

Spices and Medicinal Herbs

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Spices and medicinal herbs have been used at all times and in all countries. The knowledge of their values was developed at a time when science was only in its beginning. Their use is as old as mankind itself. Only in recent years, with the development of synthetic chemistry, many of the herbs have been forgotten and replaced by synthetic products. But if we look deeper into the matter, we will find that many of the well-known drugs are original ingredients—produced by nature—of the active extracts of spices and medicinal herbs. In our age, when the return to a healthier life, closer to nature again, is so much emphasized, the use of these forgotten plants is increasing and their health value being appreciated.

There is, for instance, nothing better than chamomile tea in order to soothe slight inflammatory processes of the intestines or relieve the bleeding of a wound after a tooth extraction. The chamomile plant contains an active substance which has an influence on the growth processes, a so-called growth hormone. It helps the edges of a lesion to grow together again. Furthermore, it has a sterilizing effect.

The misuse of herbs and the mysterious atmosphere of the mediæval witches has discredited the knowledge of the value of herbs. In a garden, however, we enjoy having herbs for their flowers, their strong scent and flavor. It is the perfume industry, which up to the present day knows most about the fine fragrance-producing plants like lavender, thyme, rosemary and many others. And this industry can teach us that the natural mixture of different aromatic oils in some herbs can never be improved upon by the so-called pure synthetically produced chemicals. Nature still knows best the secret of well-balanced mixtures which in their flavor and healing qualities excel all artificial efforts. It is the sunlight, the ultraviolet rays, the clear air and healthy soil of the mountains which make famous the mountain herbs such as gentian, arnica, thyme, sloe and many others. What is still left of this herb wisdom is used in the production of all kinds of herbs liquors like Chartreuse and others, of which the French are such great masters. In the countries of southern Europe much of this knowledge is still preserved, especially in France and Switzerland. The use of herbs in these countries for medicinal teas is therefore widespread. Also spices of many varieties are still in use. In America the Indians know the great value of many native herbs and the national formulary for pharmacists still lists several of them.

This article, in order to encourage the use of herbs, will bring together some little-known facts about their history and application, beginning with members of the most outstanding family of herb-producing plants, the *Labiatae*. *Lavender*: The eau de lavande or Oleum lavandula spicæ is still in use, especially in France and England. It is used in baths and for rubbing into the skin. In many an English country house a bag of lavender flowers is found in the

linen closet. It has a refreshing effect, stimulating the circulation of the blood in the capillary vessels of the skin.

Mint: *Mentha piperita* and other mints are the best known of herbs and often are used for flavoring. It has been "discovered" recently that mint oil strengthens the gum of the jaws, disinfects and stimulates the blood circulation of the mucous membranes. No wonder we use it in tooth paste, as tea and as flavor on many occasions. Experiments have demonstrated that it increases the stomach action. By means of X-ray pictures a meal is seen to digest more quickly and the stomach to empty faster when mint tea is taken after a meal. Famous French cooks, following customs resulting from old observations, therefore recommend mint gravy. It helps digest a heavy meal. Even as far back as the old Greek civilization mint was in use, a holy libation of barley water and mentha pulegium being offered at the Eleusinian Mystery Festivals. In America mint is the most commonly cultivated herb. Here the custom of serving mint jelly with roast lamb is a good one, since lamb is a heavy food.

Sage: *Salvia officinalis* was probably the best-known medicinal herb of the Middle Ages. A famous medical school of great repute during the mediæval period taught the application of sage extract in all kinds of inflammatory processes of the mucous membranes of the throat and intestines. The Latin name "salvia" is derived from the word "salvus," meaning "healthy." Instead of coffee as we use it in the morning, the old Greeks used a sage and honey tea. Observations in a modern garden have shown us that sage is disliked by some insects, including the cabbage fly and the white cabbage butterfly, so we plant sage here and there among the rows of cabbage and cauliflower. It is rich in bitter, contracting, aromatic oils and in tannic acid. Of its 260 varieties, one (*Salvia columbatæ*) was used by the old Indians in Mexico. The fruits were roasted and mixed with water and sugar. The Indians believed so much in its refreshing property that they planted the Chia, as they called it, along with their grains.

Rosemary: *Rosmarinus officinalis*, the Latin name "ros marinus," meaning "dew of the sea," indicates that this plant grows best near the coast where the moisture of the sea precipitates on the hills. It is not only a well-beloved decoration in our gardens, but provides a useful though very volatile oil extracted from the leaves which stimulates circulation and perspiration. The Greeks once used the plant for incense and for decoration on the altar of the house gods. The famous honey from Narbonne, France, owes its name to the fine aroma produced by bees feeding on rosemary, as does that from Hymettos, Greece, to the plants of the thyme.

Wild Marjoram: *Origanum vulgare*, a lesser-known labiatæ, contains an aromatic oil having an anæsthetic effect on the tooth nerves. It was used also instead of hops in the production of beer.

Sweet Marjoram: *Origanum marjorana*, one of the very typical spices added to meat, aids digestion and hinders bad fermentation. In smoked sausages it will enhance the keeping quality. It is one of the most useful of culinary herbs.

Thyme: *Thymus vulgaris*. Its name is derived from a Greek word meaning sacrifice, since the Greeks added it to the sacrificial fire. Containing a very

strong aromatic oil, it was used against colic, in hot baths and as a culinary herb with an effect similar to sweet marjoram. For bees it is an ideal plant which aids in keeping them healthy.

Lemon Balm: *Melissa officinalis* is another very common herb with the flavor of lemon. The alcoholic and watery extract from it was well known as a main ingredient of the aqua carmelitarum, a kind of herb liquor made by the Carmelitan Monks. Its value is similar to the peppermint. Applied to the forehead during a headache, it has a most refreshing effect.

Hyssop: *Hyssopus officinalis* has a special effect on the nerves of the digestive tract and stomach. A decoction from it is said to help against intestinal worms, which is easy to understand when we realize its richness in aromatic oils and in tannic acid. In southern and western Europe it is common in gardens and used to flavor vegetables and gravies.

Summer Savory: *Satureja hortensis* is a very fine aromatic kitchen herb most often added to string beans, where it gives a delicate flavor and increases digestibility.

As the last selected from the great Labiatae family, we mention:

Ground Ivy: *Glechoma hederacea*, the young leaves of which were used for the famous "spring herb" soup, was an important ingredient, too, in the peasant farmer's medicine. It was used as a tea for cold and bronchitis. Also in the monasteries of the Middle Ages it "cleared out the body after a long winter." It works against congestion and constipation. If we realize that in these old days there was no knowledge of vitamins and in winter no supply of fresh vegetables, we can grasp how important such plants were for general health. Probably a chemist will one day discover that this plant is especially rich in vitamins or growth substances.

Another plant family which provides us with many important herbs is that of the *Umbelliferae*. Such well-known vegetables as *celery* belong to it, also such herbs as *parsley*, *caraway*, *fennel*, and *lovage*. Most of them contain aromatic oils having special connections with the nervous system and the mucous membranes of the digestive organs. It is, however, more a family of culinary than of medicinal herbs, and the plants mentioned should be represented in every kitchen garden. Their leaves especially add flavor to vegetables or salads. The oil of *anise seed* is helpful in preventing intestinal gas formation. Also its peculiar smell keeps insects away. Pigeons have a definite fondness for its odor, so peasant farmers often put the foliage into a pigeon house to attract the birds home again. There are a number of poison plants in this family also, including the famous *Conium*, the herb with which Socrates was executed. Fennel, as a tea, increases milk production and also tends to prevent flatulence in babies. Its leaves add a fine flavor to salad as well as increase its digestibility. Its sprouts were used by the old Romans as a vegetable, and the modern Italians still serve it in this way as the delicious finocchio. Caraway and *coriander* seed as well as fennel seed are used in baking bread. The member of this family which we know best is the *carrot*, a vegetable rich in vitamins which is as good for animal as for human food, increasing the milk production in cows and strengthening calves and horses. A decoction of carrot has been used externally. Not so well known is the fact that some intestinal

parasites dislike the carrot flavor. Representative medicinal herbs of this family are the *angelicas*, both the *atropurpurea* and the *archangelica* roots being used as solvents in veterinary medicine. Roots of the latter contain a strong aromatic and bitter substance good as a slight laxative. It is especially indicated in glandular troubles also. Oriental folk medicine used a liquor made from it for cholera.

The *Compositæ* family is one which contains many culinary and medicinal herbs. Wormwood (vermouth or absinthe) is not only the basic material for a well-known liquor with a medicinal effect upon a weak stomach, but its leaves in small quantities added to vegetables and gravies increase their digestibility by stimulating the secretion of the stomach juices. In the garden, also, wormwood plays an important role because many insect pests dislike its smell and therefore avoid an area where it is planted. This *Artemisia absinthium* repels such insects as fleas, the corn and wheat borer and others, but its close relative, *Artemisia vulgaris*, has the opposite effect in that it is attractive to flies. From its roots is made a remedy which relieves spastic conditions; its leaves are commonly used in the kitchen. Another relative, *Artemisia contra*, provides the well-known poison extract we know as *santonin*, a remedy for intestinal worms. The common tansy, *Tanacetum vulgare*, belongs in this family. Although a pasture weed, it is helpful against fleas when its dried and powdered leaves are scattered. This also keeps flies off of fresh meat. Another common roadside plant, the yarrow, gives us a bitter extract good both externally and internally for gall and liver troubles. Growing here and there in a garden with other herbs, it has noticeably increased the aromatic oil content of its neighbors.

Such symbiotic effects have also been observed of the stinging nettle. Grown with herbs or tomatoes, it increases their keeping quality, i. e., it counteracts decay. Probably a secretion of active substances penetrates from its roots into the soil and is absorbed by the nearby plants. Young nettle leaves chopped up for baby chicks improve their health.

This list could be prolonged almost indefinitely, but it is only our purpose to arouse a general interest in these valuable herbs, both for kitchen and medicinal use. Nature itself has prepared them in the best possible way, with the right mixtures and proportions. Although some of the important substances of these plants have been chemically isolated and synthetically manufactured, yet in recent years we are beginning to learn that there is nothing as perfect as natural processes. With the present definite trend "back to nature," it is of importance to remember the once widespread use of these herbs. Some day a chemist will be able to tell us why they have this or that property. Meanwhile, we should not neglect them, either for practical use or for their esthetic value in our gardens.