

CHAPTER 16

The Herb Garden

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CHAPTER 16

The Herb Garden

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“Herb” can be pronounced in two ways: in England the “h” is pronounced; in America the “h” is silent.

Herbs can be traced back through England, to ancient Rome and Greece, and through the Bible to the Garden of Eden. As the use of herbs spread throughout the world, so did belief in their medicinal and magical powers. Many of today’s medicines are based on chemicals and oils from these plants. Depending on our special interests, we can think of herbs as medicines, tonics, nutrients, oils, essences, salves, amulets, love potions, incenses, soaps, shampoos, facials, seasonings, or flavorings for vinegars, salts, butter or teas. Nevertheless, primarily herbs are plants-----plants suited to home gardens. Because of their diversity, no group of plants is more difficult to define.

What is an Herb?

The term “herb” has many definitions:

- The American Herb Society’s official definition is: “Any plant that can be used for pleasure, fragrance or physic.”
- The *Reader’s Digest Illustrated Guide* defines herbs as: “Plants or plant parts that are used mostly for medicinal purposes or in cooking for their flavor and aroma.”
- John Wott, Extension Horticulturist from Purdue University, gives the following definition: “From a botanical viewpoint, an herb is a seed which does not produce a woody stem as does a tree. Today we simply define an herb as a plant which, because of its particular aromatic or healing property, is useful for scenting, flavoring, or medicinal purposes.”
- Betty E. M. Jacobs, in *Growing & Using Herbs Successfully* says: “The term Herb covers many different plants from several botanical families. No matter what people tell you, herbs are not just weeds. They need as much care in cultivation as any other garden plants.”

- *Gardening with Herbs* says “ An herb is any plant or plant part that has historically been used, or is used today, for culinary, medicinal, fragrant, or other household purposes.”
- *Webster’s Dictionary of the English Language* defines an herb “A plant valued for flavoring food, for medicinal purposes, or for its fragrance. It is an annual, biennial or perennial plant.”

Uses of Herbs

Herbs are grown for many different uses. Many can be used for a variety of purposes.

- **Culinary herbs** are used for food preparation, e.g., parsley, basil and rosemary..
- **Medicinal herbs** have been credited with curative powers, e.g. heatease, pennyroyal.
- **Aromatic herbs** are pleasantly scented. Their oils are used to produce perfumes and other scents. These types of herbs will retain their aroma for a long period after drying, e.g. marjoram, and lovage.

- **Ornamental herbs** are grown in rock gardens, in annual or perennial borders, as ground covers, and as hedges in formal gardens. They offer a variety of foliage color, including: blue-green, silver-green, bright green, and red. Some are used as cut flowers or used dried in bouquets for decoration, e.g. lavender, chamomile.
- **Dyeing herbs** have attractive blossoms, e.g. marigold, coreopsis, and mint.
- **Cosmetic herbs** are enjoyed in scented oils, perfumes, lotions, and soothing baths, e.g. Roman chamomile has been used as a hair rinse.
- **Companion planting.** Some herbs (e.g. parsley, mint, garlic) tend to repel certain insect pests, while others (e.g. dill, thyme) attract bees, which serve to pollinate other plants.

Selecting Herbs

When choosing which herbs to grow in the garden, you will find dozens or even hundreds of varieties available. Each gardener has his or her own individual preferences. The gardener must decide whether these herbs can be given the requirements and conditions they need to grow. When selecting a herb, consider the plant type; is it annual, biennial, or perennial?

Annual herbs are plants that complete their life cycle of development, from germination of seeds through flowering to death, in one season. If planted too soon in the season, particularly in cold areas, they can be killed off by frost.

Biennial herbs reach maturity and flower the second year after they are seeded. Generally, during the first year, vegetative growth is generated; flowering, fruiting, and death occurs in the second year. However, if a herb is grown for its leaves (e.g. parsley), the leaves are at their best during the first year. If the herb is grown for its flowers or seeds, such as caraway, then a second season of growth is needed.

Perennial herbs are plants that live from year to year and die down in cold winter weather. Once established they bloom every season. These plants can be herbaceous or woody shrubs.

Availability of Herbs

Herb seeds can be obtained locally and from catalogues. Herb transplants are available locally from herb farms, roadside stands, farmers' markets, and garden centers. Always buy healthy plants free of insect pests and diseases. Less common herb plants can be obtained from specialty mail order catalogues.

Propagation

Starting Plants:

Herbs may be propagated in many ways - by seeds, stem cuttings, root cuttings, layering, root division, and runners. Different herb varieties are more easily propagated by one method than by another. Perennial herbs are usually propagated by cuttings, layering or division.

Starting Seed Outdoors:

Annual and biennial herbs can be propagated by seed. In a warm climate, seeds can be sown directly in the garden: however, in New Hampshire, seed can be sown outdoors in the spring only after all danger of frost is past. Parsley, which is fairly cold-hardy, can be sown directly outdoors. Another option is to start seeds indoors in a greenhouse or a cold frame. Then seedlings can be transplanted outdoors after the danger of frost is past.

Start herb seeds just as you would vegetables. Prepare a smooth, level, weed-free seed bed; then sow the seeds. As a rule of thumb, seeds are sown at a depth of twice the diameter of the seed. However tiny seeds (e.g. parsley), should be sown on the surface and covered lightly with finely-sifted soil. Firm the soil down and moisten the bed gently with a fine spray of water to avoid washing the soil off the seeds. Do not allow the seed bed to dry out during germination. When seedlings are an inch or higher, or when the true leaves develop, the seedlings should be thinned. Some perennial seeds can also be sown late in the fall by following the above steps.

Starting Seeds Indoors:

Herbs like lavender, lemon thyme, tarragon, and most mints may be available as seeds from various retailers. They can be grown from seeds, but seldom are, because other methods are easier. The end of the chapter includes listings for individual herbs and the recommended method of propagation for each.

Seeds can be started indoors in any type of container as long as the container is clean, 2"-3" deep, and has drainage holes. Always start with a sterile seedling medium. Seedling medium can be purchased or homemade. Fill the container with the medium to half an inch below the top of the container. Then sow the seeds to the depth described above. Fennel is a good seed to start indoors as it needs extra growing time to produce a mature plant and seed head.

Whether you are starting seeds outdoors or indoors, you should always remember to mark the bed or the container with the name of the herb and the day of sowing. The container can be watered either from the bottom or gently from the top. Place the container in a plastic bag and in a warm, light location or under fluorescent lights. Keep the medium moist. When the seeds germinate remove the plastic bag, and keep the container in full sun or under fluorescent light.

The seedlings are ready to be transplanted into small individual containers when they have developed their true leaves. (True leaves are the first pair of leaves to appear after the seed leaves). Avoid disturbing the roots of the seedlings during the transplanting process. Like vegetables, herbs need to be acclimated to the outdoors before being moved permanently to the desired location in the garden.

Root Division:

The most common herbs propagated by root division are herbaceous perennials like chamomile, herbs with creeping roots like the mints, bergamot, woodruff, and allium plants like chives. The roots are divided during the plants' dormant season, either in spring or autumn, by carefully digging up the clumps and cutting them with a sharp knife. To prevent overcrowding in garden beds, perennial herbs such as lemon balm, burnet, chives, lovage, and mint need to be divided every 2-4 years.

Stem Cuttings:

The most common species propagated by stem cuttings are the following: lavender, rosemary (a non-hardy, woody perennial), lemon balm, santolina, oregano, bay, rue, winter savory, lemon verbena, hyssop, sage, the thymes, beebalm, catnip, savory, scented geraniums and foliage variants of sage (Russian sage).

Softwood cuttings are best taken in late spring or early summer. Many aromatic herbs such as lemon balm, beebalm and scented geranium are soft wood. Semi-hardwood cuttings are best taken in early autumn. Semi-hardwood herbs include lavender, rosemary, lemon verbena, bay and other shrubby herbs.

The best time to take stem cuttings is during the midday hours, when the herb is full of food. If possible water the plant two hours before taking the cuttings. Do not take cuttings from flowering stems.

Cuttings should always be taken from healthy established stock plants growing indoors or in the garden. The best cutting material is the new tip growth. Before making the cut, always make sure that the knife or the pruning shears are sharp. Make the cut just below a node (where the leaf joins the stem). A 3-5" long cutting with two or more nodes will do. Put the cutting into a sterile rooting medium (e.g. mixture of equal parts peat moss and sand). Firm the media around the stem, water thoroughly, put in a plastic bag, and keep at a temperature of 65-75° F out of direct sunlight. Rooting time may vary from 2-4 weeks depending on the species. The cuttings can be transplanted when they have formed a dense, fibrous root system.

Layering:

Lavender, santolina, thyme, rosemary, southernwood, hyssop, tarragon, calamints, pennyroyal, winter savory, wintergreen, lemon balm, and sage are perennial herbs commonly propagated by layering in home gardens.

Layering is a propagation method used for hard-to-root plants. The basic principle of layering is to produce roots on a stem that is still attached to the parent plant. Take a vigorous stem close to the ground and peg it down; then cover it with an inch of soil. Don't forget to water the layered plant. The new growing plant should be removed when new roots have formed. Layering can be done anytime during the growing season.

Growing in the Garden

Most herbs are not difficult to grow. Herbs do best in good, well-drained garden soil with a pH of 6.5-7.0. Herbs are tough and adaptable and will tolerate, but not thrive in poor soil.

There are many ways to landscape with herbs. They can be integrated into an overall design, or they can be featured in special period or theme gardens.

- For a better effect, plant groups of a given herb together. Masses of plants will stand out.
- Allow enough space for shapes to develop.
- Paths should be made of clean, solid materials. You may want to walk on them in slippers or in the rain.
- Access to herb beds should be easy. Make sure herbs are easy to reach so you can tend and harvest them without trouble.
- If possible plant perennials in one area, biennials and annuals in another, so as not to disturb the perennials' roots.
- Plant invasive herbs in areas where they will not smother other plants.

Invasive Herbs: Some herbs can soon become pests in your garden, spreading rapidly by roots or self-seeding. These include: mints, yarrow, tansy (roots), motherwort, and valerian (seeds). Some suggestions to contain them include the following:

- Plant these herbs by themselves, away from the garden.
- Grow them in containers.
- Plant the herb in tile, or plastic piping buried at least two feet in the ground.

Garden Designs

The types of herbs you choose to grow depend on what you hope to derive from your garden. If you are a cook, then a culinary plot is a must. Armed with training in the use of herbs and a heavy dose of caution, you might attempt a medicinal herb garden. For a person skilled at handicrafts, a dye or fragrance garden is a treat.

Period gardens are limited to the design, materials, techniques, and plants used during a given historical period.

Medieval gardens included a fountain with herbs used at that period such as prostrate thymes or creeping chamomile.

Colonial gardens used raised, board-sided beds having two sides of the garden identical. Colonists planted herbs randomly with vegetables and flowers. Colonial herbs include burnet, comfrey, costmary, dill, basil, lemon balm, parsley, nasturtium, mint, fennel, saffron, coriander, chamomile, angelica, caraway and lovage.

Victorian gardens were geometric, with plants growing in square or triangular beds.

Theme gardens are gardens in which the plants are unified by a common feature such as color or function; e.g. medicinal gardens, dye gardens, fragrance gardens, everlasting gardens, kitchen gardens, herbal tea gardens, and seasonal gardens.

Culinary Garden: This garden should be placed as close to the kitchen as possible. It should be located away from roads and driveways. Road dust and runoff contain lead, salt and dirt that you do not want on herbs you are eating. This garden can be filled with cooking herbs, edible flowers, or salad herbs.

Medicinal Garden: Many medicinal herbs grow best in lightly shaded, moist rich ground, so a partly shaded site will be great for a medicinal garden. Be careful when picking the plants for this garden. Many medicinal herbs are dangerous, and should be kept out of the reach of children. If poisonous herbs are planted, plant them separately and clearly mark them. Medicinal gardens can be grouped according to the parts of the body with which they are associated. They may be grouped according to botanical family.

A simple and beneficial herb garden can consist of five basic herbs: peppermint, lemon verbena, rosemary, sage and chamomile.

Companion Herbs

It has been reported that the secretions of certain plants can be beneficial to other plants, and may help prevent infestations of certain damaging insects, and gardeners have long observed this phenomenon. Herb gardening is one area where this type of companion planting is commonly used.

Companion herbs may protect your garden and eliminate the need for pesticides. Certain herbs may be particularly beneficial as companion plants. Some exude strong scents that repel insects, eliminating the need for pesticides while others attract insects, drawing them away from more precious plants.

Regardless of the benefits, this type of herb gardening is fun; however, UNHCE does not generally recommend companion planting as an effective means of pest control.

Commonly used companion herbs:

Basil benefits asparagus, tomatoes and peppers by repelling horn worms, white flies and aphids. Pots of basil on window sills and next to frequently opened doors are said to keep flies and mosquitoes away.

Mint repels white cabbage moths. It is effective dried and can be scattered on kitchen shelves to repel ants, and placed in pets' bedding to repel fleas.

Rosemary repels moths, mosquitoes, and carrot flies. It is said to be effective fresh or dried and can be used in closets to ward off clothes moths and silverfish.

Sage benefits beans by deterring fleas and beetles.

Thyme benefits eggplant and anything in the cabbage family, such as Brussels sprouts, broccoli and cauliflower. It is effective against moths, cabbage root flies, and white flies.

Parsley benefits carrots by warding off carrot flies.

Garlic protects roses by discouraging aphids. It is effective against onion flies, Japanese beetles, grubs, black flies and red spider mites. Separate a bulb into individual cloves and plant each clove about 2 inches deep, throughout the garden.

Dill benefits tomatoes, by attracting hornworms to itself. It may also repel cabbageworm when planted around broccoli and cabbage.

Artemisia (Southernwood) protects your garden, because rabbits eat it and leave your garden alone.

Container Gardening

Herbs can easily be grown in any type or shape of container, and can be used in window boxes, on a patio, or as part of the landscape. These containers can be made of clay, wood, or plastic; they could be jars or pots. There are advantages to growing herbs in containers. At the end of the season and before a frost, the herb container can be brought indoors to be enjoyed through the winter.

The planting container should be clean and should have holes or slits in the bottom to allow water to drain. Fill the container with potting soil and a little bonemeal. More than one type of herb can be planted in the same container if they have similar water, light, and soil type requirements. Herbs with tap roots should be planted in a deep container to allow the roots to grow. A 32-inch long container/planter that is ten inches deep and ten inches wide can hold up to ten herbs.

If you have a decorative pot with no drainage, you can take a smaller pot with drainage and place it on gravel inside the larger pot.

Soil in planting containers has a tendency to dry out more quickly than the soil in the ground. This means that frequent watering will be required and on very hot days the container may need to be watered twice a day. Never allow the soil in a container to dry out completely.

Indoor Gardens

Many herbs grow well indoors. They may not reach the fullness or height that they would outdoors, but they still provide beauty and abundant leaves. They are versatile and can be grown on a table next to a window, in hanging baskets, in a terrarium, and in pots or tubs. Your imagination is the limit.

Choose a window where the plants will get plenty of sun, ideally a south-facing window that gets light all day. If using artificial plant lights, give 12 to 16 hours of light each day. The herbs will tolerate warm, dry temperatures, but the ideal temperature range is 50 to 60°F. Provide plants with sufficient water so that the soil remains moist. All herbs consume water differently, so water as needed. If your house is dry, mist plants each day.

Herbs that typically do well indoors include bay leaf, basil, borage, burnet, catnip, chamomile, chives, lavender, marjoram, mint, oregano, parsley, rosemary, sage, savory, scented geranium, tansy, and tarragon.

Herb Maintenance

Herbs are self-reliant plants with few pressing needs. Perhaps the most pressing will be weeding.

Mulching

The herb garden benefits from mulching in the summer and winter, with a mulch such as peat moss, decomposed leaves, and straw. Mulching in the summer keeps the soil moist and helps to control weeds. Slugs can become a problem; however, as the mulch provides an ideal environment for them.

Winter mulching protects perennial plants by preventing the alternating thawing and freezing that pushes the herbs out of the ground, causing serious damage to the roots. A mulch can shield the roots from such extremes by keeping soil temperatures even. The mulch should be light and porous enough to allow air penetration, yet thick enough to shade the soil and provide adequate insulation.

Pruning and Clipping

When herbs are planted in a garden, their growth is exuberant and at times needs to be curtailed. Most herbs will benefit from clipping and pruning by developing fresh new growth and a more compact shape.

In spring you should prune shrubby herbs:

Southernwood and wormwood should be cut to about 7-9 inches from the ground.

Rosemary, lavender, and sage should be cut back more carefully; prune only last year's growth.

Thymes and winter savory may need some trimming to help encourage new growth.

Herb clippings should never be wasted. They can be used in many ways. If they are not too old they can be dried and used as flavorings. Or, they can also be used to scent the house. The woody clippings can be used as aromatic firewood to freshen and scent the air. Clippings can also be added to the compost pile.

Insects and Diseases

Like vegetables and flowers, seedlings and established herb plants can be susceptible to diseases like damping-off and insect pests such as aphids, cutworms, and whiteflies. Good gardening practices are essential or problems may result. For example, if plants are planted too close to each other in a garden with poorly drained soil, the herbs will be more susceptible to various rot, mildew and wilt diseases. It is critical for the herb gardener to use techniques such as crop rotation, mulching, cultivation, weeding, sanitation (ex. destroying infected plants), handpicking insects, using yellow sticky traps, and protecting seedlings with cardboard collars especially as few pesticides are registered for use on herbs.

Herb Pests

Snails/Slugs

Two common pests that damage herbs are slugs and snails, which will feed on just about any part of the herb plant. They can be handpicked off the plants, or one can use boards placed in the damp area near the plants as traps. Turn the boards over in the morning, checking for and removing the creatures. Another common home remedy is to trap slugs using a "beer garden pool". As a "bait", use beer 3/4 inch deep in a steep-sided dish tray to capture slugs.

Insects

Although herbs are generally insect-free and some aromatic herbs actually seem to repel insects, inevitably you will have to deal with insects. For example, aphids are known to attack chamomile and dill. If pests do become a problem, you can hand pick them from the plants, or check with your local Extension office for additional recommendations.

Diseases

There are some diseases common to herbs like mint rust (on mint), crown rot, and powdery mildew (on bee balm, tansy, roses and mallows). For accurate diagnosis and control information, contact your local Extension office.

Harvesting Fresh Herbs

The leaves of most culinary herbs have flavor during the growing season and can be harvested to use fresh anytime.

When to harvest:

Leaves with the greatest oil content should be harvested before the herb flowers. Such herbs include thyme, oregano, and the mints.

The most common culinary herbs that provide fresh leaves all season are basil, chives, mint, marjoram, rosemary, parsley, sage and thyme.

Annual herbs can be harvested when they are about 8 inches tall. Harvest healthy leaves. Pinching a few stems from the ends of large plants will encourage branching and will produce bushier plants. Leafy annual herbs can be cut down to about four inches high. This will allow the plant to regrow in that season, giving you at least another cut. In late fall, close to frost, cut the plant to the ground.

Perennial herbs can be harvested when they have 4 to 6 inches of growth. Do not cut more than 1/3 of the plant at a time. Herbaceous perennials (bee balm, mints, chives) can be harvested to the ground at the end of the season. Woody-stemmed plants (lavenders, winter savory) need their stalks for wintering. Trimming causes herbs to send out new growth, which lowers the plants' resistance and makes them susceptible to winter kill. **DO NOT CUT BACK** after August.

Additional Harvesting Guidelines:

- Pick before noon, while the plant is full of nutrients, but after the sun has dried the dew off the plants.
- If you must wash herbs before picking, hose them in the early hours and allow to dry.
- Cut with a knife or scissors to prevent pulling out the plant. Pulling too hard on the stems can cause damage to the roots or pull the whole plant right out of the soil.
- When cutting the herb, leave 4 inches of stem on leafy annuals and cut only 1/3 of the growth of leafy perennials. This permits further growth and further harvesting. The best leaves are the three to four sets from the top.

Preserving Herbs for Winter

Herbs are versatile as they can be used fresh or harvested and stored for off-season use.

In a warm climate, fresh herbs are available year round from the garden, patio, or balcony. Here in New Hampshire, as September approaches, the choice of fresh herbs becomes very limited. To supply yourself with fresh herbs during the long winter months, bring herbs growing in containers indoors two weeks before the first frost. Or, during the bountiful summer months, fresh herbs can be harvested and preserved for winter use.

Drying

Drying leaves, flowers or seed is the best-known way of preserving herbs.

Keep in mind that when storing herbs, you want to preserve not only the leaves or flowers but also the flavor, fragrance and aroma.

Leaves

Herbs that will be used in winter time should be harvested when the plants begin to flower. The best time to harvest leaves is on a dry morning just after the dew has dried from the leaves, but before the sun gets hot. Drying green leaves away from the sun will allow them to retain their green color. This is especially critical for those herbs with high moisture content like basil, tarragon, lemon balm and mint varieties. Wash to remove any dust or soil and then dry as soon as possible in a well-ventilated darkened room.

You may hang or air dry herbs inside brown paper bags to keep the dust off. Punch many holes into the bags to let air in and moisture out. (The exceptions here are sage, rosemary, and the thymes which contain less moisture in their leaves. This group can be dried in the sun without it affecting the color).

In a poorly ventilated room, herbs will dry slowly and leaves will turn dark and moldy. To prevent this, you may need to use a different method of drying. Spread leaves on a mesh rack and place the rack in an oven of 100-125 °F. Leave the door open and stand nearby. Leaves will be dry in a few minutes.

Dried leaves should be stored in sealed containers.

Seeds

Seed crops should be harvested when the color of the head/capsule that contains the seeds changes to brown or gray and the seeds are ready to drop off. (If you wait too long to harvest the mature seeds, you might lose them since they will start to fall.) Always put them into a paper bag with the seedhead down. Then hang and dry in a warm airy place. When the head is dry, shake seeds to bottom of the bag. Anise, caraway, coriander, and dill are examples of herbs that produce seeds used in cooking.

Roots

Roots of herbs used in cooking should be cut when the leaves of the plant start to turn brown at the end of the season. Dig or pull up the plant, shake off the excess dirt and cut off the top of the plant. Wash the roots, slice them into small pieces, and let them dry in a shady place.

Flowers

Flowers that are to be used in dry arrangements should be harvested with a knife, scissors or pruning shears. Cut bright, fresh flowers that have just bloomed. Hang in small bunches, tied with elastic, in a room with plenty of ventilation and no direct sunlight.

Freezing

Freezing is another way to preserve herbs. After following the same harvesting rules as in drying, wash stems and leaves. Then drain them well, put them in containers, and freeze.

Herbs that freeze well include: basil, chervil, chives, dill, fennel, mint, marjoram, parsley, and french tarragon.

Wintering

Tender perennials such as lemon verbena, bay, rosemary and scented geraniums must be taken into the house or a warmer location in cold weather. To avoid transplanting shock, grow them in pots year round, so they can be brought indoors easily in the fall.

Potted perennial herb plants can be saved and moved indoors a few days before frost. First move them to a shaded location (porch) so they start to adjust gradually to the change. Then, before bringing them indoors, examine the plants for any insect infestation. Once indoors, treat them as houseplants. Rosemary is an evergreen and will stay green all year. Lemon verbena, may drop all its leaves and become dormant; just keep watering it and in the spring it will send out new leaves.

Scented geraniums need a little more care. Before frost, take all the cuttings you want and root them. (See propagation chapter for details on rooting stem cuttings). In addition, the entire stock plant can be brought inside. Cut plants back or they will become very leggy and scraggly. Both rooted cuttings and established plants need a bright window and temperatures of 55 to 60° F during the winter months for best results.

Even hardy perennial herbs require some care for best results. Once the plants have been frost killed and the ground has frozen (around Thanksgiving), the perennial herb garden needs to be put to bed for the winter. Mulch plants heavily with straw, pine needles, or other available mulch material.

Basic Garden Herbs

Angelica (*Angelica archangelica*)

Parsley Family

Angelica resembles celery and has a similar fragrance.

Description: Angelica is a biennial that will grow to between 5-6 feet tall. The leaves are large (2-3 in. long), yellowish green, divided into 3 leaflets with toothed edges. Flowers are small and green.

Propagation: Angelica can be grown from seeds. However, seeds must be sown within a few weeks after ripening; otherwise, they lose their ability to germinate. Seeds allowed to ripen on the stems will self-sow readily. The seeds need light to germinate; therefore, when sowing, do not cover with soil. Division and propagation with offshoots do not work as well.

Culture: Angelica grows in a moist, rich soil that is slightly acid (pH 6.3), in partial shade. It blooms in June and July.

Care: Angelica grows the first year and flowers the second. However, it can grow for several years if flower stems are clipped off before they bloom.

Pest: Foliage may be damaged by leafminer. Aphids, spider mites, earwigs could also infest the plant.

Harvest and Storage: Harvest the stalks in the second season and the seeds as soon as they ripen. Harvest roots in the fall of the first year; stalks, stems and leaves in the second season.

Uses: Roots, leaves, and stalk have many uses. Stems are used in salads or candied. Leaves can be cooked in soups and stew. Oil derived from seeds is used in perfumes and to flavor liqueurs. Tea can be made from roots and leaves.

Anise (*Pimpinella anisum*)

Parsley Family

Anise is one of the oldest known herbs, mentioned in ancient Egyptian records. It was used also by the Romans to remove bad odors from the mouth when chewed in the morning. It was also used for its fragrance flavor; and medicinal properties. Because of the value of anise, it became one species used by the Romans to pay taxes. Dogs love the scent of this herb.

Description: Anise is an annual herb that grows 2 feet tall. Lower leaves are roundish, heart-shaped, and coarsely toothed, while upper leaves are feathery, and have three narrow lobes. Flowers are in compound umbels, small, yellowish white.

Propagation: Because plants have a long tap root they do not transplant well after establishment. Seeds should be sown in rows spaced 2-3 feet apart when soil temperature is about 70 °F. Thin the seedlings to a distance of 1½ feet.

Culture: Anise grows best in light, fertile, well-drained soil (pH 6.0). Since the growth is spindly, the plants should be planted in a sheltered location to prevent them from wind damage.

Harvest and storage: Seeds are harvested by cutting the whole seed heads after they have ripened. Don't wait until they have completely opened. Clip the whole seed head into a bag to prevent the seeds from scattering. Before storing the seeds in sealed containers, make sure that the seeds are dry.

Uses: Crushed seeds are used in desserts while whole seeds are used in tea and liqueur. Fresh leaves are used in salad.

Basil (*Ocimum basilicum*)

Mint Family

In Italy, basil has been and still is a sign of love.

Description: Basil is an annual aromatic herb with leafy stems that give a bushy appearance. The leaves are opposite, oval, and bright green with toothed or entire margins. Whorls of flowers are arranged in a raceme at the top of stems. Flowers are white, and ½ in. long. The height is between 1-2 ft.

Varieties: There are many species and varieties of basil, each having different uses.

Sweet basil (*O. basilicum*) grows to about 2 feet high, and has shiny green leaves that are 1-2 inches long. This species is the most popular one for cooking.

Bush basil (*O. basilicum minimum*) has a compact growth. Leaves are much smaller, and the edges curl inward toward the center vein.

Propagation: Basil grows readily from seeds sown directly in warm soil. It is also easily propagated by root cuttings.

Culture: All basil can be grown in full or partial sun, in a warm (50 °F), moderately rich soil (pH of 6.0). Seeds can be started indoors by planting them 1/8 inch deep and then transplanted outdoors after the last frost. Thin the seedlings.

Care: If the stem tips are pinched frequently, the plant will grow bushy and full. The plants should not be fertilized. To keep growth succulent, water plants regularly.

Pests: Japanese beetles may damage the foliage.

Harvest and Storage: When the plant starts to flower, cut it 6-8 inches above the ground for drying. More than one cutting can be made during the same season. After drying, the leaves and flowering tops may be stripped from the stems and stored. Pack leaves with salt, or chop the leaves and add a little olive oil before freezing them.

Borage (*Borago officinalis*)

Borage Family

Long ago, borage was thought to bring courage if eaten or drunk. Mary Campbell, in "*A Basket of Herbs*" says that according to old wives' tales, borage was sometimes smuggled into the drink of prospective husbands to give them the courage to propose marriage.

Description: Borage is a coarse-textured annual or biennial. The plant has branching stems that grow from a single tap root to 1-3 feet tall. The leaves are grey green (4-6 in. long) and, like the stems, are covered with bristly hairs. The plant produces star shaped, peacock-blue flowers that nod downward in leafy clusters at the tips of stems.

Propagation: Borage is propagated by seeds. It will reseed itself easily. However, it does not transplant well.

Culture: Borage likes full sun or filtered shade, slightly poor soil with a pH of 6.6, and only a moderate amount of water. If planted in the garden, give it enough room to grow. The plant can be more easily appreciated if it is planted in containers or in border plantings, so that it is seen close-up.

Harvest and Storage: The leaves can be picked when the plant is about 7 weeks old. The best long-term way to store borage is in flavored vinegar.

Uses: The leaves have a cucumber-like flavor and can be used fresh or cooked as a green or used in iced drinks. Flowers can be used in arrangements when cut just after they open. Flowers are candied for use as a garnish in fruit drinks and fruit cups. Borage is believed by herbalists to relieve depression, and to be a diuretic, demulcent, and emollient.

Remark: *Borage has harsh hairs which may cause a skin rash on some persons when handling plants. Some herbalists warn that borage may be toxic to the liver. These claims have not been verified in anyway. Tyler and James Duke, Ph. D., authors of CRC Handbook of Medicinal Herbs, say that borage is safe to eat.*

Burnet (*Sanguisorba minor*)Rose Family

Burnet was valued most for its herbal healing qualities. A tea made from the leaves is supposed to have been taken by American Revolutionary soldiers the night before entering battle so that, if wounded, they would not bleed to death.

Description: Burnet is a hardy perennial that can withstand -30 °F. The leaves grow alternately along the stems, close to the ground in a rosette about 8-12 in high and 1½ feet across. The leaves consist of rounded toothed leaflets. The flower stem grows upright from the middle of the rosettes to about 2 feet. Burnet is planted as a ground cover and it will grow well in containers. Burnet makes an attractive ground cover.

Propagation: Burnet grows easily from seeds, and the flowers, if allowed to mature, will self-sow. It can also be propagated by dividing the clumps.

Culture: Burnet grows in a well-drained soil, in full sun.

Harvest and Storage: Fresh leaves are used.

Uses: The leaves are used in salads, drinks and vinegar.

Caraway (*Carum carvi*)Parsley Family

Some seeds were found among stone-age food remnants, which mean this herb was used 6000 B.C.

Description: Caraway is a hardy biennial that can withstand -30°F. In the first year, caraway grows about 8-15 inches high and reaches 2 feet in the second year, when flat, umbrella-like clusters of greenish white flowers appear on the stems above the foliage and later in the season ripen into seeds. Some biennial varieties produce seeds in the first year of growth.

Propagation: Caraway is easily propagated by seeds. It can also be propagated by cuttings.

Culture: Seed in the fall or in spring in their permanent location. Caraway grows in well drained soil (pH 6.4), in full sun to light shade.

Harvest and Storage: The seeds are harvested in midsummer when they turn brown but before they fall to the ground. The leaves are harvested as needed.

Uses: Seeds (whole or ground), leaves, and roots are used in cooking.

Chives (*Allium schoenoprasum*)
Amaryllis Family

Chives have been used for 5000 years.

Description: Chives are hardy perennial hardy (-35°F) narrow bulbs. The grasslike leaves are dark green, and hollow with lavender heads that flower in mid to late summer.

Species: Garlic chives or Chinese chives (*A. tuberosum*) resemble the common chive. However, the leaves are flat instead of round, and are gray in color.

Propagation: Chives can be started from seeds however, starting a bed of chives from established plants from a nursery or from clumps divided in spring or fall is quicker. Chives will self-sow.

Culture: Plant bulbs 6 to 8 inches apart in a sunny, well-drained soil (pH 6.0).

Care: If you harvest the leaves frequently, the plant will need to be fertilized. Chives need to be divided every four years.

Harvest and Storage: Harvest fresh chives from the base. Leaves are used fresh or dried in cooking. The bulbs are edible and can be pickled like small onions. Since chives do not dry and store well, pot a few clumps in the fall and then keep the pot on a sunny windowsill for a winter supply.

Uses: Chives taste like sweet, mild onion and are used in salads. The flowers are used as garnish in salads or in bouquets. Garlic chives make excellent pesto!



Coriander or Cilantro (*Coriandrum sativum*)
Parsley Family

Coriander is a relative of parsley and looks somewhat like it, but is an annual.

Description: Coriander has one central flowering stem that grows upright from a tap root to a height of 12-18 inches. The leaves growing on the main stems are oval with toothed edges, but those on the side branches are more lacy and delicate, resembling anise or dill. Coriander is the name under which you will find the seeds of this plant sold. When sold fresh, the plant is called cilantro or Chinese parsley.

Propagation: Coriander germinates quickly from seeds in the garden. Because of the taproot system, transplanting it is difficult.

Culture: Coriander is an annual and the seeds should be sown in the spring. Coriander needs to grow in full sun and in a well-drained soil (pH 6.6) to allow the seeds to ripen. It will also grow in partial shade. Seedlings need to be thinned to about 4-6 inches between plants. It can also be grown in a container.

Harvest and Storage: Leaves are harvested when the plant reaches 4-6 inches. The small, immature leaves have the best flavor. Leaves freeze well; dried leaves store poorly. Sowing seeds every two weeks will allow you to harvest a continuous crop. Harvest the seeds when the flowers become brown, or their weight will bend the stems to the ground and the seeds will drop off (around August). Seeds are brownish yellow, spherical, and less than 1/4 in long. Unripe seeds have an unpleasant smell.

Uses: It is used mainly in the kitchen for flavoring. (Thai cuisine, Mexican, etc)

Lavender (*Lavendula officinalis*)
Mint Family

Its name derives from the Latin verb meaning “to wash.” The herb’s fragrance has been used for a long time in sachets to protect linens from moths.

- Description:** Lavender is a bushy perennial herb that grows up to 4 feet high. The leaves are gray and narrow, 2 inches long. The blooms are popular, and the plant start flowering in mid to late summer.
- Species:** There are many species available but few are hardy.
- Propagation:** Lavender is propagated easily by cutting side shoots from one year old growth.
- Culture:** Lavender grows in full sun, in a light, well-drained soil (pH 7.1).
- Care:** During the first year clip the plant to inhibit bloom, thus encouraging branching of lateral shoots. Keep cutting the spent flowers to allow the plant to bloom. Mulching the plant for winter protection is essential, especially where temperatures are low.
- Pests:** This herb can be attacked by fungal diseases and caterpillars.
- Harvest and Storage:** Flowers should be harvested as soon as they open and when they are full. For drying, hang them in bunches. Well-dried flowers can retain their aroma for a long period.
- Uses:** Lavender leaves and flowers are used in potpourris and sachets, as an ornamental in the garden, in craft, and in the cosmetic industry.

Lovage (*Levisticum officinale*)
Parsley Family

Lovage has been used since the Middle Ages.

- Description:** Lovage is a hardy perennial herb. The leaves are a glossy, dark green. When bruised, the leave gives off a sweet celery like fragrance. The plant can grow up to 5 feet high.
- Propagation:** Lovage is propagated by seeds (self-sows easily) or division.
- Culture:** Lovage will grow in full sun to partial shade in well-drained soil (pH 6.5). Set the plants 2 feet apart.
- Care:** To encourage bushy growth, the flowers should be clipped as they appear. Do not forget to water the plant during dry days.
- Pests:** Lovage leaves are susceptible to leaf miners, while ripe fruits can be infested with aphids.
- Harvest and Storage:** Roots and stems can be harvested as needed two years after the plant is established. Leaves can be frozen or dried.
- Uses:** The flavor is stronger than celery. Leaves are used in salad and soup and other cooked food. Seeds are used to flavor meat and soups. Stems are eaten as celery sticks. The hollow stem makes an interesting straw to sip a glass of tomato juice.

Mint (*Mentha species*)

Mint Family

Mint has been grown as a cultivated plant perhaps longer than any other European herb. Mint is a symbol of hospitality.

Description: These plants have square stems and opposite leaves that are aromatic when crushed. Most species are invasive perennials. They send up new plants from their spreading roots. To prevent the root from spreading into other plants, set up 10 inch deep barriers into the soil. Some species are hardy to -20 F. Flowers are tiny, purple, pink, or white, in whorls on terminal spikes.

Varieties: There are at least 12 different mint varieties available. Peppermint, spearmint, and Japanese mint are the species most widely cultivated.

Peppermint (*Mentha piperita*) has purplish stems. It is the source of peppermint flavor.

Spearmint (*Mentha spicata*) has sharply pointed leaves. The flavor is milder than peppermint.

Bergamot, or orange mint, has dark green, broad leaves, rounded with little yellow dots and touched with purple. It has a citrus scent and flavor.

Apple mint leaves are round, with a slight apple scent.

Propagation: Mint spreads rapidly by underground stems and runners. They can be propagated in the fall or spring by cuttings, division or layering. Cuttings root easily in a moist potting soil, or even in water. Division can be done in the fall.

Culture: Mints grow in partial shade, in a rich, moist, well-drained soil with a pH of 6.5. Mints also grow well in containers indoors and outdoors.

Care: Frequent cutting will encourage stems to branch out and make healthier and prettier plants. Keeping the flowers pinched back will also encourage bushy growth. In our severe winter, mints need to be protected with a mulch material such as straw or pine needles. After several years, when the plants get woody, dig out the old plants allowing the younger ones to take over. When grown in containers, they need to be divided and repotted annually.

Pests: Mint is susceptible to verticillium wilt, rust and anthracnose. It can be infested with spider mites, loopers, mint flea beetles, mint root borers, cutworms, and aphids.

Harvest and Storage: Dry or freeze the leaves as plants start to flower.

Uses: Mint can be used fresh or dried in salads, and drinks. Commercially it is also used in chewing gum, mouthwashes, sweets and medicine. Spearmint and peppermint are two of the most common flavoring species. Mint is also used in potpourris or in the landscape where when pinched, it will give off a pleasant smell. Some varieties are also used as decorative plants such as the variegated apple mint variety.



Parsley (*Petroselinum crispum*)

Parsley Family

The Romans and Greeks are said to have used parsley at banquets to absorb the fumes of the wine and thus to prevent drunkenness.

Description: Leaves are divided pinnately into feather-like sections; they lie flat like celery leaves, or curl into a small, frilly leaflet, depending on the variety. The flowers are tiny, greenish yellow.

Varieties: There are three varieties of this bright green biennial: flat leaf or plain-leafed (Italian), curly leaf (French), and parsnip rooted (Hamburg).

Propagation: Parsley is propagated by seeds. Before planting, soak the seeds in warm water overnight to hasten sprouting. Germination can be a lengthy process as well as sporadic.

Culture: Seeds can be sown in the spring when soil temperature reaches 50°F. Broadcast the seeds shallowly in well-prepared soil. Parsley is difficult to transplant. It grows in full sun to partial shade, in a moderately rich, moist, and well-drained soil with pH of 6.0. Thin the seedlings 6-8 inches apart. It will also do well in pots and window boxes. Small plants from the garden can be potted up and brought indoors for the winter. Although biennial, parsley is treated like an annual. Will grow between 6-12 inches in height.

Harvest and Storage: Through the season, harvest the leaves before the plant flowers. Older leaves may be cut a few at a time: this will encourage more growth from the center. Harvest by cutting from the bottom rather than by snipping off only the top.

Uses: Parsley can be used fresh, frozen or dried in many different foods. However, retaining the flavor in dried parsley is not always possible.

Pests: Parsley may be attacked by carrot weevils, parsley worms, or nematodes.

Nutritional value: Parsley is a rich source of minerals and vitamin C.

Thyme (*Thymus species*)

Mint Family

Thyme has historically been associated with happiness and courage.

Description: Thyme is a semi-woody, many-branched, low-growing shrub. It grows between 6-12 inches high and can spread to 1½ feet.

Culture: Thyme is a hardy perennial that grows in full sun in a light well-drained soil (pH 6.3).

Varieties: There are many different species and varieties of thyme. Common thyme (*T. vulgaris*) is used for seasoning. Lemon thyme and oregano thyme are excellent for culinary use.

Propagation: Thyme is easily propagated by stem cuttings, division or layering.

Care: Clip back the growing tips to restrain the plant. Established plant should be divided every 4-5 years.

Uses: Thyme is used fresh or dried in cooking. Dried flowers are also used to preserve linen from insects. It is used in the cosmetic industry.

Harvest and Storage: Leaves can be picked as needed.

Pests: Thyme is susceptible to fungal diseases and root rot. It can be infested with spider mites.



Public Herb Gardens

There are several herb gardens in the northeast that are open to the public. If you would like to visit any of them, call first to find out their hours and obtain directions. Their telephone numbers should be available through directory assistance.

Connecticut

Capriland's Herb Farm, 534 Silver Street,
Coventry

Henry Whitfield House, Old Whitfield Street,
Guilford

Maine

Merry Gardens, Mechanic Street, Camden

United Society of Shakers, Route 26, Poland
Spring

Massachusetts

The Herb Garden, Hancock Shaker Village,
Pittsfield

Old Sturbridge Village Road, Sturbridge

New Hampshire

Canterbury Shaker Village, Canterbury

Urban Forestry Center, Portsmouth

Strawbery Banke, Portsmouth

New Jersey

Duke Gardens Foundation, Route 206 South,
Somerville

Well-Sweep Herb Farm, 317 Mt. Bethel Road,
Port Murray

William Trent House, 539 South Warren Street,
Trenton

New York

Biblical Garden, Cathedral Church of St. John the
Divine, New York City

Garden of Fragrance, Rochester Museum and
Science Center, 657 East Avenue, Rochester

Medieval Herb Garden, The Cloisters, Fort Tyron
Park, New York City

Robinson York State Herb Garden, Forest Home
School, Cornell University, Ithaca

Pennsylvania

Fragrant Garden, John J. Tyler Arboretum, 515
Painter Road, Lima

Drug Plant and Herb Garden, Morris Arboretum,
9414 Meadowbrook Avenue, Chestnut Hill

Old Economy Village, 14th and Church,
Ambridge

Rhode Island

Garden of Dye and Textile Plants, Old Slater
Museum, Pawtucket

Vermont

Talbots' Herb and Perennial Farm, RR1 Box 197,
Hartland 05048

Equinox Valley Nursery, Historic Route 7A, PO
Box 206, Manchester 05254

Country Herbs and Flowers, 57 Pearl Street,
Brandon 05733

Washington, D.C.

The National Herb Garden, U.S. National Arbore-
tum, 3501 New York Avenue, N.E.

Magazines/Newsletters

Herb Companion, The Linda Ligon, 201 E. Fourth
St., Loveland, CO 80537; 303-669-7672; 800-272-
2193. Bimonthly, full-color, consumer-oriented
herb magazine. Wholesale orders welcome.

***Herb Gatherings "The Newsletter for the
Thymes"*** Carla Nelson, Editor/Publisher, 10949
East 200 South, Lafayette, IN 47905-9453.
Bimonthly herb newsletter. A delightful compen-
dium of herbal information and related interests.
Carefully researched, beautifully designed and
illustrated.

Herb Quarterly, The Linda Sparrowe, Editor-in-
Chief, James Keough, Editor & Publisher, PO Box
689, San Anselmo, CA 94979; 415-455-9540; 800-
371-4372; FAX: 415-455-9541. The Herb Quarterly
offers in-depth articles on medicinal herbs,
culinary delights, garden designs, and much
more. Now also offers a line of herbal clothing
and accessories featuring our famous herb lady.

Herbal Connection, The Maureen Rogers, PO Box 245, Silver Spring, PA 17575-0245; 717-393-3295; FAX: 717-393-9261. The 40 page bimonthly trade journal of The Herb Growing and Marketing Network part of the network package for an annual fee. Separate subscription are available.

Herbal Gazette, The Justin Spain, PO Box 10738, Burke, VA 22009-0738 (bimonthly). It is the Gazette's goal to provide herbal enthusiasts, both men and women, with a forum to express their thoughts and ideas in a straight forward and honest manner in an otherwise hectic, stressful, and complicated world.

HerbalSage Beckie, 10900 U.S. 40 West, Milton, IN 47357; 317- 478-3619 (phone & fax). A light hearted monthly herbal news letter. For a complimentary E-mail version send request to becki@infocom.com

Herbal Voices Joyce Pierdinock, 3936 Mt. Bliss Rd., East Jordan, MI 49727; 616-536-2877. A network of amateur and professional herbalists helping each other learn the medicinal, culinary, wildcrafting and organic growing arts of herbs. Members write in their experiences, receive support, feedback, and seek assistance. Quarterly publication.

HerbanLifestyles Christine Utterback, 84MB Carpenter Rd, New Hartford, CT 06057-3003; 203-489-0567 (phone & FAX). Subtitled "An American Woman's Scrapbook of Herbal Living", this well designed, highly readable newsletter contains a wide variety of herb-related news, articles and columns published on recycled paper to an international audience. Money-back guarantee.

Nature'sField Steven H. Horne, PO Box 425, Springville, UT 84663; 801-465-4254. Nature's Field offers a bi;monthly newsletter on herbs & natural healing, herbal books & tapes, computer herbal database software, information on herbs for children and families and other educational materials

Village Healer Risa Mornis, HCR 71 Box 4A, Reading, VT 05062; 802-484-9283; **E-mail:** risa@sover.net. Regional herbal/alternative health newsletter for Vermont, New Hampshire, and Massachusetts. Covers all types of herbal medicine—western, Chinese, folk, etc. Offers articles on specific health problems as well as general info on herbs. Recipes and formulas, book reviews and a regional calendar of events are also included. It is published 3 times a year and has a circulation of 2500.

Potpourri from Herbal Acres Phyllis Shaudys, Box 428-GP, Washington Crossing, PA 18977; 215-493-4259. Herbal networking newsletter with emphasis on the decorative use of herbs

Associations

New Hampshire Herb Society. P.O.Box 142, Warner, NH 03278.

The Herb Society of America. 9019 Kirtland-Chardon Road, Mentor, OH 44060

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- *Gardening with Herbs.* Information Bulletin 123. Harriet B. Flannery & Robert G. Mower. New York Cooperative Extension.
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