

NEDSPICE

PEPPER CROP REPORT



14th November 2024,

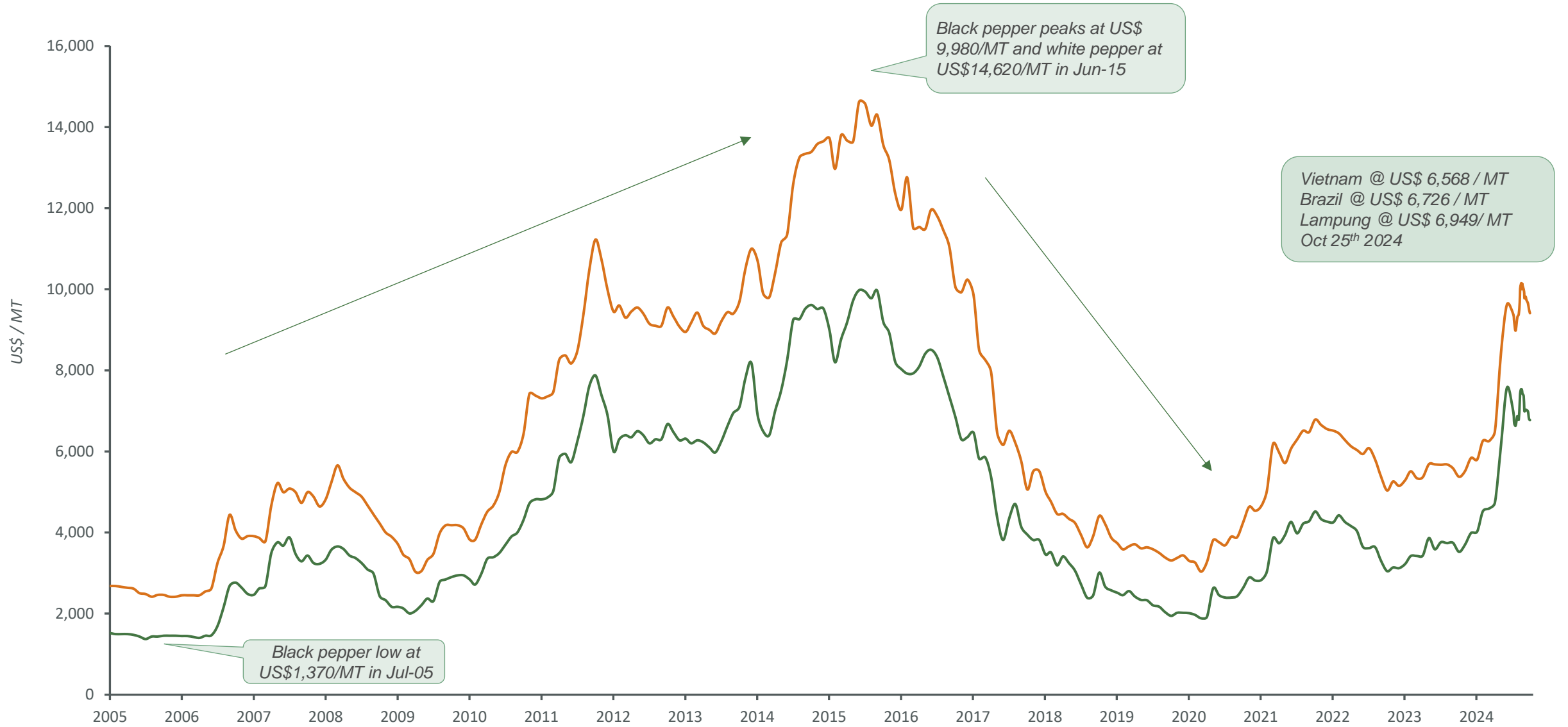
Shanghai

Ha Phuong Minh

Strictly private and confidential



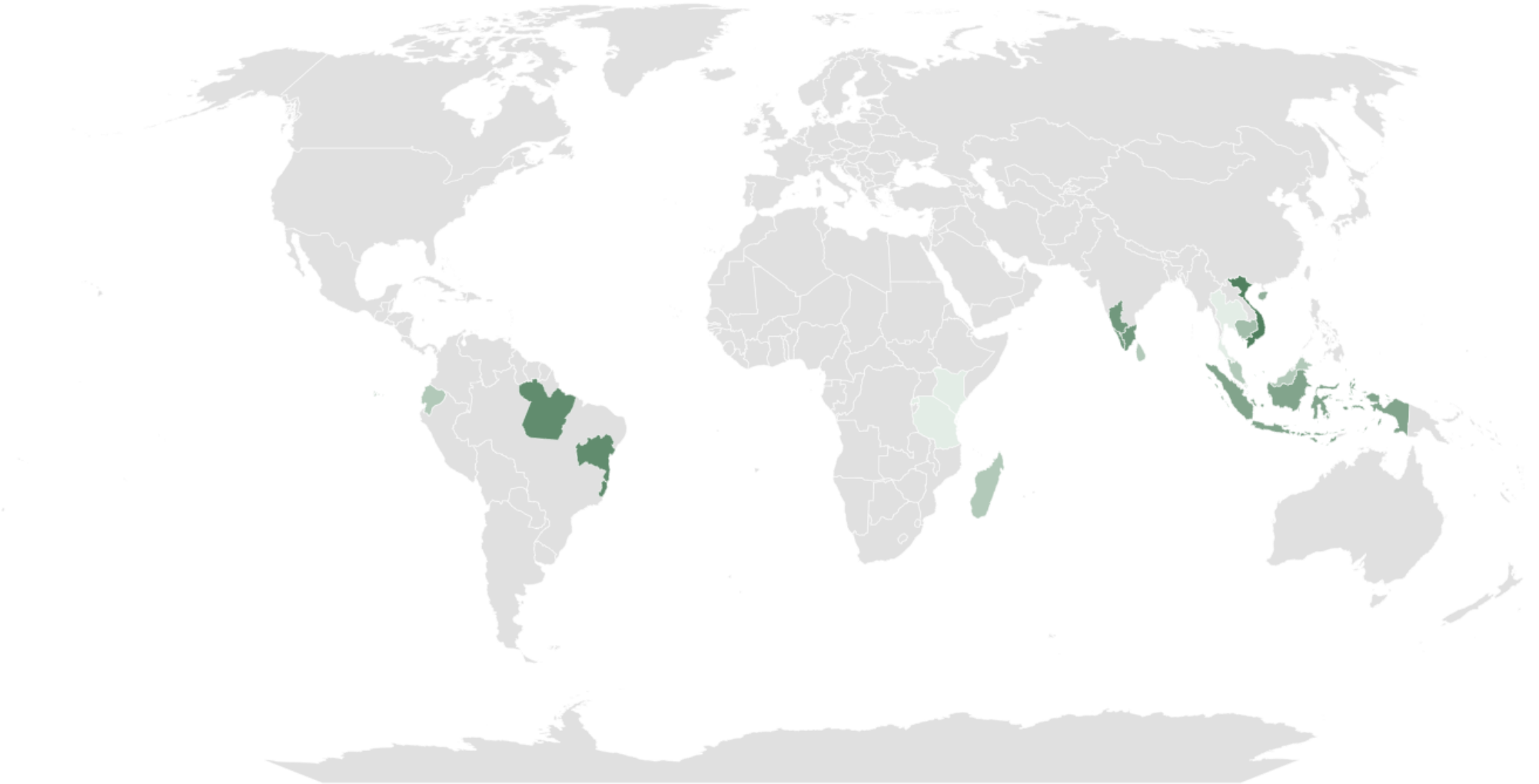
The long-term price cycle of pepper



Note: Monthly price data as per 25-Oct-24.
 1: Average of ASTA quality Vietnam, Lampung and Brazil.
 Source: Nedspice research.

— Black Pepper FOB — White Pepper FOB

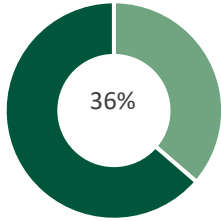
Key Pepper Growing Regions



Vietnam

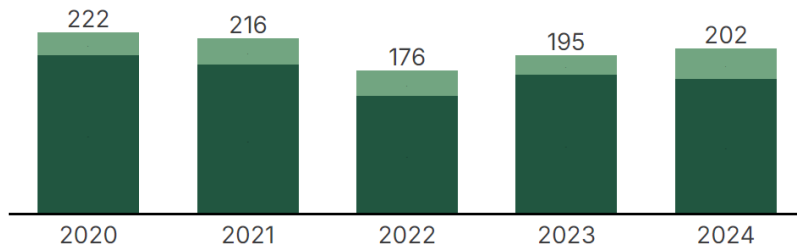
The largest processor and exporter of black and white pepper, limited new plantings past five years

Top #1 origin, producing mainly black pepper

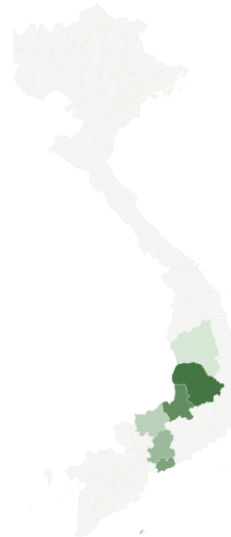


Vietnam vs RoW

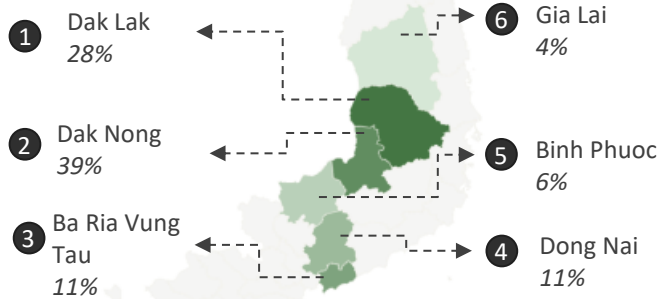
Vietnam pepper exports in KMT (YtD-Sep)



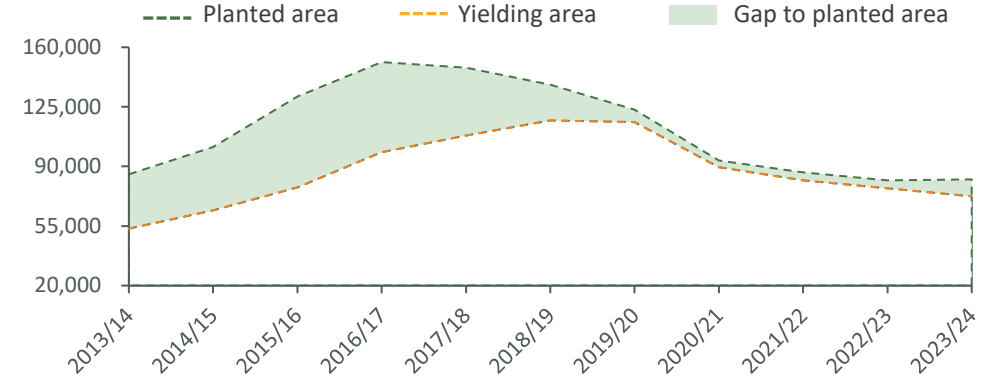
■ Cracked/ground ■ Whole



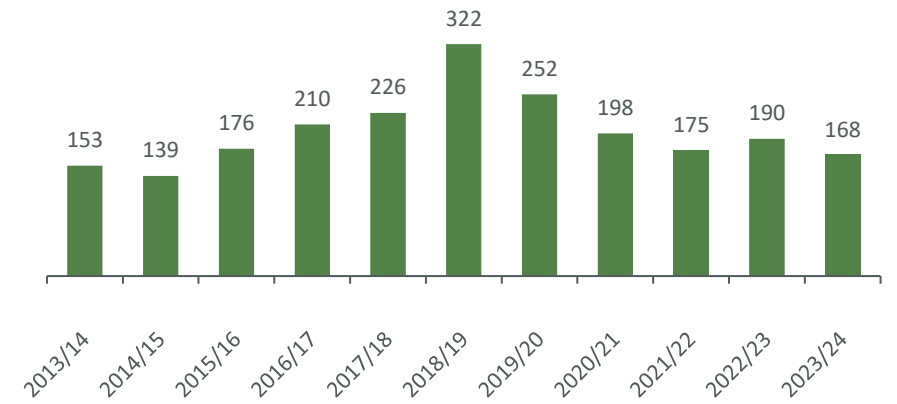
Production per key area



Change in planted area (ha)



Production over time (KMT)



Note: Based on 2023/24 production estimates.
Source: Nedspice research.



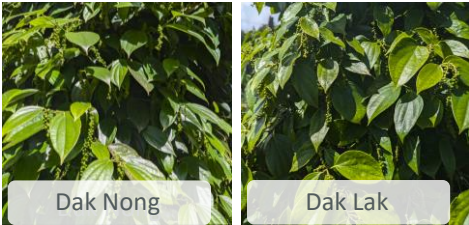
Vietnam

Early expectation for 2025 crop is positive vs 2024, but well below historical volume

In previous years pepper was replaced by other crops, this year replanting



Crop development 2023/2024 season



7%

Death ratio

16%

New planting

176 KMT **5%**

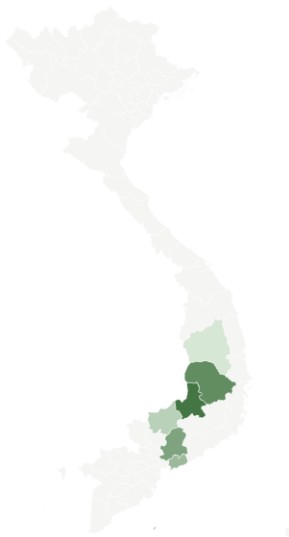
Production volume

72,500 ha

Total yielding area

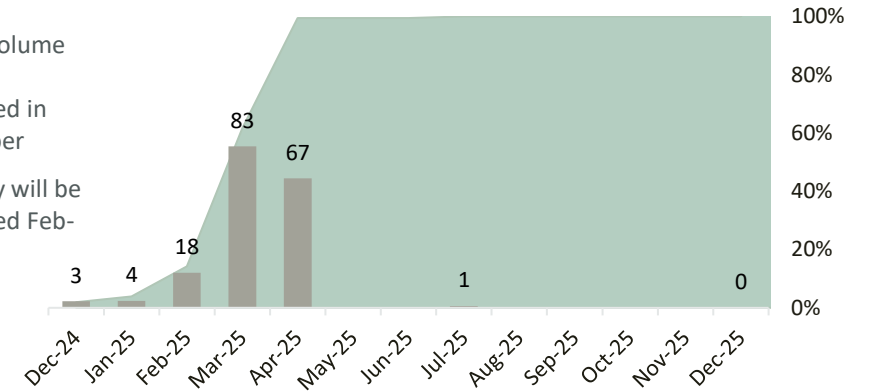
2.2 MT/ha

Yield forecast

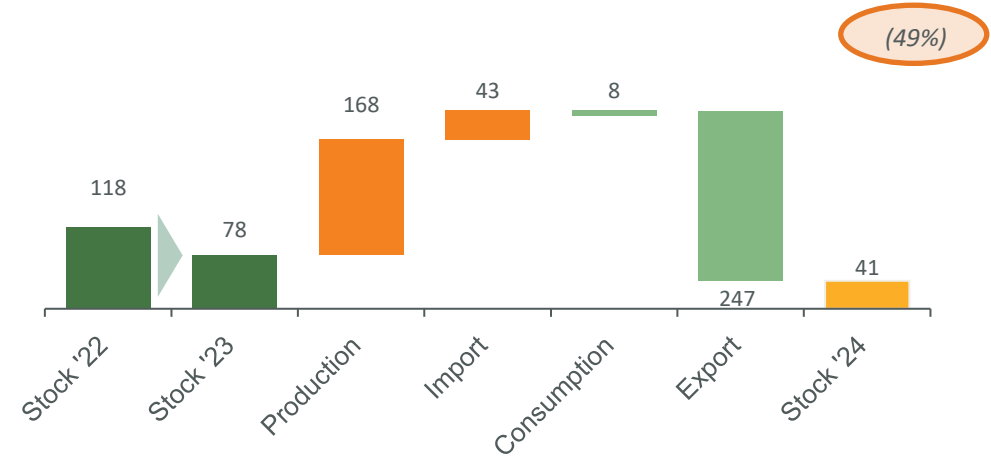


Crop arrivals 2024/25 season (KMT)

- Minor volume will be harvested in December
- Majority will be harvested Feb-March



Stock development¹ (KMT)



(49%)

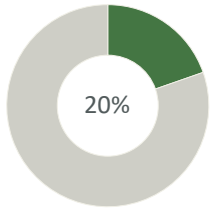
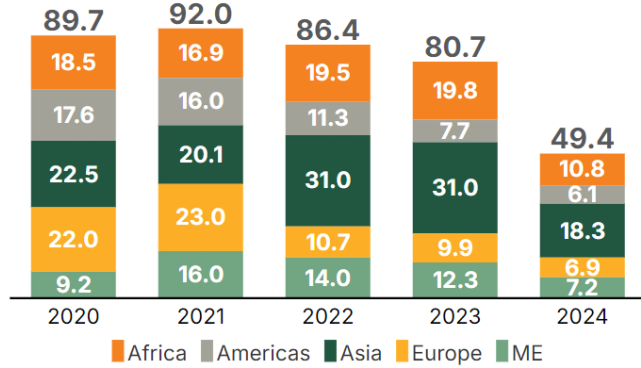
Note: Based on 2023/24 production estimates.
 1) As per end of December.
 Source: Nedspice research.

Brazil

Crop volume affected by adverse weather in recent years

Exports are down 15% over Q1-Q3, driven by Asia and Africa

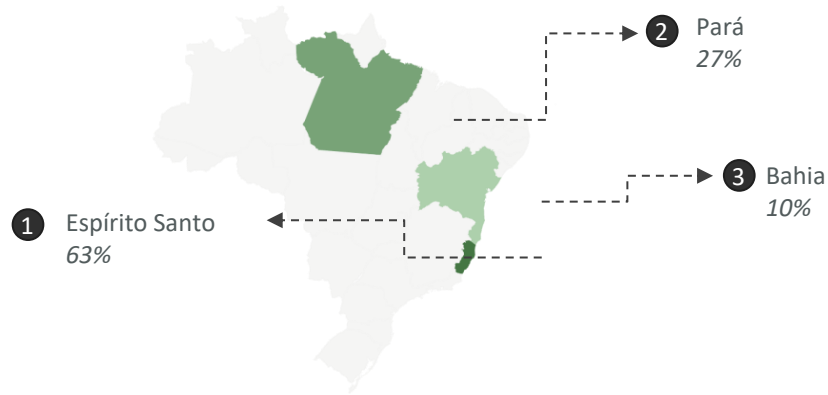
Brazil exports (KMT) | 2020 - 2024 YtD-Sep



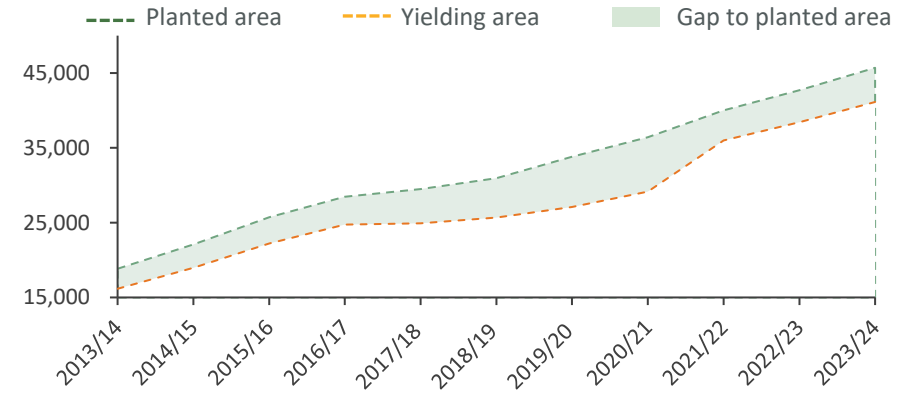
Brazil vs RoW



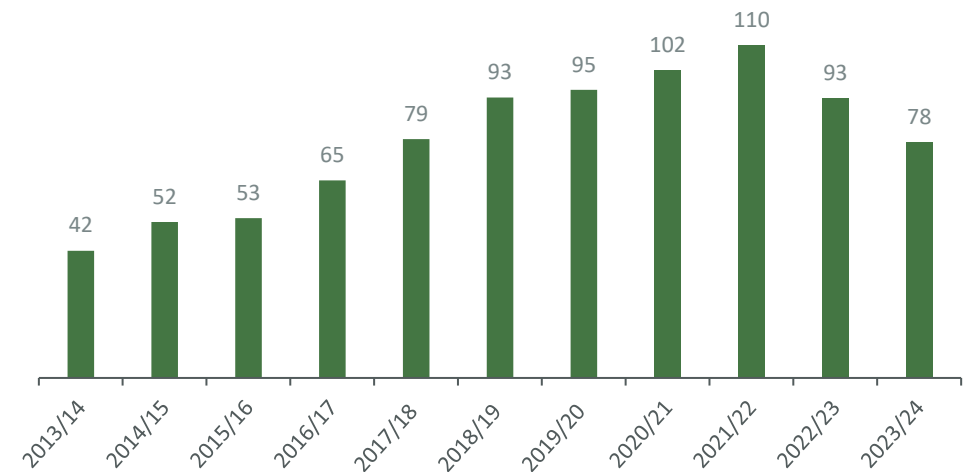
Production per key area



Change in planted area (ha)



Production over time (KMT)

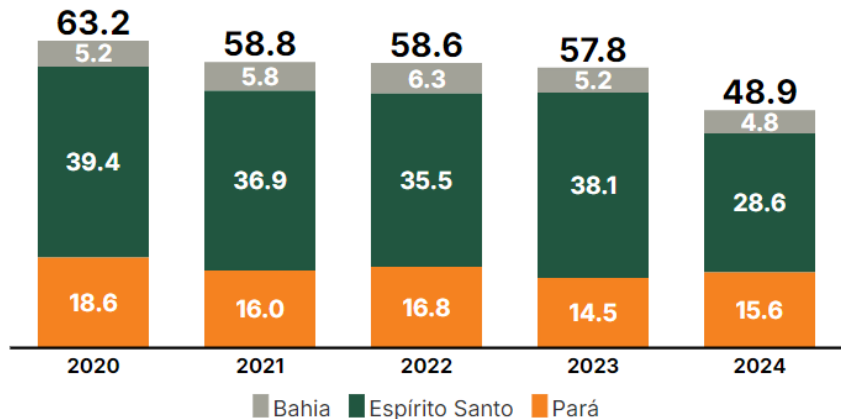


Note: Based on 2023/24 production estimates.
Source: Nedspice research.

Brazil

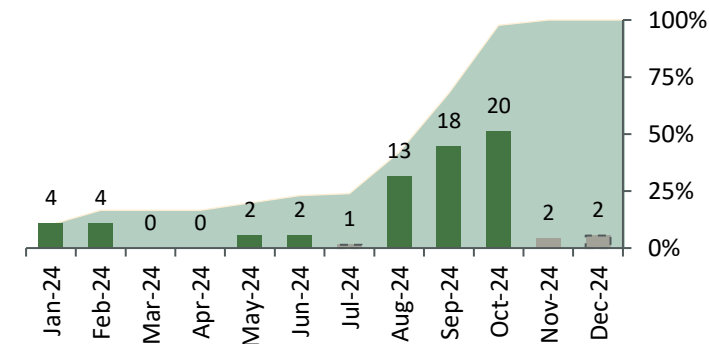
Droughts and high temperatures damaged the crop in Brazil

Brazil exports (KMT) | YtD-Sep by main provinces



Expected crop arrivals 2023/24 season (KMT)

- The harvest season shifts YoY in Espírito Santo. The '24 crop is delayed; a large chunk will be harvested Dec-Feb '25.
- The harvest in Pará finished by end October



Crop development 2023/2024 season



21%

Death ratio

25%

New planting

78 KMT -16%

Production volume

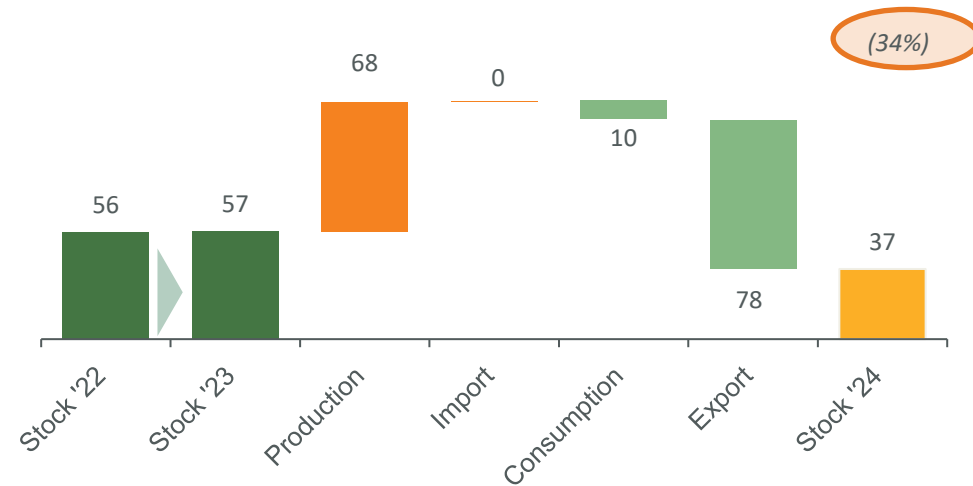
39,600 ha

Total yielding area

2.1 MT/ha

Yield forecast

Stock development¹ (KMT)



Note: Based on 2023/24 production estimates.

1) As per end of December.

Source: Nedspice research.

India

The crop size is relatively stable | expected lifetime of the vines is > 20 years

India is renowned for its Tellicherry pepper & oleoresin businesses

13%

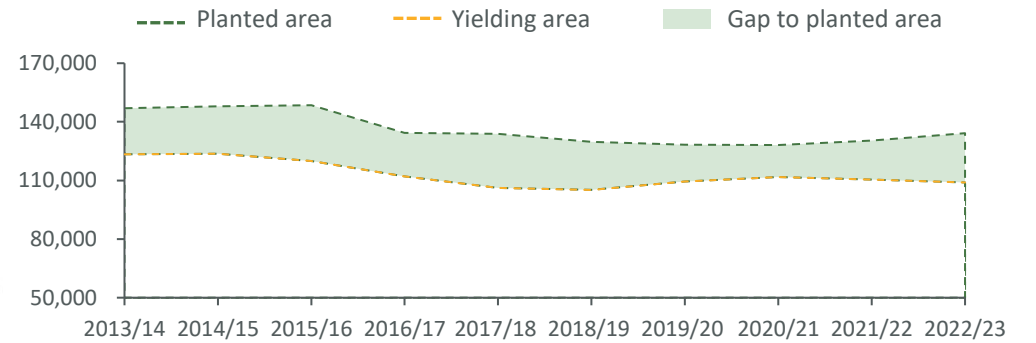
India vs RoW

Tall vines, low intensity

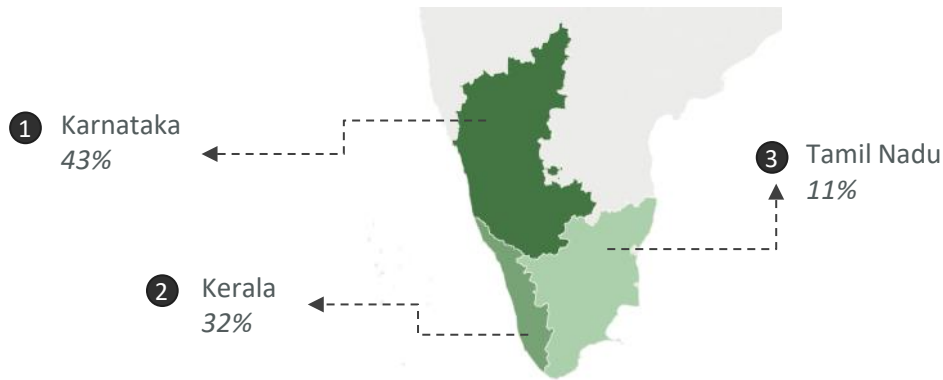
Specialty pepper

The main oleoresin producer

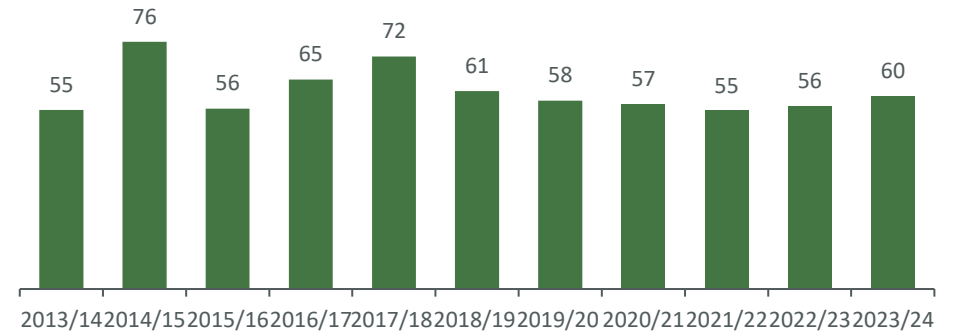
Change in planted area (ha)



Production per key area



Production over time (KMT)



Note: Based on 2023/24 production estimates.
Source: Nedspice research.

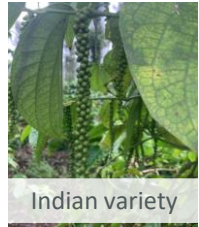
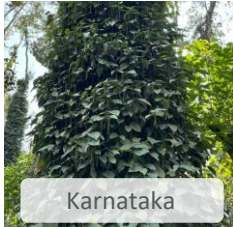
India

Favorable conditions positively impacted the 2024 crop

Tall vines, also intercropping with coffee in some areas



Crop development 2023/2024 season



5%

Death ratio

5%

New planting

60KMT +6%

Production volume

108,000 ha

Total yielding area

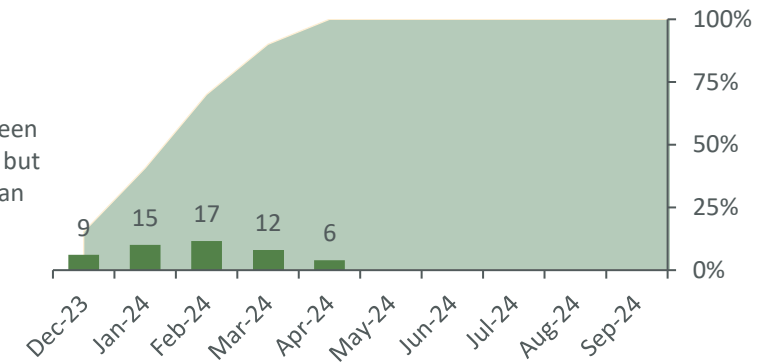
0.55 MT/ha

Yield forecast

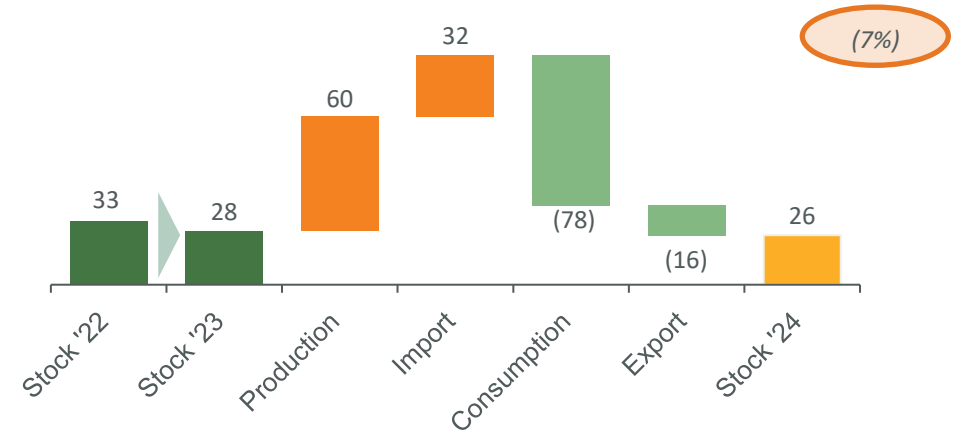


Crop arrivals 2023/24 season (KMT)

- Pepper harvest finished in April
- Yield unevenly distributed between growing regions, but slightly higher than 2023



Stock development¹ (KMT)

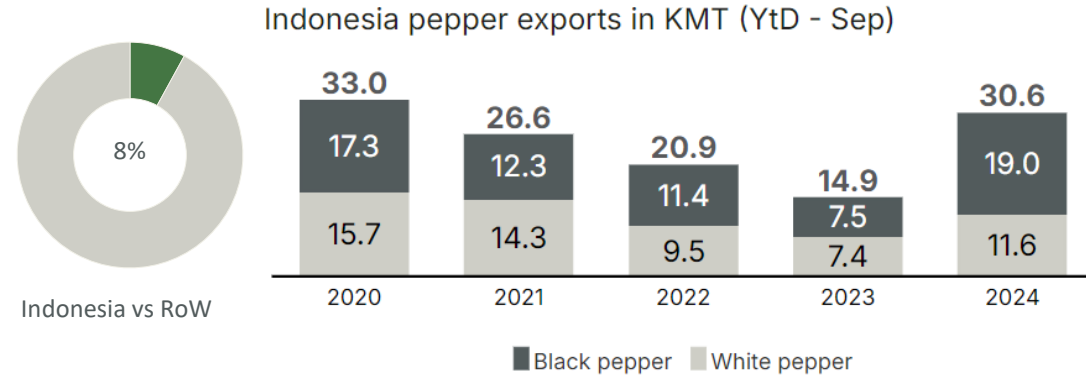


Note: Based on 2023/24 production estimates.
 1) As per end of December.
 Source: Nedspice research.

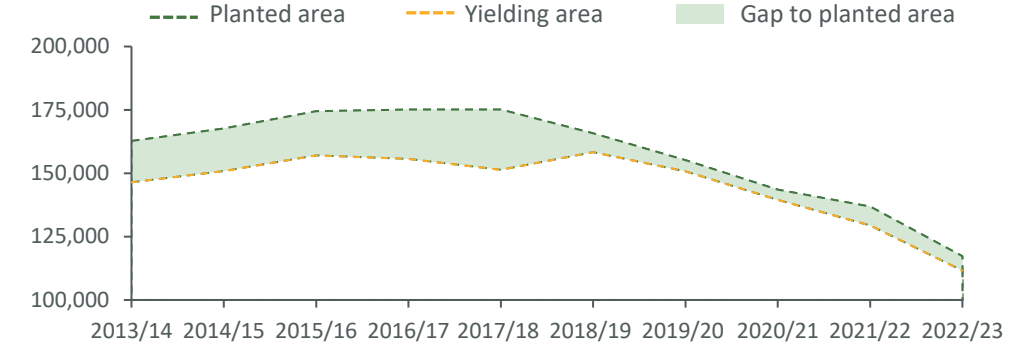
Indonesia

Production has come down over the last four years but partly recovered in 2024

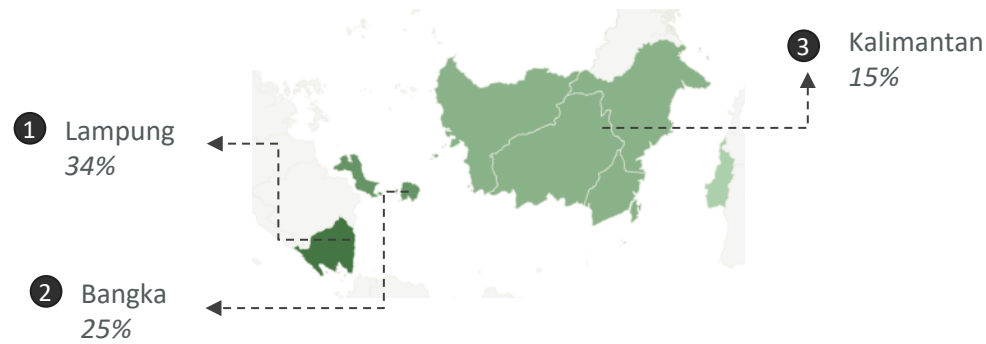
Export volumes from Indonesia have picked up in 2024



Change in planted area (ha)



Production per key area



Production over time (KMT)



Note: Based on 2023/24 production estimates.
Source: Nedspice research.

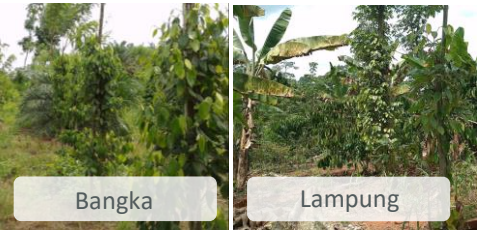
Indonesia

Production recovered vs 2023, but not close to historical figures

Many pepper vines died between 2021 and 2023



Crop development 2023/2024 season



9%

Death ratio

12%

New planting

38 KMT +27%

Production volume

111,000 ha

Total yielding area

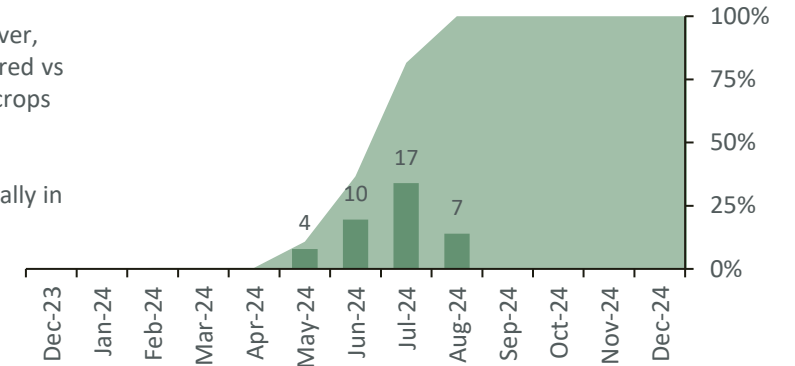
0.3 MT/ha

Yield forecast

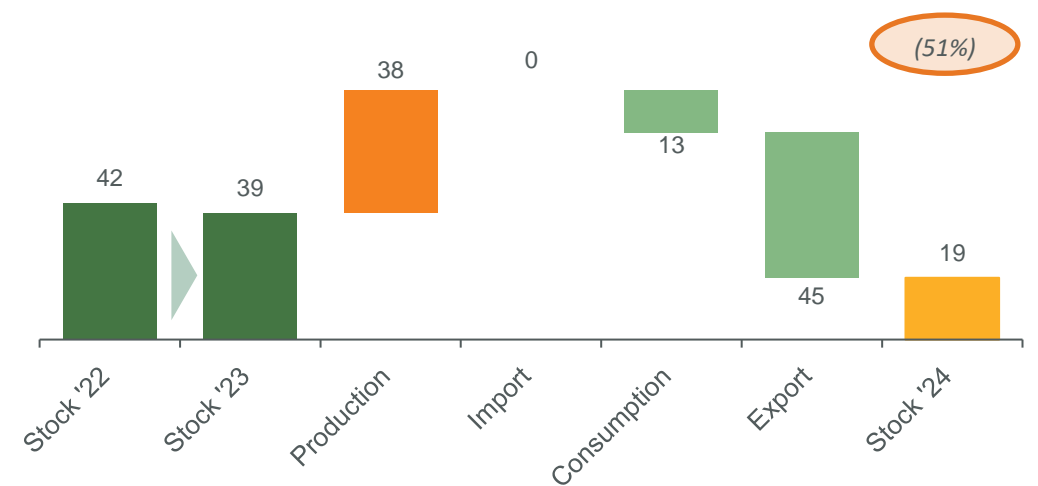


Crop arrivals 2023/24 season (KMT)

- The harvest is over, volumes recovered vs last year when crops suffered from unfavourable weather, especially in Lampung.



Stock development¹ (KMT)



Note: Based on 2023/24 production estimates.

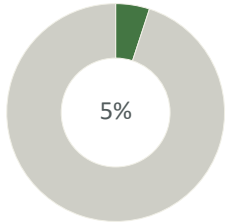
1) As per end of December.

Source: Nedspice research.

China

China produces almost exclusively white pepper, grown on the southern island of Hainan

The largest consuming country in the world



China vs RoW



Hainan white pepper

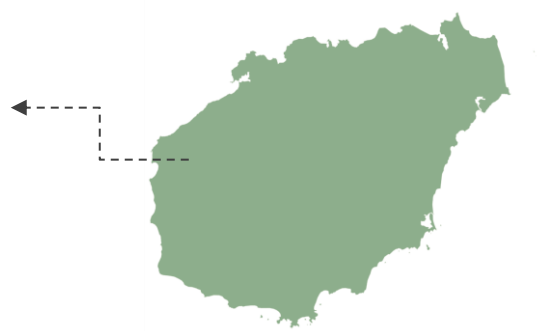


Largest pepper consuming country



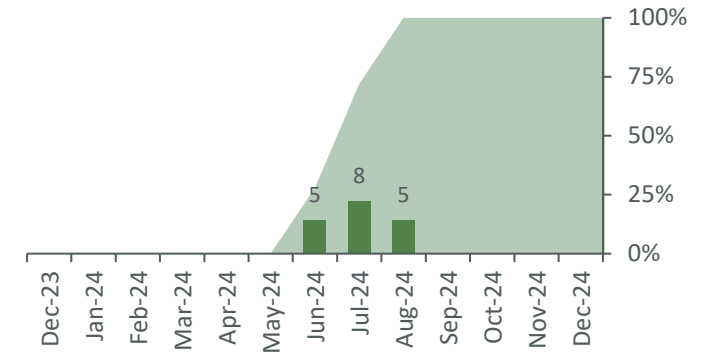
Production per key area

Hainan
100%

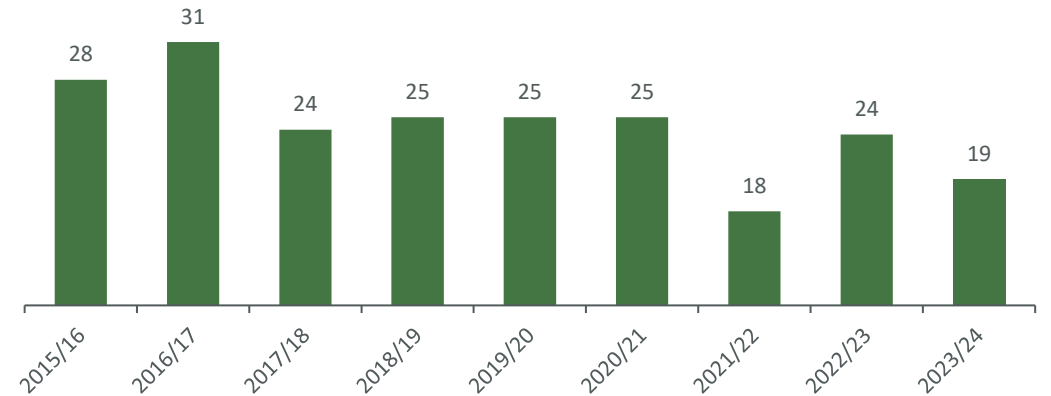


Crop arrivals 2023/24 season (KMT)

- The harvest finished in August, with a 15% smaller crop. A few weeks later, the growing areas were hit by a typhoon. It's expected that the 2025 crop will be smaller again.



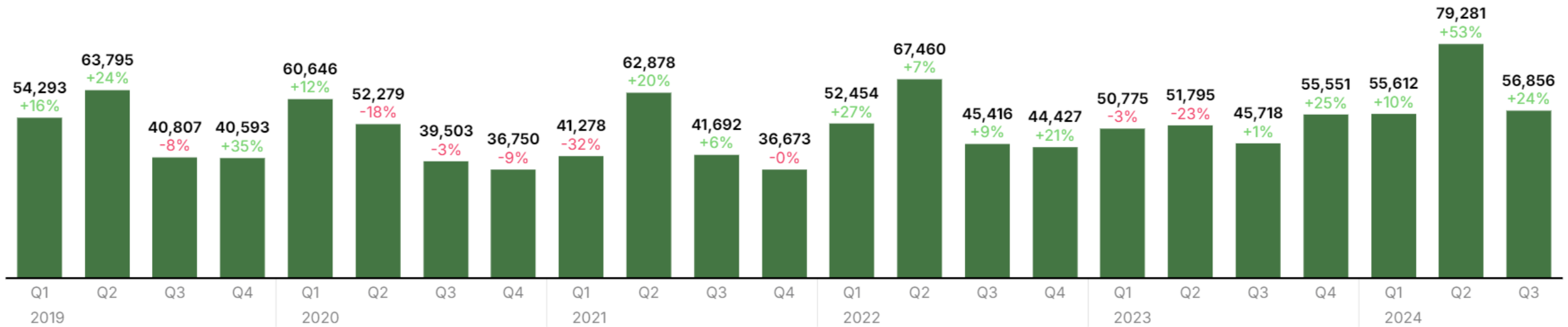
Production over time (KMT)



Note: Based on 2023/24 production estimates.
Source: Nedspice research.

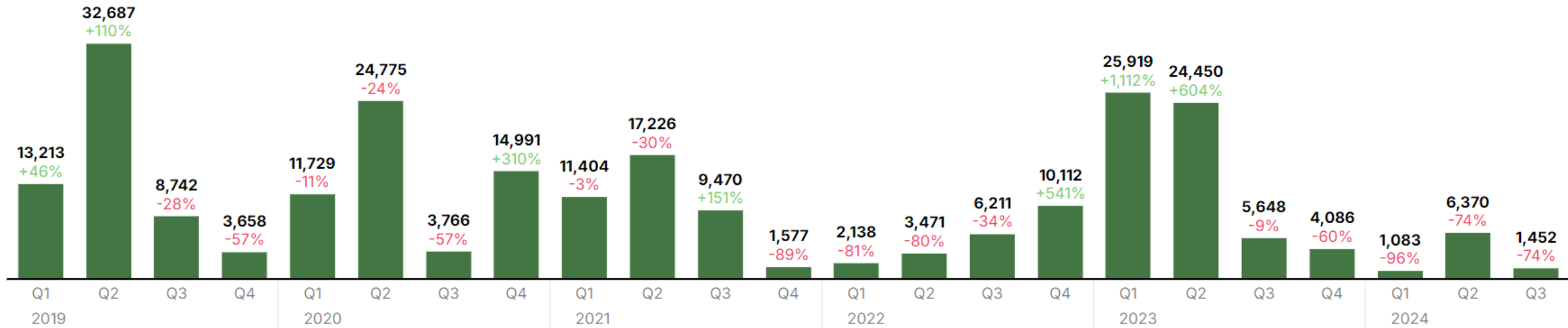
Why Chinese demand is an important price driver

Quarterly exports from Vietnam (MT) to RoW



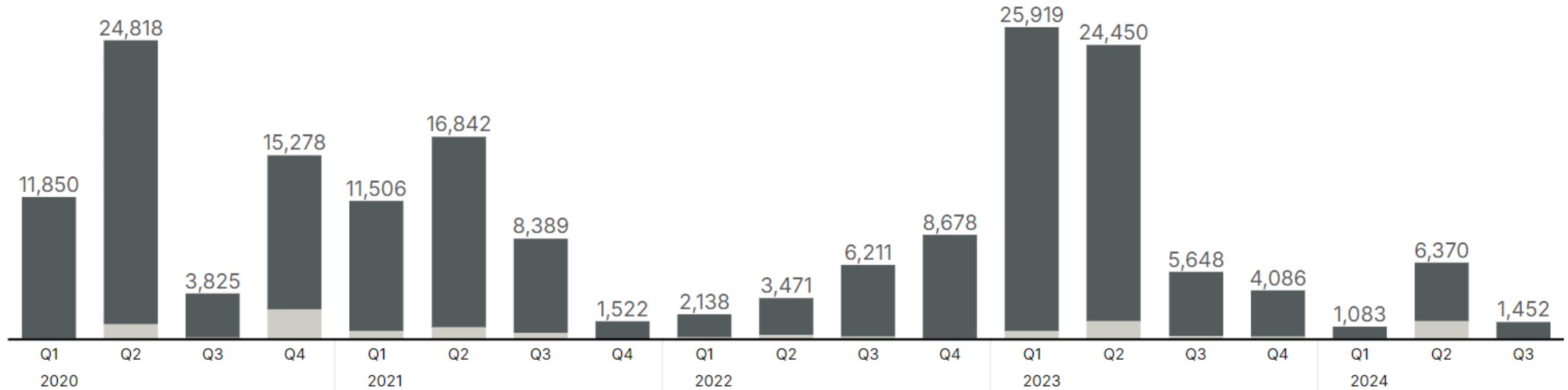
Why Chinese demand is an important price driver

Quarterly exports from Vietnam (MT) to China

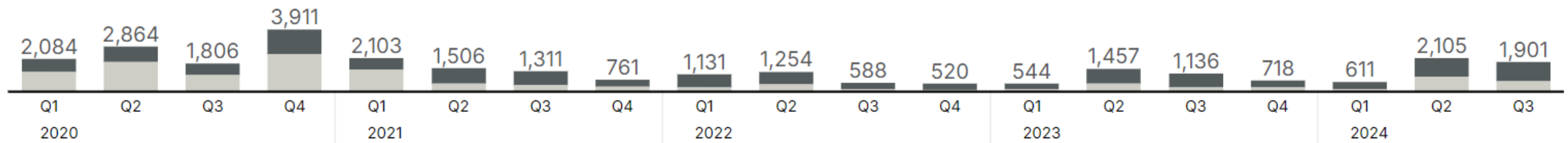


Buying pattern China in Vietnam and Indonesia (exports)

Vietnam quarterly exports to China in MT



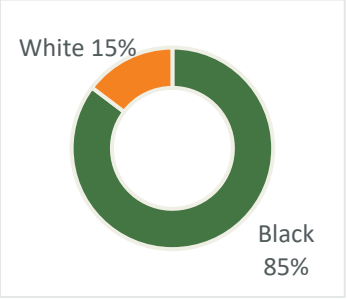
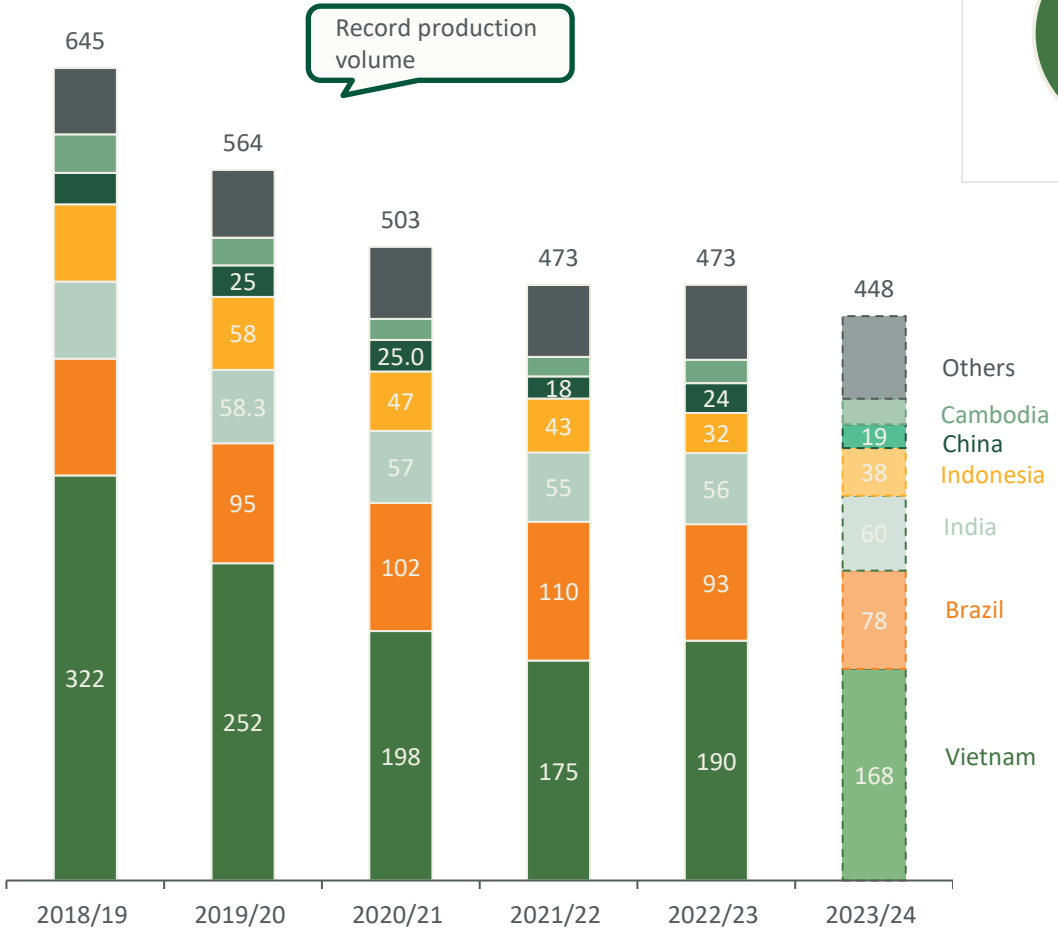
Indonesia quarterly exports to China in MT



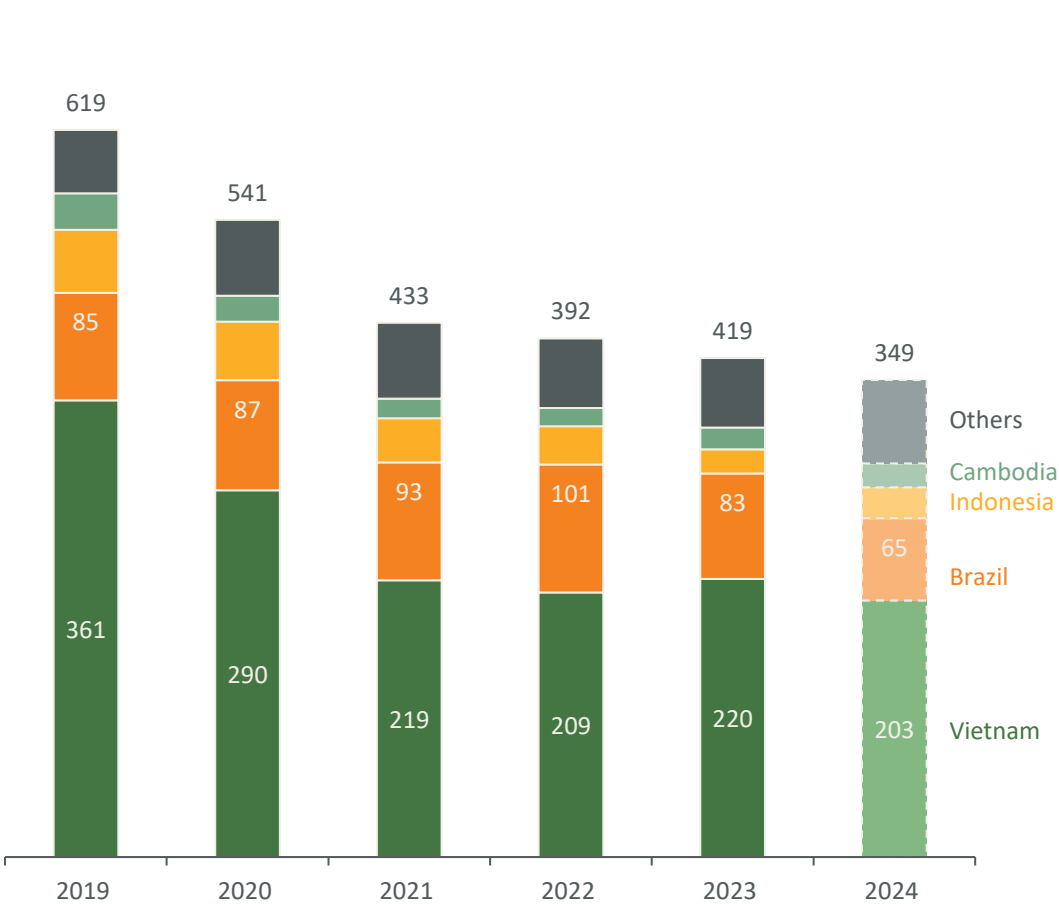
■ Black pepper ■ White pepper

Total global production is on a downward trend, with around 449KMT expected for 2024

Global pepper production (KMT)



Exportable production from origin¹ (KMT)

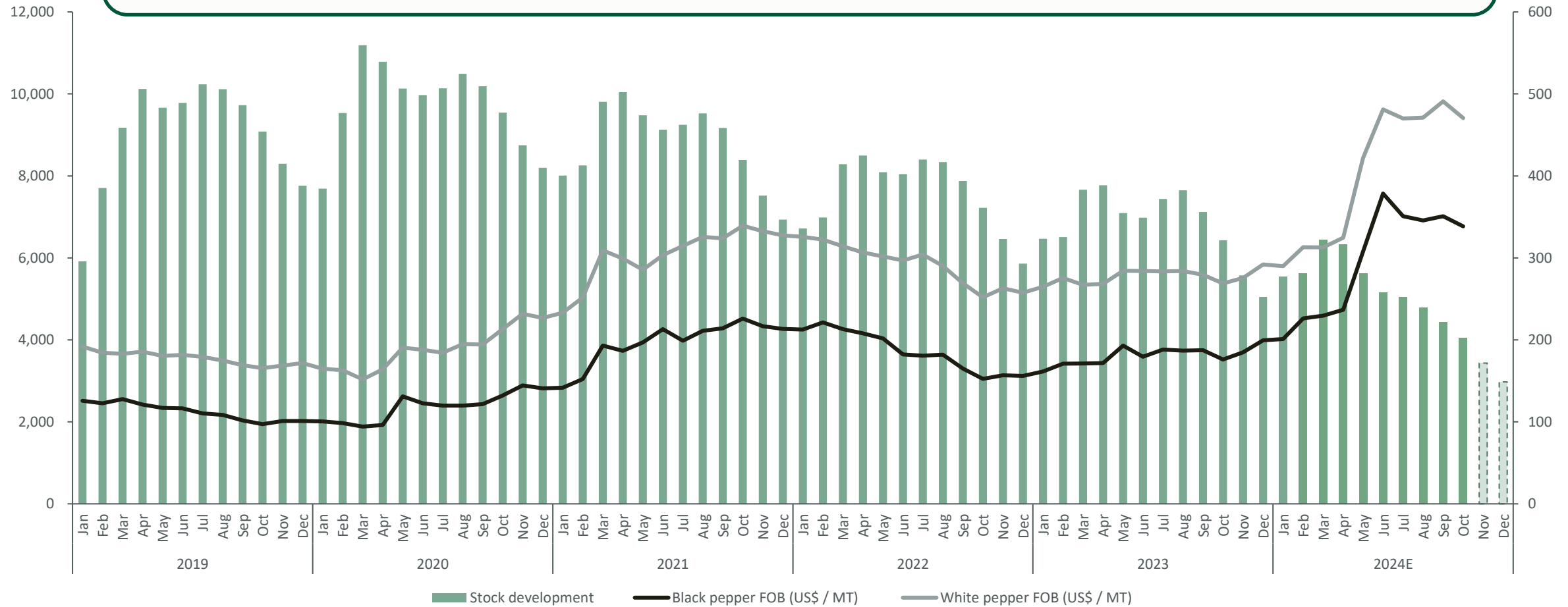


1) Include imports and exports within producing countries.
Source: Nedspice research.



Stock development at origin and prices

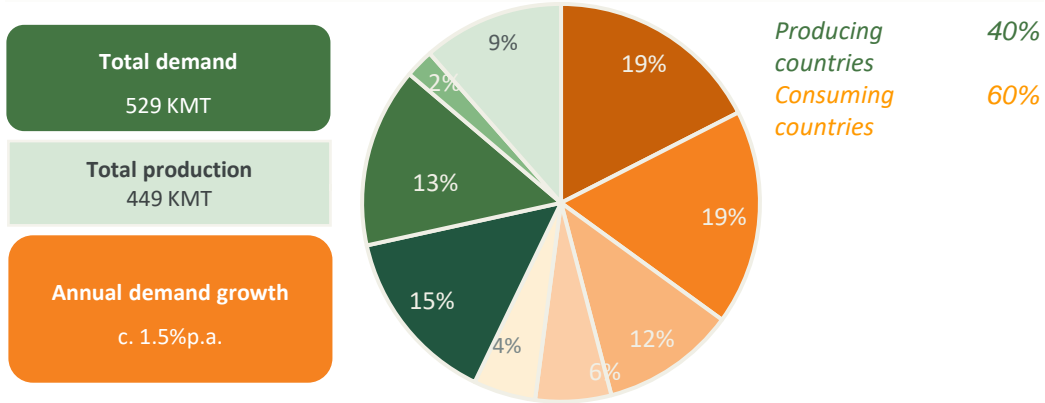
Stocks at origins have been on a downward trend since 2020, one year after production peaked in Vietnam.



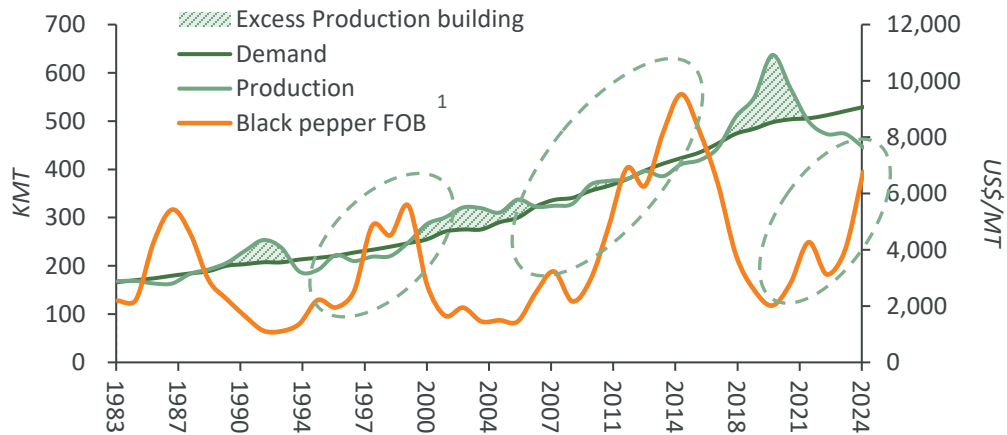
Note: Monthly price data as per 25-Oct-24.
Source: Nedspice research.

Demand remains resilient, at c. 529 KMT currently, global stocks have decreased and are below annual demand

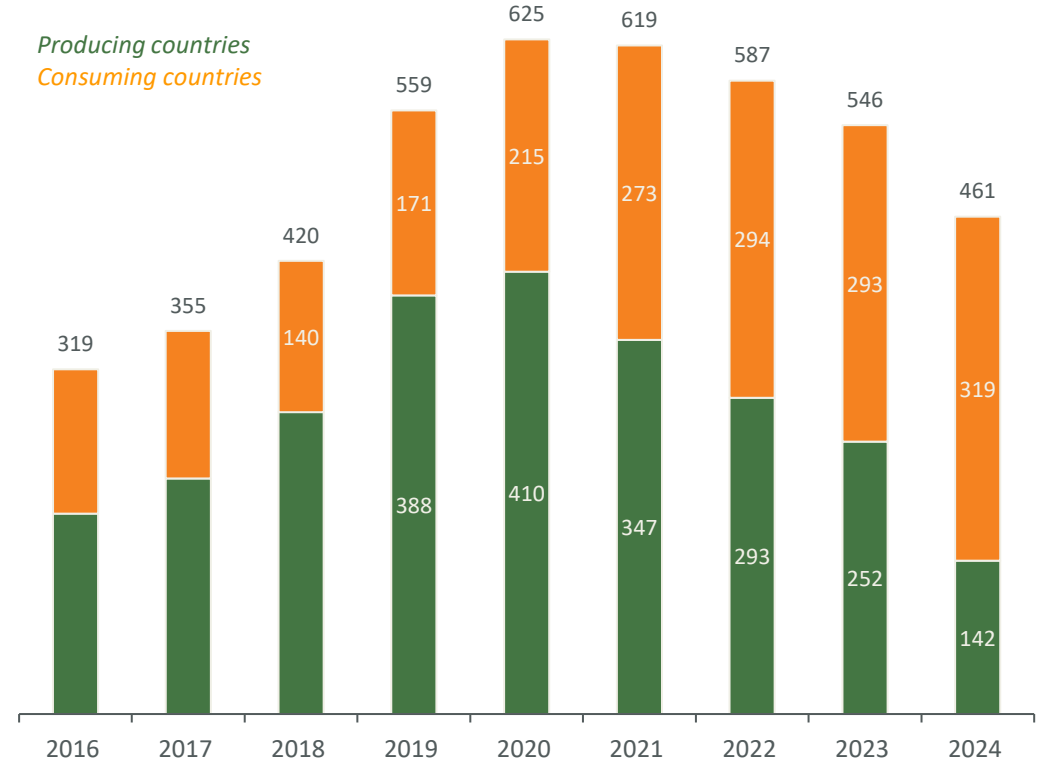
Global pepper demand



Annual production has moved below overall demand

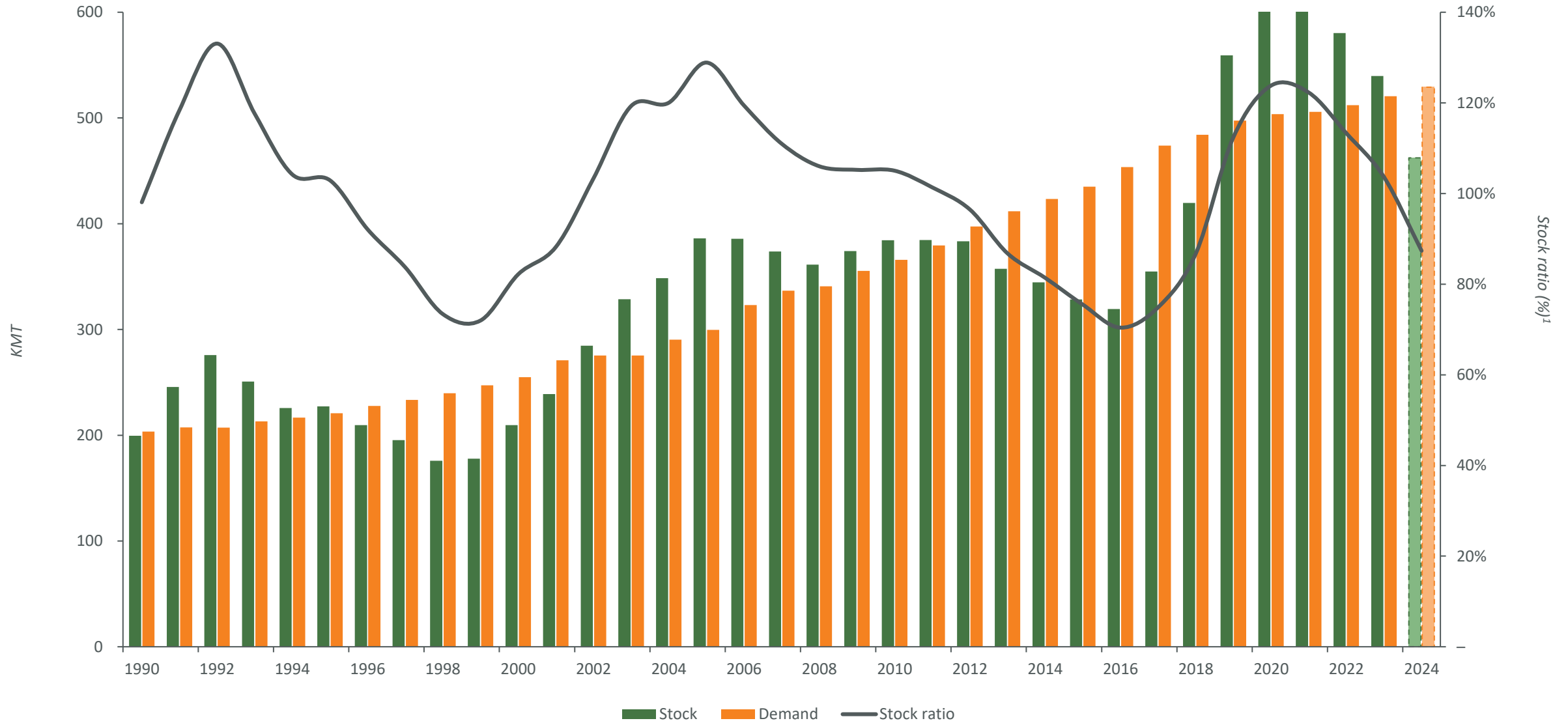


Global stock development (KMT)



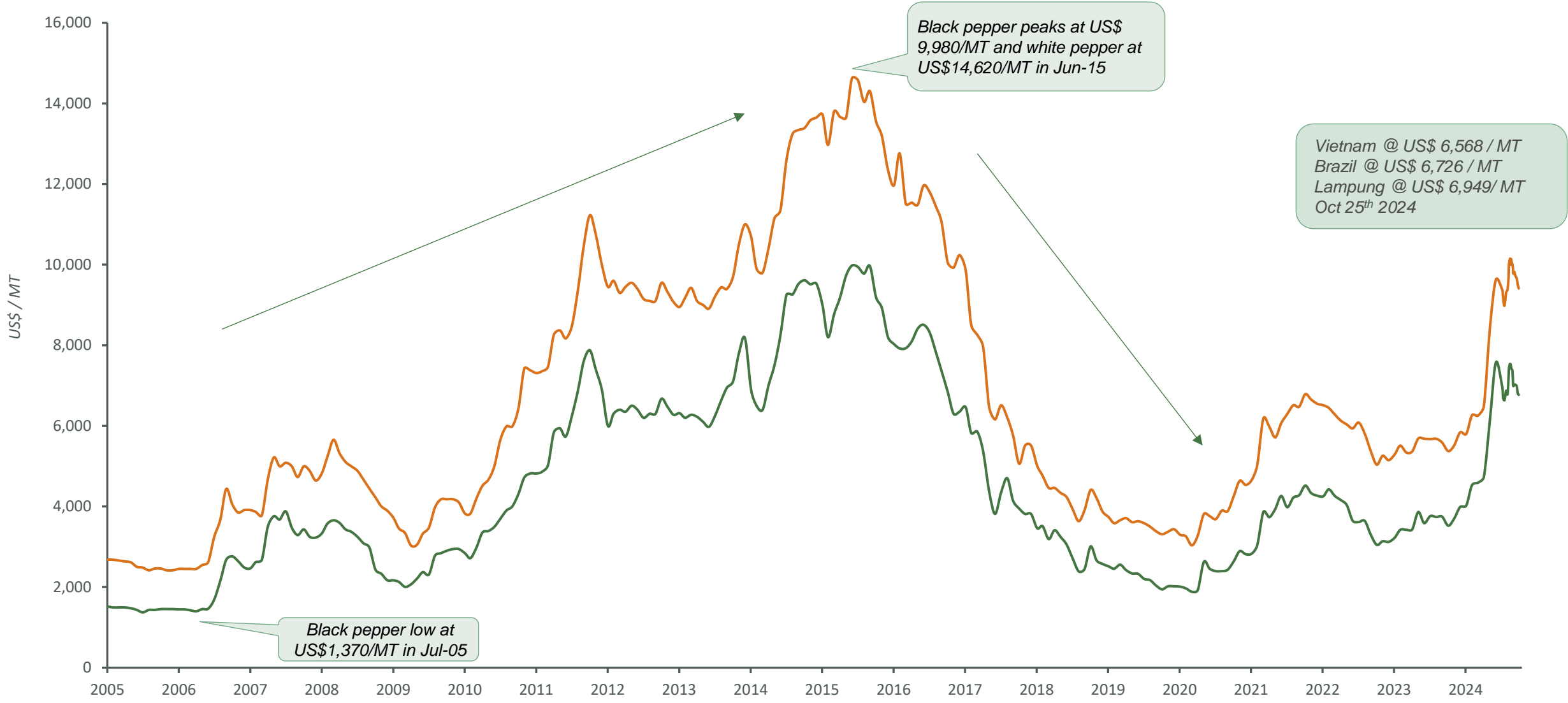
1) Market price as per 25-Oct-24. Average of Vietnam, Indonesia and Brazil ASTA quality.
 Source: Nedspice research.

The stock ratio reversed direction, and prices are moving up.



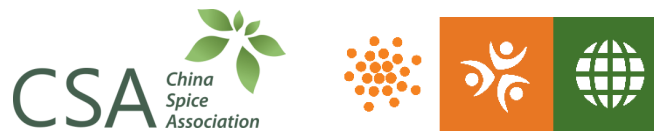
1) Define as global stock position / global demand
Source: Nedspice research.

Returning to the price graph



Note: Monthly price data as per 25-Oct-24.
1) Average of ASTA quality Vietnam, Lampung and Brazil.
Source: Nedspice research.

— Black Pepper FOB — White Pepper FOB



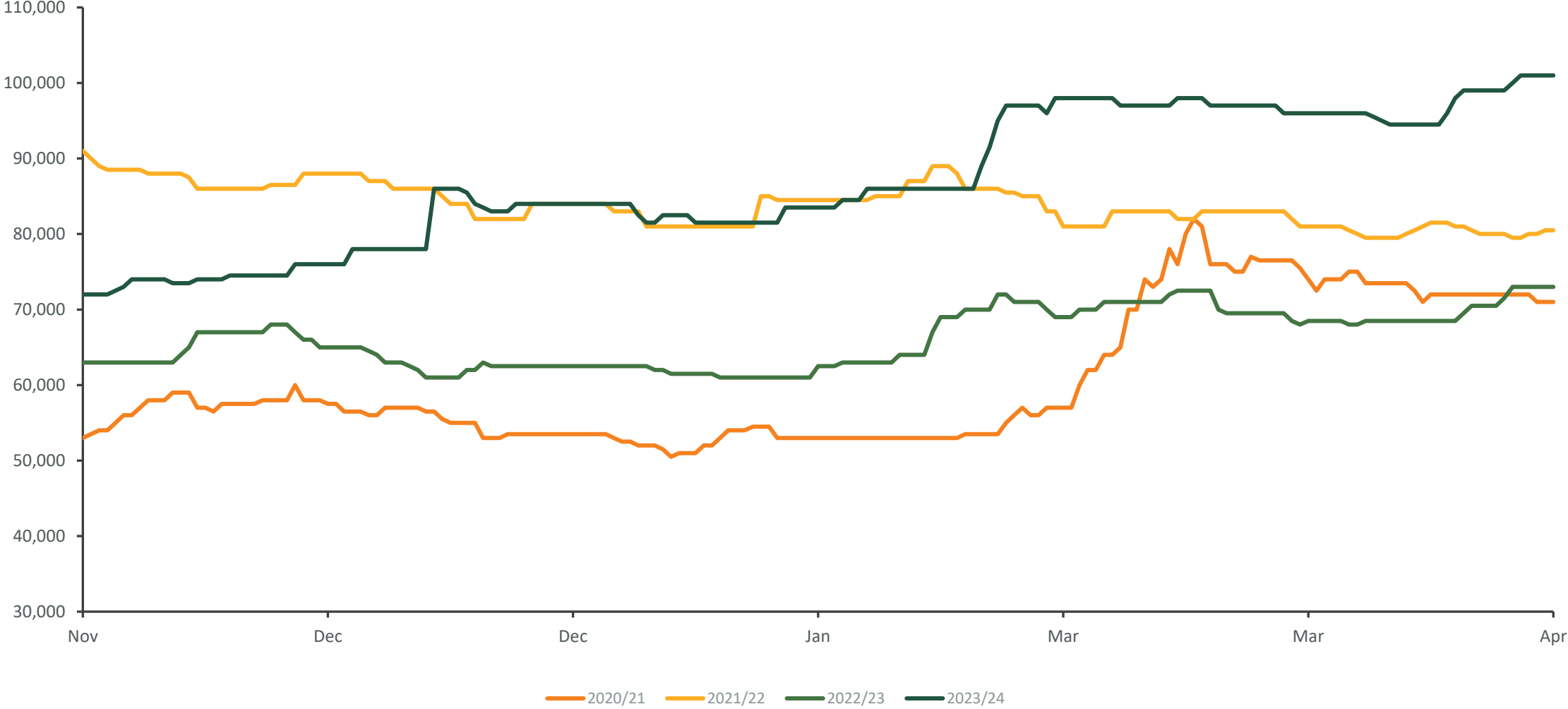
Will history repeat itself?



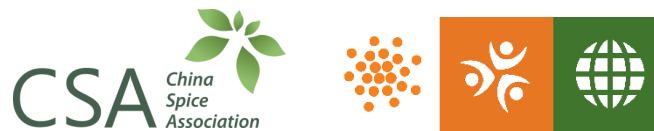
Average ASTA quality Vietnam, Brazil and Lampung.

Market data as per 25-Oct-24.
1) Average of Vietnam, Indonesia and Brazil ASTA quality
Source: Nedspice research.

Price movement of black pepper in Vietnam from November to April, in 2020-2024



Note: Price data in VND as per 25-Oct-24.
 Source: Nedspice research.



Concluding summary

- Global production is estimated at 449KMT for the 23/24 season. Decreasing acreage in Vietnam and adverse weather in Brazil linked to El Niño are the main drivers.
- Increasing prices will encourage farmers to intensify their farming efforts, driving up yields per hectare over the coming years.
 - New plantings will take time to come to fruition however, so origins like Vietnam are unlikely show significant recovery soon. Nonetheless, the early signs for the 2025 crop in Vietnam are positive with the potential for good yields if weather conditions remain favorable.
 - Competing crops like coffee and durian are very profitable, undermining the incentive to start new pepper plantations.
 - Since the total acreage in Brazil increased in recent years, this origin has the potential for a large crop from 2025 onwards.
- Total production of c. 449KMT vs demand of c. 529KMT drives a further decrease in global stocks. Overall stocks are estimated to reach c. 468KMT, below yearly global demand.



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Thank you for your attention

14th November 2024

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