides the sector, which is key due its relevance in Peru's economy. According to SNP, weather conditions improved in late CY 2023 and are expected to normalize throughout CY 2024.

Attachments:

Annex 1. List of fishmeal plants.xlsx