

Production and Marketing Scenarios of Major Horticultural Crops in Goa



Figure 3: Facilities provided by the Marketing Board to farmers
 Source: <https://gsamb.in/benefits/>

III E. Assured Price scheme

Under this scheme, the Government of Goa assures prices for various crops such as coconut, cashewnut, arecanut, and paddy. Farmers who sell their produce to registered traders can claim assistance from the government for the difference between the market price and the assured price. Assured prices for various crops during 2023-24 are given below.

Table 5: Assured Price given to farmers in Goa for the year 2023-24

S No	Crops	Assured Price (2023-24)
1	Coconut (per nut)	Rs.15/ per nut
2	Cashewnut	Rs.150/ per kg
3	Arecanut	Rs.170/ per kg
4	Paddy	Rs.22/ per kg
5	Alsando	Rs.100/ per kg
6	Sugarcane	Rs.3000/ per tonne
7	Oil Palm	Rs.9000/ per tonne

Source: Directorate of Agriculture, Goa

IV. Price trends of major horticultural crops in Goa

IV A. Arecanut

The daily prices of arecanut (Supari old grade) from January 2020 to July 2024 are shown in Figure 4. Compared to supari new grade, old grade fetches higher prices. Since 2020, prices of supari old grade steadily increased and peaked at Rs. 493/kg in December 2021. Subsequently, prices declined, reaching Rs. 330/kg in May 2023. Thereafter, prices stabilised at around Rs. 340/kg.

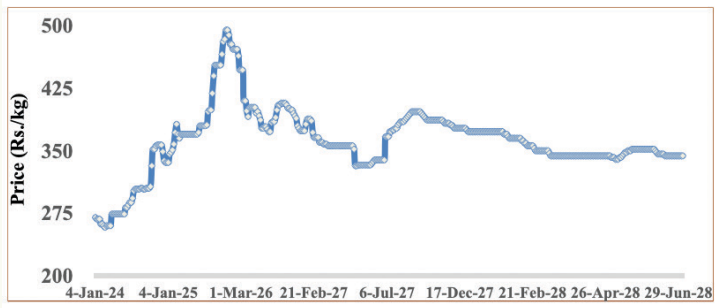


Figure 4: Prices of arecanut (Supari old grade) in Goa (Jan 2020 to July 2024)

The daily prices of arecanut (Supari new grade) from January 2020 to July 2024 are depicted in Figure 5. Since December, 2022, prices of supari new grade have gradually increased and stabilized at around Rs.340/kg.

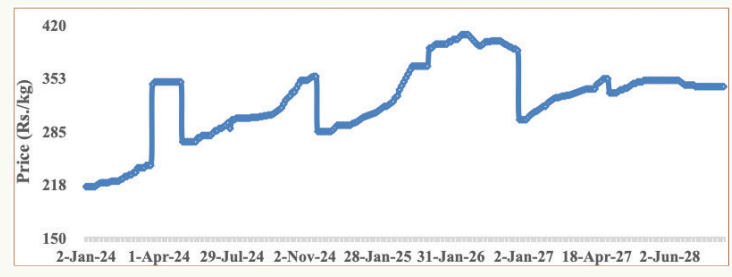


Figure 5: Prices of arecanut (Supari new grade) in Goa (Jan 2020 to July 2024)

IV B. Black pepper

Figure 6 shows the trends in daily prices of black pepper from January 2020 to July 2024 in Goa. After of peak of Rs. 590/kg in November 2023, prices declined to Rs. 489/kg during March 2024. Thereafter prices increased and reached Rs. 650/kg during June 2024.

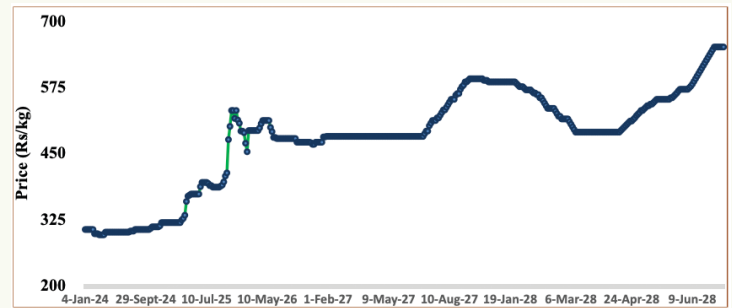


Figure 6: Prices of black pepper in Goa (Jan 2020 to July 2024)

IV C. Coconut

The daily prices of coconut have been presented in Figure 7 for its major grade (120/bag) and in Figure 8 in terms of Rupees per kg of coconut. Prices of coconut in both these terms peaked during 2021. During August to September 2021, prices of major grade of coconut (120/bag) peaked at Rs.22,000 per 1,000 nuts. During January to May 2021, prices of coconut peaked at Rs. 38/kg. Prices of coconut during June 2024 ruled around Rs. 16,000 per 1,000 nuts and Rs. 27/kg.

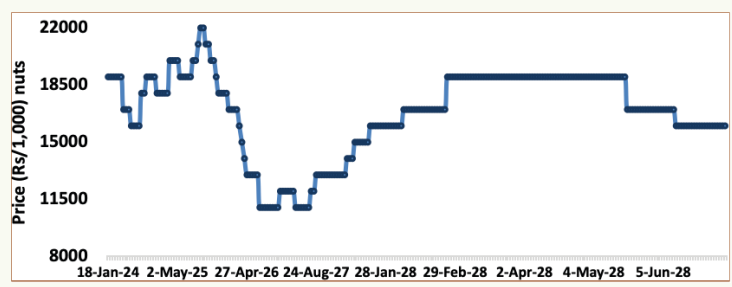


Figure 7: Prices of Coconut (Rs./1,000) nuts in Goa (120/bag नारळ 120 भरत) in Goa (Jan 2020 to July 2024)

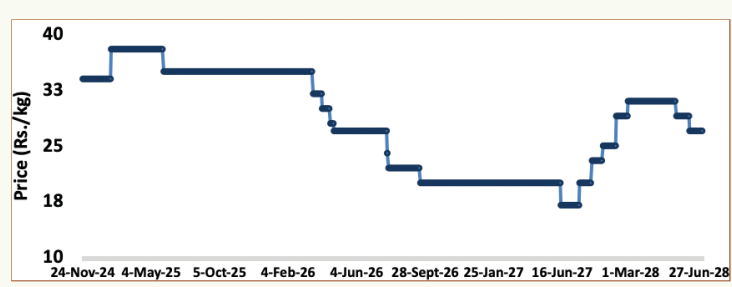


Figure 8: Prices of Coconut (Rs./kg) in Goa (Jan 2020 to July 2024)

IV D. Cashewnut

Figure 9 shows the trends in daily prices of cashewnut in Goa (Feb 2020 to July 2024). During this period, in May 2022, prices peaked at Rs. 140/kg which then declined and currently, prices are stable at around Rs. 115/kg. The assured price of Cashewnut in Goa during 2023-24 is Rs. 150/kg and the present market price is lower than the assured price.

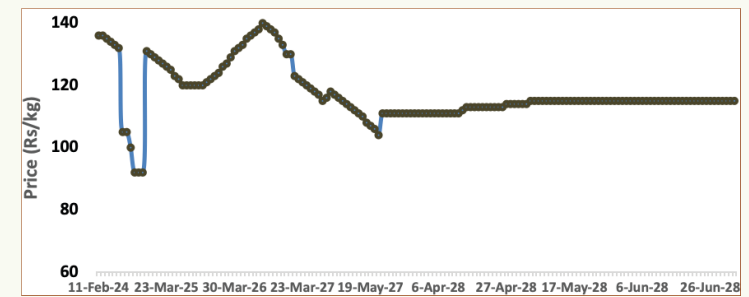


Figure 9: Prices of cashewnut in Goa (Feb 2020 to July 2024)

V. Conclusion

These four major horticultural crops – coconut, cashewnut, arecanut, and black pepper – occupy a substantial share of cropped area (~ 61%) in Goa, playing a crucial role in sustaining farmers' livelihoods and income. Introducing intercropping of black pepper in arecanut and coconut presents a promising opportunity to enhance farmers' income. Goa's cashews command premium prices in the market, highlighting an opportunity to leverage this potential to secure better farm prices for cashew farmers and enhance overall profitability.

VI. References/Further reading

- https://cpcr.icar.gov.in/filemgr/webfs/publication/Coconut_English_No133.pdf
- http://www.spices.res.in/file/284/download?token=KU_WRQVE
- <https://cashew.icar.gov.in/wp-content/uploads/2017/04/cashew-cultivation-practices.pdf>
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- <https://ccari.icar.gov.in/Peppervilt.pdf>
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I. Introduction

Farmers in Goa follow a traditional, multitier homestead gardening system locally known as *kulagar*. This system is integral to Goan agriculture and features major horticultural crops such as arecanut, black pepper and coconut. Additionally, cashew is commonly cultivated on the hilly terrain, occupying the upper part of the farm. These horticultural crops are vital, providing essential income and livelihood opportunities for the region's farmers.

II. Production scenario

During 2023-24, major horticultural crops in Goa—cashewnut, coconut, arecanut, and black pepper—were cultivated on 59,740 ha, 24,670 ha, 1590 ha and 710 ha respectively, covering 61.28% of the total cropped area of Goa (141,500 ha). Around 24,520 tonnes of cashewnut, 1.05 lakh tonnes of coconut, 3,370 tonnes of arecanut, and 370 tonnes of black pepper were produced in Goa during 2023-24. The productivity levels of cashewnut was 0.41 t/ha, 4.26 t/ha in coconut, 2.12 t/ha in arecanut, and 0.52 t/ha in black pepper. The value of output was calculated using the average prices during the period from June 1, 2023, to May 31, 2024, in Goa. The gross value of output of cashewnut was ₹273.08 crore, coconut was ₹246.35 crore, arecanut was ₹118.40 crore and black pepper was ₹20.18 crore during 2023-24.

Table 1: Production statistics of arecanut, coconut, black pepper and cashewnut in Goa during 2023-24

Crops	Area (hectares)	Production (tonnes)	Yield (t/ha)	Average price (Rs./kg)	Value of output (Rs. Crore)
Cashewnut	59,740	24,520	0.41	111.37	273.08
Coconut	24,670	1,05,010	4.26	23.46	246.35
Arecanut	1590	3370	2.12	351.33	118.40
Black pepper	710	370	0.52	545.48	20.18

Source: Second Advance Estimates 2023-24, Ministry of Agriculture & Farmers Welfare, Govt of India. The average price during the period from June 1, 2023, to May 31, 2024, in Goa was used to compute the value of output by multiplying the average price with the production.

II A. Trends in production

Figure 1 illustrates the production trend of major horticultural crops in Goa from the years 2018-19 to 2023-24. During 2018-19, the production of cashewnut in Goa stood at 32.2 thousand tonnes while declined to 24.52 thousand tonnes during 2023-24. Coconut production saw a decline from 133 million nuts in 2018-19 to 105 million nuts in 2023-24. In case of arecanut, production was 3.3 thousand tonnes during 2018-19 which increased to 3.37 thousand tonnes during 2023-24. The production of black pepper fluctuated around 360 tonnes throughout this period.

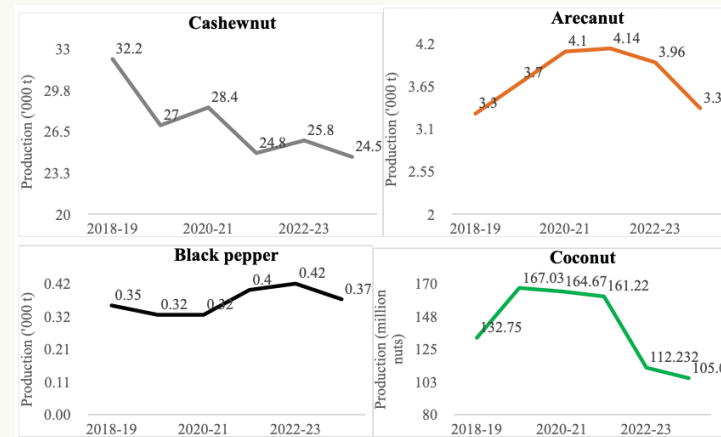


Figure 1: Production trends of major horticultural crops of Goa (2018-19 to 2023-24)

II B. Key Agronomic and Economic Characteristics of Major Horticultural Crops

Information on key agronomic and economic characteristics of major horticultural crops in Goa is presented in Table 2. This table summarizes key aspects of arecanut, black pepper, coconut, and cashew. It includes spacing, number of plants per acre, popular varieties, recommended fertilizer doses, average prices (June 2024), major grades, buyers, markets, diseases, pests, and important factors for higher returns.

Table 2: Key Agronomic and Economic Characteristics of Major Horticultural Crops in Goa

Sr.No	Particulars	Arecanut	Black Pepper	Coconut	Cashew
01	Spacing	2.7m*2.7m	3m*3m	7.5m*7.5m to 8 m*8 m	7.5m*7.5m or 8m*8m
02	No of plants/acre (acre=4000 m ²)	~540	~450	~63 to 72	~63 to 72
03	Popular varieties	Mangala, Sumangala, Shatamangala, Mohitnagar, Sirsi	Panniyur-1, Panniyur-2, Panniyur-5, Panniyur-10, IISR-Thevam	Tall: Benaulim, Calangute, Pratap, Nadora Chowghat Orange Dwarf (Dwarf) Kera Sankara (T x D hybrid)	Goa Cashew-1 to 6, Vengurl-7, Vengurla-4
04	Recommended dose of fertilizers (NPK grams/plant)	100: 40: 140 (Third year onwards)	50: 50: 150 (Third year onwards)	500: 320: 1200 (Fourth year onwards)	1000: 300: 400 (Fifth year onwards)
05	FYM (kg/plant)	12	10	50	10-15
06	Average price in Goa (June end, 2024) (Rs./kg)	342/kg	650/kg	27/kg & 16/nut (major grade)	115/kg
07	Major Grades	Supari (Old & New), Supari Raas (Old & New), Khoka, Vench, Kharad, Tukada, Bad Vench	Black pepper (Miri) and White pepper (Safed Miri)	120 nuts/bag 180 nuts/bag 100 nuts/bag 250 nuts/bag Khobra, Khobra Tukda & Kusak Coconut oil, virgin coconut oil	Raw cashewnut: Cashew (Mapusa, Arlem) & cashew small; Cashew: W320 (Standard), W240 (Large), W210 (Jumbo nuts) & W180 (King of cashew)
08	Major Buyers in Goa	Goa Bagayatdar	Goa Bagayatdar	Goa Bagayatdar and Local Traders	Goa Bagayatdar and Local Traders
09	Major Markets of India	Sirsi, Mangalore, Kumta, Cochin, Kasargod	Cochin, Alleppey, Thalassery (Formerly Tellicherry) Chikmagalur, Sakleshpur, Sirsi	Maddur, Tiptur, Alappuzha, Kozhikode	Kollam, Mangalore, Goa, Vetapalem, Malvan
11	Major diseases	Fruit rot (<i>Mahali/Koleroga</i>)	Foot rot (quick wilt) & Slow wilt	Bud rot	Anthraxnose
12	Major pests	Root grub	Pollu beetle	Rhinoceros beetle	Cashew Stem & Root Borer (CSRB) and Tea Mosquito Bug (TMB)
13	Important strategies for obtaining higher returns	<ul style="list-style-type: none"> Effective management of fruit rot through prophylactic spraying Bordeaux mixture (1%). Dissolve 1 kg copper sulphate in 10 litres of water, dissolve 1 kg of quicklime in 10 litres of water, add these two simultaneously to 80 litres of water in plastic vessel and pH should be near to 7.0 Adequate drainage Intercropping with black pepper 	<ul style="list-style-type: none"> Adequate drainage Avoid injury to the root zone Drench plant basin with copper oxychloride 0.2% @ 5-10 litre/vine – during onset and end of monsoon 	<ul style="list-style-type: none"> Effective management of Rhinoceros beetle. Fill the innermost three leaf axils with 12 g naphthalene balls & covering with sand, at 45-days interval. Intercropping with black pepper Production of value-added products – virgin coconut oil, cold pressed coconut oil and tender coconuts 	<ul style="list-style-type: none"> Effective management of CSRB using Fipronil (@2ml/lit) & TMB using Lambda cyhalothrin (@ 0.6ml/lit) Irrigating from January to March (after flower initiation) increases yield significantly Goan cashews fetch premium price and there is demand in local market for fire-roasted cashews

III. Agricultural Marketing Scenario in Goa

III A. Market Regulations

Regulation of agricultural markets started in Goa in 1968. Goa, which was then a Union Territory, enacted Goa Agricultural Produce Marketing (Regulation) Rules 1969 and established Goa Agricultural Produce Market Committee. Since then, many amendments have been carried out (Figure 1) and presently Goa Agriculture Produce and Livestock Marketing (Promotion and Facilitation (Amendment) Act, 2022 is in force.

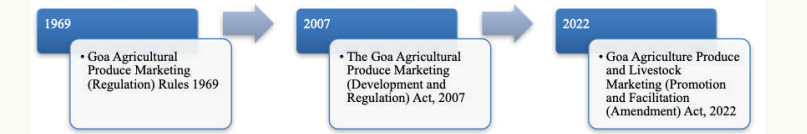


Figure 2: Agricultural produce marketing regulations over the years in Goa

III B. Goa Agricultural Produce and Livestock Marketing Board

The Goa Agricultural Produce and Livestock Marketing Board is at Arlem, Raia, Salcete. Major mandates of the Board is regulating the marketing activities and development of efficient marketing system in Goa. The Marketing Board has established eight market yards with its Main Yard at Arlem, Margao and Sub-Market Yards at Ponda, Sanquelim, Mapusa, Curchorem, Valpoi, Canacona and Pernem.

Table 3: Market Yards in Goa

Sr. No.	Name of the Yard	Year of Functioning	Contact No.
1	Margao Main Yard at Arlem, Margao	1979	2741957/58
2	Ponda Sub Market Yard at Curti Ponda	1973	2330011
3	Sanquelim Sub Market Yard Gongewal, Sanquelim	1974	2364265
4	Mapusa Sub Market Yard Behind Municipal Market, Mapusa	1984	2950306
5	Curchorem Sub Market Yard Curchorem	1986	2650302
6	Canacona Sub Market Yard Canacona	1997	2643833
7	Valpoi Sub Market Yard, Valpoi	1997	2996864
8	Pernem Sub Market Yard, Pernem		

Source: Goa Agricultural Produce and Livestock Marketing Board <https://gsamb.in/market-yards/> STD Code 0832

III C. Notified commodities

Presently 27 agricultural commodities are notified for regulation in the market area. Marketing Board levies one per cent market fee on all the above agricultural notified commodities (perishable and non-perishable) on ad-valorem basis. The Board earned Rs. 8.70 crore during 2022-23.

Table 4: List of notified agricultural commodities in Goa

Cashewnut	Banana	Potato	Chickoo	Milk	Eggs
Betelnut (Arecanut)	Pineapple	Grapes	Sweet potatoes	Ghee	Poultry
Coconut	Cattle	Oranges	Brinjals	Butter	
Coconut Oil	Onion	Papaya	Chillies	Barley	
Mangoes	Water melon	Mossambi	Apples	Flowers	

III D. Facilities provided by the Marketing Board to farmers

The Marketing Board provides many facilities to farmers such as storage, drying yards, grading and sorting, dehusking of coconut, auction and weighment machines (Figure 3).