

SPICES THROUGHOUT HISTORY

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Archaeologists believe that the knowledge of seasoning started 50,000 years ago. Man's first experience with spices most probably began when he wrapped pieces of meat accidentally in leaves of some aromatic plants before cooking them over burnt coal in order to protect them from dirt and ashes. The result was that this meat acquired a nice flavour and aroma.

Thousands of years ago, spices were regarded as magical weapons, employed as earthly symbols of supernatural powers. Their character together with the effects they produced were directly related to the gods or heavenly planets including the moon and other stars. Their use, incorporated with the study of astrology, thus gave the magicians the opportunity to use them in making spells for good as well as bad purposes. Unpleasant odours of the spices were associated with evil while sweet clean scents were linked with purity and goodness. Incense used to call demons was and is still used to-day by burning a combination of coriander, parsley, hemlock, liquor of black poppy, fennel, sandal wood and henbane.

The story of the use of spices in everyday life forms one of the important chapters in the history of medicinal plants and their products. The search for spices started thousands of years before our era with great interest recalling that of gold and other precious stones. Man's desire for purchasing such products caused his development and affected his life greatly.

The cultivation and use of spices played a great role in ancient civilisations such as those of Egypt, Greece, Mesopotamia, India, China and others.

In ancient Egypt, medicinal and aromatic plants were known before the Neolithic age. The ancient Egyptians cultivated them extensively and could extract their aromatic oils. The priests of the god Amoun used to mix several oils in order to produce the sacred oil which imparted a very sweet and scented aroma in the rituals of their temples.

Most of the kings and queens of ancient Egypt were deeply interested in perfumes and spices, most famous of them was queen Hatshepsut (New Kingdom) who sent a large fleet composed of 5 big ships and 30 small ones to the land of Punt across the Red Sea from

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where they brought back many aromatic plants and spices among which were sandal wood, myrrh etc.

The same queen sent another fleet to the land of Phoenicia (Lebanon of today) across the Mediterranean Sea which brought back spicy seeds and whole plants, such as cedar, laurel etc., together with experienced specialists for their care and cultivation. All of these events were painted on the walls of her temple in Luxor, Upper Egypt. A wealth of historic and scientific information about the spices has also been mentioned in the ancient Egyptian papyri, specially Ebers medical papyrus.

The ancient Chinese knew a lot about spices and their uses, preserved in their famous historical book *The Classic Herbal*. Indian history also has similar information about the use of spices in food and medicine.

The Assyrian scriptures contain a lot about spices and their beneficial uses.

The ancient Greeks and Roman physicians and scientists such as Hippocrates, Theophrastus, Galen, Dioscorides and others described the morphology and use of spices in their compilations thus spreading their knowledge everywhere.

When Alexander the Macedonian founded the port of Alexandria in the 4th century B.C., it became the most important spice trading centre in the Mediterranean Sea, connecting Europe to India through the Red Sea and the Indian Ocean.

The Romans spread the importance of spices into Europe through their continuous invasions. The first mustard seeds were brought to England by the Roman soldiers round 50 B.C., and news spread swiftly about this new spice through the tribes of Gaul in France, and Celtic outlanders. When the Gothic king Alaric subjected Rome in 410 A.D., he demanded the payment of 3000 pounds of peppercorns as part of the deal for sparing the lives of the inhabitants.

With the decline of Rome in the 7th century A.D., connection between Europe and the Far East was interrupted and it was through the Arab Moslem traders that the commerce of spices flourished once more after their conquests both eastward and westward. Venice and Seville became important Arab centres for spice trade.

Most of the spices in the past were distributed in the tropical areas of Asia and Africa. The Arab traders, more than 2000 years ago crossed the Indian Ocean coming from the Arabian Gulf and south of the Arabian peninsula (from Bahrain, Oman, Yemen) and headed for the Indian subcontinent and Indonesia ... going even as far as China, and back to the Eastern shores of Africa, buying and selling all sorts of spices and flooding the markets of Europe with them, through the Red Sea.

During the golden era of the Islamic empire, the Arabs monopolized the spice trade for a long time. Egypt benefited greatly from this trade since spice caravans carried on camels transported

them from the port of Suez on the Red Sea up to Alexandria on the Mediterranean Sea where the ships carried them to European ports. The most famous was Venice which by time emerged as a powerful maritime state during the Medieval Ages which lasted up to the beginning of the Renaissance. Its merchants took a strong hold on the spice trade, followed later on by the Portuguese navigators specially after discovery of the route by way of the Cape of Good Hope during the end of the 15th century A.D., and so the Venitian monopoly of spices was terminated.

The Danish navigators followed the Portuguese tracks in spice trade and gained a lot of wealth, then other merchants and navigators followed them, as did the British, Dutch and Spanish fleets. They soon monopolized most of the spice trade around the world. This eventually led to wars between them and piracy becoming a beneficial necessity, with capturing of ships loaded with valuable spices from each other. Thus many of the lands producing such merchandise were colonized.

The ancient spice sellers and drug peddlars were the forerunners of the apothecaries who became general medical practitioners. Spices were, for many centuries, amongst the most important ingredients of the Materia Medica used as correctives of cold or hot humours of ancient Greek and consequently Arabic medicine. Almost every spice was thought to possess aphrodisiacal properties at some time or other (practised even to-day in certain Oriental countries in large amounts with great success).

The origin of the art of perfumery is very remote. The word perfume suggests that it was first composed of hardened exudates from resinous woods such as bdellium, balsam, myrrh, frankincense etc., that grew mostly in hot dry deserts stretching from western India up to Central Africa.

Efforts were made to obtain fragrant gums collected from aromatic shrubs for use in embalming, perfumery, medicines, anointing oils as well as incense offerings, in fumigation in order to please the ancient gods and to banish evil spirits, insects, pests, serpents etc.

During the golden days of the Islamic empire, its scientists such as the famous Avicenna, Rhazes and others described many new spices in their compilations, mostly unknown to Europe and were able to extract their essential oils with more elaborate and new methods. The Crusaders brought back from the Middle East area valuable information and specimens about the art of using spices in cooking and medicine. Although the origin of these spices were kept secret by the Arab traders, yet some European travellers (such as Marco Polo and others) went eastward up to India and China, discovering the lands that produced spices.

Arabian medicine contains a lot of spices appreciated by the ancient Greeks, which were constantly used in curing their diseases. Of these important admixtures were the "Four Official Capitals" which

...the central remedies of ancient medicine. They are:

1. Mithridatum: a remedy for almost everything, contained about 50 ingredients (called after Mithridatus VI king of Pontus in Asia Minor round 100 B.C.).
2. Theriaca (or Venice Treacle): an elaboration of Mithridatum, had over 100 ingredients, among them were many spices and other extremely revolting components.
3. Philonium: it was first prescribed against an epidemic of colic (probably associated with dysentery) in the 1st century A.D. by a Roman physician, and contained saffron, pyrethrum, white pepper and honey.
4. Dioscordium: first prescribed by the Roman physician Hieronymus Frascatorius as an antidote for plague. It included cinnamon, cassia, germander, opium, seeds of sorrel, gentian, ginger and honey.

New names of places such as Kabul, Calcutta, Sumatra, Java, Ceylon, Samarkand, Baghdad etc. were introduced into the mythology of Oriental spice adventurers and thence to Europe. In the 16th century A.D., spice trade was exclusively centred in India, Malaya, East Indies, China and Moluccas. Strict laws about spice adulteration were enforced especially in London (1447 A.D.) so as to check fraud.

With the discovery of the New World by Christopher Columbus, Magellan and others, new kinds of spices grown in Central America and the Caribbean islands were introduced to the world's cooking, such as paprika, cayenne pepper, allspice etc. (with paprika becoming extremely popular).

With continuous immigration from Central Europe to the Americas, new spices were cultivated there and exported to all parts of the world. The best quality of cardamom comes from Guatemala, the finest nutmeg and mace come from Grenada, selected black pepper from Brazil, sesame seeds from Mexico and Nicaragua and so on.

Nowadays, India and Indonesia export individually between 1000-30,000 tons of black pepper annually, China and Tanzania export cloves in huge amounts, the Mediterranean regions including North Africa and the Middle East supply the world with large amounts of bay leaves, coriander, cumin, dill, fennel, fenugreek, mustard seeds, saffron, sage and other spices.

The most important trading centres for spices in the world today are New York, Hamburg, London, Amsterdam and Singapore.

Spices are identified as "any of various aromatic vegetable products used in cooking to season food and to flavour sauces, pickles or a vegetable condiment or relish, usually in the form of powder". In other words, a spice is that substance which enriches or alters the quality of a thing, specially in a small degree, altering the taste of imparting it zest or pungence or pleasing flavour or relish.

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|---------------|------------|
| 1. Cumin | 6 Mustard |
| 2. Coriander | 7. Rose |
| 3. Bay leaves | 8. Anise |
| 4. Honey | 9. Saffron |

Spices constitute essential items used daily in food, bakery, confectionary etc. They are of economic value, used also for medicinal purposes due to their sweet scent or flavour. They were, and still are, incorporated in perfumes, cosmetics and in some dietary products. Ready mixed and powdered spices quickly lose their flavour and aroma, such as coriander, cinnamon, cloves, ginger, nutmeg and allspice.

For the producing countries, spices are of far more importance than to the consuming ones, since their demand is constantly increasing. Production varies according to weather changes, pests, even political factors, causing instability to their prices and varying from one year to another. (Saffron comes from Spain and is the most expensive, while Canadian mustard seeds are least expensive).

Spices impart good taste and odour to food and nutritional products and are also used as preservatives. Drugs with undesirable odour can be masked by adding aromatic spices.

The mechanism of action of spices is worth noting; they contain special organic ingredients in oily state. Such volatile oils have sweet taste and aroma which evaporates at room temperature and mixes with the air giving it a nice odour. When these spices are mixed with food, their volatile oils penetrate into them and impart a distinguished taste.

Following inhalation of the spice aroma, saliva is involuntarily excreted in larger amounts owing to stimulation of the blood capillaries connected with the salivary glands, thus increasing the flow of saliva. The same thing occurs during mastication of spicy food, where its volatile particles get stuck to the taste buds of the tongue, increasing taste feeling, and so the nervous system is stimulated and consequently, saliva excretion increases. So one bite of spicy food increases appetite.

Spices cause dilatation of blood capillaries, thus increasing blood flow to the organs connected to them. The stimulated gastric and intestinal glands increase their excretion of digestive juices. At the same time, the nervous tissues located in the digestive system become strengthened specially after increase of blood flow and so increase their function, ending in activation of food digestion.

The important ingredients of spices effective as antiseptics or used in medicines and cosmetics have been isolated and are used in more concentrated forms. In medical therapy, the power to save life in acute conditions has been enormously increased, but for the treatment of less serious or chronic complaints, milder remedies are preferred which do not produce side-effects and encourage the body to cure itself. Domestic spices can help the smooth running of normal body functions, particularly those concerned with digestion.

Spices have little direct nutritive value, although some contain vitamins and minerals. They are the bases of perfumery and cosmetics, used for scenting household linen and floors, for preserving food against air-borne germs, for adding flavour to food and counteracting the ill-

effects of dirt and putrefaction and for preserving the well-being of the humans. Seasoning of food with spices brings out its natural flavour and gives variety by adding new scents and tastes.

Essential oils are the source of the characteristic aroma and flavour of spices, and constitute their main value. This necessitates that spices should be preserved and stored carefully in airtight glass or china containers away from direct sun light, moisture or excessive heat. Dried spices last less than a year, and if exposed to air they lose their full aroma more rapidly. Spices preserved in ground or powdered state lose their distinctive character and taste sooner than those in bulk form. Flavour and aroma of spices are strongly brought out by heat, but more through immersion in cold liquids. Also simmering chopped spices in oil before adding other ingredients bring out their maximum flavour.

Spices are gathered in dry weather when they are at their very best in the morning and just before flowering, then dried as quickly as possible in warm dry rooms and in airing cupboards or in a very slow oven for one hour. They are then spread out and lastly stored carefully.

Oils of such spices as cloves, garlic, marjoram and sage can preserve food owing to their germicidal properties and so could be used to mask the noxious odour and taste of food.

It is difficult to classify spices in different ways; if classed among foods, they have very little nutritional value but at the same time impart good taste and odour to food and are considered as good appetizers with a noticeable increase in digestive juices.

Many spices are considered also as important drugs, used as carminatives, laxatives or emollients, while others are known to be antidotes for poisons or improve the undesirable taste of some pharmaceutical preparations. They also play a great role in perfumery and incense industry, or in tanning and dyeing or added to aromatic vegetable elements used in sweetening food and drinks.

Spices may be assorted according to:

1. plant organ; thus dried flower buds would include cloves; fruits would include allspice, black pepper, nutmeg and vanilla; underground stems would include ginger, horse-radish, turmeric; barks would include cassia, cinnamon; seeds would include anise, caraway, cardamom, coriander, dill, poppy, sesame and so on.
2. properties:
 - a. stimulating condiments such as black pepper, capsicum, peppers, garlic, horse-radish, mustard etc.
 - b. aromatic spices such as anise, cardamom, cinnamon, cloves, ginger etc.
 - c. sweet herbs such as basil, chervil, fennel, parsley, sage etc.

Albakeria, Parsi, Hing, Parsi, 2400

Advanced technology made dehydration of onions and garlic bulbs possible since the 1930s in Eastern Europe, U.S.A. and in Egypt, which eventually produced significant changes in the processing of spices and herbs. Also, the use of oleoresins in the industrial market of spices brought important development in modern spice industry. Also advanced chemical technology constitutes nowadays a dangerous threat to spice trade causing economic damage to their producing countries. Large amounts of synthetic spice essences and flavours are being produced annually from more abundant and cheaper raw materials such as wood pulp, coal tar etc., thus threatening those large spice plantations. (Vanilla flavour is produced synthetically covering all U.S.A. demands but with occasional side effects to the human health).

Of the common spices used are:

1. **AFRAMOMUM MELEGUETA** (Zingiberaceae), Grains of Paradise

Native of Western Africa, became popular around the 13th century A.D. Part used: fruits. They have a very pungent taste, and are used as a spice in the same way as cardamom, also to fortify beer and spicing wine (in Britain).

2. **ALLIUM CEPA** (Liliaceae), Onion

Cultivated in most parts of the world. Part used: bulbs. Used in making soup (for savoury cooking), good as vegetable, in salads, pickles. Odour pungent and aromatic, while the taste is spicy. Onions are appetisers, increase thirst, ease the bowels, antiseptic, diuretic, good for coughs and colds, with honey, onions relieve asthma and induce sleep. They were hung in the past as a protection against infectious diseases so as to absorb poisons. A slice of raw onion placed over a wound will take away germs.

Shallots are smaller in size than onions but have a sharper flavour. Used in stews and for pickling.

Allium fistulosum, onion green, Welsh onion. Their green stems are used like onions.

Allium ampeloprasum var. *porrum*; Leeks: are the mildest of the onion group, serve to make sweet flavoured stews, cream soups and sauces.

3. **ALLIUM SATIVUM** (Liliaceae), Garlic

Believed to have originated from a wild plant native to Central Asia. Part used: bulbs. It is cultivated in most parts of the world. (It is thought that garlic has a healthy effect on other plants grown near it like chamomile). Smell is pungent, racy and strong, while the taste is warm. It was used greatly in ancient Egypt, while the ancient

Greeks used it for rituals where they placed them over a pile of stones at cross-roads as a supper for Hecate, the goddess of charms and enchantments. It was used during the First World War in Europe externally as antiseptic even for leprosy. Garlic adds zest and flavour to savoury cooking, warms up salads and is good for sauces, soups and gravies. It is a health giving plant with strong antiseptic and germicidal qualities. It protects against infection and was used against plagues and epidemics.

4. ***ALLIUM SCHOENOPRASUM* (Liliaceae), Chives**

Native to the northern hemisphere, Asia Minor and the Himalayas. Part used: grass-like cylindrical leaves. They have distinctive mild onion flavour. Used for cooking and flavouring, sprinkled on soups, potatoes, salads, fish, grilled chicken, veal, eggs, cheese, shrimp cocktails. It is rarely used in herbal medicine, although it contains iron, and is good for the stomach and kidneys.

5. ***ANETHUM GRAVEOLENS* (Umbelliferae), Dill**

Native to Europe, cultivated in the Mediterranean regions, America and West Indies. It was introduced to Britain by the Romans. Parts used: the feathery leaves and dried ripe fruits. Odour is penetrating and aromatic, anise-like with lighter caraway-like flavour, with a refreshing scent. Used in the past in magical spells and as a charm against witchcraft, and as aphrodisiac in love potions. Dill is used a lot in Scandinavian cooking in soups, sauces with fish and eggs, mushrooms and chicken, both leaves and seeds are added to cooked vegetables, beans, also for pickling cucumbers and with fatty fish (digestive), in pickling cauliflower. Used also in herbal medicine to stimulate the body, digestive and soothing for the stomach, against flatulence in children, to strengthen the brain and as carminative (as a decoction in white wine). Dill Tea from the seeds is used against hiccups or vomiting. Dill seeds chewed will sweeten the breath while its refreshing scent is used to perfume soaps.

6. ***ANTHRISCUS CEREFOLIUM* (Umbelliferae), Chervil**

Native to Western Asia, the Caucasus, Central Russia and Europe. First introduced to Britain by the Romans. Part used: the leaves. The sprigs are often used as a garnish in cooking, in association with green soups, raw salads, French dressing, with sea food cocktails, chicken, veal, fish. It sets off the flavour of other herbs and is sprinkled over vegetables. In herbal medicine, it warms the stomach, has a cleansing and refreshing action, is slightly diuretic and febrifuge.

7. **ARCHANGELICA OFFICINALIS** (Umbelliferae), Angelica

Common in cooler parts of Europe. Parts used: the fresh juicy stem, also the dried herb, roots and seeds. (The last two are rich in essential oils). The plant is warming, pervasively aromatic with a tangy bitterness and a refreshingly clear taste. The stems are added to food such as trifles and puddings, whereas the leaf tips are added to jams, fish, soups and stews. It settles the stomach, stimulates digestion, provokes perspiration in dry fevers, is a mild blood cleanser, diuretic and antispasmodic.

8. **ARMORACIA RUSTICANA** (Cruciferae), Horse radish

Native to Europe. Part used: roots. They are peppery and pungent with a hot, biting taste. It is used as condiment rather than a flavouring, thus scraped roots are sprinkled on meat, fish (smoked) and made also into cream or soup. They are stimulating and toning to the body, digestive, good source of vitamin C and have antibiotic qualities (same as with garlic and nasturtiums), also diuretic, aperient, good for the liver. A poultice of the scraped roots is used like a mustard plaster, while sliced roots soaked in milk, clears and freshens the skin.

9. **ARTEMISIA DRACUNCULUS** (Compositae), Tarragon, Estragon

Native of Southern Europe. Part used: leaves. (It is better to use them fresh since the flavour and aroma is lost on drying). The flavour is liquorice and anise-like, the scent is sweet and aromatic at first but bitter afterwards. It was called dracunculus or little dragon owing to the belief that it cures the stings of venomous beasts. It is used mainly in cooking, specially in France in all sauces, vegetables, mushrooms, asparagus, is added to marinades for meat or fish, to boiled chicken, eggs, stews and meat soups. Tarragon vinegar makes an aromatic dressing for salads (giving them warmth), fish, mayonnaise, French mustard, while tarragon butter is used with meat, fish, biscuits, potatoes, stuffed chicken, duck or game.

10. **BORAGO OFFICINALIS** (Boraginaceae), Borage

Cultivated in many Mediterranean areas, Middle East (Syria). It was introduced into Britain by the Romans. Parts used: leaves and flowers while fresh. The ancient Greeks used it to obtain courage and is the original Nepenthe of Homer, which when drunk in wine brings absolute forgetfulness. It attracts bees, is a mild refreshing herb and is used like lemon balm. Its flavour is near to cucumbers, and used to flavour wine, fruit drinks giving them a subtle and refreshing tang. The leaves are sprinkled on green salads, fruit salads, improves flavour

of cooked vegetables and soups. Mixed with wine, borage is stimulant, antidepressant, drives away sadness, dullness and melancholy. In herbal medicine, it is regarded as cleansing, soothing, mild diuretic and promotes perspiration (febrifuge).

11. *BRASSICA NIGRA* (Cruciferae), black mustard

Black mustard together with white mustard (*Brassica alba*) grows wild in most of Europe. The black variety was first introduced in Britain by the Romans. Part used: seeds. They are ground to make mustard flour, while the commercial mustard is a blend of both black and white mustards. It is amongst the most ancient of spices, having a powerful, pungent character. Mustard powder sold to make a paste should be freshly ground to keep its flavour, and is mixed with salt, sugar, allspice, ground bay leaves, cinnamon, cloves, coriander, ginger, nutmeg, pepper, turmeric etc. together with vinegar or white wine. Mustard is used as a condiment with chicken, beef, fish sauces, ham etc., (when mustard is cooked, it loses most of its bite), while the seeds are used in pickling spices. Mustard is a strong stimulant, diuretic and emetic, used as a poultice to relieve neuralgia, difficulty in breathing and congestion. Oil of mustard is used in liniments as a stimulant, invigorating and counterirritant (it was used in the past as a good remedy for the bites of scorpions and also as aphrodisiac).

12. *CALENDULA OFFICINALIS* (Compositae), Marigold

Native to India, cultivated in Europe and the Mediterranean areas. Part used: the golden yellow flower petals. The plant was linked with the Virgin Mary, and often woven in Europe into garlands for feasts and weddings. The petals are a subtle flavouring and a very decorative addition to food, giving rich and pleasant flavour to soups, stews and gravies. Because of their golden colour, they are sprinkled on salads, as a garnish for mashed potatoes, rice etc. Also used as a replacement for saffron to colour buns and cakes. The petals are recommended in herbal medicine for headaches, jaundice, red eyes, toothache and ague, to relieve the pain of burns and prevent scarring. They are slightly aperient if eaten raw. Marigold leaves bruised with little vinegar cures warts.

13. *CAPPARIS SPINOSA* (Capparidaceae), Capers

Native to the Mediterranean area, mainly in France, Spain and Italy. Part used: the unopened flower buds. They are pickled in vinegar imparting it its aromatic qualities, used also for boiled sauces for muttons, tartare sauce, garnish for fish (fried or grilled), meat, chicken or eggs. Are also good appetisers.

14. **CAPSICUM ANNUUM** (Solanaceae), red pepper, paprika, pimento, bell pepper, bullnose pepper
CAPSICUM FRUTESCENS, Cayenne pepper, Chillies

Native to Central and South America, the West Indies, cultivated in sub-tropical areas. Part used: fruits. Red peppers are abundant in warm countries and are milder than chillies. The cooked seeds are very fiery and biting. Used minced with salads and hot rice. Very common in Spanish and Mexican cooking in meat and vegetables. The powdered fruits are used extensively in Hungarian goulash. The fruits have a lot of vitamin C.

Chillies are the small light red, very pungent fruits, either fresh or dried. They are used in cooking, and the longer they are boiled, the more their biting qualities increase. Ground chillies are used in curry powders and pastes, very characteristic of Mexican cooking, added to rice, meat, minced chicken or fish, also in vegetables and as hot pickles or chutneys. Chillies are powerful stimulants, aid digestion, used externally in plasters and ointments to produce warmth, but are sometimes pungent and cause skin irritations.

Cayenne pepper is used in food in the same way as chillies. They are good appetisers, help digestion in small quantities, but cause discomfort in large amounts.

Tabasco is a sauce made from the pulp of chillies, pickled in wine or vinegar and is very hot, used in soups, sauces, stews, rice, potatoes etc.

15. **CARUM CARVI** (Umbelliferae), Caraway

Cultivated in Europe, Mediterranean areas and parts of Asia. Parts used: dried ripe fruits, while the leaves are sometimes used in soups due to their similar flavour. The fruits are warm, aromatic, resembling a mixture of eucalyptus and mint. They were used very popularly in ancient Greece and Rome where Dioscorides advised the use of caraway oil for pale-faced girls. The seed has a pervasive warm and pronounced flavour, and the oil is used in making liqueurs (such as Kümmel). The seeds are added to sweet and savoury cooking and cakes, mixed with meat, vegetable soups (to improve flavour and eliminate unwanted cooking smell), also in stews, cheese etc. It is much used in German cooking. The roots can be eaten boiled.

Caraway tea made from the powdered seeds is drunk after meals to aid digestion while the whole seeds relieve cold, are carminative and aid the sight. They are thus used greatly for soothing and settling the digestive system (also the oil is digestive, and used for its scent in perfumery for soaps).

16. **CINNAMOMUM ZEYLANICUM** (Lauraceae), Cinnamon *C. cassia*, Cassia, Chinese cinnamon.

Cinnamon is native of South India and Ceylon. Part used: the inner bark, best stored in pieces (grounding them makes the flavour go off). It was known to Europe since the 16th century A.D. through the Portuguese merchants, while the Singhalese variety was known earlier in the 13th century. Cassia gives a coarser spice.

Cinnamon is one of the oldest and most praised of spices, valued for its fragrance as well as its medicinal qualities. Cassia was mentioned in the ancient Chinese herbals round 2500 B.C., and imported by ancient Egypt since 1700 B.C.

Cinnamon is warming and has a mace-like fragrance. It was mentioned in the Old Testament as one of the ingredients of the holy oil used for anointing the sacred vessels of the tabernacle, composed of cinnamon, aloes, myrrh (Proverbs VII:17). Cinnamon oil is still being used in the heavier Oriental scents and as a flavouring for toothpastes and liqueurs. The Romans used it in religious ceremonies for the god Mercury. In Medieval Ages, it was known as *Pulvis dulcis* (sweet powder) and was used much in medicine, cooking and for pomanders (carried to offset unpleasant smells of city streets and unwashed bodies).

Cinnamon is used for flavouring punches, spiced wines, soups, and sauces, sprinkled over hot milk, coffee, beef. Powdered cinnamon gives a warm and spicy flavour to cakes and curries. Cinnamon is said to be aphrodisiac, digestive, astringent, antiseptic and appetiser, relieves flatulence and stops vomiting, antidiarrhoeic (with cardamom seeds and ginger).

17. **CORIANDRUM SATIVUM** (Umbelliferae), Coriander

Native to Eastern Mediterranean areas, cultivated in many temperate regions. Part used: dried fruits. It was first introduced in Britain by the Romans, and was used since antiquity, mentioned in Ebers medical papyrus of ancient Egypt and in Sanskrit literature, also used by Hippocrates and others as stimulant to digestion, aphrodisiac, included in love potions, and was mixed with fennel, hemlock, henbane and poppy juice in incense to call spirits. Also the Chinese believed in its magical qualities and to bestow immortality.

Kept longer, dried whole coriander fruits increase their aroma. They are better if powdered or crushed. A delicate spice, used freely, it is one of the main ingredients of curries and other Indian cooking. It is also used by the Peruvians in soups. Goes well with meat, goose, custards, jellies, puddings, cakes, biscuits etc. Whole fruits are used in pickling spices. The leaves are also used in Indian cooking and in salads.

18. CROCUS SATIVUS (Iridaceae), Saffron

Native of Asia Minor, cultivated since ancient times, specially in sub-tropical areas specially Spain. Part used: dried bright orange-red stigmas of the flowers which are the saffron. It was used in England during the reign of King Edward III (1327-1377) and thence was cultivated. One pound of saffron needs 60,000-70,000 flowers and the stigmas are picked by hand. It has strengthening and restorative qualities. Taste is slightly bitter, pungent and warming while its aroma is sweet iodine-like. It is used in Malaysia for those possessed by demons or evil spirits.

Saffron was so important commercially in the Middle Ages that adulteration of it was punishable by death, often by burning or burial alive. A yellow dye derived from them was the traditional wear of gods, heroes, nymphs and monks of the East.

Saffron is used for cakes, buns, rice, clear soups and is an essential ingredient of the famous Mediterranean fish soup Bouillabaisse. It is much used in Italian, Spanish and Turkish cooking and are added also to curries, paella and puddings.

Medicinally, it is used to deaden pain, produce sweat in fevers, as a laxative, tonic, settling to the stomach, for treating jaundice, as an infusion for rheumatism and measles.

19. CUMINUM CYMINUM (Umbelliferae), Cumin

Native to the Mediterranean areas, India and China. Part used: the fruits. Its flavour resembles caraway but with a harsher taste and more bitter undertones (strong, warm and aromatic). It was cultivated in Europe during the Middle Ages, but was used elsewhere more than 3000 years ago, extensively in Middle Eastern cuisine, in curries and in Indian cooking. In small amounts, it flavours stews, meat, bean soups and gives spiciness to savoury rice, lambs or are added to pickled cabbage together with juniper berries and fennel. Cumin counteracts the effects of rich indigestible food.

Cumin ground with water or wine is a stimulant and digestive. Smoking cumin fruits produces pallor of the face. Oil of cumin is used sometimes in perfumery and liqueurs.

20. CURCUMA LONGA (Zingiberaceae), Turmeric

Native to China, cultivated in tropical Asia mainly India. Part used: rhizomes, used dried and powdered as a condiment and aromatic spice owing to its pungent oil, it also has a bright yellow pigment "Curcumin" thus used as a yellow dye. It has warm, rather musky overtones and is the basic ingredient of curry powders used in cooking;

1. meat curry powder contains turmeric, coriander seeds,

cinnamon, mace, cumin, cardamom seeds, grated ginger, chilli powder, clove, pimento, black pepper and nutmeg. Dried chillies are added to make it hotter.

2. fish curry powder contains coriander seeds, turmeric, black pepper, cumin seeds, cayenne pepper and grated ginger.

Turmeric is used to flavour and impart a mustard colour to pickles, cakes, sweets and rice dishes (same as with saffron) also in sauces for chicken and their soups and meat.

In herbal medicine, turmeric settles the stomach, is a gentle stimulant in jaundice, dropsy, used for skin diseases and to heal bruises.

21. *ELETTARIA CARDAMOMUM* (Zingiberaceae), Cardamom

Native to India and Ceylon. Part used: fruits or capsules, picked before fully ripe, then dried and sold in their natural capsule covering. They are strongly aromatic and warming with attractive individual taste and flavour. It was mentioned in many writings of the Orient and of the Greeks and Romans. The capsules prevent the essential oil of the seeds from evaporating.

Cardamoms are used in Indian cooking in curries, while in Europe, it is used in cakes, gingerbreads, pickles, rice, meat, chicken and puddings. Also used to flavour liqueurs and bitters.

In herbal medicine, cardamoms are chewed slowly to sweeten the breath, as aphrodisiac, to soothe digestion, stimulate appetite, are used against flatulence, colics and disorders of the body, often combined with purgatives to offset griping. They are used sometimes in perfumery and for fumigating purposes.

22. *EUGENIA CARYOPHYLLUS* (Myrtaceae), Cloves

Native of Indonesia, cultivated in many tropical areas. Part used: the dried unexpanded flower buds, red brown in colour. It was used in ancient China since the 3rd century B.C. to perfume the breath. Cloves monopoly was broken at the end of the 18th century A.D. when it was cultivated in Mauritius and Cayenne, and so the prices dropped greatly and it became widely used for culinary purposes. Ancient Persians used cloves in love philtres and still use it in perfumes and soaps.

Cloves have strong aroma (due to its volatile oil, extracted by distillation), are also warming and astringent. Cloves are penetrating and powerful, suppressing other flavours, just one or two buds are used in apple sauce, pies, curries, leek or onion soup and meat.

Clove and its oil are digestive, relieves flatulence, vomiting and diarrhoea, germicide and antiseptic, also pain killer for decaying teeth by acting as temporary anaesthetic. It is added to drinks against cold

and chills, also as a tea to relieve nausea and mild indigestion through settling the stomach. If chewed slowly, will sweeten the breath.

23. *FERULA FOETIDA* (Umbelliferae), Asafoetida, Food-of-the-gods, Devil's Dung

Native to Afghanistan and Eastern Asia. Part used: oleo-gum resin obtained from the fleshy roots. It is occasionally used in India in curries, and was formerly used as antispasmodic and against lung troubles.

24. *FOENICULUM VULGARE* (Umbelliferae), Fennel & F. dulce, Florence fennel, Finnochio

Native to the Mediterranean areas and Europe, cultivated in temperate regions. Parts used: dried fruits and leaves. Its flavour is anise-like to celery, and the aroma is warm but less sharp. Fennel was known since antiquity in the Mediterranean areas and Egypt, and Pliny spoke of its medicinal qualities in his writings on natural history. In Medieval Ages, it was used to make spells, as a protection against witchcraft and in an incense to make spells, as a protection against magic and in an incense to raise spirits.

The essential oil of fennel is incorporated in making liqueurs and cordials, also perfumes and soaps. Fennel herb sets off the flavour of fish when stuffed in, or in sauces. Sprigs of fennel are used, like parsley, as a garnish, or as vegetable (like asparagus), mixed with salads, soups, juice cocktails, potatoes, but rarely used with meat.

In herbal medicine, fennel is used against flatulence, made into gripe-water for babies, helps to loose weight and good for the eyes (compresses from an infusion relieve sore eyes and eyelids, while a lotion strengthens and tones eyes and sight). Chewed seeds help digestion.

The swollen stems of Florence fennel are cooked as vegetable like celery mainly in Italian cooking.

25. *GALIPEA OFFICINALIS* (Rutaceae) Angostura

Cultivated in South America, mainly Trinidad. Part used: the liquid obtained from the tree bark. The taste is bitter and refreshing, thus mixed with drinks as gin, fruit salads, jellies, mousses or with fresh grape fruit.

It is used as a febrifuge, stimulant and against ulcers, whether external or internal, but large doses are purgative.

26. *HYSSOPUS OFFICINALIS* (Labiatae), Hyssop

Native to temperate regions of Europe. Parts used: the flowers and young leaf tops. The plant is attractive to bees, and was associated

in the past with cleansing and purifying, added into bouquets carried for protection against plague and other infectious diseases in Europe.

It is used as an ingredient in liqueurs, but not much used in cooking and the chopped young leaves give a minty taste to salads and meat.

In herbal medicine, it is used in chest complaints and against flatulence. Hyssop tea is an expectorant for bronchial catarrh.

27. *JUNIPERUS COMMUNIS* (Coniferae), Juniper

Native to Europe. Part used: the berries (they are the only species suitable for use in cooking), the bluish black female fruits. Odour is very aromatic. Juniper was greatly associated with magic, as a good protection against evil spirits and was one of the shrubs which have sheltered the Virgin Mary and the Christ Child in their escape into Egypt.

The berries are used to flavour gin or crushed, distilled in water and drunk in France, while in Sweden, they are made into beer. In Northern Europe also, the berries are used to flavour game pies, veal, lamb, kidneys, in sauces.

In herbal medicine, the berries were taken to preserve youth, the distilled oil has strong diuretic action thus used for gout and rheumatism. They cure liver and kidney complaints, settle the stomach and clean the digestive system. Juniper Rob is used for the same purpose, while Juniper tea, boiled, may be used sometimes but cause irritation on the inner organs (if they are inflamed) and are thus used in moderation. The branches are burnt as incense to purify and sweeten the air.

28. *LAURUS NOBILIS* (Lauraceae), Bay, Bay leaves, Bay Laurel, Sweet Bay

Native to Asia Minor, Syria and the Mediterranean regions, cultivated in England since the 16th century A.D. Part used: the leaves. They are darkish glossy green, full of aromatic oils.

The leaves were used to crown the heroes and athletes of Greece and Rome in the past and also by the Delphic priestesses in their rites.

The volatile oil of the seeds is warm and penetrating with aroma resembling eucalyptus and used occasionally in perfumery.

Bay leaves give warmth and fullness to fish soups and pies, white sauces, cream soups of onions, rice puddings and reduces the smell of cauliflower. The berries are black and shiny and are used in medicine. The leaves stimulate appetite, so do powdered berries or their infusion, also excitant and narcotic against hysteria, and for amenorrhoea (but large doses may abort), also for flatulent colic.

29. *LAVANDULA OFFICINALIS* (Labiatae), Lavender

Native to Western Mediterranean mountains, was cultivated in England in the 6th century A.D. Parts used: the flowers and flower stalks. They have characteristic aroma due to the essential oil which is produced commercially. Lavender has a warm, strongly aromatic scent. The flowers were used in the past to keep away evil spirits and flies.

Crystallised lavender is used to decorate cakes and trifles. It was also used formerly to dress wounds and relieve toothache, headaches and sprains, it comforts the stomach, for its fragrance and as one of the strewing herbs in perfumery and to disinfect floors and furniture. It also has soothing and relieving effect on the head and brain, for all forms of nervous disorders, giddiness and hysteria. Lavender water is a refreshing scent, excellent for clearing catarrh thus ideal for sickrooms, used also in cosmetics, in perfumes, soaps, creams, ointments, bath essences and household cleansers and polishes. Bags of dried herb are used to scent bed linen, clothes and keep away moths.

30. *LEVISTICUM OFFICINALE* (Umbelliferae), Lovage

Native to the Mediterranean areas, cultivated in many temperate regions. Parts used: leaves, stems and seeds. It has a full, penetrating flavour, with warm and aromatic scent.

It is used to give a meaty, full bodied base to soups, stews and gravies (and so can be used by vegetarians), also in cooking the stronger-tasting meats and game, fish sauces, salads or as a vegetable (where the young shoots are preferred). The seeds have a pleasant flavour and are sprinkled on bread or savoury biscuits. The shoots are candied.

Lovage soothes and aids digestion and is recommended for the circulation and the kidneys. Lovage tea is used for nursing mothers due to its restful and invigorating qualities. Lovage cordial drink (by steeping fresh seeds in brandy) is useful in feverish colds, it also warms and comforts the stomach. Chewed seeds aid digestion. The leaves and stems are added to baths for their refreshing smell and as a deodorant. Its essential oil is very warming and pleasant and is used in perfumery.

31. *MELISSA OFFICINALIS* (Labiatae). Balm, sweet balm, melissa

Native to the Mediterranean areas and England. Part used: herb. It attracts bees. The flavour is softly spicy with lemony aroma and refreshing.

The leaves are mixed in stuffings for poultry, veal, mushroom dishes, fish sauces, mayonnaise, added also to salads or sprinkled on

melon or fresh fruit cocktails. Fresh leaves are also added to mild-flavoured cream soups of chicken or mushroom and as a garnish to fruit drinks, wine or gin tonic or to other drinks as a flavouring.

In the 17th century A.D. essence of balm mixed with canary wine was taken orally to renew youth, strengthen the brain, relieve languishing nature and prevent baldness. Melissa tea calms, cools and soothes the body, is a febrifuge, against sore throat and cough, relieves over-tiredness, relaxant and counteracts migraine attacks. Oil of balm is used in perfumery while the leaves are used in spice mixtures.

32. *MENTHA SPICATA (viridis)*, (Labiatae), Spearmint *Mentha piperita*, Peppermint, *Mentha pulegium*, Pennyroyal

Spearmint is native of Central Europe and Mediterranean areas. Part used: leaves. It was used in cooking and medicine since earliest times in Egypt, North Africa and Europe. It was one of the tithes paid by the Pharisees (together with anise and cumin), and was much used by the Greeks and Romans to scent their bath water and as a general restorative. The Romans were the first to introduce it to England and it was extensively used during the Medieval Ages where it was cultivated in convent gardens (since the 9th century A.D.) and became one of the strewing herbs and was scattered on food to keep away rats. It was used in the 14th century to whiten the teeth.

Spearmint is used much in mint sauce with roast lamb, and fresh sprigs are used to garnish vegetables, jellies, whereas the leaves are strewn on fresh fruit salads, fruit cocktail and also for soups.

In herbal medicine, spearmint settles digestion and is an appetiser (action is hot, then cool to the taste), and is milder than peppermint. Spearmint tea is taken for refreshment, in fevers and stomach upsets and to sweeten the breath.

Peppermint has two varieties; black peppermint, used for distilling the essential oil and peppermint tea ... and white peppermint (*M. piperita officinalis*) which is milder. Part used: leaves. It is more pungent and so less used in cooking.

The ancient Greeks and Romans used to sprinkle it in wine or ate it mixed with honey forming a paste. Peppermint was mentioned in an Icelandic Pharmacopoeia of the 13th century A.D., but became popular medically in Western Europe round mid 18th century. The oil has a strong aroma and a penetrating burning hot taste and then cold. Peppermint is mixed in mint punch together with orange and lemon juices, and also in mint jelly.

Peppermint is used to relieve nausea, stomach cramps or flatulence, is also a mild antiseptic and prevents milk curdling. Peppermint tea is a reviving drink, settles the stomach and against cold.

Pennyroyal is a less familiar herb due to its acrid pungency, and

was once much used in medicine and as food stuffing. It was formerly recommended for menstrual disorders and as cleanser for the blood and lungs.

33. *MONARDA DIDYMA* (Labiatae), Oswego, Bee balm, Scarlet monards, Gold melissa tea, Bergamot.

Native of North America. Part used: flowers. Every part of the plant is aromatic thus it attracts bees. The Oswego Indians of America were the first to use its leaves as a soothing and relaxing tea. The leaves are used very lightly in salads, fruit drinks and wine. Also gives new flavour to tea (Oswego tea).

34. *MYRISTICA FRAGRANS* (Myristicaceae), Nutmeg & Mace

Native of the Molucca Islands (Indonesia), cultivated in some tropical countries in the 18th century A.D. (specially in Grenada island in the West Indies). Part used: fruits. When the fruit gets ripe, it splits revealing a fleshy red network over the inside seed (this network is the mace while the seed is called nutmeg). Mace turns brownish in colour when dried and is used as such or powdered (but loses its aroma very rapidly) and the seed is best preserved whole. Both nutmeg and mace are spices with similar taste, fragrance and action, both sweet and aromatic, adding richness and warmth to any mixture. They were used medicinally in the past to assist digestion, stimulate circulation and as a mild soporific.

When the Dutch took over the Molucca Islands from the Portuguese at the beginning of the 17th century, they restricted nutmeg production to keep prices high, this encouraged the French in Mauritius and the English in Penang to cultivate its trees so as to break its monopoly. Both mace and nutmeg are powerful spices, but contain a toxic substance Myristicin, thus, must be used in small quantities.

Mace is used more for savoury dishes like meat and fish, soups, sauces and ketchups, while nutmeg is used in sweets like milk puddings, junkets, custards etc. Both are good in cakes, buns, biscuits and mincemeat.

35. *MYRRHIS ODORATA* (Umbelliferae), Cicely, sweet cicely

Native of Britain. Parts used: leaves and seeds. It is an invigorating but not aggressive herb, with a pervasively aromatic anise fragrance, very attractive to bees.

The leaves are used for flavouring liqueurs with its aromatic character serving as gentle appetite stimulant and digestive. The herb is mixed with eggs, combines well with tarragon, flavours salads, soups, stews, fresh fruit cups, vegetables and juices. It reduces the amount of sugar added by half to stew tarts and fruits, thus useful

for diabetics and for weight reduction.

The roots were used formerly as external antiseptic, against bites of vipers and rabid dogs. Internally, fresh roots were eaten or infused with alcohol as strengthening and aphrodisiac. Seeds were used in incense.

36. *OCIMUM BASILICUM* (Labiatae), Basil, sweet basil *O. minimum*, Bush basil

Basil is native of India, cultivated in the Mediterranean regions and England. Part used: leaves, used fresh. It is traditionally regarded in the Indian subcontinent as a kinglike herb, sacred to Krishna and Vishnu and as a protecting spirit for the family (some never eat it). In France, it keeps away flies. Its clove-like taste favours its addition to heavy foods, used much in Italian and Greek cooking specially in cooked tomato dishes as soups, pasta sauces, pizzas, sausages (when cooked, basil becomes strongly aromatic and spicy, so is used in small amounts), used also to brighten the flavour of other meat mixtures and as stuffings for chicken, gives good flavour to spaghetti, rice, eggs, grilled liver and fish. It is also used in perfumery and snuffs.

Basil has purifying qualities, clears away headaches, aids digestion and is a mild laxative.

Bush basil is less used in cooking and medicine.

37. *ORIGANUM VULGARE* (Labiatae), wild marjoram *O. majorana*, sweet or knotted marjoram *O. onites*, pot marjoram

Part used: the leaves. Wild marjoram, particularly oregano of the Mediterranean areas has the strongest flavour and is sweet, taste moderately pungent, mint or clove-like. The smell and taste are spicy, the whole plant is warming and aromatic.

Marjoram combines well with thyme and others in cooking specially with tomatoes, mushrooms, meat (before roasting or grilling) or game, good in stuffings for veal or chicken, in pizzas, meat sauces, vegetable soups or potatoes thus it is a meat herb positively. (The other two varieties are used similarly in cooking but less). In herbal medicine, wild marjoram was used for centuries as a remedy for narcotic poisons, for convulsions and dropsy. The herb was often scattered on ancient Greek graves to bring happiness and good fortune to the dead, and in Medieval Ages, it was one of the strewing herbs used to cleanse the atmosphere by strewing them on the floor. It was also used like lavender to scent linen, clothes, baths or washing out furniture. Its volatile oil contains thymol which is a good antiseptic. Hot or cold fomentations of the leaves were used externally to relieve swellings or bruises. The oil relieves toothache, settles the digestion and is a mild tonic, it helps to ease pain of rheumatic joints (by plunging a bag stuffed with dried herb in boiling water and applied as hot as bearable).

38. PETROSELINUM CRISPUM (Umbelliferae), Parsley *P. sativum*,
Hamburg parsley

Native of Southern Europe, introduced to England in the 16th century A.D., cultivated in many parts of the world. Part used: leaves. The ancient Greeks used to crown their victors with parsley garlands while the whole herb was dedicated to Persephone, Queen of the dead, and was used much in funeral rites only and not in cooking.

Parsley is used today in most stuffings, sauces (such as bechamel base) with fish and chicken, added also to rissoles, hamburgers, omlettes, potatoes etc.

It is good for the health, with vitamin C and much iron and carotene, was used since antiquity as diuretic, tonic and digestive (helps in rheumatism). Parsley tea clears the complexion (but is not used with inflamed kidneys).

Hamburg parsley roots are added to soups and stews or boiled or chipped like potatoes.

39. PIMENTA OFFICINALIS (Myrtaceae), Allspice, Pimento, Jamaica pepper

Common in Jamaica, most of the West Indies and South America, was introduced to Europe during the 17th century. Part used: reddish brown fruits, used when fully grown but not fully ripe. It was called allspice because it tastes like a combination of spices mostly of cloves, cinnamon, juniper berries and pepper. The oil is used in Bay Rum, the fruits make a warm addition to foods like vegetables, meats, chicken etc., also used as a background to set off another spice or flavour.

It is used as appetite stimulant, to soothe digestion, as a tonic, with laxatives to relieve griping, also to relieve chills and overtiredness. Used also in perfumery (the oil) and to scent soaps.

40. PIMPINELLA ANISUM (Umbelliferae), Anise, Aniseed

Native of the Mediterranean areas (Egypt, Greece and Asia Minor), cultivated in Central Europe since the Medieval Ages. Part used: fruits.

It was reputed from antiquity for averting evil eye and was used by the Romans as a spice in a cake as a digestive.

Anise is used in sweet and savoury cooking, as a flavouring for many liqueurs (Anisette), for sweet puddings, pancakes, breads, buns, also as addition to soups, sauces giving it a fairly strong hearty flavour (used in Indian cooking in fish recipes), also used with cabbage and cheese.

Aniseed tea relieves cough, asthma, bronchial troubles, is antiseptic and sweetens the breath when chewed.

41. *PIPER NIGRUM* (Piperaceae), black pepper

Grows wild in India, cultivated in tropical areas such as Indonesia, Sarawak etc. Malabar pepper is one of the finest quality. Part used: pepper corns or the dried unripe fruits, used whole because if powdered, it loses its freshness and flavour, so it should be freshly powdered. White pepper is the rubbed off pericarp of the black fruits. In the Middle Ages, black pepper became so much valued that it was used instead of money or as a part of the tribute paid by conquered cities to their invaders. The Romans used the long variety extensively.

Black pepper is an essential seasoning in cooking and as condiment to bring out the flavour of food and as appetiser.

Black pepper settles the stomach, cools the body by stimulating the mucous membrane of the rectum and as emollient.

42. *PRIMULA VERIS* (Primulaceae), Cowslip

Common European wild flowers. Parts used: leaves and flowers. The flowers have faint anise-like odour. The hanging yellow flowers were used since antiquity, associated with legends and superstitions; in pagan days, they were believed to be the keys of the goddess Freya while in Christian era, they were transformed to St. Peter or the Virgin Mary. Used also as a cosmetic, to clear the skin of spots and wrinkles.

Cowslips leaves are used in salads, added to stuffings, also in wines. Their juice has a mild narcotic action and was used to induce sleep, also soothing and antispasmodic, against paralytic ailments, nervous troubles, debility, restlessness, insomnia and giddiness in syrup form. Cowslip ointment (made of leaves and hog's lard) cures all sorts of wounds, sunburns etc.

43. *POTERIUM SANGUISORBA* (Rosaceae), Burnet, salad Burnet

Native of South Europe. Part used: fresh leaves. Its flavour resembles that of cucumber, and attracts bees. It is used since antiquity to preserve the health.

It is added to sauces, salads, soups and drinks (wines) and fruits.

In herbal medicine, it is used as astringent, tonic, to staunch blood, antidysenteric, against leucorrhoea and to assist the action of the kidneys in the form of a hot infusion.

44. *ROSMARINUS OFFICINALIS* (Labiatae), Rosemary

Native of the Mediterranean regions and Asia Minor, cultivated in Europe. Parts used: leaves and flowers (contain an essential oil from which it is distilled). The fragrance is aromatic almost resinous, with sweet flavour but sharp and faintly bitter later on. It was used

in the past in wedding decorations and funerals. It was much favoured by the Welsh physicians of Myddrai in the 11th century A.D. who recommended eating the flowers with honey to prevent nausea, and added to bath water daily to preserve youth. Also, it was used as an incense burnt in French hospitals in the past to purify the air.

Rosemary is used in cooking with lamb, veal, rubbed or as stuffings, in chicken, soups, fish recipes. In sweet cooking, it is added to apple jelly, jams or as garnish for fruit or cider cups, added to biscuits and cakes. It is used extensively in Greek cooking.

It is believed in herbal medicine to improve the memory and stimulate the growth of hair keeping it in good condition (is incorporated today in hair shampoos, tonic and oils). Infusion of flower tops relieves headaches, trembling of the limbs and other nervous disorders, also as tonic, stimulant and astringent. Rosemary tea improves digestion, counteracts flatulence and stimulates the circulation. Oil of rosemary is used in soaps, scents, toilet waters and essences. Also useful in massage.

45. RUMEX SCUTATUS (Polygonaceae), French buckler leaved, *R. acetosa*, English Garden Sorrel

Found wild in most parts of Europe. Parts used: leaves and stems.

Both herbs blend well with fish, cold meat, added also to spinach, pea or chicken soups (or made into soup of its own).

Used in herbal medicine to cool inflammations, heat of the body, diuretic, reduce fevers and relieve thirst (it has a high content of oxalic acid, so used with caution lest it interfere with calcium absorption in the body), believed to have blood-cleansing properties, refreshing and cooling (due to its bitterness and acidity).

46. RUTA GRAVEOLENS (Rutaceae), Rue

Native of Southern Europe, cultivated in temperate regions. Part used: the tops or young shoots. The leaves have a bitter flavour and a powerful disagreeable smell. It was regarded in the past as a good protection against witchcraft and all forms of contagion, insect pests and poisons. Used also to improve eye sight (the Romans introduced it into England in the belief that it strengthens the ocular muscles and gave second sight). Used later to cure lameness due to sprains, to relieve aching tendons and to clear away the deposits of old age in joints and tendons.

Its use in cooking is little due to its bitterness, while eating large amounts is emetic and slightly poisonous. The Italians add the young shoots at the top to salads.

47. SALVIA OFFICINALIS (Labiatae), Sage

Native of Southern Europe, cultivated in all Europe. Part used:

leaves. It has an aromatic, strong fragrance with faint flavour resembling mint.

It was used in the past to ensure long life, restores health, good for the head, brain, and against trembling of the limbs ... a cure-all herb, even cures serpent bites. Used earlier as a black hair-dye, still used in tooth powders and pastes for its cleansing and toning effect.

In cooking, sage is a frequently used herb, helps in the digestion of rich fatty foods, taken in small quantities. Also stuffed for goose, ducks, pork pies with onions, grilled or baked with liver, meat soups, braises and stews giving them a spicy effect. It also blends well in cream soups like that of onions, peas, spinach, also with fish, meat and cheese.

It is stimulant, astringent, tonic, settling to the stomach, expectorant in lung infections and as a disinfectant. Rubbing the leaves on the teeth and gums cleans and strengthens them. Sage tea is good for sore throat as gargle, febrifuge, sedative to nervous excitement, digestive and against headaches. Sage compresses (made by boiling the leaves in vinegar wrapped in folded linen) applied as hot as possible is excellent for sprains. It is used rarely in perfumery.

48. *SAMBUCUS NIGRA* (Caprifoliaceae), Elder

Native to England. Parts used: flowers and fruits. The whole tree has a strong aromatic smell that keeps away flies. It was used in the past to ward off witches near the houses, against lightning and rheumatism. The Romans used the berries to relieve joint pain, aperient, diuretic and as a dye. Also used in traditional medicine to cure throat afflictions.

Elder is not much used in cooking; the flowers are added to milk puddings or apple tarts, while the flowers soaked in water is a good cooling drink in summer. The berries are pickled sometimes and together with the flowers are used for making wine.

The flowers are cooling and an aid to skin beauty ... against sun burn, clears freckles, whitens the skin, removes blemishes, as mild astringent and skin stimulant externally. Infusion of the flowers is febrifuge by increasing perspiration, while a tisane of them will induce sleep, laxative. A syrup made from the berries relieves coughs, colds and rheumatism. Bark infusion is purgative, and if made into an ointment it is soothing to sprains and swellings.

49. *SATUREIA HORTENSIS* (Labiatae), Summer savory *S. montana*, Winter savory

Summer savory is native to the Mediterranean areas, while the winter variety is native to Southern Europe and North Africa. Both are attractive to bees. Part used: leaves. Both have warm, aromatic spicy nature ... the winter variety is stronger and coarser in flavour.

Both slightly resemble thyme and marjoram and with a distinctive peppery flavour. The Romans used savory extensively and were the first to introduce it into England ... using it with vinegar.

Summer savory goes well with beans of all kinds, soups, for stuffing pork, chicken, ducks, geese, veal, game soups, stews, cooked cheese and raw vegetables.

The leaves are very rich with volatile oil, thus an infusion helps digestion. Rubbed leaves relieve pain from bee and wasp stings.

50. *TANACETUM BALSAMITA* (Compositae), Alecost, Costmary

Native of Western Asia, introduced into Western Europe by the 16th century. Part used: leaves. They are spicy and aromatic thus used for their scent more than taste.

The leaves are mixed with salads, added to soups and stuffings imparting them soft spicy flavour. Used also to flavour ales, wine and punches.

They have astringent and antiseptic qualities, curing the stomach and bowel disorders and upsets, anti-catarrhal, and relieve headaches. Its ointment cures ulcers and sores. They are packed into bags to scent clothes and linen as an alternative to lavender.

51. *TANACETUM VULGARE* (Compositae), Tansy

It grows wild in most of Europe, also introduced into North America and New Zealand. Part used: herb. It is a pleasantly bitter herb, very fragrant, with essential oils giving its distinctive aroma and flavour. It was once used for preserving dead bodies. Its smell suggests that of camphor, and when rubbed on meat, was thought to keep away the flies.

Tansy can be used as a substitute for nutmegs and cinnamon in puddings, salads, soups, stuffings and stews.

It was much used in herbal medicine as a tonic and stimulant, killing worms in the body, but irritant in large amounts. Tansy tea is vermifuge for children, aid digestion, relieve gout and rheumatism also soothe the nerves and help induce sleep. Its camphoraceous odour makes it a strewing herb for floors and furniture.

52. *TARAXACUM OFFICINALE* (Compositae), Dandelion

Grows wild in Europe, North America, cultivated in other temperate regions. Parts used: fresh or dried roots, leaves and flowers. They were used extensively by the Arabian physicians in the 10th century A.D. also later in Wales in the 13th century.

Leaves are used in beer manufacture, stout and diet drinks. Its use in cooking is limited, cooked roots are used as a vegetable or sliced raw in salads, young leaves are nutritious if cooked as spinach.

In traditional medicine, dandelion is a digestive, liver stimulant, also to gall bladder and kidneys, against skin complaints, in rheumatic conditions, and a good source of vitamins and mineral salts. Roasted and ground roots are tonic and stimulant (has the flavour of coffee but devoid of caffeine). The juice of the stalks is recommended for curing warts.

53. THYMUS VULGARIS (Labiatae), Thyme, *T. citriodorus*, lemon thyme

Native to most of the Mediterranean areas, first introduced by the Romans to Britain. Parts used: leaves and flowers. It is warming and sweet with a penetrating and sharply attractive scent, that attracts bees. It is one of the oldest used herbs, the ancient Egyptians and the Romans used it extensively as an appetiser, help digest rich and fatty foods (the Romans also mixed it with cheese and liqueurs giving them an aromatic flavour. It was also used in herbal medicine to subdue eroticism, dispel melancholy and prevent nightmares in Medieval Ages, together with a quality of embalming corpses as antiseptic and preservative (due to its content of Thymol).

Thyme is used as an ingredient of liqueurs, and because of its penetrating and distinctive aroma, it is used in stuffings of chicken, veal, tomato juices, soups and vegetables. It helps digestion and imparts an aromatic sharpness to any fat meat or rich savoury dishes, pies, poultry, liver but rarely with fish.

Thyme is tonic, settling the stomach, used much in bronchial conditions, strengthening the lungs and dispersing excessive mucous. Thyme tea is good for relieving coughs and catarrh. Also used in baths to tone up the nervous system and improves the sight.

It is also used as an incense and to fumigate rooms and clothes, while oil of thyme is much used in making scents, soaps, cosmetics etc. Dried thyme is used like lavender to scent linen and keep away insects.

Lemon thyme is used more with fish, chicken, veal, sweet custards, jellies and cream whips, also it gives honey a particularly delicious flavour if grown near a bee hive.

54. TROPAEOLUM MAJUS (Tropaeolaceae), Nasturtium *T. minus*

Native to Peru, cultivated in Europe. Parts used: leaves, seeds and flowers. (The plant helps to protect other plants from aphids). It has a peppery, pungent flavour.

It is sprinkled over salads, sandwiches, potatoes and other vegetables (but is irritant in large amounts). Pickled seeds is a substitute for capers.

Nasturtiums has an invigorating, health-giving effect together with mild antibiotic properties and a high Vitamin C content.

55. VANILLA PLANIFOLIA (Orchidaceae), Vanilla

Grows wild in the forests of Central America, cultivated in many tropical countries. Part used: pods (fruits) picked fully grown but not fully ripened, dried slowly over six weeks, turning into dark brown to black with slightly oily look and fairly strong aroma.

It was used since centuries by the Aztecs of America as a spice to flavour chocolate long before Columbus.

It is used for sweet dishes and as appetiser. The pods are cooked with sweet sauces, hot drinking chocolate, hot punch, while vanilla essence is used for cakes, biscuits, puddings. Vanilla blends also well with milk or cream used in mousses, ice creams and custards.

In herbal medicine, Vanilla is used against hysteria, low fevers, tonic, stimulating and settling to digestion and aphrodisiac. Oil of vanilla is used in perfumery.

56. VERBENA OFFICINALIS (Verbenaceae), Verbena, Vervain

Native to Britain, cultivated in Europe and Mediterranean areas. Part used: leaves. It is aromatic and slightly bitter.

Verbena was used in the past in England to ward off evil eye, in the treatment of plague and epilepsy. In the Victorian times, a necklace of vervain roots was hung as a cure for scrofula, prevent dreaming (or even drunk).

It is added to vegetables and meat. In herbal medicine, it is a mild diuretic, stimulant to perspiration, clears the eyes and improves its sight, soothes digestion and good tonic for the nerves. Vervain tea is sedative.

Aloysia citriodora, (Verbenaceae), Lemon verbena

Native to Chile and Peru, cultivated in Europe. Part used: leaves. It is sweet and has lemony refreshing odour and delicious lemony flavour.

It gives a lemony flavour and fragrance to fruit drinks, jellies, sauces for fish, chicken and veal. It makes a delicious and refreshing drink, used cold or hot, with a sedative effect on the bronchial and nasal areas. Its long-lasting refreshing scent makes it suitable for soaps and toilet preparations, and also to scent linen using the dried leaves.

57. ZINGIBER OFFICINALE (Zingiberaceae), Ginger

Native to tropical Asia (India), Jamaica, Western Africa. Part used: the hot-spicy underground stem or rhizome, fresh or dried. It is an aromatic, biting spice with a full pungent flavour.

It was used since ancient times as a medicine and spice by the Indians and Chinese (the Chinese boiled the rhizomes in sugar, then packed in syrup and used it as a delicacy and aphrodisiac). It was used extensively by the Romans, and reached England by the 9th

century A.D., and later was incorporated in a recipe against the plague. Crystallised ginger and chocolate covered sugar are used as sweets in Europe.

Ginger is warming, heartening thus used much in savoury cooking, in powder form or freshly ground rhizomes, in all sorts of bread, cakes, biscuits and puddings, used also incorporated in curries, chutneys, mixed with meat or vegetable soups, stews, sauces and can be sprinkled over root vegetables such as turnips, parsnips, artichokes, carrots etc. It is also good for spicing wine, hot punches (ginger wine is a cordial drink helping to soothe cold), while ginger beer and ginger ale are refreshing or mixed with other drinks.

It is used externally to restore circulation and colour, internally as stimulant to digestion. Used also in perfumery to give its characteristic exotic heavy scent of oriental perfumes.

REFERENCES

1. Colin, Jane; *Herbs and Spices*, London, England, 1973.
2. Gammerman, A.F.; *Tropical and Subtropical Medicinal Plants*, Press Meditsina, Moscow, U.S.S.R., 1974.
3. Fluck, M.; *Medicinal Plants and their Uses*, W. Foulsham Co., Ltd, London, England.
4. Kybal, Jan; *Herbs and Spices*, Artia, Prague, Czechoslovakia, 1980.
5. Schauenberg, Paul and Paris, Ferdinand; *Guide to Medicinal Plants*, London, England, 1977.
6. *The Hamlyn Encyclopedia of Plants*, Hamlyn Press, London, England, 1975.