



## Performance of nutmeg cultivation in Kerala

*Puthuma Joy*

*Assistant Professor, Department of Economics*

*Mar Athanasius College, Kothamangalam, Kerala.*

### ABSTRACT

India occupies a predominant position in the world spices trade. India's contribution to the world spices trade is 44 per cent in quantity and 36 per cent in value. Spices are one of the precious gifts of nature, to the people of India. From time immemorial India is regarded as the legendary land of spices, producing almost all the spices of the world. So spices play an important role in the economy of different regions of the country. Spices trade is a means of living for a large number of spices growers, spices traders and a source of employment for a large section of rural masses, especially rural women. Spices, often called as grey gold have played an important role in the history of Civilization, exploration and Commerce. Nutmeg is a native of the Moluccas Islands of Indonesia, the East Indies or Spice Islands. It is now grown in most tropical countries of the world, but is cultivated on a large scale in the Malayan region. The British East India company introduced this spice into India in 1880 AD. The countries producing nutmeg apart from Malaysia, Indonesia, Grenada, Sri Lanka, India, Tanzania, Mauritius and China. The major country importing nutmeg and mace from India is Russia.

*Keywords: spices, nutmeg, mace, price instability*

### Introduction

Today, India is the source of the largest range of spices come in to international trade and without doubt, easily the biggest consumer. Spices constitute meaningful and indispensable segment in the culinary Art by adding flavor, colour and taste to the food preparations. Besides, spices are used in preservative, medicines, pharmaceuticals, perfumery, cosmetics and several other industries. Spices have become an integral part of American, Continental, Arabic, Asian and oriental cuisine. India is endowed with the wealth of many spices and also has been the largest producer, exporter and consumer. It enjoys a pre-eminent position in spices production in the world with an annual output of 2 million tonnes with the highest domestic need of 1.9 million tonnes living about 1.3 lakh tonnes for export. There are a number of spices grown in India. Nearly 60 out of the recorded 107 spices are cultivated in India and only 16 being important.

### Objectives

The objectives of the study are to

- To understand the share of Kerala in the area and production of nutmeg in India.
- To analyse the price fluctuation of nutmeg in the Cochin Market centre.

### Methodology

Secondary data used for the analysis of data

### Period of the Study

The period of the study is from 2010-11 to 2017-18.

**Nutmeg**

Nutmeg (*Myristica fragrans*) produces two separate spices, namely nutmeg and mace. Nutmeg is the dried kernel of the seed aril surrounding it. Nutmeg is indigenous to Moluccas Islands (Indonesia). Over 50% of the world's export of nutmeg and mace is from Indonesia. Grenada is the second largest exporter of nutmeg and mace in the world. In India, nutmeg is mainly cultivated in Thrissur, Ernakulam and Kottayam districts of Kerala and parts of Kanyakumari and Tirunelveli districts in Tamil Nadu. Today, nutmeg is produced in many places including the India, Malaysia, various Caribbean islands, New Guinea, and Sri Lanka. About 10,000 tons a year is produced and mainly used in the US, Japan, Europe and India.

**Origin and distribution**

nutmeg is a native of the moluccas Islands of Indonesia, the East Indies or Spice Islands .It is now grown in most tropical countries of the world ,but is cultivated on a large scale in the Malayan region .The British East India company introduced this Spice into India in 1880 AD.The countries producing nutmeg apart from Malaysia , Indonesia ,Grenade ,Sri Lanka ,India ,Tanzania ,Mauritius and China .The major country importing nutmeg and mace from India is Russia .

**Area and production**

the annual world production is approximately 8000 tonnes of nutmeg and 1000 tonnes of mace, 85% of which is produced in Indonesia and Grenada followed by Sri Lanka .Relatively small quantities are exported from India .In India nutmeg is presently grown in Ernakulam ,Kottayam ,Thrissur ,Idukki and Calicut districts of Kerala .

**Composition of Nutmeg**

Table:1 Nutmeg has the following composition

Nut oil	7.14
Mace oil	7.13
Oleoresin in nut	2.48
Oleoresin in mace	13.8
Butter in nut	30.9
Myristicin in nut oil	12.48
Myristicin in mace oil	20.03
Elemicin in nut oil	13.65
Elemicin in mace oil	13.65

Nutmeg is used in culinary preparations, Bakery products, meat industry, cosmetics etc. Medicinally nutmeg is known for its stimulative properties; its oil is used in curing urinary tract infections ,insomnia diseases etc. The fresh glaze covering the seed can be used for preparing jam ,syrup ,pickles, chutneys or even liquor ,but seldom used .

Table:2 Share of Kerala in Area and Production of Nutmeg in India

Year	Area( Hectare)			Production(Tonne)		
	India	Kerala	Share(%)	India	Kerala	Share(%)
2010-2011	17485	16545	94.62	12574	11911	94.73
2011-2012	17490	17220	98.46	12621	12420	98.41

2012-2013	18900	17220	91.11	12780	12420	97.18
2013-2014	21120	18460	87.41	14400	12530	87.01
2014-2015	21000	20630	98.24	14000	13190	94.21
2015-2016	23000	20630	89.70	15000	14190	94.6
2016-2017	23000	22500	97.83	15000	14200	94.67

Source:Spices Board,Annual Reports

The above table shows that the increase in area and production of nutmeg in India and Kerala. In 2010-2011, the area under nutmeg cultivation was 17,485 hectare and production was 12,574 tonnes. In 2012-2013,there was an increase in the area(18900 hectare) and production(12780 tonnes). The area of nutmeg was continuously increasing during the period of 2014-2015.The year 2015-2016 earmarked a notable increase in the area and production with 23000 hectare and 15000 tonnes respectively.

Table:3 Major districts engaged in nutmeg cultivation(Area in Ha)

Year/District	Kottayam (Area in Ha)	Idukki (Area in Ha)	Ernakulam (Area in Ha)	Thrissur (Area in Ha)
2010-11	1606	2324	5938	5564
2011-12	1669	2400	5902	5933
2012-13	1721	2401	6058	5932
2013-14	1807	2927	6101	6524
2014-15	1940	3186	6145	6828
2015-16	2136	3221	6614	6796
2016-17	2209	3440	6575	6920
2017-18	2456	3693	6378	6976

Source:Spices Board,Annual Reports

The table provides an insight across the area of nutmeg cultivation in major districts of Kerala from the period of 2010-11 to 2017-18. During 2010-11, Ernakulam district appears to be the highest in area of nutmeg cultivation (5938 ha) and followed by Thrissur(5564 ha) , Idukki (2324 ha), Kottayam (1606 ha). There is a gradual increase in area of nutmeg cultivation. During 2012-13 ,Ernakulam district appears to be the highest in area of nutmeg cultivation (6058 ha) and followed by Thrissur(5932 ha) , Idukki (2401ha), Kottayam (1721ha).Ernakulam district hold the top position in the area of nutmeg cultivation during 2015-16.Thrissur district appears to be the highest in area from 2016-17(6920 ha) to 2017-18(6976 ha).

In nutmeg, India's production had been showing a consistently increasing trend due to improvement in productivity and using improved varieties of seeds. The favourable climate and proper irrigation are the factors responsible for increased production. Kerala was considered as the largest contributor of nutmeg to the global market.

Figure:1 Major districts engaged in nutmeg cultivation (Area in Ha)

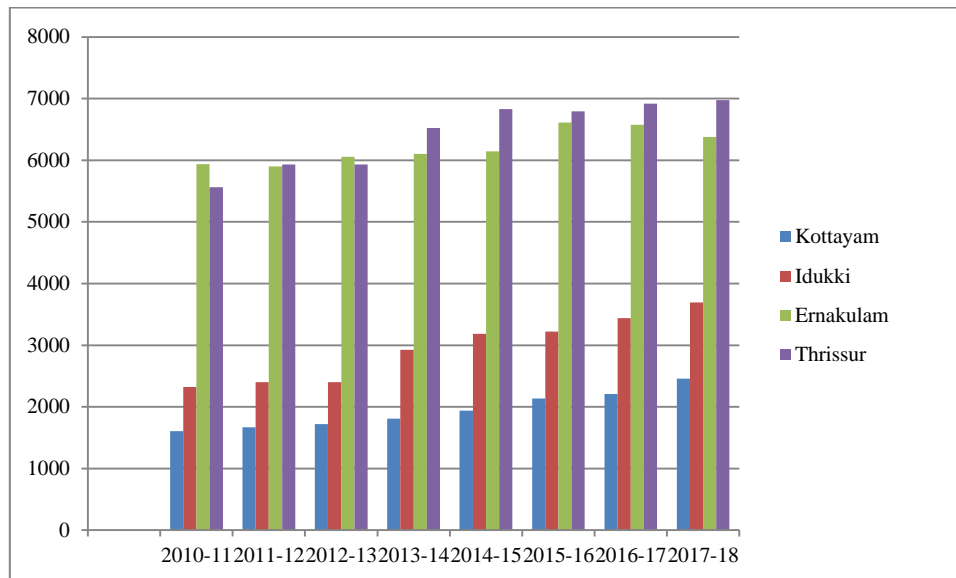


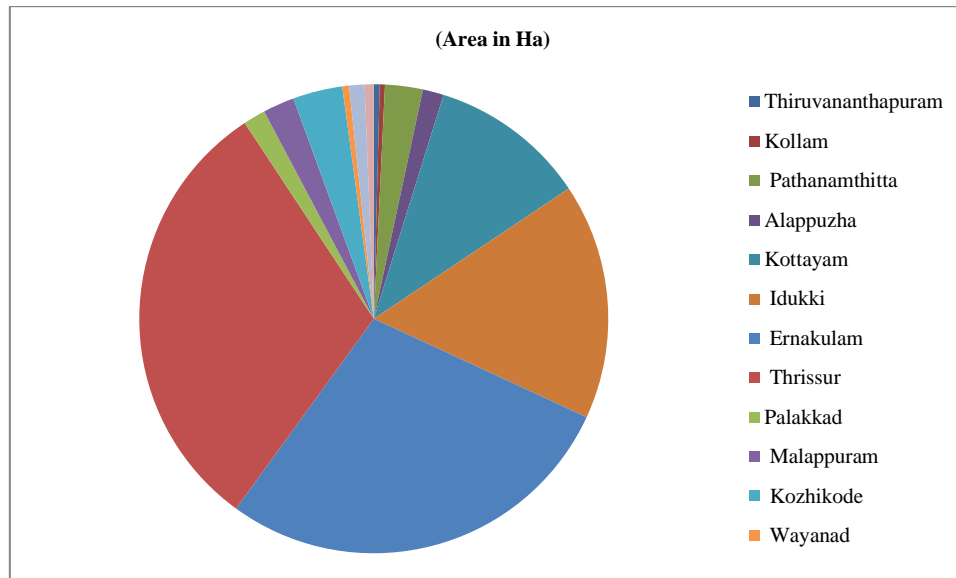
Table:4 District wise analysis of area under nutmeg cultivation in 2017-18

Sl No	District	(Area in Ha)
1	Thiruvananthapuram	92
2	Kollam	81
3	Pathanamthitta	591
4	Alappuzha	328
5	Kottayam	2456
6	Idukki	3693
7	Ernakulam	6378
8	Thrissur	6976
9	Palakkad	348
10	Malappuram	493
11	Kozhikode	777
12	Wayanad	105
13	Kannur	241
14	Kasaragode	142
	State Total	22701

Source:Spices Board,Annual Reports

The table provides an insight across the district wise area under nutmeg cultivation in 2017-18. The table highlights that Thrissur district appears to be the highest in area of nutmeg cultivation (6976 ha) in 2017-18 followed by Ernakulam (6378 ha), Idukki (3693 ha), Kottayam (2456 ha). On the other hand Kollam was having lowest area in nutmeg cultivation. During the period 2017-18, 22701 ha was under nutmeg cultivation in Kerala.

Figure:2 District wise analysis of area under nutmeg cultivation in 2017-18



Marketing efficiency of any agriculture commodity is judged on the basis of price received by the producer. In recent years the consumers have whined about high prices of agricultural as well as other commodities and the farmers have also nagged about receiving low prices. One of the main reasons advanced for the low prices received by the farmers and have relatively high price paid by the consumers is the existence of more market intermediaries for agricultural commodities.

Table :5 Price of Nutmeg in Cochin Centre

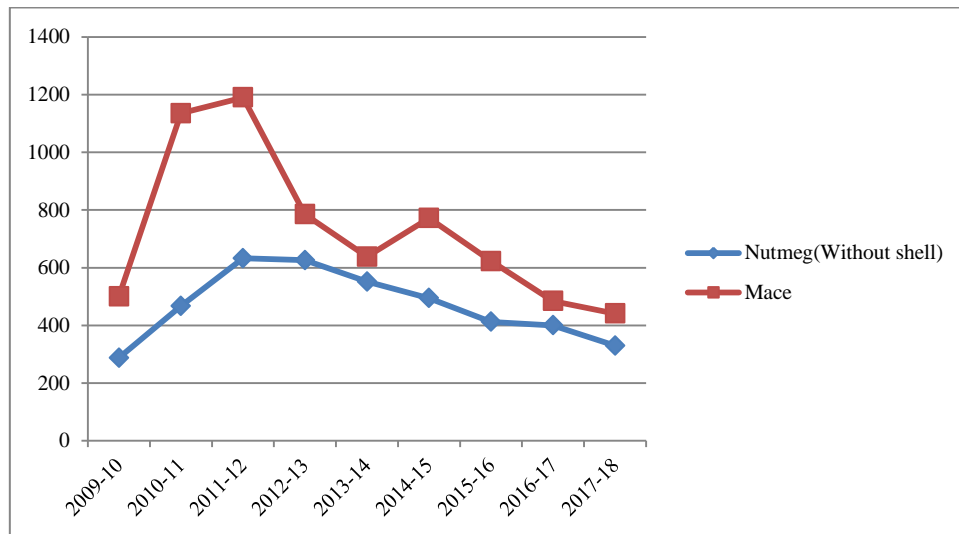
Year	Nutmeg(Without shell) Price(Rs/Kg)	Mace Price(Rs/Kg)
2009-10	287.43	500.66
2010-11	467.23	1135.07
2011-12	632.48	1190.05
2012-13	625.65	785.06
2013-14	551.34	637.8
2014-15	494.52	771.91
2015-16	412.05	622.47
2016-17	399.98	484.48
2017-18	329.63	441.09

Source:Spices Board,Annual Reports

The table highlights the domestic price of nutmeg in Kerala during 2009-10 to 2017-2018. The data revealed that the year wise fluctuations of the domestic price of nutmeg. It has been identified that during 2009-2010, the price of nutmeg was 287.43 Rs/kg and the mace was 500.66 Rs/Kg. In 2010-11, the price of nutmeg was increased to 467.23 Rs/Kg and mace was 1135.07 Rs/Kg. The year 2011-2012 was a golden period of nutmeg farmers. Many of the farmers were replaced rubber trees and plant

nutmeg saplings. During 2016-2017 the price of nutmeg was 399.98 Rs/Kg and during 2017-18 the price of nutmeg was 329.63 Rs/Kg. There was a declining trend in the year 2012 onwards.

Figure :3 Price of Nutmeg in Cochin Centre



### Major constraints faced by nutmeg farmers in Kerala

- Non availability of quality planting materials
- Price instability
- High labour cost
- Low productivity
- Crop loss due to severe disease
- Lack of adequate scientific support
- Non-availability of high yielding varieties
- High incidence of insects and pest
- Inadequate fertilizers
- High dependency on nature
- Lack of proper adoption of post-harvest technology
- Inadequate marketing facilities

### Suggestions to improve nutmeg production in Kerala.

- Adequate financial assistance to the needy farmers
- Extension of research activities
- Emphasis on organic production
- Extension of marketing facilities
- Effective post-harvest procurement
- Controlling pest and diseases
- Ensure proper irrigation facilities
- Training to farmers

### Conclusion

Spices have become an integral part of American, Continental, Arabic, Asian and oriental cuisine. India is endowed with the wealth of many spices and also has been the largest producer, exporter and consumer. It enjoys a pre-eminent position in spices production in the world with an annual output of 2 million tonnes with the highest domestic need of 1.9 million tonnes living about 1.3 lakh tonnes for export. Marketing efficiency of any agriculture commodity is judged on the basis of price received by the producer. In recent years the consumers have whined about high prices of agricultural as well as other commodities and the farmers have also nagged about receiving low prices. One of the main reasons advanced for the low prices received by the farmers and have relatively high price paid by the consumers is the existence of more market intermediaries for agricultural commodities.

**Bibliography**

1. Spices Board: Annual Reports, Spice Statistics
2. Henry, N. Ridley. (1912). Spices. St. Martin Street, London: Published by Macmillan and Company.
3. ICAR. (2000). Hand Book of Agriculture. New Delhi: Published by Indian Council of Agriculture Research.
4. Jithendra, Singh. (2003). Spices and Plantation Crops. New Delhi: Daya Publications, 43-50.
5. Joh, W. Parry. (1969), Spices. 1. New York : Chemical Publishing Company.
6. Khan, M. T. (1990). Spices in Indian Economy. New Delhi: Academic Foundation.
7. Kusuman, K.K. (1976) A History of Trade and Commerce in Travencore (1600- 1805). New Delhi: Mittal Publications.
8. NIIR Board. (1988). Hand Book on Spices. New Delhi: Asia Pacific Business Press.
9. O'Hagan, J.P. (1978). Growth and Adjustment in National Agricultures. London: The Macmillan Press.
10. Parthasarathy, V. A., Kandiannan, K., & Sreivasan, V. (eds.). (2009). Organic Spices. New Delhi: New India Publishing Agency.
11. Pruthi, J.S. (2001). Minor Spices and Condiments- Crop Management and Post Harvest Technology. New Delhi: ICAR.
12. Purseglove, J.W., Brown, E.G., & Green. (1981). Spices. London : Longman Publishers.