

Herbs For The Beginner

Suggested selections for the beginner include the six herbs named by the French "les fines herbes,"—sweet basil, chervil, sweet marjoram, thyme, rosemary, and tarragon. Included also are those indispensable mixers chive, parsley, summer savory, and several other favorites with very characteristic flavors—that can be used singly or in judicious blends. As an aid to their use in blending with foods they are divided into the following groups:

Pungent herbs:

- Rosemary
- Sage
- Winter savory

Herbs strong enough for accent:

- Sweet basil
- Dill
- Mint (peppermint and spearmint)
- Sweet marjoram
- Tarragon (French)
- Thyme (English or French)

Herbs especially good in blends:

- Chervil
- Chive
- Parsley (curled)
- summer savory.

Herbs To Be Added Later

Selections from the following group of no less important herbs may be added, a few at a time, as the gardener becomes familiar with their culture and as culinary uses expand.

- Anise
- Caraway
- Celery
- Coriander
- Costmary
- Cumin
- Fennel
- Garlic
- Lemon balm
- Lovage
- Mints (other species and varieties)
- Parsley (Italian broadleaf)
- Pot marjoram

Culture

A great deal of interest and pleasure can be derived by the person who plants a few well-chosen herbs for the first time, as he soon becomes familiar with their forms and growth habits and learns to use them to best advantage in seasoning the various foods.

Location And Preparation Of The Herb Garden

In addition to furnishing a variety of flavors for use in the kitchen, the savory herbs, because of their ornamental appearance, may be used to good advantage in landscaping to add beauty and fragrance to the home surroundings. They can be conveniently arranged in flower beds, borders, and rock gardens, or assembled in a small formal herb garden convenient to the kitchen, as was the custom in colonial times. If they are grown in rows in the vegetable garden, only a small section will be required to produce enough for family use. The perennials and biennials come up early in spring, and some of them bloom before the annuals are planted. If they are grown on one side or in a corner of the garden or even in flower beds or rock gardens, they will not interfere with the preparation of the garden soil for planting each season. The annuals may be seeded along with other vegetables or they may be arranged in separate beds.

In general, one short row or only a few feet of row of each of the annuals or half a dozen plants of the perennials will supply enough herbs for the average family. Herbs will grow on any soil or under any system of fertilizing and manuring that is suitable for growing vegetables. The soil should be well prepared long enough in advance of planting to allow for settling. Since perennials remain in the same location for several seasons, best results may be obtained by adding well-rotted manure or compost and commercial fertilizers high in phosphorus to the soil before planting. A mulch of straw or stable litter applied late in fall will prevent winter injury and will aid in starting early spring growth.

Special consideration should be given to the location of a few of the savory herbs that are sensitive to soil-moisture conditions. Sage, rosemary, and thyme require a well-drained moderately moist situation; celery, parsley, chervil, and the mints give best results on soils that retain considerable moisture but have good drainage. The majority of the herbs, however, may be grown with success under a wide range of soil conditions.

Propagation

The annuals and biennials ordinarily are grown from seed sown directly in the garden early in spring, while the perennials generally are better started in coldframes or window boxes from seed or cuttings and the plants reset in the garden at the proper time.

A few plants, as sage, lemon balm, and rosemary, can be propagated best by stem cuttings. Stems from the latest growth or the upper part of the older stems make the best cuttings and usually can be rooted easily late in summer or early in fall. With a sharp knife the stems should be cut into 3- to 4-inch sections, each containing a set of leaves or leaf buds near its upper end. The terminal and the intermediate sections root equally well. The leaf area should be reduced by about two-thirds by removing the larger leaves and allowing only the buds and young leaves to

remain on the upper third of the section. To prevent wilting, the cuttings should be placed in water as soon as they are removed from the plant.

A shallow box (fig. 1) filled with 4 or 5 inches of clean sand and fitted with a glass cover makes a good rooting bed. Insert the cuttings to a depth of one-half to two-thirds their length in the moist sand, pack firmly, and saturate the sand with water. Cover with glass so that a 1/2- to 1-inch opening remains along one side of the box for ventilation. Place the box in a protected sunny place and keep moist, but not wet, at all times. The cuttings should be protected from direct sunlight by paper or cheesecloth shades for the first week or two to prevent wilting. On hot sunny days the ventilation should be increased by raising the glass cover on one side. With proper care roots should develop in about 2 weeks, and in 4 to 6 weeks the cuttings should be ready to pot or to set in coldframes or in other places where they can be protected during the winter. Early in spring the plants can be transplanted to a permanent location.

Such plants as thyme, winter savory, and pot marjoram can be easily propagated by layering, which merely consists of covering the side branches with soil, leaving much of the top exposed. When the covered parts of the stems have rooted they can be cut from the parent and set as individual plants.



Figure 1. Propagating box for rooting cuttings.

Other plants, as chive, costmary, and tarragon, can be expanded by dividing the crown clumps into separate bulbs, individual plants, or clones after one or two seasons' growth. This can be done either in fall or early in spring. These subdivisions can be set directly in permanent locations if made in spring or in coldframes for winter protection if made in fall.

The mints spread rapidly by means of surface or underground runners that may grow several feet from the parent plant, usually at a depth of 1 to 2 inches beneath the surface. New plants spring up at the nodes of the runners during the season. These plants, with roots attached, can be taken up and transplanted in spring or early in summer, or the runners alone can be planted in rows and covered to a depth of 2 inches.

Diseases And Insect Pests

Fortunately the savory herbs are not especially subject to serious damage by disease or insect pests, particularly when grown on a small scale. This may be due in part at least to the repellent or inhibitory action of their aromatic oils. When they are grown on a commercial scale, however, certain diseases and insect pests do cause damage under some conditions. For example, in the mint-growing sections of Michigan and Indiana, peppermint is susceptible to several fungus diseases that develop under certain weather conditions. The plants of the parsley family (Umbelliferae), as anise, caraway, dill and fennel are sometimes attacked by aphids during the flowering and fruiting period. In unusually dry weather the red spider mite may cause some damage to sage and lemon balm may develop brown leaf spots, but since these diseases and insects are of infrequent occurrence and seldom cause serious damage the gardener need not be

greatly concerned about them. The aphids can be controlled easily with commercial dusts or spray solutions containing nicotine, rotenone, or pyrethrum. The red spider mite and the fungus diseases are more difficult to control, but they present no problem under normal conditions.

House-Grown Herbs

A few of the savory herbs can be grown fairly successfully indoors during the winter, provided favorable growing conditions can be maintained. The annuals mature their fruits or seeds and die at the end of the growing season. They are not so easily grown indoors during the winter as some of the perennials, as chive, geranium, thyme, mint, rosemary, sage, sweet marjoram, and winter savory, because new plants must be started from seed and this requires considerable care and most favorable growing conditions. For best results, start new plants in fall by means of rooted cuttings or by crown or root divisions, rather than attempt to pot or move old plants indoors. In order to make sufficient leaf growth for flavoring purposes during the winter, these plants must have plenty of sunlight and a temperature maintained well above freezing at all times. The annuals and taprooted biennials that are to be grown indoors in winter should be started from seed sown in outdoor beds sufficiently early in fall to allow the seedlings to become large enough for transplanting before frost. The perennials can be started as described under propagation, either outdoors early in fall or later in coldframes or window boxes.

Harvesting And Curing

The seeds, leaves, flowering tops, and occasionally the roots of the different plants are used for flavoring purposes. Their flavor is due for the most part to a volatile or essential oil contained in small glands in the leaves, seeds, and fruits. The flavor is retained longer if the herbs are harvested at the right time and properly cured and stored. The young tender leaves can be gathered and used fresh at any time during the season, but for winter use they should be harvested when the plants begin to flower and should be dried rapidly in a well-ventilated darkened room. If the leaves are at all dusty or gritty, they should be washed in cold water and thoroughly drained before drying.

The tender-leaf herbs—basil, costmary, tarragon, lemon balm, and the mints—which have a high moisture content must be dried rapidly away from the light if they are to retain their green color. If dried too slowly, they will turn dark or mold. For this reason a well-ventilated darkened room, such as an attic or other dry airy room, furnishes ideal conditions for curing these herbs in a short time. The less succulent leaf herbs—sage, rosemary, thyme, and summer savory—which contain less moisture, can be partially dried in the sun without affecting their color, but too long exposure should be avoided.

The seed crops should be harvested when mature or when their color changes from green to brown or gray. A few plants of the annual varieties should be left undisturbed to flower and mature seed for planting each season. Seeds should be thoroughly dried before storing, to prevent loss of viability for planting and to prevent molding or loss of quality. After curing for several days in an airy room, a day or two in the sun before storing will insure safekeeping.

As soon as the herb leaves or seeds are dry they should be cleaned by separating them from stems and other foreign matter and packed in suitable containers to prevent loss of the essential oils that give to the herbs their delicate flavor. Glass, metal, or cardboard containers that can be closed tightly will preserve the odor and flavor. Glass jars make satisfactory containers, but they must be painted black or stored in a dark room to prevent bleaching of the green leaves by light.

Source Of Seeds And Plants

Seeds and planting stocks of the savory herbs can be obtained from a number of established herb gardens and seedsmen in various parts of the country. Some dealers make a specialty of handling rooted plants, while others handle both plants and seeds. Usually the seeds of the more common herbs sage, dill, fennel, parsley, celery, and chive—can be obtained from local seed houses, while the less common ones probably can be purchased only from those specializing in savory herbs.

Use Of Herbs In Cooking

The use of herbs in cooking is an art. Long experience has indicated that certain foods are given a more pleasing flavor by combining with them certain herbs or herb groupings, and although there are no set rules for those combinations the beginner needs some guidance. In using herbs effectively, the most important factors are interest, imagination, and constant experimentation on the part of the person who enjoys preparing food in a variety of flavors to make it more tasty and appetizing.

Some herbs blend harmoniously with almost any food; others with only a few. Many of the most interesting flavor effects are gained by combining a leading flavor with two or three others that blend with it almost imperceptibly. Under "Herbs for the beginner" (p. 2), the herbs are divided into three groups—(1) pungent herbs, (2) herbs strong enough for accent, and (3) herbs especially good in blends. One should depend on those in the first and second groups to supply leading flavors and on those in the third group and on the less pungent in the second group to complete the blends.

Important Rules To Remember

1. Expert cooks suggest the following rules for using herbs effectively:
2. Use with a light hand—the aromatic oils are strong, and too much of any flavor is objectionable.
3. Blend judiciously for different purposes. Have a leading flavor and combine two to four less pronounced flavors with it. Never emphasize more than one of the very strong herbs in a blend. Blends should be so subtle that only the expert can tell which herbs are used.
4. Blend or heat with butter, margarine, or other cooking fats as the best way to draw out and extend the flavor of the aromatic oils. Fresh (unsalted) "sweet" butter gives more satisfactory results than salted butter or margarine. Have salad oil tepid, not chilled, when using herbs in French salad dressing.

5. Cut or chop the leaves of fresh herbs very fine. For some purposes they should be ground in a mortar. The more of the cut surface exposed, the more completely the aromatic oil can be absorbed.
6. Keep in mind that dried herbs are three or four times stronger than fresh herbs.
7. The delicate aroma and flavor of savory herbs may easily be lost by extended cooking.
8. For soups and gravies, tie sprigs of fresh herbs in tiny bunches (bouquets) or place ground herbs in cheesecloth bags and add them about half an hour before the cooking is finished, removing as soon as they have served their purpose.

Herbs That Blend With Certain Foods

The following suggestions, which include some of the essential foods and the herbs or herb combinations that go well with them, are given as an aid in selecting dishes for herb accent. Of the many possible combinations of delicate and appetizing herb flavors and foods with which they blend, only a few are mentioned, because each person will wish to do his own experimenting after becoming familiar with the various herb flavors separately and with their more obvious combinations. Other suggestions and more detailed recipes for using herbs in cooking may be found in a number of books that may be bought or consulted in libraries. A list of such books can be obtained from herb societies, garden clubs, or herb gardens established in various parts of the country.

Herb Butter

Fats make good media for absorbing herb flavors for ready use. One of the best ways for beginners to learn to use the different herbs is to combine them with fats in the form of herb butters. Fresh unsalted butter is especially satisfactory, because it readily absorbs the delicate herb flavors. Salted butter, margarine, pork drippings, and rendered chicken fat can also be used.

Fresh herbs should be cut finely and blended with the butter. The proportions are approximately 1 well-packed level tablespoon of fresh green herbs or 1/2 teaspoon of dried herbs to 4 tablespoons (2 oz.) of butter. Dried herbs may be allowed to stand for a few minutes with a little lemon juice before mixing with the butter. Herb butter may be stored for several days in small covered jars in the refrigerator. The butter should contain a dash of lemon juice if it is to be used for making sandwiches or for spreading on broiled or fried meats or fish just before they are served. Herb butter also may be used with boiled, poached, or scrambled eggs. For a last-minute substitute place the butter in a glass or earthenware custard cup, add the fresh or dried herbs, salt and pepper to taste, set in boiling water, and let stand 10 to 15 minutes while the hot butter absorbs the flavors. Soft-boiled eggs may be broken into the hot custard cups over the melted flavored butter, or the butter may be poured over poached eggs on toast.

Good combinations for herb butter are made with parsley or chive, singly, together, or combined with one or more other herbs.

Herbs For Meats, Poultry, Fish, And Eggs

Beef.—After removal from the oven, roasts may be flavored by spreading sweet marjoram flavored butter or finely chopped fresh or powdered dry marjoram leaves over the surface. Steaks broiled or fried may be topped with butter flavored with dill, marjoram, thyme, or parsley and a little lemon juice, or the surface may be sprinkled with the finely chopped herbs immediately after removal from the fire. Stews or loaves may be made more appetizing by adding small quantities of one or more of the following: Thyme, sweet marjoram, summer savory, chervil, parsley, or celery.

Pork.—Chops may be rubbed with lemon juice, powdered sweet marjoram, and a few seeds of caraway before cooking, and topped with dill butter after cooking. Fresh ham rubbed with powdered sage before cooking and served with a pan of dressing flavored with poultry seasoning creates an illusion of turkey. Sausage and other ground or chopped meats are usually flavored with sage, either alone or in combination with other herbs.

Lamb.—Various combinations of marjoram, thyme, parsley, garlic, or onion may be used. Dill butter or chopped dill leaves with hot butter may be spread on lamb chops.

Veal.—Thyme or marjoram is generally used in combination with summer savory and chervil; also marjoram and basil with thin slices of veal dipped in flour, egg, and crumbs and cooked in deep fat.

Fowl.—Various combinations of poultry seasoning made of fresh or dried leaves of basil, lovage, marjoram, parsley, rosemary, summer savory, sage, and thyme may be used to add variety to the different dishes prepared from chicken, turkey, and other fowl.

Fish.—Broiled or fried fish may have pleasing flavors added by using dill butter or finely chopped dill, basil, or tarragon leaves. Shrimp may be simmered in butter with chopped basil leaves, and clam chowder may be served with a dash of powdered thyme.

Eggs.—The many egg dishes that are so commonly prepared may be agreeably varied in flavor by using one of the "fine herbs"—basil, marjoram, rosemary, thyme, or tarragon—for special accent, blended with chervil, chive, parsley, summer savory, celery, or a small quantity of another "fine herb" chopped or powdered and used as such or in the form of herb butters. Winter savory, parsley, onion juice, and celery tops give a robust flavor to winter omelets when other fresh herbs are not available.

Herbs For Beverages

Hot or cold tea may be flavored by adding sprigs of curly mint, apple mint, orange mint, spearmint, lemon balm, or lemon thyme. Refreshing drinks may be brewed from lemon balm, almost all mints, lemon thyme, or sage and served with a slice of lemon and sugar if desired. Tomato juice may be pleasingly flavored by adding chopped onion, celery or lovage, basil, and tarragon. After it has stood several hours strain and serve cold with lemon or lime.

Classification Of Herbs

Botanists classify the savory herbs under several families. The principal families are the Labiatae, or mint family; the Umbelliferae, or parsley family; the Compositae, or aster family; and the Liliaceae, or lily family. All are classified according to their flower structure and other botanical characteristics. The great majority fall into the first two families named. It will be of interest to the gardener to learn to recognize the herbs of the different families. This is easily done by observing certain definite characteristics common to all plants of the family, as described below.

Mint Family (Labiatae)

Plants of the mint family have square stems with opposite aromatic leaves. The flowers are arranged in clusters at the base of the uppermost leaves or in terminal spikes. The individual flowers have two lips, the upper ones two-lobed and the lower three-lobed. Each flower produces, when mature, four small seedlike structures. The foliage is dotted with small glands containing the volatile or essential oil that gives to the plant its aroma and flavor. Some of the herbs belonging to this family are mints, basil, thyme, marjoram, savory, balm, sage, and rosemary.

Parsley Family (Umbelliferae)

The herbs of the parsley family have small flowers formed in umbels, like dill (see fig. 4), at the tops of the hollow stems. The leaves are alternate and finely divided, and the fruit forms in two parts, which separate when mature into two dry seedlike sections. These sections, commonly called seeds, have five prominent and sometimes four smaller ribs or ridges running lengthwise. The so-called seeds contain an aromatic oil that makes them valuable as flavoring agents. Usually the leaves and other parts of the plants contain the aromatic flavor also, but in smaller quantity than the fruits. Some aromatic plants belonging to this family are anise, caraway, celery, coriander, chervil, dill, fennel, lovage, and parsley.

Aster Family (Compositae)

Plants of the large aster family are recognized by their flowers, which are borne in composite heads like the daisy and sunflower. The small individual flowers form on a common receptacle surrounded by leaflike bracts or scales. The flower head is generally made up of a central disk composed of many small flowers with very small petals or short tubular corollas. There is often an outer ring of ray flowers with long strap-shaped corollas (sometimes miscalled "petals"). Only a few of the savory herbs, including tarragon, the various wormwoods, and costmary, belong to this family.

Lily Family (Liliaceae)

The lily family is composed chiefly of herbs with bulbous or enlarged root systems and annual stems. It is made up of 13 tribes, or subfamilies, each with its particular distinguishing

characteristics. All plants of this family have regular symmetrical six-parted flowers. The fruit usually forms a three-celled berry or pod with few to many seeds. The leaves are generally slender, either flat or tubular, with veins running lengthwise. The savory herbs of this family belong to the allium, or onion, group. They are strong-scented and pungent, with long, slender strap-shaped or tubular leaves clasping the flower stalk, which rises from a bulb at its base. The flowers are borne in simple umbels, many of them forming bulblets. The most important herbs of this group with flavoring qualities are chive, leek, garlic, and onion.

Individual Species And Varieties And Suggested Uses

In the following pages the individual species and varieties of herbs are described; instructions are given for culture, harvesting, and curing; and appropriate uses are suggested.

Annuals

Anise

Anise (*Pimpinella anisum*) is an umbelliferous annual plant that is widely cultivated in Europe and to a less extent in China and Mexico. It grows to a height of about 2 feet, and the seeds, which are used for flavoring purposes, are borne in umbels like those of carrots and parsnips (fig. 2). Normally the supply of this seed has been imported.

Seeds should be planted early in spring in rows 2 to 3 feet apart and at the rate of a dozen to the foot. The surface of the soil should be made smooth and the seeds covered to a depth of half an inch. The stand should be thinned to three or four plants to the foot. Only light cultivation is needed for weed control. A row 6 to 8 feet long will produce enough seeds for family use.

The fruiting umbels should be harvested when the seeds turn brown, which takes place late in fall. The fresh leaves possess a flavor similar to that of the seeds and may be used as needed during the season.

As they are clipped from the plants the umbels should be thoroughly dried either in the shade or in the sun and the seeds separated, cleaned, and stored for later use.

Fresh leaves may be used in salads, especially apple; seeds in cookies and candies.

Basil

The common sweet basil (*Ocimum basilicum*), with its several types and varieties, is an annual aromatic plant, widely grown because of its pleasant spicy odor and taste. There are large and

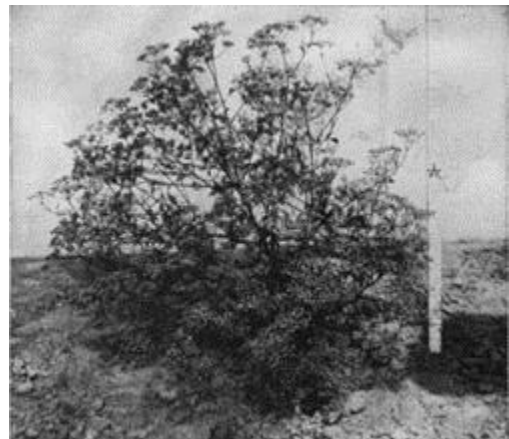


Figure 2. Anise in full bloom; leaves light green, flowers white.

dwarf types with green, purple, or variegated leaves, some of which are ornamental. Both the leaves and the essential oils distilled from the flowering plants are used as flavoring agents.

The seeds should be planted early in spring in rows 3 feet apart at the rate of 12 to 15 to the foot and covered to a depth of half an inch. Germination requires 5 to 7 days, and thinning the plants is not necessary. Growth is rapid, and no special care other than the usual cultivation is required.

When the plants begin to flower they should be cut 6 to 8 inches above the ground to provide herbs for drying (fig. 3). Several cuttings may be made during the season. The green tender leaves may be used fresh at any time. Only a few feet of row will be required to produce enough of the herbs for family use.

The herb can be tied in small bundles and hung in a well-ventilated dark room or spread thinly on a screen to dry. After thorough drying, the leaves and flowering tops may be stripped from the stems and packed in closed containers.

The leaves, fresh or dry, may be used to improve the flavor of tomato dishes, cucumbers, green salads, eggs, and shrimp.

Chervil

The chervil (*Anthriscus cerefolium*) is an annual umbelliferous plant native to southern and western Asia but sparingly naturalized in the eastern part of the United States. The plant attains a height of about 2 feet and resembles parsley in growth habit. The finely cut, lacy, almost fernlike leaves and delicate white flowers possess an odor and flavor very similar to that of tarragon. Tuberous-rooted varieties are grown and eaten as a vegetable, much like carrots.

The seeds should be planted early in spring in a partially shaded moist location in shallow drills 2 feet apart. To insure a stand, 12 to 15 seeds per foot should be planted and the seedlings thinned to 3 or 4 inches apart in the row. Cultivate the same as for carrots or parsley. The young seedlings are rather delicate and should be handled with care until well established. In a protected situation shattered seeds produce volunteer plants the second season.

After midsummer, or when sufficient growth has been made, the leaves may be harvested to be used fresh when needed. Later in the season the green tender leaves may be cut and dried for winter use.

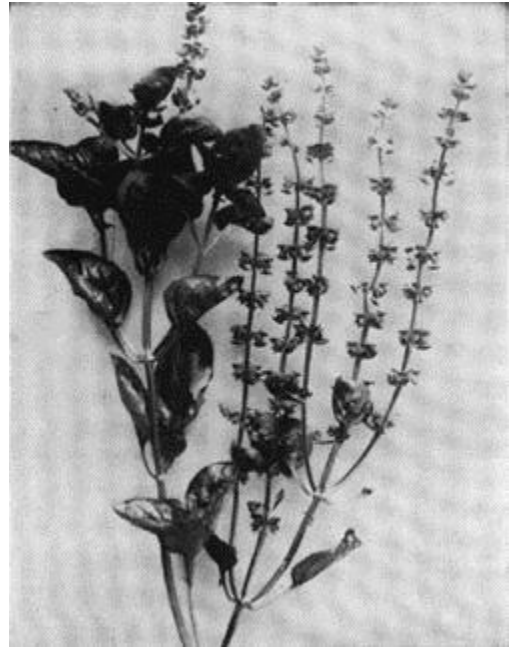


Figure 3. Sweet basil leaves and flower spike in late blooming stage; leaves green, purple or variegated, flowers white.

The later cuttings should be dried rapidly in the shade, and the clean dry leaves stored in a closed container.

The leaves, fresh or dry, give a delightful flavor to salads and salad dressings, omelets, soups, and stews. This is an important ingredient in what the French call "les fines herbes."

Coriander

Coriander (*Coriandrum sativum*), an umbelliferous annual plant native to southern European and Asia, is found in many other parts of the world. It has long been cultivated in European countries, where the dried fruit, commonly known as seed, is an important article of commerce. The supply of this seed, which is used extensively as a flavoring and scenting agent, has usually been imported.

The seeds should be planted either early in spring or late in fall in rows 3 feet apart at the rate of 12 to 15 to the foot and covered to a depth of about half an inch. In the northern sections of the country best results will be obtained from spring planting. The plants need not be thinned, and no special care is necessary other than regular cultivation for weed control.

The plants should be cut for seed when the fruits have turned brown and before much shattering has occurred. About 90 days from planting is required to mature the seed.

The pleasing flavor of the coriander fruit is not thoroughly developed until it is completely dry. The whole plant may be tied in bundles or spread on screens to dry. As soon as dry, the fruits should be separated by threshing and winnowing. The clean seed should be stored in bags or closed containers.

The seeds can be used in cookies and French dressing and in combination with other spices.

Cumin

Cumin (*Cuminum cyminum*) is a small annual plant of the parsley family, widely cultivated in the Mediterranean region of Europe and in India. Its aromatic seeds are extensively used in the United States for flavoring various foods.

A mild climate and a fairly long season are required for normal growth. Plant the seeds in a sunny location after the soil has become warm in spring. If the rows are 2 feet apart, with 16 to 20 seeds to the foot, no thinning will be necessary. Cultivate to control weeds.

Late in fall, when the umbels begin to turn brown, the plants should be cut and tied in small bundles or spread on a screen to dry. When dry the seeds may be separated by threshing and then cleaned and stored in paper bags or cartons.

The mature seeds are much used in certain kinds of breads, also with coriander seeds in sausage and cottage cheese. The ground seeds form an important ingredient in chili and curry powders.

Dill

Dill (*Anethum graveolens*) is an umbelliferous annual plant native to the Mediterranean countries and southern Russia and grows wild in various parts of Africa and Asia. It is cultivated in Germany, India, Rumania, and England and to some extent in northern sections of this country. The whole plant is aromatic. The young leaves and the fully developed green fruit are used for flavoring purposes.

The seeds should be planted in rows at the rate of 15 to 20 to the foot either late in fall or early in spring and thinned to 3 or 4 plants per foot. If dill is planted along the north side of the garden, the shading of smaller plants will be avoided. Germination takes place in 10 days to 2 weeks if seeds are sown in spring; fall-sown seeds do not germinate until early in spring. In good soil the plants will grow 3 to 4 feet in height, and only light cultivation is necessary to control weeds.

The fruiting umbels are ready to harvest for seasoning when the fruit is fully developed but not yet brown (fig. 4). The leaves are used only in the fresh state, but the fruiting tops may be used either fresh or dried. A few plants should be left to mature seed for planting.

The umbels may be dried on screens in the shade and stored in closed containers for winter use, but the leaves lose their pleasing flavor when dried.

The leaves freshly chopped may be used alone or in dill butter for broiled or fried meats and fish, in sandwiches, in fish sauces, and in creamed or fricasseed chicken. The fruiting umbels are used extensively for flavoring pickles.

Summer savory

Summer savory (*Satureja hortensis*), an annual plant belonging to the mint family, is native to southern Europe and generally cultivated in gardens in this country. It grows well under a wide range of soil and climatic conditions. The dried herb formerly came to this country from Austria.

It is grown easily from seeds sown early in spring in rows 3 feet apart. Drill the seeds to a depth of half an inch at the rate of 10 to 12 to the foot. The plants will form a solid row if spaced 3 to 4 inches apart in the row. Only a few feet of row will furnish enough of the herb for family use. In good soil plants grow 16 to 18 inches high and require little cultivation.



Figure 4. Dill fruiting umbel at the stage for use in pickles; leaves dark green, flowers yellow.

The tender leaves and stems may be used any time during the season, but for drying 6 to 8 inches of the top growth should be cut when blooming begins (fig. 5). Sometimes two or more crops can be harvested in one season.

The top growth as cut from the plants may be tied in small bunches or spread on screens or paper to dry. When thoroughly dry, the leaves should be stripped from the stems and stored in closed containers. Care should be taken to remove all small pieces of woody stems, as they interfere with the use of the leaves in flavoring foods.

The leaves, fresh or dry, may be added to water for cooking string beans or used in soups, stuffings, and sauces for veal and poultry, and also in egg dishes and salads. This herb is one of the most satisfactory mixers.

Biennials

Caraway

The seed or fruit of caraway (*Carum carvi*) is obtained from a biennial or occasionally from an annual umbelliferous plant native to Europe and Asia and cultivated in many parts of the world. It is grown in various parts of the United States but not in commercial quantity. Some northern sections of this country are well adapted to its culture.

The seeds of the biennial varieties can be sown either late in summer or early in spring, but those of the annual type only in spring. Sowings should be made in rows 2 feet apart at such rate as to produce six to eight plants to the foot. A dozen good viable seeds to the foot will be required. The seeds should be planted in light well-drained soil to a depth of about half an inch. Germination is slow as well as the growth of the plants in the early part of the season;—therefore, considerable care is necessary to keep down weeds. The biennials flower early in the second season after planting and mature their seeds by midsummer.

When the fruiting umbels have turned brown they should be cut from the plant before shattering begins. A few feet of row will produce enough seeds for the ordinary family.

The umbels should be dried thoroughly in the sun or shade, and the seeds separated and then cleaned and stored in a paper bag or closed container.

When boiling cabbage or potatoes in their jackets, add a few seeds to improve the flavor. They may be used in potato salad, cream or cottage cheese, cookies, or bread. For use with roast pork crush the seeds and mix with lemon juice, oil, and onions.

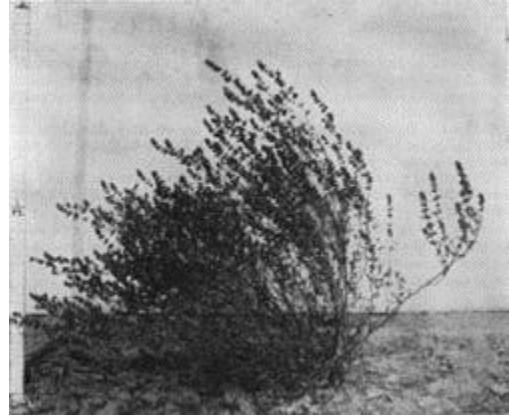


Figure 5. Summer savory in bloom; leaves dark green, flowers purple.

Celery

The celery plant (*Apium graveolens*) is a hardy biennial—occasionally annual—native to southern Europe and widely cultivated in various sections of this country for its fleshy leafstalk, which is used as a vegetable. The seeds, which are produced in the second season, are commonly used as a flavoring agent. Separate varieties have been developed for the production of seeds for condiment use and for vegetable celery. There are also root-producing varieties that are used for flavoring soups and stews. Considerable seed for vegetable celery is grown in parts of central California.

Celery requires a rich moist soil and considerable care, both in starting the young plants and in bringing them to maturity. Plants may be grown indoors or in a prepared seedbed and, when large enough, transplanted to rows 3 feet apart and spaced 4 to 6 inches apart in the row. Seeds may also be sown directly in the garden early in spring and the plants later thinned to 2 or 3 per foot. For seed purposes the plants must be well mulched with straw or litter to prevent winterkilling where there is severe freezing.

The first season the tender leaves and leafstalks may be used either fresh or dry for flavoring purposes. The seed umbels form on long flower stalks that develop during the second season and are harvested when mature (fig. 6). The root-producing varieties can be handled in the same manner as parsnips for winter use.

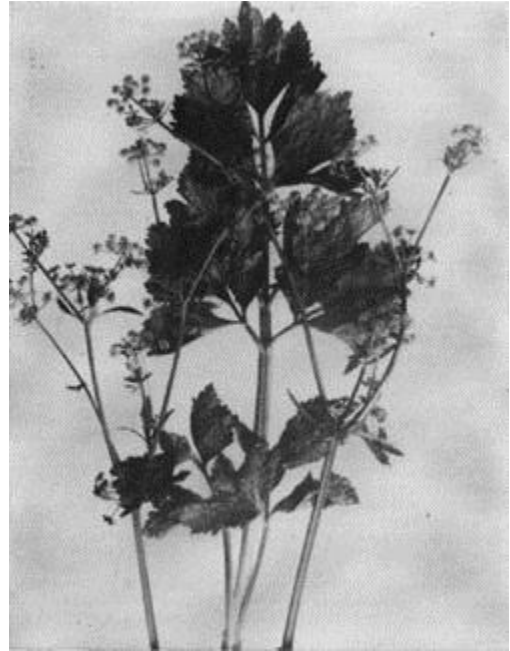


Figure 6. Celery flower umbels formed the second season; leaves light green, flowers white.

The fruiting umbels can be dried either in the shade or sun and the seeds separated by threshing and stored in closed containers. The young tender leaves when dried possess a flavor similar to that of the fresh leaves and stalks

The seeds can be used in pickling fish and in salads, salad dressings, and other dishes where celery flavor is desired. The leafstalks and roots give flavor as well as food value to soups and salads.

Parsley

The parsley plant (*Petroselinum crispum*) is a hardy biennial widely grown in gardens throughout the United States. Several varieties are used for garnishing and flavoring purposes, but the moss-curl is the one most commonly grown. The coarse-leaved and turnip-rooted varieties also furnish both leaves and roots for flavoring purposes.

The seeds can be sown in spring either in coldframes or window boxes or directly in the garden. Better results can be expected if the plants are grown indoors or under glass and later

transplanted to the garden, since they can be started earlier and become better established before hot weather begins. If seeds are sown directly in the garden, they should be sown early, in drills at the rate of 15 to 20 to the foot, and the plants thinned to 6 to 8 inches apart in the row. In southern sections of the country parsley can be grown as a winter crop. Half a dozen to a dozen plants grown with the perennials will supply the average family. Plants can be kept green under glass in a coldframe during the winter where freezing is not too severe. The plants bloom and produce seed the second season.

The green leaves can be harvested at any time during the season, as soon as sufficient growth has been made. The plants remain green in the garden until early in winter. The turnip-rooted varieties may be dug late in fall.

Parsley leaves are generally used in the fresh state, but both leaves and roots retain their flavor when dried. The leaves should be dried, and the roots can be kept as other vegetable root crops or sliced and dried.

The leaves may be used for flavor and for garnish in soups, vegetables, salads, meats, and poultry. The roots go well as a vegetable in soups.

Perennials

Chive

Chive (*Allium schoenoprasum*), a perennial plant belonging to the onion family, is a native of northern Europe and parts of North America. The small bulbous plants grow in clumps to a height of 8 to 10 inches, with very attractive violet-colored flowers (fig. 7).

The plant is generally propagated by dividing the clumps of bulbs, as seeds are rarely produced. The bulbs multiply so rapidly that it is necessary to take up the clumps either in fall or spring and subdivide them every 2 or 3 years to prevent overcrowding. The bulbs can be set in the same manner as onion sets and require about the same care. The young tender fresh leaves possess a delicate onion flavor. A few clumps may be potted late in fall and kept indoors or under glass in a coldframe during the winter, so the fresh leaves can be used when needed.

The tender leaves or the entire plant can be harvested at any time during the season and used fresh. The bulbs or dried leaves are seldom used, since only the fresh plant possesses the pleasant chive flavor. The chopped leaves have a more delicate flavor than onions and can be used with many foods and in many herb mixtures. They are

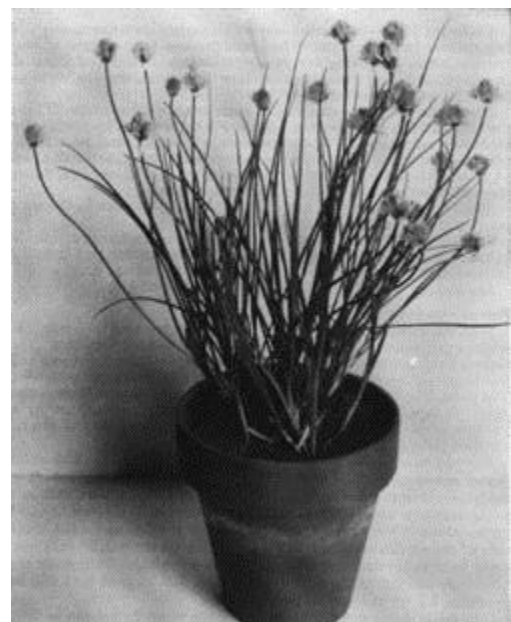


Figure 7. Chive in full bloom; leaves dark green, flowers lavender.

excellent in salads and omelets

Costmary

Costmary (*Chrysanthemum majus*) belongs to the aster family and is a native of western Asia. The plants produce large clumps of long narrow leaves possessing a very agreeable minty odor and bitterish flavor. Late in the season small yellow rayless flowers are borne on flower stalks 4 to 5 feet in height.

Plants can be started either from seeds or crown divisions. If they are started from seed the best results will be obtained by sowing the seeds in a coldframe or window box early in spring and later transplanting the young plants to a permanent location, either a foot apart in rows with the perennials in the garden or in a flower bed, where they can remain with little care for several seasons.

The leaves can be pulled at any time during the season in the same manner as rhubarb and used either fresh or dried.

For storing, the fresh leaves should be spread on a screen and dried in the dark as rapidly as possible. The dried leaves stripped from the leafstalks, or petioles, should be stored in a closed container.

Leaves may be used with meats, poultry, and tea.

Fennel common and sweet

Both the common fennel (*Foeniculum vulgare*) and the sweet (*F. vulgare* var. *dulce*) are commonly grown for flavoring purposes. The mature seeds are used commercially, and the young tender shoots and leaves of the sweet fennel are used in foods in European countries. The plant is an umbelliferous perennial native to southern Europe and Asia. It is cultivated extensively in parts of Europe and grown in gardens in various parts of this country. Both the seeds and the oil distilled from them are used for flavoring.

The common fennel grows to a height of 4 to 6 feet. The sweet fennel is a smaller plant with large stems flattened at the base. The seeds should be planted early in spring to a depth of half an inch and at the rate of a dozen seeds to the foot and the plants thinned to 4 to 6 inches apart in the row. A few feet of row planted along the north side of the garden so as not to shade smaller plants will be sufficient. Only light cultivation for weed control is necessary. Ordinarily the plants do not flower the first season, but a full crop of seed will be produced for several seasons thereafter.

The fresh leaves and tender shoots of the sweet fennel can be used during the first and following seasons. The seeds mature in the fall of the second season. When the fruiting umbels turn brown they are ready for harvest and should be cut promptly to prevent shattering (fig. 8).

The tops containing the seeds may be spread on fine screens or on a clean wooden floor to dry. When drying is completed they should be separated from the stems, cleaned, and stored in bags. The leaves lose most of their sweet aromatic flavor on drying.

The fresh leaves give flavor to fish, fish sauces, and salads. The young tender stems of sweet fennel, blanched, may be eaten raw like celery or added to salads, or the enlarged leaf base may be cut and cooked in water or meat stock as a vegetable. The seeds are commonly used in breads, pastries, candies, and drinks.

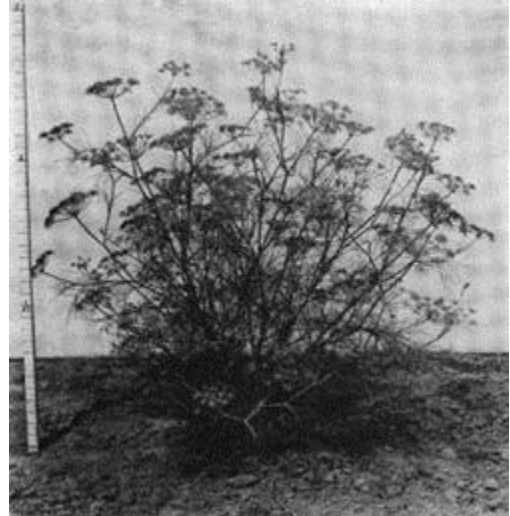


Figure 8. Sweet fennel at the fruiting stage, leaves dark green, flowers yellow.

Garlic

The Creole, Louisiana, or Mexican and the Italian varieties of garlic (*Allium sativum*) are cultivated on a commercial scale in a number of localities in this country, particularly in certain Southern States. The plants may be grown elsewhere, however, under the same conditions as onions. Domestic production does not equal the demand; hence considerable quantities are imported.

The cloves obtained by separating the bulbs are usually planted 4 to 6 inches apart in rows, arranged in well-drained beds. The rows should be spaced about 15 inches apart and the cloves pressed into the soil, base downward, to a depth of 1 to 2 inches. In the South, plantings are made in fall, but in more northern sections early spring planting is recommended. Cultivate and fertilize the same as for onions. The crop is harvested by pulling when the tops begin to turn yellow which takes place from May to July, depending on the locality and the time of planting. The bulbs should be thoroughly dried and cleaned by removing the outer loose parts of the sheath and trimming the roots close to the base. They may be stored loose like onions, tied in bunches, or plaited into the strings such as are sometimes seen on the market

Garlic is much used in flavoring meats, soups, salads, and various kinds of pickles.

Lemon balm

The well-known lemon-scented perennial balm (*Melissa officinalis*) belongs to the mint family. It is a native of southern Europe, but is found growing in nearly all temperate climates throughout the world. The plants grow in clumps to a height of about 2 feet, and the bright green crinkled leaves possess a fragrant lemonlike odor (fig. 9).

Seeds should be sown in a window box or coldframe in the same manner as early tomatoes and the plants transplanted to the garden when 2 to 3 inches high. They should be spaced 16 to 18 inches apart to provide room for the crowns to expand. Five or six plants set along a border or in a permanent flower bed will produce enough leaves after the first season for flavoring purposes. After three or four seasons, new plants can be started from seeds or cuttings or the old clumps subdivided to form new plants.

The first season the plants will not produce a large crop of leaves, but several inches of top growth can be cut at the blooming period. The second season the plants will form clumps with six to eight stems that can be cut back several inches two or three times during the season.

The fresh-cut tops should be spread on screens in a dark airy room and dried quickly. The stems can then be removed easily, and the clean leaves stored in closed containers

The leaves may be steeped for a delicate aromatic drink and served with added lemon and sugar, or a few leaves may be added to hot or cold tea to give it a delightful flavor. Leaves or tender sprigs are used in salads or fruit cups.



Figure 9. Lemon balm grown in the greenhouse; leaves bright green, flowers white to yellow.

Lovage

Lovage (*Levisticum officinale*), a perennial, is a tall aromatic herb native to southern Europe and cultivated extensively in Germany. It belongs to the parsley family and has a flavor and odor similar to that of celery, but stronger. The seeds, stems, leaves, and roots contain aromatic oils. The leaves may be used either fresh or dried, and the oil distilled from the roots is generally used for flavoring purposes.

The seeds may be sown indoors or in coldframes in the same manner as celery seed and the plants transplanted to the garden when 3 to 6 inches high, or after all danger of frost has passed (fig. 10). The plants should be set 8 to 10 inches apart in the row, or a few plants set along the garden fence where they will not interfere with smaller plants will produce enough leaves after the first season to supply the average family. Very little care is necessary once the plants become established. In the northern sections of the country a straw mulch applied late in fall will prevent winter injury

The tender leaves and stems can be harvested at any time during the season and used fresh. Several cuttings can be made in the second season as the leaves become large enough. The leaves and small stems should be dried in a well-ventilated room and stored in closed containers.

The leaves impart to soups, salads, and fish a flavor very similar to that of celery.

Marjoram sweet, pot, and wild

All three species of marjoram—the sweet (*Origanum marjorana*), the pot (*O. onites*), and the wild (*O. vulgare*)—are used in food flavoring, but sweet marjoram (fig. 11), because of its more delicate flavor, is most commonly found growing in gardens. It possesses a pleasant odor and a warm, aromatic, pleasing flavor. The principal commercial use of this herb is in poultry-seasoning mixtures. The three species are perennial, but sweet marjoram winterkills easily and must be grown as an annual in sections where freezing temperatures are frequent.



Figure 10. Lovage grown in rich moist soil; leaves pale green, flowers greenish yellow.

Plants can be started from seeds, cuttings, or crown divisions. The seeds are very small and must be planted in a coldframe or window box and covered with a thin layer of sand or fine soil. The plants should be transplanted to a permanent location when 2 to 3 inches high as early in spring as possible in the more northern sections, so that they will have time to flower and produce seeds before frost. The plants grow best in rich moist soil and usually make a growth of only about a foot during the first season. The sweet marjoram can be spaced at intervals of 6 to 8 inches, whereas the pot and wild marjorams should be set a foot or more apart in the row.

When the plants begin to bloom they can be cut back several inches, and a second or third cutting can be made before frost.

The leaves and flowering tops should be dried rapidly, the stems removed, and the clean dry leaves stored for winter use. The fresh leaves can be used as needed during the season.

The leaves of sweet marjoram are especially good with veal and liver, in herb butter, on cold roast-beef sandwiches, in egg dishes and meat, and in poultry stuffings and soups. They also add new flavor to potato salad, creamed potatoes, and string beans. The chopped leaves in melted butter may be added to cooked spinach before serving. Pot and wild marjoram leaves have a stronger flavor than sweet marjoram, but much the same uses (fig. 12). Their flavor is excellent for pot roasts.

Mints—spearmint and peppermint

There are several species and varieties of mints—curlyleaf mint, apple mint, and orange mint—but the common spearmint (*Mentha spicata*) and the peppermint (*M. piperita*) supply the herb and aromatic oils in general use as flavoring agents. Spearmint is the one used principally in flavoring iced tea and other beverages, while peppermint is more commonly used in medicines and confections.



Figure 11. Sweet marjoram, a 2-year-old plant; leaves grayish green, flowers purplish.



Figure 12. Pot marjoram grown in the greenhouse from a cutting; leaves light green, flowers purple-tinted.

The mints are always propagated from surface or underground runners, as plants produced from seed are not uniform. Early in spring the runners should be set in a moist but not soggy soil, either in beds or in rows. Unless confined by boards set several inches in the ground the underground runners will spread in a few seasons to cover several times the area originally set. No special care is necessary except to keep the bed free of weeds and grass.

As the plants grow rapidly, fresh green sprigs are available for use as needed from early in spring until late in fall. The leaves and flowering tops should be cut for drying when the plants begin to flower (fig. 13).

The upper part of the plant may be tied in small bundles and hung up, or the leaves and flowering tops spread on a screen and dried in the shade. As soon as the leaves and stems are brittle, any excess stems should be removed and the clean dry leaves and flowering tops packed in a closed container.

The leaves of the various species and varieties impart their pleasing flavors to lamb, peas, cream of pea soup, tea, and fruit drinks.

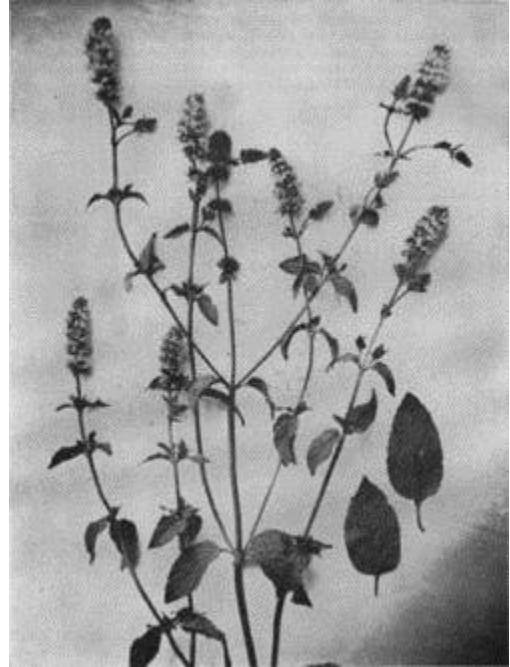


Figure 13. Peppermint at the flowering stage; leaves dark green, flowers violet.

Rosemary

Rosemary (*Rosmarinus officinalis*), a small perennial evergreen shrub belonging to the mint family, is native to the Mediterranean countries and is cultivated in gardens in Europe and the United States (fig. 14). The small narrow leaves have a very spicy odor that makes them valuable as a flavoring and scenting agent.

This herb rarely produces seed except under the most favorable conditions, so that it will be necessary to obtain plants or rooted cuttings to start. One or two plants will supply enough leaves for flavoring purposes, and additional plants can easily be obtained from cuttings. The plant will make a dense shrub 2 feet in diameter and about 3 feet in height by the end of the second season. Blooming generally begins when the plants are 2 years old or older. Some protection is necessary to prevent winter injury in localities where low temperatures are frequent.

The growth can be pruned back several inches once or twice each season after the plants become large enough. The herb from the prunings should be dried on a screen and the leaves stripped from the stems and stored in closed containers.

The fresh or dried leaves may be used sparingly for special accent with cream soups made of leafy greens, poultry, stews, and sauces. Blend chopped parsley and a little rosemary with sweet butter and spread under the skin of breasts and thighs of chickens for roasting.

Sage

Sage (*Salvia officinalis*), a shrubby perennial herb of the mint family, is native to southern European countries and is widely cultivated in gardens in most parts of the world. The plants grow to a height of about 2 feet and generally do not bloom until the second season. Sage does well in many parts of the United States, and in some sections it is being grown to a limited extent for the market.



Figure 14. Rosemary makes an attractive shrubby evergreen plant; leaves dark green, flowers pink.

Propagation may be from seeds, stem cuttings, or crown divisions. Seeds should be planted in a coldframe, window box, or prepared seedbed and the young plants transplanted when 2 or 3 inches high. Plants grown from seed are generally of mixed types; for this reason propagation by cuttings made from desirable plants is to be preferred. Cuttings may be made as described in the introductory section (p. 3), or plants may be obtained from seedsmen. A few plants set in a corner-of-the garden or in a perennial flower bed will furnish sufficient leaves for ordinary family use.

Six to eight inches of the top growth can be cut from the plant about twice during the season (fig. 15). The leaves should be harvested before the plant blooms.

The tops may be tied in small bundles or spread on screens and dried in a well-ventilated room away from direct sunlight. If the leaves are dusty or gritty, they should be washed in cold water before drying. When they are thoroughly dry remove the stems and pack the clean dry leaves in paper bags or some other closed container.

Use the leaves sparingly with onion for stuffing pork, ducks, or geese. The powdered leaves rubbed on the outside of fresh pork, ham, and loin gives a flavor resembling that of stuffed turkey. Crush the fresh leaves to blend with cottage or cream cheese. Steep the dried leaves for tea.

Tarragon

Tarragon (*Artemisia dracunculus*) is a vigorous perennial plant native to western Asia. This sweet anise-scented herb belongs to the aster family and is adaptable to various growing conditions. It is widely cultivated in southern Europe for its volatile oil, known commercially as estragon oil, and is used as a flavoring and scenting agent. It is found in many gardens in this country and is used extensively in flavoring foods and vinegars.



Figure 15. Sage the first season from a cutting; leaves grayish green, flowers purple.

The cultivated plants rarely form seed, but the plant is easily propagated by root or crown divisions. The root divisions should be set early in spring in rows 3 feet apart and at intervals of about 1 foot in the row. The large crown that is soon formed should be taken up and subdivided about every 3 or 4 years.

After the plants become established, the leaves and tender tops can be harvested throughout the growing season and used fresh or may be dried for winter (fig. 16). The leafy top growth can be cut back several times during the season. The leaves and tops should be dried rapidly away from light; otherwise they will turn dark. Store the dry leaves in sealed glass jars, to prevent loss of the essential oil.

The aromatic leaves form the leading flavor in green salads, salad dressings, salad vinegars, fish sauces, tartare sauce, and some egg dishes.

Thyme

The common English or French thyme (*Thymus vulgaris*) is a small shrublike perennial growing 1 to 1 1/2 feet in height, a native of south-central Europe and widely cultivated in France, Germany, and Spain for the essential oil that is used in medicine. The plant is commonly grown in gardens for the dried herb, which is used as a seasoning for foods. Several closely related species and varieties vary considerably in odor, flavor, and growth habits. Some are decumbent, or trailing; others are upright shrubby-type plants. The trailing types are used in rock gardens and along walks for ornamental effects.

Thyme is best propagated from seeds sown early indoors or under glass in an outdoor bed. When 2 to 3 inches high, the young plants are set at intervals of 12 to 18 inches in rows 3 feet apart. A few plants set in a permanent flower bed will be ornamental and also furnish herb enough for flavoring purposes (fig. 17). New plants should be started every 3 or 4 years, as the old plants become too woody to produce tender leaves for culinary use. New plants may be started by sowing seeds or by layering the old plants as described earlier. Thyme will do best in a well-drained sunny location.

When the plants are in bloom, 5 to 6 inches of the flowering tops should be cut with clippers or a sharp knife. Sometimes two or more crops can be harvested



Figure 16. Tarragon at the harvest stage; leaves dark green, flowers, if any, yellow. The leaves and tops may be cut several times during the season.



Figure 17. Thyme, a single plant in full bloom; leaves greenish gray, flowers purple

the same season. The flowering tops should be spread on a fine screen or newspaper in a well-ventilated room to dry. After thorough drying, the leaves and flowering tops should be stripped from the stems and stored in a closed container.

The leaves, usually blended with other herbs, may be used in meats, poultry stuffings, gravies, soups, egg dishes, cheese, and clam chowder.

Winter savory

Winter savory (*Satureja montana*), an herb of the mint family, is a perennial with an odor and flavor similar to that of the annual-type summer savory, but stronger. The plants grow to a height of 16 to 18 inches and are very branching and woody.

Seeds can be sown directly in the garden early in spring or in a coldframe or window box and the plants transplanted to the garden when 2 or 8 inches high. Several plants set 16 to 18 inches apart either in a row or in a bed with other perennials will be decorative and also will supply ample leaves for flavoring.

The tender tops and branches can be cut for use during the season in the same manner as summer savory or thyme. The leaves and flowering tops for winter use should be cut at the beginning of the flowering period. The herb can be hung in small bunches or spread on screens. When the leaves are dry remove them from the stems and store for use as needed.

The leaves give an important accent to chicken and turkey stuffing, sausage, and some egg dishes. Combined with parsley and onion juice, they give zest to French omelets in winter.

U. S. GOVERNMENT PRINTING OFFICE: 1946 —682185

For sale by the Superintendent of Documents, U. S. Government Printing Office Washington 25, D.C. - Price 10 cents

Last update Monday, March 2, 1998 by aw