

## HISTORICAL NOTES

### SPICE AND HERB: A HISTORICAL OVERVIEW\*

The use of spice and herb is as old as mankind. Their spectrum of use is determined by their availability in different geographic regions, culture, climate, and religious rituals, trade, tradition and people's economic capability. This short article attempts to review some salient aspects of spice and herb use and trade from a sociological, historical and economic viewpoint.

#### INTRODUCTION

“Spice” originated from old French ‘espice’ - from Latin ‘Species’ ‘Sort’, ‘Kind’, ‘Later’, ‘Wares’. “Herb” originated from Latin ‘herba’ ‘grass’, ‘green crop’.

Spice and Herb are dried parts of various plants cultivated for their aromatic, pungent, or otherwise desirable substance. Spices and Herbs consist of rhizomes, bulbs, barks, flower buds, stigmas, fruits, seeds, and leaves. They are commonly spoken of loosely as spices, spice seeds and herbs. Spices are the highly esteemed, fragrant of pungent plant products of tropical and subtropical regions, the dominant spices of the trade including cardamom, cinnamon, cloves, ginger and pepper. Spice seeds are the tiny aromatic fruits and oily seeds of herbaceous plants including anise, caraway, cumin, fennel, poppy and sesame. Herbs are the fragrant leaves of such plants as marjoram, mint, rosemary, and thyme. Spices, spice seeds and herbs are employed as adjuncts to impart flavor and aroma or piquancy to foods. In the small quantities used to prepare culinary dishes they have little or no nutritive value, but they stimulate the appetite, add zest to food, enhance the taste and delight the gourmet.

The most notable uses of spices and herbs in very early times were in medicine, in the making of holy oils and unguents, and as aphrodisiacs. Priests employed them in worship, incantations, magical rites, and rituals. Ancient herbals,

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including those of Cathay, Sumer, Assyria, Egypt, Greece, and Rome, testify to the use of spices and herbs in the treatment of disease. Hippocrates (460-377 BC), Galen (130-200 AD) and Pedanius Dioscorides (60 AD) among others, employed them. Dioscorides, a Greek surgeon to the army of Nero (37-68 AD)-adopted name of Lucius Domitius Ahenobarbus (Roman emperor from 54 AD) established the Science of Materia Medica, his work on the subject “De Universa Medicinia” was for centuries used as the standard authority. In the 1<sup>st</sup> Century AD Gias Plinius Secundus-Pliny the Elder (23-79 AD) in his Natural History (*Historia Naturalis* 77—a 37 volume encyclopaedia), extols at length the efficacy and healing powers of spices and herbs in the treatment of just about every ailment known in his day. Such virtues, tempered and moderated, filtered down into the middle ages and early modern times.

It is not known when man first used spices and herbs in food. Sesame seems to have been known and employed as food, for making wine, and for its oil from time immemorial. Garlic and onions were employed as part of the diet in every early times. Certainly by the time of the ancient Greeks and Romans many spices and herbs had come into use to flavour food and beverages.

Herodotus (c. 484-c.425 BC) describes the food of people he had met or heard about and relates that same ate fish and meats raw, sun-dried, salted or pickled. Dried, salted, and pickled meats were staple items of food in many lands centuries after his time, and it requires no effort to imagine the welcome change the gratifying flavour of spices and herbs brought to foods, not only to opulent Greeks and Romans but to the affluent of society everywhere long after them.

Only the wealthy could indulge in the use of imported aromatic spices, and this was apparently true all over the world. Macro Polo (1254-1324 AD) observed, in 13<sup>th</sup>-century Cathay, that the higher class people ate meat had been preserved in several of their spices, but the poor had to be content with meat steeped in garlic juice.

In Europe, in the course of time, knowledge slowly spread of the use of spices and herbs to aid in the preservation of food by retarding or preventing rancidity or other deterioration caused by oxidation and to flavour dishes. By medieval times large quantities of culinary herbs were in use. Eastern spices were beyond the purse of the greater number of people, but with the ascendancy to the western European nations in the Oriental spice trade these conditions gradually

changed, and the aromatic and pungent spices finally came into general use by rich and poor alike.

### MORDERN USES

Modern uses of spices, spice seeds, and herbs are legion. There are few culinary recipes that do not include them, and their judicious use brings a detectable, distinctive aroma and taste to a host of dishes. In the food industry they are employed in the preparation of numerous products including processed meats, fancy sausages, sauces and vinegars, prepared mustard, pickles, chutneys, preserves, mayonnaise, salad dressings, biscuits, cookies, cakes, confections and beverages. Their essential oils and oleoresins are the basis of a number of spice flavourings and seasonings employed in food manufacturing, where oil spices are preferred to the whole or ground spices for the preparation of certain products.

Spices and herbs, or their oils where processing temperature permits, go into the preparation of a number of liqueurs including absinthe, anisette, benedictine, crème de menthe, curacao, and kummel. Their essential oils are the flavouring components of a number of extracts; and they are employed in perfumery, cosmetics, toilet preparations, hair oils, toothpaste, toilet soaps, and tobacco.

In medicine the spices and herbs have not entirely lost their reputation. In India and other Asiatic countries their curative virtues enjoy respect. They still have a place, though limited, in Western medicine. Present day herbal extol the efficacies of some spices, spice seeds and herbs in the treatment of certain ailments.

### SPICE TRADE

The merchandising of spices and herbs is an enterprise of ancient origins and of great cultural and economic significance.

Cinnamon, cassia, cardamom, ginger and turmeric were known to Eastern people thousands of years ago, and they became important items of commerce early in the evolution of trade. Cinnamon and cassia found their way to the Middle East at least 2,000 years BC. From time immemorial, southern Arabia (Arabia Felix of antiquity) had been a trading center for frankincense, myrrh, and other fragrant resins and gums. Arab traders artfully withheld the true source of these spices. To satisfy the curious, to protect their market, and to discourage competitors,

they spread fantastic tales to the effect that cassia grew in shallow lakes guarded by winged animals, that cinnamon grew in deep glens infested with poisonous snakes. Pliny the elder (23-79 AD) ridiculed these stories and boldly declared that “all these tales, however, have been evidently invented for the purpose of enhancing the price of these commodities.”

Whatever part the overland trade routes across Asia played, it was mainly by sea that the spice trade grew. Arabians were making direct sailings before the Christian Era. In the Far East, the Chinese were moving through the waters of the Malay Archipelago and trading in the Spice Island. Ceylon was a central trading point.

In Egypt, Alexandria's revenues from port dues were already enormous when Ptolemy Alexander bequeathed this ancient city to the Romans in 80 BC. Under the Romans, Alexandria became the greatest commercial center of the world and the emporium for the aromatic and pungent spices of India that found their way to the markets of Greece and the Roman Empire. Roman trade with India was extensive for more than three centuries and then began to decline. It had, no doubt, weakened but not broken the Arabian hold on the spice trade. The Roman trade revived in the 5<sup>th</sup> Century but dwindled in the 6<sup>th</sup>, whereas the Arabian trade endured into and through the middle Ages.

By the 10<sup>th</sup> century Venice was beginning to prosper in the trade of the Levant (Eastern shores of Mediterranean Sea, from Western Greece to Egypt-Levant States-Syria and Lebanon during the period of French mandate-1920-1941 AD) by the early part of the 13<sup>th</sup> century it enjoyed a monopoly of the trade of the Near East; and by the 15<sup>th</sup> century it was a formidable power in Europe. Part Venice's great wealth came from trading in the spices of the East, which it obtained in Alexandria and sold to northern and western European buyer-distributors at exorbitant prices.

The Europeans knew the origin of the spices reaching Alexandria and unable to break the hold of Venice, determined in the last third of the 15<sup>th</sup> century to build ships and venture aboard in search of a route to the spice-producing countries. So began the famed voyages of discovery. The Portuguese were first in the race, and the first to bring spices from India to Europe by way of Cape of Good Hope in 1501 AD. In 1492 AD Christopher Columbus (1451-1506 AD) sailed under the flag of Spain, and in 1497 AD John Cabot sailed for England; but both failed to find the fabulous spice lands.

Ferdinand Magellan (1480-1521 AD) took up the quest for Spain in 1519 AD. Of the five vessels under his command only one, “Victoria”, returned to Spain, but triumphantly, laden with cloves.

In 1577 Sir Francis Drake (1540-1596 AD) began his adventurous voyage around the world by of Magellan’s straits and the Spice Islands and brought the “Golden Hind” heavily lade with the cloves of ternate and other treasures into Plymouth harbour in 1580.

For Holland, a fleet under the command of Corneils de Houtman sailed for the Spice Islands in 1595; another commanded by Jacob Van Neck, put to sea in 1598; and their ships returned home with rich cargoes of cloves, mace, nutmegs, and pepper. In 1602 the Dutch East India Company came into existence by authority of the Estates-General of the Netherlands. In 1664 the French East India Company was organized by state authorization under Louis XIV (1638-1715 AD). Other European nations granted charters to East India Companies with varying success. There followed struggles and conquests to gain advantage and monopolistic control of the trade. For more than 100 years Portugal was the dominant power, eventually yielding to English and Dutch Enterprise and conquest; by the 19<sup>th</sup> century British interests were firmly rooted in India and Ceylon, and the Dutch were in control over the greater part of the East Indies.

For mariners it was an age of adventure, risk, hardship, disease, and death; for nations an age of struggle, defeat or conquest; an age of acquisition of new, near-primitive lands of colonizing and gaining dominion over civilized foreign territories. For European commercial interests it was an age of rewarding success, which broke the monopoly of Venice, overcame them Muslim domination of the spice trade, created a voluminous trade in a great variety of merchandise between Europe and the Far East, and opened up a new World.

By the 20<sup>th</sup> century the world had come to know an orderly and stable pattern of trade in spices, and London had become its center. By the late 20<sup>th</sup> century, however, New York City had taken the place of London.

#### **THE EPILOGUE**

The research on spices and herbs in pharmaceutical and chemical industries is going on all over the world, particularly in the United States of America. India is also not lagging behind. Currently, Division of Pharmaceutical and Fine Chemical

Technology, Department of Chemical Technology, University of Calcutta is working on the synthesis of cur cumin. Cur cumin is an orange-yellow phenolic pigment obtained from rhizome of the turmeric plant- '*Haldi*' (*Curcuma longa* Linn, family: zingiberaceae). The natural pigment (*Haldi*) is widely used as deodorant and colouring agent in foods and cosmetics and is reported to have various pharmaceutical uses. The turmeric rhizome is also widely used in indigenous medicine. It is known to have anti-cancer, anti-tumor, anti-inflammatory and potent anti-oxidant qualities with negligible adverse effect on the human system. Though very potent, the cur cumin content in turmeric is very low (nearly two percent). Moreover, cur cumin intake by way of food is relatively low and the consumption of turmeric is not enough for cur cumin's efficiency. Hence, the attempt to synthesize it in the laboratory in order to pave the way for commercial production. It is going to be an icon in its medicinal use. It is just one of many examples. To sum up, this is the way forward.