



HERBS, FOOD AND HEALTH (1)

Is it possible that the use of herbs (and spices) can improve the taste of our foods and also positively impact our health? Herbs (and spices) are widely used in the Caribbean in many ways. Herbs are commonly used in the Caribbean in food and beverage preparation as well as for medicinal and decorative purposes. On a less commonly known scale herbs are also used in cosmetics and some household products. This and the next issue of **Nyam News** will look at some common herbs that we use in the Caribbean and explore both their culinary and some of their purported biological activity and medicinal benefits.

What are Herbs?

Colloquially herb is a broad term referring to various parts of plants that are useful to humans. But, strictly speaking, herbs are the leaves of certain plants that grow

in temperate climates used for flavouring while spices are the buds, fruits, flowers, bark, seeds, and roots of plants, many of which grow in tropical climate. Because the distinction is often unclear, persons generally speak of herbs and spices referring to the different parts of annual and perennial shrubs that are used including the buds, flowers, fruits, stems, leaves, roots, and seeds.

Herbs owe their aroma and flavour to essential oils that they contain. At normal room temperatures and pressures these volatile oils will readily change to vapor and be lost from the herbs. When they are crushed or chopped, these flavours are readily released due to the volatility of the essential oil. Herb flavours are more easily dissolved in fat than in water. Heat, light and moisture deteriorate herbs therefore they rapidly lose their characteristic flavour on exposure to air.

Herbs as Food

Herbs are generally added during food preparation to improve the taste of cooked dishes making them more palatable. A distinguishing factor of Caribbean cuisine is the widespread and creative use of herbs for flavouring and as seasoning in general cooking and specifically in our local and traditional dishes.

In the past, before freezing and other modern methods of preservation, herbs (and spices) were added to foods especially meats to disguise the fact that they were spoiling. They were also added to dried foods to replace the flavor lost through the drying process.

The addition of suitable herbs to various savoury dishes then and now adds aroma and a distinctive flavour to foods that enhance taste without added salt or fat. Herbs may be used fresh or dried, whole or ground in cooking. Herbs are

almost always best when used fresh.

Nutrient Content of Herbs

Most herbs contribute very little if any calories, macronutrients, (proteins, carbohydrates and fats), or micronutrients. They are all cholesterol free and low in sodium. However there are a few herbs that may contribute significant amounts of some vitamins and minerals. Examples of these include:

- Parsley as a good source of Vitamin C if used in large quantities.
- Dill seed is a very good source of calcium and a good source of the minerals – manganese and iron.
- Chives are also rich in vitamins A and C and contain trace amounts of iron.
- Sweet red/Bell peppers are rich in Vitamin C and beta-carotene.
- Chilies are a rich source of vitamins A and C and a good source of folic acid, potassium and vitamin E.
- Thyme is an excellent source of iron, manganese, and vitamin K. It is also a very good source of calcium and a good source of dietary fiber.

Recent research also shows that herbs are potent antioxidants. Hence they possess significant quantities of phytochemicals – plant compounds which are not strictly speaking nutrients but are still believed to provide health

benefits. Antioxidants act by removing damage-causing free radicals from our bodies and help to keep the nutrients in our food from damage so that they remain intact and useful to the body.

Herbs as Medicine?

Herbs were our first medicines. Many Eastern, Native and Western cultures have long histories of using herbs as medicine. It is believed that the Greek physician Hippocrates (460 - 377 B.C.), widely known as the father of medicine, developed a system of diagnosis and prognosis using herbs. While this tradition has continued in many Eastern and Native cultures, western societies over the last century or so have shifted to manufactured pharmaceuticals.

Most of the medicinal qualities attributed to the chemicals and compounds contained in herbs are responsible for their medicinal qualities. Phytochemicals isolated from plants have contributed to the discovering of many commercially available medications today used in treating many conditions. As the pharmaceutical industries grew, herbs in their natural forms were less seen as medicine and more as culinary ingredients.

But, at present there is renewed interest in the use of herbal remedies. In many quarters herbal remedies are thought to be the safer alternative to conventional medicines as they are believed to have fewer side effects and to be utilized more

efficiently and effectively because they are natural. There are opposing views, however, where others believe that herbs in their uncontrolled form and quantities may be more harmful than beneficial. This view is held mainly because many of the purported medicinal benefits of herbs have not been verified by scientific studies and are based on anecdotal or traditional sources in which precise quantities generally recognized as safe for human use have not been established.

While herbal remedies may relieve the symptoms of some disorders and conditions, they have not been shown scientifically to cure them. Many persons advise that precautions should be taken when using herbs as medicine citing the limited scientific information about the purported biological activity of these herbs. It is also well known that herbs and spices are not universally safe as many do have harmful consequences if they are consumed in very large quantities. For example nutmeg can be toxic at high doses and is not recommended for use as an herbal remedy in pregnant women.

It is purported that the early origins of pharmaceuticals were to extract and standardize doses of specific active ingredients and compounds from herbs. This was necessary due to the variability and in the potency of herbs depending on source (where) and season (when) they were harvested as a result of soil conditions, rainfall and many other factors. Given that a single

herb also has many potential ingredients that may impact many systems of the body, pharmaceutical activities were devised to:

- Isolate the active ingredient for specific biological activities and make into a drug.
- Control the potency of these drugs whereby the amount of active ingredient could be pre-determined and dosage standardized (e.g. 1 pill or 1 tsp=5 mg).
- If fresh herb is replacing dried herb in a recipe, use a 3-to-1 ratio. For example, 1 teaspoon dry dill = 1 tablespoon fresh dill. (1 tablespoon = 3 teaspoons.)
- When in doubt, use less herbs initially than you need; more can always be added later.
- Allow for adequate cooking time to release flavours when using whole instead of chopped herbs.
- Allow several hours to release and blend flavours when herbs are added to uncooked food such as salads and dressings
- Tie whole herbs into a cheese cloth or muslin before using to flavour stew, sauces, soup and other liquids. This will allow for easy removal of these herbs.
- Herbs should enhance and not dominate the natural flavours of the dishes except where explicitly desired
- Use only good quality fresh or dried herbs.
- b. herbal remedies taken with over the counter medication; and or
- c. Herbal remedies taken with prescription medicines.
- Always consult your healthcare provider before using an herbal remedy.
- Tell your doctor the herbal products or over the counter drugs you are using to avoid drug interactions.
- Use one herbal remedy at a time and wait at least 24 hours before switching between remedies.
- Start with the smallest quantity and gradually increase as necessary.
- Use herbal remedies for short periods. Small doses over a long period can lead to toxicity.
- Stop using the herbal remedies if you develop any symptoms such as headaches, stomach discomfort, diarrhoea or an allergic reaction like a rash.
- Do not use herbal remedies to treat a serious medical problem such as cancer, diabetes or heart disease instead of the medication prescribed by your healthcare provider.
- Do not give herbal remedies or medicines or supplements to infants, young children, pregnant or breast feeding women or the elderly.
- Do not assume that herbs are harmless in their natural state. Many poisons are naturally occurring substances.
- An herbal remedy does not have a constant amount of active ingredient or inactive

Tips When Using Herbs as Food or Medicine

Food Tips:

- Know the aroma, flavour and effect of the herb on the food or dish.
- Purchase herbs in small quantities.
- Store fresh herbs in the refrigerator for up to two weeks in a tightly covered container.
- Fresh herbs may be preserved by freezing or drying.
- Frozen herbs will maintain their flavour but they will lose their shape and colour once they are thawed.
- Store dried herbs in a cool place, tightly covered in opaque container.
- Use dried herbs within 6 months of purchasing or drying.
- Freshly dried herbs are more potent than staler herbs so use cautiously.
- Use a larger quantity of fresh or natural herbs than the dried version.

Medicinal Tips

Remember that herbal remedies, or herbs when used for medicinal purposes are drugs not food so they should be used with due caution and care. When using herbs in cooking for medicinal purposes or any other herbal remedies, there are a few tips to help you do so as safely as possible.

- Remember that there can be potentially dangerous interactions between:
 - a. herbal remedies taken with other herbal remedies;

ingredients for that matter so it is difficult to standardize the dosage. One batch of herbs or pills may be more potent than the other.

- The herbal remedies available on the market, in pill form, can be and have been found to be contaminated with pesticides, heavy metals and prescription drugs.

Historically, herbs and spices have had culinary and medicinal uses. Most herbs used for food also have potential biological effects on human health. Numerous studies have shown chemical compounds in herbs that may be accountable for their health effects. Much smaller amounts of herbs are used in cooking than as medicines. Could it therefore mean that the careful use of a wide variety of herbs and spices in preparing our meals could provide us with reasonable beneficial health effects? Hence, life-long exposure to the preventive and therapeutic phytochemicals in the small amounts of



different herbs and spices used in varying dishes may be potentially providing beneficial effects over time and reducing our needs for

medicines. The next issue examines herbs and their uses as foods and also as medicine. ♦

For further information contact:

Caribbean Food and Nutrition Institute
UWI Campus, P.O. Box 140, Kingston 7
Jamaica, W.I.

Caribbean Food and Nutrition Institute
UWI Campus, St. Augustine
Trinidad, W.I.

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