Maryland Horticulture Industry

2024 Statistical Profile and Economic Survey

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Industry Survey

Maryland Nursery, Landscape, and Greenhouse Association

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EXECUTIVE SUMMARY

The 2024 Maryland Horticulture Survey, administered by the Schaefer Center for Public Policy at The University of Baltimore on behalf of the Maryland Nursery, Landscape, and Greenhouse Association (MNLGA), measures the economic impact of Maryland's horticulture industry. This report analyzes industry growth, sales trends, regional distribution, workforce composition, and conservation practices.

SALES TRENDS

Maryland's horticulture industry experienced an increase in reported and estimated sales from 2023 to 2024, with estimated sales increasing from $1.68 billion to $1.76 billion. Sales are also expected to increase from 2024 to 2025 to $1.84 billion. However, the increases are largely due to increased sales by landscapers, who saw an increase in industry sales of 12% between 2023 and 2024 and expect to see an increase of 9% between 2024 and 2025. Growers and retailers both saw slight declines between 2023 and 2024, and, while growers expected to see a small increase in sales in 2025, retailers expected another small decline.

Woody plants dominated the market, accounting for 36% of all plant sales, followed by herbaceous perennials (25%) and annuals (23%). Above-ground containers were the most common growing method by type of plant sold, representing 39% of sales, followed by greenhouse production (26%) and field grown plants (23%).

The majority of plants are sourced from Maryland and Eastern states, and 39% of sales are from plants sourced in Maryland. Almost three-quarters (72%) of estimated sales stayed in Maryland in 2024, and another 23% was shipped to other Eastern states.

FACTORS LIMITING GROWTH

High costs (36%) and labor costs (35%) are the most significant factors limiting growth. Additional factors cited as top concerns by over one-quarter of respondents include labor availability (29%), the economy (27%), and weather (27%).

CONSERVATION PRACTICES

One quarter (25%) of respondents reported that some of their land was enrolled in land preservation or conservation programs, and they reported 3,166 acres in such programs in 2024. The most common reason for using conservation practices was because it was a best management practice to protect the environment. Over half (55%) of respondents use Integrated Pest Management (IPM) in their plant production or on properties they manage.

REGIONAL PERFORMANCE

The Central and Western region dominates Maryland's horticulture industry, generating $1.3 billion (71%) in total estimated sales in 2024, driven primarily by wholesale plant sales ($643 million) and retail plant sales ($533 million). The group with the second highest sales were those operating in Southern MD ($310 million), by the businesses in Multiple Regions ($92 million), Upper Shore ($90 million), and Lower Shore ($16 million).

WORKFORCE AND WAGES

Managers are estimated to have earned almost $31 per hour in 2024, supervisors earned just over $26 per hour, experienced laborers earned over $19 per hour, and inexperienced laborers earned over $16 per hour. Average wages varied by region. There were an estimated 21,271 workers (including unpaid workers) in the horticulture industry in 2024. Most worked more than 150 days per year.

BACKGROUND AND METHODOLOGY

The 2024 Maryland Horticulture survey was administered by the Schaefer Center for Public Policy (Schaefer Center) at The University of Baltimore on behalf of the Maryland Nursery, Landscape, and Greenhouse Association (MNLGA) to measure the economic impact of Maryland's Horticulture Industry. The report presents a numerical picture of the plant types grown and sold within the state, where they were grown and sold, the number of individuals employed in the industry, tenure of operation and total numerical value of the equipment, the amount of land used in the industry, and horticulture sales. The 2024 survey assists in identifying key components that impact growth of the Horticulture Industry.

WHAT IS A HORTICULTURAL PRODUCT?

For the purpose of the 2024 Horticulture Survey, production included nursery plant production, brokerage services, landscape design, installation, maintenance, renovation, lawn care, fertilization, mowing, trimming, mulching, erosion control/hydro-seeding, plant delivery, plant rentals, watering, irrigation, interior plant operations, tree work, tree moving, tree spraying, integrated pest management (IPM), seeding, and sales of Christmas trees, floral greenery, and plugs.

The businesses included in this survey were licensed operations in the state of Maryland. To grow or sell perennial plant materials in Maryland, businesses are required to be licensed by the Maryland Department of Agriculture, Office of Plant Industries and Pest Management. These businesses may include plant material growers, landscape contractors, sales operations, and plant brokers. Businesses are not required to be licensed for operations that include cut-flower growers, orchards, flower shops, or turf growers; however, a number of these businesses choose to be licensed so that they would be able to ship their products out of state.

SURVEY DESIGN AND DATA COLLECTION

The survey design was based upon previous iterations of MNLGA Horticultural Industry Statistical Profile and Economic Summary with adjustments to the survey instrument from MNLGA stakeholders. The survey was programmed into the Schaefer Center's Qualtrics online survey software platform, and an initial email request for participation was sent in January 2025 to green industry professionals for whom an email address was provided by MNLGA. Businesses that did not initially have an e-mail address or whose e-mail address bounced and could not be updated were mailed a paper version of the survey in February 2025. All respondents were sent a

reminder postcard in February 2025 before there was a pause in reminder activities between March and July 2025. Non-responding businesses were contacted by phone starting in September 2025 to encourage them to complete the web or paper version of the survey. Additionally, a paper version of the survey was distributed in person to businesses attending an industry event in September 2025. In October 2025, businesses who had not responded to previous calls or e-mails were mailed a paper version of the survey and were also contacted by trained telephone interviewers to determine whether they wished to complete the survey by phone. In total, businesses were contacted up to five times by e-mail, up to four times by phone, and up to three times by mail, including the postcard. Ultimately, the survey was open from January 16 to October 24, 2025.

SURVEY RESPONSE RATE

A total of 211 businesses responded to the survey, which accounted for 21% of the population of licensed operations provided by MNLGA (Table 1). Of the 211 responses received, 36 surveys were completed via paper survey, 135 were completed online, and 40 were completed over the phone.

Table 1: Response Rate by Response Method

Response Method	Sample	Number of Responses	Percent
Online	N/A	135	14%
Phone	N/A	40	4%
Paper	N/A	36	3%
Total	**973**	**211**	**21%**

Of the businesses that responded to the survey, 35 reported that they did not produce, sell nursery or greenhouse crops, or provide landscape services in 2024. These businesses have been excluded from the analysis that follows. One hundred and forty-five businesses completed the entire survey, and the remaining 29 businesses answered at least the first question of the survey but did not reach the end of the survey.

DEMOGRAPHICS AND REPRESENTATIVENESS SURVEY RESPONDENTS

Table 2 shows the total number of respondents by region and self-reported business type. Nearly half (48%) of respondents identified as a grower, over a quarter (26%) identified as a landscaper, just under a quarter (22%) identified as a retailer, and 5% classified themselves as "other." The largest single group of respondents were growers from the Central and Western MD region[1] (27%).

Table 2: Number and Percentage of Survey Respondents by Region and Business Type

	Grower	Retailer	Landscaper	Other	Total
Central and Western MD	48 (27%)	21 (12%)	27 (15%)	4 (2%)	100 (57%)
Southern MD	12 (7%)	7 (4%)	5 (3%)	3 (2%)	27 (15%)
Upper Shore	15 (9%)	6 (3%)	1 (1%)	1 (1%)	23 (13%)
Lower Shore	4 (2%)	3 (2%)	1 (1%)	1 (1%)	9 (5%)
Multiple Region	5 (3%)	1 (1%)	11 (6%)	0 (0%)	17 (10%)
Total	**84 (48%)**	**38 (22%)**	**45 (26%)**	**9 (5%)**	**176 (100%)**

Note: Multiple Region includes seven respondents who did not identify the location of their business.

Table 3: Number and Percentage of Licensed Businesses by Region and Business Type

	Grower	Retailer	Landscaper	Other	Total
Central and Western MD	203 (21%)	165 (17%)	211 (22%)	7 (1%)	586 (60%)
Southern MD	68 (7%)	39 (4%)	82 (8%)	1 (0%)	190 (20%)
Upper Shore	61 (6%)	20(2%)	28 (3%)	0 (0%)	109 (11%)
Lower Shore	17 (2%)	10 (1%)	15 (3%)	0 (0%)	42 (4%)
Multiple Region	1 (0%)	37 (4%)	8 (2%)	0 (0%)	46 (5%)
Total	**350 (36%)**	**271 (28%)**	**344 (1%)**	**8 (0%)**	**973 (100%)**

Note: Industry licenses were grouped as follows: Grower – NIC; Retailer – PDGL and PDL; Landscaper – PDHL; Other – PBL.

However, based on the sample of licensed businesses (Table 3), this group is only two percentage points smaller than the largest share of licensed horticulture businesses[2] in Maryland – landscapers in Central and Western MD comprised 22% of licensed businesses, and growers in Central and Western MD were 21%. However, as can be seen by this data, growers in Central and Western MD were overrepresented among survey respondents and landscapers in the region

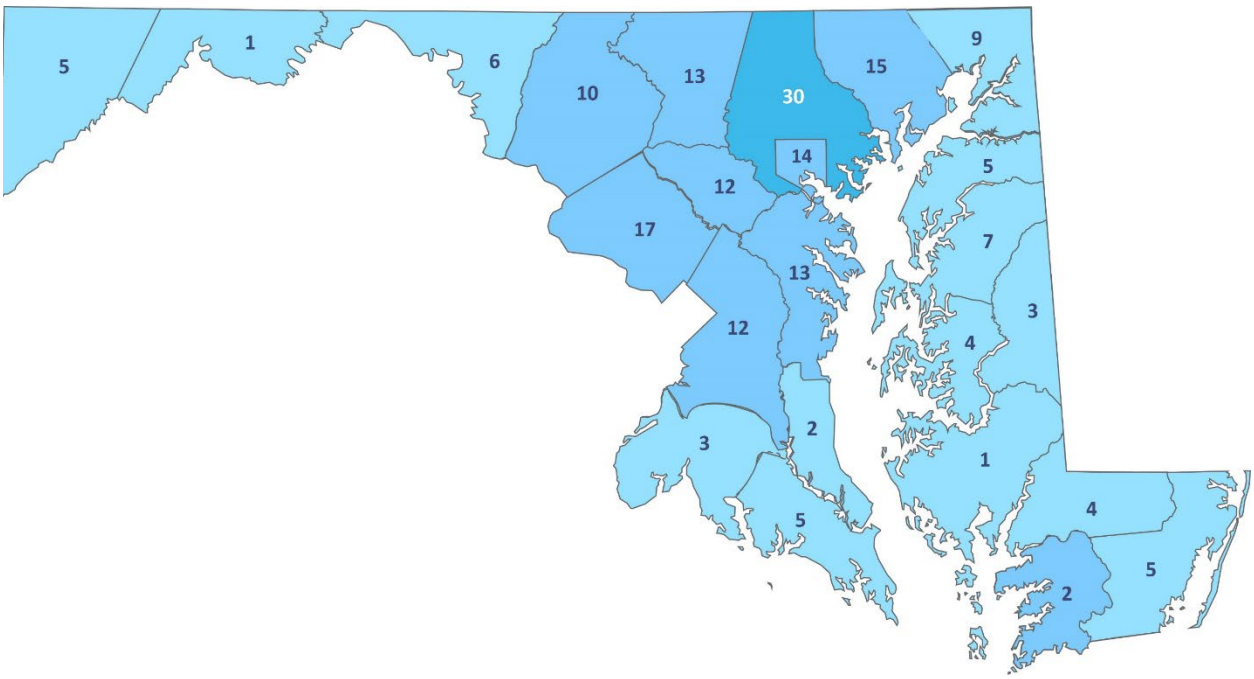
[1] Central and Western MD – Allegany, Baltimore, Carroll, Frederick, Garrett, Harford, Howard, Montgomery, and Washington counties and Baltimore City. Southern MD – Anne Arundel, Calvert, Charles, Prince George's, and Saint Mary's counties. Upper Shore – Caroline, Cecil, Kent, Queen Anne's, and Talbot counties. Lower Shore – Dorchester, Somerset, Wicomico, and Worcester counties.

[2] Industry licenses were grouped as follows: Grower – NIC; Retailer – PDGL and PDL; Landscaper – PDHL; Other – PBL.

were underrepresented. Further, retailers in the same region were also underrepresented (12% of respondents compared to 17% of licensed businesses). Landscapers in Southern MD (3% of respondents, 8% of licensed businesses) were also underrepresented, while those in Multiple Regions were overrepresented (6% of respondents, 0.8% of licensed businesses). All other respondent groups were within five percentage points of each group's share of licensed businesses.

Figure 1 shows the counties in which survey respondents reported they conducted business. Respondents could select more than one county. The greatest number of responses came from Baltimore County (30), followed by Montgomery County (17), Harford County (15), Baltimore City (14), Anne Arundel and Carroll counties (13 respondents each), and Howard and Prince George's counties (12 respondents each). There were 20 businesses that reported operating in more than one county, and seven businesses that did not report a county of operation.

Figure 1: Responses by County



Notes: n = 176.[3] Respondents could report operations in more than one county, and those respondents are shown in each county of operations above. There were 20 businesses that reported operating in more than one county, and seven businesses that did not report a county of operation.

Over three-quarters (78%) of the businesses have been in operation for ten years or longer, and 13% have been in operation for between one to five years. Eighty-one percent of respondents reported that their business was a family-owned operation. Nearly all (94%) of respondents

[3] "n" shows the number of survey respondents represented in the figure.

reported that they produced, purchased, or installed plants in 2024, and almost two-thirds (63%) reported that they engaged in retail sales in 2024.

NONRESPONSE AND CALCULATION OF INDUSTRY ESTIMATES

Industry estimates were calculated using data provided by survey respondents. Only data that was provided by the respondents was used for the estimates; imputed data was not calculated for surveys that were partially completed, so the number of responses used in the calculation of the results varies among the survey questions.[4] For questions in which the survey respondents' results are shown, an n value is reported to show the number of respondents who answered that question and, therefore, whose aggregated data is shown.

For the calculation of the industry estimates, the geographic distribution of the survey respondents does not perfectly match the actual distribution of licensed businesses across Maryland. To address this mismatch, estimates were calculated at the level of region and business type when possible. For example, businesses in Central and Western Maryland represent 60% of all licensed businesses but only 57% of the survey respondents, while growers are overrepresented at 48% of participants. By calculating estimates at the regional and business-type level, adjustments can be made for these differences and provides for more accurate estimates of the horticulture industry by region and business type.

For constituency and comparability across years of this survey, all industry estimates are derived from respondents who provided total gross sales data for 2023, 2024, and 2025 (projected); a total of 147 respondents provided all three years of sales data. For limited other results, including those in which opinions are presented rather than industry estimates, aggregated respondents from all survey respondents are presented.

COMPARABILITY TO PREVIOUS SURVEYS

As in previous years, survey questions were modified to ensure that the survey continues to document the current growth, scope, and impact of Maryland's Ornamental Horticulture Industry. This included adding new questions and removing others.[5] The methodology for the calculation of industry estimates also differs among industry report years. In addition, unlike in previous years, businesses were also provided the opportunity to respond to the survey via

[4] This is a departure from the methodology used in prior report (That Maryland Horticultural Industry Survey 2018 Statistical Profile) that assumed "...responses that were partially or completely blank were assumed to be performing the same as the other types of businesses in the industry."

[5] A complete version of the survey questionnaire is included in Appendix A.

telephone in October 2025. Therefore, caution should be exercised in comparing results across survey years.

OVERALL HORTICULTURE INDUSTRY RESULTS

This section presents the results from the analysis of the responses from the business that responded to the survey. A total of 211 businesses responded to the survey, of which 35 reported that they did not sell or produce any plant materials or provide any landscape services in 2024. This section uses that information to estimate the size of the horticulture industry in Maryland including sales volume, the types of plants sold, methods of sales, source and destination of the plants, the factors inhibiting the growth of their operations, the stewardship of their land, and how they use integrated pest management systems.

SALES OF HORTICULTURAL PRODUCTS AND SERVICES

There were 147 survey respondents who provided their total sales in 2023 and 2024 and their projected sales in 2025. Table 4 shows the total reported sales by survey respondents for 2023 and 2024 and their projected sales for 2025 as well as the estimated sales for the horticulture industry in Maryland based on these responses. As can be seen from the responses and estimates, there has been a slight increase in sales during this time period, and the industry has estimated to have grown from $1.7 billion to $1.8 billion from 2023 to 2024.

Table 4: Total Industry Sales, 2023, 2024, and 2025 (Projected)

	Survey Respondents' Sales	Industry Sales (Estimated)
2023	$248,100,757	$1,677,610,873
2024	$253,469,223	$1,763,605,052
2025 (Projected)	$262,749,690	$1,840,146,447

Notes: n = 147.[6] Calculations based on survey respondents who provided total sales in 2023 and 2024 and projected total sales in 2025. One retailer was removed from the average calculation due to responses that appear to have been a data entry error.

SALES BY BUSINESS TYPE AND FUNCTION

Table 5 shows the total industry estimated sales by business type statewide in 2023, 2024, and 2025 (projected). Landscapers were the only business type that saw an increase in sales from 2023 to 2024 (12%) and they also expected to see an increase from 2024 to 2025 (9%). All other business types had a decrease from 2023 to 2024, although for both growers and retailers this decrease was small (2% and 1%, respectively). Growers expected to see a rebound from 2024 to 2025 (3%), but retailers expected to see another decrease (2%). Other businesses saw a much larger decrease in sales from 2023 to 2024 (7%) but also expected to see the largest increase

[6] Throughout this report, "n" shows the number of survey respondents represented in a figure or table.

from 2024 to 2025 (16%); however, this should be taken with caution because there were only eight respondents of this business type.

Table 5: Industry Estimated Sales by Business Type, 2023, 2024, and 2025 (Projected)

	2023	2024	2025 (Projected)	Percent Change, 2023-2024	Percent Change, 2024-2025
Grower	$515,821,306	$506,791,033	$521,551,056	-2%	3%
Retailer	$446,760,911	$441,309,359	$432,050,755	-1%	-2%
Landscaper	$713,901,656	$814,451,160	$885,319,636	12%	9%
Other	$1,127,000	$1,053,500	$1,225,000	-7%	16%
Total	**$1,677,610,873**	**$1,763,605,052**	**$1,840,146,447**	**5%**	**4%**

Notes: n = 147.

The largest share of estimated sales by business function in 2024 was wholesale plant sales, which represented 36% of sales (Figure 2). Wholesale non-plant sales represented 1% of estimated industry sales. Retail plant sales were 30% of estimated industry sales, while retail non-plant sales were 5% of sales. Landscape/interiorscape installation was 13% of sales, while landscape/interiorscape maintenance was 10%. Other business functions were 5% of sales. Table 6 shows estimated sales by business function for 2024 and the projected amount for 2025 as well as the projected change. All business functions were expected to see an increase between the two years except for retail non-plant sales, which was expected to see a decrease of 13%.

Figure 2: Total Estimated Sales by Business Function, 2024

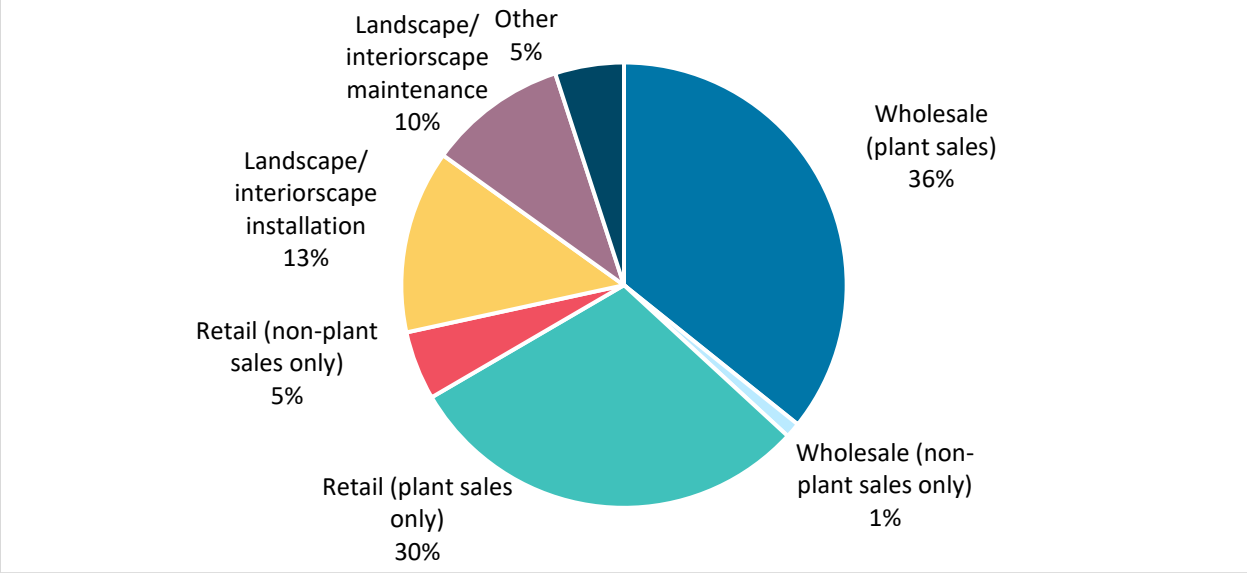


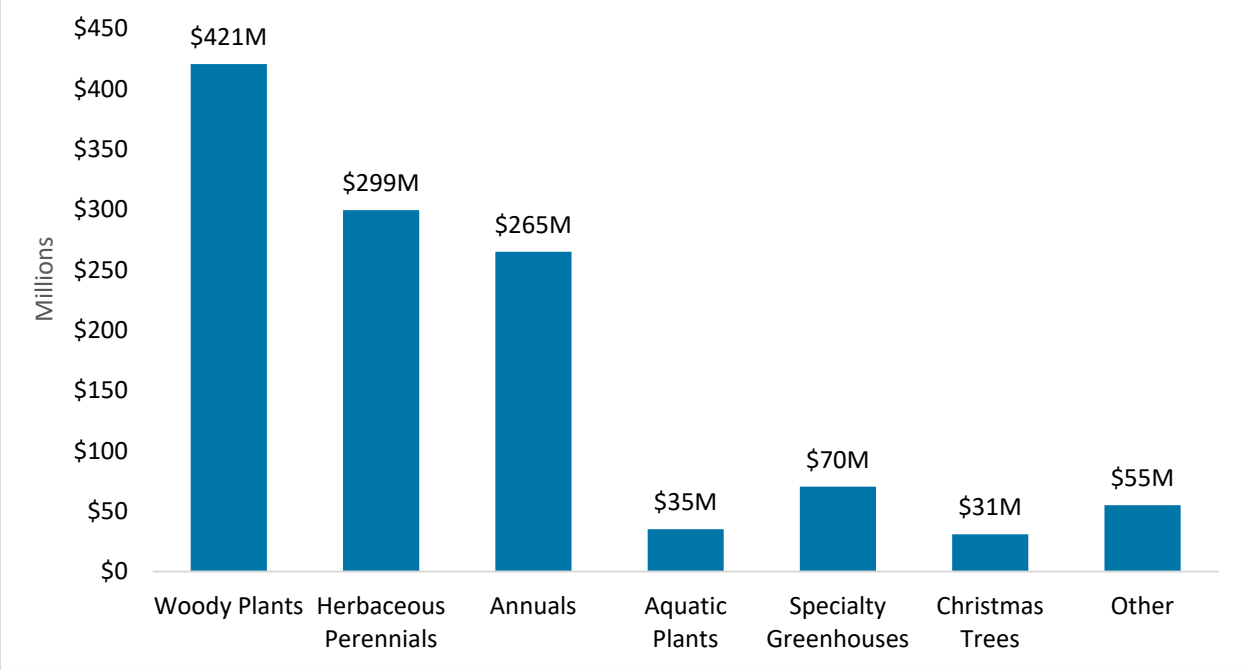
Table 6: Total Estimated Sales by Business Function, 2024 and 2025 (Projected)

Business Function	2024	2025 (Projected)	Percent Change, 2024-2025
Wholesale (plant sales)	$643,303,856	$658,266,856	2%
Wholesale (non-plant sales only)	$19,051,160	$20,275,973	6%
Retail (plant sales only)	$533,099,990	$547,725,515	3%
Retail (non-plant sales only)	$83,095,798	$72,473,230	-13%
Landscape/interiorscape installation	$233,783,405	$245,240,624	5%
Landscape/interiorscape maintenance	$168,586,141	$185,797,103	10%
Other	$82,684,702	$110,367,146	33%
Total	**$1,763,605,052**	**$1,840,146,447**	**4%**

TYPES OF PLANTS SOLD

Of the $1.2 billion in estimated sales on wholesale and retail plant sales in 2024, woody plants comprised the single largest share of plants sold in Maryland in 2024. The total value of these plants was estimated to be $421 million, which is 36% of the total estimated sales (Figure 3; Table 7). The second largest type of plant sold was herbaceous perennials, which represented an estimated $299 million in sales, followed by annuals ($265 million); each of these types of plants represented approximately one-quarter of estimated sales. All other plant types represented less than $100 million each in total estimated sales. Table 8 shows the projected sales by plant type in 2025 based on the responses gathered in the survey. The same pattern is expected in 2025, with woody plants comprising over one-third of sales, herbaceous perennials comprising over one-quarter of sales, annuals comprising just under one-quarter of sales, and the remaining varieties making up the rest of the distribution.

Figure 3: Estimated Plant Sales in Maryland by Type, 2024



Notes: n = 137. Specialty greenhouses includes houseplants and tropicals.

Table 7: Sales by Plant Type, 2024

	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Woody plants	$61,995,461	$420,591,089	36%
Herbaceous perennials	$39,129,958	$299,438,683	25%
Annuals	$34,645,539	$265,058,242	23%
Aquatic plants	$5,275,354	$35,155,940	3%
Specialty greenhouses	$8,920,074	$70,370,551	6%
Christmas trees	$4,197,100	$30,814,915	3%
Other	$8,692,733	$54,974,425	5%
Total	**$162,856,220**	**$1,176,403,846**	**100%**

Notes: n = 137. Specialty greenhouses includes houseplants and tropicals.

Table 8: Sales by Plant Type, 2025 (Projected)

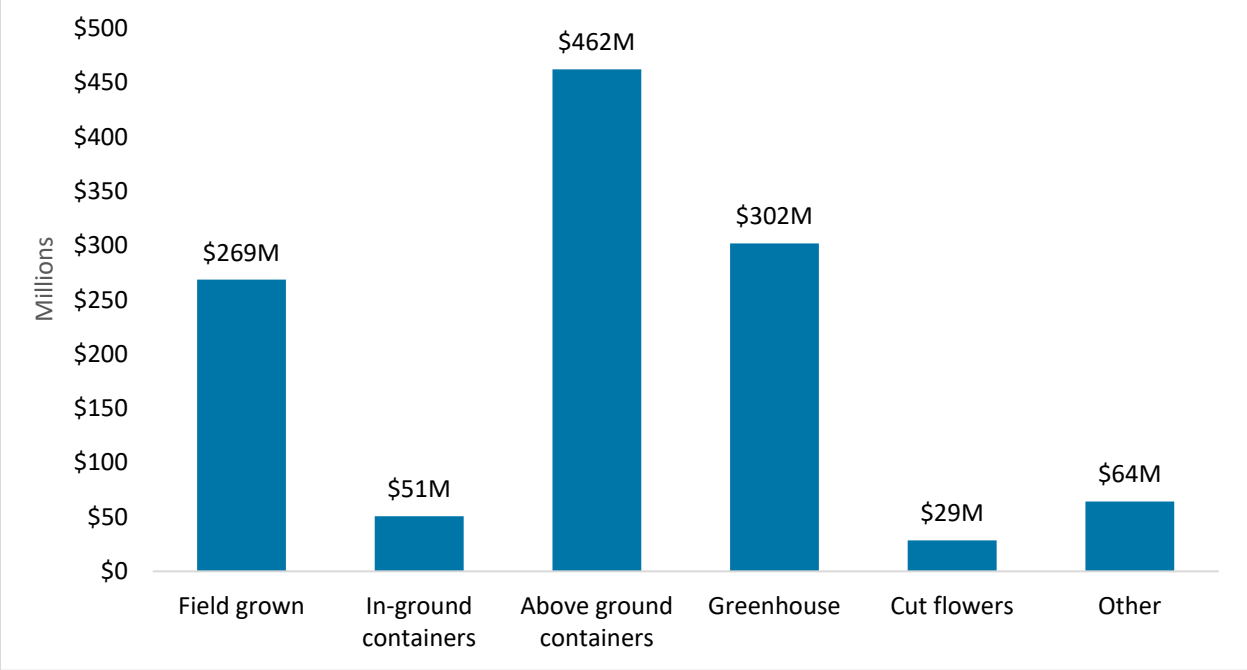
	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Woody plants	$65,058,896	$434,922,169	36%
Herbaceous perennials	$41,547,654	$321,202,882	27%
Annuals	$34,632,389	$262,552,143	22%
Aquatic plants	$3,657,379	$23,333,349	2%
Specialty greenhouses	$8,990,452	$72,857,745	6%
Christmas trees	$4,287,346	$31,582,143	3%
Other	$9,746,184	$59,541,940	5%
Total	**$167,920,301**	**$1,205,992,372**	**100%**

Notes: n = 135. Specialty greenhouses includes houseplants and tropicals.

GROWING METHOD FOR PLANT PRODUCTS SOLD

In 2024, $462 million dollars in horticulture industry sales in Maryland resulted from plants grown in above-ground plant production in containers, which represented 39% of total sales (Figure 4;Table 9). The second most common type of plant growing method was greenhouses ($302 million), followed by field grown plants ($269 million). In 2025, sales of plants grown in above-ground containers are expected to increase to $488 million, or 40% of total sales, while field grown plants increase to the second largest percentage of sales by growing method (Table 10).

Figure 4: Estimated Plant Sales by Growing Method, 2024



Note: n = 138.

Table 9: Plant Sales by Growing Method, 2024

	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Field grown	$38,242,085	$268,626,766	23%
In-ground containers (pot-in-pot)	$7,838,403	$50,768,030	4%
Above-ground production in containers	$65,672,882	$462,209,401	39%
Greenhouse	$41,120,693	$301,938,458	26%
Cut flowers	$3,384,539	$28,536,239	2%
Other	$6,597,619	$64,324,954	5%
Total	**$162,856,220**	**$1,176,403,846**	**100%**

Note: n = 138.

Table 10: Plant Sales by Growing Method, 2025 (Projected)

	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Field grown	$42,406,604	$296,237,908	25%
In-ground containers (pot-in-pot)	$7,614,218	$47,325,440	4%
Above-ground production in containers	$69,847,375	$487,585,665	40%
Greenhouse	$37,460,352	$272,895,114	23%
Cut flowers	$3,619,367	$32,110,711	3%
Other	$6,972,384	$69,837,534	6%
Total	**$167,920,301**	**$1,205,992,372**	**100%**

Note: n = 132.

SOURCE OF PLANT MATERIAL SOLD

Businesses were asked to identify the source location for each type of plant material they reported purchasing or producing in 2024. Respondents could identify more than one source for each plant type. As shown in Table 11, most plants were sourced from Maryland, including over three-quarters of herbaceous perennials (77%) and more than two-thirds of annuals (70%), aquatic plants (69%), and woody plants (68%).[7]

[7] Eastern states – CT, DC, DE, MA, ME, NH, NJ, NY, PA, RI, VT, and WV. Southern states – AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, TN, TX, and VA. Central states – IA, IL, IN, KS, MI, MO, MN, ND, NE, OH, SD, and WI. Western states – AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY.

Table 11: Survey Respondents' Source of Plant Materials Produced, 2024

Type of Plant	Only My Farm/Nursery	Maryland	Eastern States	Southern States	Central States	Western States	Imported to U.S.
Woody plants	38%	68%	62%	27%	7%	20%	0%
Herbaceous perennials	27%	77%	51%	16%	6%	5%	1%
Annuals	23%	70%	31%	10%	2%	0%	0%
Aquatic plants	14%	69%	38%	10%	3%	0%	0%
Specialty greenhouses	25%	38%	28%	30%	3%	3%	2%
Christmas trees	28%	28%	39%	28%	0%	0%	0%
Other	23%	57%	34%	9%	7%	16%	2%

Notes: Respondents were asked to identify the source of each type of plant material they reported purchasing or producing. Percentages represent the share of respondents identifying that the plant material they sold originated from the specified location. The sample size varies for each type of plant material and source and ranges from 18 to 123.

Approximately $463 million of estimated industry plant sales in 2024 were from materials sourced from Maryland (Table 12). This represents 39% of wholesale and retail plant sales. The second largest share (27%) of estimated sales were from plants from Eastern states, while 14% was from the producers' farms or nurseries. One percent was imported to the U.S.

Table 12: Plant Sales by Source of Material, 2024

	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Only my farm/nursery	$24,154,419	$170,062,634	14%
Maryland	$63,931,454	$462,847,719	39%
Eastern states	$43,661,241	$314,975,455	27%
Southern states	$16,462,787	$124,311,343	11%
Central states	$5,069,781	$35,648,949	3%
Western states	$8,843,609	$62,428,948	5%
Imported to U.S.	$732,930	$6,128,798	1%
Total	**$162,856,220**	**$1,176,403,846**	**100%**

Notes: n = 137.

DESTINATION OF PLANT SALES

Almost three-quarters (72%) of estimated industry plant sales stayed in Maryland in 2024, as shown in Table 13. Another 23% was shipped to the other Eastern states, and 5% was shipped to the rest of the United States. Slightly less than one-third (31%) of survey respondents reported that they installed or maintained plant materials in 2024. Of those who identified the location of this work, 78% said they conducted the work in Maryland, and 20% said they worked in Eastern states. Slightly more than half (52%) of plants were finished by the farm or nursery selling the plant, while 48% were sold already finished (Table 14).

Table 13: Destination of Plant Sales, 2024

	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Maryland	$115,846,958	$851,139,100	72%
Eastern states	$39,929,148	$269,973,701	23%
Southern states	$3,650,962	$27,245,698	2%
Central states	$2,579,556	$20,214,826	2%
Western states	$802,137	$7,490,348	1%
Exported from U.S.	$47,458	$340,172	0%
Total	**$162,856,220**	**$1,176,403,846**	**100%**

Notes: n = 137.

Table 14: Sales by Method of Plant Finishing, 2024

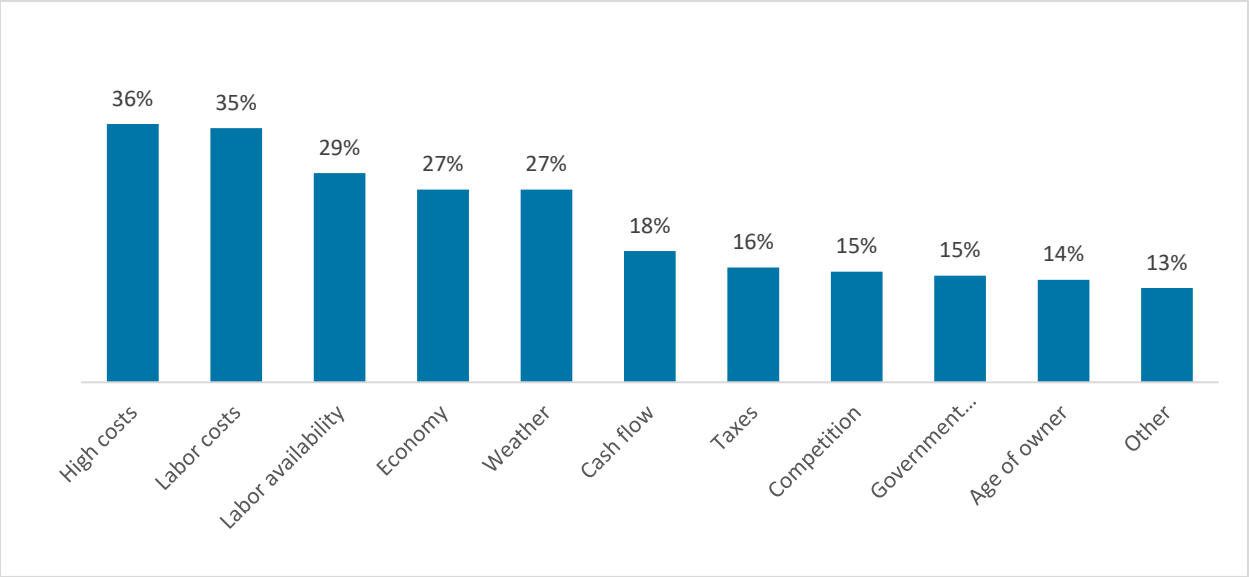
	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Finished by farm/nursery	$85,991,140	$615,922,517	52%
Already finished	$76,865,079	$560,481,329	48%
Total	**$162,856,220**	**$1,176,403,846**	**100%**

Notes: n = 138.

FACTORS INHIBITING GROWTH

In each iteration of this survey, respondents have been asked to identify the top three factors limiting growth in the industry or are problems for their business. In the current survey, high costs (36%) and labor costs (35%) were each chosen by approximately a third of the respondents (Figure 5). In addition, labor availability (29%), the economy (27%), and weather (27%) were also identified as top concerns by over one-quarter of respondents.

Figure 5: Important Factors Limiting Growth



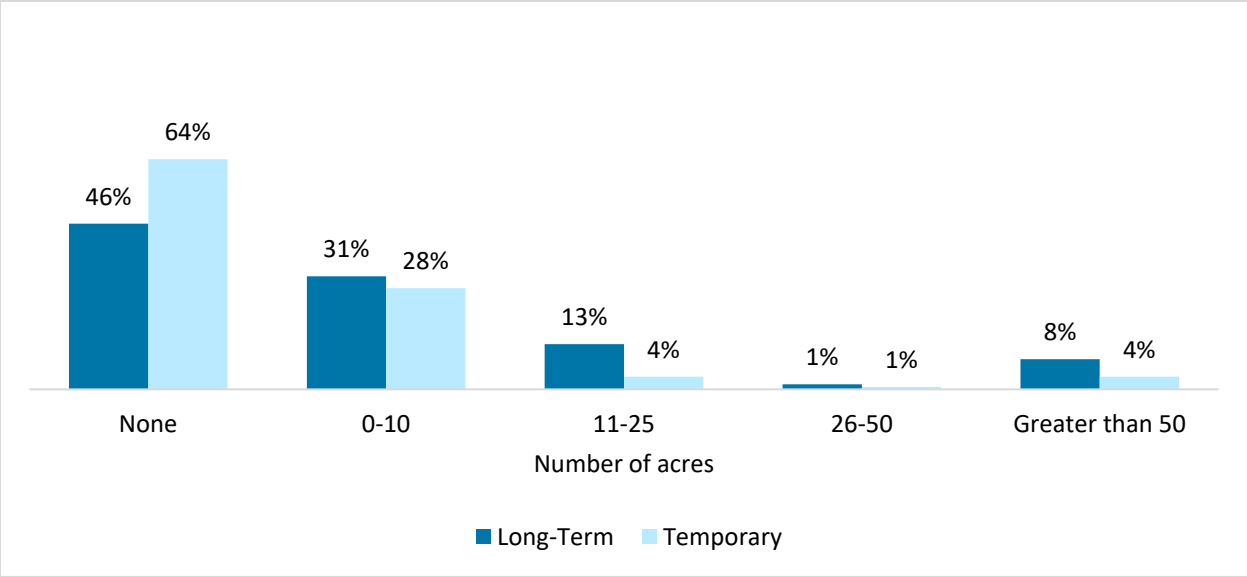
Note: n = 176.

STEWARDSHIP

One quarter (25%) of respondents reported that some of their land was in a land preservation or conservation program. Approximately one-quarter (24%) also reported that they had a current conservation plan with the local Soil Conservation District. Less than one-quarter of survey respondents provided the estimated number of acres of land they had in preservation or conservation programs in 2024. Those who reported land in a preservation or conservation program said they had 3,166 acres in such programs.[8] Respondents were also asked to estimate the number of acres they had in long-term and temporary buffer strips, permanent grass isles, and other buffer areas. As shown in Figure 6, 46% of respondents said they did not have any acres in long-term buffer strips, grass isles, or other buffer areas, and 64% said they did not have any in temporary strips, isles, or other areas, while approximately 30% had permanent or temporary land protection or conservation areas. Approximately 8% of respondents had more than 50 acres in long-term protection, while 4% had land in temporary protection. Respondents who had land in buffer strips, permanent grass isles, or other buffer areas were asked why they did so, and most (81%) said they used conservation practices because it was a best management practice to protect the environment (Figure 7). Six percent of respondents said they did so for consumer demand or marketing value, and another 6% did so to improve profitability. Smaller shares of respondents said they did so because they required by regulators or for cost shares or incentives.

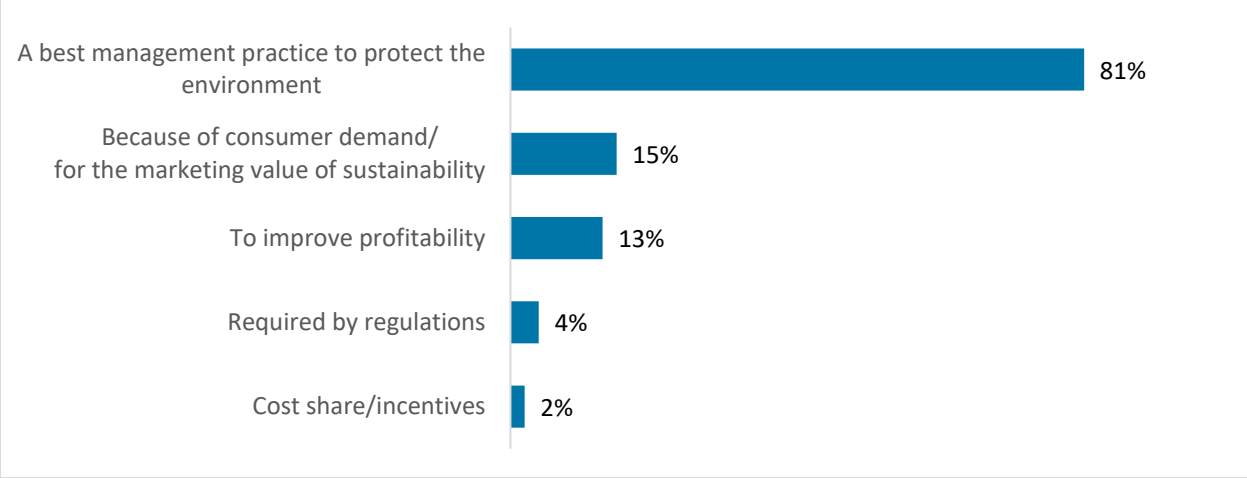
[8] Due to the low response rate to this question and because only three of the regions had multiple respondents, the industrywide estimate is not provided.

Figure 6: Estimated Acres in Buffer Strips, Permanent Grass Isles and Other Buffer Areas



Note: n = 143 for long-term; n = 142 for short-term.

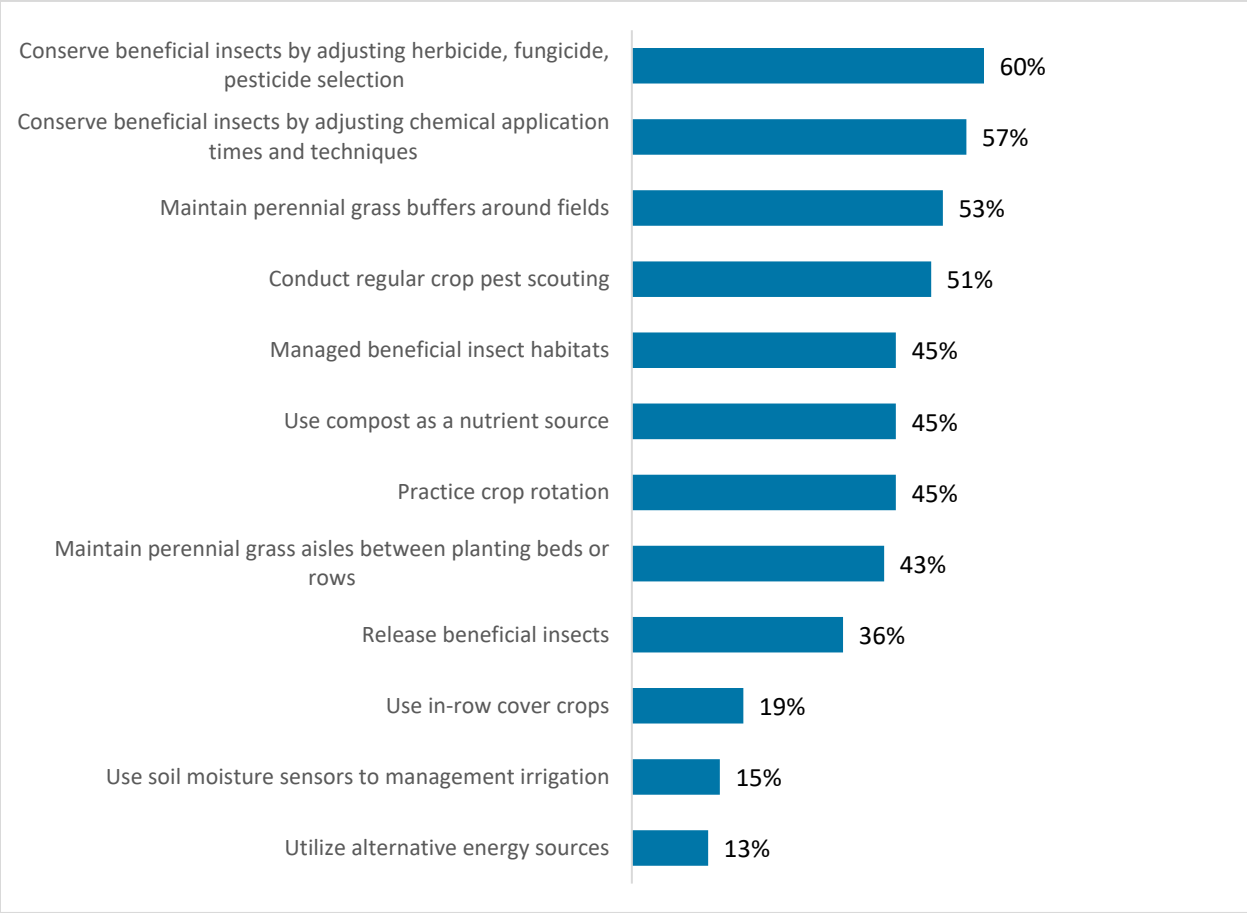
Figure 7: Reasons for Employing Conservation Practices



Notes: n = 47. Respondents could select more than one reason. "Pressure from non-governmental organizations" was not selected by any respondent.

Businesses with temporary or long-term buffer strips were also asked if they employed conservation practices. The most commonly used practices were conserve beneficial insects by adjusting herbicide, fungicide, or pesticide selection (60%) or by adjusting chemical application times and techniques (57%), as shown in Figure 8. Over half of respondents also selected maintaining perennial grass buffers around fields (53%) and conducting regular crop pest scouting (51%).

Figure 8: Conservation Practices Employed



Note: n = 47. Respondents could select more than one practice.

Approximately one in five (19%) respondents capture and reuse irrigation water (Table 15). Nearly half (46%) use precision, micro, or drip irrigation or use a water management strategy or monitoring equipment (45%).

Table 15: Irrigation and Water Management Practice

Practice	Percent
Use precision, micro, or drip irrigation	46%
Use water management strategies or monitoring equipment	45%
Capture and re-use irrigation water	19%

Notes: n = 147 for precision, micro, or drip irrigation; n = 146 for water management strategies or monitoring equipment; n = 147 for capture and re-use irrigation water.

INTEGRATED PEST MANAGEMENT (IPM)

Over half (55%) of respondents reported using integrated pest management (IPM) in their plant production or on the properties they manage (Table 16). Most respondents (89%) said IPM improved their plant quality, and over three-quarters (78%) said it reduced crop or plant losses. Just over half (59%) said it also increased their yield.

Table 16: Effect of Using Integrated Pest Management

Effect	Yes	No	Don't Know
Improved plant quality	89%	0%	11%
Reduced crop/plant losses	78%	4%	19%
Increased yield	59%	9%	32%

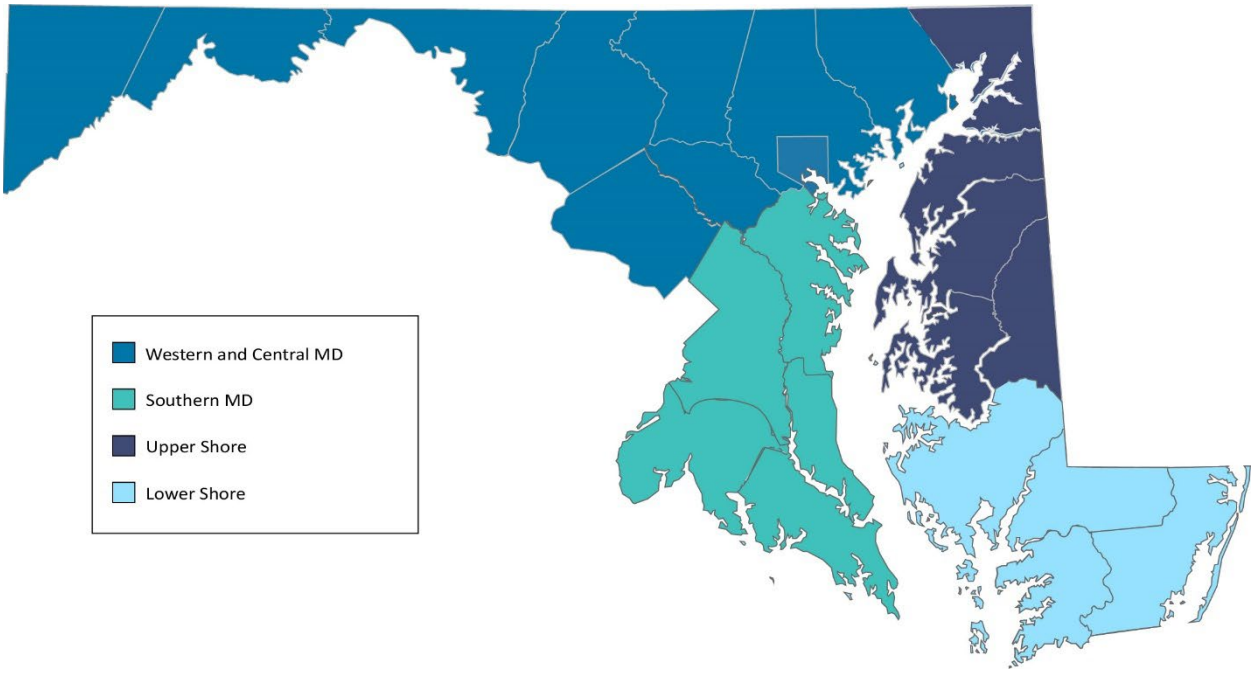
Notes: n = 80 for improved plant quality; n = 80 for reduced crop/plant losses; n = 79 for increased yield.

REGIONAL PROFILES OF HORTICULTURE IN MARYLAND

As in previous iterations of this survey, this report groups respondents into four geographic regions in Maryland based on the survey respondent's reported location of operation. As shown in Figure 9, these regions are:

- Central and Western MD – Allegany, Baltimore, Carroll, Frederick, Garrett, Harford, Howard, Montgomery, and Washington counties and Baltimore City;
- Southern MD – Anne Arundel, Calvert, Charles, Prince George's, and Saint Mary's counties;
- Upper Shore – Caroline, Cecil, Kent, Queen Anne's, and Talbot counties; and
- Lower Shore – Dorchester, Somerset, Wicomico, and Worcester counties.

Figure 9: Maryland Regions Used in This Report



Ten of the 20 businesses that reported operating in multiple counties spanned more than one region. These businesses were placed in a *Multiple Region* category.[9]

[9] This category also includes seven respondents that did not identify their location of business. These respondents did not report sales, wage, worker, or acreage data shown in the regional profiles.

SALES BY REGION

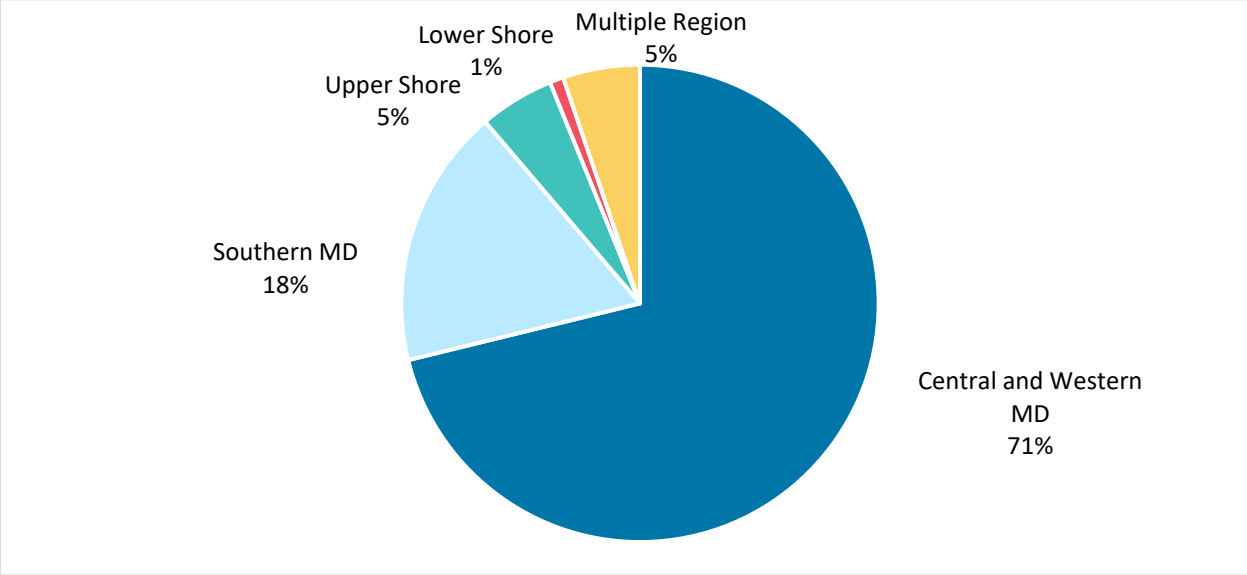
Businesses reported a total of over $250 million in sales in 2024, which results in an estimated $1.8 billion in sales for the industry statewide (Table 17). Central and Western Maryland accounted for over 70% of the total sales (Figure 10).

Table 17: Total Sales by Region, 2024

Region	Survey Respondents' Sales	Industry Sales (Estimated)	Percent of Estimated Sales
Western and Central MD	$175,135,988	$1,255,338,182	71%
Southern MD	$20,423,096	$310,212,661	18%
Upper Shore	$19,064,538	$89,509,499	5%
Lower Shore	$2,579,077	$16,461,993	1%
Multiple Region	$36,266,524	$92,082,718	5%
Total	**$253,469,223**	**$1,763,605,052**	**100%**

Note: n = 147.

Figure 10: Total Estimated Sales by Region, 2024



Note: n = 147.

SALES BY BUSINESS FUNCTION BY REGION

As shown in Table 18, there was significant variation in the estimated industry sales in 2024 generated by various business functions across the five identified regions. The largest single business function by region was wholesale plant sales in Central and Western MD, which was estimated at almost $542 million. The second and third largest shares of sales were also in Central and Western MD: retail plant sales ($325 million) and landscape/interiorscape installation ($168 million). The estimated projected sales by business function by region for 2025 are shown in Table 19. Figure 11 through Figure 17 provide breakdowns of sales for each business function by region.

Table 18: Total Estimated Sales by Business Function by Region, 2024

Business Function	Central and Western MD	Southern MD	Upper Shore	Lower Shore	Multiple Regions	Total
Wholesale (plant sales)	$541,953,031	$41,017,007	$39,607,953	$6,401,886	$14,323,978	$643,303,856
Wholesale (non-plant sales only)	$17,103,983	$1,723,404	$223,774	$0	$0	$19,051,160
Retail (plant sales only)	$325,485,653	$149,591,439	$39,160,406	$6,584,797	$12,277,696	$533,099,990
Retail (non-plant sales only)	$43,387,626	$36,880,839	$2,461,511	$365,822	$0	$83,095,798
Landscape/interiorscape installation	$167,509,189	$17,751,058	$4,475,475	$1,280,377	$42,767,307	$233,783,405
Landscape/interiorscape maintenance	$119,570,962	$24,472,332	$0	$1,829,110	$22,713,737	$168,586,141
Other	$40,327,739	$38,776,583	$3,580,380	$0	$0	$82,684,702
Total	**$1,255,338,182**	**$310,212,661**	**$89,509,499**	**$16,461,993**	**$92,082,718**	**$1,763,605,052**

Table 19: Total Estimated Sales by Business Function by Region, 2025 (Projected)

Business Function	Central and Western MD	Southern MD	Upper Shore	Lower Shore	Multiple Regions	Total
Wholesale (plant sales)	$549,955,600	$45,950,880	$40,418,918	$1,862,467	$20,078,991	$658,266,856
Wholesale (non-plant sales only)	$18,345,264	$1,930,709	$0	$0	$0	$20,275,973
Retail (plant sales only)	$324,180,119	$170,288,557	$37,238,866	$1,293,380	$14,724,593	$547,725,515
Retail (non-plant sales only)	$50,932,245	$19,307,093	$1,613,070	$620,822	$0	$72,473,230
Landscape/interiorscape installation	$170,981,075	$34,752,767	$4,608,771	$362,146	$34,535,865	$245,240,624
Landscape/interiorscape maintenance	$129,060,539	$31,856,703	$0	$517,352	$24,362,509	$185,797,103
Other	$43,932,079	$62,748,051	$3,687,016	$0	$0	$110,367,146
Total	**$1,287,386,921**	**$366,834,760**	**$87,566,641**	**$4,656,167**	**$93,701,958**	**$1,840,146,447**

Figure 11: Estimated Wholesale Plant Sales in Maryland by Region, 2024

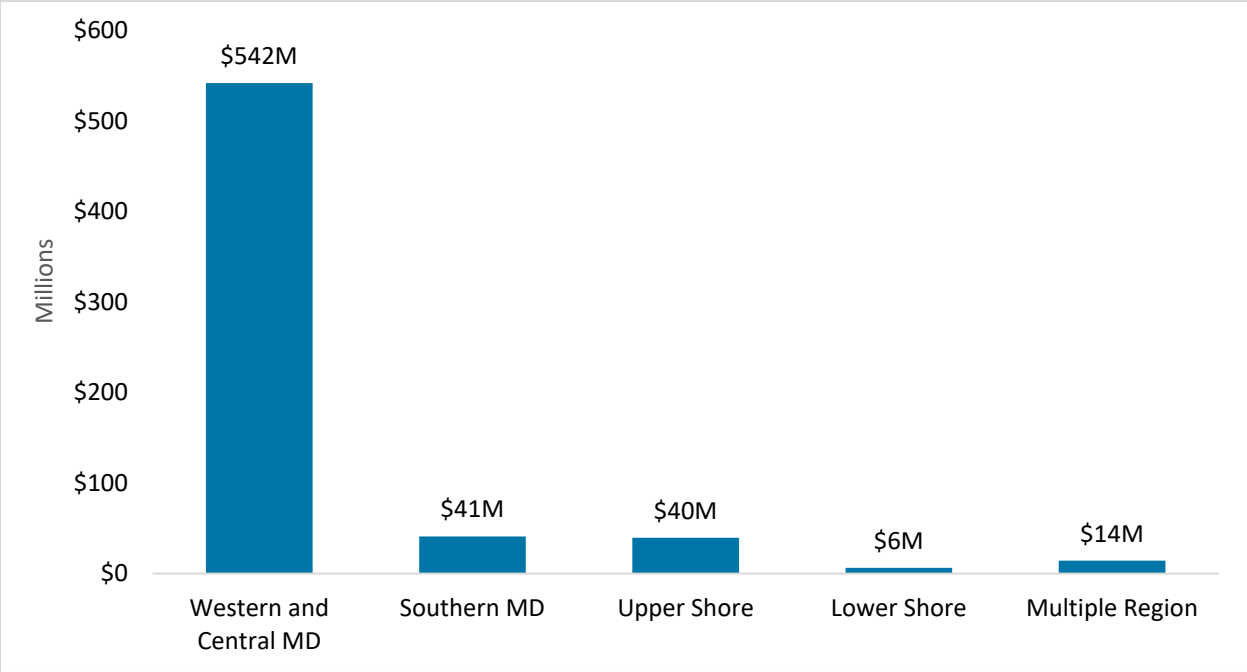


Figure 12: Estimated Wholesale Non-Plant Sales in Maryland by Region, 2024

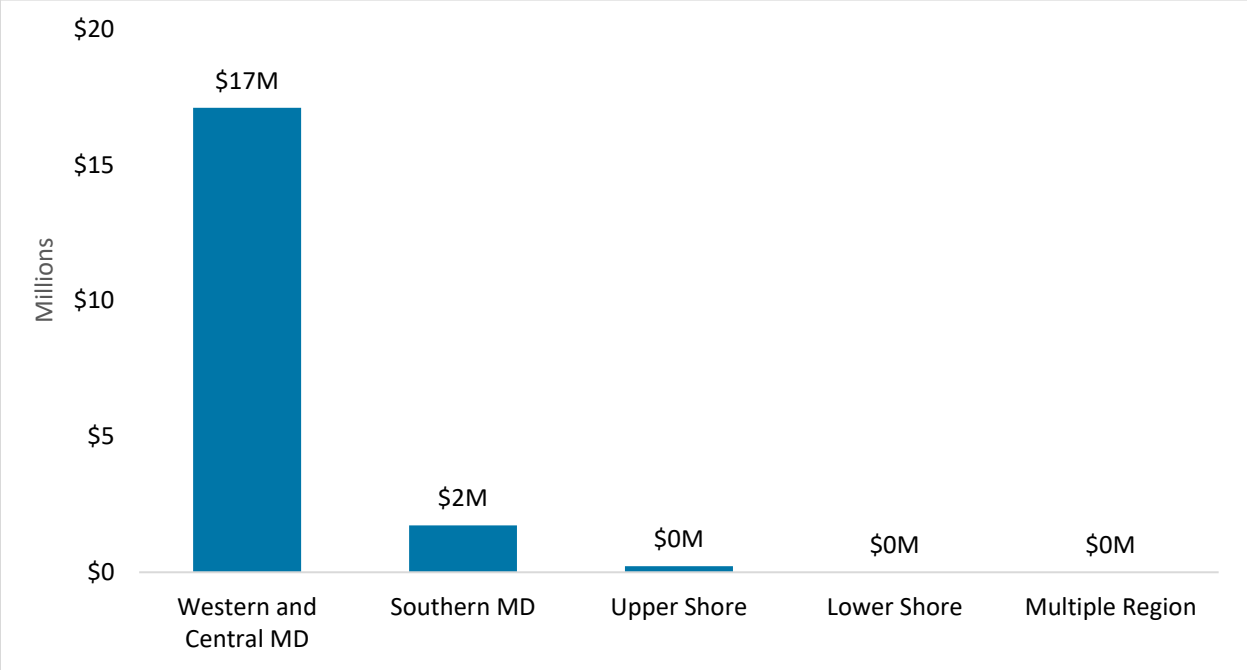


Figure 13: Estimated Retail Plant Sales in Maryland by Region, 2024

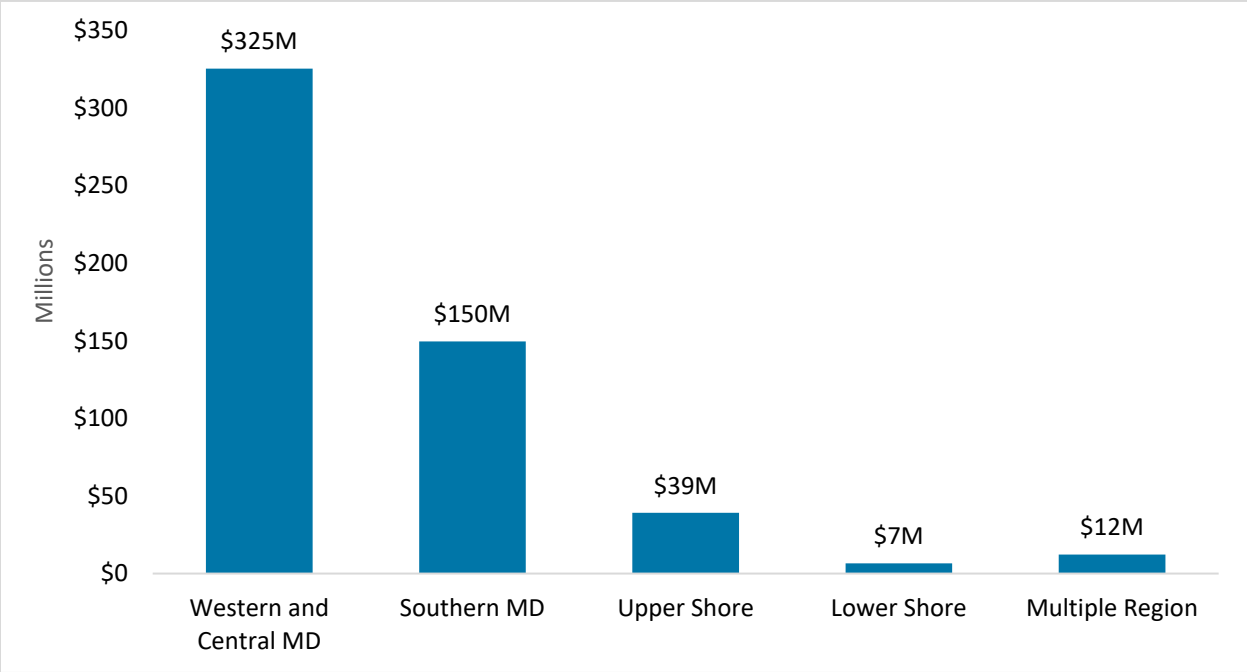


Figure 14: Estimated Retail Non-Plant Sales in Maryland by Region, 2024

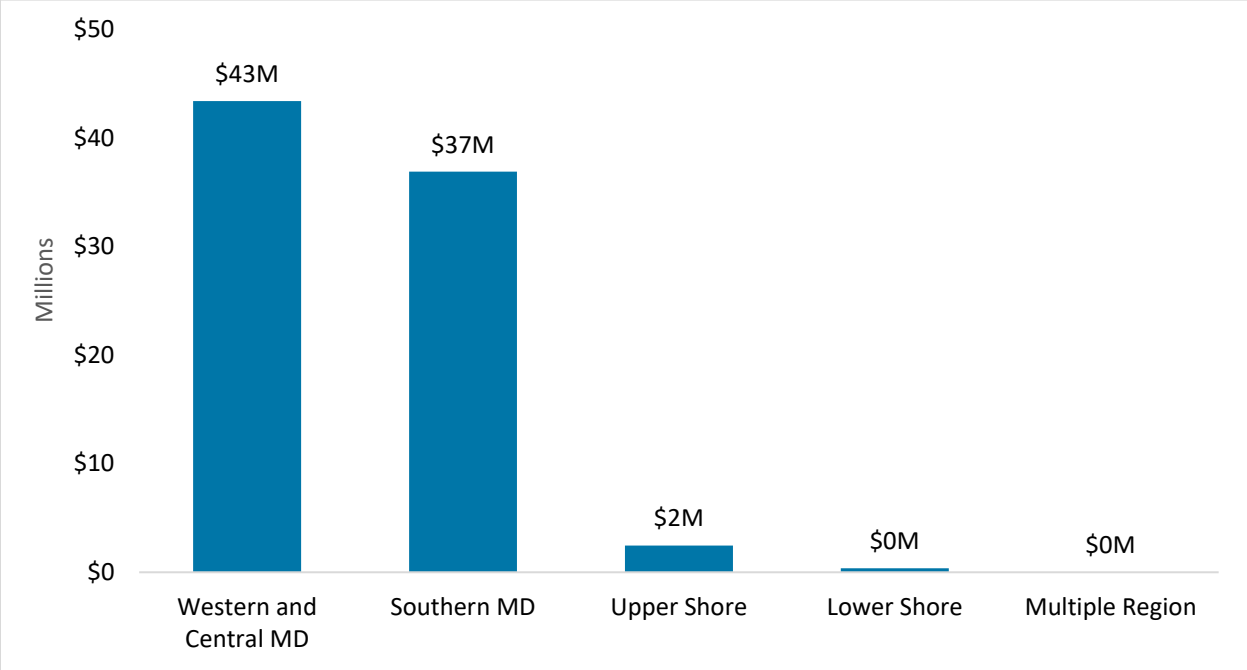


Figure 15: Estimated Landscape/Interiorscape Installation Sales in Maryland by Region, 2024

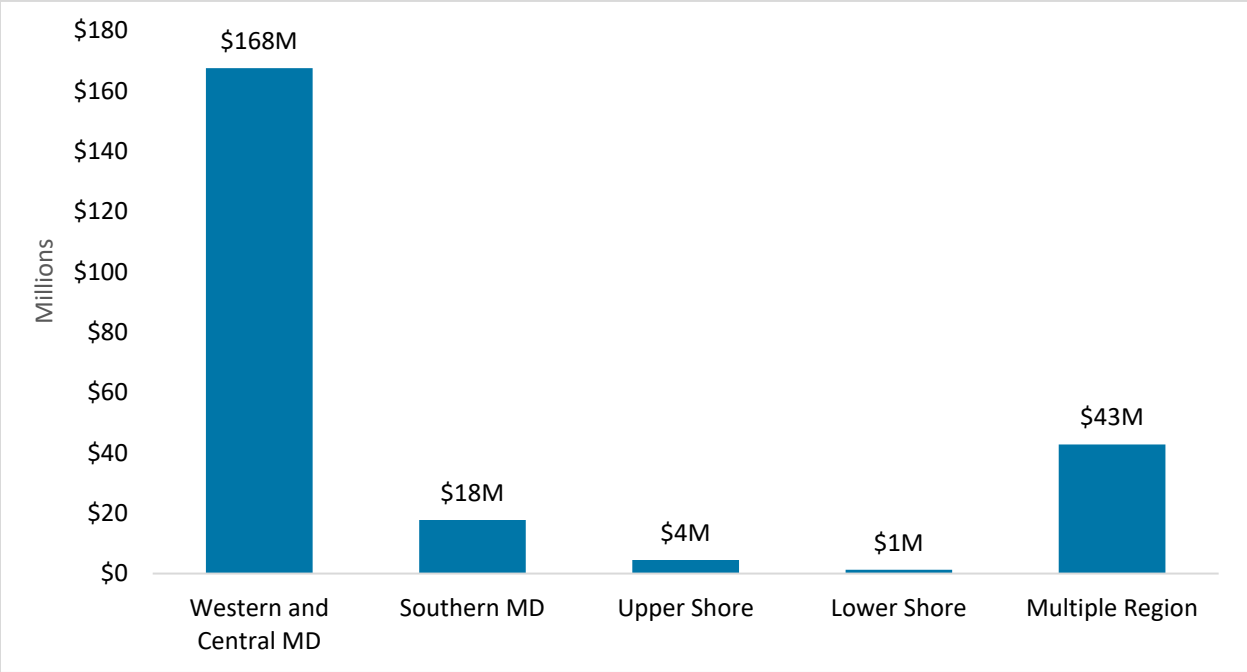


Figure 16: Estimated Landscape/Interiorscape Maintenance Sales in Maryland by Region, 2024

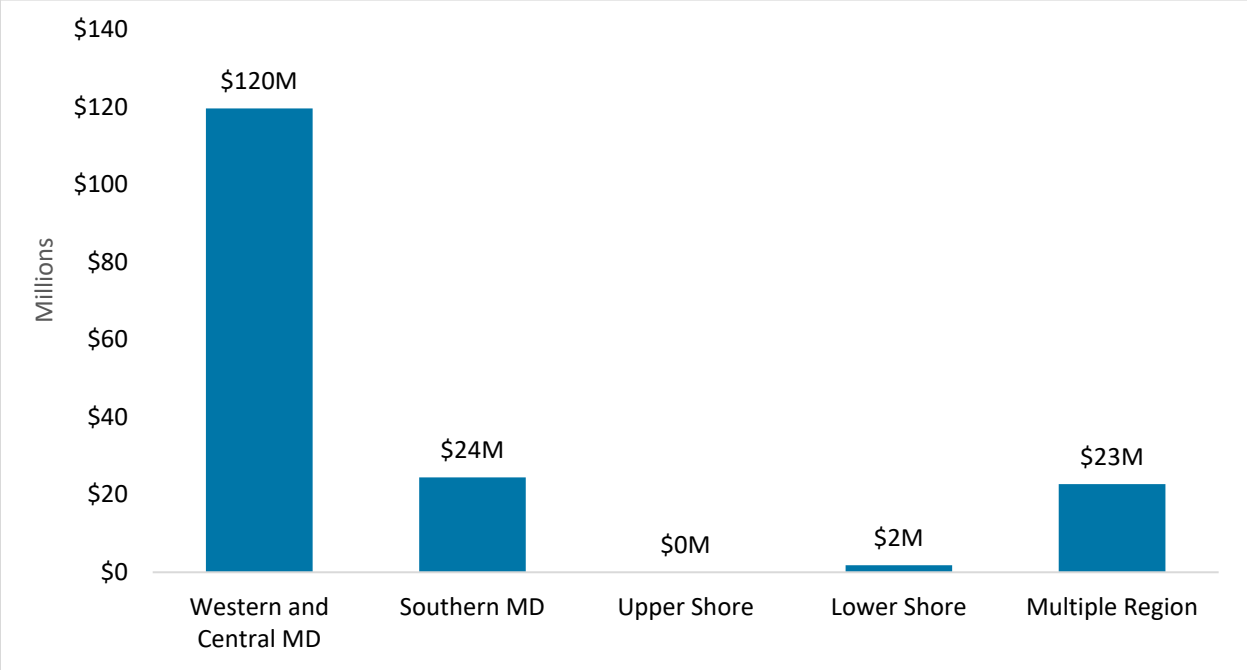
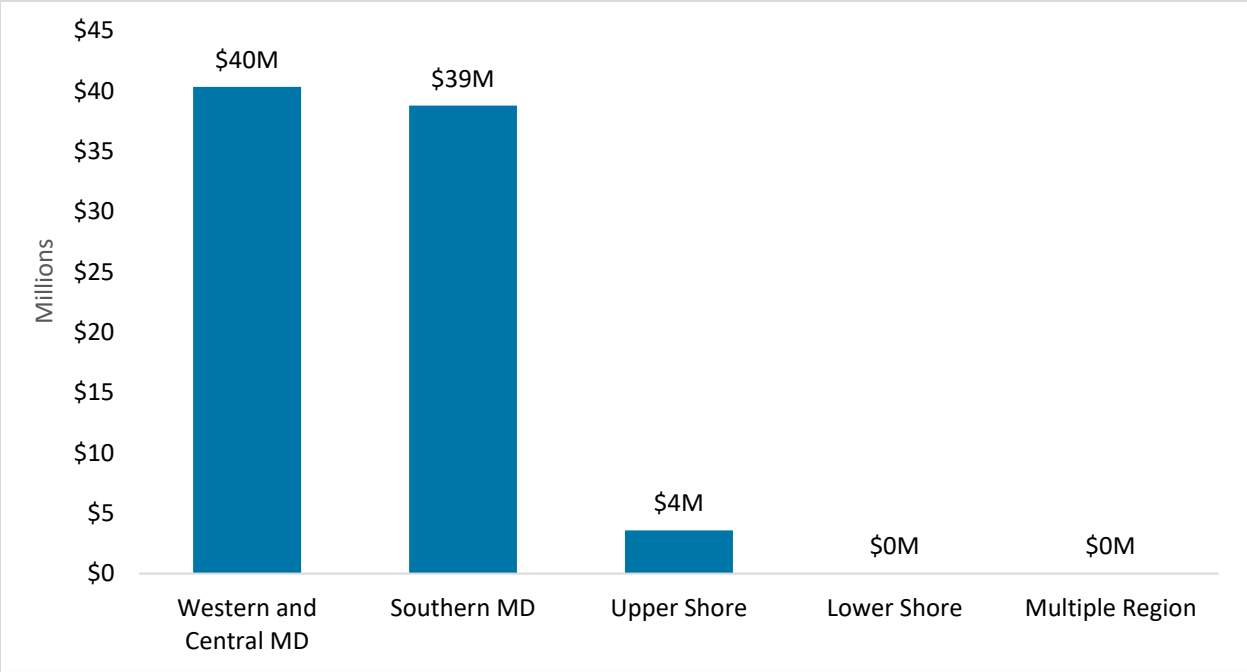


Figure 17: Estimated Other Sales in Maryland by Region, 2024

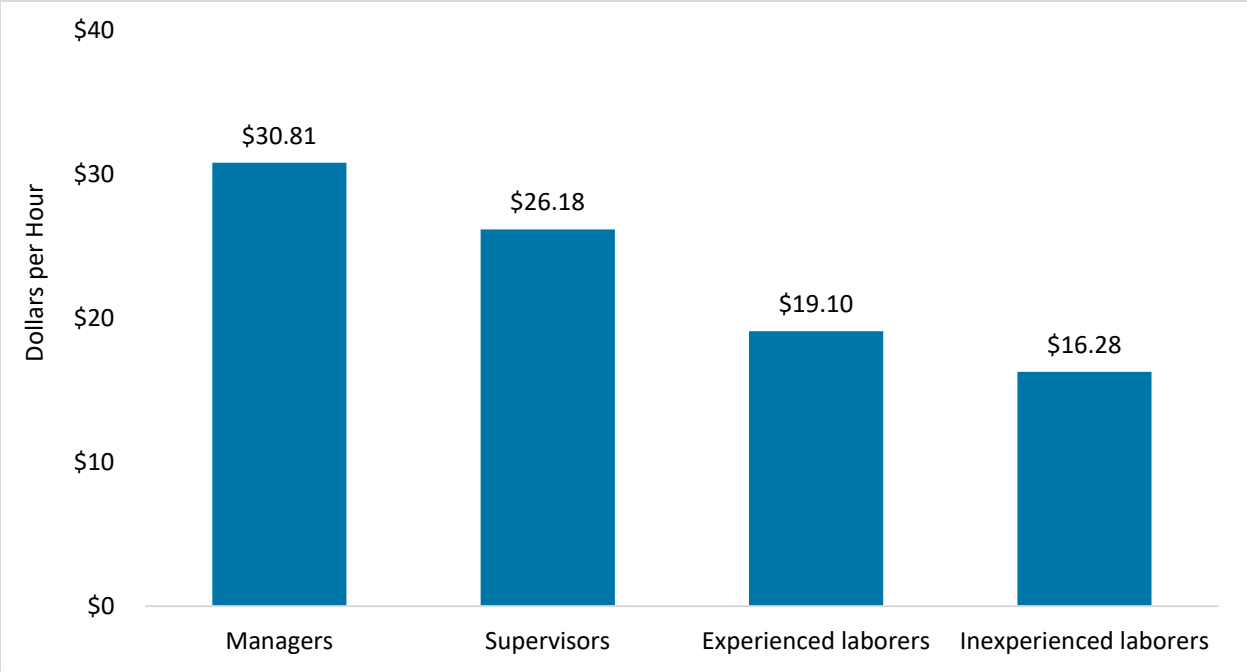


HORTICULTURE WORKERS AND WAGES

Managers are estimated to have earned almost $31 per hour in 2024, supervisors earned just over $26 per hour, experienced laborers earned over $19 per hour, and inexperienced laborers earned over $16 per hour (Figure 18).

As shown in Table 20, survey respondents reported a total of just over 4,000 paid employees and 174 unpaid employees. As a result, there were an estimated 21,271 workers in the horticulture industry in 2024, most of whom worked more than 150 days per year.

Figure 18: Average Horticultural Worker's Hourly Wage



Notes: n = 75 for managers; n = 76 for supervisors; n = 92 for experienced laborers; n = 86 for inexperienced laborers.

Table 20: Workers by Category

Worker Category	Survey Respondents	Industry Workers (Estimated)
Paid for working 149 days or less	863	4,137
Paid for working 150 days or more	3,180	16,310
Unpaid workers	174	824
Total workers	**4,217**	**21,271**

Note: n = 176.

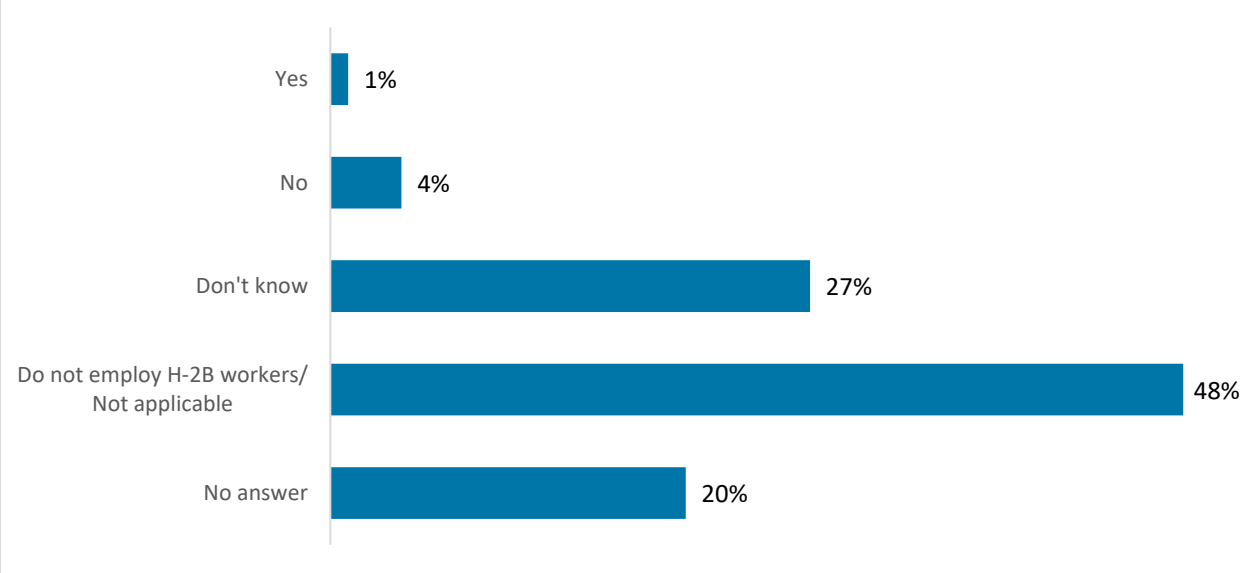
Only 14 survey respondents (8%) provided information on the number of immigrant workers they employed by type of visa. Therefore, industrywide estimates cannot be calculated with confidence, and only the survey responses are shown in Table 21. Two-thirds (66%) of the workers (212) held H-2A visas, and almost one-third (31%) held H-2B visas. Survey respondents were also asked if they were able to obtain the number of workers with H-2B visas that they needed. As can be seen in Figure 19, almost half (48%) of respondents said they do not employ workers with H-2B visas. One-quarter (27%) of respondents said they did not know, less than 5% said they could not get the necessary workers, and 1% said they were able to do so.

Table 21: Immigrant Workers by Program

Immigrant Worker Programs	Survey Respondents	Percent
H-2A visa	212	66%
H-2B visa	99	31%
Other programs	8	3%
Total	**319**	**100%**

Notes: n = 8 for H-2A visa; n = 5 for H-2B visa; n = 3 for other programs.

Figure 19: Survey Respondents Able to Get Needed H-2B Workers



Note: n = 176.

LABOR AND WAGES BY REGION

Figure 20 and Table 22 through Table 24 provide more detailed data on industry labor and wages by region.

Figure 20: Estimated Number of Employees by Region, 2024

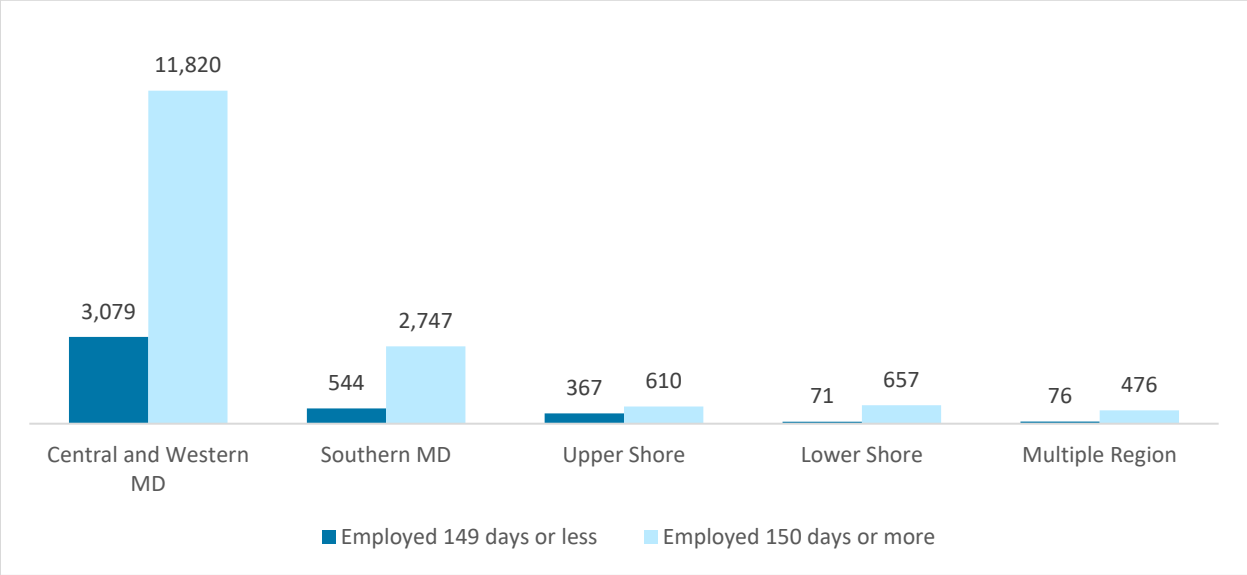


Table 22: Estimated Number of Employees by Length of Employment, 2024

Region	Number Employed 149 Days or Less	Number Employed 150 Days or More	Total Estimated Paid Workers
Central and Western MD	3,079	11,820	14,899
Southern MD	544	2,747	3,291
Upper Shore	367	610	977
Lower Shore	71	657	728
Multiple Region	76	476	522
Total	**4,137**	**16,310**	**20,477**

Table 23: Average Estimated Hourly Wage by Type of Employee by Region, 2024

Region	Inexperienced Laborers	Experienced Laborers	Supervisors	Managers
Central and Western MD	$17.07	$20.76	$27.10	$32.56
Southern MD	$16.27	$22.32	$24.44	$28.63
Upper Shore	$15.48	$17.46	$22.07	$31.90
Lower Shore	$16.00	$19.50	$24.75	$35.00
Multiple Region	$16.86	$22.43	$30.29	$39.56

Table 24: Total Estimated Wages and Overhead by Region, 2024

Region	Total Estimated Gross Wages	Total Gross Wages Paid for Labor Overhead
Central and Western MD	$585,849,108	$100,165,935
Southern MD	$167,908,189	$60,474,958
Upper Shore	$37,843,344	$10,598,728
Lower Shore	$35,333,333	$383,333
Multiple Region	$17,398,775	$2,704,170
Total	**$844,332,749**	**$174,327,124**

ACREAGE IN HORTICULTURE USE

Survey respondents reported that they owned, leased and/or rented 20,141 acres for sales or production in 2024, which produces an estimate of 121,877 total acres involved in the horticulture industry (Table 11). Most (83%) of this land was in Central and Western Maryland. Table 26 and Table 27 show the total outdoor production and total covered growing space reported by survey respondents and estimated for the entire horticulture industry in 2024.

Table 25: Reported and Estimated Acreage of Operations by Region, 2024

Region	Survey Respondents' Total Acreage	Total Estimated Acres
Central and Western Maryland	16,644	103,759
Southern Maryland	254	2,190
Upper Shore	2,808	13,914
Lower Shore	169	786
Multiple Region	267	1,228
Total	**20,141**	**121,877**

Note: n = 157.

Table 26: Reported and Estimated Outdoor Production in Total Acres by Region, 2024

	Field Production		In-ground Container Production		Out-of-ground Container Production		Permanent Greenhouse		Holding/ sales		Infrastructure	
	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated
Central and Western Maryland	1,813	10,839	51	302	302	1,804	121	721	119	712	187	1,120
Southern Maryland	90	656	14	102	78	572	8	58	29	209	44	332
Upper Shore	2,425	12,012	34	168	127	630	16	78	10	49	103	510
Lower Shore	0	1	7	33	20	95	106	492	10	47	24	110
Multiple Region	135	621	0	0	56	258	2	7	34	154	15	69
Total	**4,462**	**24,130**	**106**	**606**	**583**	**3,358**	**251**	**1,357**	**201**	**1,170**	**373**	**2,141**

Note: The sample size varies for each type of production and ranges from 164 to 165.

Table 27: Reported and Estimated Covered Growing Space in Total Acres by Region, 2024

	Glass Greenhouses		Rigid Plastic Greenhouses		Film Plastic Greenhouses		Shade Houses		Other	
	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated	Survey	Total Estimated
Central and Western Maryland	5	343	17	565	400	5,333	5	171	0	25
Southern Maryland	0	0	1	61	10	216	801	25,365	0	0
Upper Shore	0	0	1	33	30	255	43	1,547	0	0
Lower Shore	0	0	3	42	121	1,267		0	0	0
Multiple Region	0	0	0	7	0	3	0	1	0	0
Total	**5**	**343**	**23**	**708**	**562**	**7,074**	**848**	**27,084**	**0**	**25**

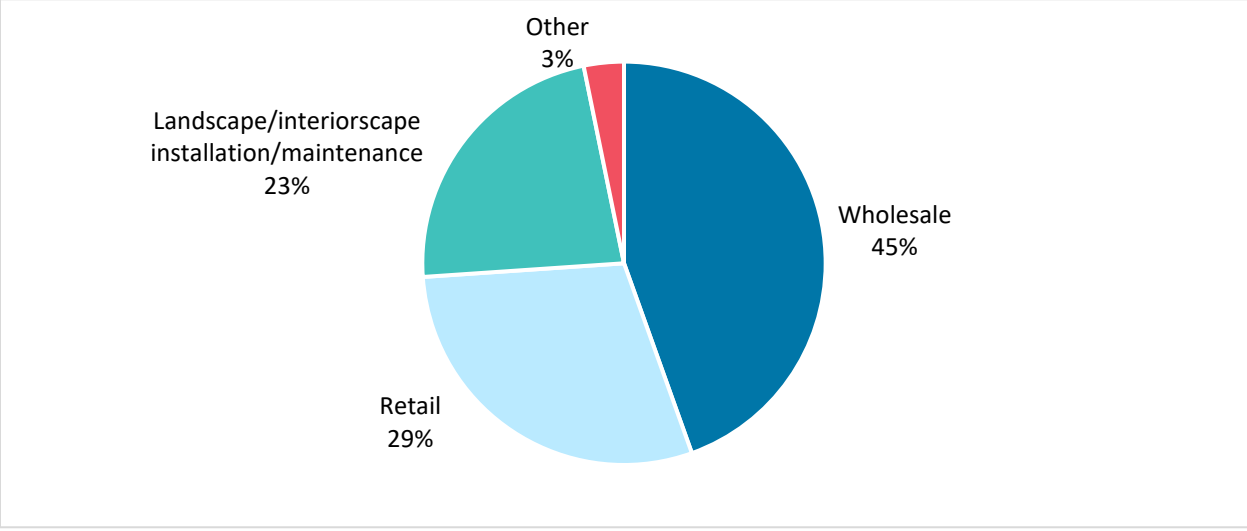
Notes: The sample size varies for each type of production and ranges from 5 to 74.

This profile is for businesses in Allegany, Baltimore, Carroll, Frederick, Garrett, Harford, Howard, Montgomery, and Washington counties and Baltimore City.

Table 28: Central and Western Maryland Sales, Land Area in Production, and Number of Workers, 2024

Sales	Percent	Value
Wholesale	45%	$559,057,014
Retail	29%	$368,873,279
Landscape/interiorscape installation/maintenance	23%	$287,080,151
Other	3%	$40,327,739
Total sales	**100%**	**$1,255,338,182**
Land Area in Production		**Number**
Total acres		103,759
Total Wages Paid to Workers		**Wage Rate**
Inexperienced laborers		$17.07
Experienced laborers		$20.76
Managers		$27.10
Supervisors		$32.56
Number of Workers		**Number**
Total paid workers		14,899
Unpaid workers		651

Figure 21: Central and Western Maryland Sales by Business Function, 2024

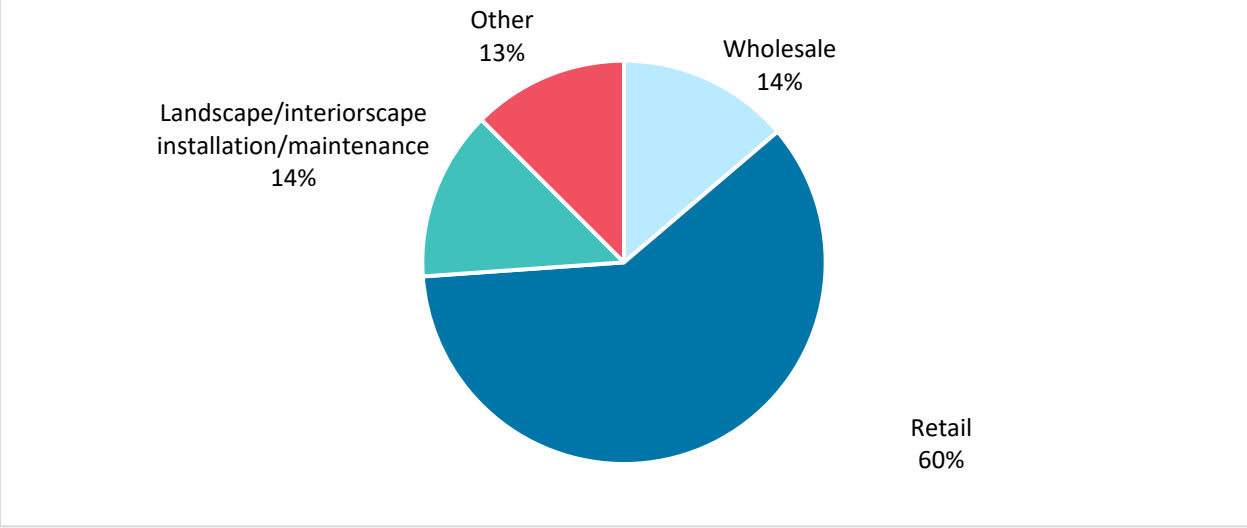


This profile is for businesses in Anne Arundel, Calvert, Charles, Prince George's, and St. Mary's counties.

Table 29: Southern Maryland Sales, Land Area in Production, and Number of Workers, 2024

Sales	Percent	Value
Wholesale	14%	$42,740,411
Retail	60%	$186,472,277
Landscape/interiorscape installation/maintenance	14%	$42,223,390
Other	13%	$38,776,583
Total sales	**100%**	**$310,212,661**
Land Area in Production		**Number**
Total acres		2,190
Total Wages Paid to Workers		**Wage Rate**
Inexperienced laborers		$16.27
Experienced laborers		$22.32
Managers		$24.44
Supervisors		$28.63
Number of Workers		**Number**
Total paid workers		3,291
Unpaid workers		62

Figure 22: Southern Maryland Sales by Business Function, 2024

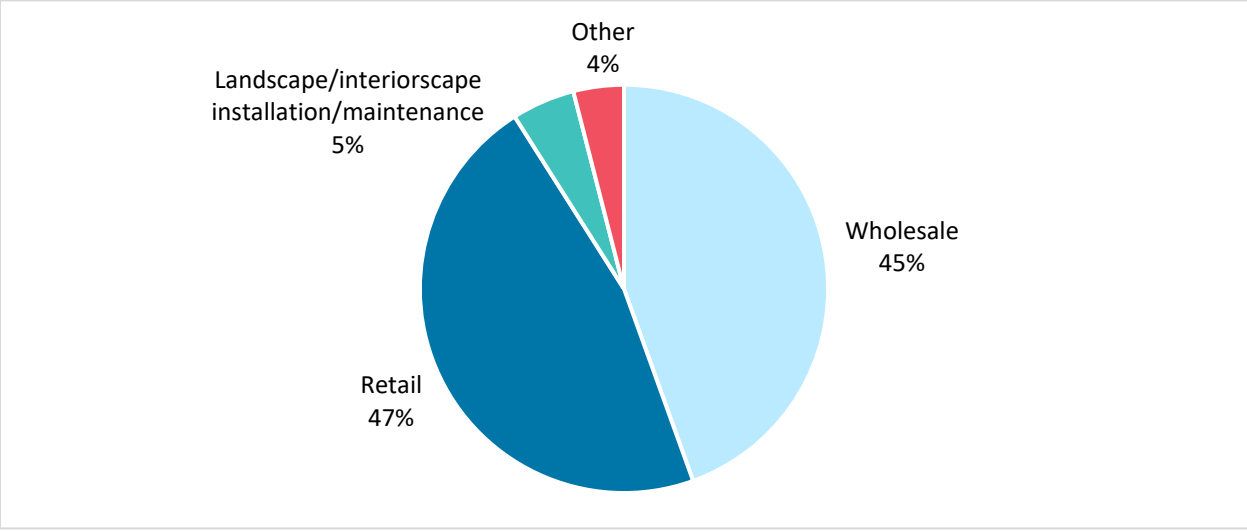


This profile is for businesses in Caroline, Cecil, Kent, Queen Anne's and Talbot counties.

Table 30: Upper Shore Maryland Sales, Land Area in Production, and Number of Workers, 2024

Sales	Percent	Value
Wholesale	45%	$39,831,727
Retail	47%	$41,621,917
Landscape/interiorscape installation/maintenance	5%	$4,475,475
Other	4%	$3,580,380
Total sales	**100%**	**$89,509,499**
Land Area in Production		**Number**
Total acres		13,914
Total Wages Paid to Workers		**Wage Rate**
Inexperienced laborers		$15.48
Experienced laborers		$17.46
Managers		$22.07
Supervisors		$31.90
Number of Workers		**Number**
Total paid workers		977
Unpaid workers		91

Figure 23: Upper Shore Sales by Business Function, 2024

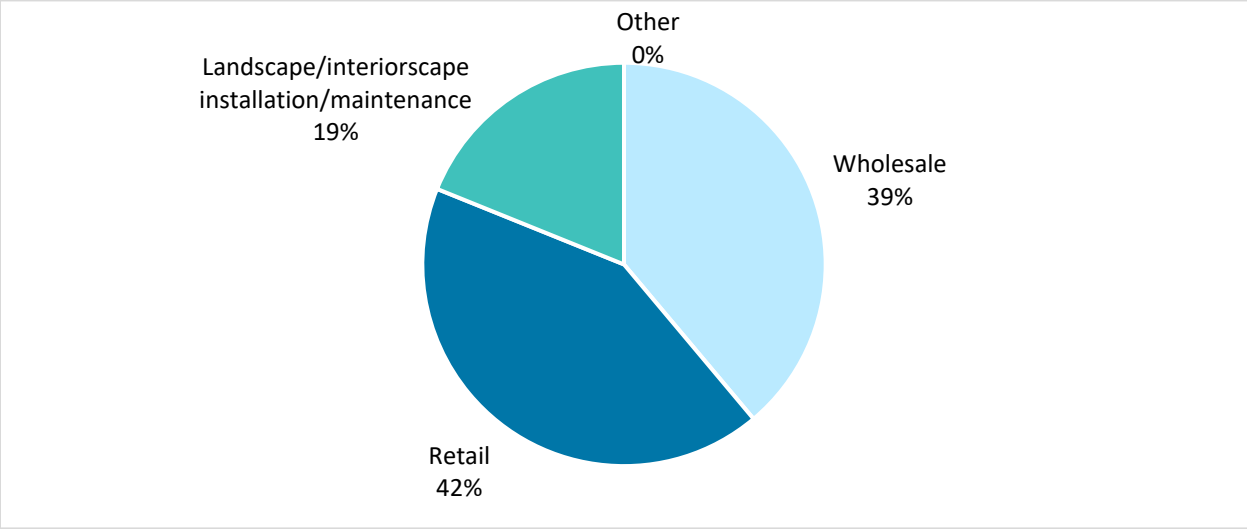


This profile is for businesses in Dorchester, Somerset, Wicomico, and Worcester counties.

Table 31: Lower Shore Maryland Sales, Land Area in Production, and Number of Workers, 2024

Sales	Percent	Value
Wholesale	39%	$6,401,886
Retail	42%	$6,950,619
Landscape/interiorscape installation/maintenance	19%	$3,109,488
Other	0%	$0
Total sales	**100%**	**$16,461,993**
Land Area in Production		**Number**
Total acres		786
Total Wages Paid to Workers		**Wage Rate**
Inexperienced laborers		$16.00
Experienced laborers		$19.50
Managers		$24.75
Supervisors		$35.00
Number of Workers		**Number**
Total paid workers		728
Unpaid workers		20

Figure 24: Lower Shore Sales by Business Function, 2024



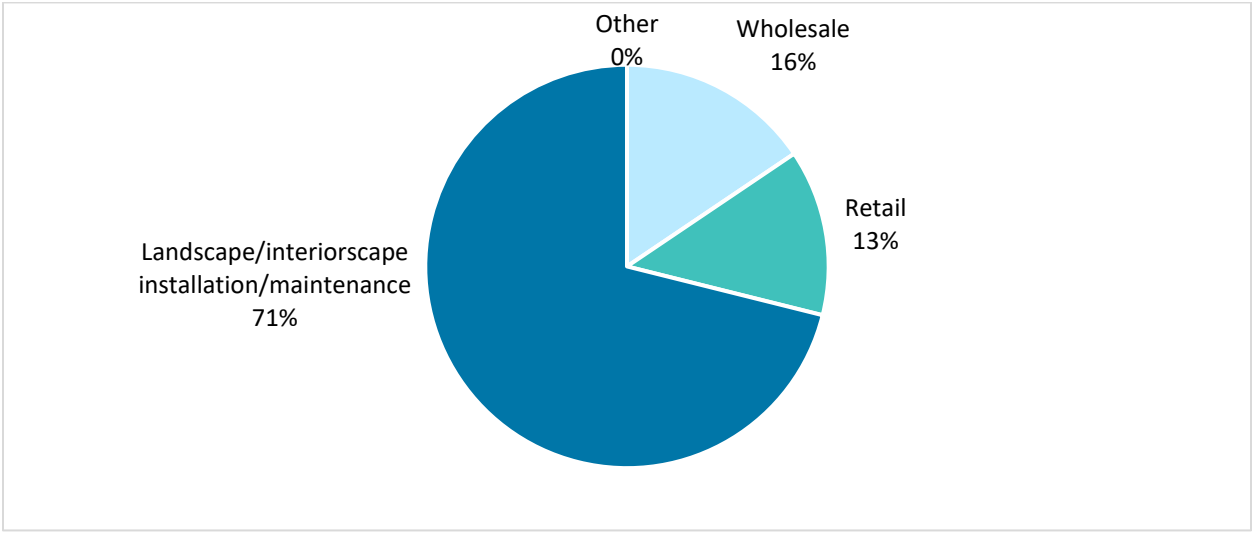
MULTIPLE REGION PROFILE

This profile is for businesses that operate in counties that span more than one region.

Table 32: Multiple Region Sales, Land Area in Production, and Number of Workers, 2024

Sales	Percent	Value
Wholesale	16%	$14,323,978
Retail	13%	$12,277,696
Landscape/interiorscape installation/maintenance	71%	$65,481,044
Other	0%	$0
Total sales	**100%**	**$92,082,718**
Land Area in Production		**Number**
Total acres		1,228
Total Wages Paid to Workers		**Wage Rate**
Inexperienced laborers		$16.86
Experienced laborers		$22.43
Managers		$30.29
Supervisors		$39.56
Number of Workers		**Number**
Total paid workers		552
Unpaid workers		0

Figure 25: Multiple Region Sales by Business Function, 2024



CONCERNS FACING THE INDUSTRY

The final question of the survey asked respondents to provide comments on issues affecting the industry. Thirty-one respondents provided comments.

Labor is a primary concern among respondents. Specifically, they mentioned concerns about the availability of labor, the cost of labor, immigration policy, and the unreliability of the H-2B visa program as it relates to seasonal workers. The comments discussed economic concerns including the rising costs of materials and labor, competition from big-box stores, unfair competition from illegal workers, a need for more marketing, and a need for support and training for a small business.

Regulations were also a concern. Specifically, concern was expressed about over regulation and regulations about gas blowers and mowers. The native plant movement and the plants on the native plant list (to the exclusion of other appropriate plants) are also a concern for some respondents. Additional comments address climate change and a variety of other concerns.

APPENDIX A: SURVEY INSTRUMENT

Dear Green Industry Professional,

The Schaefer Center for Public Policy at The University of Baltimore is conducting a survey on behalf of the Maryland Nursery, Landscape, and Greenhouse Association, Inc. The purpose of the survey is to document the current growth, scope, and impact of Maryland's Ornamental Horticulture Industry.

The survey is being sent to all licensed nurseries and plant dealers in Maryland and includes retail chains located in Maryland yet headquartered out of state. **If you do business in more than one location in Maryland, please combine the data for all locations on one questionnaire. Include sales from Maryland locations only.**

Your response is important to ensure reliable results. The information you provide is kept confidential and used only in combination with other reports to produce state or regional results.

Your participation in this research is voluntary and confidential. There are no risks to participating. The results of the survey will be used to inform the development of policy recommendations regarding horticulture in Maryland. You may choose not to answer any questions you do not want to answer or stop at any time without penalty. At the conclusion of this study, any identifiers will be removed from the dataset, but the data may be used by future researchers. The survey will take about 10 to 15 minutes to complete once you have all the data available.

COMPLETED PAPER COPIES CAN BE MAILED TO THE FOLLOWING ADDRESS:
Schaefer Center for Public Policy at The University of Baltimore
1420 W Charles Street
Baltimore, MD 21201

If you have any questions, please do not hesitate to contact Michelle Cantave at mcantave@ubalt.edu or 410-837-6099. We appreciate your help in this important effort.

If you have any questions regarding your rights as a research subject participating in this survey, please contact the Institutional Review Board (IRB) at irb@ubalt.edu or 410-837-4057.

Sincerely,

Leslie H. Cario, President
Maryland Nursery, Landscape, and Greenhouse Association

SECTION 1 – BUSINESS CHARACTERISTICS

1. Did you produce or sell nursery or greenhouse crops or provide landscape services in **2024**?
   - Yes → *Continue*
   - No → *Question 46*

2. Which of the following categories **BEST** describes your business?
   - Grower – wholesale only
   - Grower – retail and/or wholesale
   - Landscaper and/or interiorscaper (*installation only)*
   - Landscaper and/or interiorscaper (*maintenance only)*
   - Landscaper and/or interiorscaper (*installation/ maintenance*)
   - Horticulture distributor or re-wholesale
   - Retail sales
   - Other *(Please specify)*

3. How many years has this business been in operation?
   - Less than 1 year
   - Between 1-5 years
   - Between 5-10 years
   - 10 years or more

4. Is this operation a Family-Owned Business?
   - Yes
   - No

SECTION 2 – SOURCES OF PLANT MATERIALS

5. Did you produce, purchase, or install plants in **2024**?
   - Yes → *Continue*
   - No → *Skip to Section 3, question 10*

6. Please select the type of plant material you **produced or purchased (for resale or installation) in 2024**. (Select all that apply.)
    - Woody Plants
    - Herbaceous Perennials
    - Annuals
    - Aquatic Plants
    - Indoor Plants and Tropical Greenhouse
    - Christmas Trees
    - Other (e.g., seeds, sod, bulbs)

7. Where is the plant material produced? Include plants purchased from other growers. (Select all that apply.)
    - Only my farm/nursery
    - Maryland
    - Eastern states
    - Southern states
    - Central states
    - Western states
    - Canada
    - Central America
    - South America
    - Europe
    - Asia
    - Africa
    - Other

8. Please enter the percentage of native, non-native, and cultivar plants you grow, sell, or install if applicable. (Each row should add up to 100%)

Plant Material	Native	Non-native	Cultivator	Total
Woody plants				
Herbaceous perennials				
Annuals				
Aquatic plants				
Specialty greenhouse				
Christmas trees				
Other *(e.g., seeds, sod, bulbs)*				

9. Was the plant material finished by you or purchased already finished? (select all that apply)

- ○ Finished by me
- ○ Already finished

SECTION 3 – DESTINATION OF SALES

10. Did you wholesale and/or re-wholesale plant materials or engage in retail sales in **2024**?

Yes → *Continue*

No → *Skip to question 14*

11. Please enter the **percentage** of your **2024** sales sold to each region below. **(Response should add up to 100%.)**

Destination	Total
Maryland	
Eastern States	
Southern States	
Central States	
Western States	
Canada	
Central America	
South America	
Europe	
Asia	
Total	

NOTE: Eastern states – CT, DC, DE, MA, ME, NH, NJ, NY, PA, RI, VT, and WV.
Southern states – AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, TN, TX, and VA.
Central states – IA, IL, IN, KS, MI, MO, MN, ND, NE, OH, SD, and WI.
Western states – AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY.

12. Did you install and/or maintain plant materials for customers in **2024**?

Yes → *Continue*

No → *Skip to question 14*

13. Please enter the **percentage** of your **2024** sales installed or maintained in each region identified in the table. **(Response percentages should add up to 100%).**

Region	Total
Maryland	
Eastern States	
Southern States	
Central States	
Western States	
Canada	
Central America	
South America	
Europe	
Asia	
Africa	
Other	
Total	

NOTE: Eastern states – CT, DC, DE, MA, ME, NH, NJ, NY, PA, RI, VT, and WV.
Southern states – AL, AR, FL, GA, KY, LA, MS, NC, OK, PR, SC, TN, TX, and VA.
Central states – IA, IL, IN, KS, MI, MO, MN, ND, NE, OH, SD, and WI.
Western states – AK, AZ, CA, CO, HI, ID, MT, NM, NV, OR, UT, WA, and WY.

SECTION 4 - LAND, BUILDINGS, AND EQUIPMENT

14. What is your estimate of the current market value of land, structures and equipment used *(owned, leased, and/or rented)* in your operation as of **December 31, 2024**?

15. What was the total acreage your operation owned, leased, and/or rented for sales or production in **2024**?
Please include all production, sales, and holding areas.

_____

16. Please provide the number of acres your operation owned, leased, and/or rented for sales or production in 2024 for each of the categories below:

Category	Number of Acres
Field production (in ground)	
In-ground container production (pot-in pot)	
Out-of-ground container production (container nursery)	
Permanent greenhouse (e.g., propagation houses; not overwintering structures)	
Holding/ sales	
Infrastructure (not otherwise indicated above)	

17. Did your operation have any greenhouses, shade-house or overwintering structures in 2024?

Yes → *Continue*

No → *Skip to question 19*

18. Please indicate type and area of covered space in use in **2024**.

Include covered space used for holding, selling, or finishing product.

Type	Square Feet	Acres
Glass greenhouses		
Rigid plastic greenhouses		
Film plastic greenhouses, hoop houses, over winter poly houses *(single or multi-layer)*		
Shade Houses		
Other *(please specify)*		

19. Please select the county or counties where your operation is located.

20. (Only asked if more than one county selected in Q19) If your operation is in more than one county, list the total acreage in each county.

Report acreage to the nearest whole number.

County	Acreage

SECTION 5 - GROSS SALES

21. What were your **total gross sales** from nursery or greenhouse crops and landscaping **in 2023, 2024, and projected in 2025**?

Please include hardscapes (e.g., walkways, irrigation systems, decks, snow removal, etc.).

2023	2024	Projected 2025

NOTE: Use fiscal year values if calendar year values are not available.

22. What **percent** of your total sales were from the following categories?

Category	2024	Projected 2025
Wholesale *(plant sales)*		
Wholesale (*non-plant sales only*)		
Retail *(plant sales only*)		
Retail *(non-plant sales only*)		
Landscape/ interiorscape installation		
Landscape/interiorscape maintenance		
Other *(please specify)*		

NOTE: Columns should add to 100%.

23. What **percent** of your plant sales were by the following categories?

Category	2024	Projected 2025
Woody plants		
Herbaceous perennials		
Annuals		
Aquatic plants		
Specialty greenhouse *(houseplants and tropicals)*		
Christmas trees		
Other *(e.g., seeds, sod, bulbs, and cut flowers)*		

NOTE: Columns should add to 100%.

24. What **percent** of your *sales were by the following methods? (Include plants installed and maintained*).

Method	2024	Projected 2025
Field-grown *(include aquatic plants)*		
In-ground containers *(pot-in-pot)*		
Above ground containers		
Greenhouse		
Cut flowers		
Other (please specify)		

NOTE: Columns should add to 100%.

SECTION 6 – LABOR

25. How many workers were paid for working 149 days or less?

Domestic	Foreign

How many workers were paid for working 150 days or more?

Domestic	Foreign

26. How many workers were from the H2A program?

Domestic	Foreign

How many workers were from the H2B program?

Domestic	Foreign

How many workers were from other programs?

Domestic	Foreign

27. What were the total gross wages paid by your operation during **2024**? *(Include employer's cost for Social Security, worker's compensation, insurance premiums, and any other benefits provided)*. _____

28. Of the total gross wages paid *(Q28 response to be displayed),* how much was for labor overhead (e.g., payroll taxes, workers' comp, benefits, other costs of hiring and processing foreign labor)? _____

29. During **2024**, what was the average hourly wage for:

Category	Hourly Wage
Inexperienced laborers	
Experienced laborers	
Managers	
Supervisors	

30. How many **UNPAID** workers were on this operation in **2024**? _____
Open-ended response; please include family members, operators, and partners not paid a salary.

31. Were you able to get the number of H2B workers that you needed?

- ○ Yes
- ○ No
- ○ Not applicable/Do not employ H2B workers
- ○ Don't know

SECTION 7 – STEWARDSHIP

32. Is any of your land in a land preservation/conservation program?

- ☐ Yes → _____
- ☐ No → *to Q34*

33. How many **acres** did you have total in preservation/conservation programs **in 2024***?*

34. Do you have a current conservation plan with the local Soil Conservation District?

- ○ Yes
- ○ No

35. Please estimate how many **acres** you have in **long-term** buffer strips, permanent grass isles, and other buffer areas.

- ○ None
- ○ 0-10
- ○ 11-25
- ○ 26-50
- ○ Greater than 50

36. Please estimate how many **acres** you have in **temporary** buffer strips, grass isles, and other buffer areas.

- ○ None
- ○ 0-10
- ○ 11-25
- ○ 26-50
- ○ Greater than 50

37. (*Display if Q35 or Q36 =/= No or No Answer)* If you do have conservation zones, do you employ any of the following conservation practices? Please select all that apply.

- ☐ Maintain perennial grass aisles between planting beds or rows
- ☐ Maintain perennial grass buffers around fields
- ☐ Use in-row cover crops
- ☐ Use soil moisture sensors to management irrigation
- ☐ Managed beneficial insect habitats (pollinators, etc.)
- ☐ Release beneficial insects
- ☐ Conserve beneficial insects by adjusting herbicide, fungicide, pesticide selection
- ☐ Conserve beneficial insects by adjusting chemical application times and techniques
- ☐ Conduct regular crop pest scouting
- ☐ Grow plants under USDA Organic certification
- ☐ Use compost as a nutrient source
- ☐ Practice crop rotation
- ☐ Utilize alternative energy sources (solar, wind, geothermal, etc.)
- ☐ Other, please specify _____

38. (*Display if Q35 or Q36 =/= No or No Answer)* If you do have conservation practices like buffer strips, did you employ them because…? Please select all that apply.

- ☐ Cost share/incentives
- ☐ Required by regulations
- ☐ A best management practice to protect the environment
- ☐ To improve profitability
- ☐ Because of consumer demand / for the marketing value of sustainability
- ☐ Pressure from non-governmental organizations

39. Do you capture and re-use irrigation water?

- ○ Yes
- ○ No

40. Do you use precision, micro, or drip irrigation?

- ○ Yes
- ○ No

41. Do you use water management strategies or monitoring equipment?

- ○ Yes
- ○ No

INTEGRATED PEST MANAGEMENT

42. Are you using IPM in plant production or on properties you manage?

- ○ Yes
- ○ No →Go to Q46
- ○ Don't know →Go to Q46

43. Has using IPM practices reduced crop/plant losses?

- ○ Yes
- ○ No
- ○ Don't know

44. Has using IPM practices improved plant quality?

- ○ Yes
- ○ No
- ○ Don't know

45. Has IPM practices increased yield?

- ○ Yes
- ○ No
- ○ Don't know

SECTION 8 – INDUSTRY FACTORS

46. Please identify the 3 most important factors that are limiting growth or are problematic for your business.

- ☐ Labor costs
- ☐ Labor availability
- ☐ Government regulations
- ☐ High costs
- ☐ Economy
- ☐ Competition
- ☐ Cash flow
- ☐ Weather
- ☐ Taxes
- ☐ Age of owner
- ☐ Other (specify) _____

SECTION 9 – CONCLUSION

47. Do you have any final comments on issues affecting the industry?

48. Would you like a copy of the survey results?

- ○ Yes
- ○ No

CLOSING

Thank you for your time. The report of the results of this survey will be posted on... [insert information here]... later this summer [insert new date and time here].

ACKNOWLEDGEMENTS

The following Schaefer Center staff members played key roles in this project:

- Ann Cotten, D.P.A., Executive Director
- Sarah Ficenec, Ph.D., Assistant Director for Research
- Michelle Cantave, M.S., Survey Research Manager

ABOUT THE SCHAEFER CENTER FOR PUBLIC POLICY

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