

Indonesia's

Shrimp Outlook Report 2026

Thriving Through Change:
Beyond Tradition, Toward Ambition



Executive Summary

Shrimp Outlook 2026 presents a comprehensive overview of Indonesia’s cultivation performance throughout 2025, with a focus on the industry’s resilience amid disease risks, unpredictable climate, and evolving market dynamics.

This report is primarily based on the analysis of cultivation performance data collected from JALA App users as the main data source. It is further enriched with secondary data, including global market trends, shrimp health, weather conditions, and farmers’ perceptions to provide a more holistic context.

Overall, national cultivation performance showed improvement. Cultivations in eastern Indonesia continued to emerge as top performers in terms of national productivity. However, cultivation in 2025 also faced significant challenges, particularly disease risks, global price volatility, and extreme weather conditions toward the end of the year.

Highlights



4th

Position

Indonesia remains the **world’s fourth-largest shrimp exporter**, despite a 0.7% YoY decline in export volume.

Productivity

 **19.07** tons/ha

Median cultivation productivity in 2025 **increased by 4.61%** nationwide, with a median harvest size of 58.



Eastern
Indonesia

Recorded the **highest productivity**, with a median of 28.33 tons/ha.



50.5%

Farmers

Identified **shrimp prices as the main issue** affecting cultivation operations, although conditions improved toward the end of 2025.



34.3%

Farmers

Reported **shrimp disease as a major disruption to cultivation activities**.



55.4%

High stocking density cycles

Most farmers are optimistic, opting for stocking densities >150 PL/m², particularly in western and eastern Indonesia.

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To all shrimp industry stakeholders

The year 2025 was a challenging period for Indonesia's shrimp industry. Global market uncertainty, price fluctuations, disease pressure, and climate change created tangible stress across every segment of the industry.

Yet, one thing remained consistent amid these challenges, the resilience of Indonesian shrimp farmers. Data shows that farmers continued to adapt, refine their technical strategies, and maintain production sustainability. This resilience stands as the fundamental backbone of Indonesia's shrimp industry.

The spirit of shrimp farmers has also energized other parts of the industry, inspiring collective initiatives to ensure that Indonesian shrimp continues to compete on the global stage.

Through Shrimp Outlook 2026, we hope this report serves both as a reflection of current conditions and as a reference for industry players to identify opportunities, manage risks, and plan future steps with greater confidence.

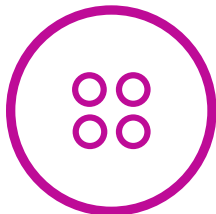
As we enter 2026, we remain optimistic that Indonesia's shrimp industry will continue to grow through collaboration, innovation, and data-driven decision-making. JALA is committed to continuously supporting shrimp farmers on their journey toward a stronger and more sustainable shrimp industry.

Warm regards,

Liris Maduningtyas

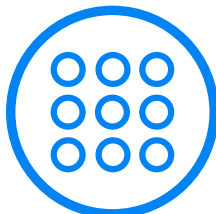
Glossary

Data analysis in this report is conducted by categorizing cultivations based on stocking density, defined as follows:



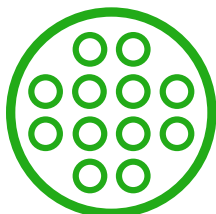
Low Stocking Density

Farms with a stocking density of <80 PL/m².



Medium Stocking Density

Farms with a stocking density of 80–150 PL/m².



High Stocking Density

Farms with a stocking density of >150 PL/m².

Average Body Weight (ABW) – Average weight per shrimp (unit: grams).

Acute Hepatopancreatic Necrosis Disease (AHPND) – A shrimp disease caused by various pathogens that lead to necrosis in the hepatopancreas.

Anti-dumping/Countervailing Duty (AD/CVD) – Trade instruments in the form of additional import duties imposed on imported products.

Average Daily Gain (ADG) – The average growth rate of shrimp each day (unit: grams/day).

Carrying capacity – The maximum population an ecosystem can support while ensuring sufficient food, habitat, space, and other essential resources (unit: kg/m²).

Cs-137 – Radioactive isotope produced by nuclear fission in nuclear reactors.

Cultivation production facilities – Cultivation production inputs and equipment utilized during the cultivation process.

Cycle – A whole cultivation process, from post larvae stocking to harvest.

Days of Culture (DoC) – The duration of cultivation (unit: days).

EHP/HPM – A shrimp disease known as Hepatopancreatic Microsporidiosis (HPM), caused by the *Enterocytozoon hepatopenaei* parasite, leading to uneven shrimp growth rates.

Glossary

Farm gate price – The selling price of shrimp when sold directly by farmers at the farm location after harvest.

Feed Conversion Ratio (FCR) – A metric indicating feed efficiency in cultivation, calculated from the total volume of feed given (unit: kg) divided by the total shrimp volume (unit: kg).

H1 – Refers to Half One or the first half of the year (January–June).

H2 – Refers to Half Two or the second half of the year (July–December).

Indonesian Throughflow (ITF) – The movement of upper-layer seawater masses from the Pacific Ocean to the Indian Ocean through Indonesian inland seas.

IMNV/Myo – A shrimp disease caused by the Infectious Myonecrosis Virus (IMNV), which attacks shrimp muscle tissue.

Median – The middle value in a dataset that has been arranged from the smallest to the biggest.

Outlier – A data point that lies outside the normal or expected range of values.

Polymerase Chain Reaction (PCR) – Molecular diagnostic method used to detect the presence of genetic material (DNA/RNA) in a test sample.

Positivity rate – The proportion or percentage of test results that show positive results for a specific disease compared to the total number of tests conducted.

Post Larvae (PL) – Transitional developmental stage from larva to juvenile shrimp.

Precipitation – The process of water falling from the atmosphere to the Earth's surface, influenced by high air temperatures (unit: mm).

Prevalence – The total number of disease cases occurring in a specific region at a certain time.

Productivity – The achievement of shrimp production capacity within a specific area and time period (unit: tons/ha).

Quarter – A time reference representing one-fourth of a year (three months).

Shrimp count – Shrimp size classification based on the number of shrimp per kilogram (unit: shrimp/kg).

Standard Deviation (Std. Dev.) – A value that measures the dispersion of data relative to the particular data mean value.

Glossary

Standard Operating Procedure (SOP) – Operational standards for cultivation, including feed management, biosecurity, water quality management, sampling, and more.

Stocking density – The density of post larvae within a pond area, calculated as the number of post larvae (PL) per square meter (unit: PL/m²).

Survival Rate (SR) – The ratio of shrimp that survive in a certain period or by the end of the cultivation cycle (unit: %).

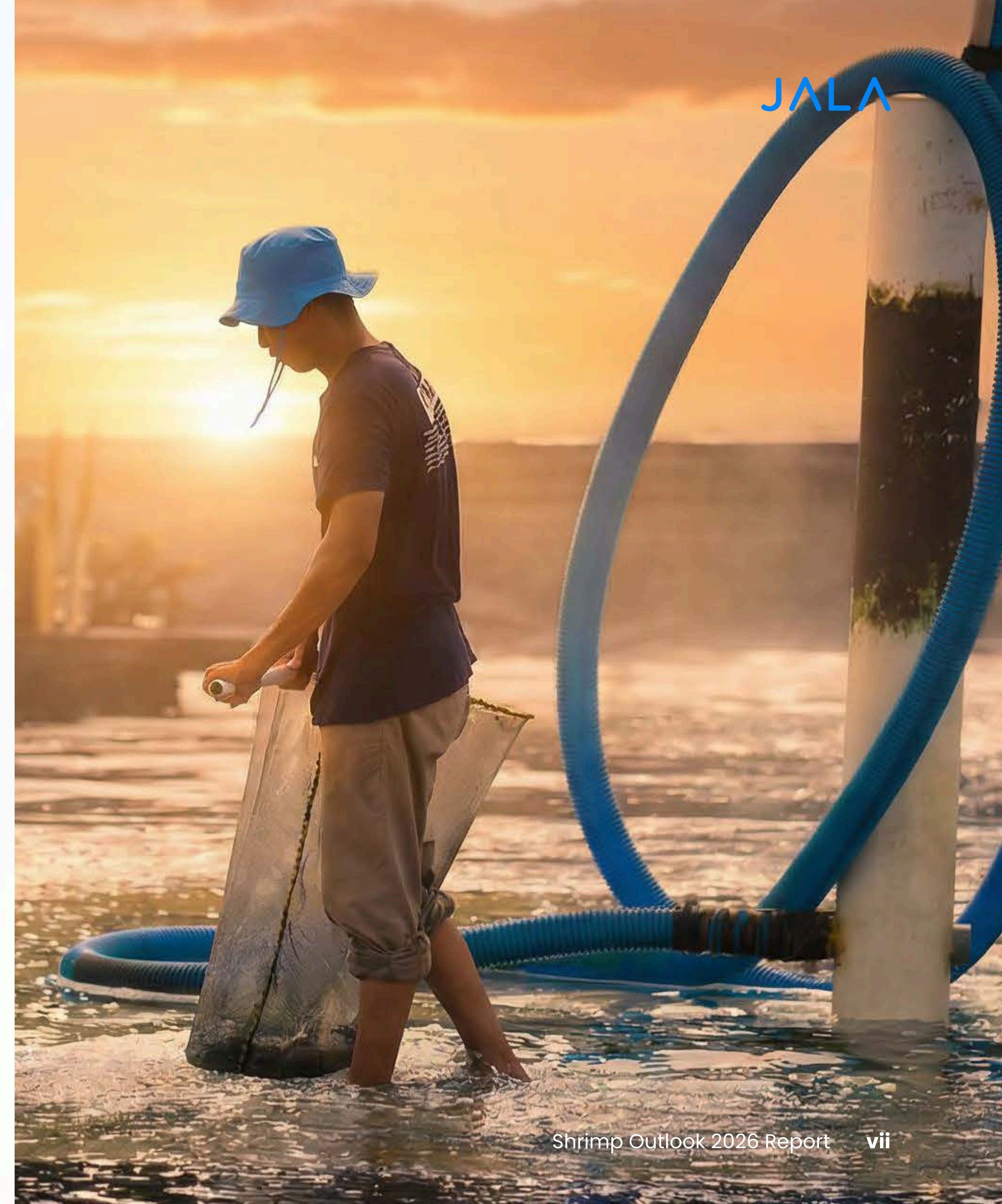
Ton - A unit of mass equal to 1,000 kilograms, internationally referred to as a metric ton.

White Feces Syndrome (WFS) – A shrimp disease caused by Vibrio bacteria and causes the presence of white feces.

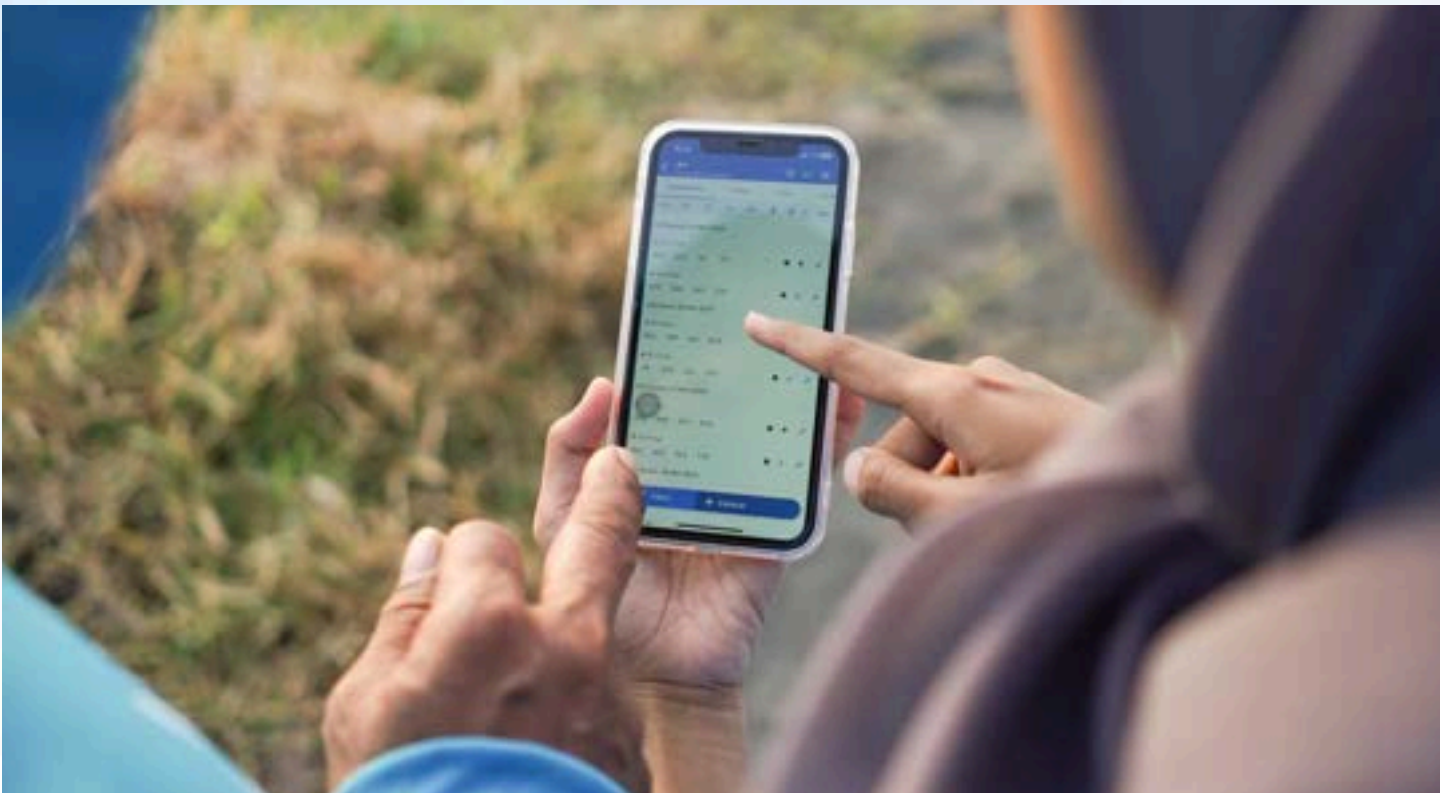
White Muscle Syndrome (WMS) – A shrimp disease that causes muscle tissue to appear white.

White Spot Syndrome (WSS) – A shrimp disease caused by White Spot Syndrome Virus (WSSV), marked by white spots on the shrimp's carapace.

Year on Year (YoY) – Analytical method used to compare performance between consecutive years.



Data Sources



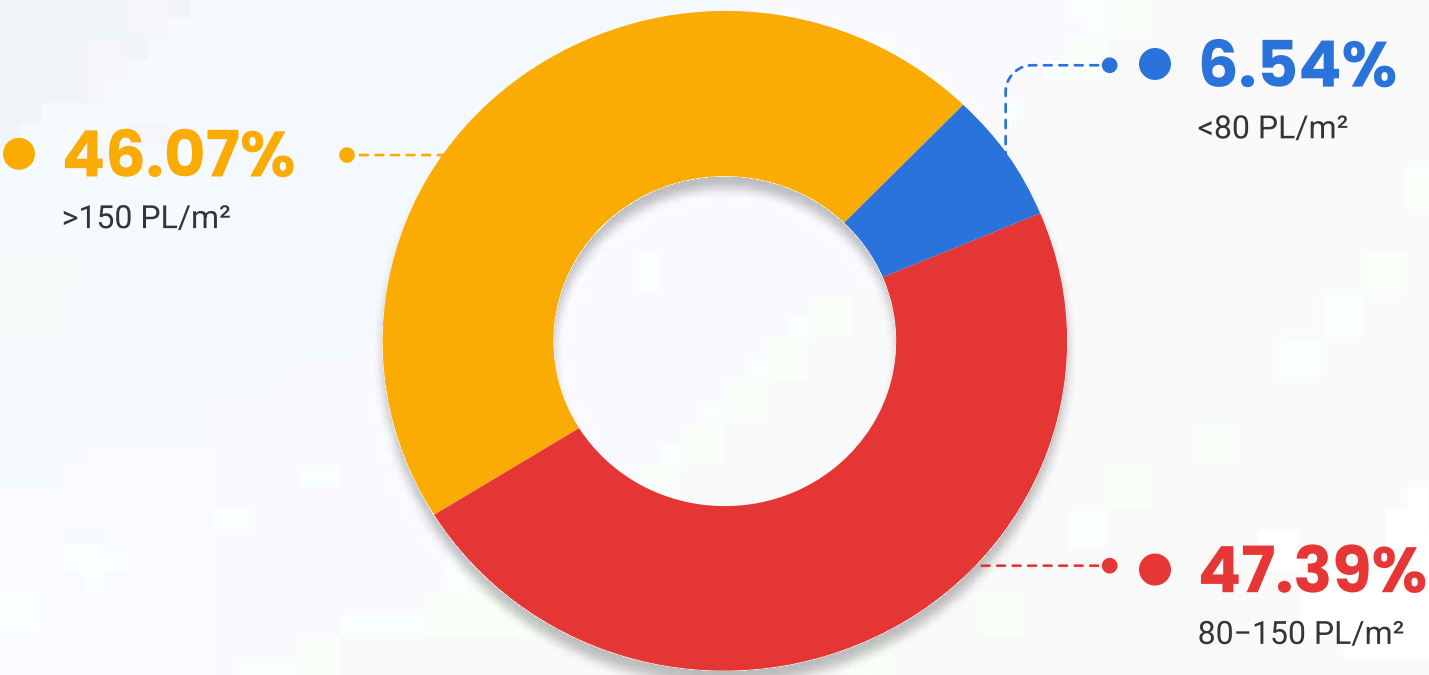
Primary data

Cultivation data from JALA App users who started cultivation between:

1 November 2024–30 November 2025

This dataset serves as the primary reference for cultivation performance and behavior in 2025. Performance comparisons also use data from the same period.

Figure 1. Proportion of Primary Data by Stocking Density



Proportion of cultivation cycles by stocking density

The primary data are dominated by cultivation cycles with high stocking density (>150 PL/m²) and medium stocking density (80–150 PL/m²), with both categories represented in nearly equal proportions.

Secondary data

Secondary data were collected through a survey covering cultivation behavior, challenges, and opportunities in Indonesia. The survey was conducted between November and December 2025.



Total respondents

100 farmers

from **33 cities/regencies** across Sumatra, Java, Bali, Nusa Tenggara, and Sulawesi.

Data validation was also conducted through interviews with several shrimp industry players and stakeholders to obtain clearer context for the data.

Data Analysis Method

The analysis was conducted through data cleaning and statistical assessment

The objective was to ensure that all data used were relevant to the context of the discussion and could be accounted for. Data cleaning was carried out using the IQR (interquartile range) method, followed by statistical analysis to describe conditions based on numerical values. Through these stages, the baseline criteria for cultivation data were established as the primary dataset used in this report. The following filtering thresholds were applied:

FCR

0.7–2.9

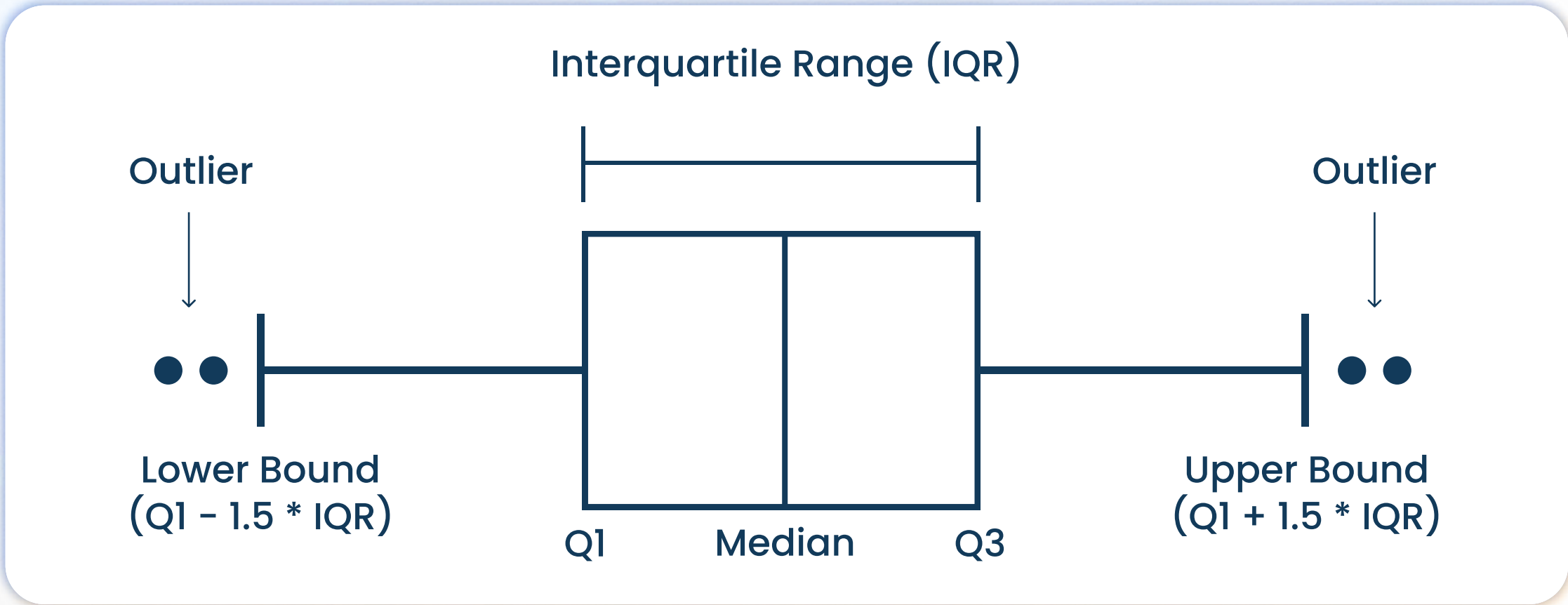
Shrimp Count

11–201

SR

30–155%

Cultivation data that did not meet these three criteria were classified as outliers and excluded from the analysis.



Quartile (Q): A statistical term that describes the division of observations into four intervals based on data values and their comparison to the entire series of observation.

The Interquartile Range (IQR) method was applied to identify data outliers based on the calculations of the lower and upper bound values of the data quartiles. These values were obtained based on the following calculation:

- $IQR = Q3 - Q1$
- Lower bound = $Q1 - (1.5 * IQR)$
- Upper bound = $Q3 + (1.5 * IQR)$

Data Overview

The following data provide a general overview of cultivation performance as the basis for the analysis in this report.

Table 1. Cultivation Performance Overview

Variable	Std. Dev.	Mean	Top	Median	Bottom
Productivity (tons/ha)	239.04	23.17	38.43	16.44	5.36
SR (%)	21.02	74.00	100.00	76.00	44.00
FCR	0.40	1.60	1.17	1.54	2.15
Count (shrimp/kg)	35.56	75.00	35.00	66.00	121.00
ADG (g/day)	0.09	0.24	0.36	0.23	0.13

The mean reflects overall performance, while the standard deviation indicates the level of variation across the data. The top 10% represents the highest performance values for each parameter, the median represents the midpoint of the dataset, and the bottom 10% represents the lowest performance values.

The analysis is also grouped into three regions as follows:

Western
Region

Cultivation cycles in **Sumatra** and surrounding islands.

Central
Region

Cultivation cycles in **Java** and surrounding islands.

Eastern
Region

Cultivation cycles in **Bali, Nusa Tenggara, and Sulawesi**.

The regional classification is based on cultivation patterns and water characteristics to provide a more representative analysis. The grouping of the Eastern Region is supported by the relative homogeneity of its coastal environment, influenced by the Indonesian Throughflow (ITF) and local upwelling patterns⁽¹⁾⁽²⁾. ITF transports warm, relatively low salinity water from the Pacific Ocean to the Indian Ocean, contributing to macro-level uniformity in temperature and salinity distribution, which in turn results in more spatially consistent environmental parameters for cultivation.

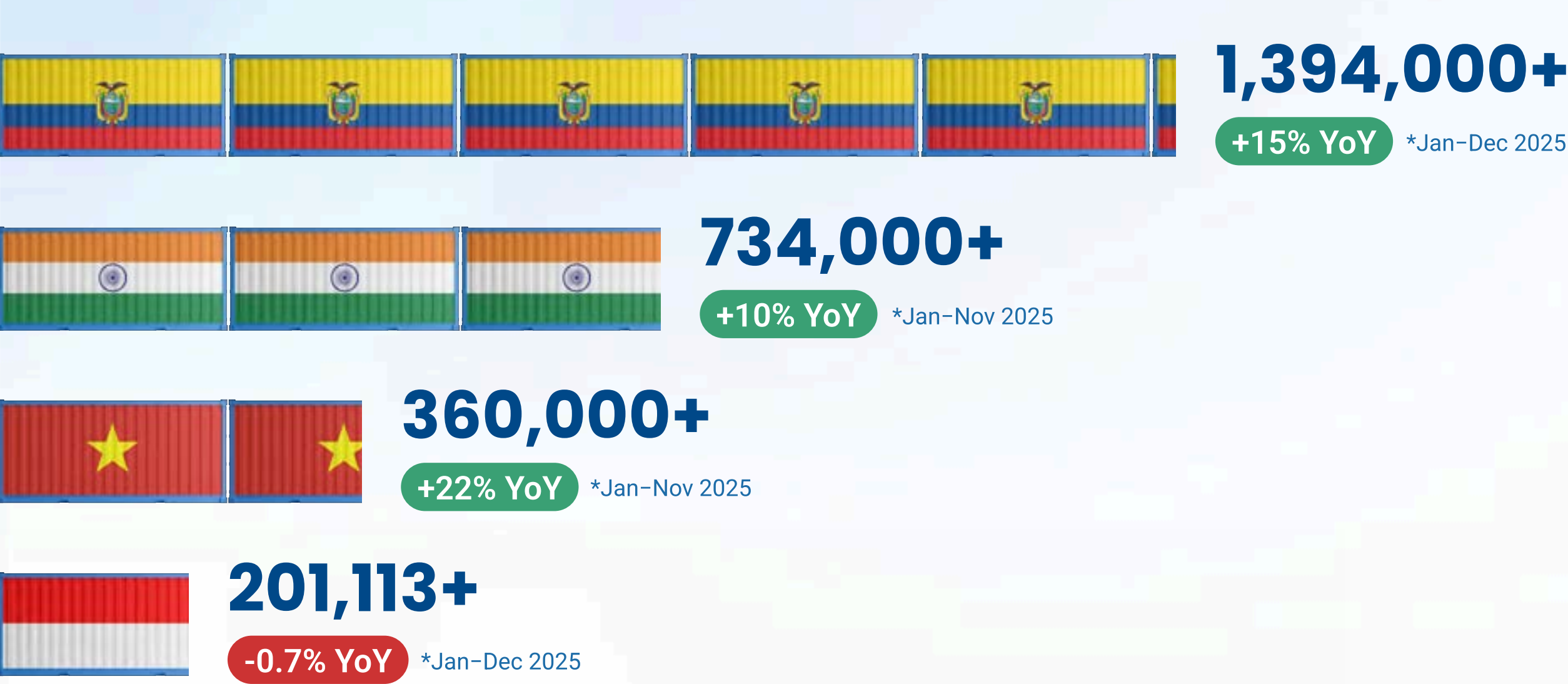
(1) Sprintall, J., Gordon, A. L., Koch-Larrouy, A., Lee, T., Potemra, J. T., Pujiana, K., & Wijffels, S. E. (2014). The Indonesian seas and their role in the coupled ocean–climate system. *Nature Geoscience*, 7(7), 487-492.
(2) Lubis, M. Z., Hidayat, S., & Hu, S. (2025). Indonesian Throughflow in the Halmahera Sea: A Review. *Journal of Marine Science and Engineering*, 13(10), 1974.

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Shrimp²⁰
Outlook

Q1 Shrimp Industry Dynamics

Figure 1.1. Global Shrimp Export Competition Landscape



Shrimp export volume in tons (Source: Shrimp Insights)



Global Shrimp Market Dynamics

Overview of shrimp producer performance

The global shrimp market faced pressure in 2025 due to import policies (particularly US reciprocal tariffs) as well as production dynamics in major producing countries such as Ecuador, India, Vietnam, and Indonesia. Despite these challenges, most exporters continued to record growth.

Ecuador remained the world’s leading shrimp exporter, followed by India, Vietnam, and Indonesia. In terms of export growth, Ecuador increased by 15% and India by 10%, while Vietnam recorded a strong 22% rise. Indonesia remained relatively stable compared to 2024, posting a slight decline of 0.7%.

Ecuador also showed the highest export dependency, followed by India, Indonesia, and Vietnam⁽³⁾. Export dependency reflects the degree to which a country’s shrimp industry relies on policies and market conditions in importing countries.

(3) Kontali. 2025. Production Review. Presented for Shrimp Summit 2025. Bali: Indonesia.

Shrimp export competitive landscape

➤ Ecuador recorded double digit export growth

Ecuador recorded growth in both export volume (14%) and export value (23%) of shrimp. China remained Ecuador’s main market, accounting for 49% of total exports. Strong performance was also recorded in European Union (+28% YoY), US (+26% YoY), and Japan (+36% YoY).

➤ India affected by US tariff policy

India’s shrimp exports to US declined following the implementation of reciprocal tariffs, which eroded India’s market share in US market. Meanwhile, China, Europe, and Vietnam absorbed part of India’s production, supported by demand for raw materials. Europe became a key diversification market to mitigate exposure to higher tariffs. Overall, export trends throughout 2025 remained positive, with growth in both volume (+10% YoY) and value (+17% YoY). As of 2 February 2026, US reciprocal tariff was revised to 18%, which is expected to restore India’s competitiveness.

➤ Vietnam as a processing hub

Vietnam took on the role of a processing hub for Indian shrimp. Supply from India continued alongside significant expansion in Vietnam’s processing capacity. Export performance to European countries remained positive, totaling more than 52 thousand tons. However, Vietnam was significantly affected by US reciprocal tariffs, resulting in a 9% decline in shrimp exports to US, reaching 57 thousand tons during January–November 2025.

Table 1.1. Performance of the Shrimp Industry in the Four Leading Exporting Countries in 2025 (Compiled from various Sources)

	 Ecuador (Jan-Dec)	 India (Jan-Nov)	 Vietnam (Jan-Nov)	 Indonesia (Jan-Dec)
Export volume 2025 (tons)	1,394,411	734,593	360,000	201,113
Export value 2025 (million USD)	7,475	5,227	4,300	1,776
Production projection 2025 (tons) ⁽⁴⁾	1,538,000	1,106,000	704,000	385,000
ADD/CVD tariff burden	2.89%	3.8%	2.5%	6.3%
Total tariff burden (AD/CVD + Trump tariff)	12.89%	21.8%	12.5%	16.3%
Top destination market (tons)	China 689,536	US 258,749	China	US 125,588
Leading product	Raw L. vannamei	Raw L. vannamei	-	Raw L. vannamei

(4) Nikolik, N. and Sharma, N. 2025. Global Aquaculture Update 1H 2025. Global Animal Protein Sector Team, Rabobank.

Shrimp import competitive landscape

China leading the shrimp market

China’s shrimp imports in 2025 declined 2% YoY in volume, yet still recorded a 5% YoY increase in value. China’s position as an importer strengthened as it absorbed excess shrimp production from Ecuador. However, this development reduced India’s market share in China. Ecuador accounted for 73% of China’s shrimp imports, while India supplied around 17%.

Implementation of special tariffs in US

US shrimp imports showed fluctuations following the implementation and anticipation of reciprocal tariffs introduced by US. Nevertheless, total US shrimp import volume in 2025 increased by 6%, with India (259 thousand tons), Ecuador (188 thousand tons), and Indonesia (108 thousand tons) remaining the top three suppliers. The application of reciprocal tariffs, combined with anti-dumping and countervailing duties, prompted importers to adjust their sourcing strategies. Ecuador leveraged this situation to expand its share of US shrimp demand.

European import growth >20%

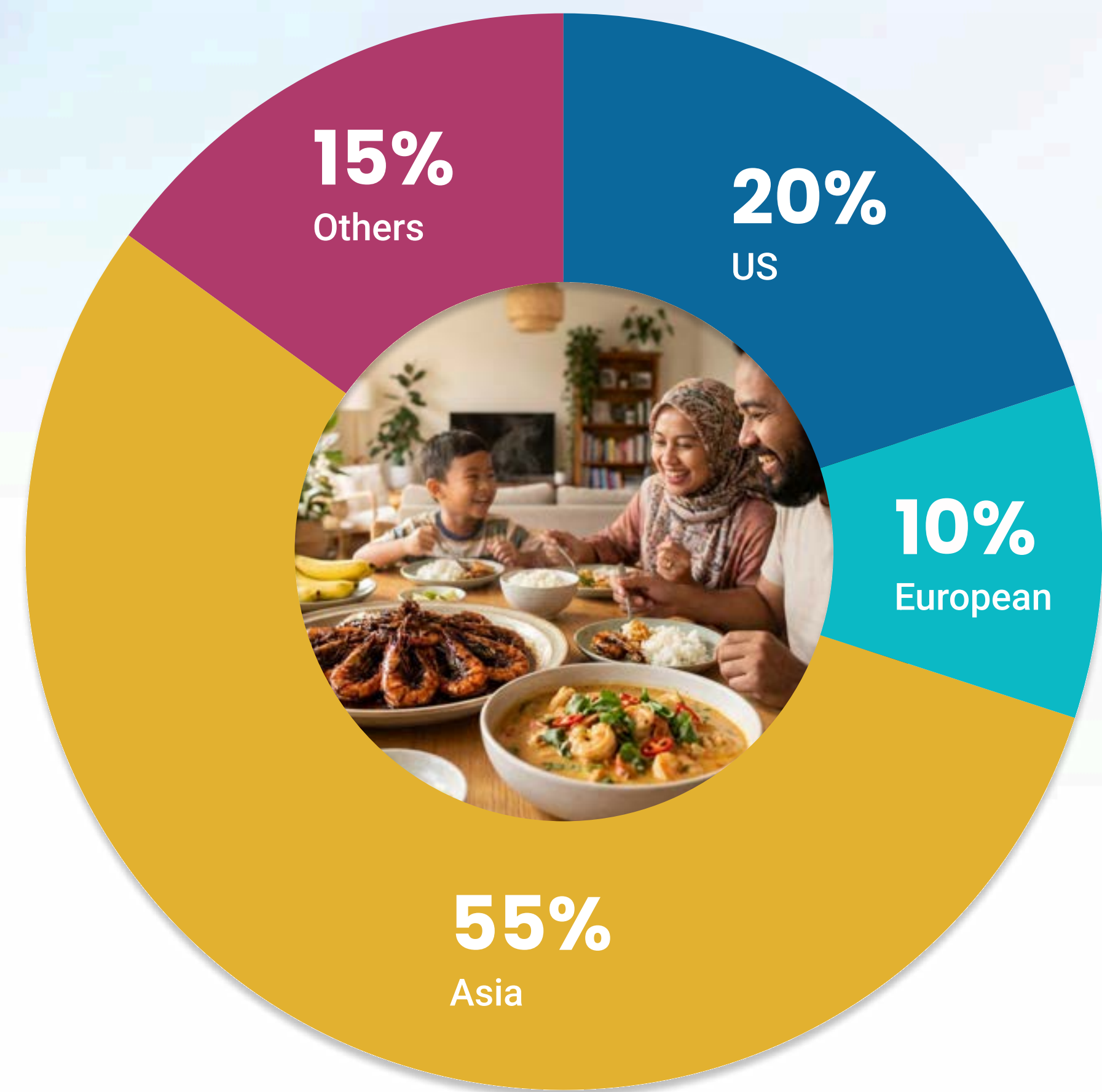
European shrimp imports increased by 20% in volume and 22% in value in 2025. More than half of total imports were absorbed by Southern European countries. Toward the end of 2025, import growth accelerated, driven by purchases from the Netherlands, Belgium, and Germany. Frozen raw shrimp dominated European Union imports, reaching 366 thousand tons, indicating strong demand for unprocessed products.

(5) Nikolik, N. and Sharma, N. 2025. Global Aquaculture Update 1H 2025. Global Animal Protein Sector Team, Rabobank

Table 1.2. Performance of the Shrimp Industry in the Three Leading Importing Countries in 2025 (Compiled from various sources)

	 China	 United States	 European (EU + UK)
Import volume 2025 (tons)	901,563	670,695	418,306
Import value 2025 (million USD)	4,795	5,861	2,627
Share of global imports (%)	32%	28%	18%
Top supplier (tons)	 651,866	 259,711	 224,705
Import price (per kg)	\$4.7–5.3	\$8–9	€5–6
Per capita shrimp consumption (kg/person)	2.2	2.7	1.8

Figure 1.2. Global Shrimp Consumption Data (Source: Kontali)



Asia as the world’s largest shrimp consumer

Countries across Asia collectively account for the largest share of global vannamei shrimp consumption, representing 55% of total global shrimp consumption. As highlighted in the previous section, China demonstrates strong dominance in global shrimp demand, supported by the expansion of its middle-class population from a historically relatively low base. Meanwhile, Japan and South Korea continue to serve as high-value markets within Asia and have shown consistent growth trends.

Despite this, the US remains a key shrimp market, accounting for 20% of total global shrimp consumption. Average seafood consumption in the US stands at 2.5 kg/capita/year. The dominant shrimp products imported by the US are peeled shrimp (346 thousand tons) and whole shrimp with shell-on (169 thousand tons).

Europe also remains a significant shrimp consuming region. Shrimp import growth in Europe, particularly among European Union member states, recorded an impressive 20% increase in volume. Amid ongoing uncertainties surrounding US import policies, the European market has emerged as an alternative destination, especially for whole shrimp products.

Figure 1.3. Indonesia’s Shrimp Export Volume 2021–2025 (Source: BPS)



-0.7 %
Export growth
Jan-Dec 2025



97,192 tons
Raw vannamei
Top exported product



311,385 tons
Total production
2025 estimation



201,113 tons
Total exports
Jan-Dec 2025



122,588 tons
Exports to US
Jan-Dec 2025

Source: BPS Indonesia | Shrimp Insight

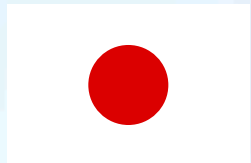
Indonesian Shrimp Industry Performance

United States remained the primary export destination

Indonesia’s shrimp market conditions were highly influenced by movements in global shrimp prices. While export performance in the first half of 2025 remained relatively positive, exports came under pressure in the second half of the year due to the implementation of US reciprocal tariffs and the Cs-137 issue. The cesium case delivered a significant impact, with exports to US plunging by 86% in October. However, recovery efforts through testing and certification confirming the absence of radioactive contamination began to show results, as reflected in improved export performance in November. Despite an overall export volume decline of 8% compared to 2024, US remained Indonesia’s primary shrimp export destination.

The decline in exports to US was partly offset by redirecting shipments to other markets such as Japan, China, and the European Union. Export products were still dominated by whole shrimp, reaching 97 thousand tons, while cooked and seasoned shrimp products, totaling more than 56 thousand tons emerged as a promising product segment.

Indonesia’s Shrimp Export Performance Beyond US



Japan



33,300 tons

Shrimp export volume to Japan
(Jan-Dec 2025)⁽⁶⁾

+6%

Japan became one of the key markets that helped offset the decline in exports to US in 2026. As Indonesia’s second-largest shrimp export destination after US, export volume to Japan exceeded 30 thousand tons, growing by 6% YoY.

For Indonesia, Japan remains an ideal destination as it prioritizes quality over quantity. This aligns well with the characteristics of Indonesian shrimp and reflects the strong trade relationship that has been built over time.



China



13,753 tons

Shrimp export volume to China
(Jan-Dec 2025)⁽⁶⁾

+27%

China recorded strong growth in 2025 as an alternative export market for Indonesian shrimp. Export volume to China reached more than 13 thousand tons, representing a 27% YoY increase. This growth positions China as a strategic complementary market to reduce dependence on the US.

China’s national seafood consumption is relatively high, dominated by fish products. Meanwhile, shrimp consumption per capita continues to rise, driven by the expansion of the middle class and supported by global supply availability.



European Union



10,517 tons

Shrimp export volume to EU
(Jan-Dec 2025)⁽⁶⁾

+41%

Throughout 2025, European Union recorded the highest export volume growth among non-US markets, increasing by 41% YoY. Although the overall volume remains relatively smaller compared to other major markets, this growth reflects expanding diversification opportunities.

Europe can be considered “The Silent Growth Engine”, as EU shrimp imports have shown strong momentum. Combined with the stability of the Euro and its role in balancing global shrimp supply that cannot be absorbed by the US market, the region presents increasing strategic importance.

(6) Shrimp Insights. 2026. Indonesia Shrimp Exports Close 2025 with Strong December Rebound After US Disruption.

Domestic market potential to absorb production and reduce export dependence



311,385 tons
Total production in 2025

*Estimation vannamei + monodon



201,113 tons
Total exports in 2025



14.04
kg/person/year

2024: 12.25 kg/capita
Per capita shrimp and lobster consumption per year

Domestic market remains the most immediate solution to absorb Indonesia’s shrimp production. In addition to reducing dependence on export markets particularly US, domestic market also serves as a buffer against global trade disruptions (container shipping dependency, FDA regulations, and additional import duties).

With a population of approximately 280 million people, local consumption potential for farmed shrimp as a source of protein is substantial and capable of absorbing significant production volumes. Supported by national nutrition programs and shrimp consumption campaigns, domestic market absorption is expected to increase further. This potential is reinforced by improving purchasing power and the role of the HORECA (hotel, restaurant, cafe) sector as a demand driver. However, several challenges may arise:

- Utilization of the local shrimp market is constrained by logistics costs, despite relatively high domestic seafood consumption. High logistics costs (14.29% of GDP)⁽⁷⁾, limited cold chain infrastructure, and long distribution channels reduce product distribution efficiency.
- These high distribution costs are not consistently matched by product quality standardization. As a result, shrimp exhibits high price elasticity and is often perceived as a premium product closely associated with HORECA segment⁽⁸⁾.
- Price sensitivity in the domestic market remains relatively high, meaning that price increases may directly suppress demand⁽⁹⁾.

(7) Limanseto, Aryo. 2025. Maintaining Economic Growth Momentum, Coordinating Minister Airlangga Encourages Collaboration to Strengthen the National Logistics Sector. Press Release, Coordinating Ministry for Economic Affairs of the Republic of Indonesia

(8) Rosyidah, Lathifatul., Suman, Agus., Manzilati, Asfi. 2024. The Role of Vannamei Shrimp Traders in Access to Price and Market Information in Muncar, Banyuwangi Regency. Buletin Ilmiah Marina: Social and Economic Marine and Fisheries Bulletin.

(9) Virgantari, Fitria., Daryanto, Arief., Harianto, Kuntjoro, Sri., 2011. Analysis of Demand for Fish in Indonesia: A Quadratic Almost Ideal Demand System (QUAIDS) Model Approach. Journal of Marine and Fisheries Socio Economics

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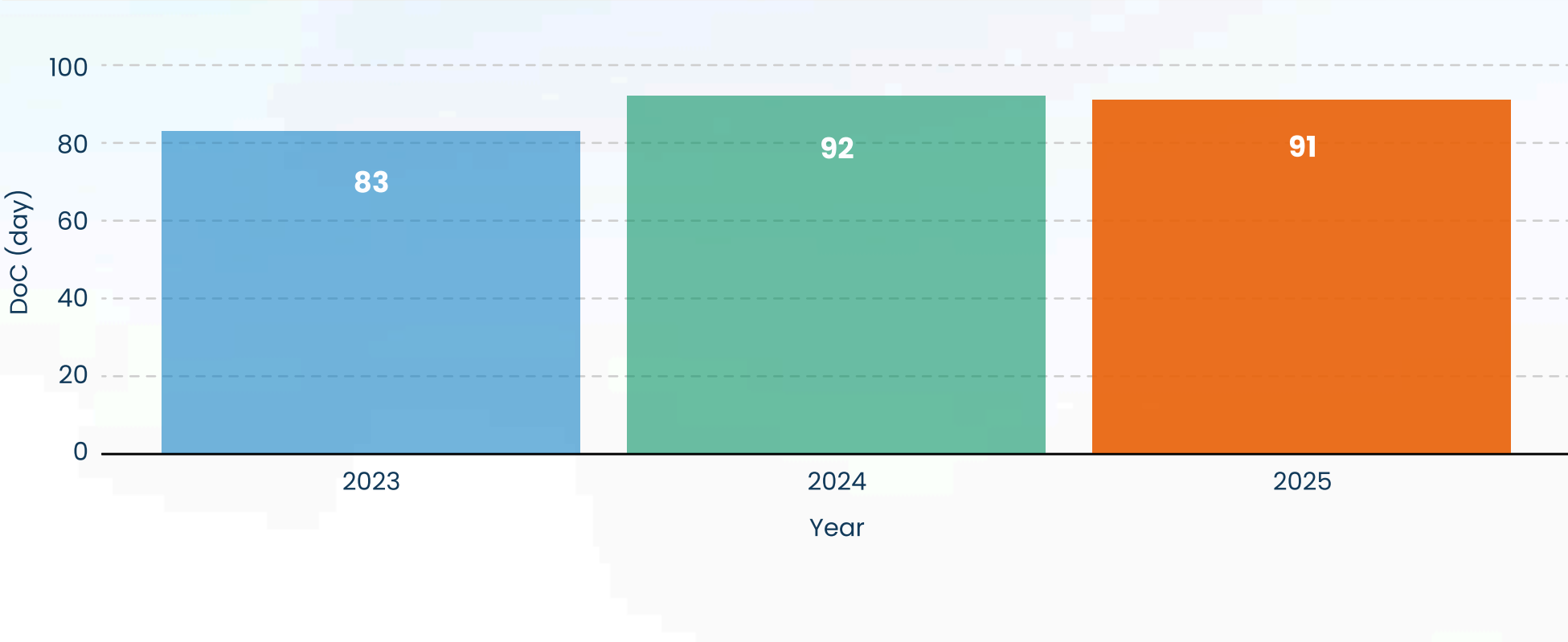
Shrimp²⁰
Outlook

Cultivation Behavior and Performance

Cultivation Patterns and Practices

Cultivation patterns and practices in Indonesia were analyzed to better understand production performance, with a focus on changes in cycle duration, stocking density, and harvesting practices. These factors reflect farmers’ strategies in responding to price fluctuations and market risks.

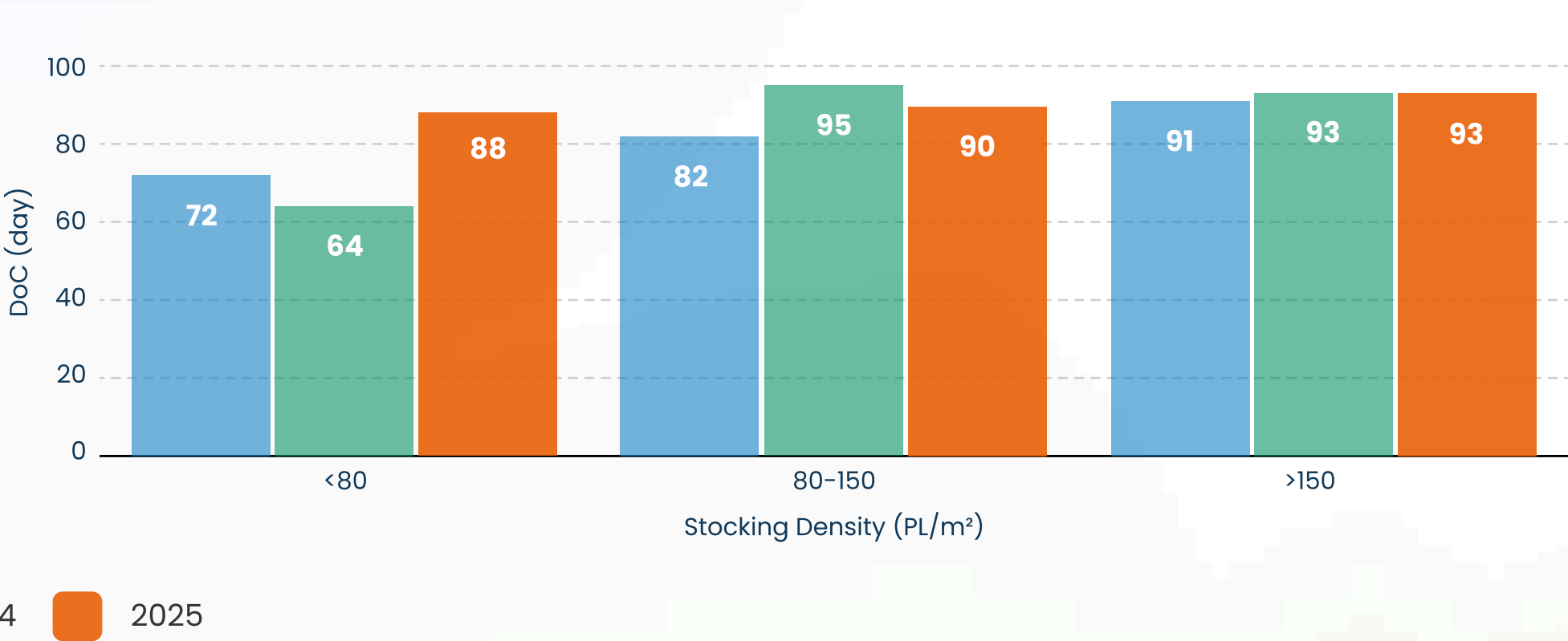
Figure 2.1. Median DoC by Year



Shorter cultivation cycle duration

Overall, cultivation duration became slightly shorter, with the median declining from 92 days in 2024 to 91 days (-1.09%) in 2025. At stocking densities of 80–150 PL/m², DoC decreased from 95 days to 90 days. In contrast, at stocking densities below 80 PL/m², the cultivation duration became longer, increasing from 64 days to 88 days. Meanwhile, at stocking densities above 150 PL/m², the median DoC remained relatively stable at 93 days.

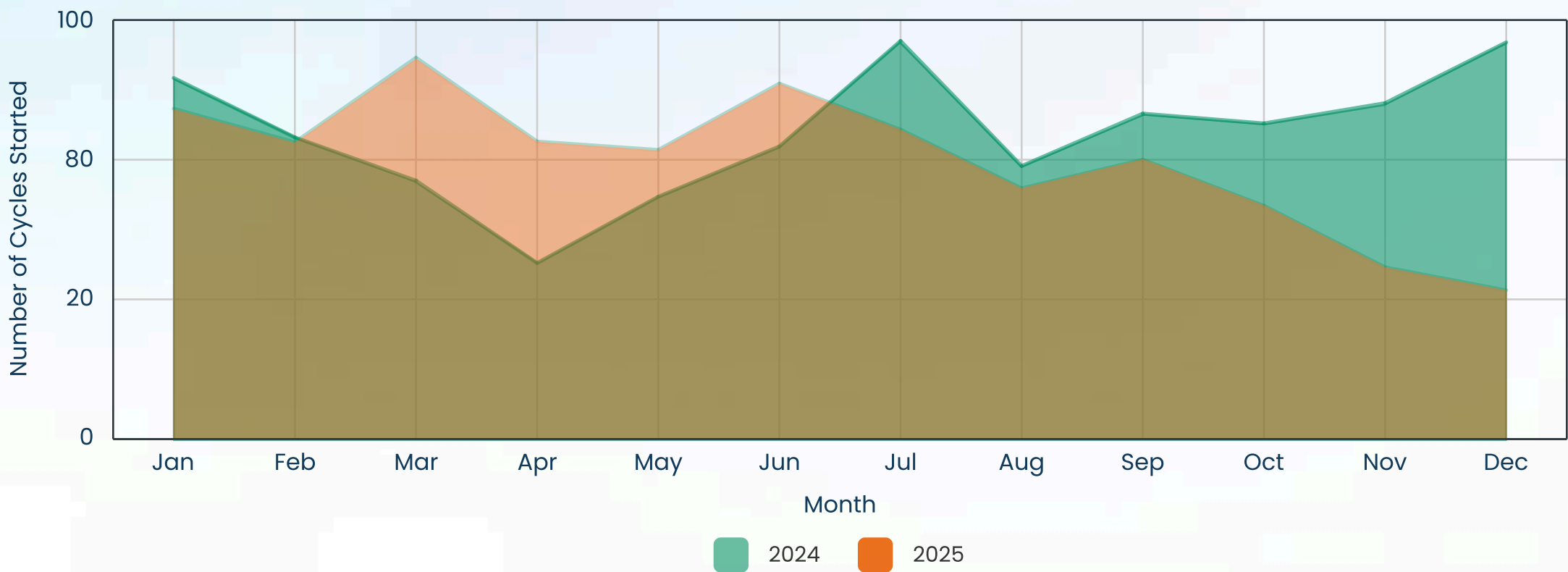
Figure 2.2. Median DoC by Year and Stocking Density



Field observations indicate that these dynamics were influenced by market conditions. Some farmers conducted early harvests due to the sharp decline in shrimp prices following the Cs-137 issue. Others responded to falling prices by extending the DoC, anticipating a potential recovery in selling prices.

Shifts in cycle start toward mid-year

Figure 2.3. Comparison of Cultivation Cycle Start by Month

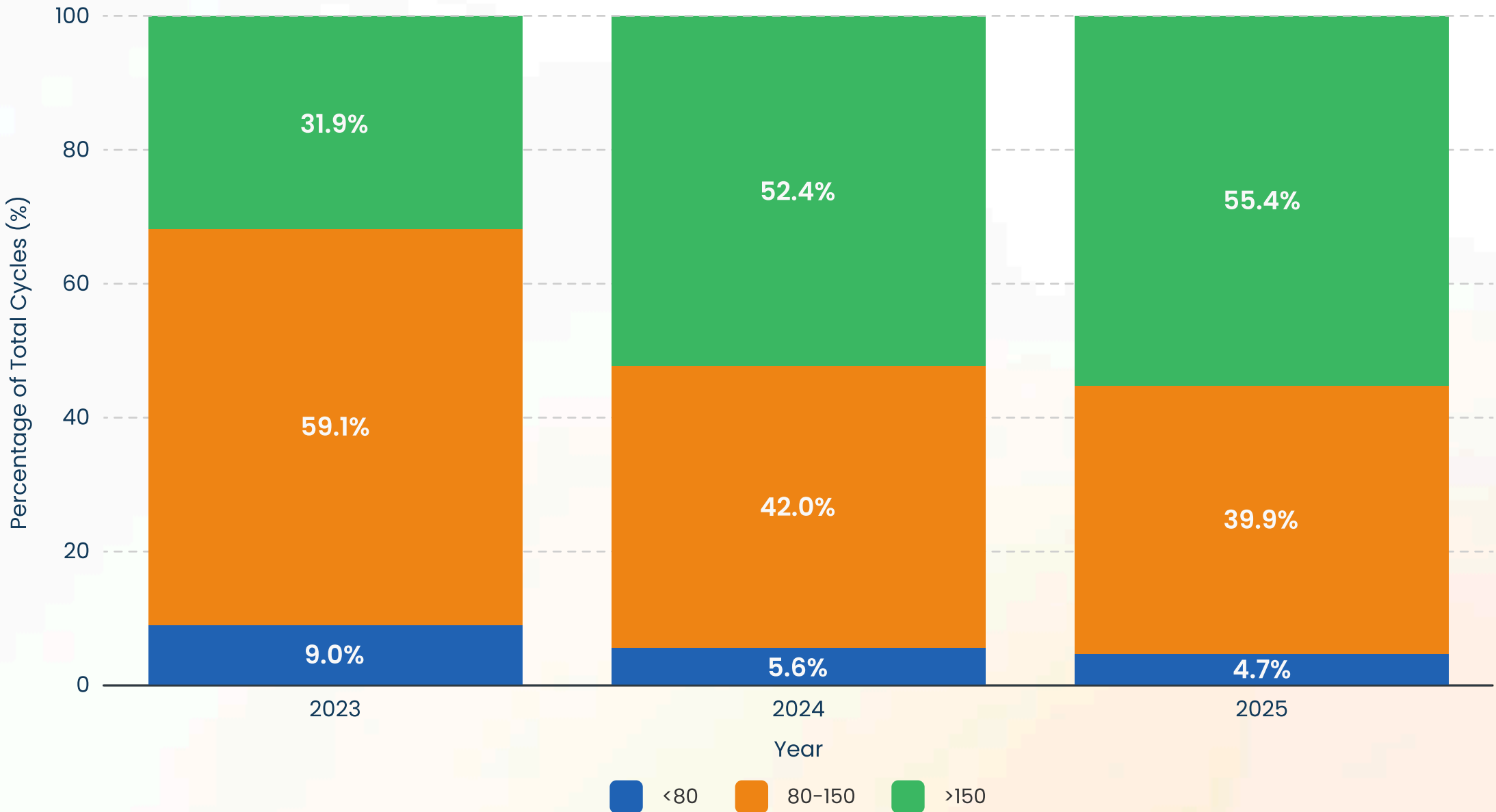


The initiation of cultivation cycles showed relatively higher and more stable activity in H1 of 2025 compared to H1 2024, despite emerging issues related to AD/CVD measures and antibiotic use during this period. After September 2025, the number of farmers starting new cycles declined sharply, reaching a 62.5% YoY decrease in December. Based on interviews with farmers in Sumatra and Nusa Tenggara, this decline was driven by uncertainty regarding harvest absorption, disease outbreaks with high mortality rates, and natural disasters that affected infrastructure and shrimp health.

High stocking density remained dominant across cultivation cycles

Overall, stocking density trends in 2025 did not show significant changes across categories compared to the previous year. High stocking density systems remained the dominant practice.

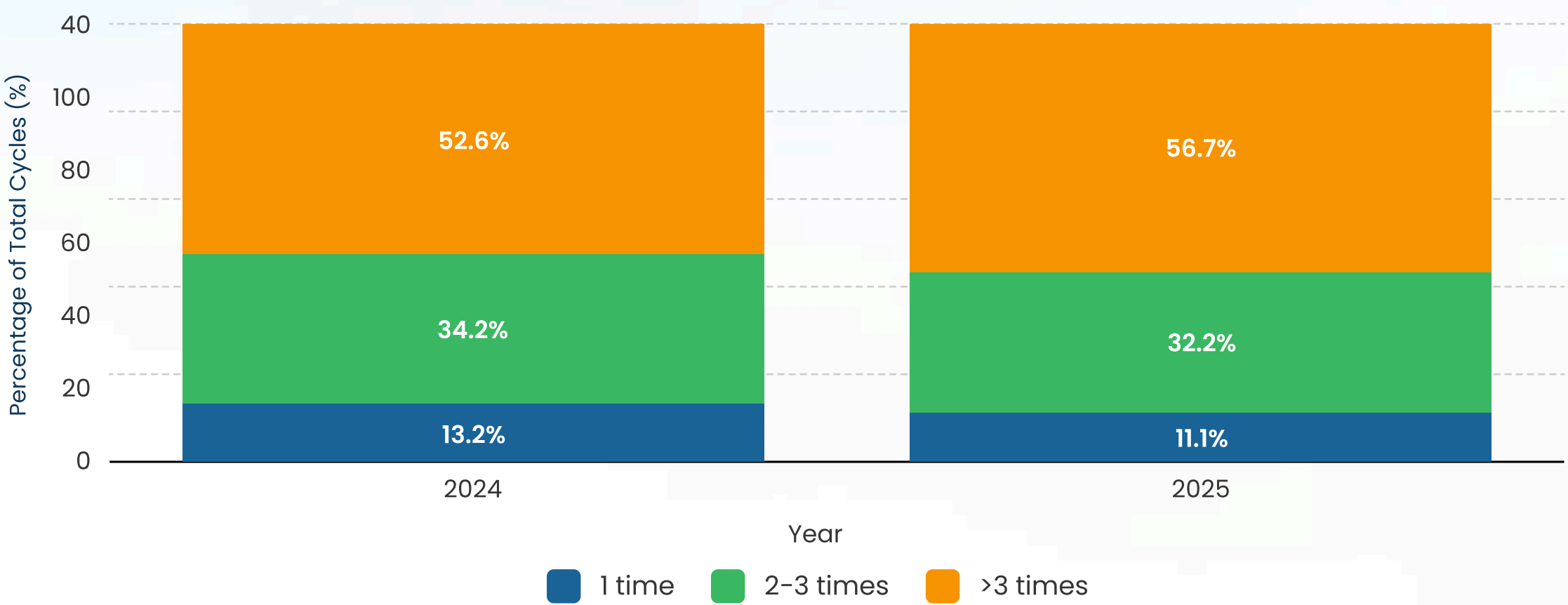
Figure 2.4. Proportion of Cycles by Stocking Density



Partial harvest behavior remained consistent with adjustments in cycle duration

A total of 88.9% of cultivation cycles conducted more than one harvest, indicating the continued dominance of partial harvesting practices.

Figure 2.5. Proportion of Cycles by Harvest Frequency per Year



In H2 of 2025, most cycles required a longer duration to reach the first to third partial harvest compared to the H1. However, the shrimp count achieved remained relatively similar to H1 levels. This suggests that farmers in H2 required a longer culture period to attain the same harvest size.

Figure 2.6. DoC at Partial Harvest

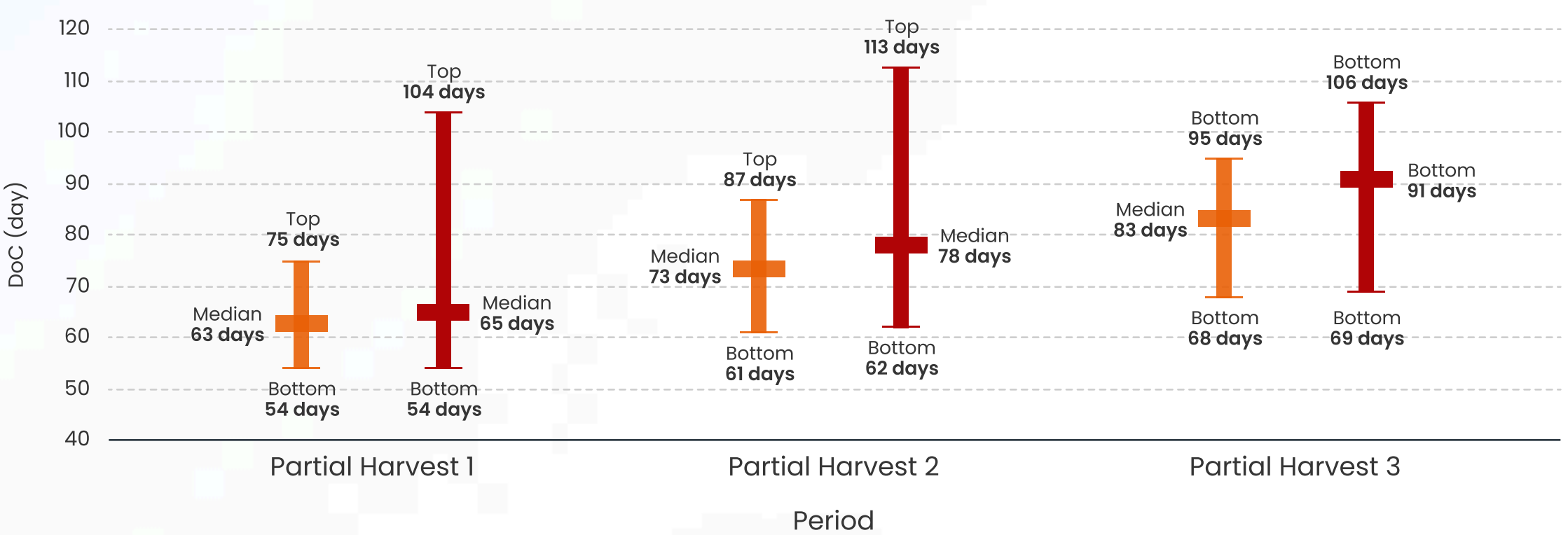
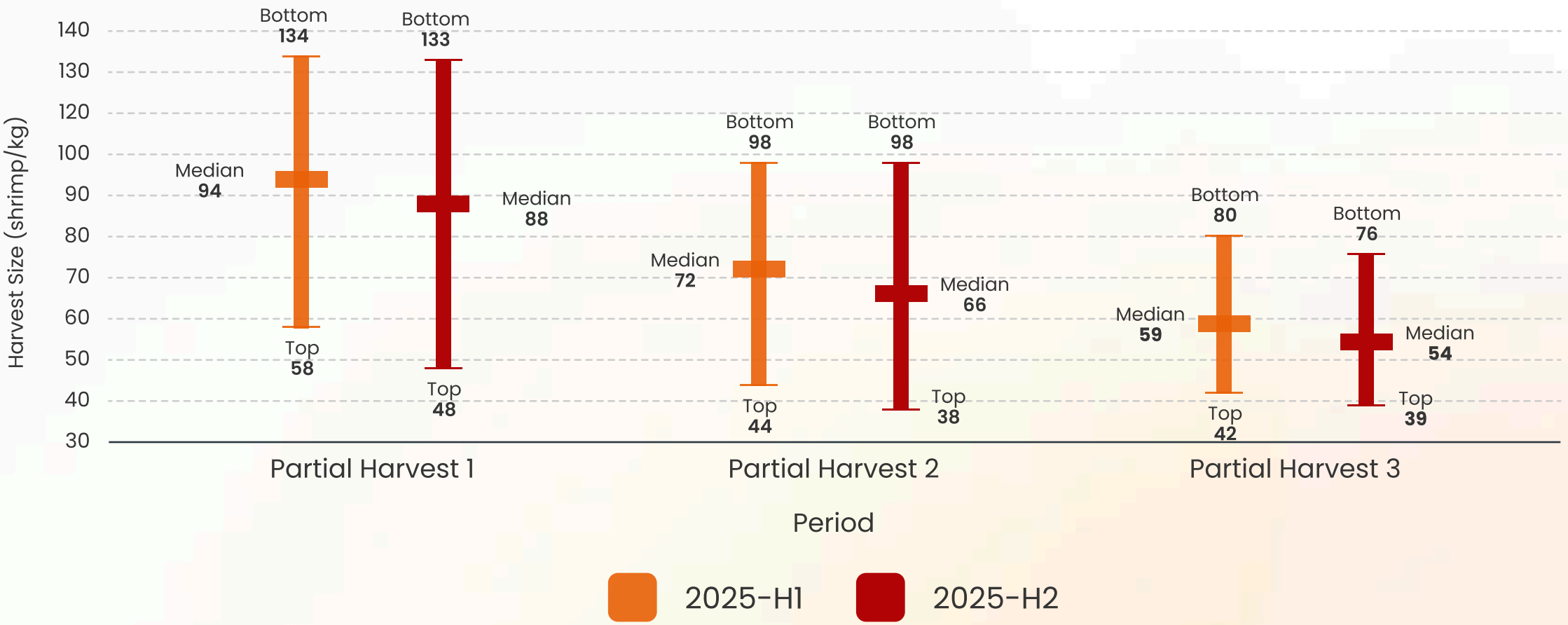


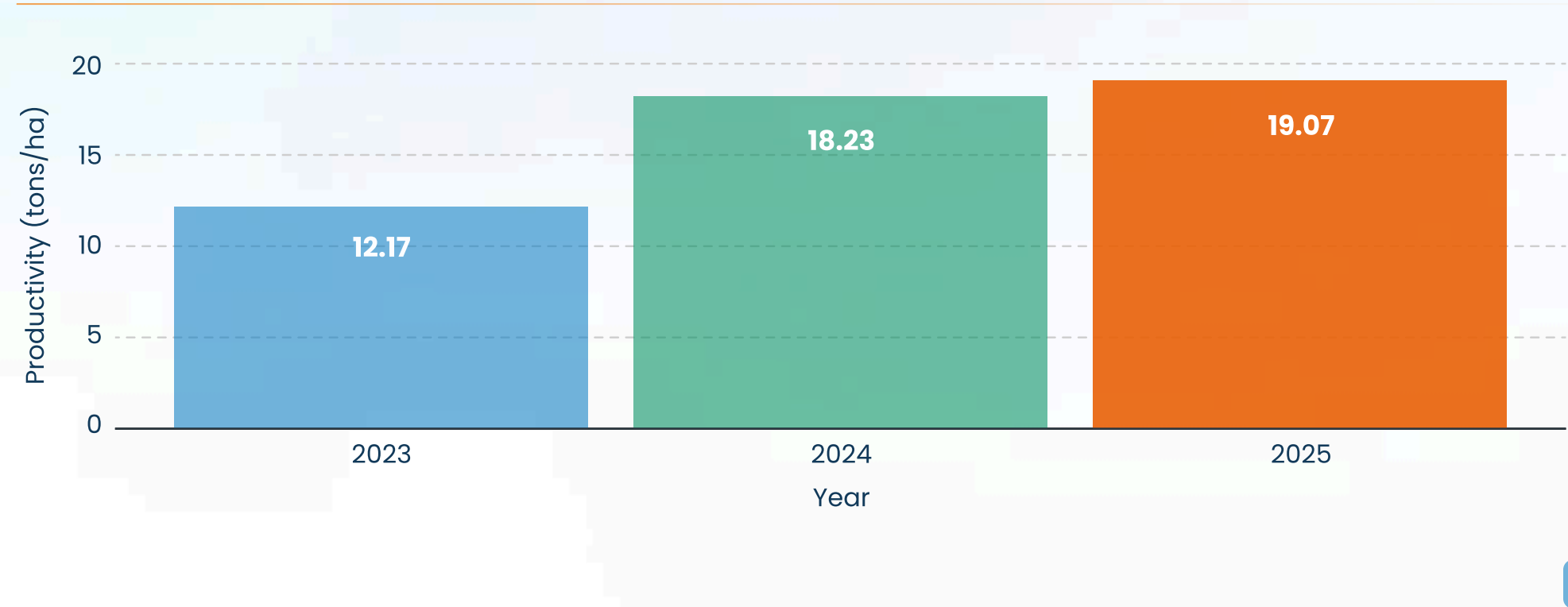
Figure 2.7. Shrimp Count at Partial Harvest



Cultivation Productivity Performance

The performance of Indonesia’s cultivation was evaluated based on productivity and cultivation efficiency indicators. In 2025, improvements were observed in shrimp growth, harvest size, and feed efficiency, although SR declined.

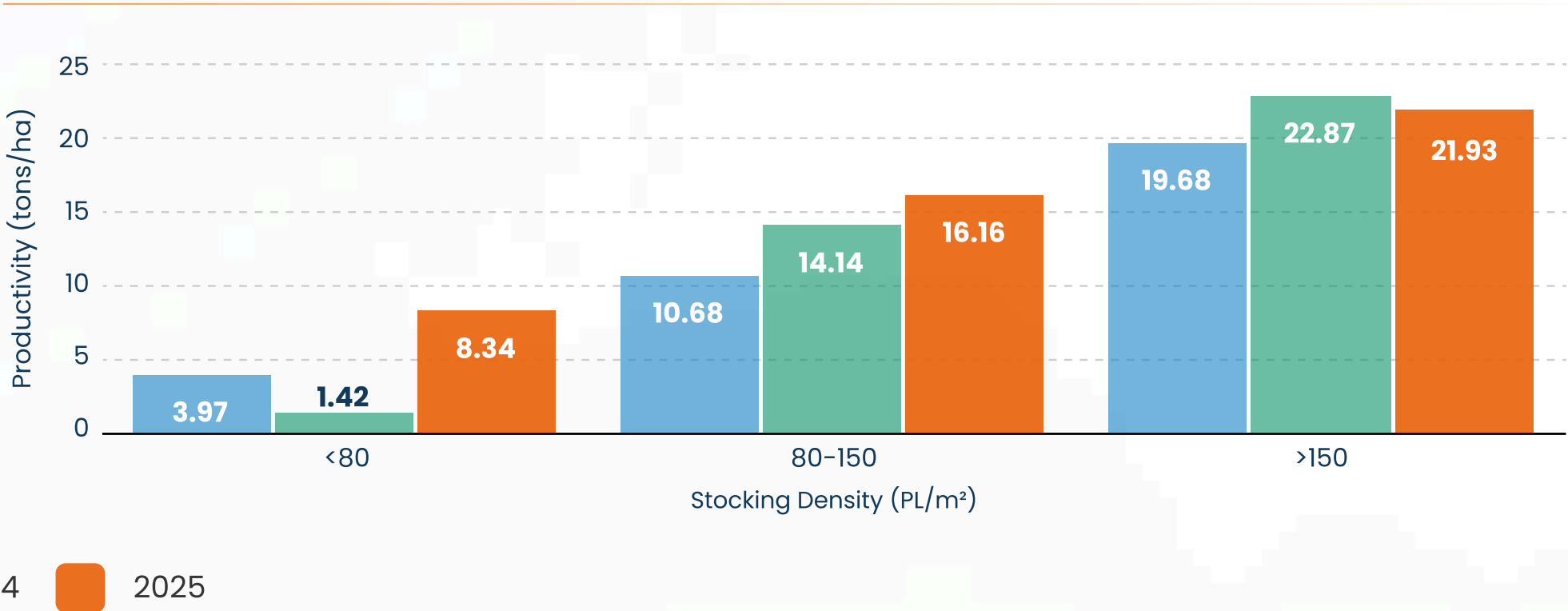
Figure 2.8. Median Productivity by Year



Productivity continues to improve

Median productivity of cultivation in Indonesia increased by 4.61%, rising from 18.23 tons/ha in 2024 to 19.07 tons/ha in 2025. Stocking densities below 80 PL/m² and between 80–150 PL/m² both recorded productivity gains, supported by improvements in SR performance, growth rate, and harvest size.

Figure 2.9. Median Productivity by Year and Stocking Density



In contrast, productivity declined at high stocking densities (>150 PL/m²). A review of related parameters indicates that SR remains a key factor requiring further evaluation due to its influence on overall productivity. While high stocking density is often applied as a strategy to maximize harvest biomass, it is important to recognize that associated risks also increase.

Figure 2.10. Comparison of Median Survival Rate (SR)

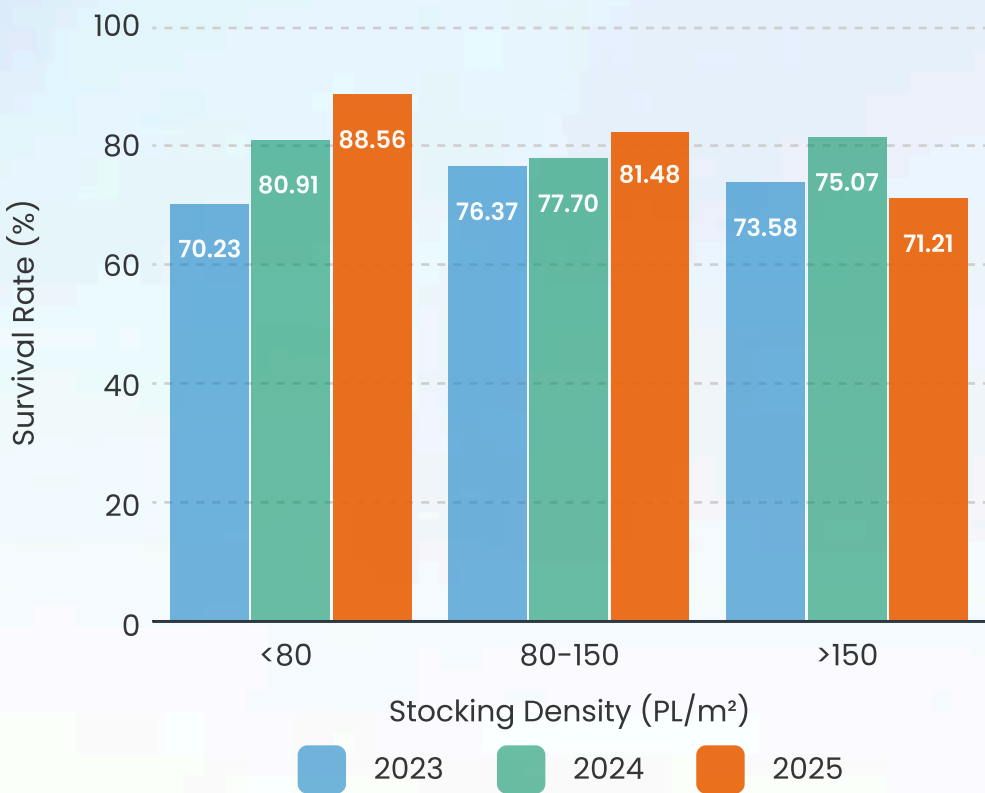
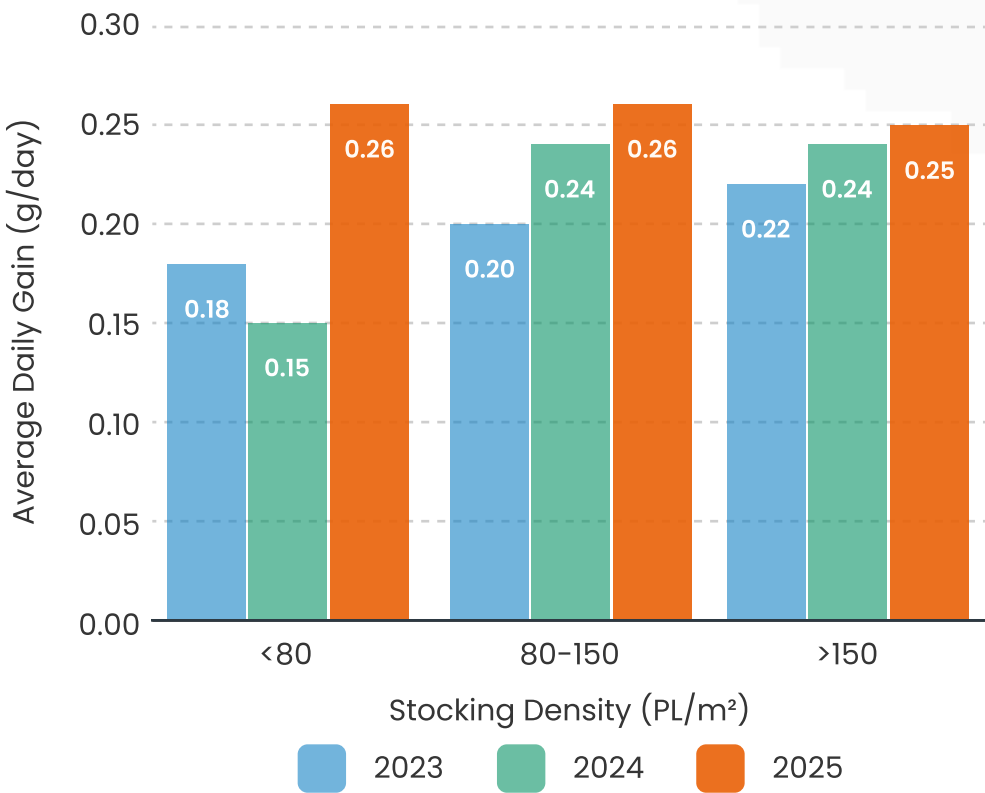


Figure 2.11. Comparison of Median Average Daily Gain (ADG)



SR declined at high stocking density

The most significant decline in SR occurred at high stocking densities (>150 PL/m²), with a decrease of 3.86% YoY. SR performance improved at stocking densities below 80 PL/m² and between 80–150 PL/m². Overall, median SR declined by 0.93%, from 76.41% in 2024 to 75.7% in 2025.

ADG increased across all stocking densities

Median ADG increased across all stocking density categories, rising from 0.24 g/day in 2024 to 0.26 g/day in 2025. The highest increase was recorded at stocking densities <80 PL/m², with growth reaching 8.33%.

Figure 2.12. Comparison of Median Harvest Size

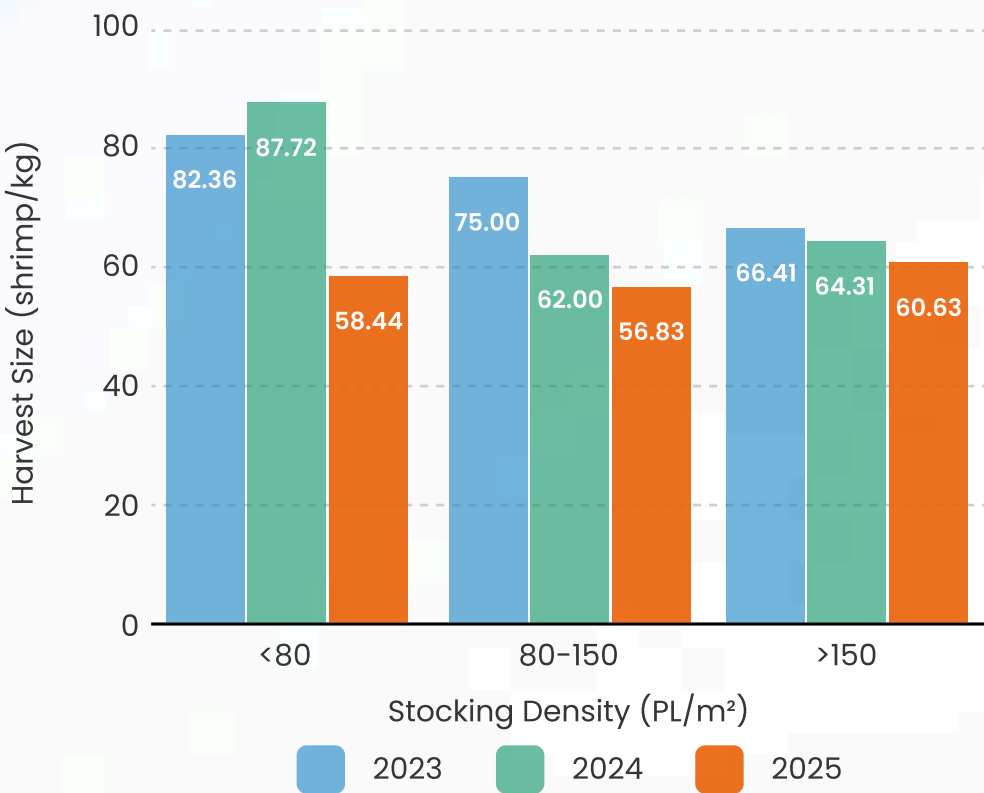
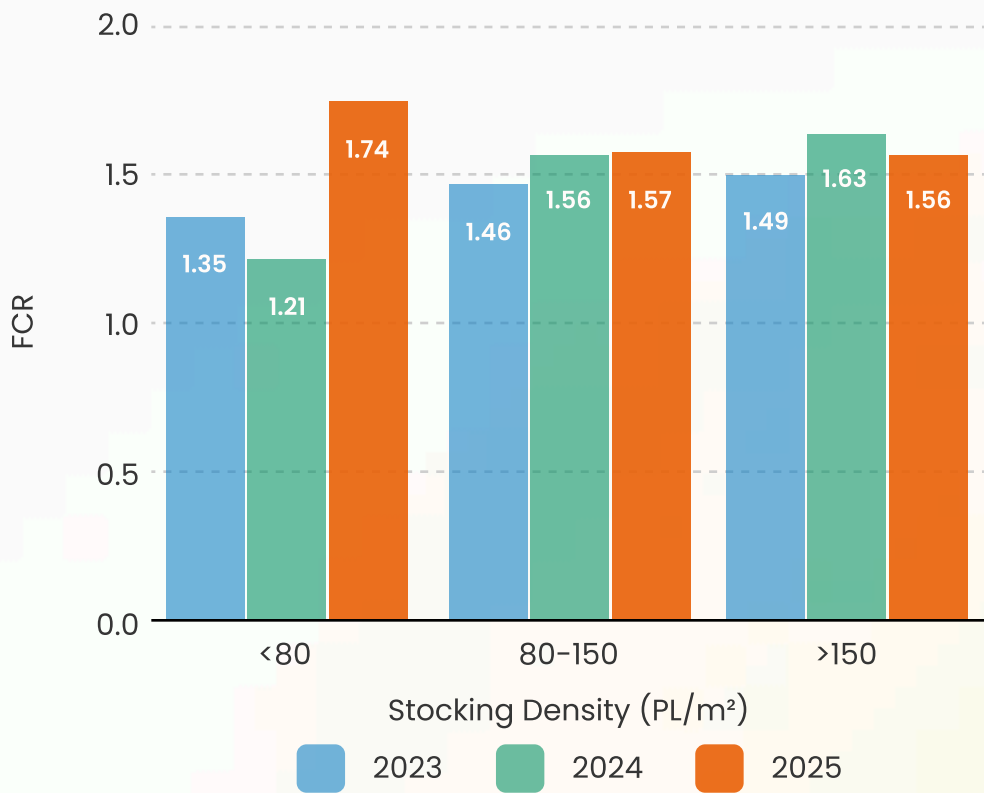


Figure 2.13. Comparison of Median Feed Conversion Ratio (FCR)



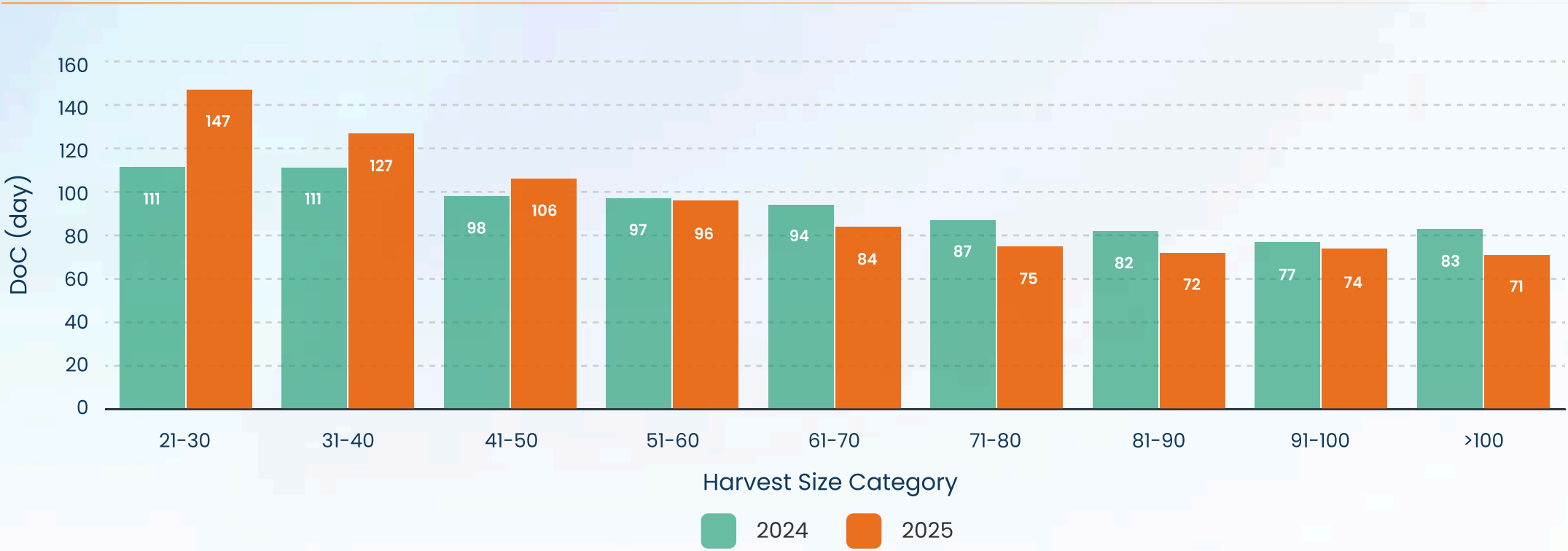
Trend toward larger harvest size

Harvest results in 2025 indicate larger shrimp counts across all stocking densities. Overall, the median harvest size improved from 64 shrimp/kg in 2024 to 59 shrimp/kg in 2025, particularly at stocking densities of 80–150 PL/m² and >150 PL/m².

Feed efficiency improved at high stocking density

Feed efficiency improved at high stocking densities (>150 PL/m²) in 2025. Meanwhile, FCR at stocking densities <80 PL/m² increased from 1.21 to 1.74, indicating lower efficiency, while FCR at 80–150 PL/m² remained relatively stable.

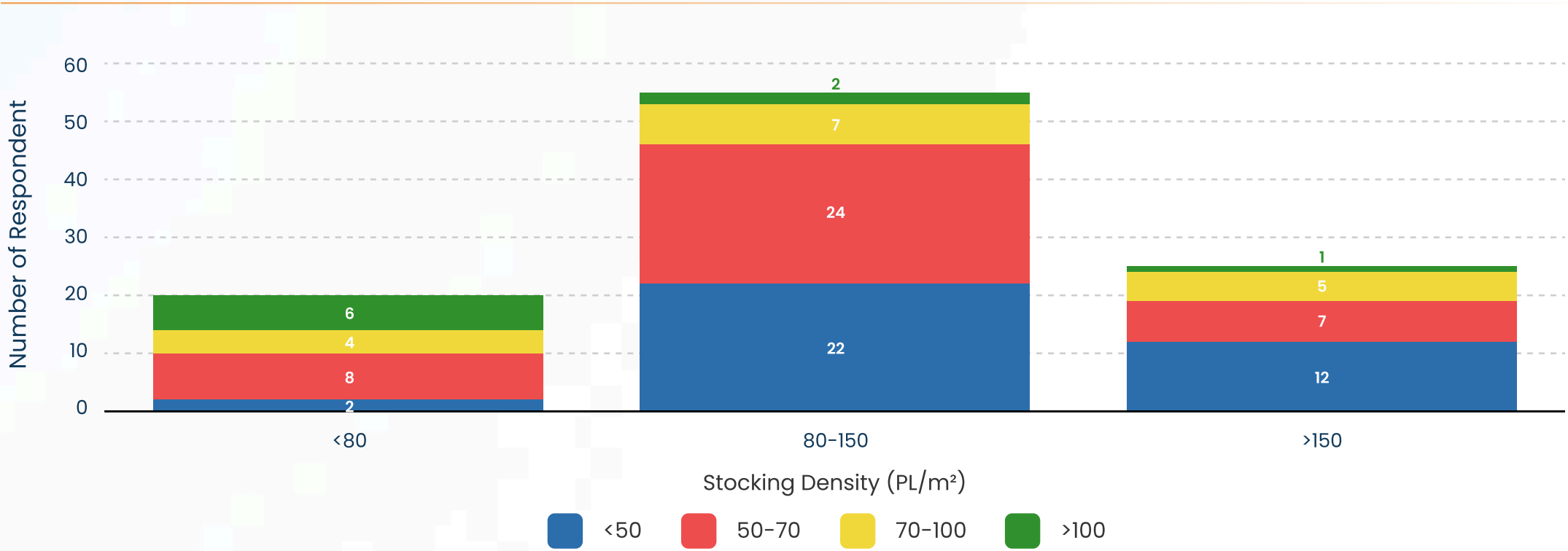
Figure 2.14. Comparison of Median DoC by Harvest Size



Longer cultivation duration required to achieve harvest size <50

The longest increase in DoC was observed in the 21–30 shrimp/kg and 31–40 shrimp/kg count categories, while DoC for counts >50 shrimp/kg was relatively shorter. Field analysis indicates that 30% of farms producing shrimp in the 21–50 shrimp/kg range use genetically resistant and balanced post larvae strains to adapt to environmental and water quality conditions. This approach is generally associated with slower ADG but offers a golden period following partial harvest. In addition, the presence of diseases such as EHP and WFS contributed to slower growth rates in achieving these target counts.

Figure 2.15. Harvest Size by Stocking Density (Source: JALA Survey 2025)



Harvest size performance by stocking density

Survey data show that 39% of farmers achieved harvest sizes ranging from 50–70 shrimp/kg. Based on stocking density, farms operating at <80 PL/m² and 80–150 PL/m² were predominantly associated with harvest sizes of 50–70 shrimp/kg. Meanwhile, high stocking density (>150 PL/m²) generally produced harvest sizes <50 shrimp/kg.

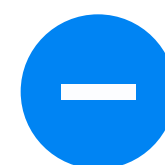
Cultivation Performance Benchmark

In this section, cultivation performance is compared across categories based on the statistical distribution of performance data. The following definitions are applied:



Top Performance

Cultivation cycles with the **highest performance values**, representing the top 10% of the dataset.



Median Performance

Cultivation cycles with **performance values positioned at the midpoint (50%)** of the dataset.



Bottom Performance

Cultivation cycles with the **lowest performance values**, representing the bottom 10% of the dataset.

Cultivation cycles under these categories are then compared across several key parameters, namely productivity, SR, FCR, and ADG. This comparison aims to identify parameters that are already optimized and those that require further improvement.

General comparison across three cultivation performance categories

Cultivation cycles in 2025 showed improvement in the top and median categories, particularly in terms of productivity, ADG, and FCR. SR was the only parameter that declined compared with the previous year.

Table 2.1. Overview of Cultivation Performance

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	38.43	41.13	18.23	19.07	5.36	7.99
SR (%)	100.00	100.00	76.41	75.70	44.06	43.94
FCR	1.17	1.16	1.59	1.57	2.15	2.20
ADG (g/day)	0.36	0.37	0.24	0.26	0.13	0.16

⬆️ Top performance

Productivity recorded the most significant improvement. Meanwhile, SR, ADG, and FCR in the top performance category remained relatively stable.

➡️ Median performance

Productivity, FCR, and ADG in 2025 collectively improved compared with the previous year. SR was the only parameter that declined, decreasing by 0.71% in 2025.

⬇️ Bottom performance

Productivity and ADG in 2025 performed better than in 2024. However, SR and FCR in this category experienced slight declines.

Performance comparison of farms with low stocking density (<80 PL/m²)

Cultivation cycles with low stocking density showed improvement in 2025. This was reflected in higher productivity, SR, and ADG, while FCR was the only parameter that declined in performance. The following performance comparisons across low stocking density.

Table 2.2. Cultivation Performance in Low Stocking Density Farms (<80 PL/m²)

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	8.33	27.78	1.42	8.34	0.33	1.51
SR (%)	100.00	100.00	80.91	88.56	50.14	46.25
FCR	0.75	0.80	1.20	1.74	1.95	2.10
ADG (g/day)	0.29	0.33	0.15	0.26	0.09	0.16

⬆️ Top performance

In the top performance category, the most notable improvement was the sharp increase in productivity, supported by stronger ADG and a slight decline in FCR performance.

➡️ Median performance

Productivity, SR, and ADG in the median performance category increased. However, FCR worsened quite significantly.

⬇️ Bottom performance

SR in the bottom performance category in 2025 declined compared with the previous year. Productivity and ADG increased, while FCR efficiency decreased by 7.69%.

Performance comparison of farms with medium stocking density (80–150 PL/m²)

Cultivation cycles within this stocking density range showed improvement, reflected in higher productivity, SR, and ADG, while FCR was only slightly adjusted compared with the previous year. Comparison across medium stocking density is as follows.

Table 2.3. Cultivation Performance in Medium Stocking Density Farms (80–150 PL/m²)

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	26.9	28.26	14.14	16.16	5.47	7.02
SR (%)	100.00	100.00	77.70	81.48	44.04	47.11
FCR	1.19	1.15	1.56	1.57	2.09	2.21
ADG (g/day)	0.34	0.36	0.24	0.26	0.13	0.18

- ^

Top performance

Productivity increased significantly in the top performance category, supported by modest improvements in FCR and ADG.
- Median performance

Productivity recorded the largest increase, reaching 14.29%. This was followed by improvements in SR and ADG. However, FCR declined slightly.
- ∨

Bottom performance

FCR increased by 5.74% in 2025, indicating lower feed efficiency. Nevertheless, productivity, SR, and ADG improved in the bottom performance category.

Performance comparison of farms with high stocking density (>150 PL/m²)

Cultivation cycles with high stocking density (>150 PL/m²) consistently showed improvements in FCR. However, challenges remained in achieving final productivity and SR. Detailed comparison across high stocking density categories as follows.

Table 2.4. Cultivation Performance in High Stocking Density Farms(>150 PL/m²)

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	48.71	46.81	22.87	21.93	10.22	10.35
SR (%)	98.91	100.00	75.07	71.21	43.87	41.60
FCR	1.21	1.18	1.63	1.56	2.25	2.19
ADG (g/day)	0.38	0.37	0.24	0.25	0.14	0.15

- ^

Top performance

In this category, FCR and SR improved. ADG was slightly adjusted downward, which also contributed to a notable decline in productivity in 2025.
- Median performance

Shrimp growth rate increased slightly, supported by improved feed efficiency of 4.29%. However, productivity declined, accompanied by a decrease in SR.
- ∨

Bottom performance

In this category, productivity, FCR, and ADG showed slight improvements. SR was the only parameter that declined in 2025.

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Outlook

Regional cultivation Performance



Cultivation Dynamics in Western Region

Shorter duration with high stocking density still dominant

Figure 3.1. Median DoC of Cultivation in Western Region

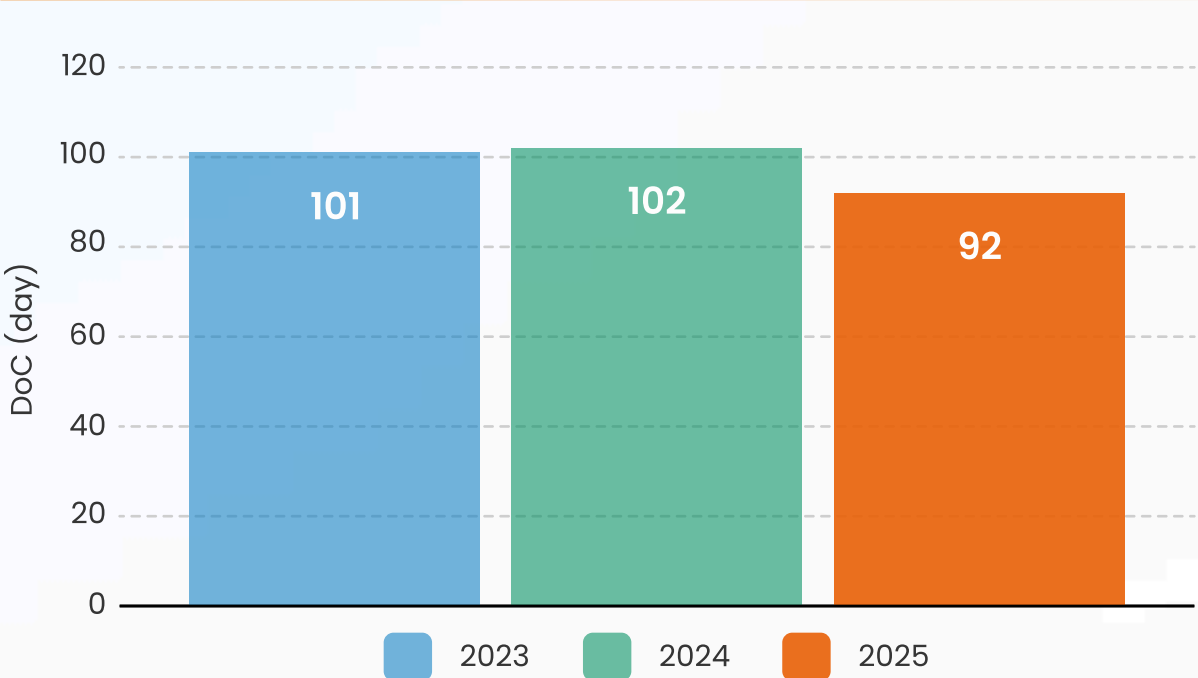
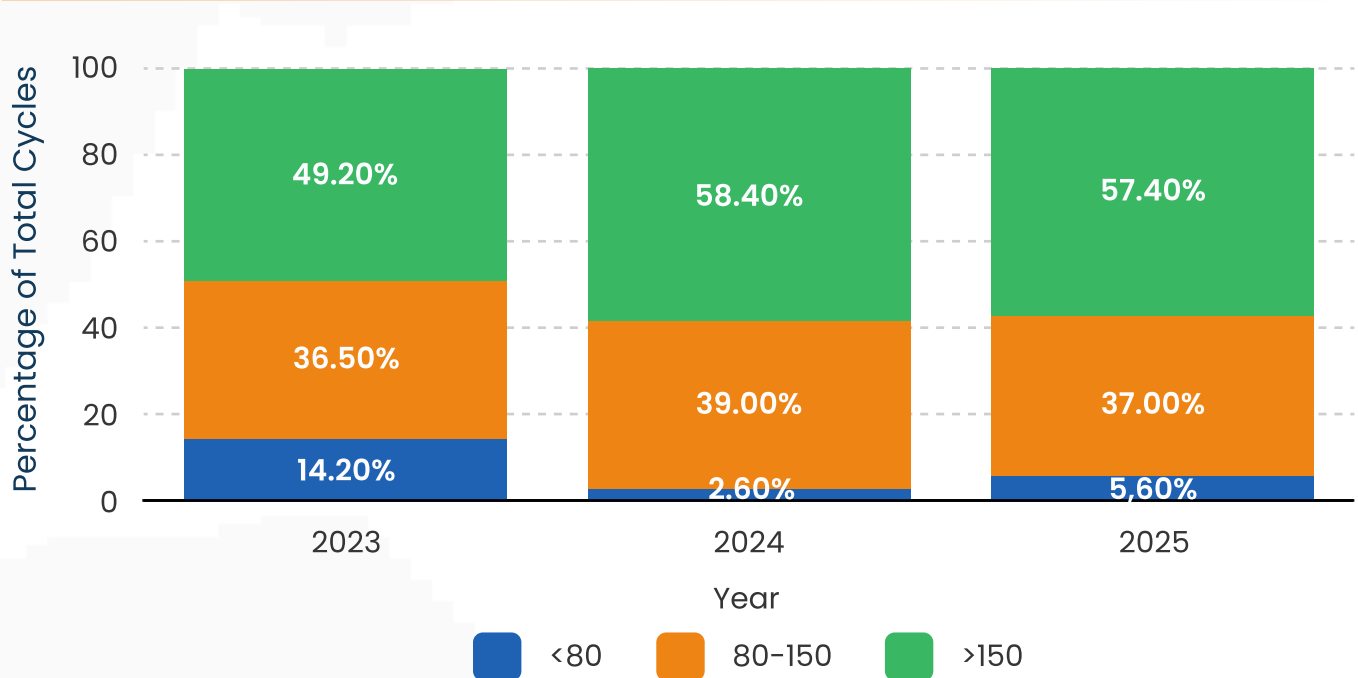


Figure 3.2. Proportion Number of Cycles by Stocking Density in Western Region



Cultivation duration in western region became shorter, with the median DoC declining to 92 days in 2025 after remaining above 100 days over the past two years. Based on field information, the shorter culture period was partly influenced by the continued prevalence of diseases such as IMNV and EHP, including cases reported in Bangka Belitung.

In terms of stocking density distribution, western region continued to be dominated by high stocking densities (>150 PL/m²). The proportion of both high and medium stocking densities declined slightly by 1–2% compared to 2024. Proportionally, cultivation in the western region that applied high stocking density systems were concentrated in areas such as Bangka and Aceh, supported by relatively favorable environmental conditions.

Table 3.1. Comparison of Cultivation Performance in Western Region

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	33.70	28.50	19.46	19.22	7.29	8.50
SR (%)	98.76	99.71	72.90	66.91	43.47	40.49
FCR	1.42	1.33	1.76	1.81	2.26	2.41
ADG (g/day)	0.34	0.34	0.24	0.26	0.15	0.20

Figure 3.3. Median Productivity of Cultivation in Western Region

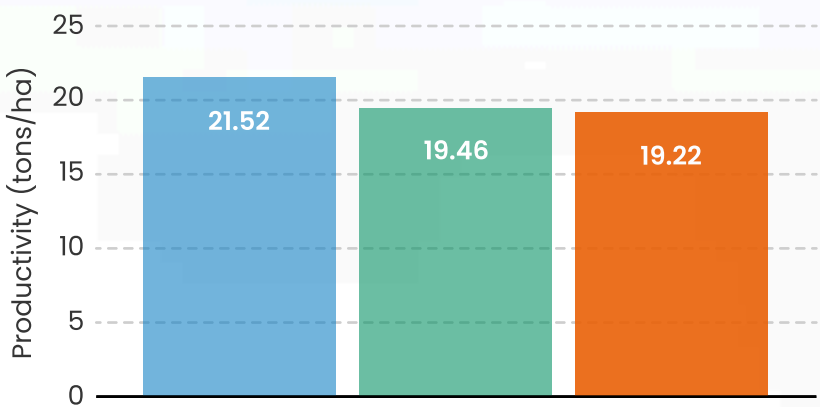


Figure 3.4. Median Survival Rate of Cultivation in Western Region

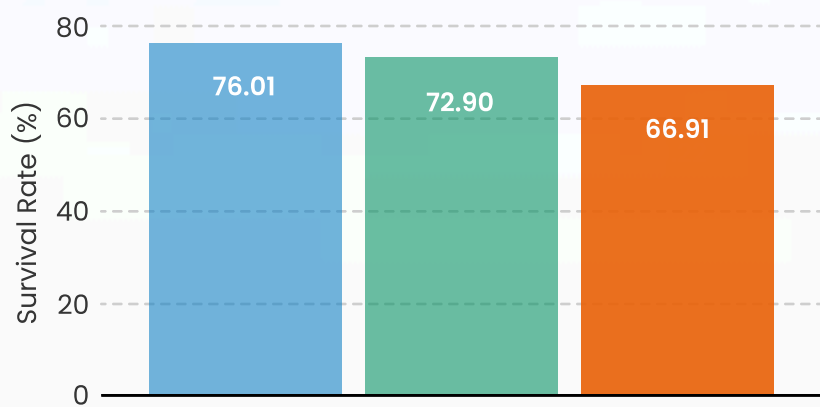


Figure 3.5. Median FCR of Cultivation in Western Region

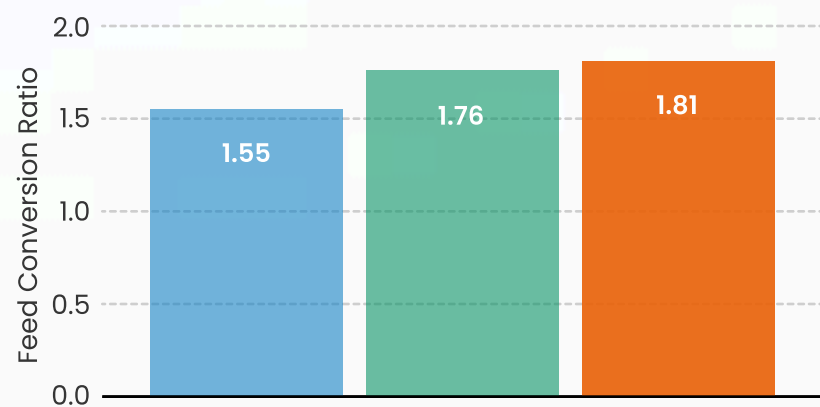


Figure 3.6. Median ADG of Cultivation in Western Region

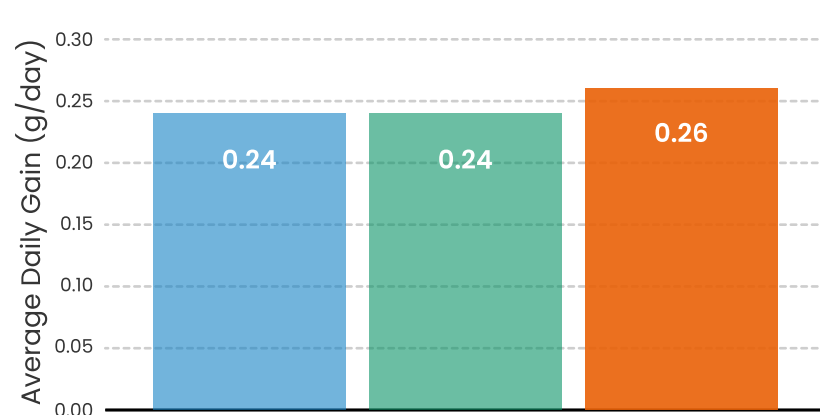
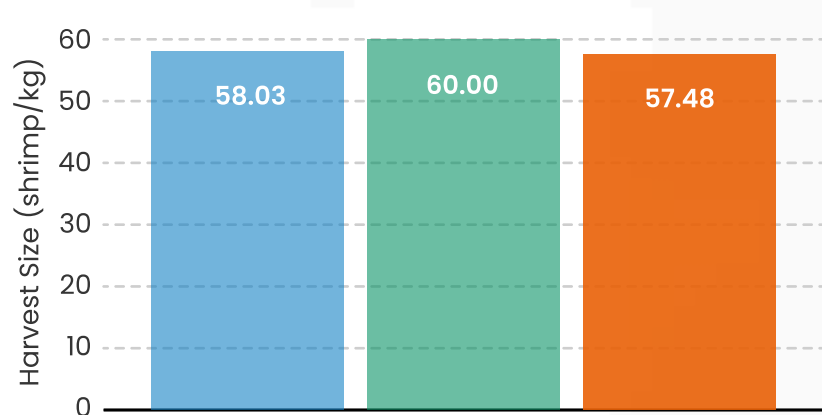


Figure 3.7. Median Harvest Size of Cultivation in Western Region



2023 2024 2025

Productivity and SR declined

Cultivation performance in western region showed uneven variability across segments. In the top performance category, productivity declined by 15.43%, despite 0.95% increase in SR, 6.34% improvement in FCR, and relatively stable ADG. In median performance, both productivity (-1.23%) and SR (-5.99%) decreased, while ADG increased. However, FCR worsened slightly, rising from 1.76 to 1.81. Meanwhile, the bottom performance recorded a 16.60% increase in productivity, supported by the highest ADG growth of 33.33%. Nevertheless, SR and FCR performance declined in this segment.

Performance in western region was also influenced by disease risks, including EHP, WFS, and IMNV, as well as flash floods that occurred at the end of 2025, which disrupted farm operations and damaged pond infrastructure. According to data from CeKolam, Bangka Belitung recorded an average IMNV positivity rate of 32.05% and EHP of 17.38%, both of which had a substantial impact on cultivation performance.



Cultivation Dynamics in Central Region

Longer duration with a shift toward higher stocking density

Figure 3.8. Median DoC of Cultivation in Central Region

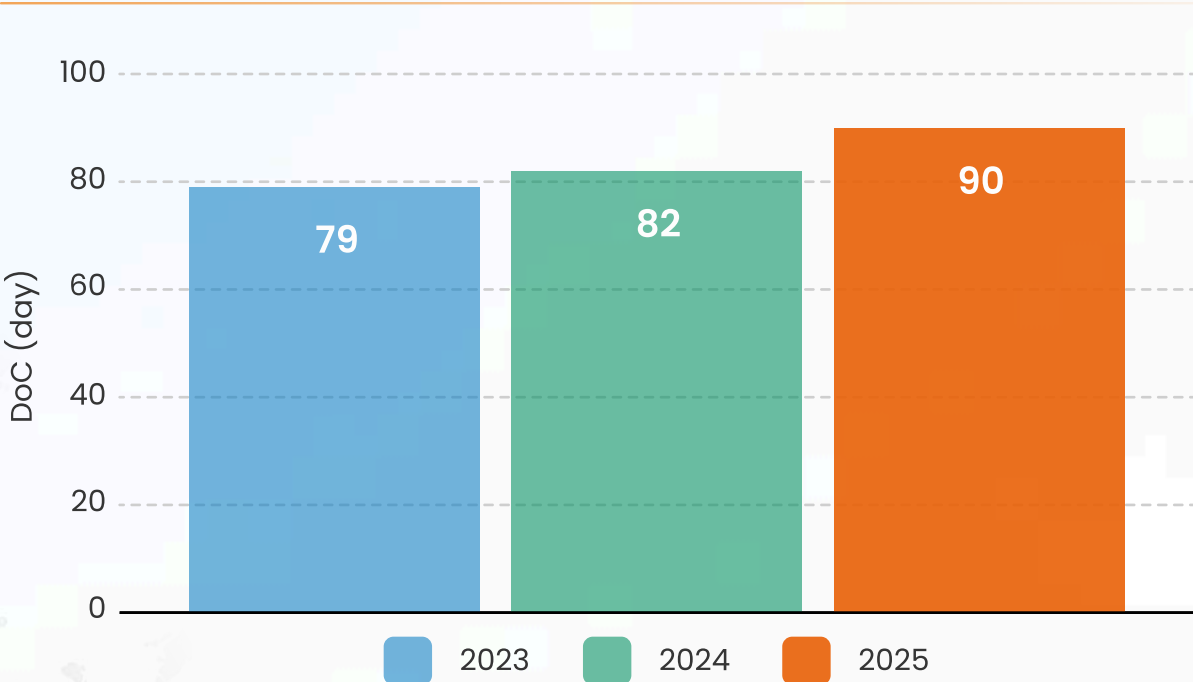
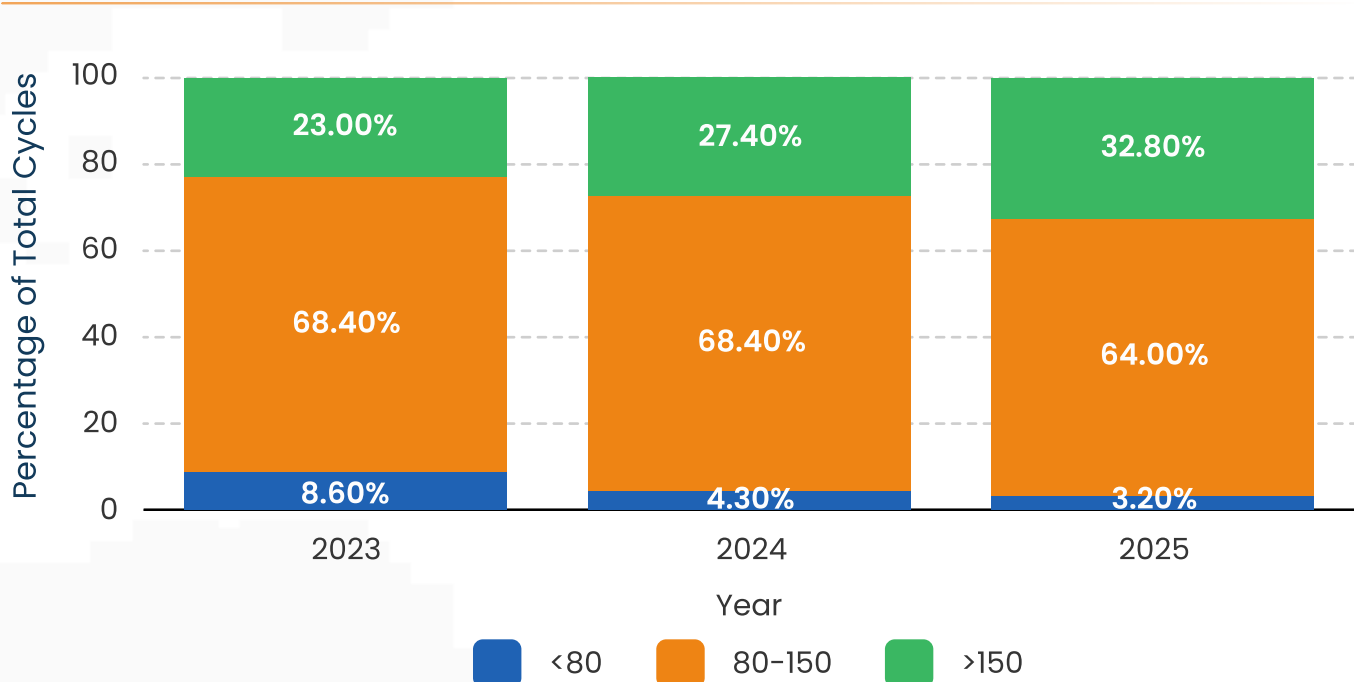


Figure 3.9. Proportion Number of Cycles by Stocking Density in Central Region



Central region recorded the most significant increase in cultivation duration, with the median DoC rising from 82 days to 90 days in 2025. The region also showed a shift in stocking behavior toward higher densities, reflected in the increased proportion of cycles with stocking densities >150 PL/m². However, in terms of overall distribution, stocking density selection remained concentrated in the medium category (80–150 PL/m²), as farmers aimed to maintain cultivation stability while keeping production costs under control.

Table 3.2. Comparison of Cultivation Performance in Central Region

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	28.07	41.25	12.04	18.30	4.31	8.01
SR (%)	100.00	100.00	78.12	86.10	43.06	57.68
FCR	1.08	1.09	1.45	1.39	2.02	1.74
ADG (g/day)	0.34	0.39	0.23	0.27	0.10	0.18

Figure 3.10. Median Productivity of Cultivation in Western Region

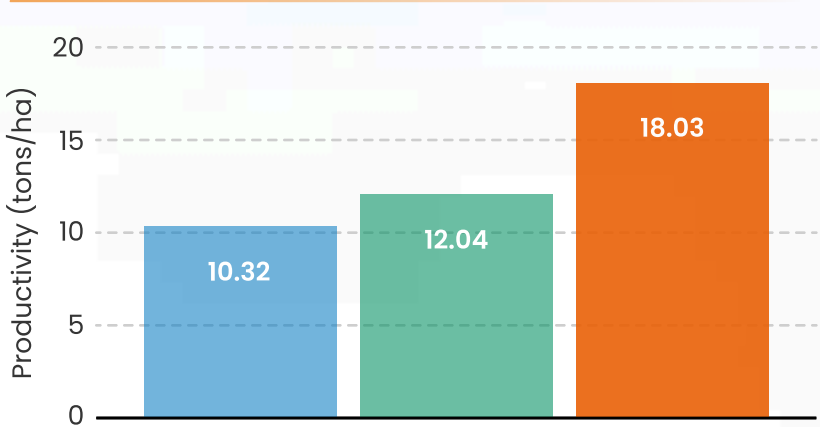


Figure 3.11. Median Survival Rate of Cultivation in Central Region

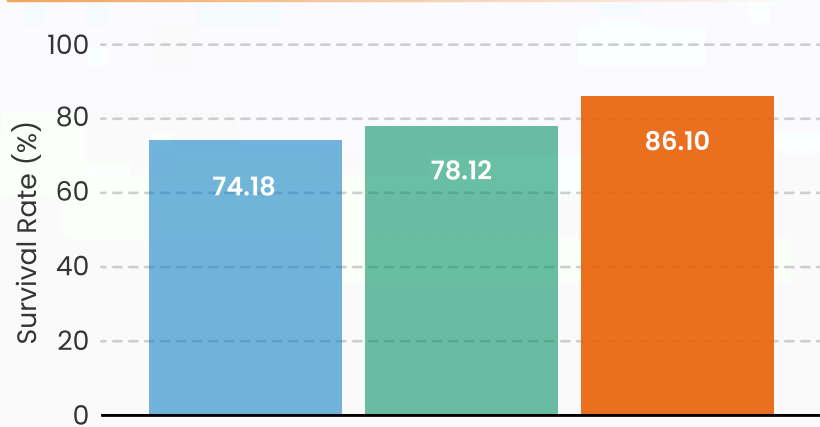


Figure 3.12. Median FCR of Cultivation in Central Region

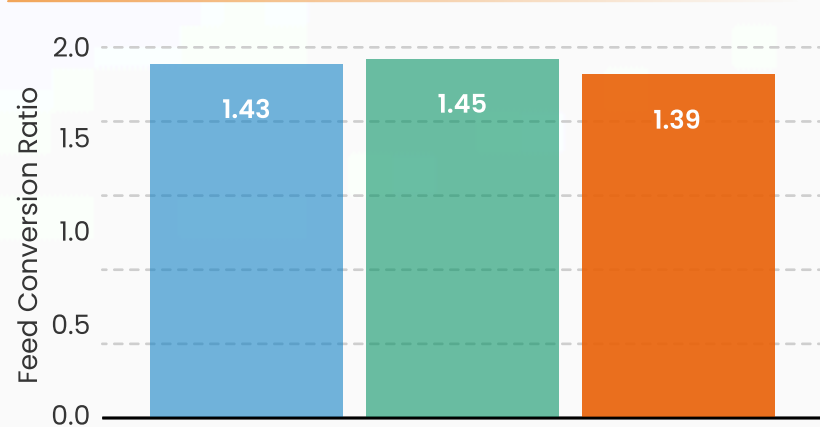


Figure 3.13. Median ADG of Cultivation in Central Region

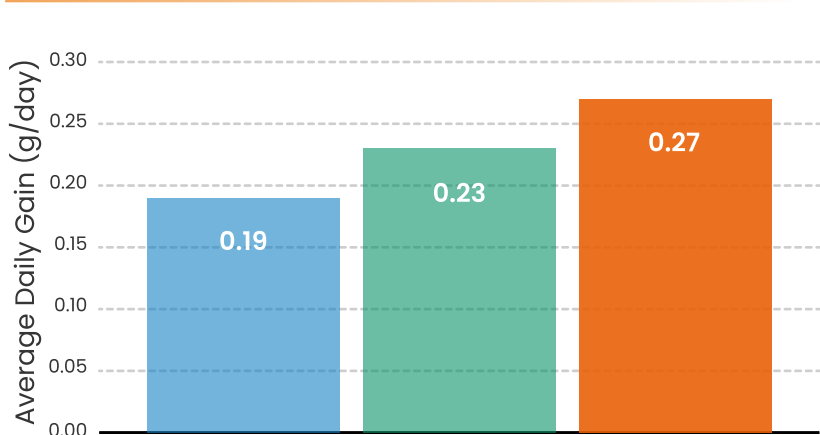
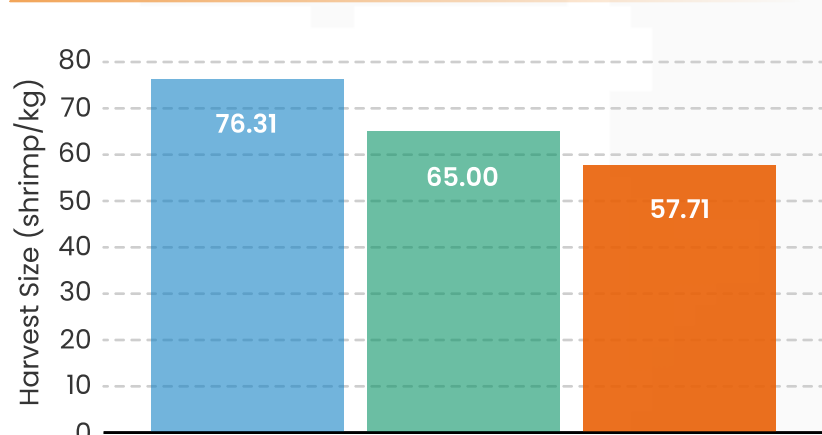


Figure 3.14. Median Harvest Size of Cultivation in Central Region



2023 2024 2025

Majority recorded improved cultivation performance

Overall, cultivation performance in central region improved in 2025. In the top performance category, productivity increased by 46.95%, accompanied by higher ADG and relatively stable FCR. In the median category, productivity rose by 51.99%, while SR improved by 7.98%, followed by increases in ADG and improved feed efficiency. In the bottom category, productivity increased significantly from 4.31 tons/ha to 8.01 tons/ha. This improvement was supported by an increase in SR from 44.06% to 57.68%, more efficient FCR, and higher ADG.

The performance surge in central region was the most significant among all regions, driven by improvements in median SR, FCR, ADG, and harvest size. As a result, overall productivity increased 51% compared to 2024. Despite ongoing disease challenges, CeKolam data indicate average positivity rates of 11.87% for EHP, 15.81% for IMNV, 11.88% for AHPND, and 7.72% for WSSV. Nevertheless, the region continued to record strong cultivation performance overall.



Cultivation Dynamics in Eastern Region

Stable cultivation duration with increasing dominance of high stocking density

Figure 3.15. Median DoC of Cultivation in Eastern Region

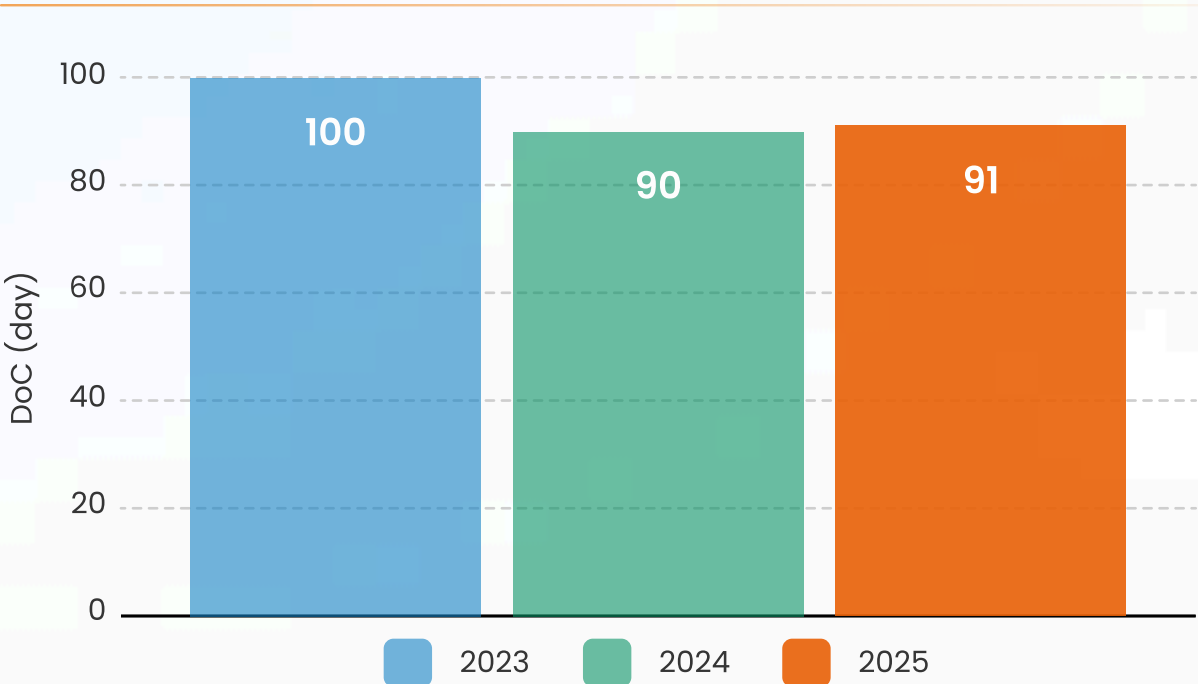
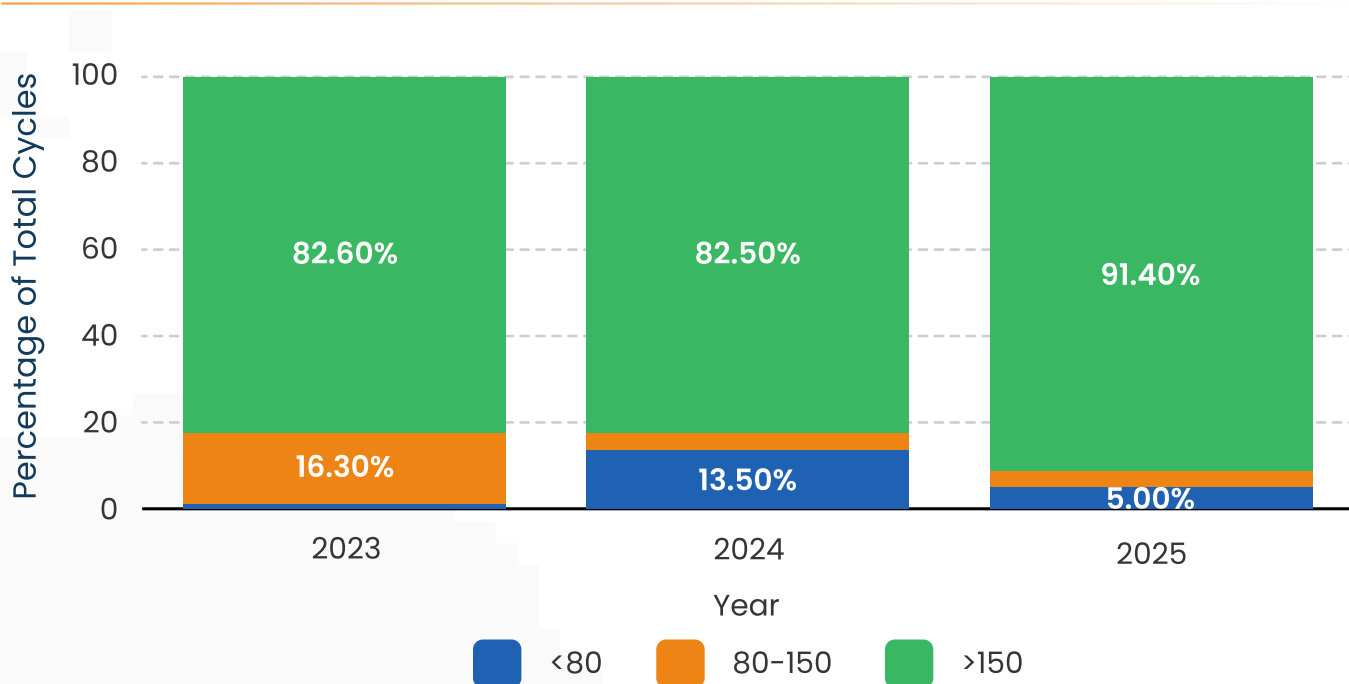


Figure 3.16. Proportion Number of Cycles by Stocking Density in Eastern Region



Median DoC in eastern region was one day longer compared to the 2024 median. This trend was influenced by cultivation practices in areas such as Sumbawa and Sulawesi, where farmers tended to delay harvest as a strategy to wait for shrimp prices to improve and maintain profit margins.

Farmers in eastern region continued to be dominated by high stocking densities (>150 PL/m²). In fact, 90% of cultivations in the region now applied high stocking density systems. In eastern region, shrimp prices are relatively lower compared to other regions, prompting farmers to pursue higher productivity by adopting intensive, high stocking density practices.

Table 3.3. Comparison of Cultivation Performance in Eastern Region

	Top Performance		Median Performance		Bottom Performance	
	2024	2025	2024	2025	2024	2025
Productivity (tons/ha)	60.12	55.17	28.40	28.33	1.50	7.00
SR (%)	100.00	100.00	72.90	85.24	45.62	43.89
FCR	1.05	0.89	1.44	1.46	2.12	1.82
ADG (g/day)	0.39	0.38	0.25	0.21	0.14	0.11

Figure 3.17. Median Productivity of Cultivation in Eastern Region

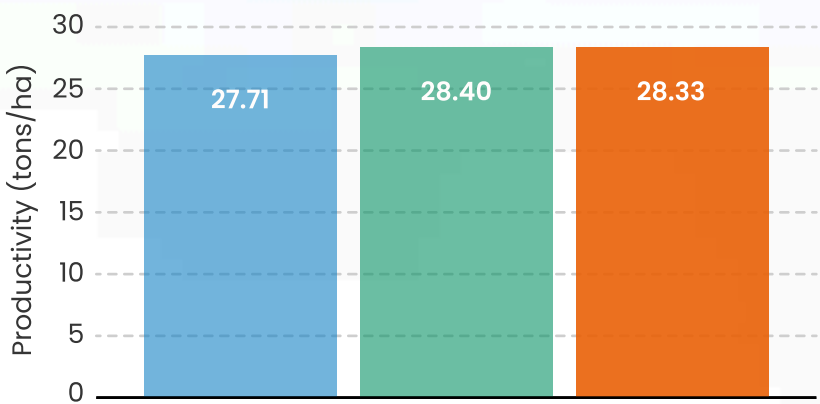


Figure 3.18. Median Survival Rate of Cultivation in Eastern Region

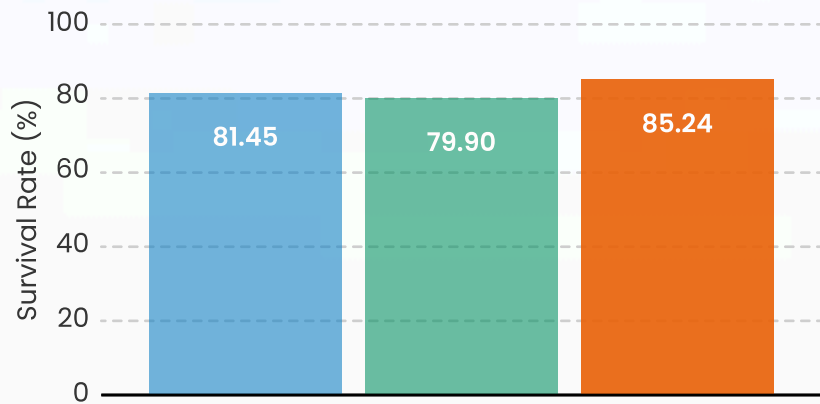


Figure 3.19. Median FCR of Cultivation in Eastern Region

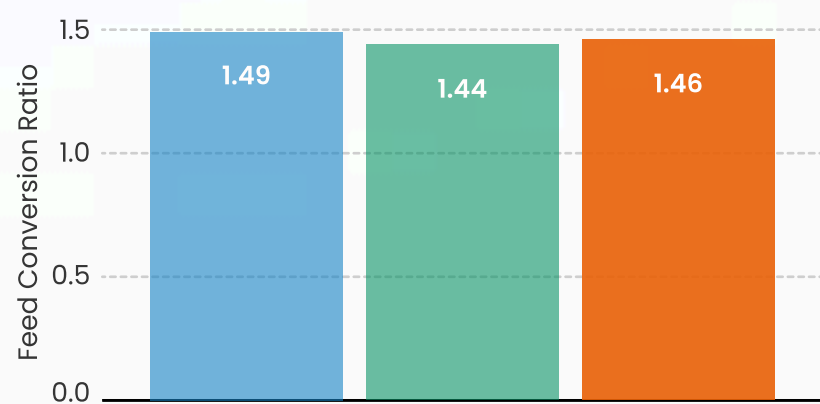


Figure 3.20. Median ADG of Cultivation in Eastern Region

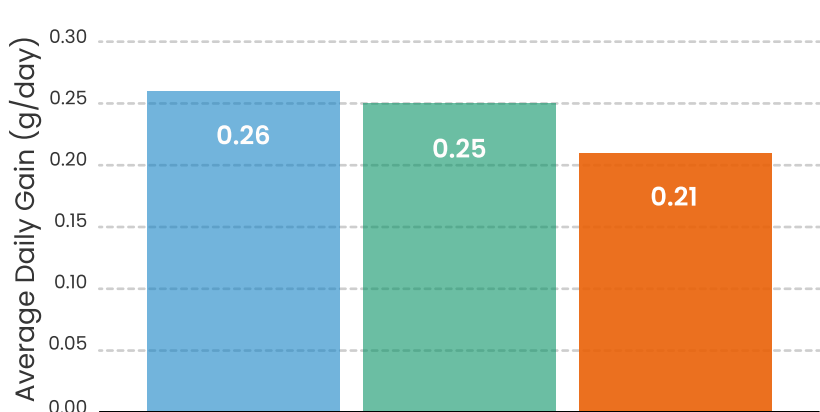
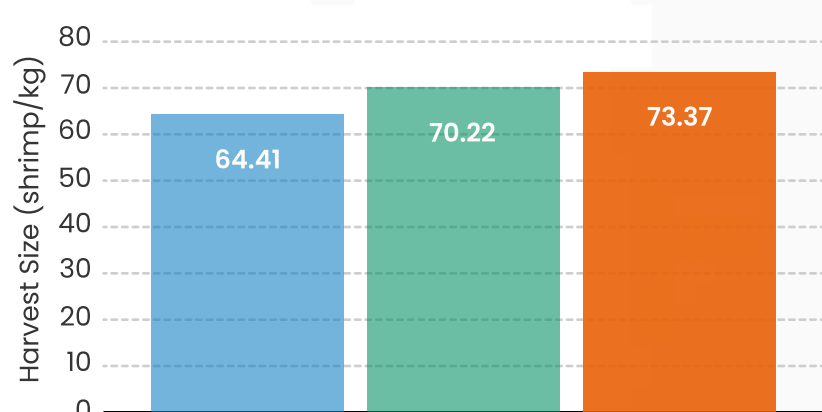


Figure 3.21. Median Harvest Size of Cultivation in Eastern Region



2023 2024 2025

Slower shrimp growth and its impact on productivity

Top performance category in eastern region recorded a decline in productivity in 2025, decreasing from 60.12 tons/ha to 55.17 tons/ha. However, FCR improved from 1.05 to 0.89, while ADG and SR remained relatively stable. In the median category, productivity tended to remain stable, but ADG declined from 0.25 g/day to 0.21 g/day. In the bottom category, productivity increased significantly, rising 3.6 times from 1.5 tons/ha to 7 tons/ha, although ADG declined from 0.14 g/day to 0.11 g/day.

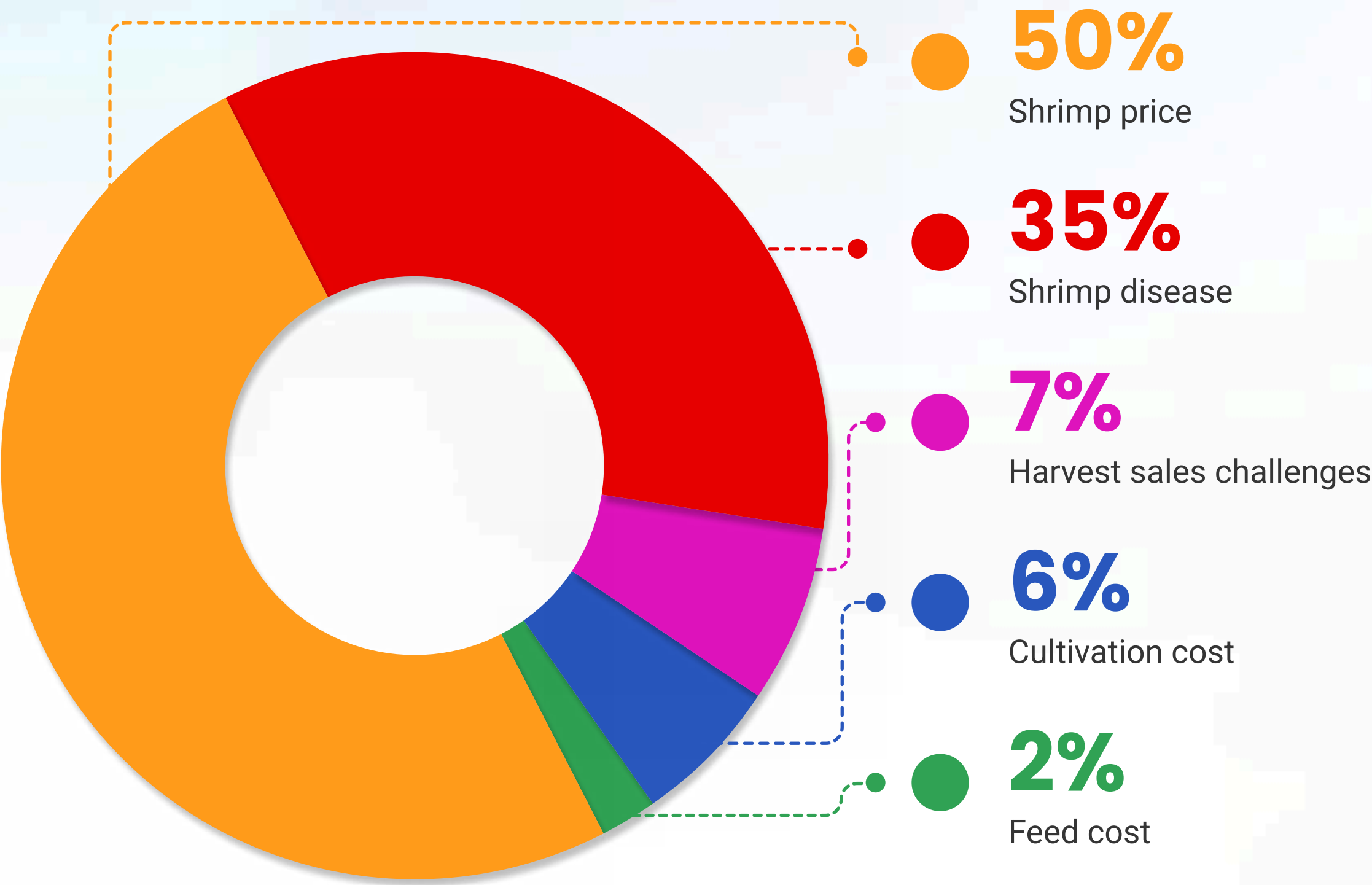
The slowdown in ADG across eastern region was influenced by disease risks such as EHP and WFS, which hinder shrimp growth rates. Based on CeKolam data, Nusa Tenggara recorded positivity rates of 12.53% for IMNV, 7.91% for EHP, and 5.72% for AHPND, along with the emergence of WMS. As a result, farmers shifted their focus toward accelerating shrimp growth during the early phase of the culture cycle. Meanwhile, in Sulawesi, challenges arising from storms in Philippines, combined with the presence of EHP and WFS, contributed to slower shrimp growth.

JALA

Shrimp²⁰
Outlook

4 Issues and Challenges

Figure 4.1. Cultivation Issues in Indonesia (Source: JALA Survey 2025)



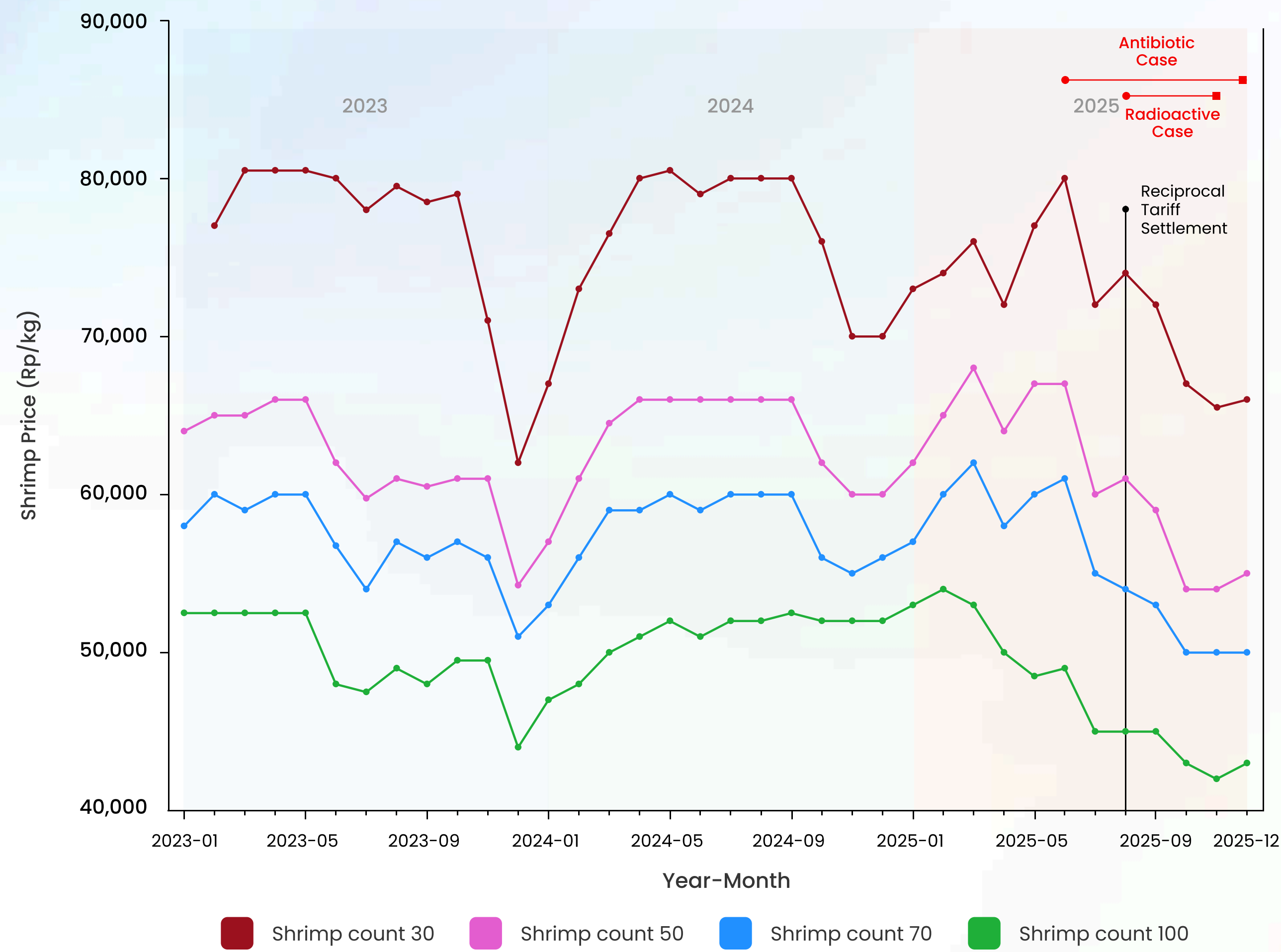
Issues Faced by Shrimp Farmers

Shrimp prices remain the main issue for farmers

Based on survey results on factors disrupting cultivation operations, the majority of shrimp farmers (50%) identified shrimp prices as the most significant issue affecting cultivation dynamics in 2025. The second major challenge was shrimp disease, cited by 35% of farmers. In contrast, disease was the primary concern in 2024, affecting 40% of farmers.

The survey also explored other issues disrupting cultivation operations. Around 33% reported market-related challenges, including radioactive and antibiotic issues, which disrupted their focus on cultivation activities. Meanwhile, 30% of farmers indicated that climate-related factors also posed significant challenges to smooth cultivation operations.

Figure 4.2 Shrimp Price Fluctuations in Indonesia (January 2023–December 2025)



Shrimp Price Fluctuations

Shrimp count 100 is the most vulnerable to price changes

When analyzed by category, shrimp count 100 showed relatively high price volatility, indicating this shrimp count segment is more sensitive to market pressures. In 2025, prices for shrimp count 30 reached their lowest point, following a similar decline previously observed in 2024. Moreover, prices for shrimp count 50, 70, and 100 in 2025 were lower compared to 2024 levels.

Price trends across four shrimp count categories declined from 2023 through November 2025. Between June-December 2025, the market experienced significant fluctuations due to antibiotic issues, Trump tariff policies, and radioactive contamination. Nevertheless, shrimp prices had temporarily increased during February–June 2025 period. Toward the end of 2025, prices rebounded as shrimp export shipments to US resumed.

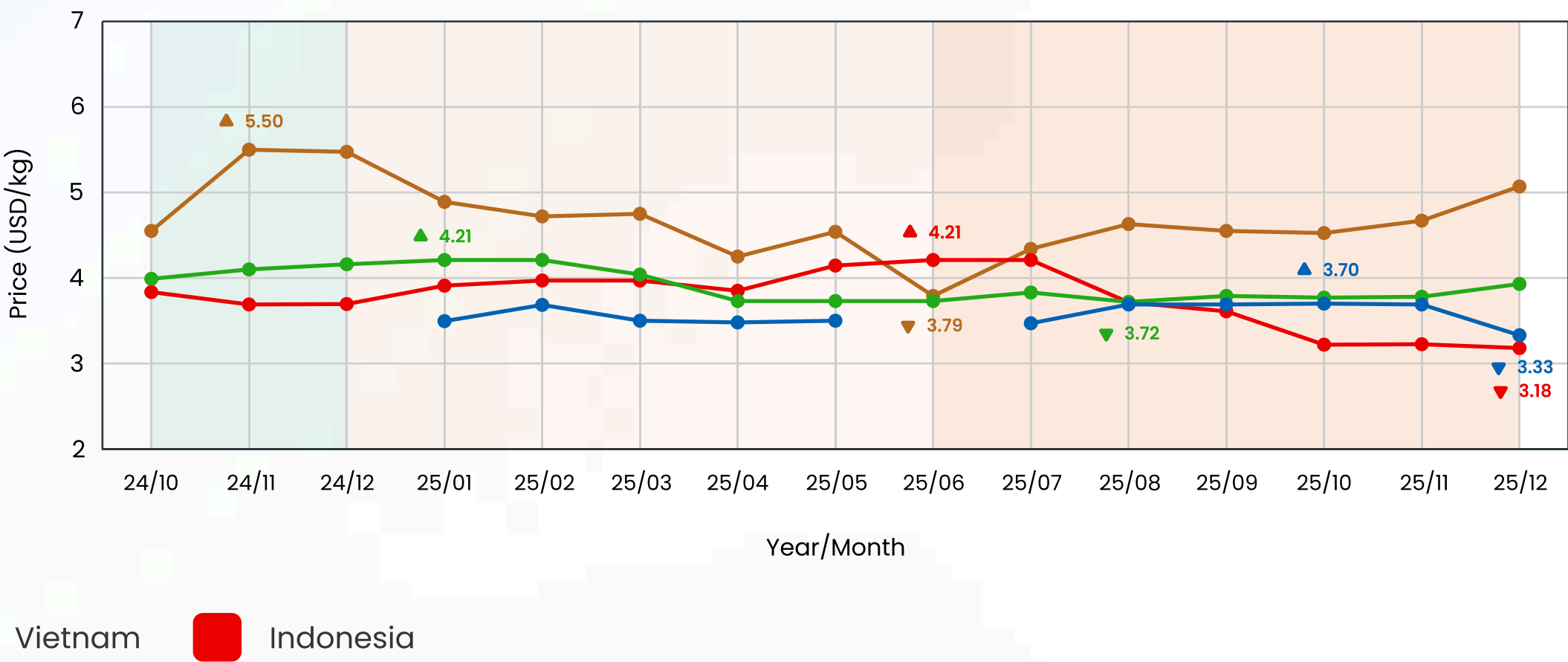
Figure 4.3. Price Comparison for Shrimp Count 30 (Source: Shrimp Insights)



Comparison of shrimp prices in Ecuador, India, Vietnam, and Indonesia

Based on farm gate price data, Ecuador and India primarily focus on producing larger shrimp counts. In H1 2025, the price gap between the two countries was relatively wide, with Ecuador offering lower prices. In H2 2025, the gap narrowed, although India’s prices were relatively lower throughout the second semester. For shrimp count 30, prices in Indonesia were comparable to Ecuador, and even lower in H2 2025 with an average difference of USD 0.6.

Figure 4.4. Price Comparison for Shrimp Count 50 (Source: Shrimp Insights)



In shrimp count 50, competition was more intense as India, Indonesia, and Vietnam all maintain substantial production volumes in this segment. Throughout 2025, the price difference between Indonesia and India remained relatively small. In H1 2025, Ecuador recorded the lowest prices, while from October-December 2025, Indonesia became the lowest priced producer.

shrimp counts 30 and 50 are largely targeted for US market, making them highly exposed to US import tariff policies. In the fourth quarter, Indonesian farmers received the lowest farm gate price for shrimp count 50.

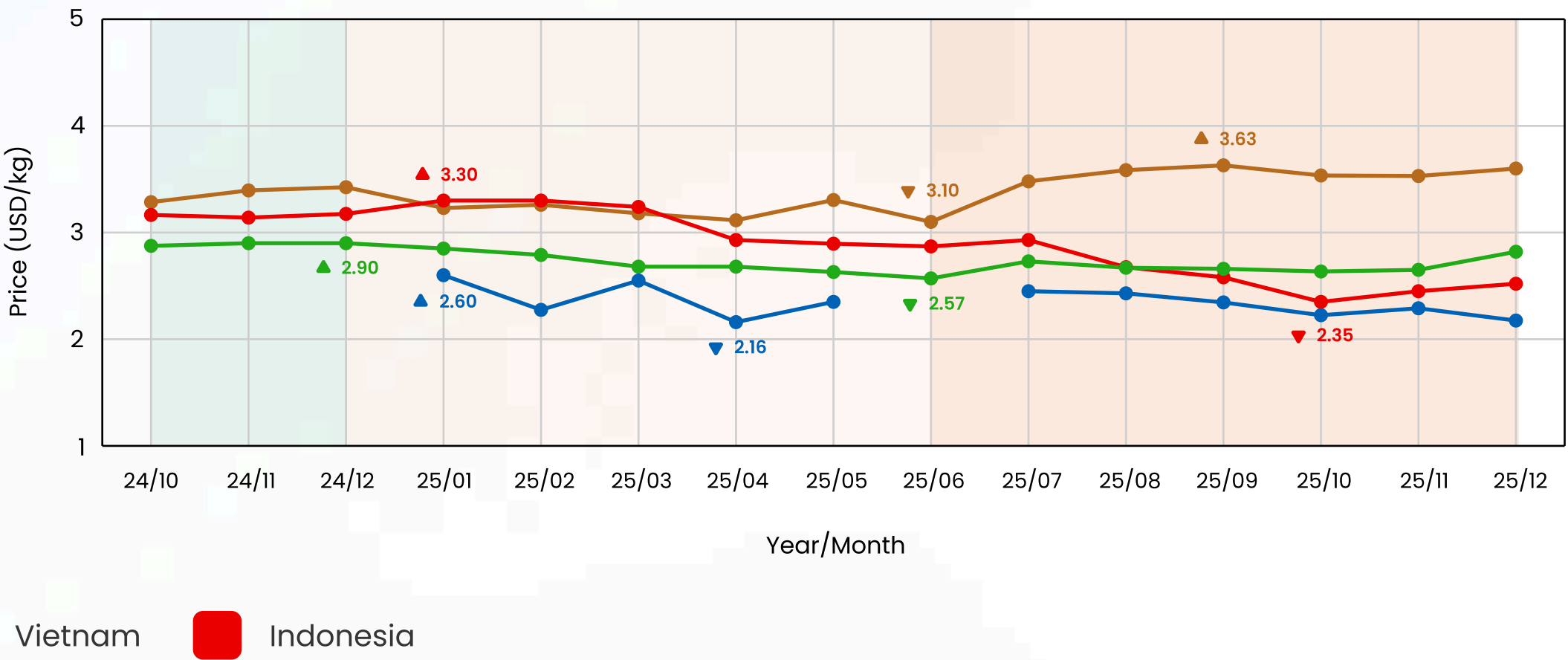
Figure 4.5. Price Comparison for Shrimp Count 70 (Source: Shrimp Insights)



shrimp counts 70-100 are primarily intended for domestic consumption and export markets outside US. Price fluctuations for shrimp counts 70 and 100 in Indonesia were relatively more stable compared to Vietnam and India.

From October–December 2025, Indonesia recorded the lowest price for shrimp count 70 among Ecuador, India, and Vietnam. For shrimp count 100, Indonesia’s price remained higher than Ecuador’s. In both categories, Vietnam recorded the highest farm gate prices compared to the other three countries.

Figure 4.6. Price Comparison for Shrimp Count 100 (Source: Shrimp Insights)



For shrimp count 100 in particular, Indonesia’s farm gate price is more influenced by domestic market conditions. This contributes to prices being slightly higher than those received by Ecuador farmers.

Overall, cross country price comparisons indicate that shrimp counts 70–100 in 2025 remained relatively controlled, as they were not directly affected by US trade policies or demand fluctuations. In Indonesia, shrimp count 100 prices retain greater flexibility due to stronger domestic market influence.

Shrimp Disease Issues

White feces emerged as the most prevalent disease

Figure 4.7. Diseases Affecting Cultivations (Source: JALA Survey 2025)

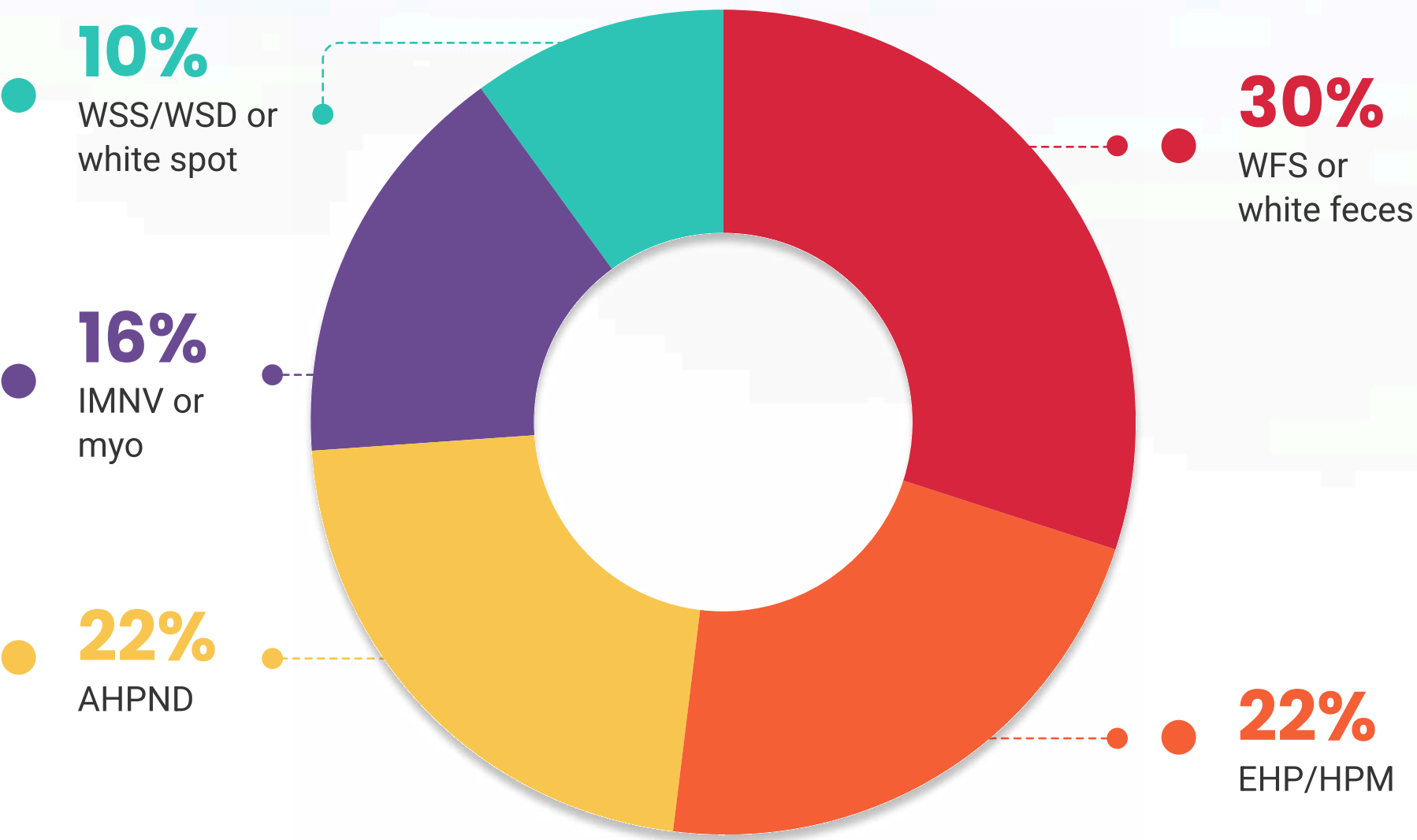
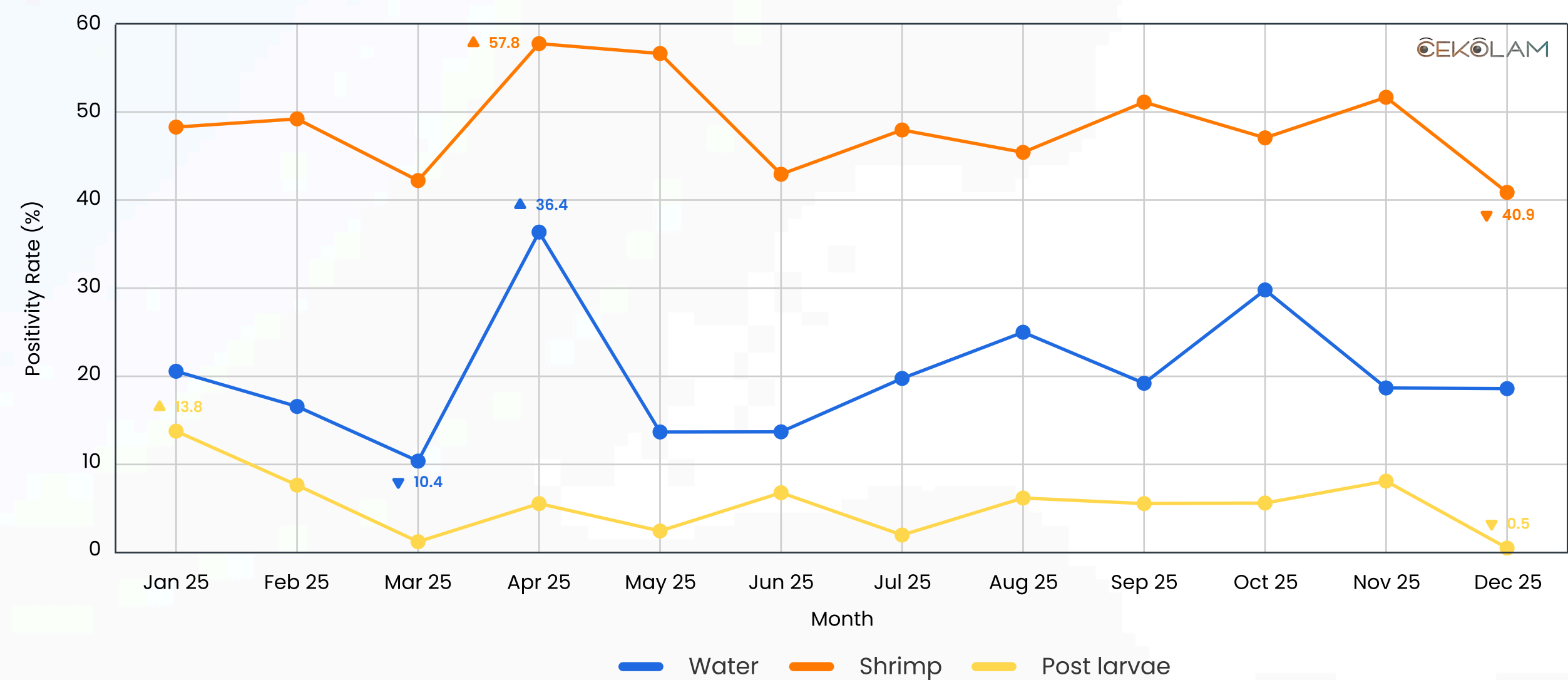


Figure 4.8. Positivity Rate by Sample Type (Source: CeKolam)



Based on survey results, the most common shrimp diseases affecting ponds were WFS, EHP/HPM, and AHPND. During interviews, respondents indicated that WFS often appears as a clinical manifestation or secondary impact associated with EHP and AHPND infections.

According to CeKolam data, shrimp samples consistently recorded high positivity rates, reflecting a significant disease burden at the pond level. In contrast, water sample positivity rates were more fluctuating, with notable spikes in April (36%) and October (30%). Meanwhile, positivity rates in post larvae samples were relatively lower compared to other sample types and showed a declining trend toward the end of the year.

Figure 4.9. Positivity Rate by Disease for AHPND
(Source: CeKolam)

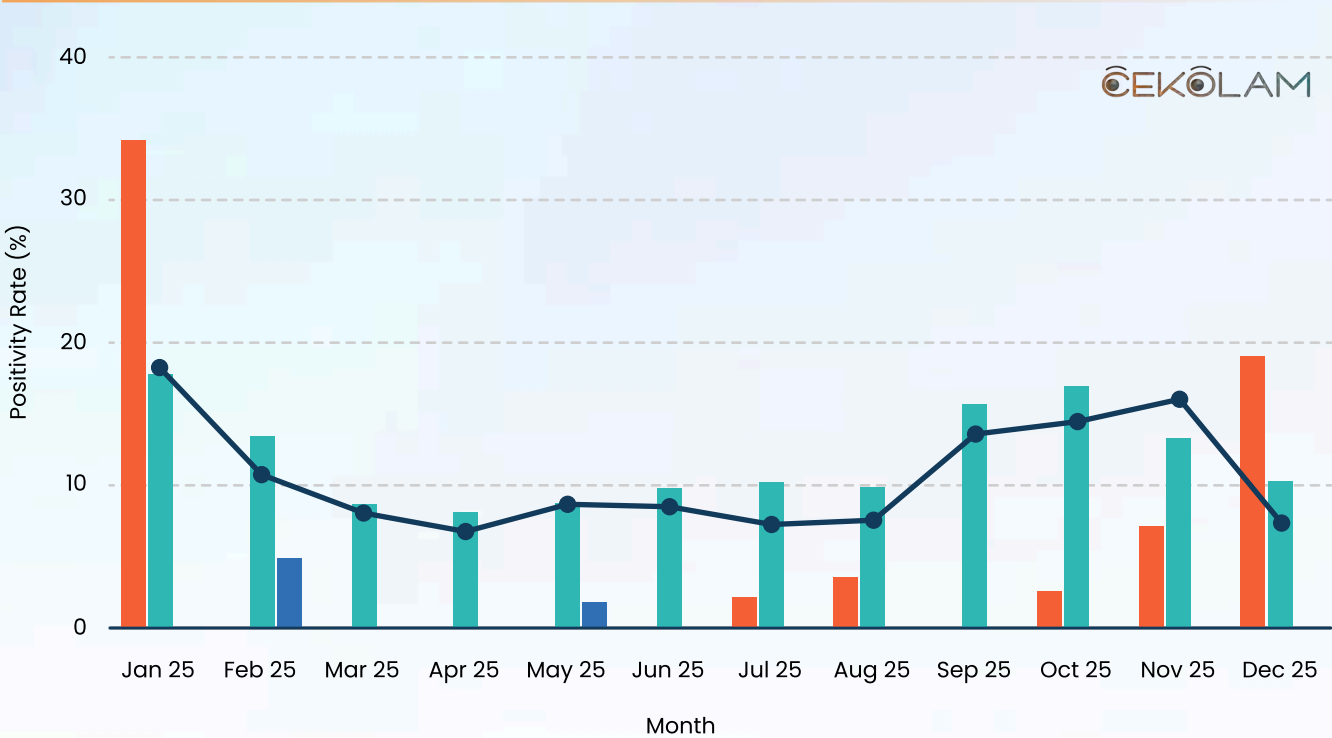


Figure 4.10. Positivity Rate by Disease for EHP
(Source: CeKolam)

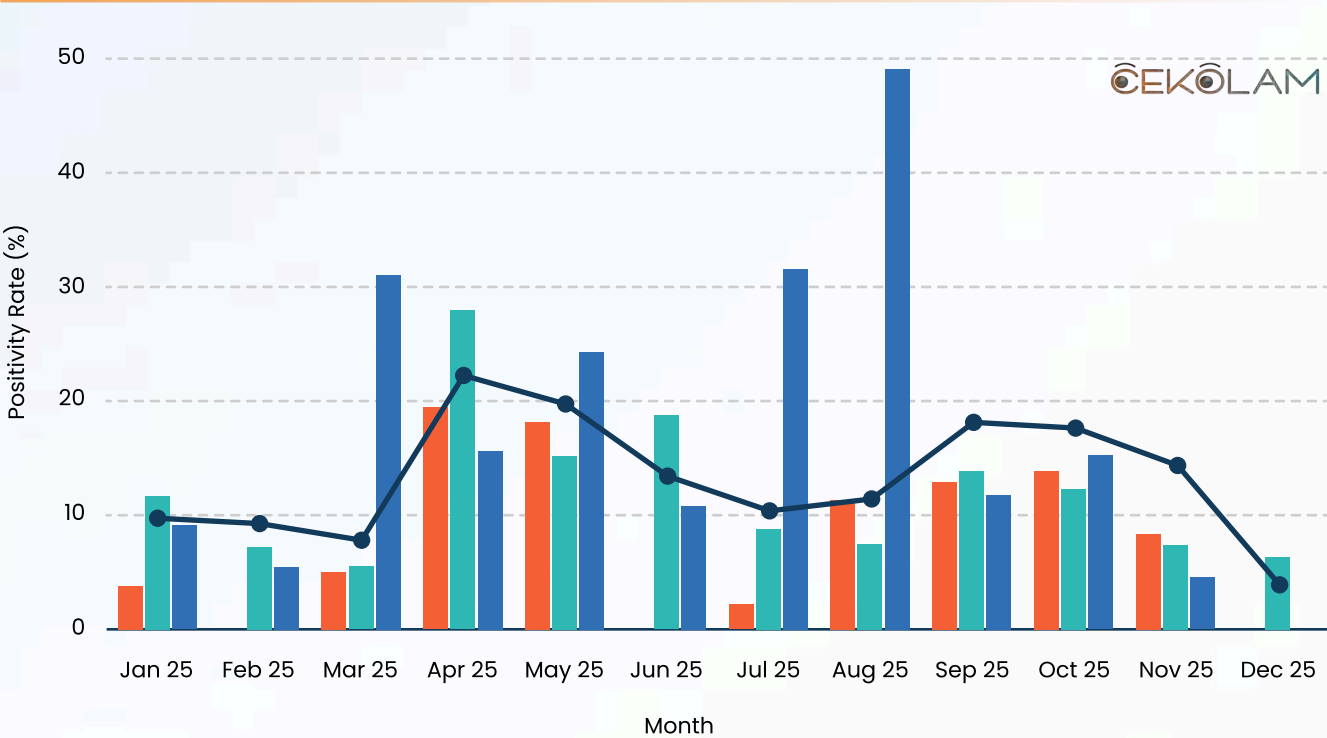


Figure 4.11. Positivity Rate by Disease for WSSV
(Source: CeKolam)

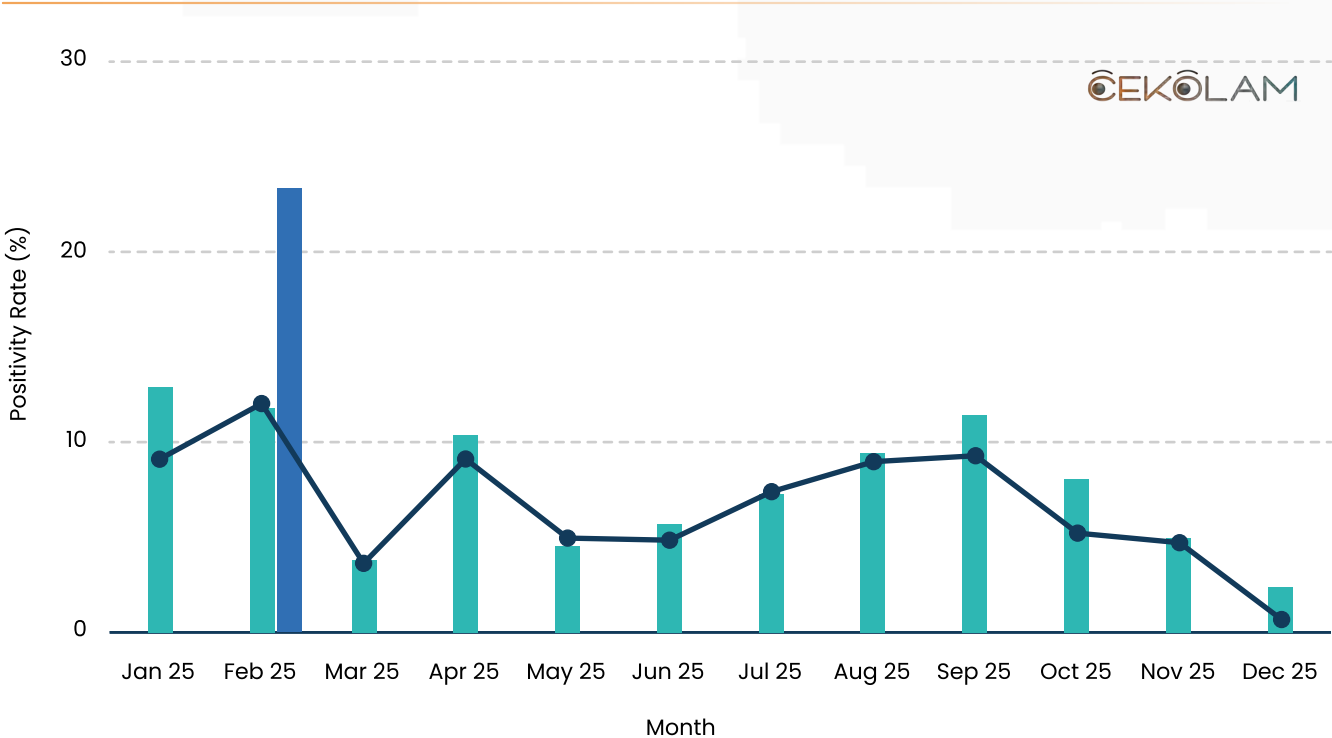
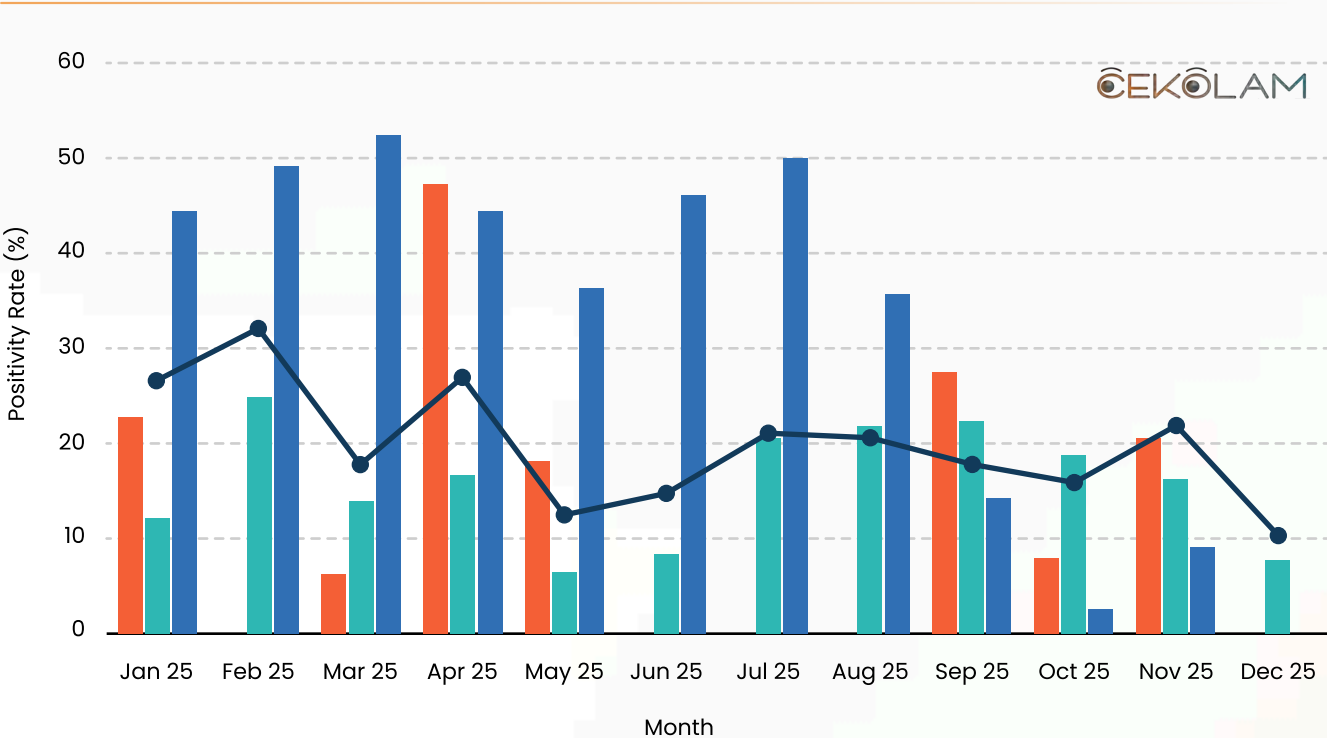


Figure 4.12. Positivity Rate by Disease for IMNV
(Source: CeKolam)



— National West Nusa Tenggara East Java Bangka Belitung

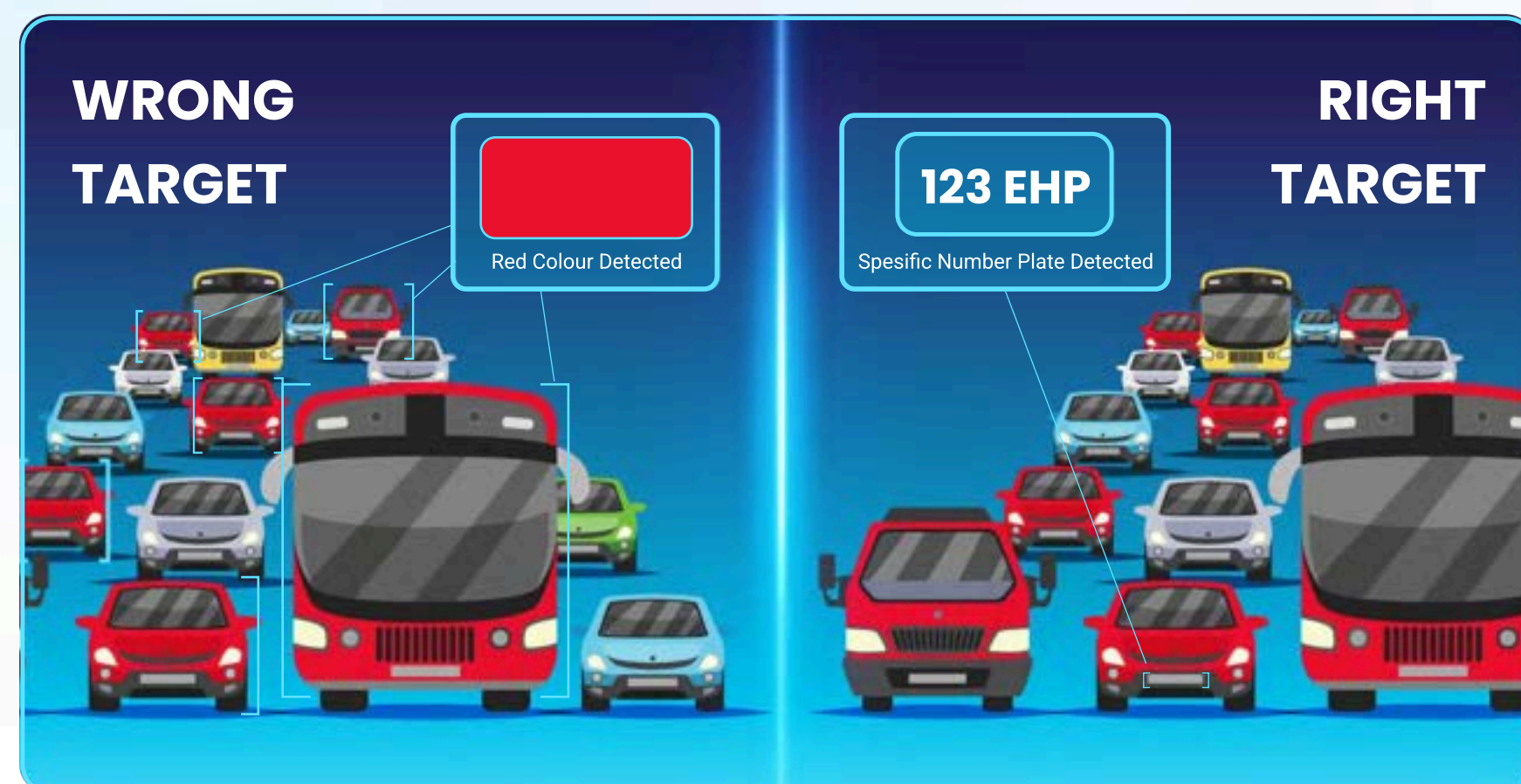
National data from CeKolam indicate that positivity rates at the beginning of 2025 were relatively high and gradually declined toward the end of year. Among all diseases, IMNV consistently recorded the highest positivity rate compared to other pathogens. However, toward the end of Q3 2025, EHP and AHPND showed a renewed increase in positivity rates, indicating rising disease pressure in the second half of 2025.

At the regional level, Bangka Belitung recorded a higher disease case ratio, with IMNV positivity reaching 52% in Q1 through early Q2, followed by a sharp increase in EHP during Q3, which reached 49%. In West Nusa Tenggara (NTB), IMNV positivity rates were also significantly high, although this spike was limited to April. Meanwhile, East Java recorded relatively lower positivity rates across all diseases compared to Bangka Belitung and NTB.



Right Target, Right Call:

Farmers Trust Specific EHP Detection



Selecting the correct gene target plays a crucial role in ensuring accurate EHP test results and supporting the right management decisions.

- Tests targeting β -tubulin or ribosomal 18S genes are prone to false positives. These EHP genes are common and highly conserved in many species.
- For the best specificity, use an assay targeting unique EHP gene regions like Spore Wall Protein (SWP) to reduce risk of cross-reactivity.

Get the Genics Advantage

Shrimp MultiPath™ uses high-specificity targets designed to avoid conserved regions, reduce false positives and make clear decisions earlier.



Contact Genics Team

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+62 813 1583 5617
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From exposed to protected

In aquaculture, fish and shrimp are constantly exposed to pathogen pressures, environmental fluctuations and other production stressors, negatively impacting survival and productivity.

At dsm-firmenich, we offer solutions to protect aquatic animals, reducing the risk of health and welfare challenges throughout the production cycle.

Learn more at
dsm-firmenich.com/anh



dsm-firmenich

WMS Outbreak in Farms with DoC >50

Field observations in 2025 indicate a rising number of White Muscle Syndrome (WMS) cases across various regions in Indonesia, requiring serious attention from shrimp farmers. Most WMS cases were reported after 50 days of culture.

Clinical signs and field findings

- White patches on the abdomen of shrimp, indicating muscle necrosis.
- Laboratory results using Polymerase Chain Reaction (PCR) testing showed negative results for IMNV, EHP, AHPND, WSSV, and WFS.
- Suspected to occur as a co-infection with other diseases such as EHP and IMNV.
- Early molting history prior to the onset of visible symptoms (based on farmer interviews).



Causes and mitigation efforts

CeKolam examinations suggest that WMS is likely associated with *Photobacterium damsela* subsp. *damsela* (PDD) as a secondary bacterial infection, potentially triggered by preceding factors. Mineral imbalance, particularly those affecting muscle function, is also suspected to contribute to the condition. However, mineral supplementation is generally no longer effective once white patches appear, as muscle necrosis has already occurred. Therefore, immune strengthening through feed additives is considered more effective in suppressing WMS.

Farmers Strategies in Addressing Cultivation Challenges

When facing cultivation challenges, most shrimp farmers prefer to seek solutions through discussion. Around 38.1% of farmers reported discussing issues with their peers, while 30.2% consulted Technical Support representatives from suppliers of pond inputs such as feed, post larvae, and probiotics.

When experiencing crop failure, 27% of farmers chose to modify their cultivation methods or SOP. Another 26.5% focused on improving production cost efficiency, while 22.1% opted to reduce stocking density. Based on interview findings, these strategies are implemented to mitigate risks, improve operational control, and maintain profitability.

Figure 4.13. Strategies for Addressing Cultivation Challenges
(Source: JALA Survey 2025)

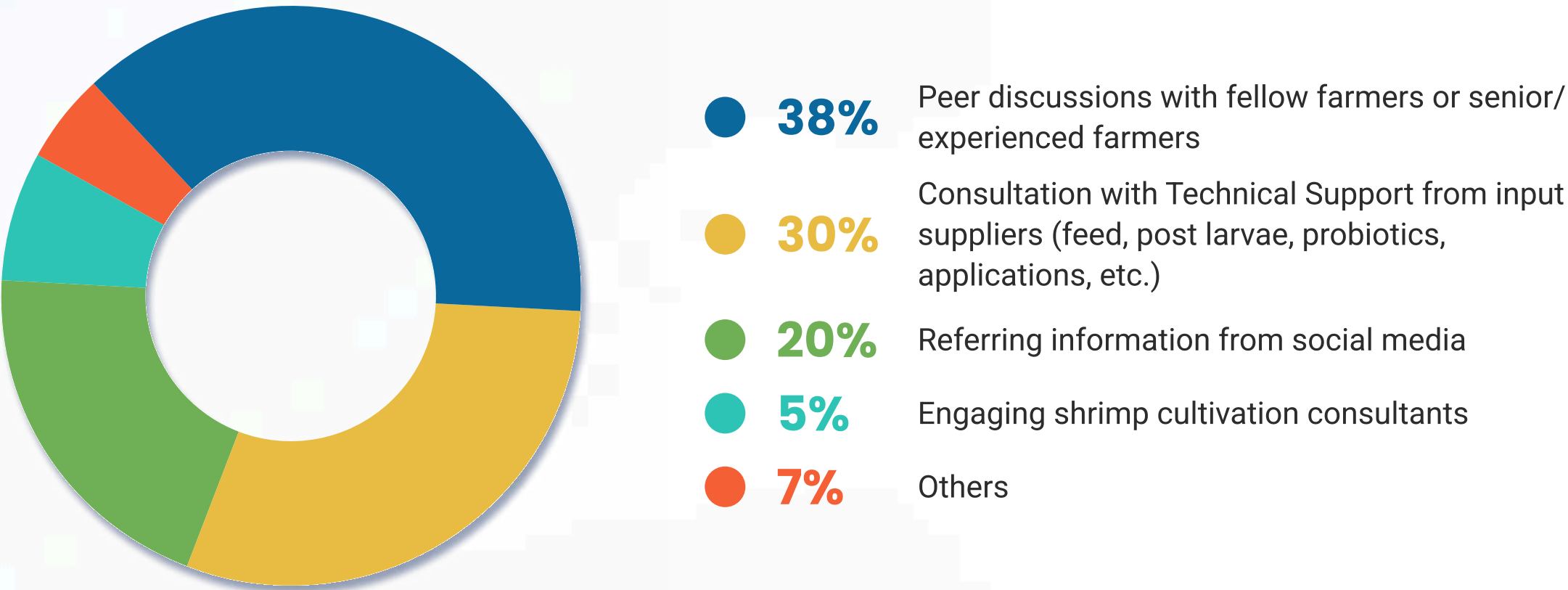


Figure 4.14. Strategies in Response to Cultivation Failure
(Source: JALA Survey 2025)

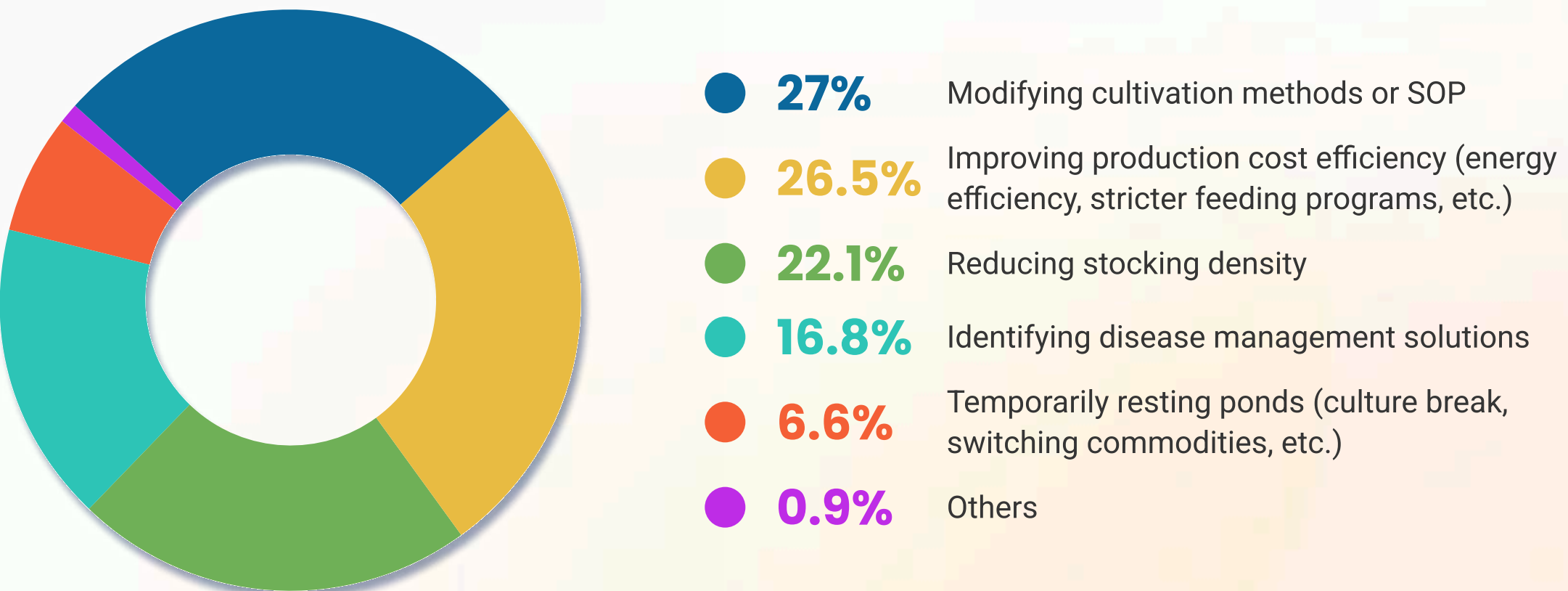


Figure 4.15. Proportion of **Feed Costs** in Operational Expenses
(Source: JALA Survey 2025)

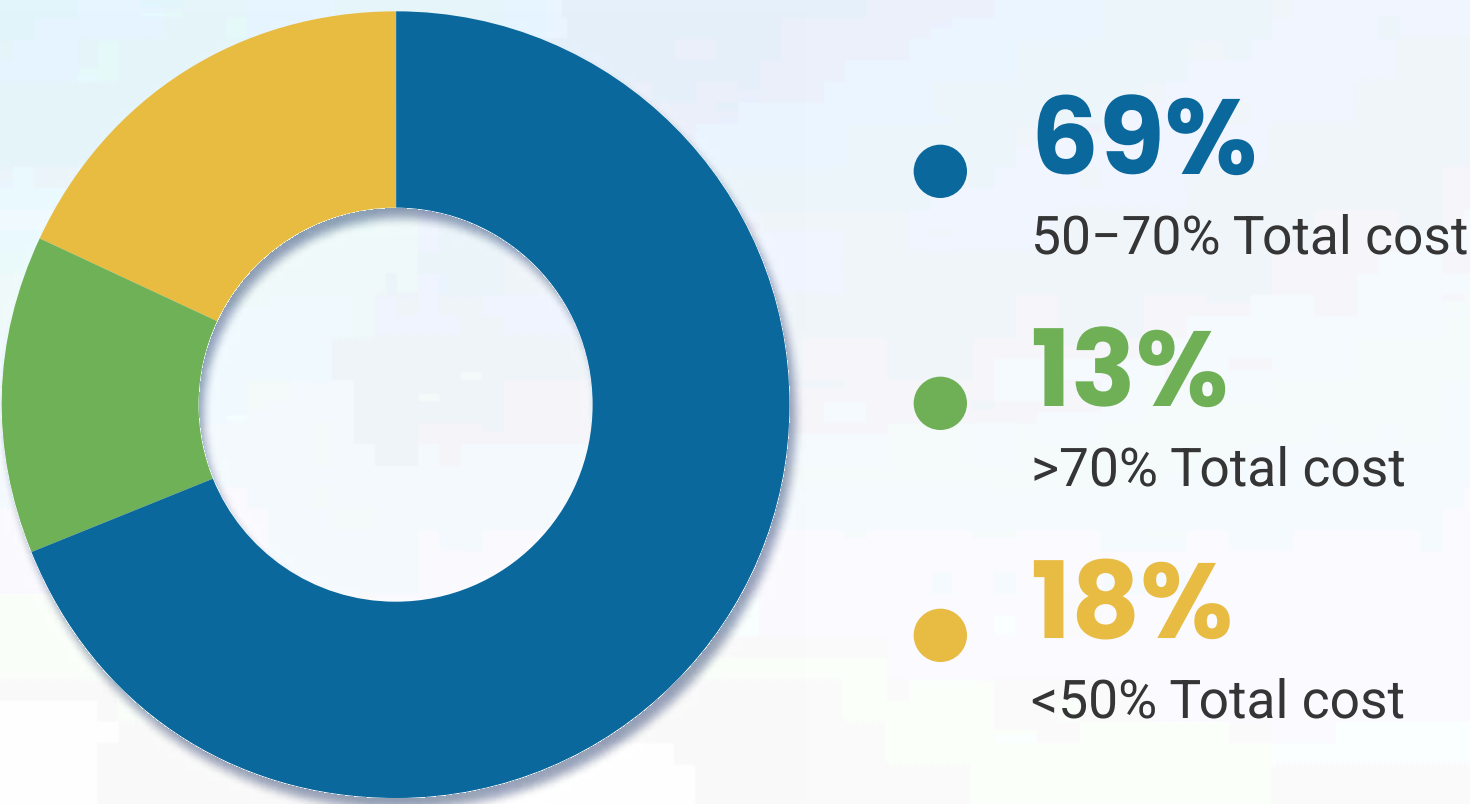


Figure 4.16. Proportion of **Energy Costs** (Electricity and Fuel) in Operational Expenses
(Source: JALA Survey 2025)

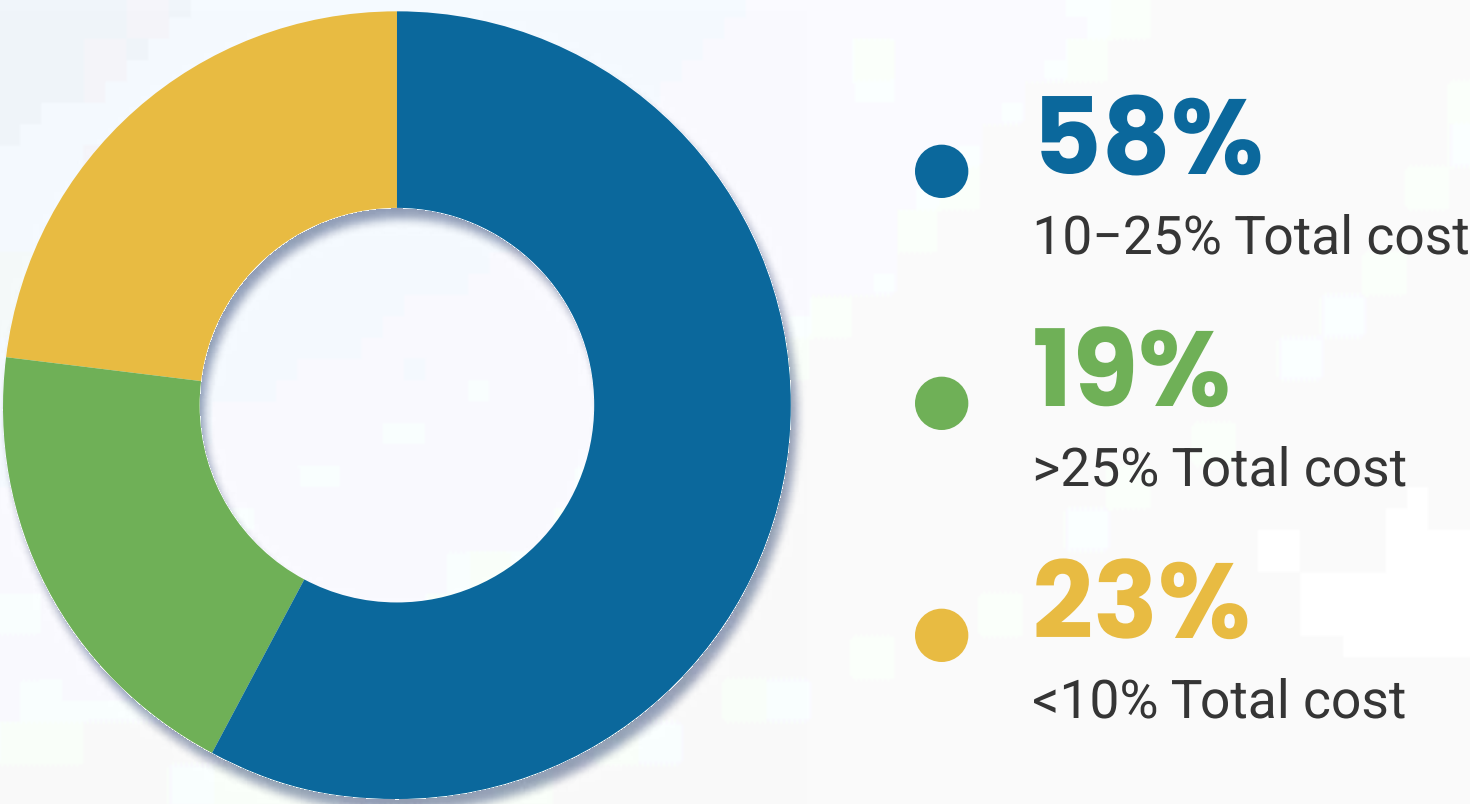
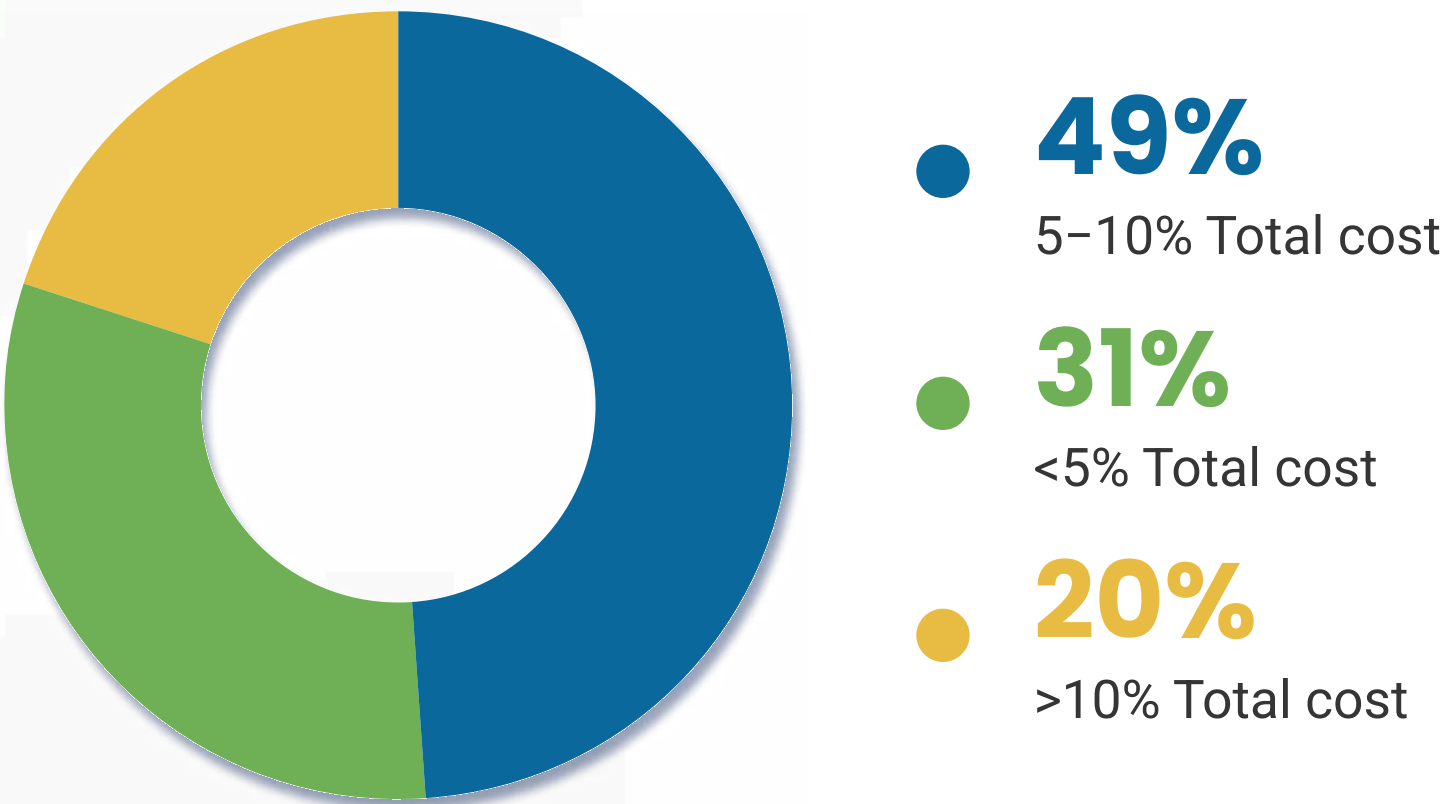


Figure 4.17. Proportion of **Probiotic, Lime, and Mineral Costs** in Operational Expenses
(Source: JALA Survey 2025)



Composition of Operational Expenses

Feed as the largest operational cost component

Based on survey results, the majority of farmers reported that feed remains the primary component of operational expenses, approximately 50–70% of total production costs. The second largest cost component is energy expense (electricity and fuel) which represents around 10–25% of total costs. Other cultivation inputs, such as probiotics, lime, and minerals, account for a smaller share, estimated at 5–10% of overall operational expenses. Farmers were also asked which operational components they have reduced, including responses by region. Further details are provided on page 36.

Figure 4.18. Cost Components Reduced by Shrimp Farmers (Source: JALA Survey 2025)

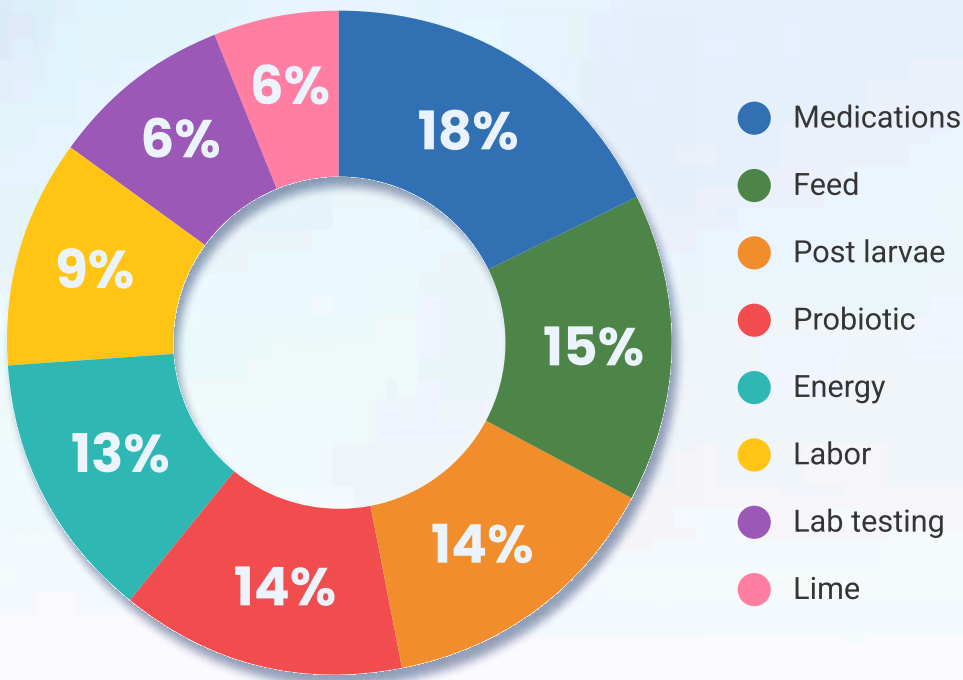


Figure 4.19. Impact of Cost Efficiency Efforts (Source: JALA Survey 2025)

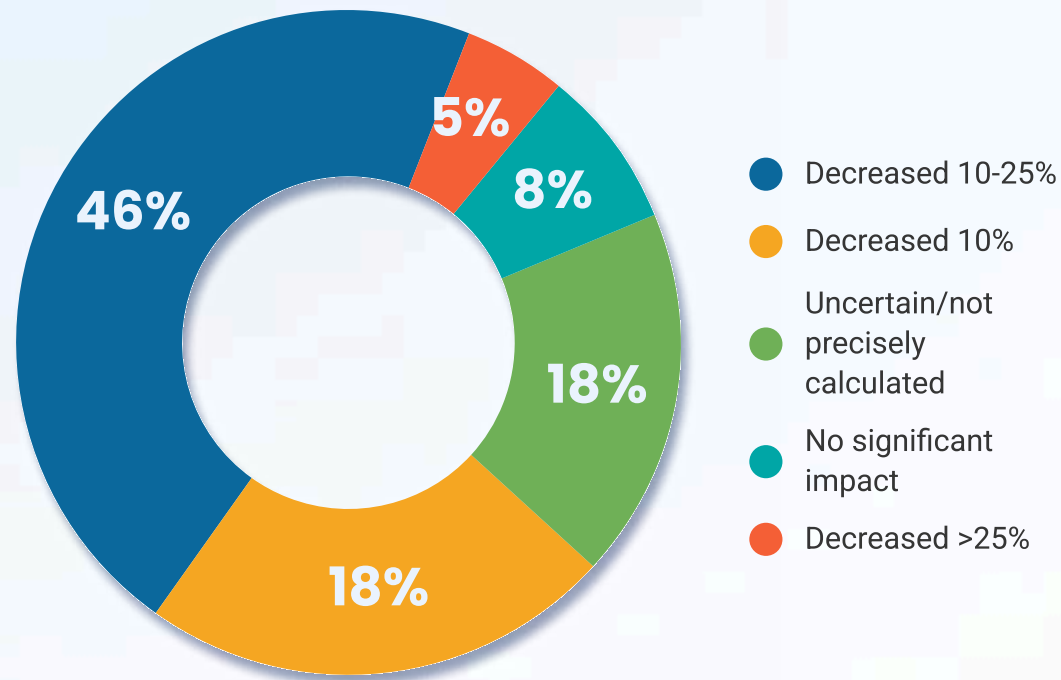


Figure 4.20. Cost Components Reduced in Western Region (Source: JALA Survey 2025)

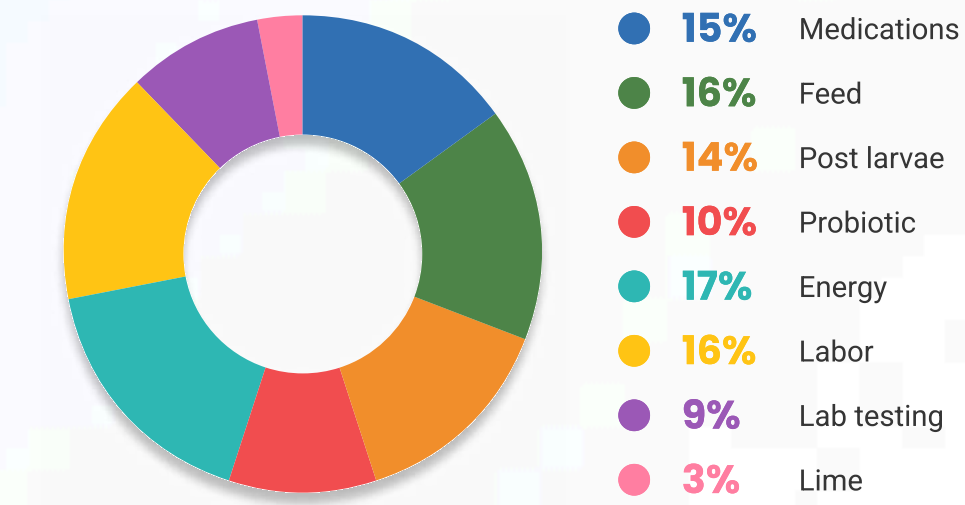


Figure 4.21. Cost Components Reduced in Central Region (Source: JALA Survey 2025)

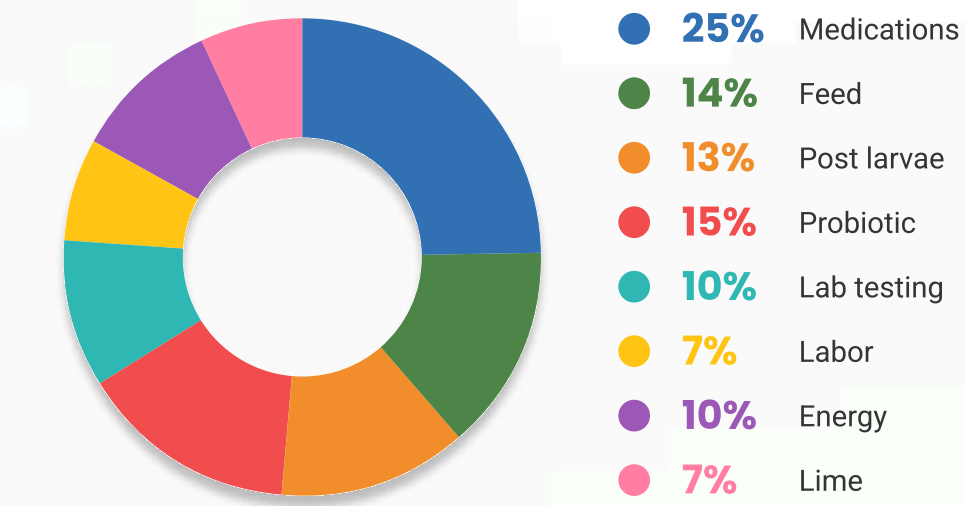
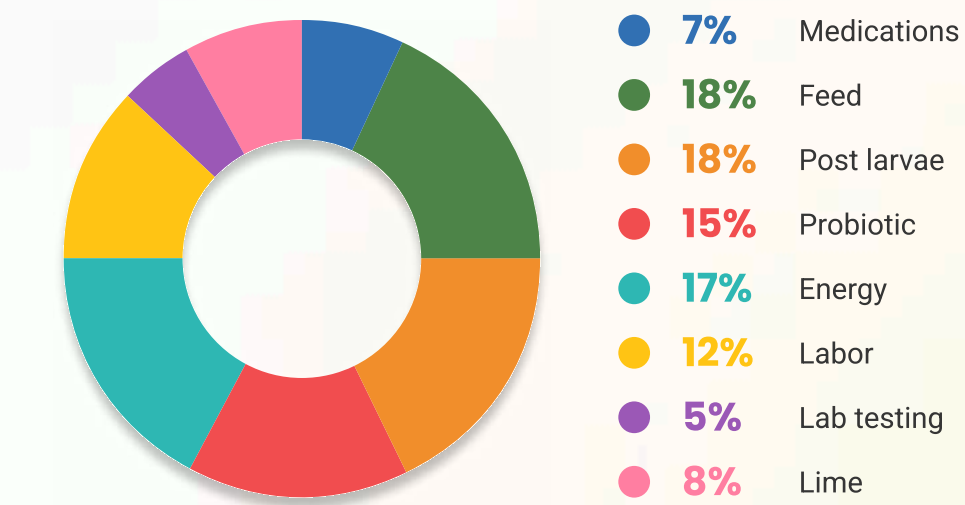


Figure 4.22. Cost Components Reduced in Eastern Region (Source: JALA Survey 2025)



Cost saving measures implemented by shrimp farmers

Based on the breakdown of production costs, medications represent the expense category that farmers are most eager to reduce. Regionally, farmers in eastern region tend to focus on reducing feed, probiotic, and electricity costs. In central region, efforts are primarily directed toward lowering medication expenses, while farmers in western region prioritize efficiency in electricity and feed usage. Interview findings indicate that feed strategy adjustments may include reducing protein, particularly during the early culture phase or blind feeding period, as a mitigation measure against the high disease risk at DoC <30.

From a regional perspective, western region, especially West Aceh faces significant challenges related to energy costs. Frequent power outages increase reliance on diesel fuel, thereby raising overall operational expenses.

According to interview results, the most critical cost saving measure is preventing mortality, as shrimp losses directly reduce productivity and negatively affect FCR. Overall, 46% of farmers reported that their efficiency measures successfully reduced production costs by approximately 10–25%.



Driving Efficiency in Shrimp Farming: How Balanced Genetics Reduce Cost and Risk

Shrimp farmers across Indonesia are navigating tighter margins and higher uncertainty. In 2025, many data reports showed deteriorating Feed Conversion Ratios (FCR) and shorter production cycles, which can reduce harvest size and squeeze profitability.

In this context, genetics that balance growth, survival, and vigor can help stabilize results and protect margins, cycle after cycle. At Kona Bay, part of Hendrix Genetics, our breeding programs are designed to deliver proven performance through high-quality genetics. We balance trait selection to support strong growth and robust survival, helping farmers and hatcheries improve predictability, optimize cost per kilogram, and reduce exposure to volatility in feed, health, and market conditions.

Below is a snapshot of broodstock performance data that illustrates how Kona Bay’s balanced selection supports growth, survival, and overall productivity across production stages.

Kona Bay Balance Pro

Hatchery		Farm	
Mating percentage	20-25%	ADG range	0.30-0.35
Naupili per spawn	300-400k	Average pond survival	70-80%
Survival to PL	65-75%	Preferred grow out conditions	Semi-intensive, intensive, RAS, Biofloc

Kona Bay Speed

Hatchery		Farm	
Mating percentage	12-15%	ADG range	0.35-0.42
Naupili per spawn	200-250k	Average pond survival	65-70%
Survival to PL	65-75%	Preferred grow out conditions	Intensive, RAS, Biofloc

Kona Bay Strength

Hatchery		Farm	
Mating percentage	18-20%	ADG range	0.22-0.28
Naupili per spawn	250-300k	Average pond survival	75-85%
Survival to PL	70-75%	Preferred grow out conditions	Earthen extensive/Semi-intensive ponds

Building on this data, the next step is understanding how balanced genetics translate into practical benefits on the farm. Among our latest developments, our new product Kona Bay Balance Pro illustrates how a well-designed genetic profile can support producers in reducing both cost and risk, particularly in systems where biosecurity and consistency are priorities.

Kona Bay Balance Pro

Tailored for biosecure environments, Kona Bay Balance Pro delivers predictable growth, reliable survival, and SPF-certified broodstock tested for major pathogens listed by WOAHOIE, including EHP and AHPND (EMS).

- Selected for consistency, reducing variability across cycles.
- Supports cost optimization by improving survival and feed efficiency in controlled systems.
- SPF status ensures a strong foundation for hatchery performance and farm success.

By reducing biological risk and improving predictability, Balance Pro helps hatcheries and farms plan with confidence, lowering cost per kg and protecting margins in a volatile market.

Why This Matters for Indonesian Producers

- Lower cost per kg through better survival and feed efficiency.
- Improved cycle reliability, reducing financial uncertainty.
- Operational flexibility, supporting diverse system types and seasonal variability.

At Hendrix Genetics, we are committed to helping farmers thrive in an unpredictable world. Our shrimp broodstock reflects this commitment, combining robust genetics, consistent performance, and adaptability for Indonesian conditions. Because in a business full of uncertainties, your shrimp shouldn’t be one of them.



SUPER PL STP

Super PL STP is optimally reared in the nursery phase up to PL 30

High productivity



Shortens the stocking-to-harvest period, enabling faster production cycles with higher SR.

Disease and virus free



Produced under strict biosecurity and health monitoring to ensure disease-free post-larvae.

Practical feed management



Simplifies feed management by eliminating the blind feeding phase.

Member of JAPFA

Super PL STP, truly SUPER

Figure 4.23. Monthly Precipitation by Year (Source: ECMWF)

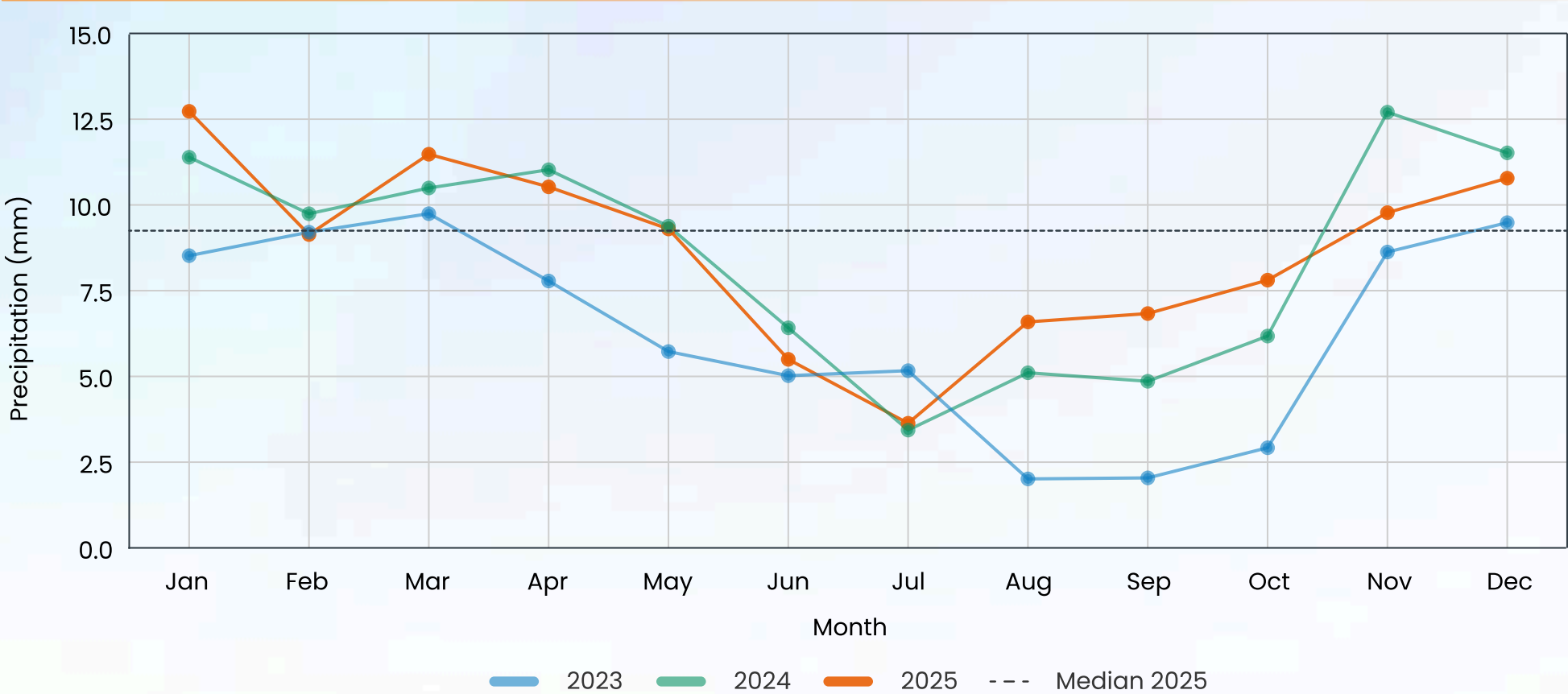
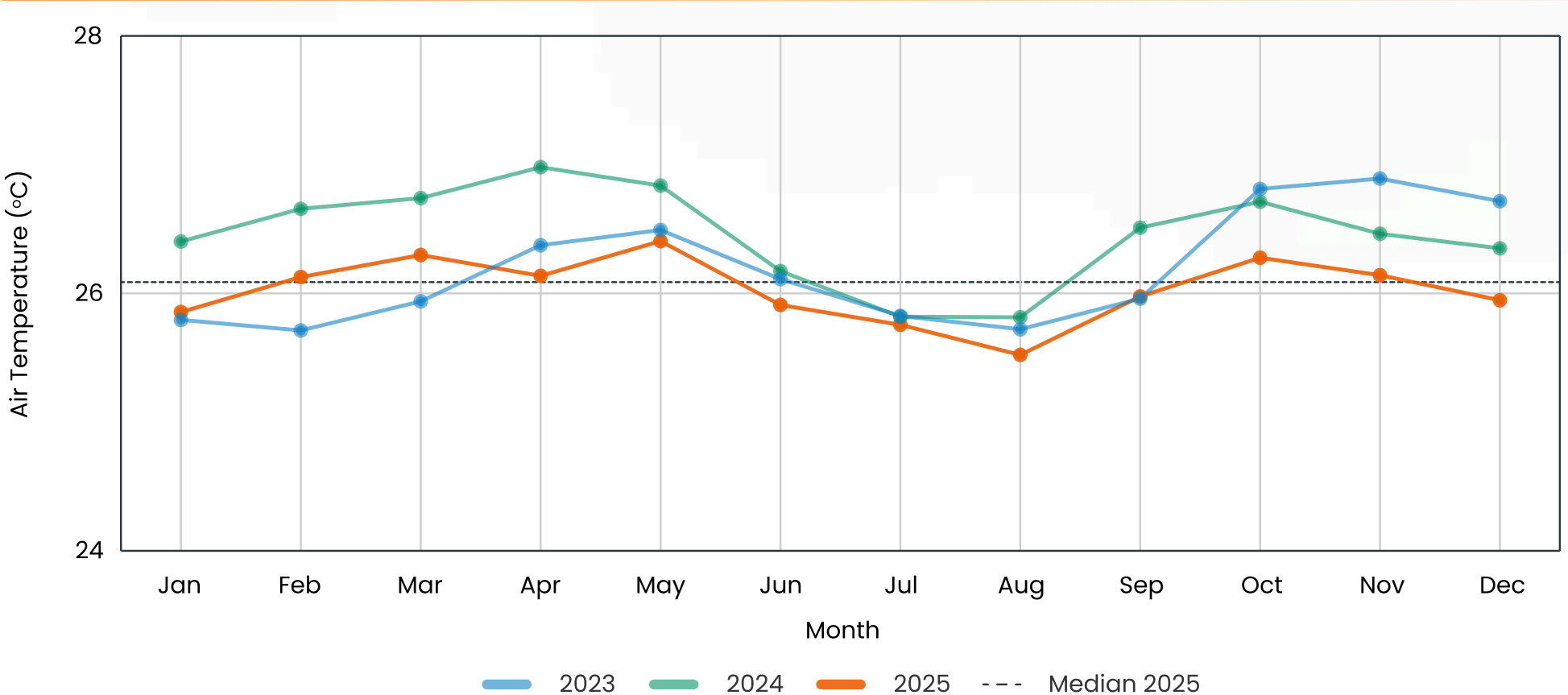


Figure 4.24. Average Monthly Temperature by Year (Source: ECMWF)



Impact of Weather and Temperature on Cultivation

Based on Meteorology, Climatology, and Geophysics Agency (BMKG), rainfall in 2025 within the normal range, with total annual precipitation was neither significantly wetter nor drier than the previous year. Peak rainfall occurred in November–December 2025 in western Indonesia, and January–February 2026 in southern and eastern regions. Overall, the rainfall pattern in late 2025 was similar to 2023 and lower than in 2024. Increased precipitation contributed to relatively lower surface temperatures throughout 2025. While no major nationwide weather anomalies were reported, several tropical cyclones in November–December 2025 affected Nusa Tenggara and Sumatra, causing extreme rainfall and landslides.

Interviews confirm that these conditions directly impacted pond operations, causing infrastructure damage, shrimp losses from flash floods, increased WSSV cases, and higher energy costs due to power outages, particularly in Aceh.

Nursery Operations in Shrimp Farming

Nursery operations in shrimp farming consists of a first step of culture, where post-larvae are grown in a separate pond for a determined duration of time, prior to stocking juveniles into the grow-out structure. As transportation of large juveniles is high risk and costly, it is better to have the infrastructure located near to the grow-out ponds, to minimize losses during transfer.

Nursery operations presents multiple opportunities for shrimp farming:

Superior diet

High stocking densities in nursery systems improve cost efficiency, allowing farmers to use superior diet and health booster without increasing overall production costs.

Superior predictability

Smaller culture volumes make environmental control easier and more precise. As a result, shrimp performance becomes more stable, and juveniles are better prepared when transferred to grow-out ponds.

Superior production

The nursery phase reduces the time shrimp spend in grow-out ponds, leading to faster pond rotation and a higher number of production crops per year.

Red Colour Detected

Specific Number Plate Detected

Tabel 4.1. Nursery Operations

Nursery		20 Days	30 Days	40 Days
Grow-out	100 days	80 days	70 days	60 days
Cleaning	10 days	10 days	10 days	10 days
Total Grow-out	110 days	90 days	80 days	70 days
Grow-out Crop per Year	3.3	4.1	4.6	5.2

Nursery phase also considerably reduce the risk of operation of a farm, by replacing the high-risk last period of a grow-out crops, by a beneficial nursery as a first phase of culture. Indeed, last month of culture in grow-out ponds are the most critical one, as biomass cultures are high. The use of nursery allow the replacement of this last problematic month switching it by a first phase in a separated structure.



Nutrition
Hatchery diets



Health
Bioremediation dan probiotics



Environment
Water conditioner & soil treatments

CONTINUOUS RAIN, BEWARE OF AMMONIA!

*USE MINSTAR AND SUPER DENOX 1 & 2 TO
NEUTRALIZE HARMFUL GASES AND MAINTAIN
A STABLE AQUATIC ECOSYSTEM, EVEN
DURING EXTREME WEATHER CONDITIONS."*



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Cahyo 0812 - 3111 - 9068 Jatim
Suhardi 0853 - 8050 - 1616 Lampung
Subandi 0831 - 6922 - 3408 Bangka
Jojo 0813 - 1014 - 6559 Sumbawa



Supporting Farmers Affected by Disasters

The flash floods that struck Aceh, North Sumatra, and West Sumatra caused significant damage to infrastructure and also disrupted cultivation activities across these regions. The impacts were felt directly by farmers, ranging from damaged pond infrastructure and operational shutdowns to emotional strain that has yet to fully subside.

Through this report, we extend our deepest empathy and support to all farmers and communities affected. We hope the recovery efforts progress smoothly and that cultivation in these regions can rebuild and return stronger than before.

Image source: Samarinda TV

JALA

Shrimp²⁰
Outlook

Closing and Editorial Opinion

Indonesia's Productivity Improved Amid Slowing Export Growth

Indonesia's cultivation performance in 2025 showed improvement, reflected 4.61% increase in median productivity in ponds with stocking densities <80 PL/m² and 80–150 PL/m², accompanied by improvements in median ADG and harvest size. This achievement occurred amid export volume pressures, which declined by 0.7% YoY. Meanwhile, farmers on the ground continued to face shrimp price volatility and disease threats. One emerging concern was the rise of WMS, which requires proper management to ensure sustained productivity.



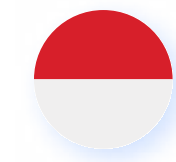
Indonesia's shrimp export volume in 2025: **201,113 tons**

Overall, Indonesia's shrimp exports **declined 0.7% YoY**, due to implementation of US reciprocal tariffs and Cs-137 issue. US remained Indonesia's primary export market in 2025, accounting for 122,588 tons.



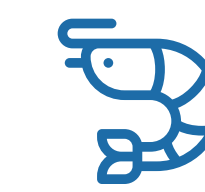
Cultivation productivity increased to **19.07 tons/ha**

Median productivity in 2025 **rose by 4.61%**, from 18.23 tons/ha to 19.07 tons/ha. This increase was primarily driven by ponds operating at stocking densities <80 PL/m² and 80–150 PL/m².



Central region continues to demonstrate the potential

Cultivation performance in central region **improved across nearly all key parameters**. Although the trend of newly established high density ponds has shifted away from this region, overall performance remained positive, supported by improvements in feed efficiency (FCR) and ADG.



Shrimp count 100 is the most vulnerable to price fluctuations

Shrimp count 100 in Indonesia exhibited **relatively high price volatility**, with price levels below those recorded in 2024. However, prices for counts 70 and 100 in Indonesia were more stable compared to Vietnam and India. Notably, Indonesia's farm gate price for count 100 remained higher than Ecuador.

2025 in One Word: Resilient!

JALA witnessed firsthand how Indonesian shrimp farmers continued to endure and adapt, even under challenging conditions.



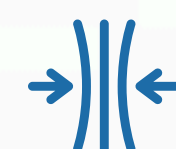
Perform!

Indonesia's cultivation performance remained **positive** despite facing multiple external pressures. Achievements were influenced by various factors (feed efficiency, post larvae genetics, disease management, and others), demonstrating that no single cause or solution applies uniformly across all pond conditions.



Synergy

Openness and collaboration among farmers have strengthened, particularly in sharing experiences and lessons learned across regions. **Differences in regional characteristics have encouraged more relevant, practice-based collaboration tailored to field conditions.**



Resilient

Amid shrimp price volatility, disease outbreaks, cost efficiency pressures, and weather-related impacts, **farmers continued striving not only to survive but also to grow.** Resilience is reflected in their ability to adapt and sustain operations in the face of uncertainty.



Diversification

Consistent annual productivity growth highlights the increasing **importance of global market diversification** in response to evolving international demand. At the same time, newly initiated government programs present opportunities to **strengthen the domestic market** as a balancing force for the continued growth of Indonesia's shrimp industry.

Key Considerations to Prepare for 2026



01 Focusing on **branding and promoting** Indonesian shrimp as clean shrimp, both for local and global market.

02 2026 is a turning point for Indonesian Shrimp Industry. All stakeholders, including **policy makers** need to focus on winning the market.

03 For shrimp producers, **balancing cost efficiency and profitability** is important to maintain business stability and sustainability.

JALA

Shrimp²⁰
Outlook

About JALA

Advancing the Industry and Assisting Shrimp Farmers

JALA envisions leading the global shrimp industry through innovation, sustainability, and trusted supply chain solutions. We are committed to consolidating the global shrimp supply chain and mobilizing all partners to ensure product quality, transparency, and sustainability.



JALASUPPLY

JALA's service that supports cultivation operations by providing access to essential production inputs and infrastructure, including high-quality feed and post larvae.

JALATECH

An integrated of cultivation technologies, including IoT-based multi-parameter water quality monitoring devices and a digital farm management application accessible anytime, anywhere.

JALAFARM

A trusted partnership that supports cultivation operations through direct on-site assistance to farmers and digital monitoring of cultivation conditions.

JALAHARVEST

A shrimp harvesting service that enables farmers to sell their harvests to a broad buyer network, supported by fast and transparent payment processes.

JALAMARKET

Provides a wide range of fresh, high-quality frozen seafood products for various needs, sourced from professional farms and fisheries, while prioritizing traceability principles.

Behind Every Shrimp You Trust



Operating climate-adaptive farms across more than

224,000

m² productive cultivation area

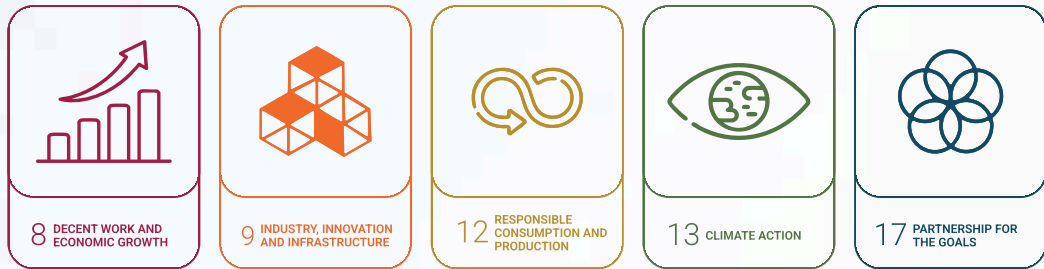


Contributing to the availability of more than

300,000

plates of shrimp served every day

Commitment to Product Safety and Quality



Our commitment to sustainability

Committed to upholding four Sustainable Development Goals (SDGs) in every shrimp produced.

Balancing environmental, economic, and social sustainability with business productivity

Through climate-adaptive farms and ecosystem restoration initiatives, including mangrove rehabilitation, JALA fosters a healthier and more resilient cultivation environment for shrimp. Every step is designed to ensure that shrimp meet the highest standards, from pond to consumer plate.



Data driven and compliant farm production

Baseline setting and wastewater quality monitoring via a dedicated farm platform, aligned with **CBIB** and **ASC standards** to ensure environmentally responsible cultivation.



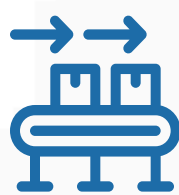
Integrated supply chain

Enforcement of strict standards for all business partners. Currently, **all partner companies comply with mandatory certification requirements** (deed of establishment, tax documentation, and trade classification/KBLIs).



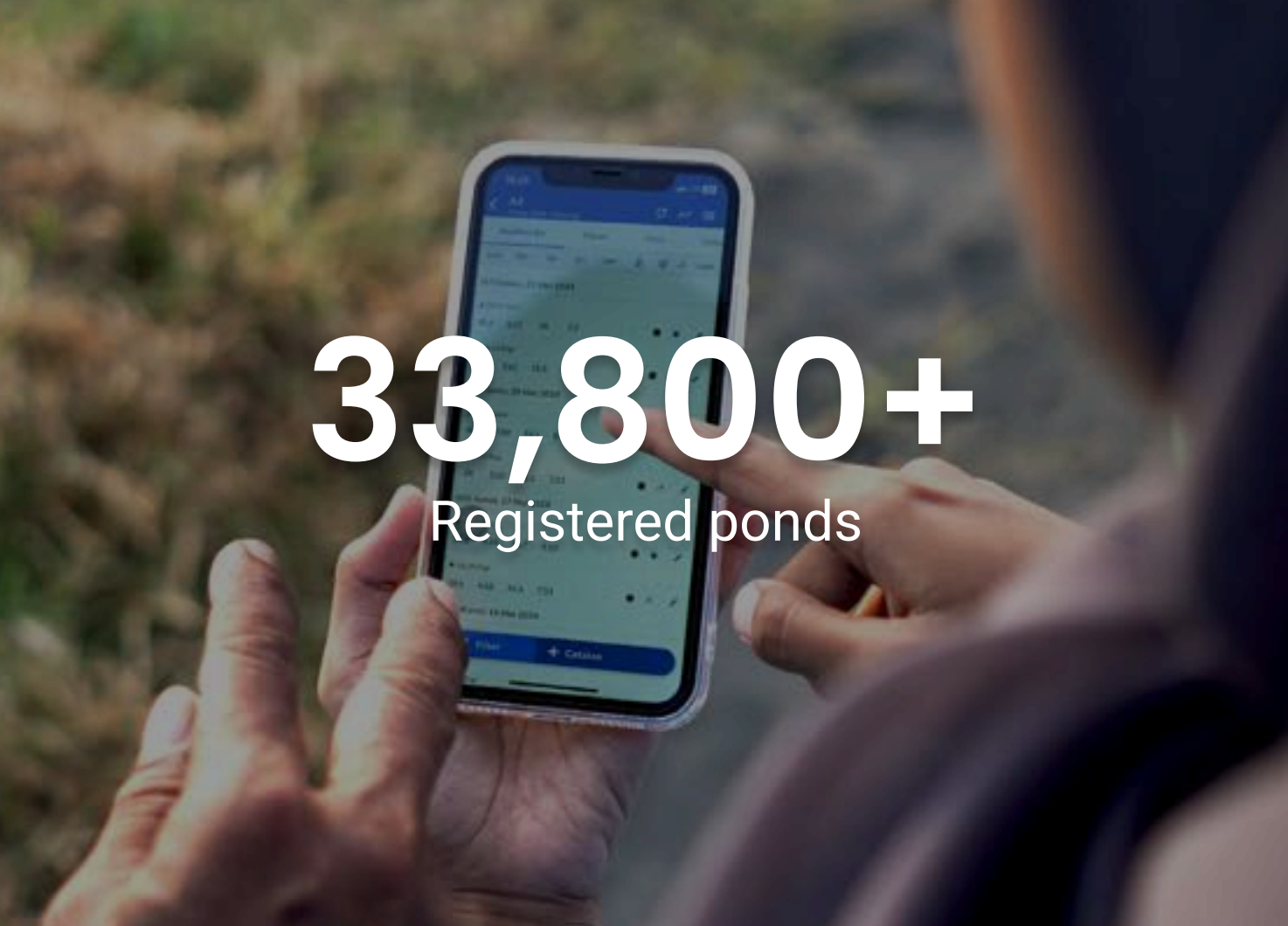
Resource efficiency through technology

Responsible inventory management. Residual materials from IoT device manufacturing are centrally stored for future use or recycling.



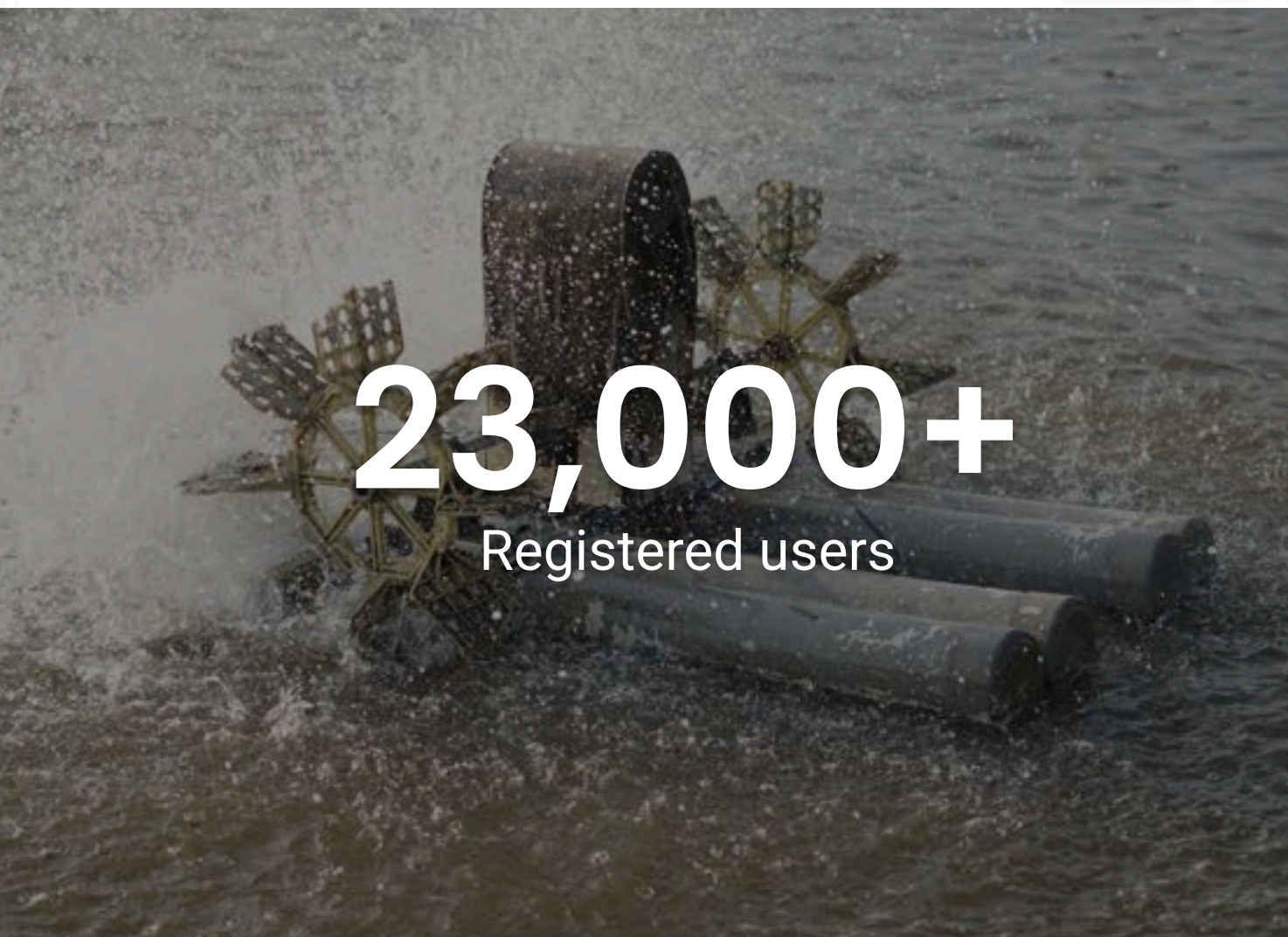
Product processing

Utilization of shrimp shell waste generated from processing activities. The waste is collected and distributed to local livestock farmers for conversion into high nutrition poultry feed.



33,800+
Registered ponds

35,000+
Tons shrimp monitored with
JALA App



23,000+
Registered users

Trusted by
**Thousands of
Shrimp Farmers**

33,700+
Tons shrimp harvested



2,700+
Total beneficiaries

1,600+
Ponds with sustainable
management



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