Spice Production in Asia - An Overview*

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Abstract

Spices are non-leafy parts of plants used as a flavoring or seasoning. They are used to add flavor to foods and beverages, and as herbal medicines. Asia is known as the 'Land of Spices' as it is the place of origin, production, consumption and export of most spices. Out of the world's 70 plant species grown as spices, 13 are considered major spices produced in Asia. They are briefly described below:

Black pepper (Piper nigrum) is the whole dried fruit of a perennial climber. India and Indonesia together produce about half of the world's total production of 180,000 t. **Cardamom** is a group of herbaceous plants of the ginger family whose fruits are used as spices. Small cardamom (Elettaria cardamomum) grown in India and Sri Lanka is by far the best quality of all. Others include large cardamom (Amomum subulatum), Bengal cardamom (A. aromaticum), Siam cardamom (A. krervanh), and bastard cardamom (A. xanthioides). India and Sri Lanka are the major producers of cardamoms. Cinnamon and cassia are related plants of the genus Cinnamomum whose bark is used as a spice. Important species include the true cinnamon (C. verum), cassia (C. cassia), Indonesian cassia (C. burmannii), Vietnamese cassia (C. loureirii), and Indian cassia (C. tamala). India and Sri Lanka are the major producers. Chili pepper is obtained from dried fruit of Capsicum annuum and C. frutescens. C. annuum or sweet pepper, which is less pungent, is used to make paprika pepper for flavoring and coloring western foods, while C. frutescens or bird pepper is more pungent and can be made into cayenne pepper to flavor more spicy oriental hot foods. Cloves come from unopened flower buds of Syzygium aromaticum. In Asia Indonesia, India, Malaysia, and Sri Lanka produce clove, but greater quantities are produced in other continents, viz. Madagascar, Tanzania and the West Indies. Coriander is the dried seed of Coriandrum sativum, a herbaceous plant. India is the largest producer followed by Pakistan and Thailand. Cumin (Cuminum cyminum) is an annual herb whose fruits are pungent and highly aromatic. India and China are the main producers. Garlic (Allium sativum) is an annual herb whose underground bulb is used as a spice. Major producing countries are India, Korea, and Thailand. Ginger (Zingiber officinale) is a perennial herb whose underground rhizomes, young and old, are used as a spice. India and Thailand are the major producers. Nutmeg and mace are two spices derived from an evergreen tree (Myristica fragrans). Indonesia produces three-quarters of the total world output, while Grenada is second. **Turmeric** is the underground rhizome of Curcuma longa. It is used as a spice, natural colorant and herbal medicine. India is the major producer and exporter of turmeric. Vanilla comes from a pod of an orchid plant (Vanilla planifolium) whose fragrance reveals itself after a series of successive treatments and fermentation in the sun. Indonesia is the biggest producer in Asia, but much smaller than Madagascar, the world's largest producer.

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The paper also discusses the constraints faced by A sian spice growers which are: (a) biotic – including diseases, pests and lack of genetic variability, (b) abiotic – drought, flood, fire, storm, soil toxicity, (c) socio-economic – marketing, quality control, competition with other crops and synthetics, and lack of labor/capital, and (d) technological - lack of technologies and technology transfer.

Keywords: Flavoring, seasoning, Spice Isle, Spice Route, Spice City, black pepper, cardamom, cinnamon, cassia, chili pepper, clove, coriander, garlic, ginger, nutmeg, mace, turmeric, vanilla.

Introduction

What are Spices?

Spices are non-leafy parts (e.g. bud, fruit, seed, bark, rhizome, bulb) of plants used as a flavoring or seasoning, although many can also be used as a herbal medicine. A closely related term, 'herb', is used to distinguish plant parts finding the same uses but derived from leafy or soft flowering parts. The two terms may be used for the same plants in which the fresh leaves are used as herbs, while other dried parts are used as spices, e.g. coriander, dill.

Importance of Spices

Spices have a profound influence on the course of human civilization. They permeate our lives from birth to death. In everyday life, spices succor us, cure us, relax us, and excite us. Ancient peoples such as the Egyptian, the Arab and the Roman made extensive uses of spices, not only to add flavor to foods and beverages, but as medicines, disinfectants, incenses, stimulants and even as aphrodisiac agents. No wonder they were sought after in the same manner gold and precious metals.

Spices in Asia

The Land of Spices

From ancient times to the present, Asia has been well known as the 'Land of Spices'. The Maluku Islands of Indonesia, also known to

English speakers as the Moluccas, are referred to as the 'Spice Islands'. It is the most popular of all terms used to describe the land of spices although this term could be applied to Sumatra as well as Sri Lanka, the latter also referred to as the 'Spice Isle'. Melaka (or Malacca), the most famous city known for its spice trade, is called the "Spice City", while the sea route that has linked Venice, Arabia, Sri Lanka, India, Malaysia (Malacca), Moluccas, and China through spice trading since the 16th century, is known as the 'Spice Route', ranking in importance next to the famous 'Silk Road'. For the Indians who produce and export the majority of spices for world markets, the term 'Spice Bowl of the World', is applied to the State of Kerala. Many of the world's finest spices like black pepper, cardamom, nutmeg, ginger and turmeric have been produced in Munnar, Devikulam and Peerumade, all located in Kerala.

List of Spices Produced in Asia

Internationally, there are about 70 plant species that have been grown for spices, the majority of which are in Asia. Although many other species have also been used as spices, they are either not commercially cultivated, or have only been collected from the wild. Table 1 shows those that are produced commercially in countries in Asia.

Countries of Production of Major Spices

Spices have been grown as traditional crops in some Asian countries for thousands of