

CHAPTER

1

Introduction

Spices are those plants, the products of which are made use as food adjuncts to add aroma and flavour. **Condiments** are also spices, products of which are used as food adjuncts to add taste only. Both spices and condiments contain essential oils which provide the flavour and taste. They are of little nutritive value. They are used whole, ground, paste or liquid form, mainly for flavouring and seasoning food. Most spices increase the shelf-life of food, especially the dry varieties. Some are added to improve texture and some to introduce a palatable colour or odour.

There are about 63 spices grown in India and almost all spices can be grown in India because of the varied climate-tropical, subtropical and temperate prevailing in India (Fig. 1).

Classification of spices

Though spices can be classified in several ways based on

1. Plant part used-leaves, flowers, barks, rhizomes, fruits and seeds.
2. Botanical relationship - family to which it belongs.
3. Longevity of spices plants - annuals, biennials and perennials and
4. Morphology of aerial parts of spice plants - herbs with aerial stem, herbs with pseudostem, climbers, shrubs, trees etc.,

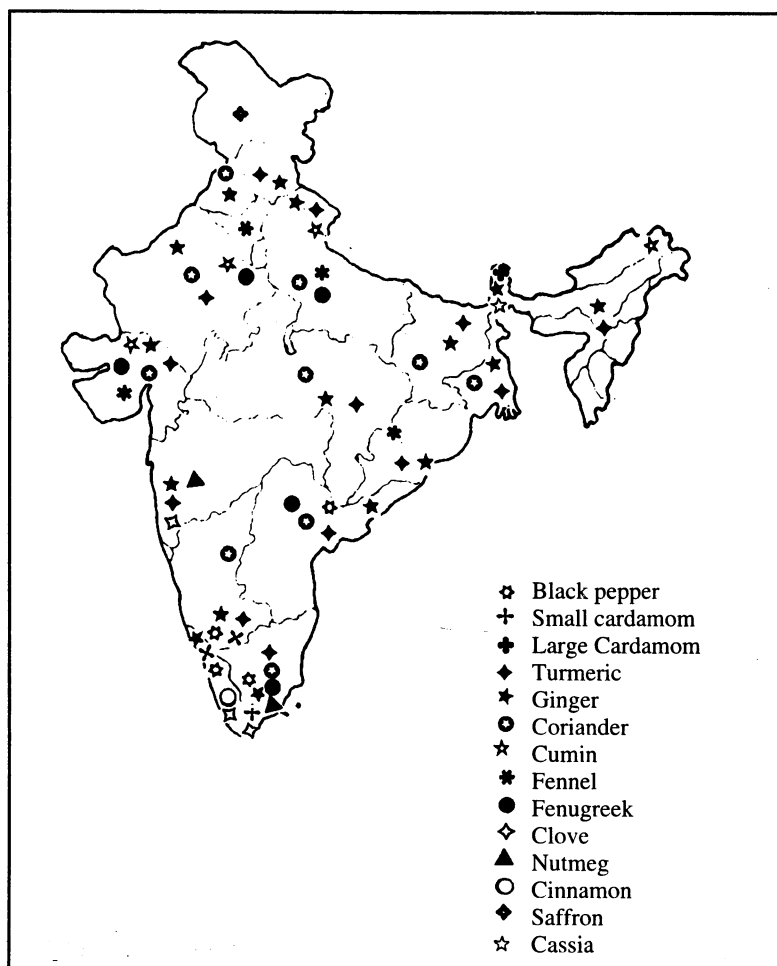


Figure 1 Places of cultivation of important spices in India.

None of the classification is complete as each classification has got some lacuna or over lapping.

Therefore at present a mixed combination of above classification is normally followed as below:

- (a) **Major spices:** Cardamom, Black Pepper, Ginger and Turmeric
- (b) **Seed spices (Minor spices):** Coriander, Fennel, Cumin, Fenugreek, Dill, Aniseed, Caraway, Celery and Bishop Weed.
- (c) **Tree spices:** Clove, Nutmeg, Cinnamon, All spice, Cassia, Tamarind, Bay leaf, Curry leaf etc.

(d) **Herbal spices:** Rosemary, Thyme, Horse radish, Parsley etc.

(e) **Other spices:** Vanilla, Saffron, Asafoetida, Garlic etc.

Importance of spices industry in India.

1. No other country in the world grows as many kinds of spices as India.
2. India has been a traditional and largest producer, consumer and exporter of spices.
3. India produces spices on 3.08 million ha with an annual production of about 5.4 million tonnes valued at about Rs. 4500 crores, contributing nearly 20% of world's production, 30% of the trade in terms of quantity but only 10% in terms of value.
4. Nearly 90-95% of the total production is consumed locally and the rest exported.
5. India is the biggest exporter of spices and annually exporting about 4,45,000 tonnes of spices and spice products (Table 1.1) valued around Rs. 4,460 crores (contributing to about 12% of export earnings from agriculture or 1 % of total national export earning).
6. The export of spices and spice products is growing up every year.
7. They are indispensable part of our culinary preparations especially used for flavouring and seasoning of food.
8. In the daily intake of food and culinary preparations, the Indian food habits amalgamate divergent spices and exploit and utilize phytochemicals to add aroma and health in our daily life.
9. Most of the spices have potential medicinal values. Besides, the spices and spice products are also indirectly used as flavouring or colouring agents or as preservatives in many pharmaceutical preparations.
10. Spices have been used in cosmetic and perfumery industries. Spice oils are used in the manufacture of soaps, tooth pastes, talcum powder, after shave lotions, vanishing creams, mouth fresheners and room fresheners etc.,

Most of the spices are native of our country and hence India is aptly known as the **Land of Spices**. The history of Indian spices dates back to the beginning of human civilization and spices were mostly instrumental in the exchange of ancient culture and civilization within and outside the country.

Constraints in Indian spice industry:

1. Low farm productivity and consequent high cost of production

2. Non-coverage of high yielding varieties in farmers' fields
3. Non-availability of quality planting materials of high yielding varieties
4. Crop loss due to severe disease and pest incidence
5. Poor post-harvest handling
6. Inadequate extension network
7. Price instability
8. Stringent food laws by importing countries-Indiscriminate use of plant protection chemicals results in pesticide residues beyond tolerable limits (MRL) leading to rejection of many consignments of spices
9. Mycotoxins (Aflatoxin) contamination seriously affects the export potential of high-value commodity crops
10. Stiff competition from other producing countries -most of the exporting countries have no domestic market for the spices they are producing, forcing them to sell their produce even at cost price (cardamom from Guatemala, pepper from Vietnam, cloves & nutmeg from Indonesia).

Table 1.1 Export of spices from India

Item	Quantity (M.T)		Value (Rs.in lakhs)	
	1995-96	2010-11	1995-96	2010-11
Pepper	24,150	18,850	18,111.40	38,318.5
Cardamom(small)	500	1,175	1,239.55	13,216.25
Cardamom(large)	1,690	775	1,189.40	4,462.9
Chillies	55,200	2,40,000	19,084.00	1,53,554
Ginger	16,250	15,750	3,516.45	12,131.25
Turmeric	26,675	49,250	4,423.80	70,285.15
Coriander	10,700	40,500	2,075.20	16,663.25
Fenugreek	14,450	18,500	1,791.25	6,548.1
Other seed spices *	10,265	12,500	3,147.65	5558.05
Garlic	3,640	17,300	463.00	6,977.3
Other spices **	20,660	7,574	3,467.45	6,140.26
Curry powder	3,885	15,250	1,538.00	21,050.5
Spice oils and oleoresins	1,630	7,600	10,464.55	91,062.42
Total	1,89,695	4,45,024	70,511.70	4,45,967.93

* include cumin, celery, fennel, aniseed, ajwanseed, dill seed etc.

** include tamarind, asafoetida cinnamon, cassia, kokum, saffron etc.