Research Report

Farmed Shellfish Market Analysis

Prepared for GMRI by Pentallect, Inc.

Gulf of Maine
Research Institute

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We are grateful for the contributions of Pentallect Inc.,
who researched and drafted this report.

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Introduction

This Farmed Shellfish Market Analysis report was developed by Pentallect Inc., a food industry strategic consulting firm, on behalf of the Gulf of Maine Research Institute.

The objectives of this report include:

- Enable business success of Maine-based, and broader US, shellfish farms in a post-C19 operating environment by developing data-driven market analyses & strategic recommendations that prevent job loss and enable growth and job creation in the aquaculture sector.
- Leverage the gained expertise and developed resources from the 2016 Farmed Shellfish Market Analysis effort for a current analysis.

Acknowledgements

During the course of the research, in addition to the support from the team at Gulf of Maine Research Institute, Pentallect conducted interviews with numerous individuals involved with the seafood industry in Maine and nationally. The insights from these interviews were invaluable to the process.

A list of individuals who contributed insights is summarized below. Our apologies if we missed anyone.

- Jeff Auger (Atlantic Aqua Farms)
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- Carter Newell (Pemaquid Mussel Farms)
- Jeff Nichols (ME DMR)
- Andrew Peters/Struan Coleman (Vertical Bay)
- Bob Rheault (ECSGA)
- Aaron Schmidt (Penn Cove Shellfish - WA)
- Chris Sherman (Island Creek)
- Ralph Smith (Moosabec Mussels)
- Rob Watts (ME DMR)

Executive Summary

Maine continues to be very well-positioned to expand its aquaculture industry to capture a greater share of the Shellfish marketplace for Oysters, Mussels and Scallops. Consistent with the 2016 report, Maine has retained its competitive advantages including:

- High quality products
- Available capacity for aquaculture expansion
- Strong consumer brand affinity to Maine products
- Strategic location near distribution centers
- Proximity to large population centers with high shellfish consumption behavior

In total, the relevant Shellfish species represent a $700+ million U.S. marketplace for domestic harvesters, and $1.1 billion including imports. Maine accounts for approximately 3.5% of the total Shellfish domestic-sourced landings, delivering approximately $26 million in landed value. Of the Maine total, aquaculture accounts for approximately $14 million, or 53% of total supply (90+% of the Oyster and Mussel sub-set).

Demand for Maine's shellfish, across all of the relevant species, is projected to outstrip supply through the 5-year planning horizon as Oyster and Mussel harvesters gradually recover and expand capacity after covid-era challenges, and Maine's Scallop supply is projected to remain relatively constant unless farmed Scallop operations achieve significant expansion.

Across all shellfish and seaweed aquaculture species, Maine's active lease acreage has grown to approximately 1,500 acres, with another 120 acres in the lease application process. The combined active and pending shellfish and seaweed leases, if approved, would still account for less than 2/10th of 1% of Maine's total coastline acreage.

The primary barriers to growth for Maine's shellfish aquaculture industry include the rising cost of capital, labor availability and cost, and the lead times associated with the lease application process. Of these potential barriers, Maine's lease application process was often cited as the primary impediment to growth. Areas of concern include the complexity of the process, the length of time associated with lease application approvals, and the negative impact on capital investment and growth plans due to uncertainty regarding lease decision outcomes. The result is long lead times, often 3-5 years, from lease application to harvest, which creates a barrier to investment and growth. Steps are being taken to make the lease application process more streamlined.

Given that demand will exceed supply over the planning horizon, Maine's shellfish aquaculture organizations are faced with a significant growth opportunity. Reaching this growth potential will require investment in incremental lease acreage, operations, distribution networks and marketing to fulfill unmet demand.

i. Species Overview

The vast majority of U.S. oysters are sourced via aquaculture from numerous coastal regions across the United States. Aquaculture makes up an estimated 95%+ of all Oyster production in the U.S. In total, approximately 920 million[1] Oysters are consumed annually in the U.S.

Of this supply, an estimated 635 million, or approximately 70% are Whole (half-shell) and the remaining 280+ million are Shucked. Given that the vast majority of Northeast Oysters are sold Whole for the half-shell market, this report will break out Whole versus Shucked dynamics.

[1] Note: The estimates for number of oysters (eaches) in this report are based on Pentallect research and are primarily derived from conversion factors applied to landed live weight volumes. Pentallect recognizes that there can be wide variations in oyster size and shape, which can impact these estimates, and the estimates are designed to provide relative order of magnitude insights.

Given the strong consumer demand for Oysters, supported by a covid-era increase in retail purchases that has been partially sustained post-pandemic, recovery in the foodservice channel and continued marketing efforts by well-established harvesters to expand distribution and penetrate new customers, demand is projected to continue to outpace supply over the next 3 – 5 years, as the industry rebuilds inventory and gradually expands lease site capacity in the post-pandemic marketplace.

The Northeast, including Maine, has been the only region to expand capacity over the past 6+ years, and is well-positioned to capitalize on this expanding demand, assuming sufficient lease acreage growth. The Gulf and Pacific Northwest regions continue to overcome climate (PacNW) and man-made disaster (Gulf) challenges that have impacted supply, and the Mid-Atlantic states have only recently recovered to 2015 supply levels. As a result, overall supply is projected to remain constrained through the planning horizon.

Of note, whole live oyster imports surged in 2022 well above historic levels. From 2015 – 2021, whole live oyster imports averaged approximately 3% of U.S. landed harvest volume. In 2022, whole live oyster imports jumped to 7.5% of U.S. landed volume driven by a 50+% increase in Canadian imports. Canadian oyster imports were increasingly cited by U.S. oyster industry participants as a growing competitor given Canadian harvesters' lease scale, processing capabilities and government infrastructure support. The growth in imports could be the result of temporary efforts by U.S. customers to fill the supply void left by limited domestic production, or could be the beginning of a trend in broader global supply to the U.S.

Currently, domestic supply still accounts for over 90% of U.S. consumption, but the trend bears watching.

Due to constrained supply, pricing is expected to remain relatively high over the 3-5 year planning horizon. While there has been some variability in pricing, particularly in adjacent markets to harvesters that are interested in moving their inventory in close proximity to their operations, pricing has remained high in the primary metro markets that account for the majority of oyster volume. Longer-term pricing is expected to moderate up to -10%-20% as additional capacity helps harvesters to eventually catch up with demand.

Maine Oysters have maintained their reputation for high quality and continue to receive a price premium relative to Mid-Atlantic and Gulf oysters. Maine's cold, clean water environment, while requiring longer lead times to grow Oysters to maturity, is viewed as creating a quality advantage over warmer water sources. As Gulf of Maine water temperatures rise, there will likely be both positive and negative implications for Maine oyster aquaculture in the shorter term – warmer water enables faster oyster growth, yet also increases the potential for more significant storms that can damage equipment and could support more parasites and diseases that could harm oysters. While the long-term impact of global warming on Maine's aquaculture industry cannot be accurately predicted at this time, it is anticipated that the effects of warming waters will ultimately have overall negative consequences for the industry. Efforts to mitigate the impact of global warming could include, among others, expansion of seed hatchery capacity and development of grow-out farms to support healthy oyster development prior to transferring to lease sites for the final growth phase.

ii. Market Size and Growth

The total U.S. supply of Oysters, including whole live imports, is estimated to exceed 935 million Oysters, and represents a landed value of more than $300 million. The vast majority (90+%) of whole and shucked Oysters consumed in the U.S. are sourced domestically. Canadian imports are primarily Whole Oysters, and their value represents the average price per unit entering the U.S., not ex-vessel.

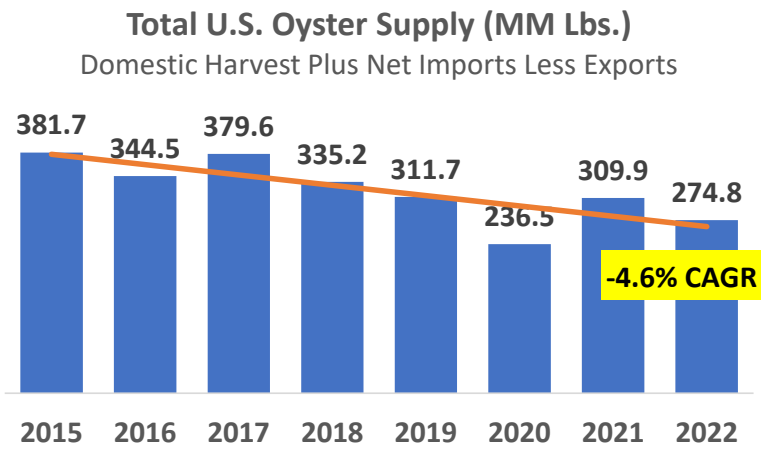
Table 1: U.S. Oyster Supply – 2022

Source	Live Weight Lbs. (000)	Est. Volume – Pieces (000)	Landed/Trade Value – $USD (000)
United States Landings	260,504	846,946	$242,613
Canada Imports	13,019	63,989	$61,609
All Other Imports	6,535	24,010	$14,646
Total Imports	19,555	87,999	$76,256
Less Exports	(5,257)	(17,348)	($16,381)
Net U.S. Consumption	**274,802**	**917,597**	**$302,488**

Source: Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP), NOAA, Gulf States Marine Fisheries Commission (GulfFIN). Totals may not add due to rounding.

Despite sustained consumer demand, the total U.S. supply of oysters, both domestically harvested and net imports (after exports), has declined an average of almost -5% annually since 2015.

Figure 1: U.S. Oyster Supply Trends: 2015 - 2022



Source: Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP), NOAA, Gulf States Marine Fisheries Commission (GulfFIN).

iii. Sourcing

The decline in U.S. Oyster supply is primarily attributed to reduced harvests in the Gulf and, to a lesser degree, the Pacific NW regions. The Northeast region has been the overall domestic volume growth leader, while the Mid Atlantic region recovered in 2022 to 2015 levels. As noted previously, net Imports increased significantly in 2022 driven by increased supply from Canada.

Table 2: U.S. Oyster Supply Trends (MM Lbs.): 2015 - 2022

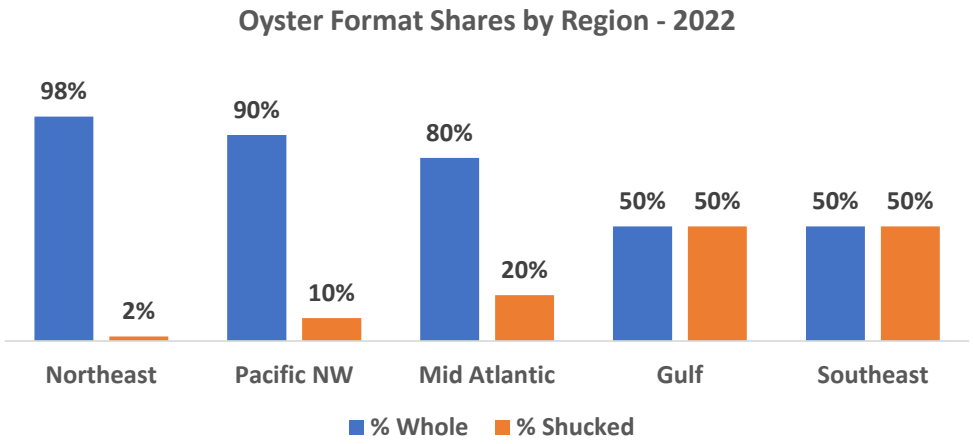
Region / Source	2015	2016	2017	2018	2019	2020	2021	2022	'15-'22 Lb. Chg.	'15-'22 CAGR[1]
Northeast	10.7	10.6	13.4	13.9	14.9	10.6	14.6	15.4	4.8	5.5%
Mid Atlantic	97.1	78.9	75.7	69.1	66.9	63.7	81.1	95.8	-1.3	-0.2%
Southeast	11.0	10.0	10.9	8.6	10.2	8.9	9.7	10.3	-0.7	-0.9%
Gulf	249.5	232.5	266.1	230.4	205.4	142.3	195.1	132.8	-116.7	-8.6%
Pacific NW	10.4	9.3	9.3	9.5	10.2	6.4	6.1	6.1	-4.3	-7.4%
Net Imports (ex. Exports)	3.0	3.1	4.2	3.8	4.1	4.6	3.3	14.3	11.3	25.0%
Total	**381.7**	**344.5**	**379.6**	**335.2**	**311.7**	**236.5**	**309.9**	**274.8**	**-106.9**	**-4.6%**

[1] *Compound Annual Growth Rate*

Source:Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP), NOAA, Gulf States Marine Fisheries Commission (GulfFIN).

In the Northeast, Whole Oysters account for almost all of the total Oyster supply, reflecting the strong consumer demand for cold water oysters for the half-shell market. The Pacific Northwest and Mid Atlantic regions are also heavily oriented toward the whole market, while the warm water Gulf and Southeast markets are more balanced between whole and shucked formats.

Figure 2: Oyster Formats



Source: Pentallect Inc. research

While Massachusetts has the greatest share of the Northeast's oyster supply, Maine has been the Northeast share growth leader since 2015, gaining 8 share points from Massachusetts. Rhode Island's regional share has remained relatively constant.

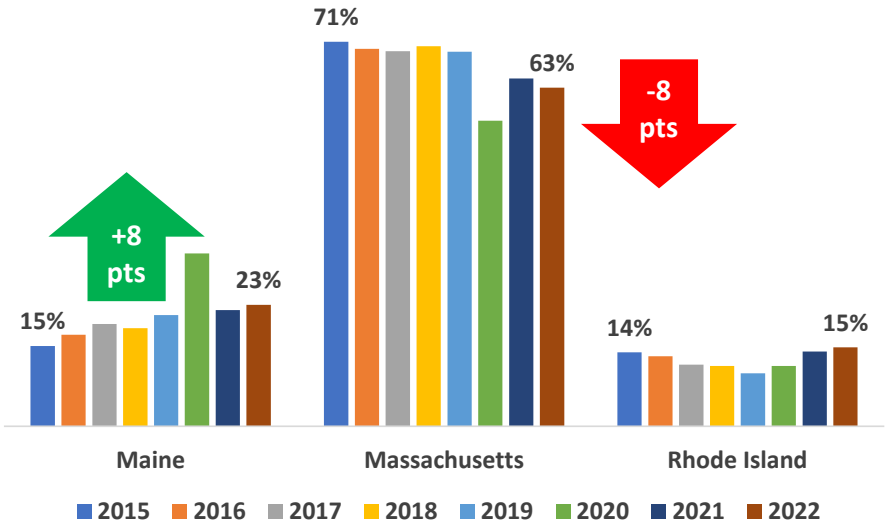
Table 3: Northeast Total Oyster Harvest - 2022

	Live Wt. Lbs. (000)	Value (000)	Est. Eaches (000)	Value/Each	Market Share Live Wt.	Market Share $ Value
Maine	3,480	$10,625	13,918	$0.76	23%	22%
Massachusetts	9,710	$32,713	43,695	$0.75	63%	67%
Rhode Island	2,260	$5,764	10,169	$0.57	15%	12%
Total Northeast	**15,449**	**$49,102**	**67,782**	**$0.72**	**100%**	**100%**

Source: Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP)

Table 3 reflects reported landed live weight and value data. The Value/Each are directional estimates derived via research and interviews, and will have variability due to the lack of uniformity in oyster sizes and differences in harvesting practices.

Figure 3: Northeast Oyster Market Share Trends (Lbs.): 2015 - 2022

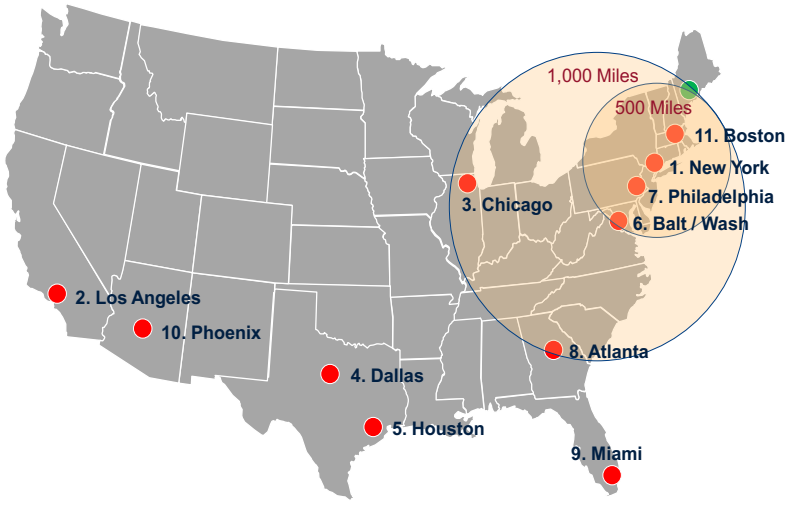


Source: Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP)

As noted in previous analyses, the Northeast and Mid Atlantic harvest regions are located in relatively close proximity to many of the leading metro areas that account for significant consumer demand for oysters. This demand dynamic underscores the importance for harvesters with scale to develop distribution networks to access these critical markets to support growth and capitalize on demand for high quality and typically higher priced oysters.

For Maine harvesters, Portland is within 500 miles of three of the Top 10 metropolitan areas in the U.S. plus Boston which is #11; and within 1,000 miles of six of the Top 11.

Figure 4: Top U.S. Metropolitan Areas



Source: U.S. Census Bureau Metropolitan Statistical Area

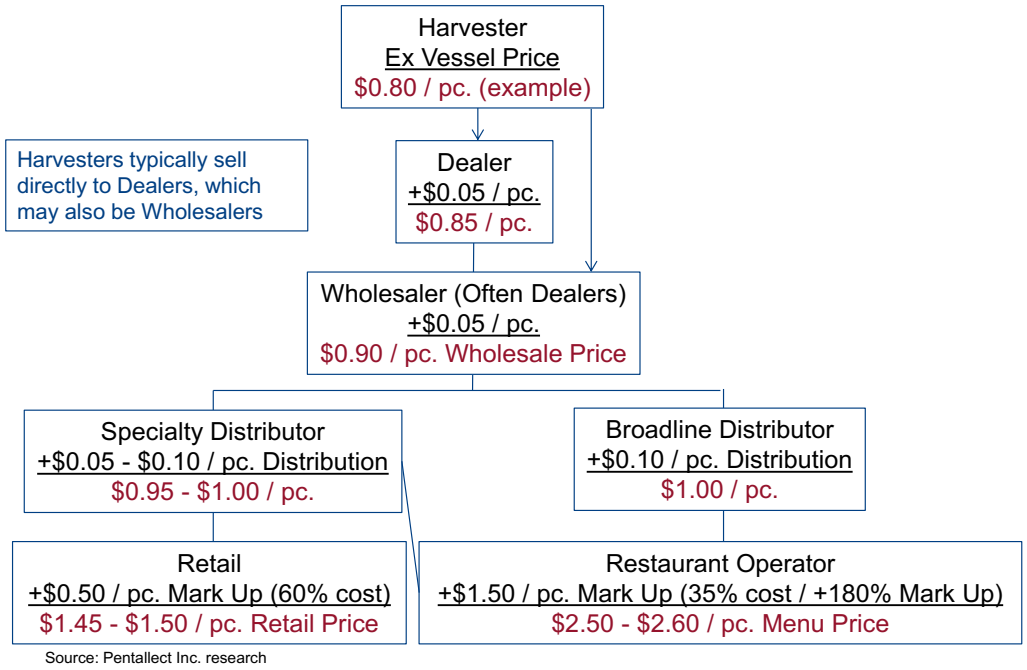
iv. Value chain

The Oyster value chain can be somewhat convoluted, as supply chain participants can play numerous roles in the process. In general, Harvesters sell Oysters to Dealers, who then process the Oysters for Wholesale distribution.

Note: The value per Oyster in this research report is the landed price paid to the harvester based on the various reporting sources. In many cases, the harvester performs the function of the aggregators and processors within the value chain and realizes the incremental revenue associated with these aspects of the supply chain. In some cases, the Oyster harvester sells directly to an aggregator / processor that realizes the economic benefit of preparing and packaging the Oysters for distribution.

The typical Oyster value chain is as follows:

Figure 5: Oyster Value Chain



Source: Pentallect Inc. research

Note: Value chain dynamics are sourced from interviews and research with shellfish industry supply chain participants and Pentallect's internal datasets. The Retail and Restaurant Operator mark ups/costs are consistent with typical seafood category margins.

Note: Value Chain participant definitions are as follows:

Participant	Definition
Harvester	Oyster farmer that grows and retrieves Oysters from the ocean for sale.
Dealer	A person or business to whom certification is issued for the activities of shellstock shipper, shucker-packer, repacker, reshipper, or depuration processor. Dealers may also be Harvesters, Wholesalers or Distributors.
Wholesaler	Business entity that purchases and distributes shellfish from dealers either to distributors for further transportation or directly to Retail and Foodservice customers.
Specialty Distributor	Seafood distributors that purchase shellfish from dealers or wholesalers for distribution to Retail and Foodservice customers.
Broadline Distributor	Foodservice distributor that carries a wide variety of products, including Seafood, for distribution to Foodservice customers.
Retail	Grocery and Seafood stores that sell directly to consumers.
Restaurant Operator	Restaurant locations that prepare and sell meals to consumers.

v. Growth Projections - National

Nationally, overall Oyster category volume is projected to grow at approximately +0.5% annually over the next 5 years, as anticipated expansion of East Coast supply to meet demand for cold water oysters is offset by continued declines in the Gulf states and projected limited growth in the Pacific Northwest. Assuming consistent supply and maintenance of current trade regulations, imports, especially from Canada, are projected to continue to capture a greater share of the U.S. market as the Atlantic Coast growers in particular gradually add capacity.

Table 4: U.S. Total Oyster Supply Growth Projection Summary

Total Oysters	2022 Volume (MM lbs.)	Proj. Annual % Chg. '22 - '28	2028 Proj. Vol. (MM lbs.)	Abs. Vol. Chg. (MM lbs.)	Abs. % Vol. Chg. '22-'28
Maine	**3.5**	**6.2%**	**5.0**	**1.5**	**44%**
Rest Northeast	12.0	2.7%	14.1	2.1	18%
Mid Atlantic	95.8	3.0%	114.4	18.6	19%
Southeast	10.3	2.2%	11.7	1.4	14%
Gulf Coast	132.8	-2.7%	112.4	-20.4	-15%
PacNW	6.1	0.0%	6.1	0.0	0%
Total U.S. Sourced	260.5	0.2%	263.7	3.2	1%
Net Imports	14.3	5.0%	19.2	4.9	34%
Total U.S. Supply	274.8	0.5%	282.9	8.1	3%

Source: Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP), NOAA trade data

Given the heavy orientation toward whole oysters for the half-shell market in the growing Northeast and Mid Atlantic regions, supply of whole oysters is projected to increase at a greater rate over the 5-year planning horizon as consumer demand for half-shell products is expected to remain strong.

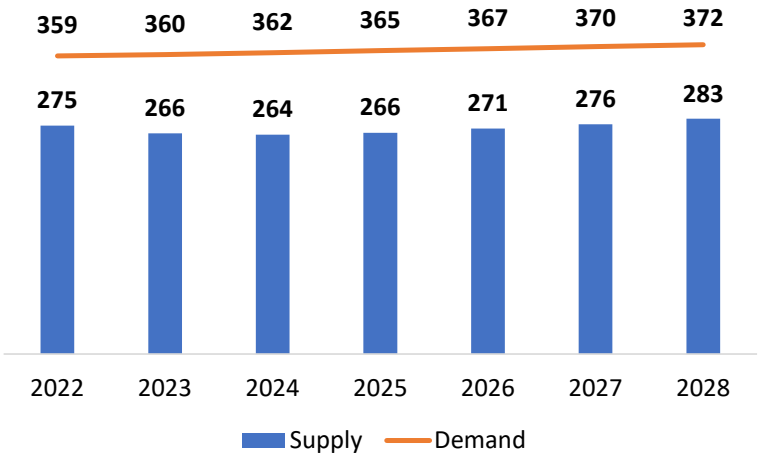
Table 5: U.S. Whole Oyster Supply Growth Projection Summary

Whole Oysters – Half Shell Market	2022 Volume (MM lbs.)	Proj. Annual % Chg. '22 - '28	2028 Proj. Vol. (MM lbs.)	Abs. Vol. Chg. (MM lbs.)	Abs. % Vol. Chg. '22-'28
Maine	**3.4**	**6.2%**	**4.9**	**1.5**	**44%**
Rest Northeast	11.7	2.7%	13.8	2.1	18%
Mid Atlantic	76.7	3.0%	91.5	14.9	19%
Southeast	5.1	2.2%	5.8	0.7	14%
Gulf Coast	66.4	-2.7%	56.2	-10.2	-15%
PacNW	5.5	0.0%	5.5	0.0	0%
Total U.S. Sourced	168.9	0.7%	177.8	8.9	5%
Net Imports	14.3	5.0%	19.2	4.9	34%
Total U.S. Supply	183.2	1.0%	197.0	13.8	8%

Source: Pentallect Inc. research, Atlantic Coastal Cooperative Statistics Program (ACCSP), NOAA trade data

Overall U.S. oyster supply is expected to lag demand over the 5-year planning horizon, underscoring the domestic opportunity for harvesters to increase capacity. To estimate true current demand, Pentallect applied the pre-pandemic five-year average U.S. per capita consumption rate of 1.06 live lbs./person to the U.S. Census population growth projections through 2028. Note: The U.S. per capita consumption of Oysters dropped to an average of 0.81 live lbs./person during the 2020 – 2022 covid time period as restaurant traffic declined. Returning to pre-pandemic consumption levels would represent a 30% increase from pandemic era levels.

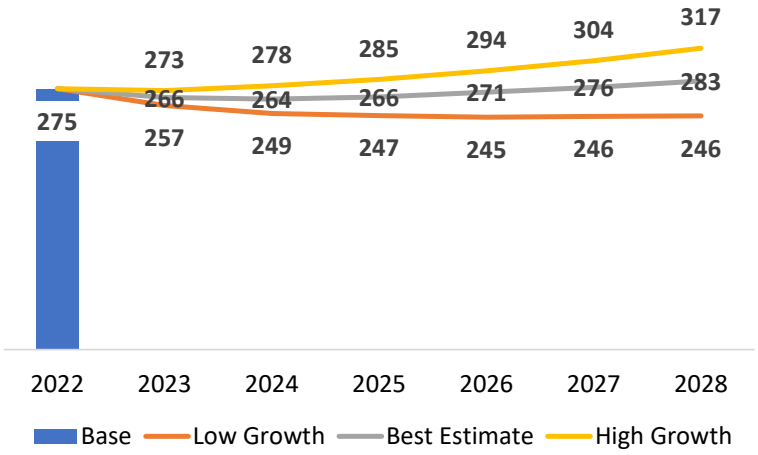
Figure 6 U.S. Oyster Supply and Demand Projections – Live Lbs. (MM)



Source: Pentallect Inc. research

Given anticipated harvest declines in the Gulf region, total U.S. Oyster supply is projected to remain at or below current levels until the end of the five-year planning horizon.

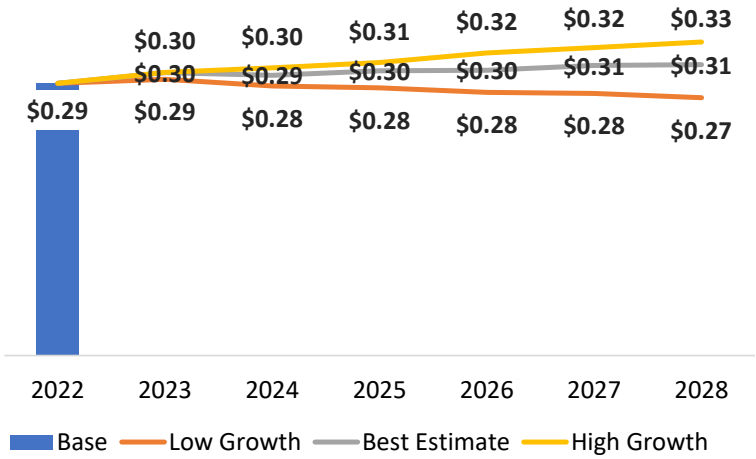
Figure 7: Projected U.S. Oyster Volume Growth – Live Lbs. (MM)



Source: Pentallect Inc. research

Given the ongoing gap in supply versus demand, Oyster pricing is projected to remain near current levels over the 5-year planning horizon. Over a longer-term 5-10 year horizon, pricing is expected to moderate by approximately $0.03 - $0.05/oyster as capacity increases in the Northeast and Mid Atlantic regions and imports continue to expand their share of the U.S. marketplace.

Figure 8: Projected Average Total U.S. Oyster Price per Piece (Ex Vessel)



Source: Pentallect Inc. research

Based on the research findings, the total landed value of the U.S. Oyster harvest is projected to reach approximately $335 million by 2028, including domestically-sourced and imported whole live oysters.

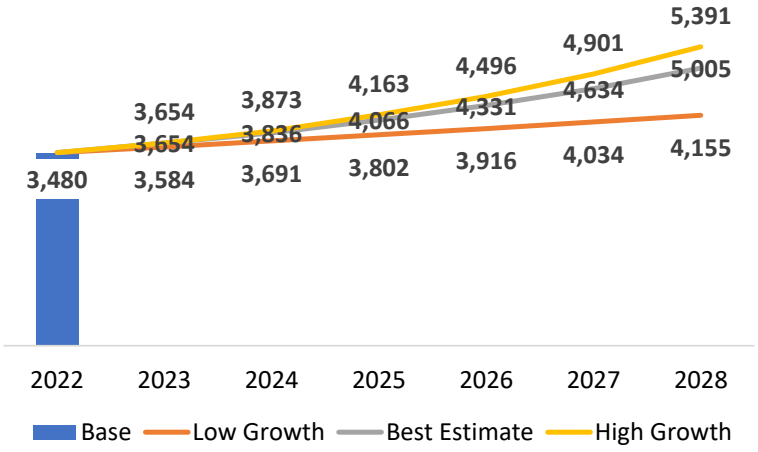
Figure 9: Projected Oyster Total U.S. Landed Value ($USD MM)

Source: Pentallect Inc. research

vi. Growth Projections - Maine

As noted earlier, Maine is projected to be a growth leader in Oyster supply, driven by increased capacity via lease site expansion, anticipated growing/harvesting investment and innovations, and continued demand for cold water Whole Oysters. The best, or mid-point, projection estimates that demand for Maine oysters will grow by almost 50% over the 5-year planning horizon, generating an incremental 1.5 MM live pounds and approximately 5.5 million Oysters.

Figure 10: Projected Maine Oyster Volume Growth – Live Lbs. (000)



Source: Pentallect Inc. research

In order to meet this projected best estimate volume growth, Maine farmed Oyster capacity will need to expand by a combination of increased output per acre and/or lease acreage expansion. Currently, there are over 300 Oyster-specific active lease acres with an additional 430+ active lease acres that are approved for Oysters among other species.

Pending lease applications provide the potential for an additional 49 acres of Oyster-only capacity and 36 acres of mixed species potential, including Oysters.

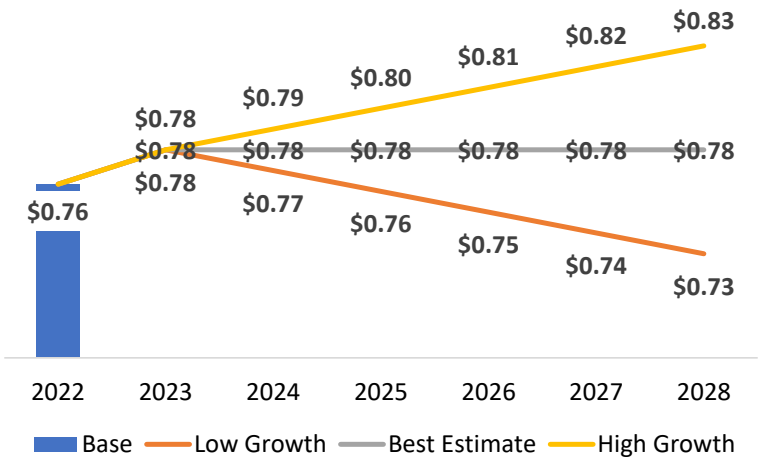
Table 6: Maine Oyster Lease Status

	Active		Pending		Total Potential w/ Pending		
	Leases	Acres	Leases	Acres	Leases	Acres	% Acre Increase
Oysters Only	51	316	13	49	64	365	16%
Mixed Use Including Oysters	46	431	10	36	56	467	8%
Total	**97**	**747**	**23**	**85**	**120**	**832**	**11%**

Source: Maine Department of Marine Resources (DMR)

The average landed price for Maine Oysters is projected to remain relatively steady over the 5-year planning horizon as demand for whole, cold water oysters will exceed capacity during the period. The primary downward threats to current pricing levels include lower priced, high-quality imports from Canada, which currently only account for less than 10% of whole oyster category volume, and the risk of price wars triggered by harvesters selling inventory below market values. There is broad evidence that consumers are reaching their limit with rising food prices and are modifying their purchase behavior accordingly. In this environment, further price increases will likely be met with resistance by consumers and supply chain partners for Maine's aquaculture products and all product categories.

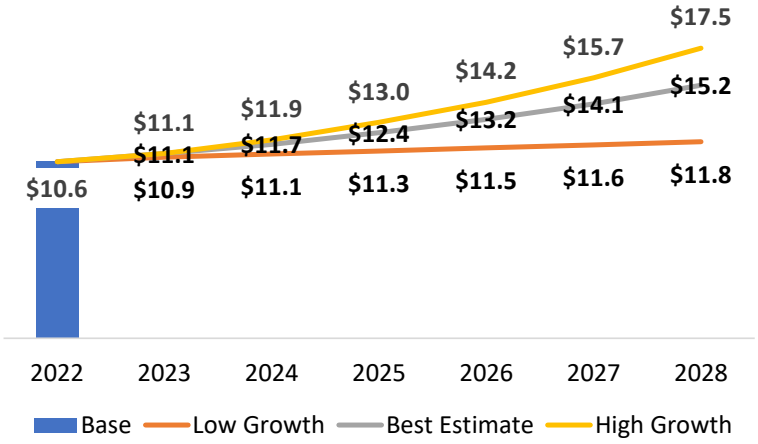
Figure 11: Projected Average Maine Price per Oyster (Ex Vessel Value)



Source: Pentallect Inc. research

Based on the volume and landed pricing research, the total value of Maine Oysters is projected to grow by more than 40% to $15+ million by 2028, representing $5 million incremental revenue.

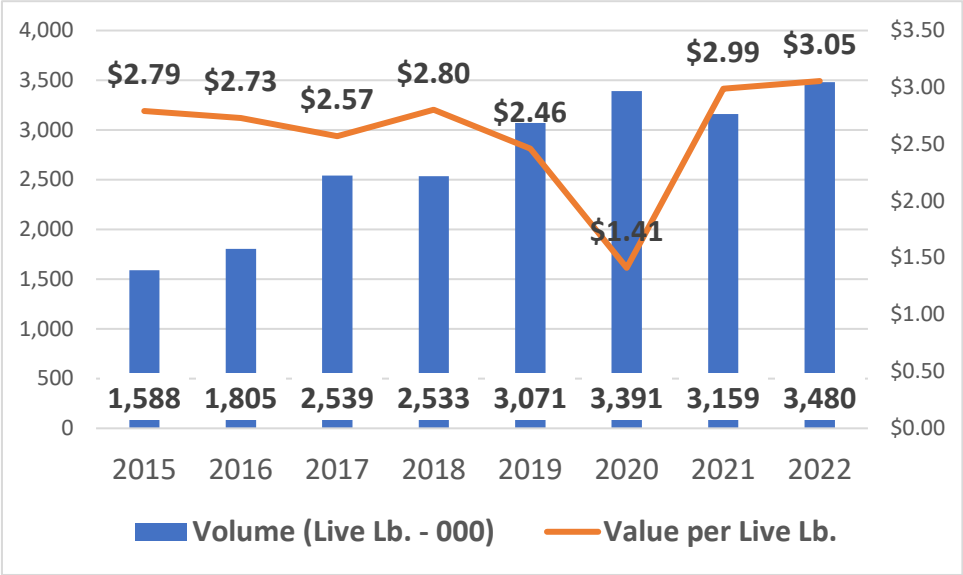
Figure 12: Projected Maine Total Landed Value ($USD - MM)



Source: Pentallect Inc. research

A review of historical growth shows that Maine's Oyster production has more than doubled since 2015.

Figure 13: Maine Historical Oyster Growth - DMR



Source: Maine DMR, ACCSP

i. Species Overview

Live Mussels represent a 43 million pound, and approximately $50 million ex-vessel value, industry in the United States. U.S. harvesters account for approximately one-third of the volume and less than one-quarter of the landed value, with the majority of Mussel supply imported from Canada.

U.S. live, fresh Mussel demand is primarily sourced from the Northeast (25%), the Pacific Northwest (11%) and Canada (63%). Maine and Massachusetts are the major Northeast producers. Given its close proximity to New England, PEI Mussels are a significant competitor for Maine Mussels, and have been viewed as an industry standard for a long time.

Overall U.S. Mussel volumes have declined, as the Northeast wild harvest has declined in both Maine and Massachusetts while Canadian imports have remained relatively flat.

Demand for Mussels remains strong, outpacing current supply from domestic harvesters. Domestic harvesters, including Maine organizations, are taking steps to increase supply in the post-pandemic operating environment. Specific capacity-oriented efforts include developing seed hatchery capabilities to address variability in wild spat collections and growing/harvesting innovations. The Mussel industry is also rebuilding inventories, which is a 2-3 year process, after covid-induced reductions in consumer demand during the pandemic. Over the 5-year planning horizon, Northeast harvesters, including Maine, are projected to gain share as domestic capacity is expanded.

Given that demand is projected to exceed supply over the 5-year planning horizon, Mussel pricing is expected to remain near current levels. The research indicates that imported Canadian Mussels have greater than a $0.50/lb. cost advantage over domestically-sourced farmed live Mussels. This pricing disparity has been a long-term challenge for domestic harvesters.

There remains a significant U.S. import market for frozen and prepared Mussels, particularly from New Zealand and Chile. The New Zealand Mussels have a reputation for high quality, and Chile produces pre-cooked Mussels at a low cost. These products do not have a high level of penetration in New England given the availability of fresh Mussels.

ii. Market Size and Growth

The total U.S. live Mussels marketplace is estimated to be approximately 43 million whole pounds, with a landed value of approximately $50 million. In the U.S., the majority of Mussels are sourced from Maine, Massachusetts and Washington. Close to two-thirds of the U.S. supply is sourced from Canada.

Table 7: U.S. Live Mussel Supply Summary - 2022

	Volume (Lb. 000) / Share		Landed Value (000) / Share		Landed Price/Lb.
U.S. Sourced	15,339	35%	$9,832	21%	$0.64
Canada	27,646	64%	$36,551	77%	$1.32
All Other Net Imports	347	1%	$1,240	3%	$3.57
Total	**43,332**	**100%**	**$47,622**	**100%**	**$1.10**

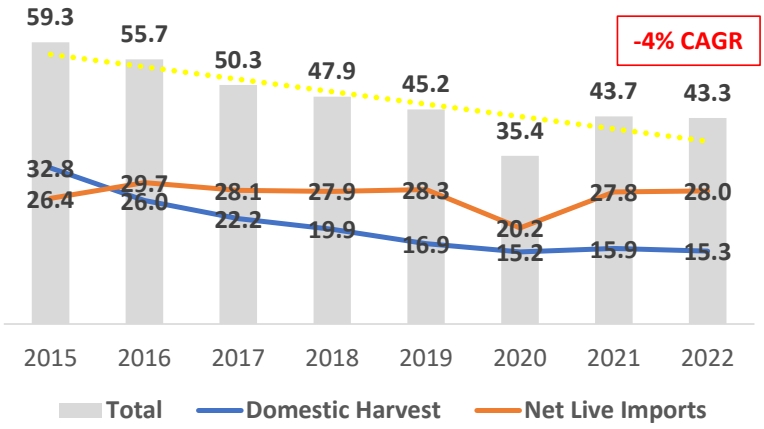
Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

The U.S. live Mussels supply, including imports, has declined at approximately a -4% annual rate since 2015. Northeast wild Mussel harvesters, including both Maine and Massachusetts, have driven the supply decline, leading to a total average -13% decline in Mussel supply annually.

Live Mussel imports, primarily from Canada, have grown at a modest +1% annual rate since 2015 which has not been sufficient to make up for declining domestic Mussel harvests. Given the decline in domestic harvest and the moderate growth in live imported Mussels, imports' share of domestic supply has increased from approximately one-half in 2015 to almost two-thirds in 2022.

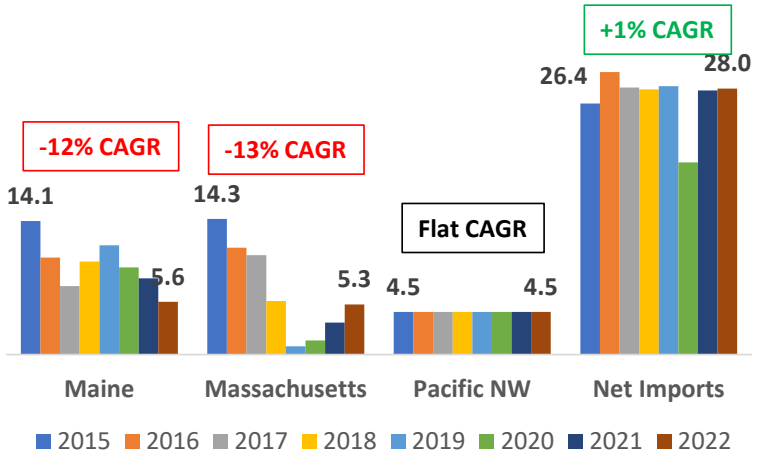
Note: There is no published landings data for the Pacific Northwest. Volume and value estimates are derived from Pentallect interviews with Pacific Northwest harvesters and state agencies.

Figure 14: Live Mussel Supply Trends - Live Pounds (MM)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Figure 15: Live Mussel Supply Trends by Primary Source (Lbs. - MM): 2015-2022



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

While the overall Maine Mussel supply has decreased, driven by declines in the wild harvest, the aquaculture-sourced Mussel supply has shown a positive growth trajectory outside of the covid pandemic period. As domestic demand exceeds supply, the positive growth trajectory for Maine farmed mussels is not viewed as an indicator that customers and consumers have switched their preferences to farmed mussels vs. wild, but rather are purchasing as much of both harvesting methods that they can access to address strong demand.

Table 8: Maine Mussel Supply Source Trends: 2015 - 2022

	2015	2016	2017	2018	2019	2020	2021	2022	'15 – '22 CAGR
ME – Wild	12,703	8,621	5,620	7,679	9,159	7,789	6,306	3,595	-16.5%
ME - Farmed	1,366	1,605	1,604	2,126	2,347	1,397	1,720	1,967	5.4%
ME – Total	**14,069**	**10,226**	**7,223**	**9,805**	**11,506**	**9,186**	**8,027**	**5,563**	**-12.4%**

Source: Pentallect Inc. research, Maine DMR

In total Maine accounts for approximately one-eighth of domestic live Mussel supply volume, a drop of approximately one-half from 2015 when Maine accounted for approximately one-quarter of total domestic supply volume (including imports).

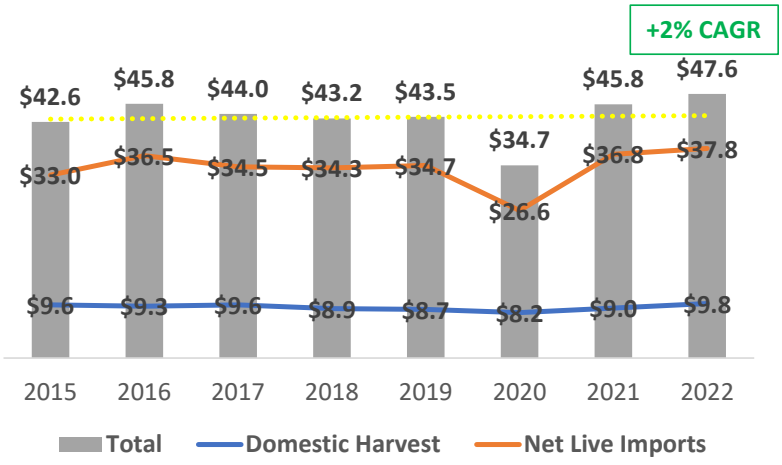
Table 9: Domestic Live Mussel Sources - 2022

Region	Volume (000)	Dollars (000)	Volume Share
Maine	5,563	$4,003	13%
Massachusetts	5,276	$653	12%
Pacific NW	4,500	$5,175	10%
Canada	27,646	$36,551	64%
All Other	347	$1,240	1%
Total	**43,332**	**$47,622**	**100%**

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

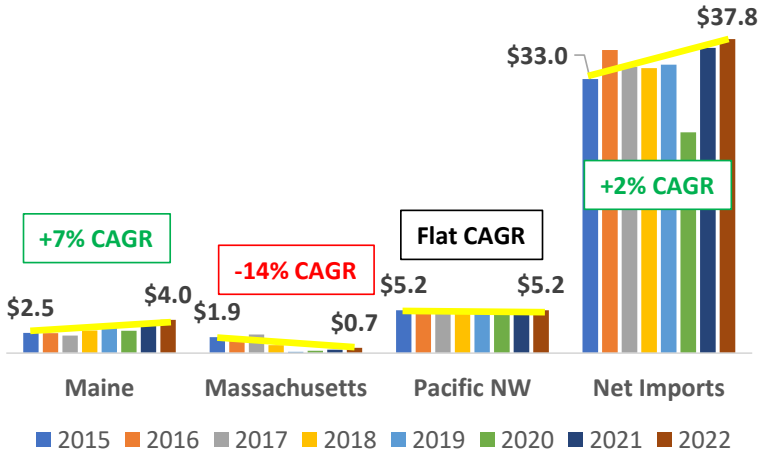
Despite the supply volume declines in the Northeast, overall U.S. landed value has remained relatively consistent as Maine's average landed value per pound has increased. The increased landed value per pound in Maine is attributed to both increased pricing and to a greater share of the harvest associated with higher reported value aquaculture-sourced Mussels.

Figure 16: Live Mussel Total Value Trends By Primary Source ($MM)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Figure 17: Live Mussel Value Trends By Primary Source ($MM)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Note: There is an anomaly in reported Mussel landed price per pound, as qualitative research indicates that the current landed value in Maine is approximately $2.00/lb, while Maine DMR and ACCSP data show 2022 pricing at $0.72/lb. with the previous five years averaging approximately $0.30/lb. The discrepancy is likely due to variability in reporting methodologies for aquaculture-sourced versus wild Mussels given the greater level of cleaning and processing a wild mussel requires after being landed. Maine DMR 2022 data shows an average farmed Mussel landed price of $1.85/lb., which is relatively consistent with the qualitative research findings, while wild has an average landed cost of only $0.10/lb. For data continuity, Pentallect has utilized current price-per-pound dynamics reported by Maine DMR and ACCSP to develop future pricing projections.

Table 10: Reported Landed Price per Pound: 2015 - 2022

	2015	2016	2017	2018	2019	2020	2021	2022
Maine	$0.17	$0.24	$0.29	$0.28	$0.30	$0.29	$0.42	$0.72
Massachusetts	$0.13	$0.15	$0.22	$0.17	$0.19	$0.19	$0.13	$0.12
Pacific NW [1]	$1.15	$1.15	$1.15	$1.15	$1.15	$1.15	$1.15	$1.15
Net Imports	$1.25	$1.23	$1.23	$1.23	$1.23	$1.31	$1.32	$1.35
Total	**$0.72**	**$0.82**	**$0.88**	**$0.90**	**$0.96**	**$0.98**	**$1.05**	**$1.10**

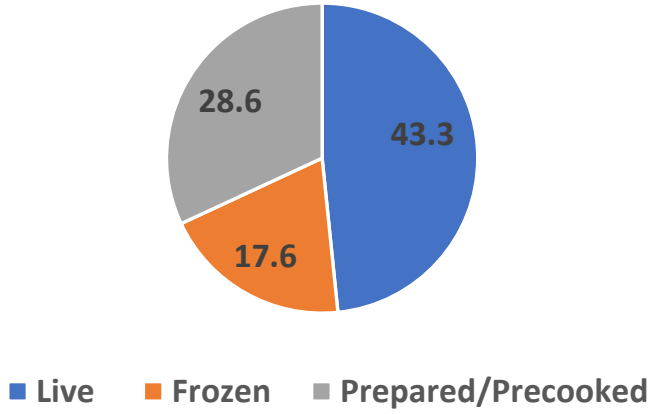
[1] Pentallect estimate. No reported Pacific NW landings data.

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

iii. Imports – All Formats

Live Mussels account for approximately one-half of total U.S. consumption, with imported Frozen and Prepared/Precooked formats each accounting for sizeable shares of the U.S. marketplace.

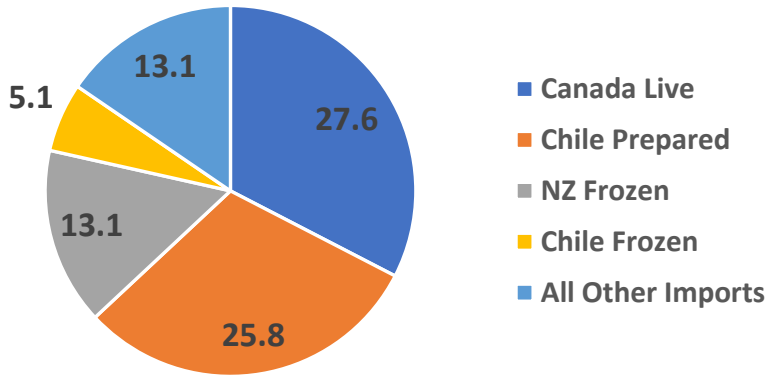
Figure 18: U.S. Mussel Supply by Format (MM Lbs. 2022): U.S. Harvest Plus Imports Less Exports



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

While the vast majority of live Mussels continue to be sourced from the U.S. and Canada, Frozen and Prepared/Pre-Cooked Mussels are primarily sourced from New Zealand and Chile. Across all formats, Chile (36% share) has surpassed Canada (33% share) as the leading exporter of Mussel products to the U.S.

Figure 19: Mussel Import Dynamics by Format – Whole Pounds (2022)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

When all Mussel formats and sources are accounted for, the U.S. Mussel supply, excluding exports, is approximately 90 million pounds and is valued at approximately $130 million.

Table 11: Mussel U.S. Supply Dynamics by Format (2022)

Net After Exports	Volume (Lbs. MM)	Value ($ MM)	$/Lb.
Live	43.3	$48	$1.10
Frozen	17.6	$41	$2.33
Prepared/Precooked	28.6	$38	$1.33
Total	**89.6**	**$127**	**$1.41**

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

iv. Growth Projections - National

The total U.S. live Mussel marketplace is projected to recover and show modest supply growth over the next five years, as domestic capacity expands and imports continue to support strong demand. By 2028, net U.S. live Mussel supply is projected to reach 47 MM lbs. with a landed value of $53 MM; which represents approximately +10% total growth from 2022 levels.

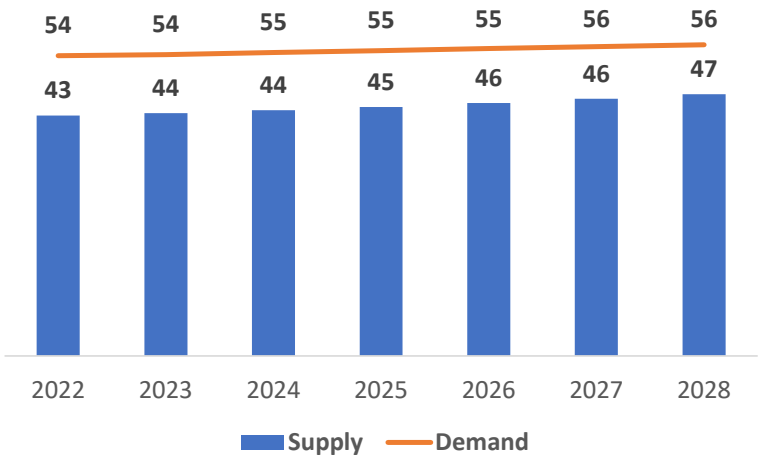
Table 12: U.S. Live Mussel Supply Growth Projection Summary

Source	2022 Volume (000 lbs.)	Proj. Annual % Chg. '22 - '28	2028 Proj. Vol. (000 lbs.)	Abs. Vol. Chg. (MM lbs.)	Abs. % Vol. Chg. '22-'28
Maine	5,563	4.7%	7,200	1,637	29.4%
Rest Northeast	5,276	2.5%	6,119	843	16.0%
Pacific NW	4,500	0.0%	4,500	0	0.0%
Total U.S. Sourced	15,339	2.6%	17,819	2,480	16.2%
Net Imports	27,993	0.9%	29,363	1,370	4.9%
Total U.S. Live Supply	**43,332**	**1.5%**	**47,182**	**3,850**	**8.9%**

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

U.S. Mussel supply is projected to lag demand over the 5-year planning horizon. To estimate true current demand, Pentallect applied the pre-pandemic five-year average U.S. per capita Mussel consumption rate of 0.16 live lbs./person to the U.S. Census population growth projections through 2028. Note: The U.S. per capita consumption of Mussels dropped to an average of 0.12 live lbs./person during the 2020 – 2022 covid time period. Returning to pre-pandemic consumption levels would represent a 23% per capita increase from pandemic era levels.

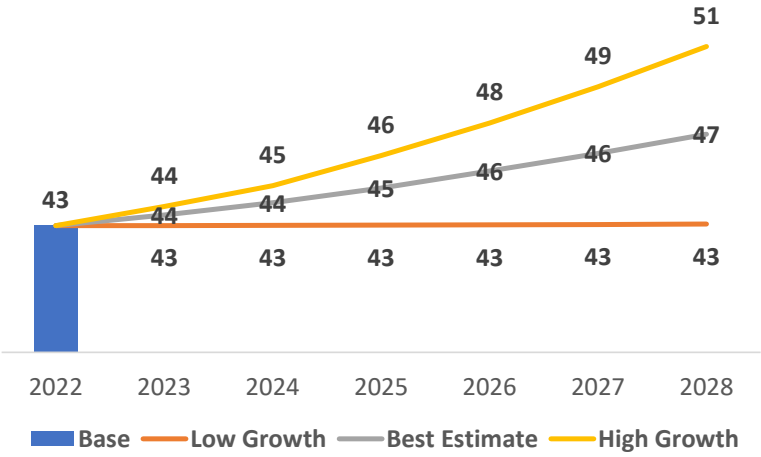
Figure 20: Live Mussel Supply and Demand Projections – Total U.S. (MM Lbs.)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA
Note: The total U.S. supply includes imported live Mussels

In total, the supply of Mussels including both Wild and Farmed sourcing is projected to grow by approximately 4 million pounds over the planning horizon. Maine-sourced Mussels and Canadian imports are projected to account for approximately 80% of the supply growth.

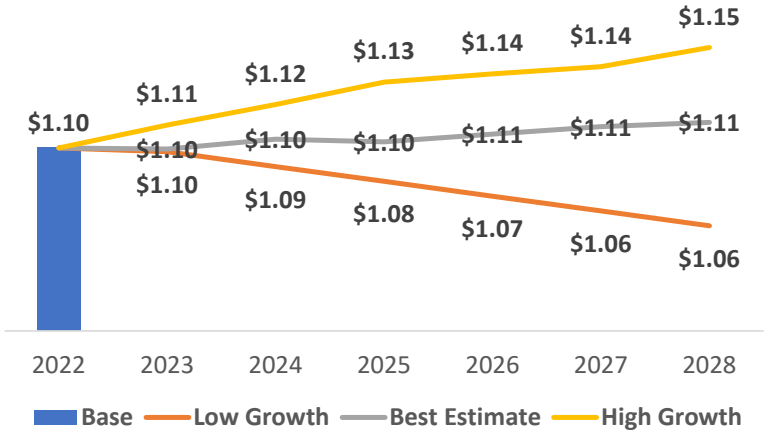
Figure 21: Projected Live Mussel Volume Growth – Total Live Pounds (MM)



Source: Pentallect Inc. research

Overall, Mussel pricing is projected to remain relatively consistent with current levels given that demand will exceed supply during the 5-year planning horizon. There may be some moderate declines in domestic pricing as supply increases, although still above pre-covid levels; and it is anticipated that Canadian import prices may increase slightly while still maintaining a cost advantage relative to U.S.-sourced supply.

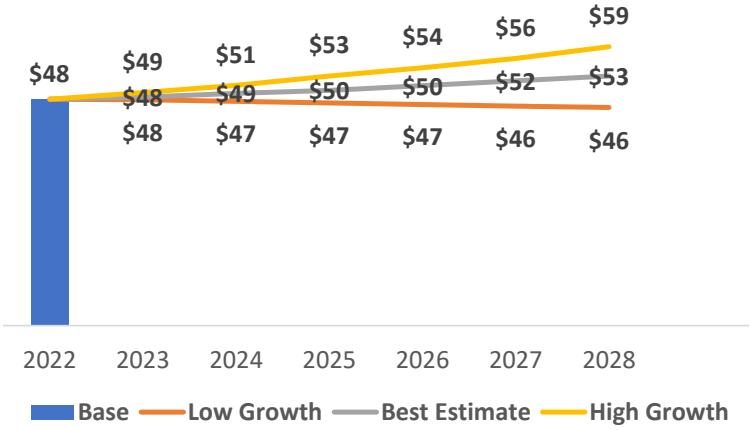
Figure 22: Projected Average U.S. Live Mussel Price per Pound (Ex Vessel Value)



Source: Pentallect Inc. research

Based on the research findings, the total landed value of the Live Mussel marketplace in the U.S. is projected to exceed $50 million by 2028, representing approximately $5 MM growth.

Figure 23: Projected Total U.S. Live Mussel Landed Value ($ MM)



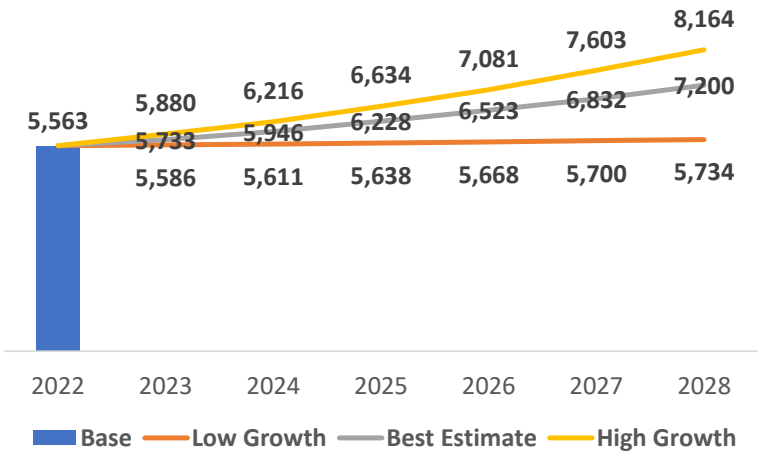
Source: Pentallect Inc. research

v. Growth Projections - Maine

Assuming that Maine continues to expand its aquaculture capacity, the state is positioned to be a growth leader in the live Mussel industry given its available capacity, industry innovations (seed hatchery, growing techniques, etc.), high quality growing environment and brand equity.

Best estimates project that Maine's Farmed Mussel industry can grow approximately +30% over the 5-year planning horizon, with significant upside to address unmet demand with capacity expansion and yield-improving innovations.

Figure 24: Projected Maine Mussel Volume Growth (Live Lbs. 000)



Source: Pentallect Inc. research

Maine aquaculture-sourced Mussels are projected to be the industry growth leader, expanding at approximately 3 times the U.S. marketplace average, driven by a recovery from covid-era inventory reductions, seed hatchery development and potential for lease expansion. Maine wild-sourced mussels are also projected to recover moderately, although still lag historical volume levels from 5-10 years ago due primarily to anticipated irregularities in seed supply and changes to harvester dynamics.

Table 13: U.S. Live Mussel Supply Growth Projection Summary – Best Estimate Scenario

Source	2022 Volume (000 lbs.)	Proj. Annual % Chg. '22 - '28	2028 Proj. Vol. (000 lbs.)	Abs. Vol. Chg. (MM lbs.)	Abs. % Vol. Chg. '22-'28
Maine – Aquaculture	1,967	5.8%	2,738	771	39.2%
Maine – Wild	3,595	4.0%	4,461	866	24.1%
Total Maine	**5,563**	**4.7%**	**7,200**	**1,637**	**29.4%**

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Similar to Oysters, Maine farmed Mussel capacity will need to expand by a combination of increased output per acre and/or lease acreage expansion to meet demand. Currently, there are over 120 Mussel-specific active lease acres with an additional 275 active lease acres that are approved for Mussels among other species. There are currently very few pending lease applications for Mussels, with two multi-use applications totaling 7 acres that include Mussels.

Demand for Maine aquaculture-sourced Mussels is projected to grow approximately +40% over current supply by 2028, which exceeds the largest harvest achieved in 2019 by close to 20%. While Maine's wild Mussel supply has fluctuated significantly in recent years, there remains strong demand for both wild and farmed Mussels from Maine and the 5-year growth projections include moderate recovery in Maine wild supply to complement farmed Mussel growth.

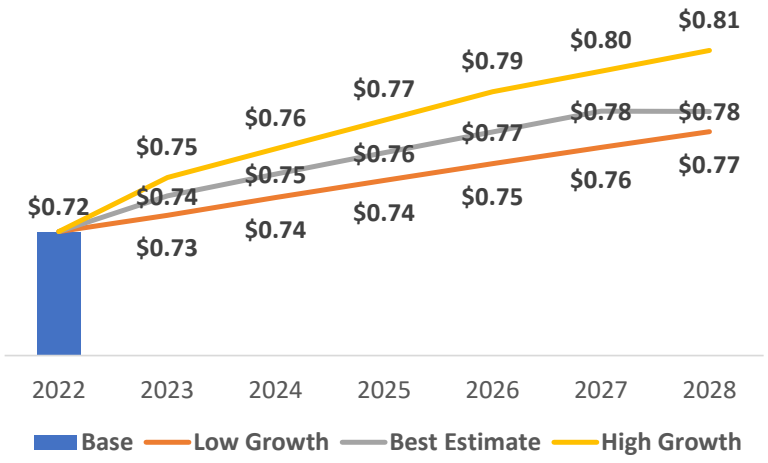
Table 14: Maine Mussel Lease Status

	Active		Pending		Total Potential w/ Pending		
	Leases	Acres	Leases	Acres	Leases	Acres	% Acre Increase
Mussels Only	7	120	0	0	7	120	0%
Mixed Use Including Mussels	20	275	2	7	22	282	3%
Total	**27**	**395**	**2**	**7**	**29**	**402**	**2%**

Source: Maine Department of Marine Resources (DMR)

Maine's average Mussel pricing is projected to increase as the higher priced aquaculture Mussel industry expands market share.

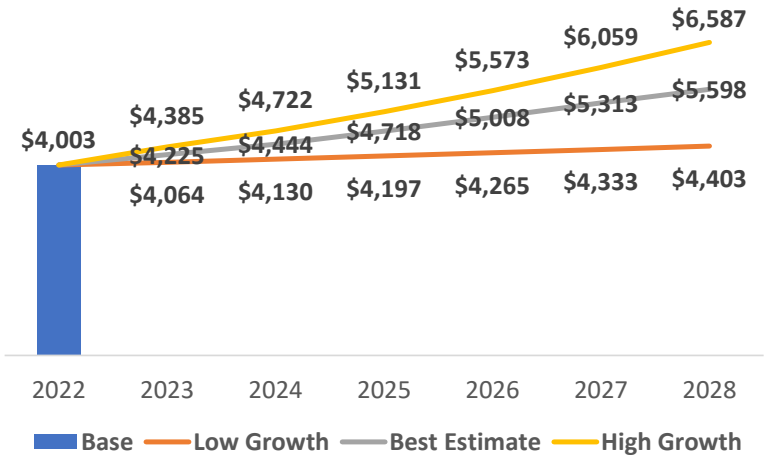
Figure 25: Projected Average Maine Mussel Price per Pound (Ex Vessel Value)



Source: Pentallect Inc. research

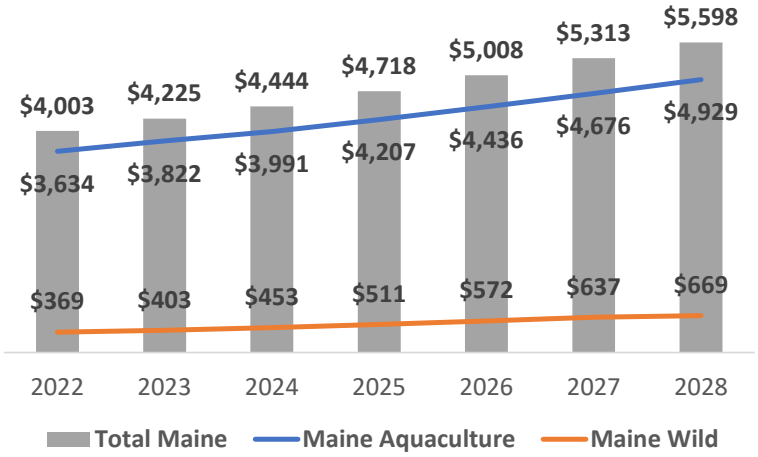
Based on the volume and landed pricing research, the total value of Maine-sourced Mussels is projected to reach approximately $5.5 million by 2028, an increase of $1.5 million, with aquaculture accounting for almost 90% of the total value and 80% of the value growth based on current landed value reporting parameters.

Figure 26: Projected Total Landed Value – Maine Mussels ($ 000)



Source: Pentallect Inc. research

Figure 27: Maine Mussel Landed Value Best Case Scenario Projections – Farmed vs. Wild ($ 000)



Source: Pentallect Inc. research; Maine DMR

i. Species Overview

The U.S. Scallop market, including net imports, represents over 70 million pounds and $740 million landed/import value across all formats. Overall Scallop supply and pricing have fluctuated considerably for both domestic and imported Scallops. U.S.-sourced supply has largely been controlled by federal quotas to protect the biomass. In 2022, imported Scallops accounted for almost 60% of U.S. supply (pounds) across all formats. Demand for U.S.-sourced Scallops continues to outpace supply, supporting the Scallop import marketplace at least until U.S. quota levels are potentially increased or aquaculture-based operations scale up. At this time, it is difficult to predict the outlook for quota levels as the process is reset annually based on biomass data.

The U.S. Scallop aquaculture industry remains in its relative infancy. In Maine, for example, aquaculture-sourced Scallops account for less than one-tenth of one percent of the state's annual landings. Maine's aquaculture-based Scallop harvesters have solidified operational practices. In order to expand and further capitalize on the $700+ million U.S. industry, farmed Scallop enterprises will need to continue to invest in specialized harvesting equipment, lease acreage and build out distribution networks.

The vast majority of the U.S. Scallop landings are from New Jersey up to Maine. While there are variations, Maine landed prices have averaged +5%-8% above the two largest harvest states, Massachusetts and New Jersey, over the past five years.

ii. Market Size and Growth

U.S. landings account for over 30 million meat pounds and almost $500 million value. While imports account for the majority of Scallop supply volume, U.S. pricing is significantly higher, so the U.S. harvest accounts for two-thirds of landed value.

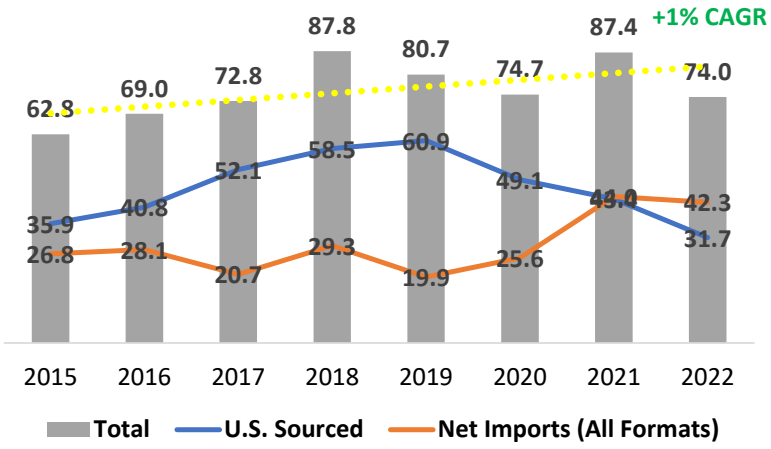
Table 15: U.S. Scallop Supply Summary (Meat Lbs.) - 2022

	Volume (Lb. 000) / Share		Landed Value (000) / Share		Landed Price/Lb.
U.S. Sourced	31,706	43%	$479,844	65%	$15.13
Net Imports (All Formats)	42,308	57%	$261,151	35%	$6.17
Total	**74,014**	**100%**	**$740,995**	**100%**	**$10.01**

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

In total, the U.S. Scallop supply has fluctuated annually, yet has averaged slight growth since 2015. The total domestic-sourced U.S. Scallop supply peaked in 2018-2019 due to higher quotas and has declined since. Import volume, while also fluctuating, has largely made up for the declines in domestically-sourced volume. Due to quotas, 2023 Scallop landings are projected to decline by approximately 20+% from 2022 levels, underscoring the opportunity for growth in imports and aquaculture-sourced Scallops.

Figure 28: U.S. Scallop Supply Trends (MM Lbs.)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Massachusetts accounts for the vast majority of U.S. Scallop landings, with over 80% share. Maine has the fifth largest harvest in the U.S., accounting for 2% of domestic landings. Maine continues to have the highest domestic landed value per pound.

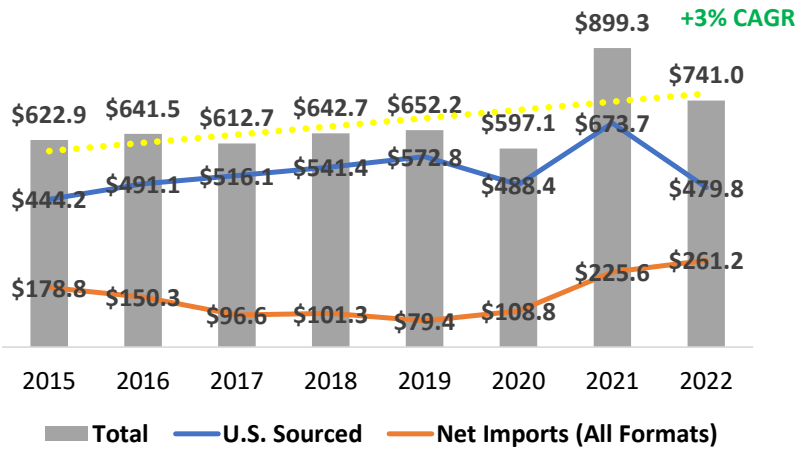
Table 16: Domestic Scallop Sources - 2022

	Volume (Lb. 000) / Share		Landed Value (000) / Share		Landed Price/Lb.
Massachusetts	25,895	82%	$391,773	82%	$15.13
New Jersey	2,479	8%	$39,543	8%	$15.95
Rhode Island	1,363	4%	$18,308	4%	$13.43
Virginia	808	3%	$12,365	3%	$15.30
Maine	**676**	**2%**	**$11,043**	**2%**	**$16.34**
All Other	485	2%	$6,811	1%	$14.03
Total	**31,706**	**100%**	**$479,844**	**100%**	**$15.13**

Source: Pentallect Inc. research, ACCSP, Maine DMR

The overall value of the U.S. Scallop supply (domestic and imported) has grown since 2020, driven primarily by increases in domestic pricing and import volumes in the past two years.

Figure 29: U.S. Scallop Landed/Import Value Trends (MM)



Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Table 17: U.S. Scallop Landed/Import Price/Lb. Trends

	2015	2016	2017	2018	2019	2020	2021	2022	CAGR
U.S. Sourced	$12.37	$12.03	$9.90	$9.26	$9.41	$9.95	$15.53	$15.13	2.9%
Net Imports (All Formats)	$6.66	$5.34	$4.67	$3.45	$4.00	$4.25	$5.12	$6.17	-1.1%
Total	**$9.93**	**$9.30**	**$8.42**	**$7.32**	**$8.08**	**$7.99**	**$10.29**	**$10.01**	**0.1%**

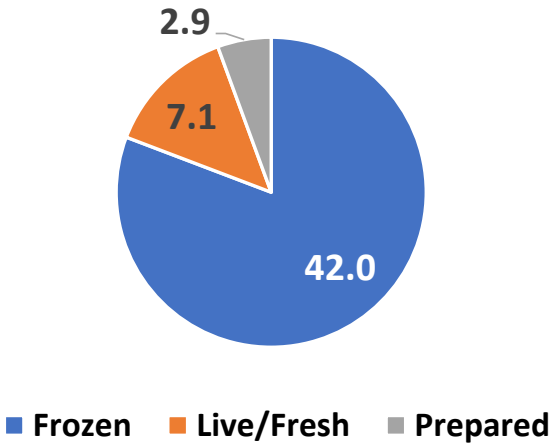
Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

In total, Maine accounts for less than 2% of Scallop volume, yet commands the highest average price per meat pound. The vast majority (90+%) of Maine Scallops are from in-shore fisheries harvested via day-boat operations.

iii. Imports – All Formats

Over 50 million pounds of Scallops in various formats were imported in 2022, valued at $260 million. Frozen Scallops are by far the largest imported format, accounting for 80% of imported Scallop volume. *Note, not all of the imported and domestic-sourced volume is consumed domestically, as approximately 13 million pounds are exported.*

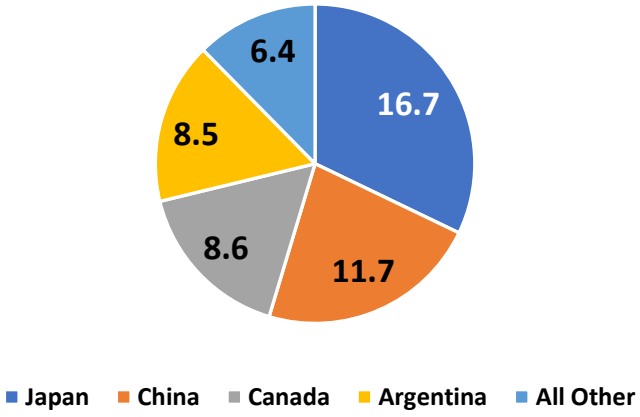
Figure 30: Scallop Imports by Format (Lbs. MM) - 2022



Source: Pentallect Inc. research, NOAA

Four countries account for almost 90% of Scallop imports, with Japan and China accounting for over one-half of import volume.

Figure 31: Scallop Imports by Country (Lbs. 000) - 2022



Source: Pentallect Inc. research, NOAA

iv. Growth Projections - National

As noted earlier, it is challenging to develop accurate Scallop growth projections given the uncertainties related to U.S. landing quotas and import dynamics. The growth scenarios in this report assume that 2023 domestic volumes will be 10%-20% lower than 2022 due to quotas, most likely followed by a period of relative stability and eventual gradual growth over the 5-year planning horizon.

Given the strong demand for Scallops and limited, or inconsistent, domestic supply, there is significant upside for aquaculture-sourced Scallops over the 5-year planning horizon and beyond if aquaculture participants are able to scale up their operations. The growth projections encompass the total supply (domestic and imported), where aquaculture currently has a negligible share, underscoring the size of the potential incremental opportunity for farmed Scallops.

Over the 5-year planning horizon, supplies are projected to soften slightly, both domestically and imported, as the U.S. supply continues to manage through anticipated quota limits and imports remain in the 40MM lb. range, which is approximately +70% versus pre-covid levels. In total, supply is projected to remain in the lower 70 MM lb. range.

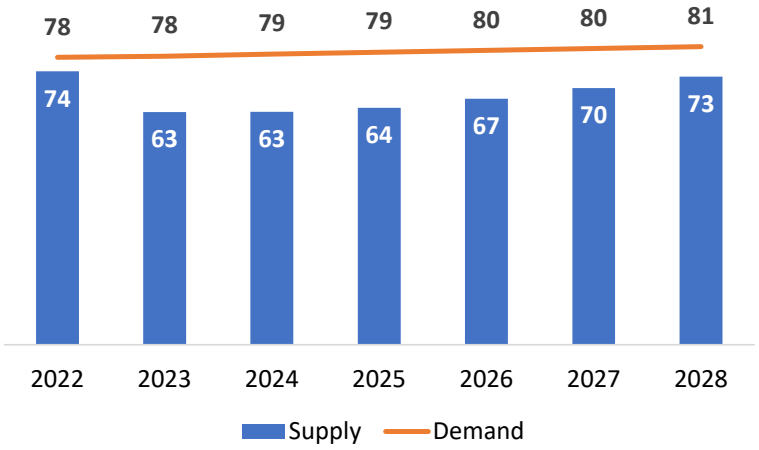
Table 18: U.S. Scallop Supply Growth Projection Summary

Source	2022 Volume (000 lbs.)	Proj. Annual % Chg. '22 - '28	2028 Proj. Vol. (000 lbs.)	Abs. Vol. Chg. (MM lbs.)	Abs. % Vol. Chg. '22-'28
Total U.S. Sourced	31,706	-0.3%	31,315	-391	-1.2%
Net Imports – All Formats	42,308	-0.4%	41,265	-1,043	-2.5%
Total U.S. Supply	**74,014**	**-0.4%**	**72,580**	**-1,434**	**-1.9%**

Source: Pentallect Inc. research, ACCSP, Maine DMR, NOAA

Based on best estimate supply and demand projections, domestic Scallop supply is projected to continue to lag demand over the planning horizon. As a benchmark of recent demand, U.S. per capita Scallop consumption has averaged 0.23 lbs per person since 2015, with little variation during the pandemic. Applying this per capita consumption rate to projected U.S. population growth shows a continued shortfall in projected supply to meet theoretical full demand.

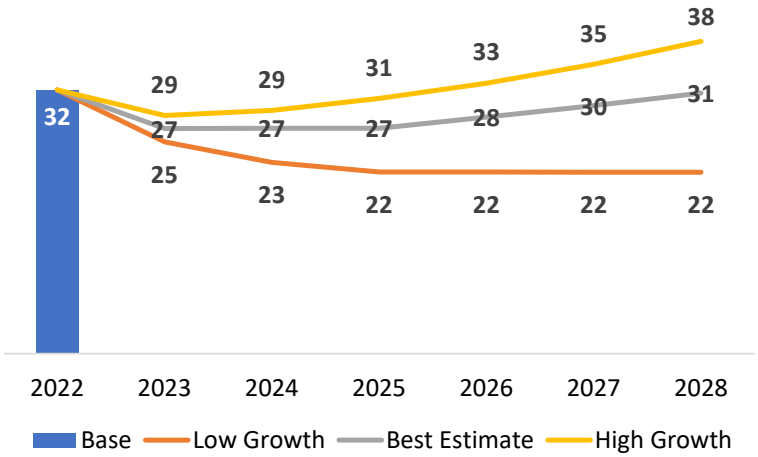
Figure 32: Scallop Supply & Demand Projections – Total U.S. (MM Lbs.)



Source: Pentallect Inc. research

Overall, domestic Scallop volumes are projected to remain essentially flat, with potential growth after 2023 if quotas are increased.

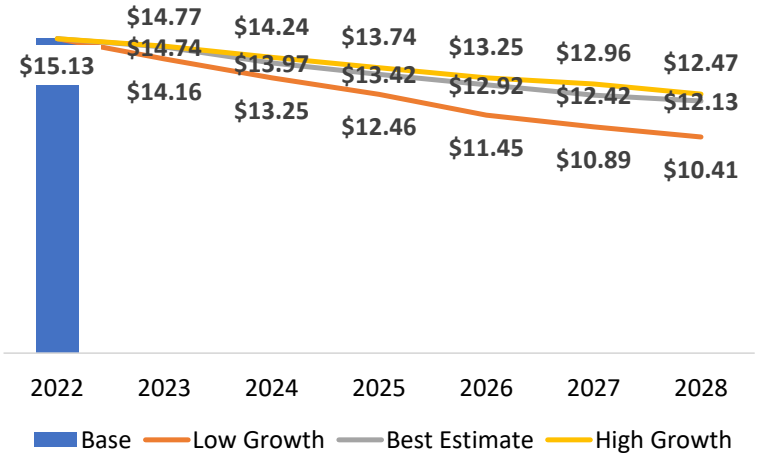
Figure 33: Projected Domestic-Sourced Scallop Volume Growth – Meat Pounds (MM)



Source: Pentallect Inc. research

Scallop pricing is expected to soften from recent record levels, which in 2021/2022 were approximately +50% above pre-covid levels. Mid-point projections assume pricing will return to levels closer to $12/lb. which was the norm prior to the surge in supply in 2018/2019 led to a decline in pricing, followed by the post covid-era increases.

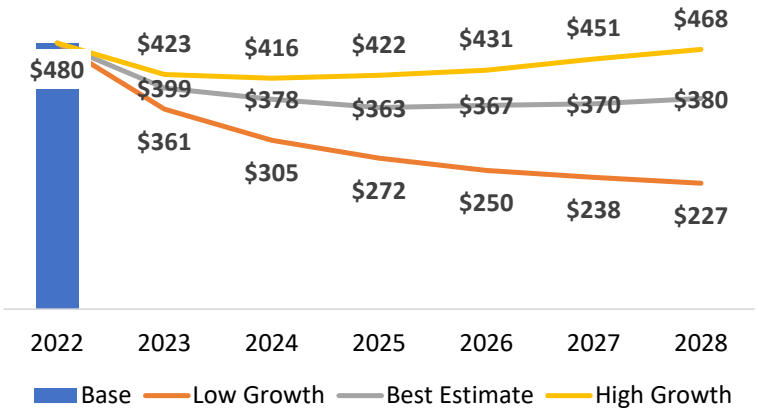
Figure 34: Projected U.S. Scallop Price per Meat Pound (Ex Vessel Value)



Source: Pentallect Inc. research

Given the volume projections and anticipated price softening, the total landed value of U.S. Scallop landings is projected to fall to approximately $400 MM by 2028. While Maine aquaculture-sourced Scallops can help meet demand and deliver incremental value, the planning assumption in this report is that Maine Scallop aquaculture harvest will expand during the 5-year planning horizon but not to a level that will significantly impact national supply.

Figure 35: Projected Scallop Total Landed Value ($USD - MM)



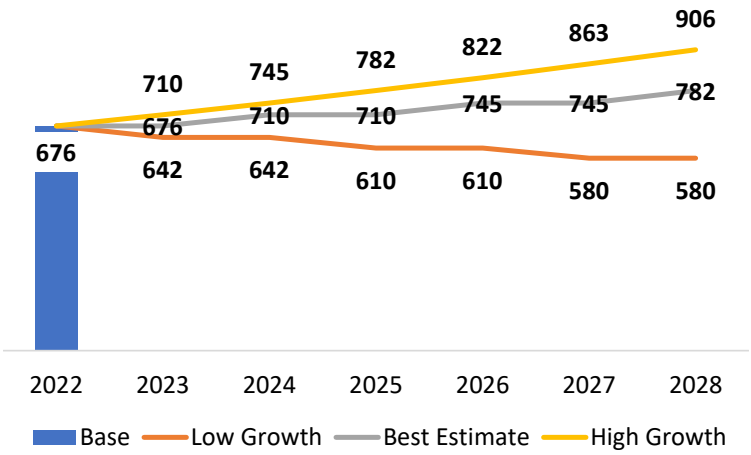
Source: Pentallect Inc. research

v. Growth Projections - Maine

As with other shellfish species, Maine's Scallop aquaculture participants are well positioned for growth assuming continued investment in infrastructure (lease acreage, equipment, distribution network expansion, etc.) given the ongoing supply shortfall relative to demand. Even with significant aquaculture investment, Maine's wild Scallop harvesters will likely remain the primary volume drivers for Maine's Scallop industry over the 5-year planning horizon.

Maine's Scallop industry is less impacted by federal quotas than other states because the vast majority of Maine's Scallop landings are from dayboats operating within state waters. Maine's Scallop fishery within state waters is managed by the state. While Maine's Scallop supply will fluctuate over the 5-year planning horizon, the projection is for the range to remain relatively constant, with the potential for some upside.

Figure 36: Projected Maine Scallop Volume Growth – Meat Lbs.(000)



Source: Pentallect Inc. research

Maine's farmed Scallop industry will need to significantly scale up production in order to gain a meaningful share of the state's Scallop harvest. There is currently one 3.9 acre Scallop-specific active lease site, with an additional 28 mixed use lease sites that include Scallops totaling 273 acres. There is also a 3.2 acre Scallop-specific lease site pending.

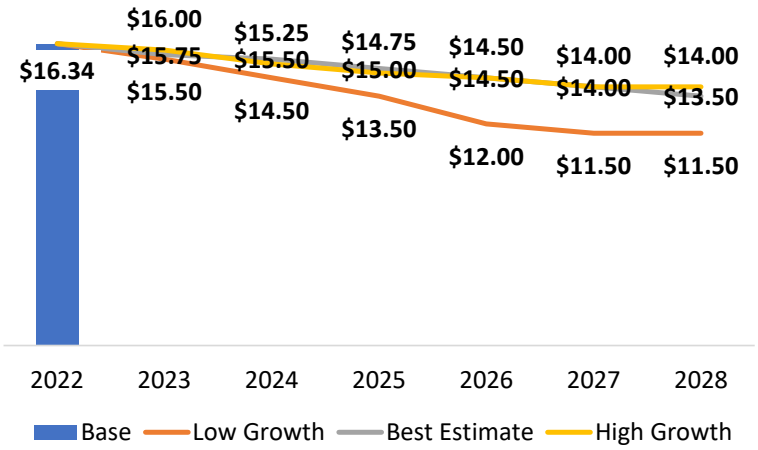
Table 19: Maine Scallop Lease Summary

	Active		Pending		Total Potential w/ Pending		
	Leases	Acres	Leases	Acres	Leases	Acres	% Acre Increase
Scallops Only	1	4	1	3	2	7	82%
Mixed Use Including Scallops	28	273	8	29	36	302	11%
Total	**29**	**277**	**9**	**32**	**29**	**309**	**12%**

Source: Maine Department of Marine Resources (DMR)

While Maine Scallops are projected to retain a price premium relative to other regions driven by the higher quality image of dayboat Scallops, the research indicates that Maine Scallop pricing scenarios will follow national trends and exhibit some overall softening from the high levels seen in 2021/2022. With the best estimate price forecast, projected Maine Scallop pricing will remain above the average from the past 5 years ($12.73).

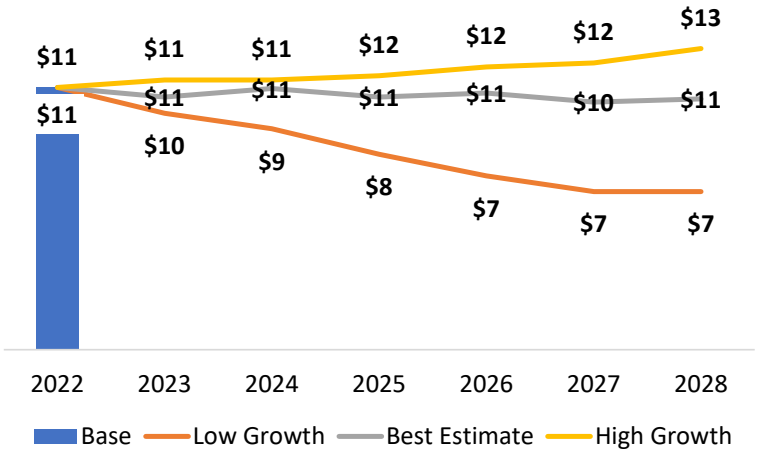
Figure 37: Projected Average Maine Scallop Price per Meat Pound (Ex Vessel)



Source: Pentallect Inc. research

While volume is projected to grow modestly over the 5-year planning horizon, with the anticipated softening pricing, the total value of Maine Scallops is projected to remain relatively consistent at approximately $11 million by 2028.

Figure 38: Projected Total Maine Scallop Landed Value ($ MM)



Source: Pentallect Inc. research

Opportunity Summary and Strategic Implications

The 2023 Farmed Shellfish Market Study confirms that there is significant opportunity for Maine to expand its farmed shellfish industry. Based on the "best estimate" projections, the Maine shellfish industry could achieve landed revenues in excess of $20 million by 2028, representing 40+% growth from 2022.

Table 20: Projected Maine Farmed Shellfish Volume & Revenue Potential

Species	2022 Volume (MM lbs.)	2022 Value ($ MM)	2028 Volume (MM lbs.)	2028 Value ($ MM)	Volume Chg. (MM lbs.)	Value Chg. ($ MM)
Oysters	3.4	$10.6	5.0	$15.2	+1.6	+$4.6
Mussels	2.0	$3.6	2.7	$4.9	+0.7	+$1.3
Scallops	0.3	$0.1	0.4	$0.5	+0.1	+$0.4
Total	**5.8**	**$14.3**	**8.1**	**$20.6**	**+2.3**	**+$6.3**

Source: Pentallect Inc. research, Maine DMR, ACCSP

Achieving the business potential will require continued evolution of Maine's shellfish aquaculture industry into a more mature, sophisticated entity:

- Investment in harvest capacity – lease acreage, equipment, resourcing and yield-enhancing innovations.
- Building-out distribution networks to improve access to major metropolitan markets beyond Maine and Boston.
- Strategic pricing strategies that support Maine's high quality, premium positioning; in order to maintain, or improve, profit margins while enabling growth investment.
- Marketing programs, by individual farmed shellfish organizations and potentially in a collaborative nature, to continue to build awareness of Maine farmed shellfish; particularly outside of New England.
- Streamlining of the lease application process to reduce lead times, better support capital investment decision making and improve visibility into the process.