

## Herbs and spices

by Betty N. Shor     draft

### Allspice (*Pimenta officinalis*)

Why is it called allspice? (One of us, BNS, wondered for years and finally looked it up.) Apparently, some people thought that the taste resembled that of nutmeg, clove, cinnamon, and juniper. In fact, the French sometimes called it "quatre épices." Early Spanish explorers thought of it as a kind of pepper and so named it pimenta. It was taken to Europe in 1601.

The plant is a tree native to the West Indies and Central America that may go to 40 feet. It is in the myrtle family, Myrtaceae. It has aromatic leathery leaves, shaped somewhat like a lance. Its small white flowers are in clusters. It cannot grow in a climate that gets frost. The trees can be propagated from cuttings.

The spice is obtained from the dried unripe fruit, which consists of reddish-brown berries. *Joy of Cooking* (Rombauer and Becker, p. 527) recommends, "Use allspice from soup to nuts, alone or in combination with other spices." An oldish *Encyclopaedia Britannica* (1971) says that allspice is "always present in mincemeat and mixed pickling spice." A family member (thank you, Eric!) learned of a Caribbean use for allspice: jerk chicken. For it the local people use bark and branches from the tree over hot coals to season the meat and lock in the moisture. The meat is cooked a long time in open spits, often made from 55-gallon drums.

The leaves of a related plant (*P. acris*), sometimes called wild clove, are used for the hair tonic called Bay Rum.

The plant called Carolina allspice (*Calycanthus floridus*) is very different. It is a shrub of southeastern United States that has a strawberry-like fragrance. It is not used as a flavoring or spice.

The plant called spice bush, native to California's Coast Ranges, is *C. occidentalis*, which has fragrance in flowers and leaves like an old wine barrel, also not used as a flavoring.

### Angelica (*Angelica archangelica*)

Archangel, Wild parsnip

Although rarely mentioned and not widely known, this flavoring, similar to licorice, has a number of uses.

Angelica is a biennial in the carrot family Apiaceae, native to northern and central Europe. Like other plants in this family, it has a taproot, so it is difficult to transplant. It is usually grown from seeds, which should be sowed where you want them.

The plant does well in sun or shade in rich soil, preferably moist. It can reach six feet in height and bears long, two- to three-foot leaves that consist of many leaflets. The chartreuse flowers form on a tall hollow stalk in the second (sometimes third) year and last a long time.

The stems and flower stalks can be candied and then used as a confection and decorative garnish. The stalks can be cooked like asparagus; in the Faeroe Islands and in Iceland, where it grows wild, angelica is used as a vegetable. The leaves are good in salads or with fish dishes, and one source suggests adding them to stewed rhubarb. The roots and seeds have medicinal uses; the roots are also used to flavor wines, vermouth, and liqueurs, such as Benedictine.

The first day of the feast of the archangel St. Michael comes at the time that this plant flowers in early summer, hence the name (maybe).

### Anise or aniseed (*Pimpinella anisum*)

See also: Star anise

Anise is a licorice-flavored plant, an annual in the carrot family Apiaceae, from the Mediterranean area — Egypt, southeastern Europe and Asia Minor.

The plants are started from seed in early spring. In warm regions one can plant the seeds in the fall for spring harvest, but the plants are frost-tender. They have a taproot so should be started in place. Anise grows well in light soil in full sun. The plants should not dry out. They grow to about two feet in height, with wispy branches. Small white flowers develop in umbrella-like clusters.

The seeds may take four months to develop from flowering. When the flowers have been open about a month, you can clip the stalks and dry them in a paper bag to obtain the seeds. These can be stored for a long time.

The leaves of anise are used in salads and with fruit. The French add anise to carrots. Anise seeds are used in soups, stews, with lamb, in ice cream, in chewing gum, in tea, and especially in baked desserts, such as cookies and spice cakes. The German bread *Anisbrat* has anise flavoring, and so does the liqueur Anisette. An oil made from the seeds is used to flavor some cakes, and the oil is also used in medicines and dentifrices. Crushing the seeds between towels with a rolling pin yields the most flavor.

The name anise comes from the Greek word *anison* for this plant.

### **Annatto (*Bixa orellana*)**

Lipstick tree, Achiote

Annatto is a tropical American tree, the only species in its genus, and it is in the family Bixaceae. It reaches about 20 feet in height. Grown as an ornamental in Florida and tropical America for its showy pink to rose flowers, it was long used by tropical Amerindians for red body paint derived from the colorful seeds. Now it is grown commercially for a bright yellow vegetable dye derived from the waxy pulp that surrounds the seeds; the dye is used to color butter, cheese, varnishes, and sometimes textiles.

This small tree can be grown from seeds or cuttings. It needs only ordinary soil.

### **Basil (*Ocimum basilicum*)**

Sweet basil

The ever-so-popular basil is an annual plant in the mint family Lamiaceae, one species from about 150 in its genus, mostly from Africa and tropical parts of Asia. It has been cultivated for centuries.

The plants are started from seed in the spring; successive plantings may be made into the summer to extend the availability of fresh leaves. Basil is not demanding of rich soil and will tolerate slightly acid soil with regular watering; it will produce more leaves if fertilized partway through the season. It grows well in full sun. It is easy to grow in pots but gets leggy in too much shade. It is frost-tender. The plant forms a small bush to two feet in height, branching, and has shiny green leaves (some varieties have purple leaves), which are used in many recipes for flavor. "The more it is cut the better it grows," says one cookbook. The plant produces spikes of white flowers in late summer from seeds started in early spring. The plant will produce more leaves if the flower buds are snipped out when they first appear.

Basil plants are "notoriously promiscuous" and will cross readily with their relatives, which has resulted in a great many varieties. Those used in Italian cooking are often called "sweet basil." Varieties used in Asian countries have somewhat different flavors and are referred to as Thai basil, lemon basil, holy basil, etc. Some even taste somewhat like clove or cinnamon. Some of the available basil may be of species different from *O. basilicum*. It is well worth a cooking-inclined gardener's effort to grow several varieties.

An oldish edition of *Encyclopaedia Britannica* (1971) comments: "*Basil*, an aromatic potherb whose leaves have a strong flavour resembling cloves, is always included in the making of turtle soup." (When was the last time you made turtle soup?) Cooking destroys the flavor, so it is advisable to put basil into the recipe at the last minute. Basil is a major ingredient in Italian pesto. This herb goes well with poultry, other meats, fish, potatoes, soups, egg dishes, salads and with tomatoes. A family member saved her summer tomatoes by freezing them (after blanching and peeling), and always with a sprig of basil on top of each tomato; she thawed the frozen tomatoes 'al dente' for winter salads, and, although they became soft, they had much better flavor than the stores sold in winter.

The leaves are readily dried on paper for later use, but experts say that their flavor is reduced. They can also be frozen, and one source recommends quick blanching in boiling water before freezing.

The name comes from *basileus*, a Greek word for king. Thus, in France basil is known as "l'herbe royale." Or some think that it comes from the Greek word for "basilisk" — a mythical animal considered dangerous, and for a time in old history this plant was reputed to damage the stomach and liver.

Some varieties that we like:

*Genovese*: the basic Italian pesto basil, with spicy flavor and fragrance.

*Italian Large Leaf*: Very sweet basil for pesto, with extra large leaves.

*Sacred*: Musky (skunky) scent, aromatic.

*Spicy Bush*: Hot, spicy basil on a compact plant, great for growing in pots.

*African Blue*: This interesting basil is a cross between two species. It has large leaves, tinged purple, and has strong flavor. It is sterile (no seeds) but can overwinter with protection.

*Thai*: Strong, spicy flavor and scent resemble anise or cloves.

### **Bay leaf (*Laurus nobilis*)**

Sweet bay, Grecian bay, Laurel

See also California bay

Many plants have the common name of laurel — in several different genera and families, but the genus *Laurus* has only two species. Sweet bay (*L. nobilis*) is one of them; the other is *L. azorica* from the Canary Islands.

Bay is an evergreen slow-growing tree in the laurel family Lauraceae, native to Asia Minor and used extensively in the Mediterranean region — Italy, Greece and North Africa — where it may reach 60 feet. Leafy branches of bay were woven into crowns by Greeks and Romans to honor victors of sports and war.

Bay trees are often started from cuttings — suckers from the base — and they can be grown from seed. They like well-drained loamy soil. The male and female flowers are borne on separate trees; black berries form on the female tree (and eventually turn rancid). This plant can endure some frost. It is often grown in large tubs. Apparently this tree reaches only about 40 feet in the United States and Great Britain.

The dried leaves are used for seasoning meat and fish recipes, soups, stews, chowders, tomato dishes, and such. The flavor is not released until the leaves have been dried and then put into liquid (such as a stew). One leaf in a large recipe adds a touch of sweet and minty flavor. Cookbooks warn one to remove the leaf before serving; one of them noted that the taste is bitter after cooking, and another warned that people have been known to choke on the swallowed leaf. Some people are allergic to bay and get a rash around the mouth from it. The leaves may be picked from the tree at any time and are easily dried on sheets of paper. They can be stored for many months in glass jars. An oil is derived from the leaves that is used commercially in perfumes.

*Herbs for the Kitchen* (Mazza, 1947, p. 10) says: "Use Bay leaves with a degree of diplomacy worthy of a European envoy, for they are powerful. Use a half leaf, or a third, but never a whole leaf unless you are entertaining an army." On the contrary, one of us (BNS) always uses a whole bay leaf in stews (and removes it at the end). Bay leaves vary in size, so how much is enough?

There are many varieties of bay including: 'angustifolia' (narrow leaves); 'undulata' (wavy leaves), 'aurea' (golden leaves), etc. Some varieties are dwarf, others have variation in leaf color or differences in aroma.

The name *Laurus* is from the Latin word for this plant, and *nobilis* (= noble) refers to the significance of winning. Following up on folklore, researchers have found that bay leaves do actually deter cockroaches.

### **Bergamot (*Monarda fistulosa*)**

Wild bergamot, Horsemint

True bergamot is accurately a small citrus tree, probably originally a hybrid that had *Citrus aurantium* (sour orange) as one of its parents. Grown especially in Sicily and mainland Italy, it provides an oil made from the peel that is used in perfumes. The species or subspecies name *bergamia* is given in some sources as the scientific name.

However, another plant masquerades under the name of bergamot — *Monarda fistulosa*, which is called "wild bergamot" or simply "horsemint." It is native to eastern United States, generally found in woodlands, abandoned fields and low-mountain regions. It has several varieties, from different localities. The flowers, which are lilac in color on long stems, have been used to make tea.

A close relative of horsemint is *M. didyma*, which goes by the common names of bee balm and Oswego tea. Also native to mostly eastern United States, it is found in moist and shaded regions. The flowers are scarlet, on long stems. Oswego Indians introduced it to colonists, who — at least for a short time — made tea from it to protest against the British tax.

Both species of *Monarda* are in the mint family Lamiaceae and have aromatic leaves and flowers, said to resemble true bergamot with spiciness and a sweet citrus-like fragrance. They can be grown from seeds or cuttings and grow well in full sun or partial shade in soil that drains readily. *M. fistulosa* requires less moisture of the two.

Bees, however, are not drawn to "bee balm" (*M. didyma*) because its nectar is too deep for them to reach. Hummingbirds can reach it. Bees are drawn to horsemint (*M. fistulosa*), which has shorter flower tubes. So are hummingbirds.

To make tea, one source recommends using only a few leaves. The leaves can also be added fresh to salads or — like a bay leaf — used to flavor meat recipes. Both these plants are sometimes substituted for thyme or oregano in recipes.

### **Borage (*Borago officinalis*)**

According to the Roman naturalist Pliny (AD 23-79), borage "maketh a man merry and joyful." (It sounds like a stimulant.)

This plant is an annual in the family Boraginaceae from Europe and the general Mediterranean region. It has naturalized in Great Britain and the United States.

Borage is grown from seeds or cuttings, started in the spring, and reaches two to three feet in height, tending to sprawl. It tolerates poor soil, does well in full sun, and is somewhat drought-tolerant. In warm regions seeds can be planted in the fall for early spring growth. The foliage is a fine green, slightly hairy. The attractive blue or pink star-shaped flowers hang down in clusters; they attract bees.

The leaves of borage have some undesirable alkaloids. However, they are often used in fruit punches, sometimes in salads and fish sauces. The flavor and fragrance resemble cucumber. The young fresh leaves can be cooked. Older leaves can be added to soup stock. The dried leaves make a good tea. The flowers are recommended for floating in fruit punches, lemonade, and iced tea. They are sometimes candied, and are used in potpourri.

For storage the leaves should be picked before the flowers open. They can be dried on paper, but they have less flavor than the fresh leaves.

The name "borage" may come from the Latin word *borra*, which means "rough hair," for the prickly stems and leaves.

### **Burnet (*Sanguisorba minor*)**

Salad burnet

Grown for its tasty leaves, burnet is a perennial in the rose family Rosaceae. It is native to Europe and is naturalized in places in the United States. Thomas Jefferson is said to have planted burnet in areas of poor soil to help stop erosion and for his livestock.

Burnet develops creeping rhizomes and is often started from these in the spring or from seeds. It is satisfactory for border edging, and it spreads from its own seeds readily. It does well in full sun in everyday soil that holds moisture, and requires with some fertilizer. It should not be allowed to dry out. Its appearance is fernlike, with dark green leaves divided into rounded leaflets. Burnet can grow to 18 inches in height but is often kept smaller by frequent clipping to encourage new leaves. The older leaves are bitter. The leaves do not dry well, but the plant stays green through the winter in mild climates. It produces small green flowers in late spring into summer.

The leaves taste somewhat like cucumber and are used in salads, salad dressings, soups, chicken recipes, cool drinks, in vinegar, and as a garnish like parsley. It can be added to spicy curries to cool the piquancy. A tea is made from dried ground root pieces.

The name comes from the French word *brunet*, for the color.

Other species in this genus (*S. canadensis* from eastern North America and *S. obtusa* from Japan) are not used for flavoring.

### **Calamint (*Calamintha nepeta*)**

Lesser calamint, field balm, nepetella (not the true plant of that name)

This herb is a perennial in the mint family Lamiaceae, native to southern Europe and the Mediterranean region and naturalized in North America.

It grows to a foot and a half tall, is somewhat scraggly, and has pale lavender to white flowers in clusters that open from the top down. The light green leaves are downy and serrated. All parts of the plant have a minty fragrance. It grows in regular soil, in full sun, with moderate watering, and needs protection in cold climates. It spreads readily.

Calamint is sometimes used for a tea made from the scented leaves. According to the magazine *Sunset* (Sept. 2009, p. 53) it is a "Tuscan favorite used to season mushrooms, zucchini, and artichokes." It contains some chemicals that are questionable to consume.

The name comes from the Greek word meaning "good mint."

*C. grandiflora* is a similar species that grows larger.

### **Calendula (*Calendula officinale*)**

Pot marigold, poet's marigold, holi gold, marybud

This plant is sometimes called "pot marigold," which is confusing, because it's not a marigold (which is in the genus *Tagetes*). Calendula is widely grown as a garden plant, for its masses of flowers that range from shades of yellow to deep orange and which continue to open through most of the summer. They also are long-lasting when cut. There are many cultivars of calendula.

This plant is an annual in the aster family Asteraceae, native to southern Europe. It grows to two feet in height. The plants are usually started from seed, and will re-seed. In warm regions one can start seeds in late summer for winter bloom. The plants do best in full sun in fairly rich soil that is well drained, but it can be somewhat dry. Fertilizer high in phosphorus will result in more flowers. They will take full sun, but will stop flowering in very hot weather. The flowers close in the evening and open in the morning. The plants are frost-tender.

The flowers and leaves have a peppery fragrance. The flowers can be dried on paper and stored in dark containers for later use. The dried flowers are used in soups and stews, to which they provide flavor and thickening. They are at times used as a substitute for saffron, and they provide the color but a different flavor. Small whole flowers can be candied. The petals have been used in the past to add color to butter and cheeses, and they can be added to rice and grain for the color.

The name comes from the Roman word *calendae* for the first day of the month (as in calendar), and it indicates that the flowers last for months.

### **California Bay (*Umbellularia californica*)**

This attractive ornamental tree in the laurel family Lauraceae is native to Oregon, the California Coast Ranges, and the lower slopes of the Sierra Nevada. It can go to 75 feet, but usually grows only to about 25 feet in gardens. Its purplish olive-like fruits are inedible. It can be planted in deep shade and then grows to form shade itself. Aphids and scale may attack it. Although evergreen, it has a heavy leaf drop in the fall.

Like sweet bay, which is also in the family Lauraceae, the dried leaves of this plant can be used in soups, stews, etc., but it is more pungent than sweet bay (*Laurus nobilis*, see Bay leaf).

One source (Tucker and DeBaggio, p. 497) notes that California bay is toxic when eaten and can cause sneezing, headache, and sinus problems when inhaled deeply.

The genus name comes from the Latin word *umbella*, which means sunshade.

This tree is also known as Oregon myrtle, and its wood is used in cabinetry and woodwork decorations.

### **Capers (*Capparis spinosa*)**

Capers come from a small perennial deciduous bush in the caper family Capparaceae. The plant is native to southwestern Europe and eastward to Afghanistan and India. It grows wild on some Mediterranean islands. Commercial capers come mostly from Morocco, Spain, and Turkey.

The plants may be started from seeds, but they are slow and hard to germinate; perhaps they require chilling. Cuttings are faster. The plants will grow in full sun in poor soil. They require good drainage but are somewhat drought-resistant when established. The plants may form a dense shrub to five feet in height or have long slender, near-vining growth, which can be trained on a trellis. In the wild they sometimes grow in crevices or rock walls. They will not survive in cold regions but can be grown as an annual.

The leaves are dark green, a little fleshy. The flowers are attractive, four-petaled and pink-white with lavender stamens. They open in early morning and close in late afternoon.

The buds are picked before opening and pickled in vinegar and brine; the small youngest ones are best. They appear in each leaf joint in fairly large numbers throughout the summer. Raw buds are unpalatable. Pickled capers can be used with fish, as in tartar sauce, in salads, or anywhere for a piquant taste, such as atop deviled eggs. One source noted that capers are a traditional flavoring for eggplant and tomatoes. Apart from the seeds, the tender shoots in the spring can be cooked as a vegetable.

*Sunset* (Brenzel, 2001) suggests that one grow capers "as garden curiosity."

The name comes from the Arabic word *kapar* for this plant; *spinosa* recognizes the spines at the base of the leaves.

False capers can be made by pickling green nasturtium seeds (see Nasturtium).

### **Caraway (*Carum carvi*)**

Caraway is a biennial in the carrot family Apiaceae. Its origin was western Asia, Europe, and northern Africa, and it has naturalized in the U.S. and England.

Caraway plants grow well in well-drained soil, in full sun, with some watering. They are frost-tolerant. Some growers plant seeds in August and thin them in the spring; others start seeds in the spring. The seeds germinate better after being soaked for three to six days, then dried for 4 hours before planting. The plants have a taproot so do not transplant well. They may reach four feet in height with carrot-like, ferny leaves. They produce white flowers and seeds in the second year, then die.

The crescent-shaped seeds, popular in middle Europe, have a somewhat spicy anise-like taste. They are used in cheeses, pickles, sauerkraut, applesauce, goulash, and baked goods — such as cakes, rye bread, and Irish soda bread. They can be crushed in a bag with a rolling pin and sprinkled on pork, spareribs, potato salad, and such. The seeds are also made into an oil that has primarily medicinal uses, but is an important ingredient in Kümmel liqueur, produced in the Baltic area. The oil is also used in soaps and perfumes. The roots of caraway can be cooked like carrots.

Some varieties of caraway are annuals, but these require a long growing season.

The name caraway comes from the Greek word *carum*, given by a Greek herbalist to recognize Cari, the district in southwestern Asia Minor where the plant was grown centuries ago.

### **Cardamom (*Elettaria cardamomum*)**

Malabar cardamom, Ceylon cardamom

The spice cardamom comes from the seeds of a perennial plant in the ginger family, Zingiberaceae. The plant is native to India, the Malay peninsula, Sumatra in Indonesia, and Sri Lanka.

Cardamom plants have stout rhizomes (like ginger), which can be divided for new plants. They can also be grown from seeds. These are tropical plants that grow best in rich moist soil, preferably in some shade. They have long blade-like leaves and can grow to 10 feet in height.

In the mideastern area cardamom seeds — which have a flavor similar to anise — are used in sweet dishes, in curries, and to flavor coffee and tea. It is recommended that this spice be stored in the pods, because the seeds lose flavor when exposed. (One source notes that 10 pods equal 1-1/2 teaspoons.) In general, a small amount of cardamom is adequate for a large recipe.

As an aside: The Cardamom Mountains are in southeastern India, with peaks to 4500 feet.

A related plant is *Amomum compactum*, also in the Zingiberaceae, which is sometimes called black cardamom or round cardamom, while *E. cardamomum* is called green cardamom. The flavor of *A. compactum* is more stringent. In addition to the uses above, it is used in curries and in basmati rice. One source notes: "It has also been known to be used for gin making."

### **Celery (*Apium graveolens dulce*) and Celery Seeds**

Pascal celery

Native to the near East and eastern Mediterranean mostly, celery is used in many recipes, raw or cooked, sometimes just to add crunch. A friend who was concentrating on losing weight chewed celery stalks much of the day. He commented, "One uses more calories chewing celery than it provides, so eating it is a net loss." He reached his weight goal.

Celery, which is a biennial in the carrot family Apiaceae, is grown for its upright stalks, which have green leaves at the top. It flowers in the second year, but the stalks may be used throughout the growth. They can be covered with soil to keep the white color. The plants grow well in winter where temperatures are mild; they do not grow well in hot weather. Seeds can be started in summer for a winter crop. The plants respond to rich soil and frequent fertilizing. Poor soil causes toughness in the stalks.

An advantage of growing celery is that one can snip stalks and leaves when needed, while a purchased bunch tends to wilt fairly soon. In a moderately cold climate, celery plants can be protected in winter by a covering of straw and/or dry leaves. One can continue to cut stalks through the cover. Fresh celery leaves add a welcome flavor to salads and some cooked dishes. Celery stalks, cut into small chunks, are used in salads — especially potato salads — as hors d'oeuvres with cheeses, and in poultry dressings and many stews.

Celery seeds are called for in various recipes for chicken, and they add a welcome flavor to soups and stews. While you can get seeds prolifically from celery plants in your garden, the commercial "celery seeds" are derived from a wild celery, known as "smallage," not from *Apium graveolens* that produces our everyday celery stalks. Seeds from the wild plant are very small and have a more intense flavor. The plant has furrowed stalks and wedge-shaped leaves. To grow plants for the seeds, start them from commercially sold celery seed. The stalks are not usable.

For harvesting seeds, let the plants flower and continue watering them as seeds form and dry on the plant. They can be stripped straight from the plant or snipped when they turn dark in color, then dried on paper towels or newspaper.

Celery was used by ancient Greeks and Romans originally for flavoring and medicinal qualities. The name comes from the Italian word *seleri*, from the Latin *selinon*. The earliest reference to using it for food was in France in 1623. The present celery of succulent upright stalks, usually the one called Pascal celery, started being grown widely in the late 1700s.

### **Chamomile, German (*Matricaria recutita*)**

Sweet false chamomile

Confusion reigns. First, chamomile is correctly spelled chamomile. Second, two separate plants are often called by that name. One is *Chamaemelum nobile* (formerly *Anthemis nobilis*), which is known medicinally as a tonic or restorative or for treating fever. It is in the aster family Asteraceae and grows to be only a few inches tall. It is sometimes used as a groundcover. People who are sensitive to ragweed get an allergic reaction to *C. nobile*.

The other plant is more often called German chamomile and is *Matricaria recutita* (formerly *M. chamomilla*). Native to Europe and western Asia, and naturalized in North America, it is an annual that grows to about two feet in height. It is grown from seed in light soil and requires considerable water. Its flowers are daisy-like — yes, it's also in the family Asteraceae.

The flowers of German chamomile have a fragrance like apples and are used to make "chamomile tea." An oil derived from the flowers is used in some beverages, ice cream, baked goods, and chewing gum. There are also medicinal uses.

The confusion extends to the market, where the name chamomile is used both for the groundcover and for the plant for tea. Both can be grown from seeds. Some of the seeds sold as *Matricaria* are actually from a chrysanthemum. The old names probably also are found in the market.

The botanists are still playing games with the names in several related genera. A plant with the common name of "Pineapple weed," which grows as a roadside weed in western United States, was formerly *Matricaria discoides* and has been renamed *Chamomilla suaveolens*. It smells like chamomile with an added fragrance somewhat like pineapple.

Various species of *Anthemis*, which is in the family Asteraceae, are grown as ornamentals, especially ones from southern Europe and Turkey. One called "Mayweed chamomile" is *A. cotula*, which has white flowers with a yellow center and a less pleasant fragrance than chamomile. (Apparently, *C. nobile* has been moved out of *Anthemis*, but these species have not.)

The name chamomile comes from the Greek language: *chamos* means "ground" (as in the earth) and *melos* means "apple."

### **Chervil (*Anthriscus cerefolium*)**

French parsley

Chervil, an aromatic annual herb in the carrot family Apiaceae, related to parsley, is native to the Caucasus and was spread throughout Europe especially by the Romans. It has become naturalized there. Chervil was called for in recipes in the earliest known cookbook, *De Re Coquinari*, by the Roman Apitius in the first century A.D.

This herb is started from seeds and grows best in moderately rich soil that drains readily. Transplanting is difficult because the plant has a taproot. It does well in full sun or partial shade and somewhat cool weather; it is frost-tolerant. The plant grows to about two feet in height and has fernlike foliage. By planting successive seeds through the summer, one can have chervil on hand for a long time. Dainty white flowers appear in late summer. The plants re-seed readily in successive years.

Chervil has been used in the past as a spring tonic. It is now used with fish, in chicken recipes, green salads, omelets, vinaigrettes, and cream soups. The leaves, with a flavor similar to both parsley and anise, are used as a garnish. The French sometimes use chervil in place of parsley in recipes. Among the group called "fines herbes," it is often in mixed herb seasonings. Chervil loses flavor in cooking, so should be added at the end of cooking. It also loses flavor when dried, but the leaves can be frozen for storage.

The name *Anthriscus* comes from the Greek word for the plant and *cerefolium* means "waxy leaf," which refers to the shiny leaves. The common name chervil is from the Latin *chaire*, which is a greeting (like "cheer") plus *phyllum*, which is "leaf."

### **Chicory (*Cichorium intybus*)**

Blue sailors, Succary, Radicchio, Belgian or French endive

To some people chicory is a very useful plant, from leaf to root; to others it is simply a bitter weed.

Chicory, a perennial or biennial in the aster family Asteraceae, is native to Europe and was introduced into the United States in the 19th century. Here it has become a roadside weed in places and is sometimes grown as fodder for cattle.

Chicory is easy to grow from seeds, and is usually started in the spring. The plants do well in any soil in full sun. They may reach five feet in height. The attractive azure-blue flowers appear in the second year; they open at dawn and, according to one source, close five hours later (except on cloudy days).

The young plants are grown until fall. In late summer or fall one can mound dirt over the leaves to blanch the new growth for fresh eating. If one wants the parsley-like roots, those can be dug out, trimmed back to 8 or 9 inches, and stored deeply in sand or soil in a dark place that has a temperature of 55° to 60° F; the Europeans call this 'Witloef'. During the cold months one can lift out a few of the roots, cut the tops, and allow tender new pale shoots to grow. They form lettuce-like heads. This procedure can be done a number of times with the stored roots. It probably began as a welcome source of fresh vegetable in winter.

The fresh young leaves of chicory are used in salads, where they provide a prickly texture and slight bitterness; the older leaves are bitterer. Chicory is one of the bitter herbs of Passover for the Jews. The plant known as Belgian or French endive is this plant, *C. intybus* (*C. endivia* is true endive). The red-leafed varieties are called by the Italian name "radicchio." These form heads like lettuce and they have less bitterness as the leaf color deepens.

A primary use of chicory is as a substitute for — or additive to — coffee, a custom that probably began during the 20th century Depression and continues now especially in the southern United States. The roots, at the end of the first year, are pulled, peeled, cut into small pieces, and slowly roasted to dark brown. The quantity added to ground coffee beans is a personal choice. Let's call it an acquired taste. An old *Encyclopaedia Britannica* (1971) noted, "It gives the coffee additional colour, bitterness and body." One of us (BNS) found that in cafes in Louisiana some years ago, when one ordered coffee, the question came, "Light or dark?" and dark was with chicory added; some of it was very bitter.

The common name is from the Arabic word *chicoruey* for this plant.

### **Chives (*Allium schoenoprasum*)**

This milder, close and smallest relative of the onion, in the lily family Alliaceae, is originally from Europe and Asia, but it is widely planted in North America. It is a perennial plant that forms very small bulbs, from which it sprouts each spring. Like onions, its leaves are hollow.

While often started from bulbs, chives can be grown from seed. These are planted in early spring, cultivated for about a year, then transplanted into a permanent location to become established clumps. These should be divided every three or four years by separating the bulbs. They grow best in well-draining soil, somewhat sandy and slightly acid, in full sun or partial shade. They require regular watering and should be fertilized with nitrogen through the growing season. The plants are fairly cold-hardy.

Chives have dark-green leaves that reach a foot or more in height. In late spring the plants produce stalks of rose-purple flowers, which attract bees. When the leaves begin to turn yellow, one should stop watering and let the plants dry.

The fresh leaves are used to flavor many food items: salads, especially potato salads; omelettes; sauces such as sour cream (on potatoes); cheeses, including cream cheese; various soups, always in Vichyssoise; stews; fish; vegetables, and more. An old quotation is "The chef who makes a potato salad without chives has no soul." One should cut out the older leaves regularly to encourage young shoots. The cut leaves develop an unpleasantly strong flavor if held overnight, so they should be cut fresh for any recipe. They cannot be successfully held for storage, except by quick freezing. The flowers can be used as an edible garnish.

The word *chive* is awkwardly derived via old French from *cepa*, the Latin word for onion. For some reason one usually refers to chives in the plural.

Garlic chive(s) (*A. tuberosum*) from southeastern Asia is a coarser species with flat leaves. It can grow to 14 inches tall. The flavor of its leaves is mildly like garlic. This plant has attractive white flowers that smell like violets and are edible. It self-sows freely.

## **Cilantro, Coriander (*Coriandrum sativum*)**

Chinese parsley

Surprise! These two terms are for the same plant. The leaves, called cilantro, which resemble parsley, are used in many Mexican and other Latin American and Asian recipes, and the seeds, coriander, are used in many varied recipes. Long used in Greece and that region, coriander was brought to the United States in 1870 and has been propagated ever since.

An annual in the carrot family Apiaceae, coriander is (probably) native to southern Europe and perhaps southwest Asia. It has become naturalized in the southern United States. The plants are started from seeds, which are slow to germinate unless they are scraped and soaked for three to four days and dried for eight hours. They can be grown in moderately rich soil, in full or partial sun, and are somewhat drought-tolerant and cold-hardy, but they may go to seed quickly in hot weather. One should plant the seeds directly where wanted; transplanting is difficult because these plants have a taproot. The plants can grow to two feet. They produce pinkish white flowers in late summer, after which the seeds are harvested. The seeds can be dried on paper and stored in glass jars.

Cookbooks have an odd way of referring to the leaves: "ill-smelling when bruised," or with a "somewhat foetid" odor and taste. Those who revel in cilantro are often astonished to find that some people dislike it intensely; to those of us in the latter group, cilantro tastes like soap (such as Ivory). We don't have this problem with coriander. This is a genetic characteristic, found in somewhat less than 20% of the population.

The leaves are used in salads, sauces, and soups, and as topping in many recipes of northwestern Mexico. They can be picked throughout the growing season and should be used fresh, as they lose flavor quickly and when dried. They may be stored for a few days in the refrigerator, but should not be washed beforehand because that causes them to rot. Cooking reduces the flavor, so the good cook puts the leaves into the recipe at the last minute.

The seeds, coriander, have a slighty citrus flavor, which they also lose quickly when stored. The seeds are used in curries, chili, meat and chicken marinades, sausages, casseroles, and tomato sauces. When ground, the seeds are used in pastries, cakes, custards, and more. *Herbs for the Kitchen* (Mazza, 1947, p. 13) recommends using coriander "very sparingly" — in fact, "always with caution." The roots of coriander are used in some Asian recipes.

The name comes from an old Greek word *koriannon*, which is based on the word for "bedbug," which may indicate an aversion to the taste or odor of the leaves.

Cultivars of this species are designated for the preference of using for leaves or seeds. The ones for seeds flower more quickly than those for leaves.

## **Cinnamon (*Cinnamomum zeylanicum*)**

Ceylon cinnamon

Once upon a time, cinnamon was more valuable than gold, and for a time it was the most profitable spice of the Dutch East Indies Company, which not only traded it but also cultivated it. Although its origin was long a mystery kept secret by traders, the plant is native to Ceylon (now Sri Lanka) and southwestern India. After a long while the plant began to be grown in other tropical countries, but Sri Lanka continues to be a major exporter.

The plant is an evergreen small tree, in the laurel family Lauraceae, that grows to about 30 feet. The leaves are lance-shaped, as long as 7 inches. The flowers are inconspicuous.

To produce the spice, the tree is cut back drastically regularly to encourage new twigs. These are preferred in their second year. The outer bark is hand-stripped from the cut twigs and sections of the thin inner bark are saved for drying. A number of these pieces rolled together make a stick of cinnamon. An oil that is used for flavoring can also be made from the bark.

Cinnamon is used in many baked goods, especially those with apples such as apple pie, in breads (for example, cinnamon buns), on cereals and toast with sugar, on various fruits, and in drinks.

The word cinnamon comes from the Greek word *kinnamomon*, which came from the Phoenician language. The spice was in use in Egypt by 2000 B.C., and was used there in embalming.

Cinnamon referred to in the Bible is thought to have been *C. cassia*, which has a similar flavor.

### **Clove (*Syzgium aromaticum*)**

This pungent flavoring is derived from a tree in the myrtle family Myrtaceae, native to the Moluccas Islands of Indonesia. Cloves have been in use in Europe and elsewhere long before the first year AD, carried by Arab traders. Cloves were a valuable product of the spice trade, as it was carried out — after the Arabs to Europe — by Venice, then the Portuguese, later the Dutch in the 17th century. The French managed to smuggle cloves to Indian Ocean islands — Madagascar and Zanzibar — in the late 18th century. (The trees are grown from seeds.) The primary sources of cloves today are Indonesia, Madagascar, Zanzibar, Pakistan, and Sri Lanka.

The cloves that we use are the dried product of unopened flower buds. The clove tree can grow to 30 feet. When left to open, the flowers are yellow, in clusters. The buds at first are pale, then turn green, then bright red — at which time they are picked, by hand, in late summer and again in winter. One large tree can produce 75 pounds of cloves.

Cloves are used in many recipes throughout the world in soups, stocks, with meats — for example to enhance a baked ham, in cheeses, and in desserts. They should be used sparingly because the flavor is strong. The Dutch impact in the spice trade led to the use of cloves in many recipes in the Netherlands. In Europe oranges spiked with cloves are sometimes hung in houses at the Christmas season for the pleasant scent. Cloves are also used as a food preservative. An oil is made from the buds, stalks and leaves, ground together, for making vanillin (for vanilla), and in perfumes. Cloves are often used to deaden toothaches. As whole cloves, not ground, they keep for years in a jar. (Actually, ground cloves also keep quite well.)

The South American tree *Dicypellium caryophyllatum* has a clove-like scent, and its wood is sometimes used in perfumes as a substitute for cloves.

In the coastal town of Padang, on the island of Sumatra in Indonesia, cloves are grown for the market. The people live in town and own individual trees on the nearby hillsides. One of us (BNS) visited in April 1977 when cloves were being dried. Along the streets of houses (not the shopping area) in front of each house were three woven mats, each about three feet long and two wide. One held dark brown cloves; one held light brown cloves; one held yellow, pale brown, slightly reddish cloves. The owners had stripped off the buds and laid them on a mat, where they dried for, apparently, three days; on the fourth day they could go to market (or a wholesaler). (It didn't rain when I visited, so I don't know how they protect the cloves.)

The town was fragrant with cloves. So were all the public buses in Indonesia, because there cloves are put into their cigarettes — and many people smoke. The fragrance is more welcome than that of the usual muggy tropical village with limited sanitation.

The price of cloves was unbelievably low in the public market. I bought about a kilo for a pittance — and gave away packets of cloves for months.

### **Cress, Garden (*Lepidium sativum*)**

Upland cress

This tasty plant can be grown like sprouts for a quick salad treat. Garden cress tastes much like watercress (*q.v.*) but is not related. It is an annual in the mustard family Brassicaceae, a native of western Asia. The plant grows quickly from seed in rich soil and considerable moisture, but not standing water; it can be grown in shallow pots. One can snip the leaves when they are one to two inches high.

### **Cumin (*Cuminum cyminum*)**

Cumin is probably better known in the American West than in the eastern states, because it is widely used in recipes of northwestern Mexico. Native to the Mediterranean region, it is an annual in the carrot family Apiaceae, and may reach only a few inches in height.

The plants are grown easily from seeds, which should be soaked in running water for 24 hours before planting. The plants do well in hot sunny spots, in regular soil; they are somewhat drought-tolerant and frost-tolerant. However, they can be temperamental in variable climates (too hot, too windy, etc.). The leaves are lacy and spindly, and the flowers are white or pink.

The spicy seeds with a touch of bitterness are used in chilis, frijoles, and similar Mexican dishes, in soups and stews, pickles, sometimes breads and cakes. They are widely used in countries from the eastern Mediterranean to Syria and India — always in curries — where they have been known for centuries. The Greeks are said to have kept cumin in containers on the table to sprinkle on food.

The name is from the Latin *cuminum* for this plant, but the Romans took it from the Arabic *kumun*.

### **Dill (*Anethum graveolens*)**

Dill weed

The small ferny plant called dill originated in the Mediterranean region and has naturalized in North America. It is an annual in the carrot family Apiaceae. It has been cultivated since at least 400 B.C.

Dill is started from seeds and does not transplant easily, because it has a taproot. It reseeds readily. It grows well in full sun in light soil that drains well, and is frost-tolerant. It grows best in the spring, going to seed quickly in hot weather, but one can make successive plantings for continued use through the summer. The plants can reach two feet in height. The bluish feathery leaves are attractive; butterflies and beneficial insects are drawn to the clusters of small yellow flowers.

Dill pickles were known as far back as the seventeenth century. It is said that early pilgrim women in eastern United States nibbled dill seeds "in church to keep their minds off the dullness of long sermons." In addition to such uses, fresh dill leaves are used to add flavor to fish recipes, chicken, potatoes and potato salad, soups, eggs, cheese, sauerkraut, and sauces with sour cream. The dried seeds are used in breads, cookies, and cakes. Either leaves or seeds are used in pickles. One of us (BNS) has used sprigs of dill leaves in pickling. Among several recipes for pickling cucumbers, three called for sprigs of dill leaves and one for dill seeds. Take your choice; the flavor is obviously similar.

The leaves are best when picked from high on the plant. They will hold flavor quite well for a few days in the refrigerator but should not be washed first because it causes them to rot. The leaves can be hung to dry for storage, but they lose flavor. Freezing the leaves holds them well. The seeds store well when dried.

Some dill is sold as Indian dill, referring to the country of India, but botanists consider it only a variant of *A. graveolens*.

The name *Anethum* came from the Greek words *ano*, meaning "upward" and *theo*, meaning "I run," which acknowledges the plant's rapid growth. The word "dill" is probably from the Norse word *dilla*, meaning "to lull" and may refer to dill's stomach-settling ability.

Dwarf cultivars of dill plants do well in pots.

### **Epazote (*Dysphania ambrosioides*)**

(recently changed from *Chenopodium ambrosioides*)

Mexican tea, Spanish tea, wormwood, Jerusalem oak pazote (for the dried leaves)

Not a widely known herb, this plant has pungent leaves that are used especially in Mexican recipes. Epazote has several medicinal uses.

Epazote is a perennial in the family Chenopodiaceae; it originated in tropical America and has naturalized in North America, Europe, and Asia.

The plants are started from seed; they grow readily, to the extent of being a weed, in ordinary, even poor, soil and in full sun. They can reach four feet in height. The yellow-green flowers are inconspicuous; following them, the plants reseed freely. They are frost-tender.

The dried leaves are used for tea, in Spain as well as Mexico and Central America. The fresh leaves, which should be picked young and used promptly, are common in Mexican recipes, especially those with beans (epazote is said to reduce flatulence), corn, seafood, and mushrooms. However, the oil of this plant is toxic and consuming it is not advised.

The name *epazote* is from the Nahuatl language of central Mexico and further south.

The genus has many species in North America and in Europe, from which some have naturalized in North America. Lamb's quarters (*C. album*), an annual, is widely used as a salad green. Goosefoot or Good-King-Henry (*C. bonus-henricus*) is a perennial, of which the shoots are eaten (at least in Europe). Quinoa (*C. quinoa*) is grown for its edible seeds in the Andes Mountains of South America. A native of California's Sierra Nevada foothills is California goosefoot (*C. californicus*), the roots of which the Indians grated and used as soap.

### **Fennel (*Foeniculum vulgare*)**

Sweet fennel

Fennel tastes somewhat like licorice or anise. It is a biennial or short-lived perennial plant in the carrot family Apiaceae, often grown as an annual. Although native to the southern European region, it has naturalized in North America and can be rampant.

It grows well in ordinary light garden soil that drains readily. It requires regular watering. Fennel can be grown well in pots. The plant, which has feathery leaves like dill and yellow flowers, can grow to more than three feet. The stems are bluish green; some varieties have bronze-colored leaves. To maintain good appearance, the plants can be trimmed.

The fresh leaves of fennel can be used as a garnish for salads, including potato salad, in fish recipes, meat loaf, pasta sauces, and tomato recipes. To encourage the leaves, one should cut out the flowering stalks when they appear. One can hold the fresh leaves in the refrigerator for a few days — unwashed because water encourages rot. The leaves can be dried on paper for storage, but do not retain their flavor well.

Fennel seeds are used in cheeses, casseroles, apple dishes, rye bread, and sweet cakes. Commercially, the seeds are used in candies, the liqueurs absinthe and anisette, medicines, and perfumes.

A bonus for having fennel in the garden is that it is a host plant for the caterpillars of the anise swallowtail (*Papilio zelicaon*) and can be used to raise caterpillars of the Baird's or black swallowtail (*P. bairdii*).

The word "fennel" comes from the Latin word *faenum*, for hay.

Among the many varieties is bronze fennel ('Purpurascens' or 'Smokey'), which has bronzy purple leaves and grows to six feet tall.

Florence fennel (*F. v. azoricum*) is a dwarf form of this plant (to two feet) that develops a large swollen leaf base, which is used in soups, somewhat like celery. *Herbs for the Kitchen* (1947) says the blades of Florence fennel "are crisp and sweet ... Grated into green salads they prove the delight and bewilderment of guests." The anise flavor is obvious.

### **Fenugreek (*Trigonella foenum-graecium*)**

This plant, not often grown in the U.S., is an annual in the pea family Fabaceae. It is native to the Mediterranean region, where the seeds are used more for medicines than for flavoring. The plants are also used there as forage for cattle. As a so-called medicine, fenugreek acquired some renown in the U.S. as an ingredient in Lydia Pinkham's Vegetable Compound of the 19th century, which contained this herb, several obscure roots, and a lot of alcohol.

Plants of fenugreek are started from seeds, which will germinate more readily if soaked in lukewarm water overnight. They grow well in full sun in moderately rich soil, with regular watering. They are frost-tender. The plants may reach two feet in height and bear white flowers shaped like those of peas. These are followed by beanlike pods with a number of golden seeds.

The seeds have a flavor resembling celery and maple. In India the seeds are eaten, raw or boiled, and are used in curries and similar dishes. There and elsewhere the seeds are used with meat and poultry, in vegetables and breads. The maple flavor extracted from the seeds is used in various sweets and in syrups.

The name fenugreek, as with fennel, comes from the Latin word *foenum*, for hay, plus "Greek." The scientific name *Trigonella*, from Greek, refers to the triangular flowers.

### **Filé (*Sassafras albidum*)**

Filé or filé powder is made from the leaves of a sassafras tree, in the laurel family Lauraceae, native to eastern United States from Maine to Florida and Texas. The tree can grow to 60 feet, has leaves that can be two-lobed or three-lobed or plain on the same tree. All parts of the tree are fragrant and pungent. In the fall the leaves make a brilliant show of orange and crimson color. The trees are browsed by many animals and eaten by some birds.

Filé uses the dried and ground young leaves of the tree, which form a powder that thickens to a mucilaginous and tasty addition in gumbos and soups. It should be added in the last few minutes of cooking to prevent it from becoming a sticky mass. An oil can be made from the orange-brown bark, and it is used for flavoring and in perfumes. The yield is small from *Sassafras*, so the commercial oil now is made mostly as a by-product of camphor production.

In the past the roots of this species of *Sassafras* were used in root beer, but there are problems of liver and other ailments, so the FDA banned this use in root beer in 1960. Making tea from the roots is also banned, but it is occasionally illegally sold. Filé is made from the leaves, which do not contain the toxic chemical of the roots.

The word "filé" is the French word for "thread," which refers to the mucilaginous nature of the leaf powder.

### **Garlic (*Allium sativum*)**

This significant plant has been in use so long that its origin is uncertain; it's not known in the wild, except that it has naturalized in many places. It may be of Asiatic origin. An interesting note is that garlic plants flower but these are mostly sterile and rarely set seed — a trait that is often true of a hybrid.

Garlic, a relative of the onion, is in the lily family Alliaceae. It is characterized by a bulb that consists of 10 to even 20 bulbils — miniature bulbs, called cloves (for some reason) — tightly enclosed inside a paper-thin skin. Stiffneck garlic is a variant that has a few large cloves and no small ones inside.

In frost-free areas garlic plants can be started from the bulbils in the fall for harvest the following summer. In colder areas they are usually started in the spring. One can start plants from garlic bought in the grocery store. The larger cloves produce larger bulbs. Plant the cloves root-side down to about two inches. These plants do well in full sun in fairly rich, well-drained soil and can be grown in pots. They should receive low-nitrogen fertilizer. The bulbs start to form when the temperature turns hot and the days long.

The bulbs are harvested when the leaves turn yellow and should be dried in the sun for several days, then stored in a well-ventilated cool place — not, however, we find as cool as the refrigerator. Garlic can be frozen for storage; the bulbs are soft when thawed but retain the flavor (it seems advisable to freeze the cloves separately, so that one doesn't partly thaw the whole bulb continually). If the tops are left somewhat long, the plants can be braided into clusters to hang in a cool place for storage.

With a touch of prejudice, one source notes that garlic is used frequently in warm regions, but "less commonly used in colder climates." (Tut, tut. BNS's New England-raised mother would not use garlic in anything!) Garlic is an important feature in Mediterranean cooking and in many Asian recipes. The leaves and stems have the same flavor as the bulbs. Fresh garlic is much preferable to powdered or to garlic salt. In adding garlic to a recipe, be cautious; a little goes a long way. *Joy of Cooking* (Rombauer & Becker, p. 535) warns, "Never allow garlic to brown," so simmer it slowly and briefly. Garlic is called for in so many recipes that we're not listing them here. One source says simply: "almost all foods except desserts" (Tucker & Debaggio, p. 129). (And there could be exceptions there!)

The scientific name *Allium* comes from the Celtic word *all*, which means "pungent" or "stinky"; *sativum* is the Latin word for "good to eat."

Varieties of garlic include ones with pink or red bulbs. Elephant garlic (*Allium scorodoprasum* or *A. ampeloprasum*) has a much larger bulb and milder flavor than *A. sativum*. There is a variety of single-clove garlic in China.

### **Ginger (*Zingiber officinale*)**

Canton ginger

The spice ginger comes from one species of the large genus *Zingiber*, in the ginger family Zingiberaceae. Many of the species have very showy, sweet-smelling flowers. But the flowers of *Z. officinale*, which appear only occasionally, are rather inconspicuous — yellow-green with a touch of purple — and not fragrant. The rhizomes of this species hold the fragrance and flavor. Other species of ginger have the fragrance in their rhizomes, when cut, but they are too fibrous to use.

This species of ginger came from tropical southeast Asia, probably, although it has been carried from origin to many tropical lands and islands. It has been used in India and China for centuries and began to be used in the Mediterranean region by at least the first century A.D.

Its stems — actually stalks — can be as tall as three feet, usually less, and they bear long slender leaves. New plants are started from cut pieces of the rhizome, each with one or more growth buds. After drying a day or two, they can be planted just below the soil surface. A good time for starting them is late winter or early spring (especially indoors), then allowing them to sprout and grow for more than six months. They will do better with added fertilizer. By 10 months the leaves turn yellow. These plants do best in rich soil, kept slightly moist, preferably in some shade. They can be grown well in pots and readily in a warm greenhouse. The rhizomes tend to be dormant in cool weather.

For harvesting, the rhizomes can be lifted out — after the leaves have yellowed — and cut into pieces of usable ginger and/or to start new plants. Ginger does not retain its flavor well when powdered and dried. It can be stored fresh in the freezer for many months, and one can slice thin bits from it readily with a sharp knife.

As a seasoning, ginger is used in gingerbread (of course), spice cakes, pumpkin pie, mincemeat, Indonesian saté, curries and other recipes from India. Ginger ale — which originated in Jamaica — calls for ginger, of course, and so does ginger beer, which is cloudier than the ale. Preserved ginger is made from peeled pieces of young rhizome boiled in a syrup. An oil made from the rhizomes is used in foods and perfumes.

The genus name *Zingiber* comes from a Sanskrit word.

### **Grecian myrtle (*Myrtus communis*)**

Myrtle, Swedish myrtle

This little-known flavoring is a favorite in some parts of Italy and especially the island of Sardinia. The plant is a large shrub or small tree in the myrtle family Myrtaceae; it has been in use so long by people that its origin is lost; it came from somewhere in the Mediterranean region and/or southwestern Europe.

This plant is usually started from cuttings, though it can be started from seed. It grows well in full sun in a friable soil with regular watering. The plant grows to about 15 feet in height. It is not cold-hardy but can be grown in a cool greenhouse. The leaves are dark green and shiny; the flowers are white, with golden stamens, and are followed by blue-black berries.

In Sardinia the wood of this shrub is used in the fires for spit-cooking whole animals and the leaves are used in the ground for pit-cooking. The plant is customary in the celebration of the Jewish Feast of the Tabernacles. Sprigs of this plant were sometimes used in place of bay (*q.v.*) in honoring athletes and warriors. The leaves of Grecian myrtle are presently used in place of bay leaves in recipes. While used as a flavoring, it should not be ingested.

There are many cultivars of this species, which can be propagated only from cuttings.

The name *Myrtus* was the Latin name for this plant, from the Greek word *murtos*, derived from *myron*, which means "perfume."

### **Hops (*Humulus lupulus*)**

## European hop, bine

Want to screen a view quickly? Or just flavor and preserve your own beer? Grow a hop vine.

Native to Europe and Asia, the perennial hop vine has naturalized in North America after its introduction about 1629. It is in the hemp family Moraceae.

New plants are started in the spring from pieces of the root, which send up new shoots. They should be grown in sandy, deep soil that drains well — the roots can reach downward as much as 15 feet. They do well in full sun or partial shade. The vines grow quickly, even to 20 or 30 feet in a season, and must be supported; they are said to grow clockwise always. Hops are often grown on an overhead trellis. The leaves have two or three lobes and are serrated. Hooked hairs on the vine allow it to climb. The plants cannot survive severe winters, but some viable roots may remain. When the leaves turn brown in the fall, the plants should be cut back severely, and they will sprout again the following spring.

Hops are grown primarily to flavor and preserve beer. This has been the custom since at least the ninth century. The slightly bitter flavor is considered acceptable. The sexes are on separate plants, and the mature female flower heads, which have a piney fragrance and form a cone shape of light green flowers and bracts, contain a chemical that prevents the growth of bacteria. (Nurseries usually sell the female plants, which do not require a pollinator.)

Hops are harvested in late summer when the flower cones become slightly papery and have a distinct odor. The harvesting period is only a few days. The hops are dried and may be stored — or frozen — for later use.

Other uses of hops are for bread-making — a yeast is formed during fermentation — and the young shoots are sometimes cooked as a vegetable. There have been medicinal uses for the flower cones. Some varieties of hops are grown primarily as ornamental plants. The United States is a major producer of hops for beer, chiefly in the state of Washington.

The other species of *Humulus*, *H. japonicus* — Japanese hops — is closely aligned to *Cannabis sativa* — and is not used in beer.

The scientific name *Humulus* comes from the Slavic-German name for this plant, *khmel*; *lupulus* refers to the Latin word *lupus*, which means "wolf," for some reason. Also for some reason, hops are always referred to in the plural, except as an adjective — as in hop vine.

### **Horehound (*Marrubium vulgare*)**

This herb is used mostly in medicines, but candies can be made from it. The plant, a perennial in the mint family Lamiaceae, is rather disreputable in appearance — with aromatic leaves gray and woolly below, pale green and downy above. It can grow in most any soil and does not require much water, so it is often found in "waste places" and spreads readily. It is frost-tender.

Originally widespread in central and western Asia, southern Europe and northern Africa, it has naturalized elsewhere, including the U. S. It can reach three feet in height.

The genus name comes from the Hebrew word *marrob*, which means "bitter juice." The common name "horehound" is derived from the Old English word *hoar*, which means "gray."

### **Horseradish (*Armoracia rusticana*)**

Red cole

One of us (BNS) asked a neighbor, who was knowledgeable on farming subjects, how to grate horseradish root. His reply was, "You cry a lot." The plant is scruffy, not very attractive, with sprawly leaves to 15 inches, and it can become a weed. One writer suggested planting it in "an out of the way corner."

Horseradish is a perennial in the mustard family Cruciferae, native to southeastern Europe and naturalized in North America, especially the cooler regions. It can grow in any ordinary soil, but for good roots it does best in rich soil that is free of rocks (for the sake of the long roots). It will grow in sun or shade and requires regular watering to keep it from becoming tough. While it is a perennial, the roots become woody with age, so for fresh roots one should replant each year, preferably in the spring for fall harvest. The plants rarely set seeds and may be the result of hybridization long ago, so horseradish is started from pieces of root, planted upright. If one

leaves only one terminal shoot, the plant will not split into multiple parts. Be aware that any pieces of root left in the ground will start new plants.

The swollen roots provide a pungent seasoning for pork recipes, tongue, roast beef, corned beef, cocktail sauce for seafood, and more. Horseradish is traditional in certain Jewish recipes. It blackens silver serving dishes.

One sturdy horseradish plant produces a lot of the seasoning. To prepare it, one has to grate the peeled root fine and store it in white or distilled vinegar (cider vinegar darkens it) with a touch of salt. A small bit goes a long way.

The scientific name *Armoracia* was the Latin name for this plant.

### **Hyssop (*Hyssopus officinalis*)**

The plant that goes by this scientific name is the only plant correctly called hyssop. It has been used almost solely for medicinal purposes (and seems not to be used for that now), so we are not describing it here. Hyssop produces a skunk-like odor on hot days.

One source says, "Hyssop [this species] can be used sparingly, like thyme, in cooking" (Gardner, 1998, p. 164). Another says that it has been used in sauces and condiments (Tucker & Debaggio, 2009, p. 262). The oil derived from hyssop has serious toxic effects, even when ingested only in moderate quantity.

### **Hyssop Imitators**

Various plants in the mint family Lamiaceae have the word "hyssop" attached to their common name. Among these are several perennials in the genus *Agastache*, and they have attractive spikes of summer flowers. They all attract bees, butterflies and hummingbirds. Some in this genus are native to North America, and all of them have been used to make a tea, but one should use caution as they have medicinal properties. These plants are undemanding in type of soil and can tolerate some dryness.

*A. foeniculum* is known as anise hyssop or blue giant hyssop. It is native to mid-continent United States.

*A. mexicana* is known as giant Mexican lemon hyssop, which pretty well describes it. It is indeed native to Mexico.

*A. rupestris* is known as sunset hyssop or licorice mint. It is native to southern Arizona and northern Mexico. It has showy orange flowers with lavender calyxes.

### **Juniper (*Juniperus communis*)**

Junipers are conifers in the cypress family Cupressaceae. The genus *Juniperus* includes at least 40 species, mostly northern and/or mountainous. This species is found in the wild in cooler regions of Asia, Europe, and North America. There are many varieties of the common juniper: prostrate, bushy, upright, twisted; some can go to 50 feet, and many are attractive in the garden. The wood is aromatic and is used for ornamental creations. The fragrance of juniper is somewhat like turpentine but very distinctive — quite like that of gin — and it may fill the air on a warm fall day where the plants are plentiful.

Juniper plants are grown from cuttings usually. The seeds seem to require freezing and thawing before they will sprout. The plants do well in full sun in any garden soil that drains well; they are drought-tolerant when well established. The young plants are frost-tender until their hard wood has formed.

The sexes are on separate plants, and the female plants produce small cones that contain the seeds, called berries. These are used to flavor gin, but the procedure is not described in the usual sources. The word "gin" comes from the Latin word *juniperus* and wended its way to English by way of the French word *genièvre*.

The berries are used with game such as venison and wild boar, poultry stuffing, and beef stews. They can also be mixed with other herbs such as thyme, fennel, etc. in recipes. In Germany juniper berries are used in

sauerkraut. Oils are obtained from some species of juniper for medicinal purposes. Juniper oil is also used in some liqueurs.

### **Lavender (*Lavandula angustifolia*)**

Lavender, known especially for its attractive fragrant flowers, is a perennial shrub in the mint family Labiatae. It originated in the mountains of northeastern Spain and was introduced into England in the 16th century.

Lavender is grown from seeds, divisions, or most successfully from cuttings. Seeds from friends may be unreliable because there are many hybrids and varieties of lavender, so the seedlings may vary. The plants can be started in August to September or in the early spring. They do well in full sun in a light, well-draining soil, and do not require fertilizer. They are somewhat drought-tolerant and do not do well in high humidity, especially with heat.

The plants form a mound of gray or gray-green stems and leaves to about two feet in height. Stalks of flowers rise above this in summer, in shades of lavender to purple in color, and they attract bees and butterflies. The plants should be trimmed occasionally for best appearance and can be replaced when scraggly after a few years.

In cooking, *Sunset* (Brenzel 2001) notes that the flowers of *L. angustifolia* and *L. Xintermedia* may be satisfactorily used, but some other species have harmful chemicals. Lavender buds are used in sauces, with fish, on steaks, in cucumber dishes, fruit salads, and salad dressings. The open flowers can be used in ice cream, cookies, and cakes. The primary commercial use of lavender is its oil, which is put into finer perfumes.

*L. angustifolia* is also sold under the names of *L. vera* and *L. officinalis*. The genus has at least 20 recognized species, which hybridize readily.

The name may come from the Latin word *livere*, which means "to be bluish," though some say it comes from the Latin word *lavare*, which means "to wash," and refers to the idea that lavender was used in Roman baths.

### **Leek (*Allium porrum* or *Allium ampeloprasum* variety *porrum*)**

This relative of the onion, in the family Alliaceae, has a milder flavor and a different growth style from its cousin. It does not form a bulb but consists of leaves wrapped tightly around the inner ones. Though native to the Mediterranean region, it is no longer known in the wild, and its use goes back a long way. Leeks were known in Egypt in the second millennium B.C. The Roman emperor Nero is said to have especially liked leek soup. The Romans apparently introduced the plant to Europe and Great Britain, where it has become the national badge of Wales. The Welsh guards have a cap badge with the symbol of a leek, and the Welsh soup *cawl* includes leeks.

This plant thrives in a richly manured soil and regular watering. Seeds can be started in early spring and seedlings set out when the soil has warmed some (perhaps June). The seedlings are planted six to eight inches deep and soil is pushed around them, to keep the lower part of the leaves blanched. The seedlings should be at least four inches apart. Soil can be mounded as they grow but in hot weather this can cause decay. The plants have a long season for harvest. They can be pulled when the stem is at least one-half inch thick but can be left to grow to as much as two inches thick. In not-too-cold areas the leeks can be left in the ground through the winter (and picked as wanted), or moved into a root cellar with soil; they cannot endure hard freezing. With age the center becomes woody. Leeks are biennials and will send up a flower stalk in the second year.

To cook leeks, cut off the skimpy roots and all but about three to four inches of the leaves. The portion that was buried will be white. They are used especially in soups: leek soup, leek and potato soup, vichyssoise. They are also eaten simmered to tenderness in water, fried (which keeps them crunchy and preserves the flavor), and raw in salads. The plants wilt quickly after being pulled up so they should be used promptly.

Some varieties of leek are especially for summer use, others for winter use.

The word *leek* comes from Old English.

### **Lemon balm, Sweet balm (*Melissa officinalis*)**

Common balm, Bee balm (which is also a common name for Bergamot)

This perennial plant in the mint family Lamiaceae is grown for its fragrant leaves, which provide a lemony odor when crushed. It is native to the Mediterranean region and Asia, and it has naturalized in North America.

Lemon balm may be grown from seed or from the rhizomes of established plants. These are usually started in early spring. They do well in ordinary or rich soil and may spread widely. They can reach two feet in height and have small white flowers that attract bees. The leaves are bright green, except that there is a yellow-variegated variety (propagated only from divisions), as well as variety 'All Gold', which of course is yellow.

For cooking, one can snip leaves and leaf tips as soon as the plants begin to grow. For storage the leaves can be dried on paper and stored in glass jars. The leaves are used as garnish for cold poached salmon, in fish sauces, in green and fruit salads, and in cold drinks — wherever lemon flavor is welcome. The leaves can also be steeped for tea.

The genus name may come from Greek mythology, in which Melissa is said to have nurtured baby Zeus with honey. One of the little blue butterflies is called Melissa blue (*Lycaeides melissa*).

### **Lemon Verbena (*Aloysia citriodora*)**

This leggy sprawling shrub has arching stems that may grow to ten feet, but it can be trimmed. It is a deciduous perennial in the family Verbenaceae and is native to Argentina and Chile. The leaves have an especially attractive lemony fragrance and are used as flavoring in teas, iced drinks, and (says one source) desserts. Commercially, the oil derived from the leaves is used in some liqueurs.

Lemon verbena plants are started from cuttings in early spring, rarely from seeds (which do not ripen in cool climates). They do best in full sun in sandy loam with good drainage; they require some watering, which can be cut off when the leaves begin to fall. The plants will not survive in colder climates so are sometimes grown in a greenhouse. They have small flowers, pale lilac or white in color.

The name *Aloysia* was given by the botanist who named the genus in 1784, in honor of Maria Luisa, wife of King Charles of Spain.

### **Lemongrass (*Cymbopogon citratus*)**

Fever grass, West Indian lemongrass (to distinguish it from other species in the genus)

Lemon grass, a perennial in the grass family Gramineae, is native to southern India and Sri Lanka, and its leaves are widely used in southeast Asian — especially Thai — cooking for their mild lemony flavor.

The plants are started from shoots cut from a growing clump. The process can be done indoors. One should cut the leaves to about 2 inches long and plant the shoots in a deep pot in a warm place in potting mix. The soil should be kept damp until roots form in a few weeks. The starts can be planted outdoors in the spring.

This plant grows well in ordinary soil, spreading outward to form a clump (with no underground running rhizomes), and with narrow leaves that may grow more than three feet. It is said to have grasslike flowers, but rarely (the plant of one of us, BNS, hasn't flowered in 20+ years; maybe it would respond to fertilizer.) This plant is frost-tender. It seems drought-tolerant, but the tips of the leaves turn brown and dry when watered lightly. The long narrow leaves are slightly rough on the upper side, which one notices while running a finger down them.

At the base of the leaves is a sort of core that can be sliced into recipes for the lemon flavor. The chopped leaves can be cooked in recipes for chicken and seafood, and in Asia are put into curries, Basmati rice, some sweet recipes, and are added to tea.

The common name is obvious, although this plant is not related to the lemon. The genus name *Cymbopogon* comes from the Greek words *kymbe*, meaning "boat" and *pogon*, meaning "beard" — and refers to the form of the flowers.

A closely related plant is *Cymbopogon nardus*, called citronella, also from India. Its leaves are lemon-scented. Oil from the leaves is used as a liniment, an insect repellent, and in soaps and perfumes. It is apparently not commonly grown in the United States.

### **Licorice (*Glycyrrhiza glabra*)**

## Sweetwood

Commercial licorice comes from the roots of this perennial plant in the legume family, Fabaceae, which is native to southern Europe and southwestern Asia. Use of the plant is very old; the earliest known written reference to it was in 2100 B.C., and pieces of its roots were found in the tomb of King Tutankamun of Egypt.

The plants are started from crown divisions, which take three to four years to reach a harvestable size. The creeping rhizomes are very long and run deep into the soil. The plant above them can reach seven feet in height. The plants grow well in deep, rich, moist soil, but they are somewhat drought-tolerant. The flowers are pale blue to violet in color.

The roots are soft, flexible, and fibrous, bright yellow inside a brown exterior. They contain a sweetener that is far sweeter than cane sugar. They have only a pea-like odor. When the roots are combined with honey or sugar, they create what is known as licorice candy, with its distinctive flavor, to which is sometimes added anise. That is what is considered the taste of licorice itself, and is often described as the flavor of anise and fennel. The treated roots are used to flavor candies, baked goods, chewing gum, sauces, and beverages, including beer. They are used during the Islamic holy month of Ramadan. Caution: ingesting an excessive amount of licorice candy causes severe medical problems.

The name *Glycyrrhiza* comes from the Greek words *glykys*, meaning "sweet," and *rhiza*, meaning "root." The common name is derived awkwardly from that.

Native to North America is the similar species *G. lepidota*, found from the prairies southward to Texas, Arkansas, and even California. The roots were a favorite food of the native Americans for their distinctive sweet flavor.

## Lovage (*Levisticum officinale*)

This ornamental perennial in the carrot family Apiaceae originated in the eastern Mediterranean area. It is identified as the only species in its genus. It reseeds readily and has become naturalized in parts of the United States.

Lovage plants can be started in spring from established clumps, or from seeds. Give lovage room! It grows to more than two feet, and the hollow flower stalks, which have yellow flowers, can reach six feet or more. The plants do well in fairly rich soil and in full sun except in the hottest regions. The leaves are dark green and glossy.

The leaves, stems, and seeds of lovage are all used in cooking and can all be dried for out-of-season use. One source says, "Use lovage wherever celery is desired" and in about half the quantity of celery (Tucker and Debaggio, p. 293). So lovage is good in soups and stews, poultry dressing, casseroles, with tongue, and so on. The seeds can be pickled like capers.

The name *Levisticum* is derived from the Latin word for this plant as coming from Liguria, Italy.

## Love in a Mist (*Nigella damascena*)

Wild fennel

This poetically named plant is an annual in the buttercup family Ranunculaceae, and probably native to the Mediterranean region and western Asia. In spite of the common name of wild fennel, it is not in the same family as fennel (*Foeniculum vulgare*, which is in the carrot family Apiaceae).

Love in a Mist does well in ordinary soil. It is grown from seeds, which can be planted in early spring for mid-summer flowers or in late fall for flowers in July onward. The showy flowers on 12-inch stalks are blue, except that some varieties have deeper blue or white or rose-colored flowers. The plants have a deep taproot, so it is best to plant them where you want them. They should be thinned five to six inches apart for the best display. The leaves are finely divided and give the plants an airy look — hence the common name. The flowers form inflated reddish pods filled with black seeds (*nigella* means "little black" in Latin).

The spicy seeds are used in curries and other seasoned recipes and are sprinkled on breads or cakes, as are poppy seeds. Interestingly, the seeds are also used to repel moths.

The flowers dry well. One can cut them when the flowers are just open and, while they shrivel some, they hold the color. The pods can be cut when green and hung to dry for use in flower arrangements.

Closely related to Love in a Mist is *Nigella sativa*, variously known as black cumin, nutmeg flower, and Roman coriander. It resembles a dwarf form of Love in a Mist and is used in many recipes from India, Egypt, Syria, etc. Its history is long, including mention in the Bible (Isaiah 28:25). The culture of it is similar to the above.

### **Marjoram, sweet (*Origanum majorana*)**

**Note:** marjoram and oregano are in the same genus, *Origanum*. Hortus III, the ultimate botanical reference, under species *majorana* lists the following common names: sweet marjoram, annual marjoram. Under species *vulgare* it lists these common names: marjoram, pot marjoram, wild marjoram, origano, organy.

This author (BNS) just paused to taste "Mediterranean oregano" and "leaf marjoram" from containers in her spice cupboard. They taste nearly identical!

Marjoram has an ancient reputation for spreading happiness. It has small pungent leaves, is native to the Mediterranean region and Turkey, and it has become naturalized in eastern United States. It is a perennial in the mint family Lamiaceae and is a close relative of oregano (*q.v.*).

The plants in this genus interbreed freely, so it is difficult to define the varieties, and some wild forms are not scented. The seeds may vary, so it is best to start from cuttings in the spring. The plants do well in soil with good drainage; they are somewhat drought-tolerant. They grow to less than two feet in height and become woody, so they should be cut back regularly in winter or early spring. The leaves are gray-green, and the small flowers are white, pink, or lavender. The flower stalks should be cut out to encourage leaves (you don't want the seeds anyway).

The leaves of marjoram are used in salads, tomato recipes, baked goods, with eggs, chicken and veal, in bean dishes, in condiments, and in Germany marjoram is used in sausages.

Ortho (Heriteau, 1997, p. 167) notes that marjoram is best used fresh, and oregano is better at retaining flavor when dried.

The name *Origanum* comes from Greek words that mean "beautiful mountain."

### **Mint (*Mentha* spp.)**

Mint is too easy to grow: from underground rhizomes it runs in all directions much too rapidly. It is a perennial in the mint family Lamiaceae, native to the Mediterranean, and was apparently carried to the New World by Spanish explorers in the 16th century.

The genus *Mentha* includes about 19 species, but there has been considerable hybridizing in the wild and in the garden, so the taxonomy is confused. The two most commonly grown species are spearmint (*M. spicata*) and peppermint (*M. Xpiperata*). The latter is a nearly sterile hybrid of *M. spicata* and *M. aquatica*; seeds from it are very rare. The leaves of both species are lance-shaped and serrated. Peppermint often has a purple tinge. Both of these mints have many varieties and several common names.

Mint plants grow best in light, moist, medium-rich soil in full sun or part shade. They are somewhat drought-tolerant. New plants are usually started from a piece of rhizome readily given by a friend. But to avoid being overwhelmed, you would do well to put the plant into a large pot or confine it with an underground barrier. (Mint does not grow well indoors.) New plantings are usually started in the spring. Small blue flowers appear in summer. The plants tend to die back in the winter, especially in cold climates. For out-of-season leaves, one can hang sprigs of mint (cut before they flower) until they dry thoroughly, then snip the leaves and store them in glass jars.

Mint leaves are used to flavor many foods — mint jelly for lamb, mint juleps, the liqueur crème de menthe — and they are used in soups, the Middle Eastern recipe tabbouleh, fruit salads, teas (very good in iced tea), and

"anything chocolate." An oil can be made from the leaves that is used for flavoring. There are medicinal uses for some kinds of mint.

Of other mints:

Apple mint (*M. rotundifolia*), grown less commonly, has a fragrance of apple and mint combined.

Pennyroyal (*M. pulegium*) is sometimes used in tea, but it is poisonous when consumed in large quantity.

Some plants in the genus *Monarda*, which is also in the family Lamiaceae, masquerade as mint, including Horsemint (*M. fistulosa*) (see Bergamot) and Lemon mint (*M. pectinata*).

## **Mustard and Mustard Greens (*Brassica* spp.)**

The mustard of commerce is made from the seeds of several plants in the genus *Brassica* in the family Brassicaceae. These plants have been known in China as far back as the third century B.C., and they were distributed widely by early Romans. The Spanish priests introduced mustard plants into California, where they cover hillsides.

At the present time, *Brassica juncea* ("brown mustard," "Indian mustard") is the species most commonly used for table mustard, and it is in hot Chinese mustard, Dijon mustard, and everyday United States mustard. Formerly, until the 1940s, *B. nigra* ("black mustard") was used extensively for commercial mustard, but it requires harvesting by hand. *B. hirta* ("white mustard") is also used somewhat for commercial mustard. (A plant called "yellow mustard" is *Sinapis alba*, also in the Brassicaceae, and it is used to make some commercial mustard; its sharp taste is not the same as that of the *Brassica* species.)

The seeds are ground and treated with water to form a sharp-tasting oil that is reduced with flour, vinegar or wine (and other spices) into table mustard.

*B. juncea* is also grown for mustard greens; this plant may be native to Africa but has been used in Asia for centuries. The original source was probably a biennial, but the commonly grown varieties now are annuals.

Mustard plants are so easy to grow that they have become a rampant weed (to ten feet tall) in many places. They do well in ordinary garden soil in full sun. The seeds can be planted in succession from early spring through summer for a continuous crop of leaves, but they will go to seed in hot weather. The young leaves can be used in salads; older leaves are simmered to tenderness (often overcooked). Several varieties of *B. juncea* are available, including curly-leafed ones.

Mustard seeds are called for in various recipes, including corned beef, bread-and-butter pickles, sauerkraut, potato salad, and with fish and shrimp. To gather seeds for homemade mustard, one can hang the plants to dry when the seed pods turn brown, over a tarp or paper to catch the seeds. Or one can enclose the pods in a paper bag and sort the seeds out when fully dry (using a hair dryer on the chaff).

An oil can be derived from mustard seeds, which has been used as a lighting oil, in soaps, and in a substitute for rubber. Mustard plasters in medicine are made from pulverized seeds mixed with flour (caution: prolonged usage will cause blistering).

The genus name *Brassica* is the Latin word for cabbage, which is in the same family. The word "mustard" comes from the Latin *mustum ardens*, which means "burning must" and refers to an old method of preparing the seeds.

Another member of the Brassicaceae family that is used for table mustard is *Sinapis alba*, called "yellow mustard" or (confusingly) "white mustard," from Europe. Its flavor is sharp and distinct from the above plants.

## **Nasturtium (*Tropaeolum majus* and *T. minus*)**

Indian cress

The popular garden plant with the colorful flowers that we call nasturtium is an annual (usually) in the Tropaeolaceae family. Its native region is the Andes mountains of South America. Of the two species, *T. majus* is tall and twisting while *T. minus* is low and scrambling. There are also hybrids between these and the result is many varieties, including double flowers and variegated leaves.

Nasturtiums are started from seeds. (One source says to bury them an inch or two because they require darkness to sprout. But one of us, BNS, gets a rampant return of seedlings every spring, regardless of daylight.) The plants, which grow as a vine to six feet or form a compact bush to one and a half feet, are frost-tender and somewhat drought-tolerant. They do well in partly sandy soil, in full sun or partial shade; the leaf growth is greater in shade.

Nasturtium flowers show up in all these colors: maroon, red brown, orange, yellow, red, creamy white, gold, salmon, rose, peach, scarlet. Seeds are usually sold in mixed colors. A cluster of these plants provides a mass of flowers for a couple of months in summer, and in a mild climate they reappear as new plants each spring or sometimes right after a winter rain. (BNS's father paid her 25¢ an hour to pick these flowers each day from his garden in the mid-West; he said that they would produce more flowers if regularly picked — and they did, to her financial gain.)

The leaves can be used fresh in sandwiches or salads, for a spicy treat, and the fresh flowers can be put into salads (rinse off the aphids). Buds that show color are attractive on a plate with scrambled eggs and can be eaten with them. The seeds, when green, can be pickled in a vinegar-and-sugar mix to make what some call "false capers," which are very good on deviled eggs — or other foods that call for piquancy. Historically, nasturtium leaves were used as a substitute for watercress (the word nasturtium means *cress* in Latin). This use gradually disappeared in the 19th century.

Another nasturtium in a family of about 50 species is *T. tuberosum*, also from the Peruvian Andes, which — as the name suggests — has a tuberous root, which can be cooked and eaten. It will grow as a vine to 10 feet.

### **Nutmeg and Mace (*Myristica fragrans*)**

These two spices come from the same source: a dioecious tree in the family Myristicaceae. This species is native to the Moluccas Islands of Indonesia, where it is especially grown for commerce. The trees, which can reach 40 to even 70 feet, are grown in the shade of even taller trees. They do best in rich soil that drains well.

The fruit of the tree is about two inches long, oval or pear-shaped, orange in color. The seed — one per fruit — is brown and covered with crimson netting — the aril. That separates readily from the seed, and is dried to become mace. The seeds are then dried slowly in the sun and turned frequently. The smaller and inferior ones are ground into a powder to make oil of mace, which is used in soaps and perfumes. The perfect dried seeds are sold whole or ground as nutmeg.

Nutmeg is used in seasoning various desserts, soups, and beverages. *Joy of Cooking* (Rombauer & Becker, p. 528) suggests trying it "in spinach, with veal, on French toast — and always with eggnog." Mace can be used in the same foods as nutmeg and (somehow) in preserving foods.

Read the label! Other plants are incorrectly designated "nutmeg" but are not related to it. Jamaican (or calabash) nutmeg comes from *Monodora myristica*, Brazilian nutmeg from *Cryptocarya moschata*, Peruvian nutmeg from *Laurelia aromatica*; Madagascar (or clove) nutmeg from *Ravensara aromatica* — and, of all things, California (or stinking) nutmeg from *Torreya californica*, which is a very rare pine tree found only in San Diego County and an offshore island.

### **Onion (*Allium cepa*)**

The onion is not exactly an herb, but it is certainly a universal flavoring. It apparently originated in Asia, but it has been in use since prehistory and is not known in the wild. It is a biennial in the family Alliaceae and in its second year produces a ball of small white flowers on the top of a stalk as tall as three to five feet. The onion is characterized by having hollow stems.

Onions are sensitive to day length, such that some varieties do not form bulbs when planted in regions of different day length.

These plants are grown from seeds or sets, both of which are available from nurseries and seed catalogs. Sets are created by starting seeds in summer, letting them grow until they start to form a bulb, and lifting them out.

These are used for planting the following spring. They produce a bulb sooner than those from seeds of the same spring but are said not to keep as well.

Onions are usually planted in early spring. In warm-winter areas they can be planted in late fall for early summer harvest. They grow best in full sun in a rich soil, heavy in organic matter, that drains well; the plants have shallow roots and require water near the surface. They respond to regular fertilizing, especially in their early growth. Weeding must be done carefully so as not to dislodge the onion plants.

One plants the sets shallow in depth and plants the seeds only one-quarter to one-half inch in the ground. If planted from seeds, the plants should be thinned to about four inches apart — and the pulled-out plants can be used as green onions.

Onions are ready to harvest when the tops turn yellow and tip over. At that time one can pull out the bulbs and let them rest in a dry location for a few days (preferably outdoors). Then they can be wiped clean of dirt and the dry leaves can be cut off before long-term storage in a cool dry airy location (not the refrigerator, where they slowly rot).

Many types and varieties of onions have been developed by people, partly because of the day-length requirement. Presumably, in selecting onions to grow, one should get advice locally. (One of us, BNS, was told that onions do not grow well in southernmost California — but she has grown three-inch diameter onions — "Texas grano 502"— for the last two winters, transplanting seedlings, previously started indoors, in October-November and harvesting in July.)

Another variable character of onions is flavor, and "mild" or "sweet" seem to be the preference these days. Varieties with red-colored bulbs are also available. Among the varieties are green onions, scallions, and shallots.

Green onions are merely very young ones picked before they set bulbs, but some varieties are identified as especially good for this use. Scallions sold in the store are usually any young or green onion — or they are what is called Welsh onion (*A. fistulosum*), native to China, which does not form a bulb.

The shallot is in the same species as the onion (*A. cepa*), although it is sometimes given the species name *ascalonium*. It has a distinctive mild flavor. The leaves of the shallot develop as a cluster from the base, which consists of a number of small bulbs (called cloves). Although a perennial, it is usually grown as an annual. One can separate the cloves from a store-bought shallot for planting (pointed end up); some seed companies offer shallot sets for sale. The growing requirements for shallots are the same as for onions, including fall or spring planting. When the leaves turn yellow, one can pull the bulbs and dry them for about a month before using them; they will store for several months.

Among onion varieties: the Bermuda onion is mild but has a fairly short storage capability. The Maui onion, says one source, is any sweet onion grown in Hawaii.

The genus name *Allium* comes from the Celtic word *all*, which means "pungent" or "stinky" and became the Latin name for this genus.

### **Orégano (*Origanum vulgare*)**

(See also Marjoram)

This plant, a perennial in the mint family Lamiaceae, is native to Europe and temperate Asia, and it has naturalized in the United States.

Orégano plants are best started from cuttings from a plant that has good flavor, because the seedlings may not be the same as the parents. The plants grow in ordinary soil but require good drainage; they are drought-tolerant. Full sun is acceptable except in the hottest areas. Orégano grows to about two feet in height and has dark green leaves. It flowers in mid- to late summer with white or purplish pink blossoms, which attract bees and butterflies.

The subspecies *O. v. hirtum* (also cited as *O. heracleoticum*) is known as Greek orégano, because it comes from Greece. It is low-growing and has pungent leaves, slightly fuzzy, and with an odor like creosote. The other five subspecies do not have the intense flavor.

There are a number of varieties of *O. vulgare*, some of which are grown as ornamentals, and may be quite useful for flavoring. This plant can be used for erosion control on steep banks.

Orégano is said to be "essential to Latin cookery" and is recommended for pizzas, spaghetti dishes, other tomato-based recipes, and in ratatouille, zucchini and eggplant recipes.

The name *Origanum* comes from Greek words that mean "beautiful mountain."

Another plant, *Coleus amboinicus*, also in the mint family Labiatae, and probably native to India, is said by one source to be grown in the Philippines and Mexico under the name orégano and is now used commonly in the United States and Canada. It is also called Spanish thyme or Indian borage. It is apparently frost-tender. It grows to about two feet and has aromatic green hairy leaves. Other species of *Coleus* are grown for their colorful leaves, often in some shade, but not for food.

Just to confuse the situation even more: *Aloysia lycioides*, a tall plant (to 8 feet) is sold as Mexican orégano. It is in the family Verbenaceae (as is lemon verbena, *q.v.*) and is native to desert mountains of California to Texas and northern Mexico. Its flowers have a fragrance like vanilla. It is presumably the dried leaves that are sold.

### **Parsley (*Petroselinum crispum*)**

The popular garnish and flavoring, parsley, is a biennial plant in the carrot family Apiaceae. It originated in the southern European — i.e., Mediterranean — region, and was long ago in use by Greeks and Romans.

Of the two commonly used varieties, Italian parsley (identified as the variety *neapolitanum*), which has flat leaves in its clusters, has more flavor. It can grow to three feet in height. Curly parsley, which has fine-cut curled leaves, grows to about one foot and is widely used as a decorative garnish (often left on the plate). There are a number of horticultural varieties of these two types, which vary in the intensity of their flavor.

Although a biennial — going to flower and seed in the second year — parsley is usually grown as an annual (the leaves tend to be bitter in the second year). To start it from seed: soak the seeds in warm (or tepid) water for 24 hours, plant them, and be patient. The seeds may take several weeks to sprout; keep them watered lightly. They sometimes sprout in the ground from a previous planting, if that plant has been left to drop seeds. It is best to plant the seeds in place, because they have a taproot. (One of us, BNS, has often successfully transplanted very small seedlings.)

Parsley plants do well in a fine-grained soil and prefer some shade. They respond to fertilizer. They are frost-tolerant. They are a good choice in pots and can be kept indoors in winter if they have bright light.

One source recommends washing parsley leaves thoroughly before eating them (although for several other herbs it says not to get the leaves wet). Parsley leaves can be dried on paper, but the flavor is much less than that of fresh parsley (as is true of commercial dried parsley). Freezing the leaves provides better flavor.

In addition to the use as a garnish, parsley leaves are added to many soups and stews and Italian recipes, including pesto. For some reason recipes for Cornish pasties call for a few parsley leaves. *Ortho* (Heriteau, p. 171) advises: "Minced parsley and garlic do wonders for cold, diced beets, frog legs, chicken wings, and escargots." The stems are preferred for use in white recipes (chicken stock, etc.) because they do not color the mixture as do the leaves.

The scientific name comes from the Greek words *petro*, meaning "rock" and *selinon*, meaning "celery." The common name comes somehow from old French.

Parsley plants attract several species of swallowtail butterflies, so, if your plants are outdoors, start more of them than you need for yourself and share them with these stately insects.

### ***Pelargonium* (many species)**

The plants in this genus are usually called "geraniums," but the genus *Geranium* is correctly reserved for another group of plants (commonly called "cranesbill" for the Greek word *geranos* for the bird crane). Both of these genera are in the family Geraniaceae. There is a similarity between the two genera, so, when the namer of

the second one known wanted to show a similarity, he adopted the name from the Greek word *pelargo*, which means stork.

The pelargoniums are native to South Africa, and they are accustomed to dry days and cool nights. They were introduced to Europe in the 17th century. The plants need regular watering in fast-draining soil. They can be grown from seed, but there has been a good deal of hybridizing and seedlings may differ from the parent. Most are propagated from cuttings. They will take full sun or some shade when grown outdoors.

Note: one of us (BNS) was told by her father that he always started twice as many cuttings as he needed, because only about half of them rooted and the others rotted. Years later she read that a major grower of pelargoniums always lets the cuttings dry over one night out of soil — and he got almost 100% rooted plants.

Pelargoniums are frost-tender. They grow well in pots in good soil and may flower better when somewhat pot-bound. The plants get lanky unless pruned back annually, which also encourages branching. Depending upon the variety, they reach one to three feet in height. Snipping the faded flowers encourages more flowers.

Among the plants in the genus *Pelargonium* are some with scented leaves, and these can be used in iced drinks or to flavor jellies (perhaps apple jelly, which doesn't have a strong flavor). The dried leaves can be used in potpourri and sachets. A list of the scents of various pelargoniums includes: almond, apple, apricot, camphor, coconut, filbert, ginger, lemon, lime, mint, nutmeg, orange, peppermint, rose, strawberry — and just plain pungent. And probably plant fanciers have come up with more scents since we wrote this. Tucker & Debaggio devote 22 pages (366-388) to the varieties of *Pelargonium*.

### **Pepper, black and white (*Piper nigrum*)**

Long ago, black pepper (*Piper nigrum*) was the most valuable spice in the world. It was laboriously hauled by traders from India to Africa, the Mediterranean countries and Europe, and was so costly that each peppercorn was counted in the trading. Marco Polo, visiting China in the 13th century, found it in use there. The demand for it was one of the purposes of Columbus's jaunt intended for the Orient that turned into opening a new land to the western world.

Black pepper comes from a tropical climbing vine in the family Piperaceae. It is native to northwestern India and is now grown in many other tropical countries. India and Indonesia are both major suppliers of pepper.

It is a universal seasoning for just about everything except confections. The flavor is definitely better when made fresh with a pepper grinder, but ground pepper is satisfactory in many prepared dishes.

The plants are started from stem cuttings and grown in tropical countries in a loam of leaf mold and sand, with plenty of moisture. The vines can start bearing in two to five years, may climb by way of aerial roots to 30 feet or more, and will continue bearing as long as 40 years. The flowers are small, in catkins, and the green seeds turn to red, then black when ripe.

For black pepper the seeds — called peppercorns — are picked (by hand) before reaching full ripeness and are dried in the sun (or sometimes over fires) to the black color. White pepper, considered milder than black, is made from fully ripe black seeds that have had the hull removed.

The genus *Piper* includes about a thousand species in the tropics. In addition to some commercial ones, a few are grown as ornamental plants.

The name *Piper* is the Latin word for this seasoning (and *nigrum*, of course, means black).

### **Peppers, Sweet and Hot (*Capsicum annuum*) — all except black and white pepper**

These can be called (in the United States) cherry pepper, cone pepper, red cone pepper, cluster pepper, bell pepper, sweet pepper, green pepper, pimento, chili pepper, long pepper, red pepper, cayenne pepper — and probably more. There is similar variation of names in Europe. The tabasco pepper is considered to be in the species *C. frutescens*. The "bird pepper" — the fruit of which is very small and quite hot — is a wild or "spontaneous" plant that appears as a roadside weed in southern United States, Mexico and south to Colombia. It is possibly a progenitor of today's peppers.

Common names are a hopeless muddle with sweet peppers and hot peppers — which should never have been called "pepper" in the first place. These widely used vegetables, native to South America, had been cultivated for centuries by American native people in that region, who passed them along to the Caribbean, to Central

America, and Mexico. Columbus took samples of the plants from America back to Spain. As an immediate result the plants — at least the seeds — were traded so quickly that they were in regular use in India, Malaysia, etc., within a century, as well as in not-so-far-away Africa. "Today they are the most used condiment in the world," said Jean Andrews (author of *Peppers: The Domesticated Capsicums*," Univ of Texas Press, 1984, p. 1).

Pietro Martire de Anghiera (1455-1526), tutor of the royal Spanish princes, was in Barcelona when Columbus returned from the Americas in April of 1493, and he wrote (not published until 1511):

"Something may be said about the pepper gathered in the islands and on the continent — but it is not pepper, though it has the same strength and the flavor, and is just as much esteemed. The natives call it *axi*, it grows taller than a poppy — When it is used there is no need of Caucasian pepper. The sweet pepper is called *Boniatum*, and the hot pepper is called *Caribe*, meaning sharp and strong; for the same reasons the cannibals are called *Caribs* because they are strong."

The Spaniards variously spelled the native word *ajé*, *aji*, or *axi* — still used in the Caribbean region and much of South America. But the Spaniards preferred to call the new spice *pimiento*, following their word for black pepper *pimienta*. (To further confuse the issue, they also called another spice new to them — allspice — *pimiento*.)

The sweet peppers and almost all the hot peppers are classified by botanists in the same genus and species: *Capsicum annuum*; there are other species in the genus, five of them domesticated. These are in the nightshade family Solanaceae, which also contains the invaluable crop plants tomatoes and potatoes (even tobacco). (Some species of nightshade are poisonous, by the way.) In warm climates the plants are perennial, but they are commonly grown as annuals, from seeds. Accustomed to warm weather, they should be planted a little later in the season than tomatoes, and then they continue to set fruit well into the fall (in warm areas). They grow well in full sun in somewhat enriched soil and considerable water. Gardeners are advised to limit the use of nitrogen fertilizers, which encourage leaf growth and reduce fruit set. Some pepper plants should be staked to keep them upright.

Most of the peppers are green until fully ripe, when they may be red or yellow (even brown). The sweet peppers can be used when green but develop a sweeter flavor when ripe. Pimentos should be picked only when they have turned red. The hot peppers can be used green but tend to have a richer flavor when red or yellow.

Green peppers are used as a seasoning in many combination dishes and are a tasty container for meat mixtures in the oven. When using hot peppers, you will have to do some tasting for how much "heat" you want in a recipe. The same garden can produce hot and not-so-hot peppers side by side. Handle hot peppers with care — and gloves; the capsaicin can sting your skin.

Sweet peppers can be frozen for later use; it's easy: just wash them, cut them in half long way, remove the seeds and pith along the seeds, and put them into the freezer in a plastic bag. They soften when thawed but can be used in any cooked recipe for the flavor. Hot peppers should have the outer skin removed before use. To do that: broil them on all sides until the skin blackens. Drop them into a paper bag for about 5 minutes, then run them under cold water and pull off the outer skin. (Use gloves.) The peeled peppers can also be frozen for storage; freeze them on a cookie sheet and peel off the frozen pieces to store in a plastic bag (that way you can pick out as many as you need).

The piquant flavor of hot peppers comes from the chemical capsaicin, which develops in blisters on the epidermis of the inside ribs that form the chambers around the seeds. It does not form in the seeds. It is not found in bell peppers (sweet peppers). Its "hotness" is measured in units on the Scoville scale from zero to violently hot. Almost all mammals (including deer) dislike and avoid capsaicin, but birds don't mind it and are attracted to the seeds (which they then spread widely). Pepper spray, used by some law enforcement personnel, is made from capsaicin.

There are a great many varieties of pepper seeds available, both sweet and hot. Hungary acquired sweet peppers from the Ottoman invasion in the 16th century; from that came "paprika" and its many recipes. It tends to be only slightly hot and always bright red. Tabasco pepper is the species *C. frutescens* and rates high on the Scoville scale; the name Tabasco is the registered trademark of the McIlhenny Company of Avery Island, Louisiana. Some *Capsicum* plants are sold as ornamentals, for the attractive white flowers and especially for the colorful red fruit pods, which last a long time. Watch out for these with children around: some of them are very peppery and can hurt the mouth. Hot peppers can be lethal to some breeds of dogs and cats.

The word *Capsicum* may come from the Latin *capsa* or *capsula*, which means "chest" or "box" and would refer to the shape of the seed capsule, but this is uncertain.

The word *chili* — sometimes given as *xilli* — comes from the Nahuatl language (central Mexico), where it referred to large fruits of *Capsicum*.

### **Poppy Seed (*Papaver somniferum*)**

Poppy seeds for flavoring come from the opium poppy (*P. somniferum*), a native (presumably) of southeastern Europe and western Asia. Because this plant is used for opium and morphine, the sale of its seed is technically illegal in the United States.

The plants, which have gray-green leaves, can grow to four feet in height; they do well in ordinary soil that drains well. They are annuals in the large genus *Papaver* in the family Papaveraceae. The seeds should be planted where wanted, because — like all poppies — they do not transplant well. All species of *Papaver* have a milky sap (in *P. somniferum* it is the source of opium). The flowers of this species come in various colors: white, pink, red, purple. When cutting the flowers (of any poppies) for arrangements, the cut end of the stem should be seared with a flame. The seeds are obtained simply by shaking the dry capsules over a tray or paper. An oil is made from the seeds that can be used in cooking or as a carrier in paint.

The seeds are used in and on many baked goods. They should be roasted or steamed and crushed for full flavor. They have very low levels of opiates.

The common name "poppy" is used for plants in many other genera, mostly in the family Papaveraceae. For example, in California the California poppy is *Eschscholtzia californica* and the Matilija poppy is *Romneya coulteri*. In this family the number of petals is 4 or a multiple (8 or 12).

Note: One source says that *P. phoeas* is the source of poppy seeds and that it is grown especially in Holland.

### **Rose (*Rosa* spp.)**

Plenty of books and articles have been written on growing roses, so we won't provide that information here. What may be helpful to the cook are some suggestions on using roses in the kitchen.

Rose petals can be turned into a jam, with a lot of sugar plus citric acid crystals to set the gel. One source (Everett, vol. 11, p. 1937) recommends putting sweet-scented rose petals in sandwiches: place the fresh petals between very thin slices of buttered bread. Hmmm.

One can candy rose petals — rather laboriously — in egg white and "castor sugar" followed by drying in the sun.

We admit that we haven't tried these recipes.

However, rose hips have some promise. For one thing, they are rich in vitamin C and have a flavor like tomato. Tucker and DeBaggio (p. 418) note that the fruits of *Rosa canina* and *R. rugosa* are large and red and are "especially good prepared as conserves and jams with cream cheese for tea cakes."

Other species of roses may well have hips usable for eating or jelly.

### **Rosemary (*Rosmarinus officinalis*)**

An excellent landscape shrub! Rosemary is a perennial branching shrub in the mint family Lamiaceae, closely related to lavender, and is native to the Mediterranean region. In Great Britain an old legend says, "Where rosemary thrives, the mistress is master." Thought by ancients to stimulate the mind, rosemary became a symbol of remembrance. In olden England the fragrance was considered a disinfectant, and it was burned in sickrooms. Also, in 16th century England it was the custom for the bridesmaids to give rosemary to the bridegroom. In those days the wood of rosemary was used for making lutes "or such-like instruments," and carpenters' rules.

Rosemary can be started from cuttings, preferably in late summer or early fall. The young plants, when rooted, should have the tips pinched regularly to encourage branching. The seeds are slow to start, and seedlings may not be identical with the parent plant. The flowers — usually deep blue, but pink or white in some cultivars — are small, prolific, and decorative in early summer. They attract birds, bees, and butterflies.

Rosemary grows to four feet or more in height (depending upon the variety). The needle-shaped leaves are dark green above, white beneath and with margins rolled back into a tight curl. This plant is best grown in a sunny location, in well-drained soil that does not have to be rich, and it is fairly drought-tolerant. It can endure cold temperatures to about 20°F-7°C (with some variability in tolerance). One can grow rosemary indoors in a sunny window. Planting it along walkways provides a welcome fragrance when the stems are plucked or crushed as one walks by.

The leaves of rosemary can be dried readily on paper, at any time of the year. Or short sprigs can be frozen for later use. The highly scented leaves are used for seasoning — especially meats; they are also good on potatoes, with chicken, in fruit salads, in marinades, and with steamed vegetables. One source suggests using rosemary in biscuit dough for chicken pie. Some call the leaves pungent and recommend using them sparingly. Commercially, an oil is distilled from the leaves and is used in perfumes.

The scientific name comes from *ros* meaning "dew" and *marinus*, referring to "the sea," for the plant's frequency near the sea-coast.

A number of varieties of rosemary are recognized: white flowers, prostrate or trailing growth, greater cold tolerance, compact or upright or bushy. The varieties differ in flavor intensity. An old standby is 'Tuscan Blue,' which was carried from Tuscany (west-central Italy) to England long ago. The variety 'Blue Spires' is especially useful for a hedge. The prostrate varieties make an attractive groundcover, which readily spreads and roots.

### **Safflower (*Carthamus tinctorius*)**

Mexican saffron, false saffron, bastard saffron, and saffron thistle

The flowers of this plant are indeed sometimes used as a substitute for saffron; they have the color and somewhat the flavor of saffron.

Safflower is an annual in the aster family Asteraceae. The origin is uncertain, but it probably is native to India and/or the mid-Eastern region, perhaps down to northern Africa.

Safflower is undemanding in type of soil, but it requires a fairly long season to flower (120 days) and needs a dry atmosphere when the buds begin to form. The plant grows to three feet in height. The leaves are spiny in this relative of thistles; a spineless variety is grown as an ornamental plant.

The thistle-like flowers are usually orange-yellow, but can be red or white. They are long-lasting when cut, and are used in leis in Hawaii. The tender shoots are edible.

The seeds provide an oil that is used in cooking oil and margarine. It has also been used in varnish and paint because it does not yellow with age. Other uses are in cosmetics and for dressing leather.

The name *Carthamus* comes from the Hebrew *qarthami*, which means "the painted one" for its yellow dye.

### **Saffron (*Crocus sativus*)**

Saffron is a fall-blooming crocus in the iris family Iridaceae. This remarkable plant has two simultaneous fragrances: the sweet one typical of other crocuses and a tantalizing spicy one from the orange-red stigma. "Ounce for ounce, saffron is the most expensive spice or herb in the world, with natural vanilla second" (Tucker & Dibaggio, p. 217).

The origin of saffron has been lost to history — perhaps Greece and Asia Minor — and the plant has been grown and used for centuries. The earliest written reference is dated at 2300 B.C. An older edition of *Encyclopaedia Britannica* (1971) said: "The streets of Rome were sprinkled with saffron when Nero made his entry into the city." The Arabs introduced saffron into Spain in 961 A.D., and it had been known and lost elsewhere in Europe until the crusaders re-introduced it. 'Tis said that a pilgrim carried a stolen corm in the hollow of his staff to England, where Saffron Walden became a growing center for this valuable plant for several centuries before the 18th. The Dutch introduced it into what became the United States. Spain has been the primary producer of saffron for many centuries.

Saffron plants are started from corms planted in early September. The corms should be planted three to four inches deep. They split and expand so they should be lifted and replanted every two to three years. The plants

do well in full sun in good soil that drains well. The lavender flowers open a few short weeks after the corms are planted. They are mostly sterile (which might indicate that the plant is a hybrid).

Harvesting the conspicuous but small stigma — called a thread — of saffron is a slow task, and it can take the stigma of a dozen flowers to season a large recipe. The threads should be picked as soon as the flowers open. (Be sure to observe and admire those two fragrances as you work.) Then the threads are dried for a few days, out of sunlight, and stored in a glass jar, preferably whole. One crushes each dried stigma just before adding it to food.

Recipes that call for saffron are international: Spanish paella, Italian risotto, French bouillabaise, Pennsylvania Dutch chicken noodle stew, Swedish cakes (lussekatter). Saffron provides a distinctive flavor as well as color.

The stigma in the flower of this crocus was long used as a dye for cloth; to the Greeks it was a royal color. The dye is water-soluble, so it is no longer used for cloth — but the color is noted in recipes and often imitated with other yellowish foods (i.e., turmeric). Pity those who prepared saffron for dye. It is estimated that 7,000 to 8,000 flowers produced 3-1/2 ounces of dye.

True saffron is understandably expensive. Diluted forms of it (or downright substitutes) are often offered for sale. Growing saffron is easy.

The genus name *Crocus* comes from the Greek word *kroke*, which means "thread," in reference to the dried stigma.

Note: A similar plant called "meadow saffron" *Colchicum autumnale*, which also blooms in the fall, with pink, purple, or white flowers. It does not have a bright-colored stigma. All parts of it are poisonous.

### **Sage (*Salvia officinalis*)**

Garden sage, common sage, Dalmatian sage

Garden sage—the seasoning plant — is a perennial shrub with square stems and gray-green leaves (on top) that are white and hairy below. This species is in the largest genus in the mint family Lamiaceae. It originated in the Mediterranean region and has been in use for eons.

This shrub can reach three feet in height. The plants can be started from seeds, although they may not be identical with the parents, so cuttings are a better choice. Short cuttings can be made from top shoots or from older wood branches, rooted in sand or soil. Place the young plants in full sun in light, well-drained soil; they rot in wet soil and are actually drought-tolerant. Sage does not grow well indoors. The plants should be replaced every three to four years, as they become woody and have fewer leaves. Cutting the spikes of young plants encourages branching. Sage plants send up spikes of blue, violet, or white flowers in late spring or early summer, which attract bees, hummingbirds, and butterflies. Some varieties have reddish or purple or variegated leaves. Sage plants may need some shade in summer heat.

Sage sprigs can be dried on paper for storage, but they lose some flavor. Fresh sage leaves are used with tomatoes and in tomato sauces, in green salads, on pork chops, in chowders, in chicken recipes, with vegetables, and in pasta sauces. The flavor increases during cooking, so use with caution. Dried sage is always in poultry stuffing and is good with pork and in sausages.

*S. officinalis* is collected in the wild, especially along the coast of Dalmatia (of Yugoslavia and Albania). The collecting may include *S. fruticosa* and hybrids between the two species. *S. fruticosa*, known as Greek sage, is in much of the commercial sage sold in the United States. Its odor is like eucalyptus, somewhat musty.

The genus name *Salvia* comes from the Latin *salvus*, meaning "good health," for the medicinal properties attributed to this plant.

There are many garden plants in the genus *Salvia*, including, for example, scarlet sage (*Salvia splendens*) with its stunning red flowers. Various species of the salvias have aromatic leaves, and some attract bees to their flowers.

Sagebrush: The "sage" of western United States is in the genus *Artemisia*, in the family Compositae. While nicely fragrant, it is not related to common sage in the genus *Salvia*. The most widespread species of sagebrush is *Artemisia tridentata*, but there are other similar species in the west.

### **Savory, summer and winter (*Satureja* spp.)**

Summer savory (*Satureja hortensis*) is a hardy annual in the mint family Lamiaceae. From Europe originally and known from an old Latin name, savory has naturalized in the United States.

This plant grows to about 12 inches. It does well in full sun in light, enriched soil. An attractive plant, it looks good in pots.

Winter savory (*Satureja montana*) is a perennial, sometimes treated as an annual. It can be grown farther north than summer savory. Similar in use to summer savory and from the Mediterranean region originally, it also does well in full sun in a light, enriched soil. About 12 inches tall, it attracts bees. Its flavor, somewhat like thyme, is not as delicate as that of summer savory, yet one source recommends using slightly more of it than its relative.

Both savories have a rather spicy flavor, somewhat piney. The fresh leaves are good in soups and stews, poultry stuffing, with pork, with potatoes, in vegetable dishes, and in baked beans. One cook recommends using savory in bread dough. The sprigs of leaves can be picked just before flowering and hung to dry, for storage. The dried leaves are recommended in soups and stews, sausages, on poultry and fish, with eggs, and in cheese souffles.

The name *Satureja* probably came from the Arabic word *za'atar*, which meant all herbs with a scent like oregano. The species name *hortensis* means "of the garden" in Latin. The species name *montana* means "mountain" and acknowledges that the plant originated in high country in Europe.

Creeping savory (*Satureja spicigera*) is a fine-leaved perennial that dies back in winter and reappears in spring. It is a creeper that does best in full sun and fairly dry soil. It has white flowers in summer. This plant can be used just like the preceding ones.

Yerba buena, which means "good herb" (*Satureja douglasii*) is native to westernmost United States, where it actually gave San Francisco its original name. Tea from its leaves was used as an early cure of various ailments. It is easy to grow in fairly rich soil, prefers partial shade, and tolerates drought.

### **Sesame (*Sesamum indicum*, sometimes cited as *S. orientale*)**

Possibly among the first oil crops in cultivation, sesame has a long history with people. The plant is an annual in the family Pedaliaceae and may have come originally from eastern Africa, maybe from India, where it is known to have been cultivated long ago. It has been transplanted throughout tropical and temperate regions.

The plants are grown from seed and develop quickly in summer to more than three feet in height. The flowers are pale rose to white. The seeds develop in capsules and are scattered when they are dry on the plant. The seeds range in color from white to black, and some people prefer certain colors for certain recipes. (A few people are allergic to the seeds.)

Sesame seeds, which have a nutty flavor, are used in many Asian and African recipes and elsewhere are used as toppings on crackers, pastries and breads (sesame-seed hamburger buns are a favorite). Oil made from the seeds is used in salad oil, cooking oil, shortening and margarine, and as a carrier in pharmaceuticals. This oil is polyunsaturated, and it resists oxidation. The primary sources of the crop are various countries of Asia. In the United States it is grown especially in Texas and has naturalized from there to Florida.

The word *sesame* comes from the Arabic word for this plant, *simsim*. The common name in Africa is "benné," and it is thought that African slaves brought sesame into the United States.

### **Sorrel (*Rumex acetosa* or *Rumex scutatus*)**

Watch out for these plants. The seeds are windblown and seedlings can pop up widely. The plants in this genus can generally be considered weeds. They have deep roots, which makes it difficult to eradicate them.

The sorrels are in the buckwheat family Polygonaceae and are perennial, though they may be grown as annuals. They do well in fairly good soil and, if grown as a perennial, should be replaced every three to four years.

Two species are grown for their leaves as seasonings, both native to Europe and Asia and widely naturalized. Common sorrel (*Rumex acetosa*), also called garden sorrel or sour dock, is used in soups, salads, and sauces. It can also be cooked as a vegetable alone. The flavor is somewhat sour, resembling wild strawberries. This plant can be three feet tall, with 6-inch leaves, pointed at the tip. One cuts out the flowering stalks to encourage the growth of leaves.

French sorrel (*Rumex scutatus*), also called garden sorrel, forms a sprawling plant to about 18 inches. It has broader leaves than *S. acetosa*. It is often grown from seeds in the spring, which are planted out in the fall to produce leaves the next year. Its flavor is more lemony or acidic and some people dislike it.

The leaves of these plants contain oxalic acid, so it is advisable not to eat them raw (cooking destroys the acid).

### **Star Anise or Chinese star anise (*Illicium verum*)**

This flavoring comes from an evergreen tree native to southeastern China and northeastern Vietnam. The tree, which is in the family Illiaceae — closely related to Magnoliaceae — will grow in sandy soil with added loam. It can be grown from seeds or cuttings, and can eventually reach 60 feet in height. It has red flowers in the fall, and the leaves are fragrant.

The fruits are star-shaped, hence the common name. The unripe fruits provide the spice — which has a flavor similar to anise (*q.v.*), to which it is not related. This spice is in Chinese five-spice, and it is used in recipes of China, India, Malaysia, and Indonesia. *Joy of Cooking* (Rombauer & Becker, p. 530) recommends using star anise in watermelon-rind pickles. An oil can be made from the fruits, which is used for flavoring and in medicines.

A relative of this is *I. anisatum*, an Asian shrub of which the foliage, wood and seeds are all toxic, but the wood is used for incense and the branches for Buddhist grave decorations in temple grounds in Japan. An American species of this genus is *I. floridanum*, of Florida and Louisiana, which has attractive flowers and is neither toxic nor useful for flavoring.

### **Sweet cicely (*Myrrhis odorata*)**

Myrrh, Anise, Sweet chervil

This out-of-fashion herb was formerly used especially for its medicinal properties, mostly for stomach conditions. It is a perennial in the carrot family Apiaceae, native to Europe and naturalized in England. It grows to about three feet in height. The stems are hollow. All parts of the plant are about 40 percent sugar and are aromatic, with an anise scent and flavor, including the long brown fruits. The oily seeds were used, at least in the 17th century, for an aromatic furniture polish.

The plant can be grown from seeds, although Tucker & DeBaggio (p. 328) recommend holding the seeds in damp peat moss in the refrigerator for several months until they sprout. Outdoors the plants will sprout from fallen seeds. They do best in a moist rich soil in some shade. They do not grow well in high heat. The leaves are graceful and fernlike; the prolific flowers are white, like a large Queen Anne's lace. They attract bees. The brown seeds will stick to clothes as one walks by.

*Joy of Cooking* (Rombauer & Becker, p. 538) says that the green seeds and the fresh leaves may be used as a garnish in salads and the dry seeds may be used in cakes or candies. Sources note that this plant is not commonly grown now, and Tucker & DeBaggio (p. 328) note that sweet cicely is not generally recognized as safe by the U.S. Food & Drug Administration.

The genus name *Myrrhis* comes from the Greek word *myrrha*, which means "fragrant."

Note: Although sometimes called myrrh, this plant (in spite of the scientific name) is not the myrrh of the Bible. That is a fragrant gum derived from *Commiphora molmol* (and other species in that genus), a shrub native to Arabia and Africa.

### **Sweet woodruff (*Galium odoratum*)**

In German: Waldmeister ("master of the woods")

This small herb presents the fragrance of new-mown hay when the leaves and stems are dried. It is a perennial in the family Rubiaceae, native to Europe, northern Africa and Asia, and it reseeds readily enough elsewhere to become a weed.

It grows best in rich soil in the shade and requires considerable water. It reaches about a foot in height and has a mass of tiny white flowers in summer. Its stems are square.

Interestingly, deer avoid sweet woodruff. It can also be used as a moth deterrent. Formerly, sweet woodruff was used, especially in Germany, in brandy, sausages, jelly, and ice cream, but high doses are toxic, so its use in Germany was forbidden in 1981. It is still used in small quantity in May wine, a German punch made of Alsatian, Moselle, or Rhine wine plus this flavoring.

The chemical found in sweet woodruff, coumarin, that creates its fragrance is found in other plants — including the tonka bean of tropical South America and sweet clover (*Melilotus officinalis*), a European plant that is naturalized in North America. The fragrance has been used in perfumes, for flavoring, and to give scent to tobacco. It was the first natural perfume to be synthesized from a coal-tar chemical.

### **Tamarind (*Tamarindus indica*)**

Indian date

This stately ornamental evergreen tree has a long history of use by people — so long that its native country is uncertain. It may well have been from tropical Africa, but it has been known in India for centuries, and it is widely naturalized in tropical countries. The Egyptians and Greeks were acquainted with the plant in the 4th century B.C. It is the only species in its genus; it is in the pea family Leguminosae, and it can grow to 80 feet in height.

Tamarind trees are grown from seed, but they are slow to start producing fruits. They grow in deep soil and require moderate watering but can tolerate some dry conditions. Like most tropical plants, they are frost-sensitive.

What is used in food is the juicy pulp that surrounds the seeds, which has an acid, somewhat citrus flavor. The pulp is included in chutneys, curries and other dishes and in cooling drinks. Tamarind is a listed ingredient in Lea & Perrins Worcestershire sauce. (Note: the pulp is a laxative.)

Yellow or red dye can be made from the leaves. The flowers are pale yellow, in clusters. The seeds form in pods with several astringent seeds in the pulp. The wood is used as good-quality timber.

The name comes from the Arabic, in which *tamar* means "date" and *indus* means "Indian" or "from India."

### **Tarragon or French Tarragon (*Artemisia dracunculus*)**

Estragon (in French), Dragon's-wort

This plant, one of many aromatic species in the genus *Artemisia*, in the aster family Compositae, rarely flowers or sets seeds. It is a perennial and tends to sprawl. The origin of tarragon is said to be southern Europe, Asia, and western United States (which seems unlikely; perhaps it has naturalized).

The seeds sold commercially are mostly "Russian tarragon," which is a variety that does set seeds, but its flavor is less flavorful and aromatic than the true French variety ('sativa').

The flavor of tarragon varies in seedlings, so it is best to start new plants from pieces of rhizome of a plant of good flavor. The rhizome pieces should be placed in fertile, well-draining soil, in full sun. The plants are somewhat drought-resistant. They can reach three feet in height and have narrow, lance-shaped, dark green leaves. The occasional flowers are whitish green. One should cut out the flower stalks (if they appear) to encourage leaf growth. Tarragon can be grown indoors, if it has good light. It does well in containers.

The pungent leaves are used to flavor fish, poultry stuffing, eggs, tomatoes, stews, salads, dips and appetizers, and some sauces (especially Béarnaise).

One source says that the leaves do not dry satisfactorily; another recommends hanging the sprigs of leaves to dry. The flavor is said to be chemically identical with anise, and it is almost lost in drying. One can gain the flavor by making tarragon vinegar: minced fresh leaves are steeped in hot vinegar, and a fresh sprig is put into it when cool; this can be stored for some time in glass bottles.

The name tarragon comes from the Latin *dracunculus*, from the Greek *drakon*, which means "dragon." (Sometimes word origins are obscure.)

Mexican tarragon is quite different: it is *Tagetes lucida*, essentially a marigold, in the family Compositae. A perennial that is often grown as an annual, it has narrow leaves that have a strong scent like tarragon or licorice. Its flavor is not as strong as those.

### **Thyme (*Thymus vulgaris*)**

Common thyme, Garden thyme

Common thyme, a perennial in the mint family Labiaceae, is native to the Mediterranean region and has been used for centuries. The genus *Thymus* includes about 350 species, which generally have tiny leaves and whorls of small flowers, which attract bees. That's not surprising because some species have fragrances such as lemon, orange, caraway, or camphor. Most of the species are compact and some are creeping (i.e., *T. serpyllum*), so they are useful around stepping-stones and for edging along walkways.

Common thyme is grown from seeds or cuttings. The seedlings have considerable variation in leaf size, leaf color, and fragrance, so it is advisable to start plants with cuttings from a preferred plant. The plants do not require rich soil, are drought-resistant, and do well in full sun. They have narrow, needle-shaped, gray-green leaves and reach only a foot in height. White, lilac, or pink flowers appear in late spring. The older stems get wiry, so one should cut the plants back regularly to keep them compact. For later use the leaves can be dried on paper or by hanging sprigs. They are best picked when the plants are starting to bloom.

Thyme is used in many recipes: on meats and fish, in stews, poultry stuffing, soups and chowders and gumbos, in salad dressings, and with vegetables. The leaves can be brewed for a tea. An older *Encyclopaedia Britannica* (1971) notes that thyme is "traditionally used in the preparation of jugged hare."

There are a number of species and varieties of thyme. As the *Sunset Western Garden Book* says: "Botanical names are constantly undergoing revision."

The genus name *Thymus* comes from the Greek, but it is uncertain whether it is from *thumus*, meaning "soul," or *thymon*, meaning "fumigate," or *thumon*, meaning "mind." The species name *vulgaris* means "common" in Latin.

### **Turmeric (*Curcuma longa* [possibly *C. domestica*])**

Indian saffron

Turmeric, a tropical perennial plant in the ginger family Zingiberaceae, is grown for its colorful rhizome (underground stem). Its origin is southern Asia, especially India, which is the source of most commercial turmeric powder. Elsewhere it is grown usually only in greenhouses.

Turmeric requires rich soil, kept moist. The plants are started from rhizome pieces annually. They produce upright stalks along the rhizome (like the related ginger). The leaves can be one and a half feet long, and quite wide. The flowers of this species are pale yellow, not showy.

The rhizome flesh is orange to red-brown in color. It is boiled a long time and dried in an oven before being ground to powder for cooking use. It has a mustardy fragrance and an earthy, peppery flavor.

Turmeric is often substituted for expensive saffron in recipes. In its own right it is used in curries, always in curry powders, and it is used as a color additive in such varied items as mustard sauces, margarine, cheeses, salad dressings, ice cream, cakes and other sweets, and popcorn. Many Malaysian recipes call for turmeric, which has naturalized in some regions there. Some recipes call for sliced fresh root of turmeric, as is done with ginger. The rhizome has been used for a dye, as in Indian saris, but the color is not fast.

The scientific name *Curcuma* comes from the Arabic word *kurkum* for this plant. Why so many Arabic words in spices? Because the Arabs were the longtime traders from the Orient to the Mediterranean region and Europe.

Another species in this genus is *C. zedoaria*, called zedoary, which is native to northeast India and cultivated also in Sri Lanka and southern China for its rhizomes. These have a starch like arrowroot, which is said to be a stimulant.

### **Vanilla (*Vanilla planifolia*)**

The flavoring vanilla comes from an orchid or two. Its distinctive taste is derived from the processed seed pods, which can be six to ten inches long and one-half inch wide, like large bean pods.

The plant is in the family Orchidaceae. It is a climbing vine with fleshy long stems that attach to any support with aerial rootlets. There are about 90 species in the genus, but only a few have the flavor and vanilla is primarily derived from *V. planifolia*, which is native to southeastern Mexico. It was introduced to Spaniards by the Aztecs, who had long used it. The Spaniards called it *vayna*, which means "knife case" or "container." Mexico is a primary source of the flavoring. Other tropical countries and islands that produce it are Madagascar, the Seychelles, Tahiti, and Java, and in those places it requires pollinating by hand.

The plants are grown — often in greenhouses — in a compost of fiber and bark and are frequently misted. They obtain nourishment from the air. Flowers, not very colorful, appear in spring and summer, followed by seed pods.

For the flavoring the whole pods, full grown but green, are "cured by a sweating process" (according to *Hortus III*) and dried. The source, vanillin, is secreted by tiny hairs in the interior of the pod and diffuses through the oily liquid around the seeds.

*V. pompona*, which comes from the West Indies, is a secondary source of vanillin, not quite as flavorful. Synthetic vanillin is common in commercial use, but it is consistently so labeled. Some people find that it has an undesirable aftertaste (including BNS).

### **Watercress (*Nasturtium officinale*)**

In a confusing turn of taxonomy: The brightly flowered plant that we call "nasturtium" is in the genus *Tropaeolum*, in the geranium family Geraniaceae. The pungent plant watercress is in the genus *Nasturtium*, in the mustard family Cruciferae.

Watercress grows preferably in running water, with its roots in soil or gravel at the bottom. Although native to Europe, it has naturalized in many other places. It is a perennial prostrate plant, and hardy. It roots readily from pieces of stem or from seeds.

This plant does not do well in standing water. It can be kept going only if the water is changed very frequently.

The tangy leaves of watercress are a tasty addition to salads.

Appendix: list of herbs and spices described.

#### TOTAL LIST

allspice  
angelica  
anise  
annatto  
basil  
bay leaf  
bergamot  
borage  
burnet  
calamint  
calendula  
California bay

capers  
caraway  
cardamom  
celery and celery seeds  
chamomile  
chervil  
chicory  
chives  
cicely, sweet – see Sweet cicely  
cilantro, coriander  
cinnamon  
clove  
*coriander - see cilantro*  
cress, garden  
cumin  
dill  
epazote  
fennel  
fenugreek  
filé  
garlic  
*geranium – see Pelargonium*  
ginger  
hops  
horehound  
horseradish  
hyssop and imitators  
juniper  
lavender  
leek  
lemon balm  
lemongrass  
lemon verbena  
licorice  
lovage  
love-in-a-mist  
*mace — see nutmeg*  
marjoram  
mint  
mustard  
*myrrh, garden – see Sweet cicely*  
nasturtium  
*nepitella – See Calamint*  
nutmeg and mace  
onion  
oregano  
Oswego tea — see Bergamot  
parsley  
pelargonium  
pepper, black (and white)  
peppers, sweet and hot  
poppy seed  
rosemary  
safflower  
saffron  
sage

savory

*scallions – see onion*

sesame

*shallots – see onion*

sorrel

star anise

sweet cicely

sweet woodruff

tamarind

tarragon

thyme

turmeric

vanilla

watercress

*woodruff, sweet – see sweet woodruff*

*yerba buena – see savory*

*zedoary (an East Indian drug, a stimulant) – see turmeric*