

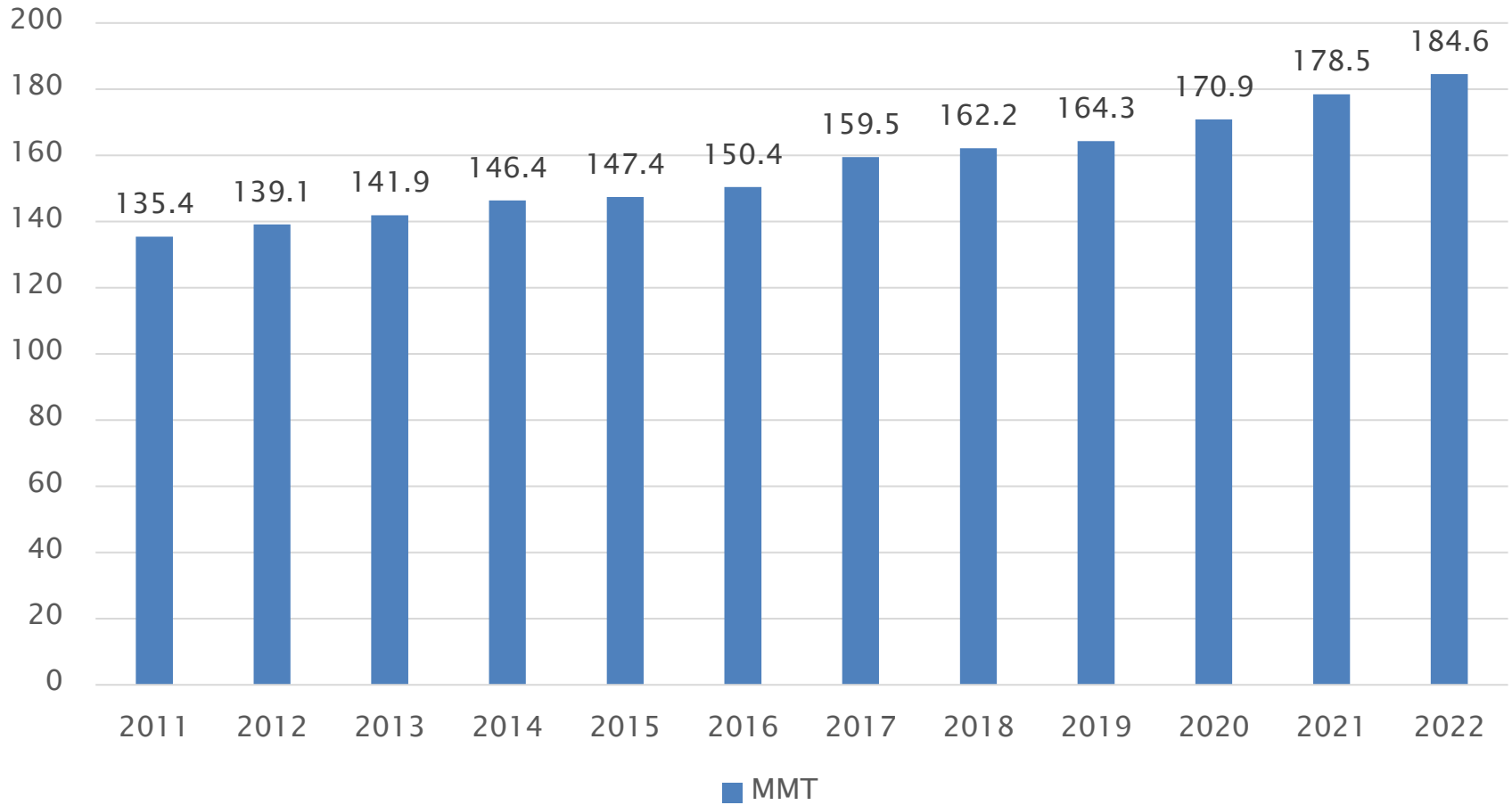


Latin America
Rendered Proteins in Aquaculture

German Davalos
NARA Symposium, Atlanta
Feb. 1-2, 2024

Latin America Feed Production

Latin America Feed Production 2011 - 2022 (MMT)



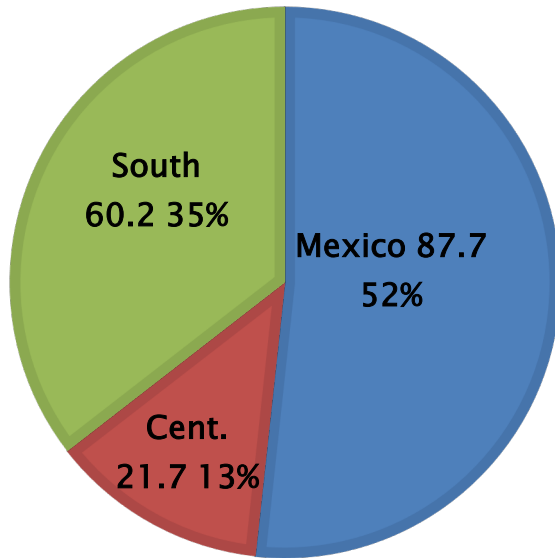
Latin America's Total feed Produced per Specie Percentage of the total produced by the top six countries

Chickent Feed 68.5 mmt		Layer feed 24.1 mmt		Pork feed 37.8 mmt		Cattle feed 35.3 mmt		Petfood 7.0 mmt		Aqua feed 5.4 mmt	
Brazil	52.2%	Mexico	31.0%	Brazil	54.5%	Brazil	34.4%	Brazil	52.8%	Chile	29.1%
Mexico	16.4%	Brazil	28.4%	Mexico	17.6%	Mexico	29.9%	Mexico	19.0%	Ecuador	28.8%
Argentina	6.6%	Colombia	9.0%	Argentina	7.6%	Argentina	22.1%	Argentina	10.8%	Brazil	27.8%
Colombia	6.1%	Argentina	8.4%	Chile	4.7%	Uruguay	7.6%	Colombia	7.1%	Mexico	7.3%
Peru	5.3%	Peru	5.5%	Colombia	4.5%	Colombia	2.5%	Chile	5.8%	Colombia	6.0%
Chile	2.1%	Guatemala	2.8%	Peru	2.5%	Chile	2.0%	Uruguay	1.9%	Costa Rica	0.8%
								Brazil	3.7 mmt	Chile	1.6 mmt
								Mexico	1.3 mmt	Ecuador	1.6 mmt
								Argentina	756 tmt	Brazil	1.5 mmt
								Colombia	497 tmt	Mexico	394 tmt
								Chile	406 tmt	Colombia	324 tmt

U.S. Protein Meals Exports to Latin America (TMT)

169.6 TMT (148 JAN-JUL 2022)

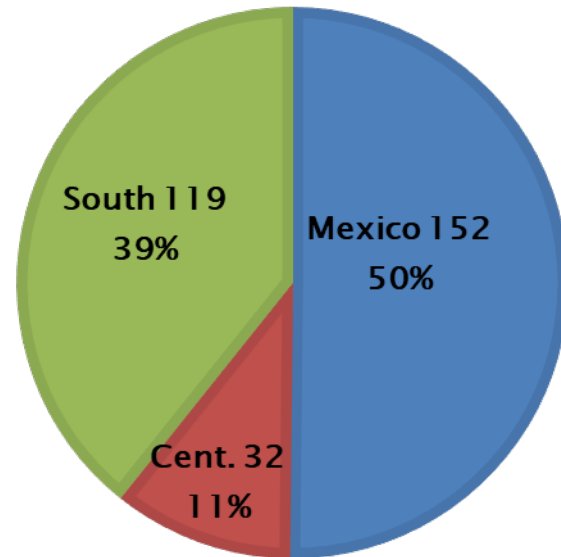
■ Mexico ■ Central ■ South



Jan-Jul 2023

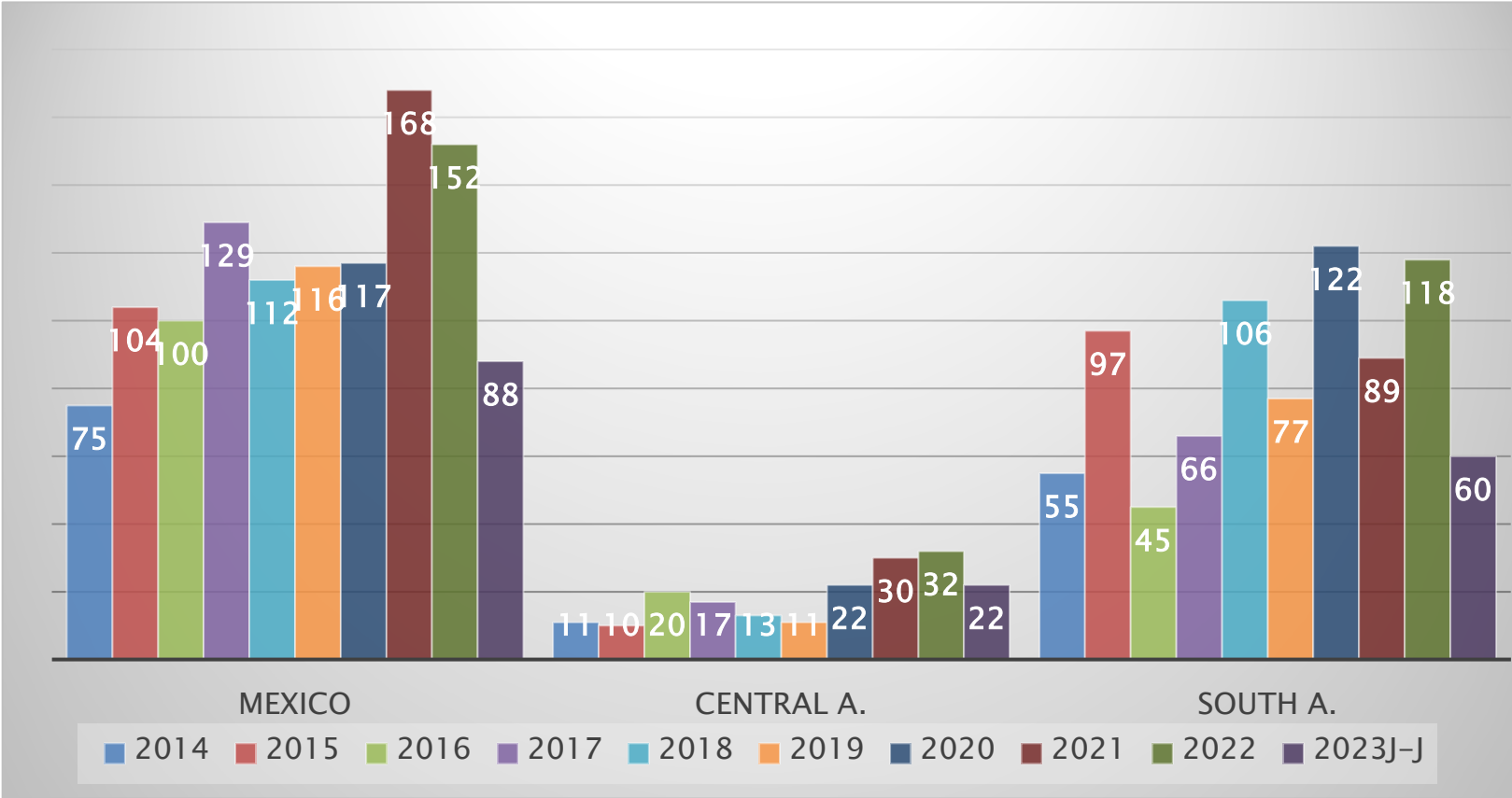
303 TMT - \$200 M

■ Mexico ■ Central ■ South



2022

U.S. Exports of Animal Proteins 2014-2022 & Jan-Jul 2023 (TMT) Mexico, Central America, South America



Mexico

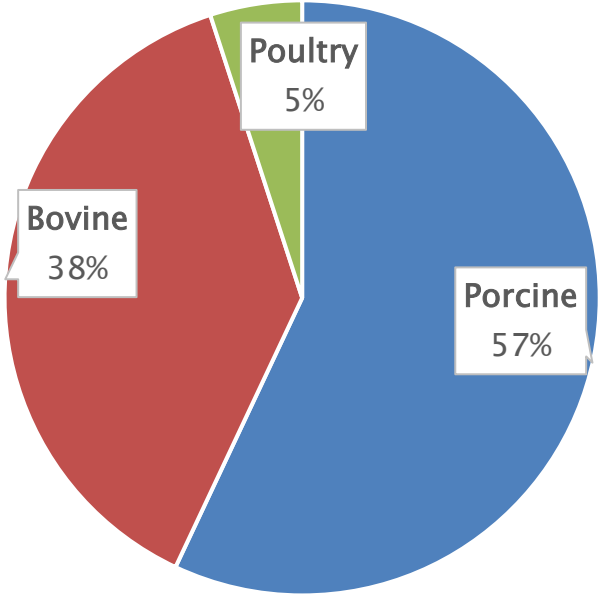
Mexico's Main End-users of animal Proteins

- ▶ Poultry feed: 11.2 million mt
- ▶ Petfood: 1.3 million mt
- ▶ Aquafeed: 400 thousand mt

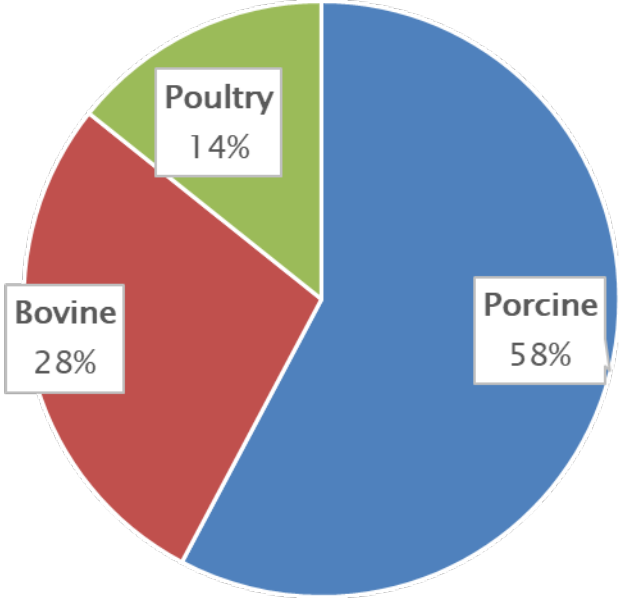
Mexico – Protein Meal Imports per Specie (MT) 2015–2022 & Jan–Jul 2023

Product	2015	2016	2017	2018	2019	2020	2021	2022	2023 Jan–Jul
Poultry	19,270	7,000	10,500	8,143	10,513	15,000	24,586	21,721	4,400
Porcine	84,730	93,000	118,500	104,233	105,184	89,626	92,791	87,932	50,200
Bovine	N/A	N/A	N/A	N/A	N/A	12,374	50,941	42,500	33,400
TOTAL	104,000	100,000	129,000	112,376	115,697	116,883	168,318	152,000	88,000

Percent of Mexico's Imports of Animal Proteins per Specie Jan-Jul 2023 vs. 2022



■ Porcine ■ Bovine ■ Poultry



■ Porcine ■ Bovine ■ Poultry

Jan - Jul 2023

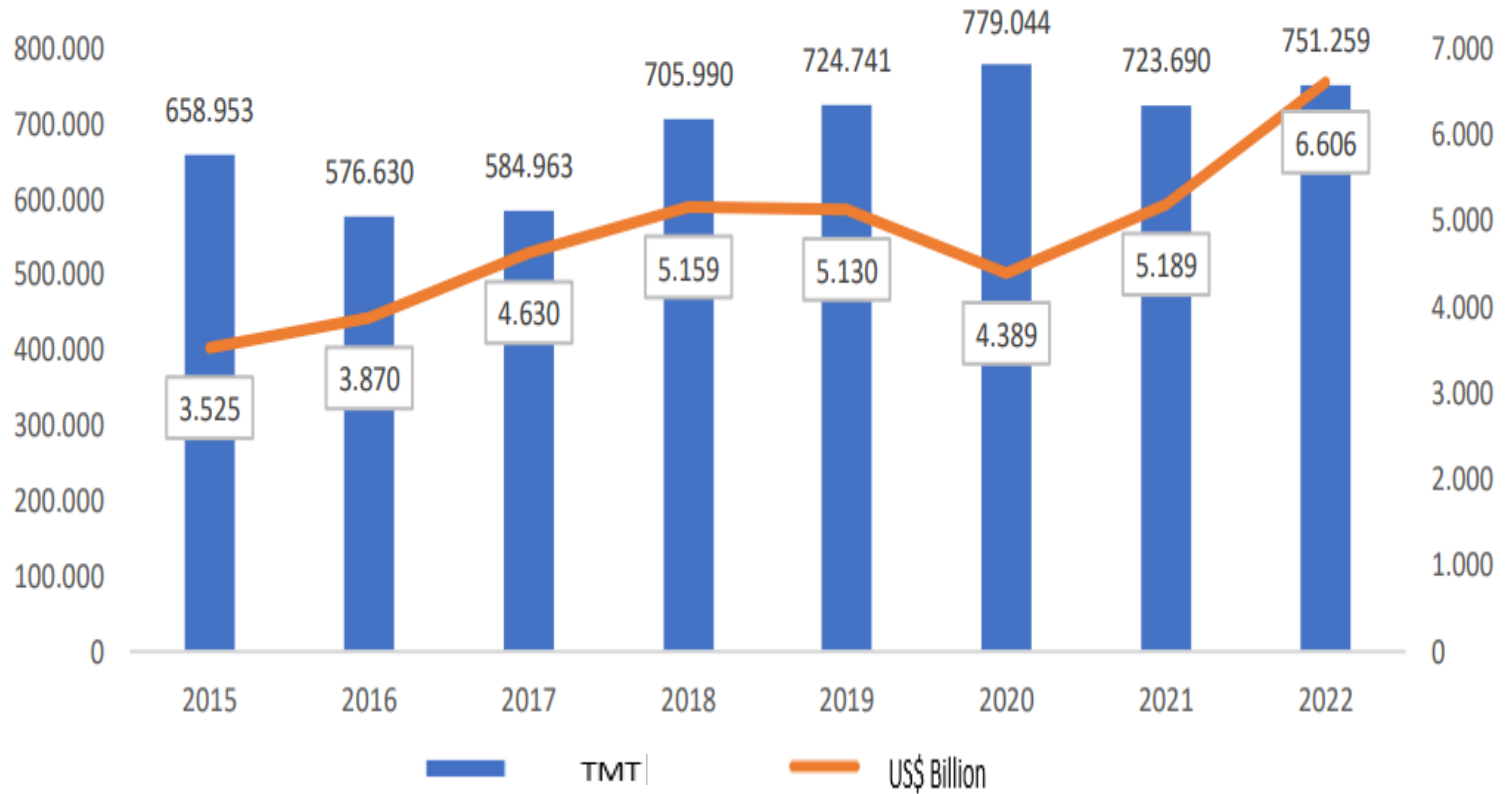
2022

South America



Chile

Chile: Salmon and Trout Exports 2022



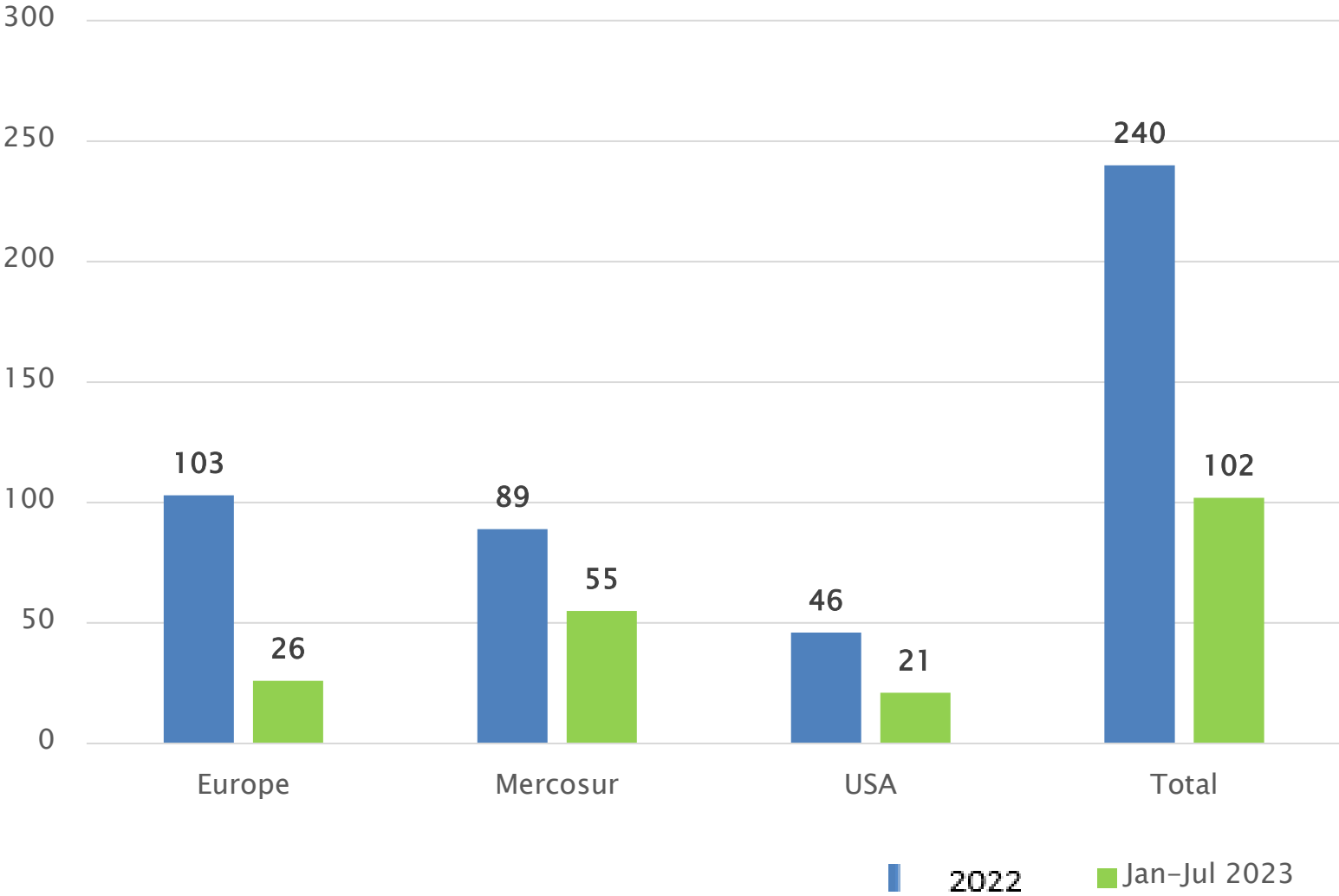
Fish Production:

2022 1.04 million mt

2023: 1.08 million mt

Aquafeed Production: 1.6 million mt

Chile's Imports of All Animal Proteins (TMT) 2022 and Jan-Jul 2023 All Suppliers



CHILE granted market access to porcine meat and bone meal (Oct. 20223)

<https://www.aphis.usda.gov/regulations/vs/iregs/products/downloads/ci-porcine-mbm.pdf>

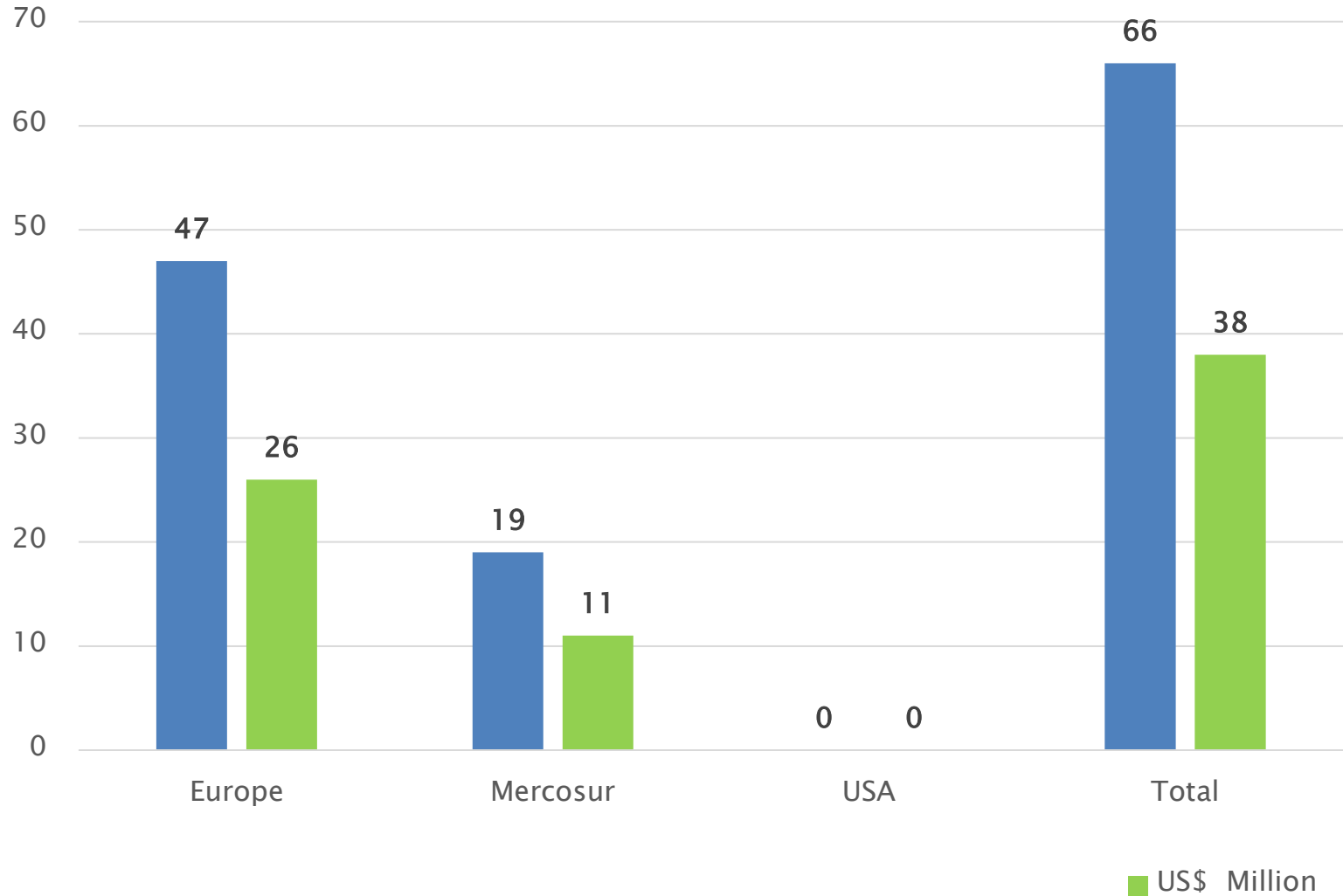
Porcine Meals (Meat-and Bone) for Use in Animal Feeding for Export to Chile

Facilities must register with Chile's competent authority Servicio Agrícola y Ganadero (SAG)

Interested parties may register with the assistance of an importer. **Registration is valid for two years**

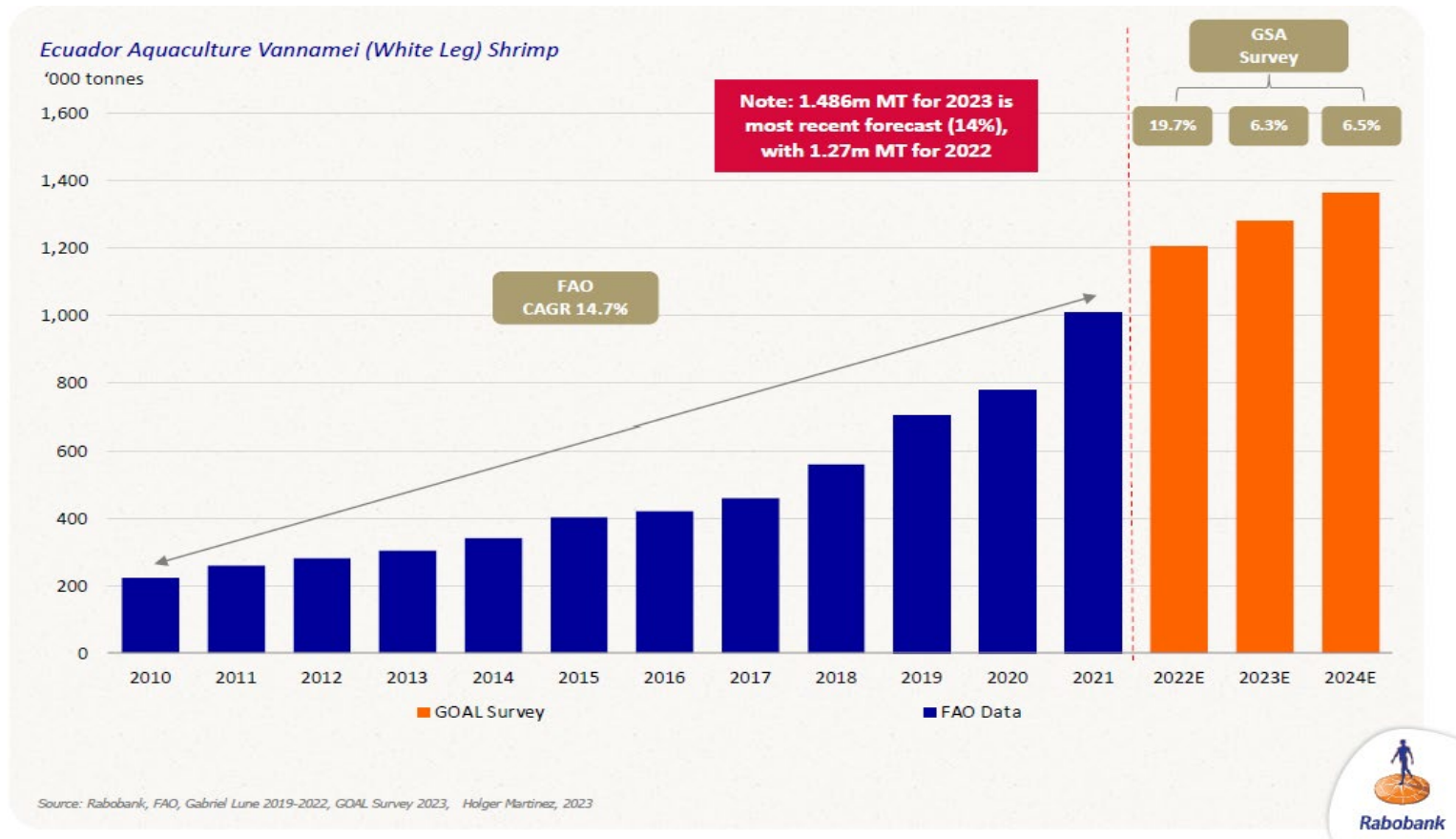
2022 Chile's Imports of Porcine Meal (TMT)

Av. Price US\$/MT: Europe \$553 Mercosur \$578



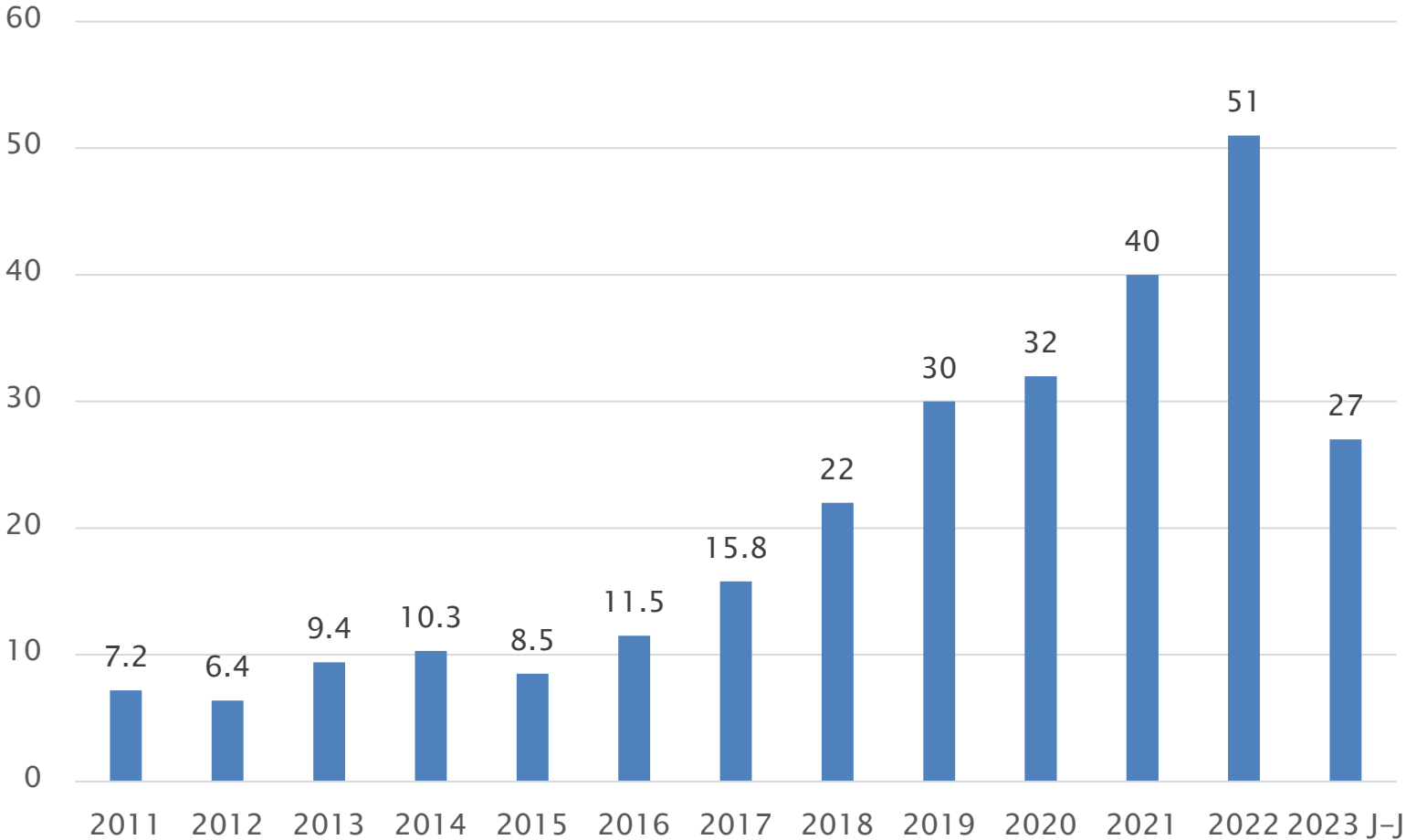
Ecuador

Ecuador Shrimp Production (TMT)



In 2023 Ecuador's production increased by 14.5% to reach 1.2 million mt

Ecuador's Imports from the US – Animal Proteins (TMT) 2011–2022 & Jan–Jul 2023



Jan – Jul 2023 exports: Poultry meal 37% – Porcine meal 63%

Ecuador granted market Access for bovine meat and bone meal from the U.S. in January 2024

Import requirements will soon be published by APHIS

Registration of exporting rendering plants is required.

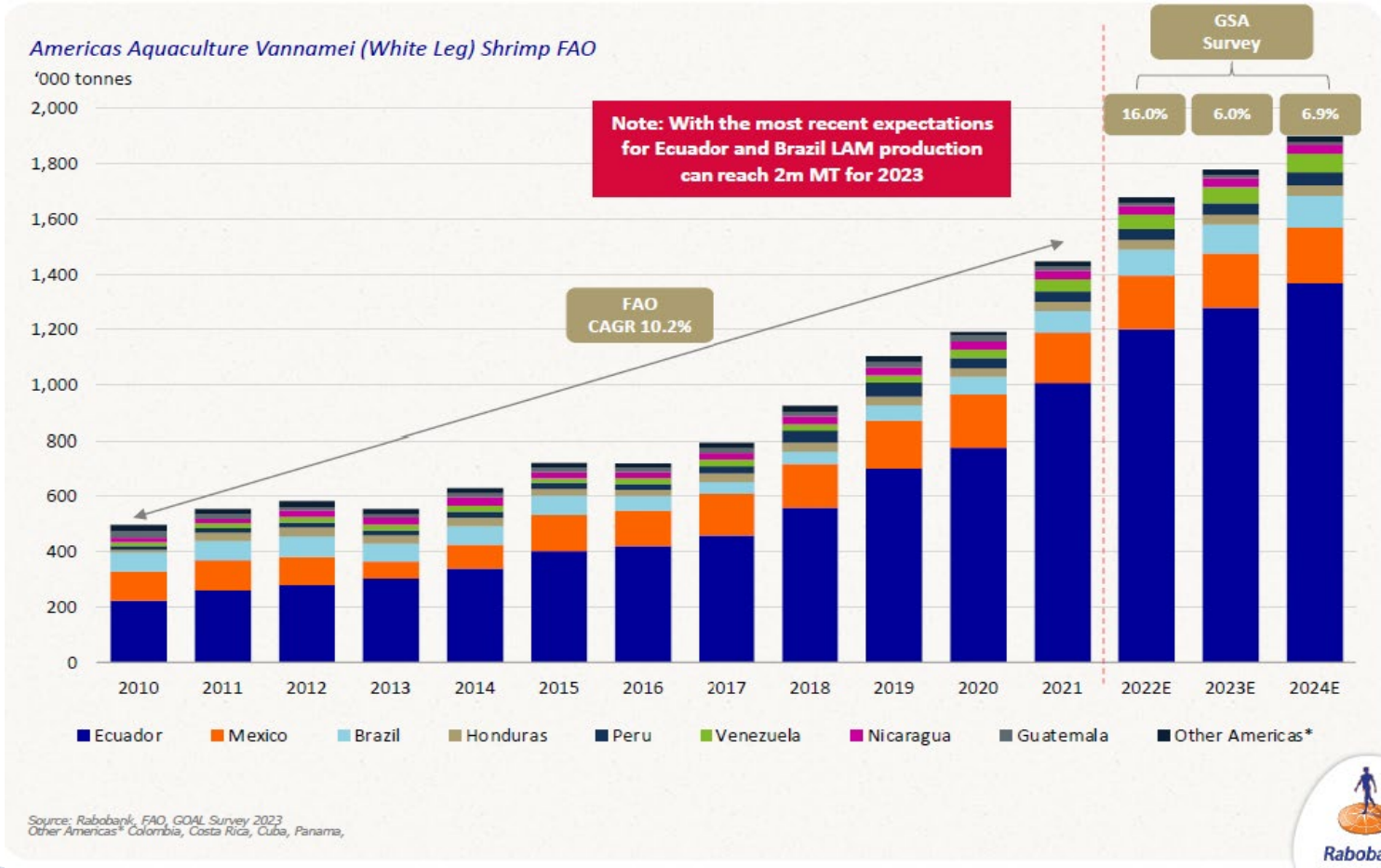
Ecuador's Petfood Production

- Volume produced in 2022: 112 TMT.
 - Up 22% in volume during the first half of 2023.
 - Up 60% in value in 2022 to reach \$120 million.
-

Ecuador's Petfood Market in Million Dollars



Shrimp Production in Latin America (TMT)

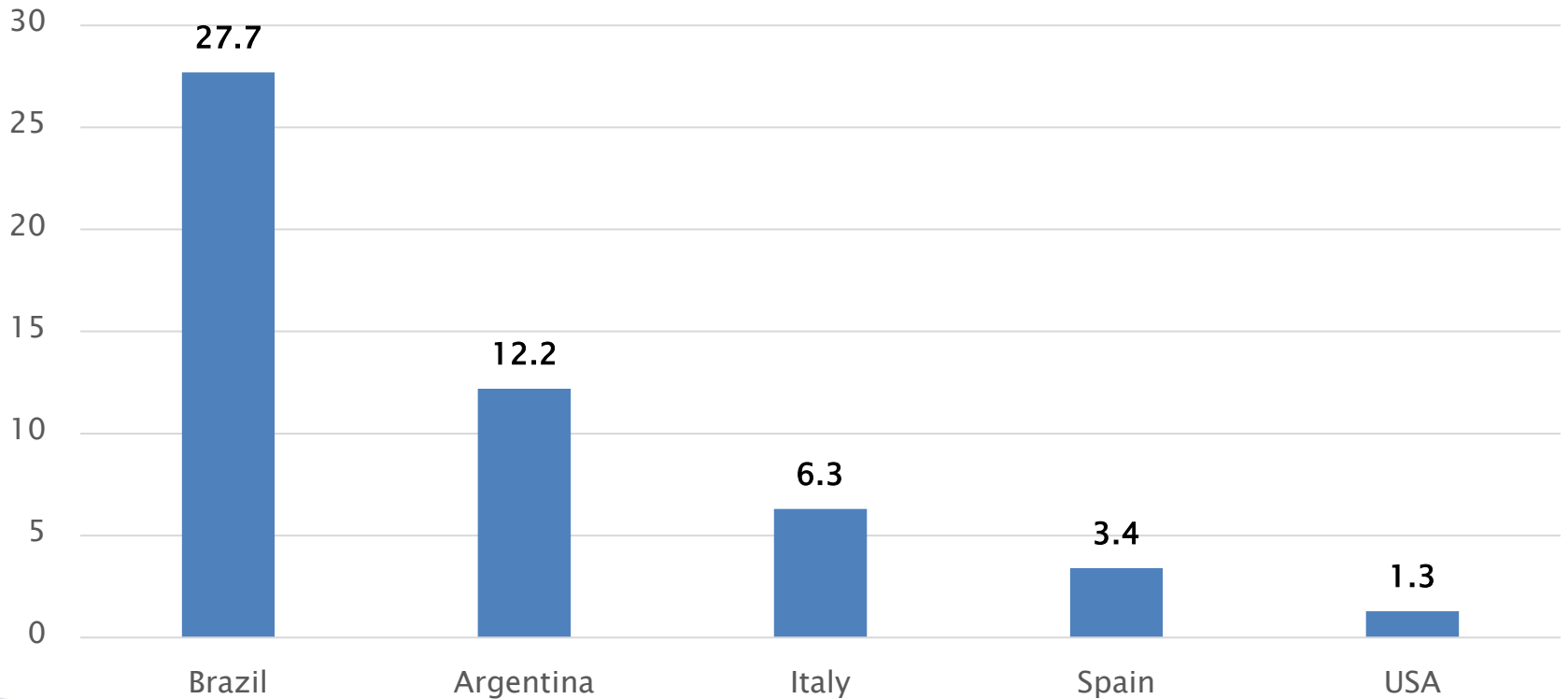


Colombia Protein Imports 2022 TMT

Total: 51,000 MT

2022 Average cost \$/metric ton

Brazil \$729, Argentina \$488, Italy \$827, Spain \$684, USA \$1049



Colombia granted market access to bovine meat and bone meal (Sep. 2023)

Colombia

<https://www.aphis.usda.gov/regulations/vs/iregs/products/downloads/co-bo-mbm.pdf>

Bovine-Meat-and-Bone Meal from the United States to Colombia

ICA Colombia requires that facilities producing animal feeds must be registered. Information concerning this process for Colombia should be sought through the importer in Colombia.

Registration is valid for three years



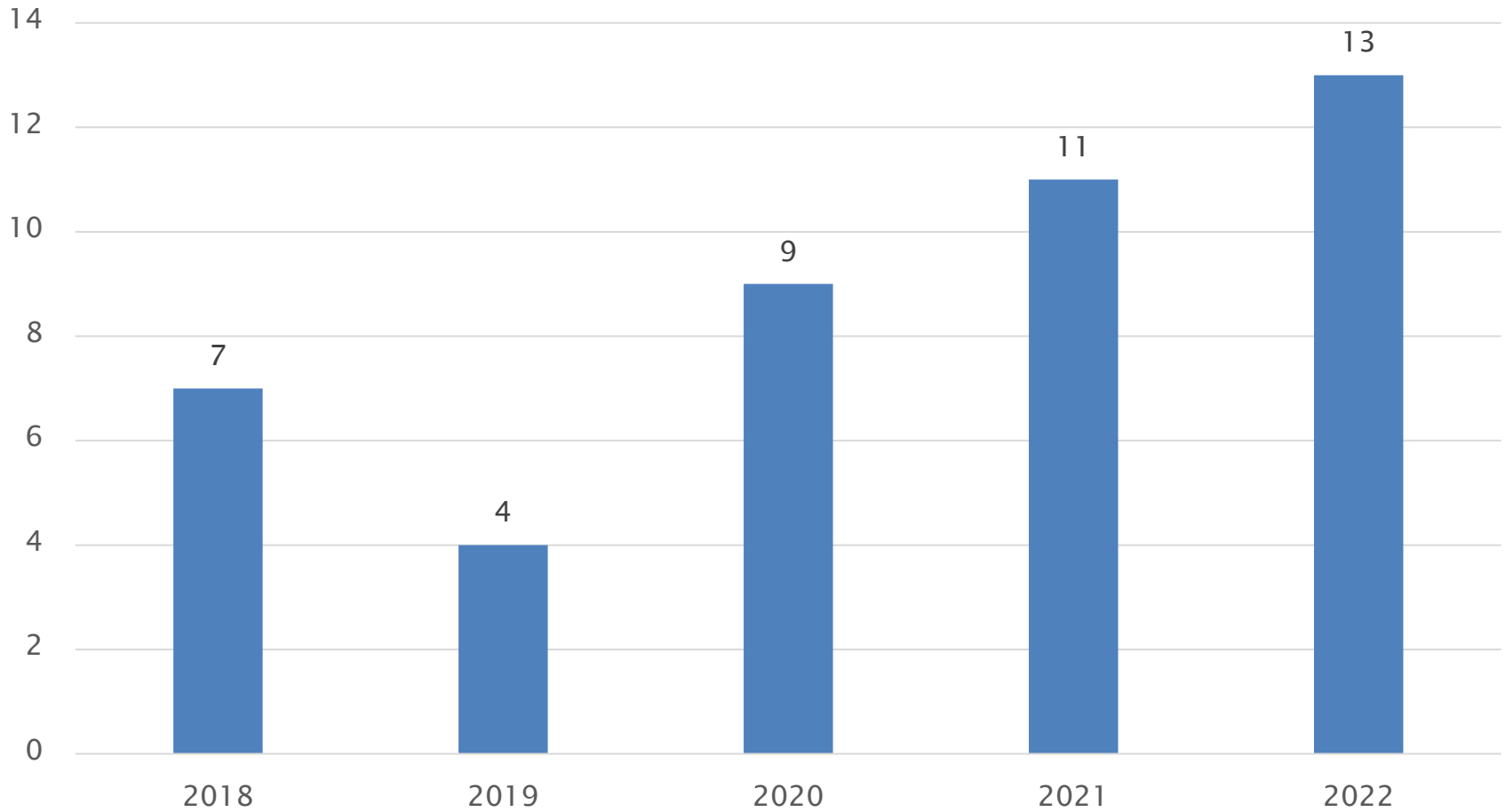
Peru's Imports of US Animal Proteins – 2018 to 2022 (TMT)

Average cost \$/mt:

Arg. \$511 bovine; Chile \$1273 PBM & ovine; USA \$1207 PBM & porcine

Total 2022 imports 25,000 MT

Suppliers: USA, Chile, Argentina

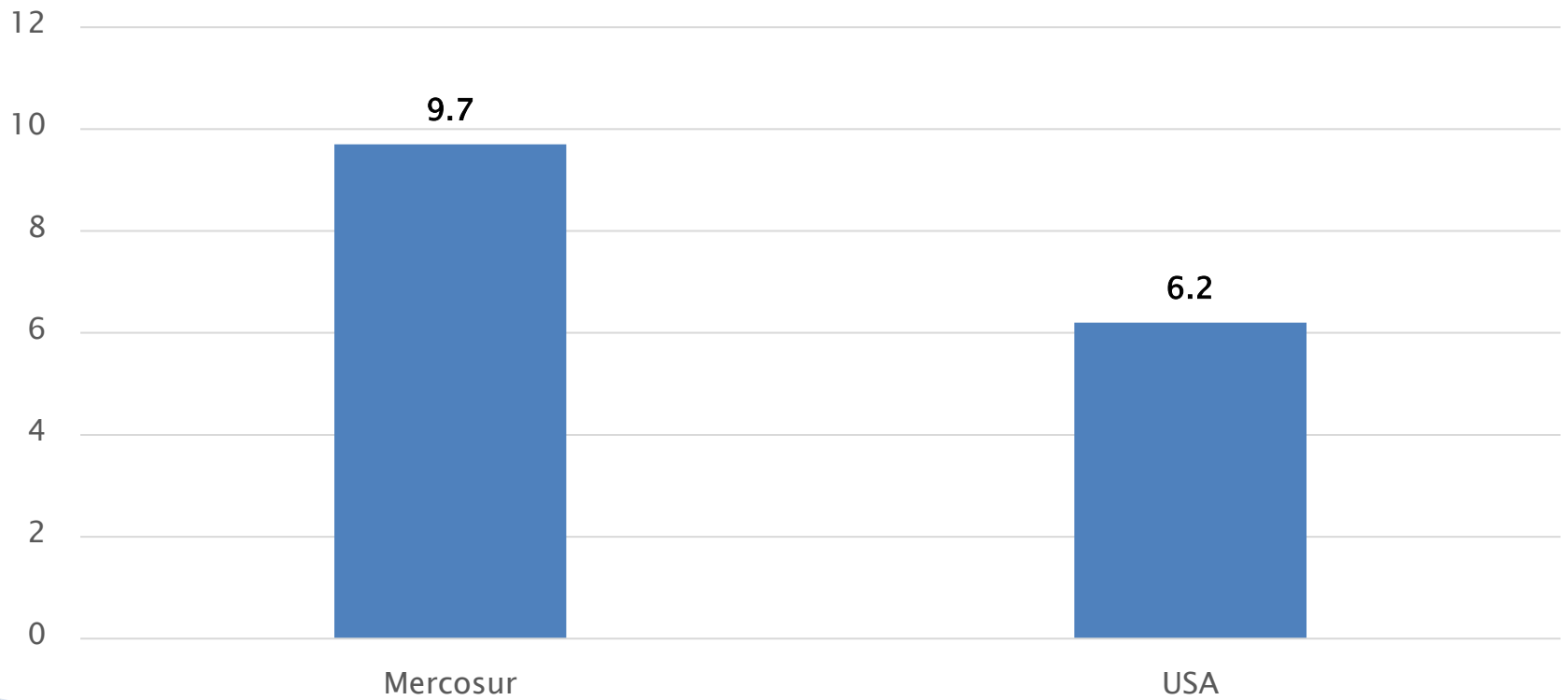


Peru Protein Imports Jan-Jul 2023 TMT

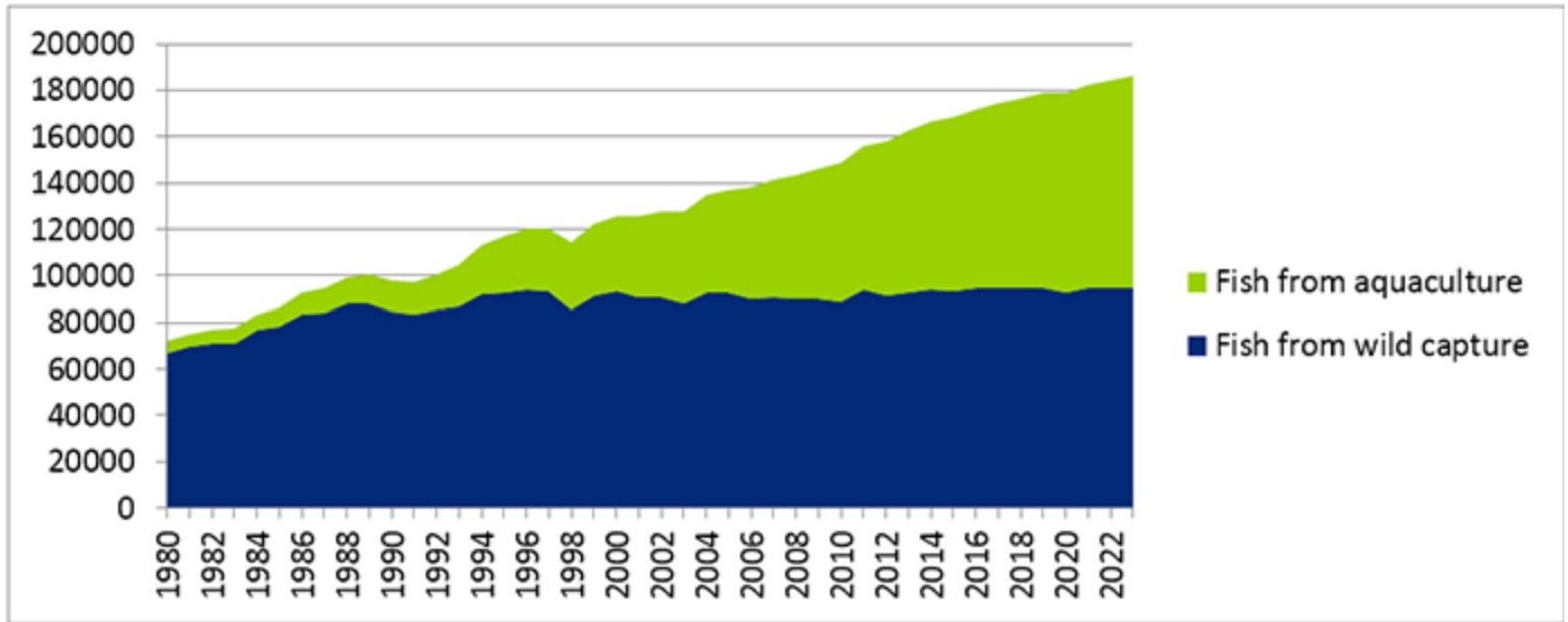
Total: 16,000 MT

2023 Average cost \$/metric ton

Mercosur \$646, USA \$1058



Global Fish Production (mt)



Fishmeal Prices Peru & Chile (Oct. 2023)

Specification	Price per m/t FOB Vessel Peru port	Price per m/t Chile port
65% protein standard steam	2250/2270	
67% protein 150 TVN	2300/2320	
67% protein 120 TVN	2350/2370	2000/2020
67% protein 1000 hist, 120 TVN	2400/2420	2050/2070
68% protein 500 hist, 100 TVN	2450.2470	2100/2120
Fish oil, crude bulk	No prices	5,200/5,300

TVN = total volatile nitrogen, hist = histamine

Hammersmith Reports

During the first eight months of 2023:
Global fishmeal production was down 28%,
Fish oil production was down 24%

Peru's cancelation of its first fishing season due to El Niño conditions represented a 70% decrease in the country's production.

Thank you