



# FactSheet

Extension

## Ohio State University Extension Factsheet

### Horticulture and Crop Science

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## Growing, Harvesting, and Using Culinary Herbs in the Home Garden

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### What Are Herbs?

Herbs are various kinds of herbaceous plants whose fresh or dried parts are used to season foods, provide fragrances, supply natural dyes, or make industrial or pharmaceutical products. Culinary herbs are ones which fresh or dried leaves are used in cooking. Some of the common culinary herbs are basil, French tarragon, rosemary, and thyme.

Culinary herbs are different from spices. Generally, culinary herbs are fresh or dried leaves while spices are seeds, roots, fruits, flowers, and bark. Culinary herbs usually have a mild flavor while spices tend to have a stronger, pungent flavor. However, the terms herb and spice are artificial categories. Several common spices are cinnamon sticks, aniseeds, and ginger roots. This fact sheet discusses primarily the common culinary herbs for home gardens and landscapes (Figure 1).



Figure 1. Herbs planted in raised beds in a formal herb garden.

### Which Culinary Herbs Are Easy to Grow in My Garden or Landscape?

The beginning herb gardener might want to start by growing herbs such as basil, chive, dill, oregano, parsley, sage, and thyme. These herbs can be grouped in "classic" herb gardens, and can be incorporated into flower beds, or vegetable gardens. You may add other herbs to your garden or landscape once you have mastered the easy ones.

## Where Should I Plant My Herbs?

Most herbs will grow well with the same sunlight, fertility, soil, growing conditions, and cultural techniques required by vegetables grown in Ohio. Gardeners should pay special attention to drainage and moisture requirements of certain herbs, since many are very sensitive to soil moisture conditions. Sage, rosemary, and thyme require a well-drained, slightly moist soil, whereas parsley, chervil, and mint grow best on soils which retain moisture. Raised beds may provide the necessary moisture and drainage requirements for herbs that require good soil drainage.

It is beyond the scope of this fact sheet to discuss all of the culinary herbs. Following is a more detailed description of popular herbs that can be easily grown in Ohio.

### Basil

Basil, French basil, or sweet basil (*Ocimum basilicum*) is a popular, tender, annual herb. It is native to India and Asia. Basil is grown for its aromatic leaves which are used fresh or dried as a flavoring. Fresh basil leaves are used in tomato sauces and pesto sauces. Basil is also good with veal, lamb, fish, poultry, white beans, pasta, rice, tomatoes, cheese, and eggs. It can also be used in vinegar and tea.

Basil can be direct-seeded or transplanted to the garden in late spring, after all danger of frost is past. Basil seeds normally germinate in 8-14 days. Basil requires full sun and prefers moist and well-drained soil with a pH of 6.0. Typical spacing for basil is 12 inches between plants, and 24 to 36 inches between rows.

Basil grown for dried leaves or essential oil is cut just prior to the appearance of flowers. The foliage should be cut at least four to six leaves above the ground to allow for regrowth and a subsequent crop (Figure 2). Information on insects and diseases of basil is limited. Japanese beetle, Fusarium, and powdery mildew have been reported to attack basil. Refer to OSU Extension Fact Sheet HYG-1644-94 for additional information on basil.



Figure 2. Harvesting basil

### Chives

Chives, *Allium schoenoprasum*, is a perennial, native to the Orient. It was first used by Chinese and then ancient Greeks. Fresh leaves are excellent for making herbal vinegars and butter, while the blooms can also be used in herbal vinegars. It is also used in salads, soup, and cheese. Chives can be used to add a mild onion flavor to fish, salads, steamed vegetables, soups, and omelettes. For successful germination, chive seeds require darkness, constant moisture, and a temperature of 60F to 70F for best results. Sow seeds 1/2 inch deep in pots or flats; germination will occur in 2-3 weeks. Transplant seedlings to the garden when they are 4 weeks old. Chives reach a height of 18 inches, and a width of 1-2 inches the first year from seed, and spread to 10-14 inches in subsequent years. Chives requires full sun, and well-drained soil with a soil pH of 6.0. Chives have beautiful purple blossoms. Chive will reseed prolifically if allowed to go to seed. To harvest chives, cut leaves 2 inches above the ground. No serious pests or diseases are reported, although chives can get downy mildew and rust.

### Dill

Dill, *Anethum graveolens*, is native to the Mediterranean area and southern Russia. Dill is a hardy annual, and sometimes is grown as a biennial. Dill is commonly used as a seasoning for soups, fish, and pickles. Its aromatic leaves, seeds, flowers, and stems can be used to flavor cabbage, vinegars, butter, apple pie, butter, cakes, and bread. Dill should be direct-seeded in spring, at a 10-inch spacing. Since dill has long tap roots, it should not be transplanted. Fresh leaves should be harvested before flowering begins. Harvest seeds as soon as seed heads are brown and dry. Dill is a great plant in butterfly gardens since butterfly larvae feed on dill. Dill does not have any serious pest or disease problems. However, phoma blight, rusty root, and stem rot have been reported.

### French Tarragon

French tarragon, *Artemisia dracunculoides*, originates from southern Europe. Do not confuse it with Russian tarragon, *Artemisia dracunculoides*. Russian tarragon is much coarser, has paler leaves, and a more bitter taste. It is used to flavor vinegar, herbal butter, shellfish, pork, beef, poultry,

many vegetables, and rice. Fresh leaves can also be used in salads, tartar sauce, and French dressing. French tarragon is a woody perennial that will grow 2 feet tall. It produces few seeds, and must be propagated by stem cuttings or division. Plant in full sun, and in rich, well-drained soil with a pH of 6.9. Divide the plants every three to four years. Two harvests can generally be made each year, the first being six to eight weeks after planting. Harvest until leaves turn yellow in the fall. French tarragon is prone to root rot in heavy and wet soils.

## Mints

Mints, *Mentha* spp., are a group of herbs that are mostly native to Europe and Asia. Some are indigenous to South America, America, and Australia. European and Asian mints are naturalized throughout North America from southern Canada to Mexico. With the possible exception of Corsican mint, mints are such rampant growers that they will quickly overwhelm other plants. Invasive mints should be planted in sunken clay tiles to prevent them from spreading (Figure 3).



Figure 3. Mints planted in a sunken clay tile to prevent from spreading.

Japanese mint (*M. arvensis* var. *Piperescens*), peppermint (*M. xpipita*), and spearmint (*M. spicata*) are the species mostly cultivated. All mints can be propagated by cuttings or seeds except peppermint, since it is a sterile F1 hybrid of *M. aquatica* and *M. spicata*. Peppermint does not produce seeds and can only be propagated by cuttings. Mints can be planted in full sun or partial shade, and require rich, well-drained soil with a soil pH of 6.5. Mint can be harvested almost as soon as it comes up in the spring. Young, tender leaves and stems are the best. Mint is susceptible to verticillium wilt, mint rust, and mint anthracnose. The pests that could bother mint include spider mites, loopers, mint flea beetles, mint root borers, cutworms, root weevils, and aphids.

## Oregano

Oregano, *Origanum vulgare* subsp. *hirtum* also referred to as *O. heracleoticum* and *O. hirtum*, is native to the Mediterranean region of Europe and central Asia. It is naturalized in the eastern United States. It is used in tomato sauce to add a hot and peppery taste. It adds dimension to yeast breads, marinated vegetables, roasted meats, and fish. Oregano is a perennial, and can be propagated by seeds. Direct seed in the garden and do not cover seeds since they need sunlight to germinate. Flavor can vary a lot among seed propagated plants. It is better to propagate by root divisions or cuttings from plants that are known to have strong flavor. Oregano reaches a height of 12-24 inches, and a width of 10-20 inches. It requires a site with full sun, and well-drained soil with a pH of 6.8. Sprigs of oregano can be cut off when the plant is at least 6 inches high. In June, vigorously grown plants can be cut back to the lowest set of leaves. Plants will generally leaf out after two weeks and can be cut back again in August. Some pest and disease problems for oregano include aphids, leafminers, spider mites, and root rot.

## Rosemary

Rosemary, *Rosmarinus officinalis*, is a tender perennial, hardy to zones 8 to 10. It is native to the Mediterranean region, Portugal, and northeastern Spain. It is pungent, somewhat piny, and mintlike yet sweeter. Its flavor harmonizes with poultry, fish, lamb, beef, veal, pork, and game. Rosemary also enhances vegetables, cheese, and eggs. Rosemary can be started from seeds, but germination rates are very low. Use fresh seeds, preferably less than two weeks old. Packaged seeds are difficult to germinate. Start plants from cuttings or by layering from existing plants. Rosemary grows slowly from seeds, and eventually reaches a height of 72 inches and a width of 36-72 inches. Plant rosemary in a sunny location with well-drained, slightly acidic soil. Harvesting can be done throughout the year. Cut 4-inch pieces from the tips of the branches, being careful not to remove more than 20% of the growth at one time. Pest and disease problems of rosemary include aphids, spider mites, scale, mealybugs, root rot, and botrytis.

## Thyme

Thyme, *Thymus vulgaris*, is native to the western Mediterranean region. It is a small, many-branched perennial shrub. Thyme tastes delicately green with a faint clover aftertaste. It ranks as one of the finest herbs of French cuisine. Thyme leaves and sprigs are used in clam chowder, meats, herbal butter, and vinegar. Use it with vegetables, cheese, eggs, and rice. Start seeds indoors and transplant seedlings to the garden once the danger of the frost is past. Thyme reaches a height of 12 inches and a width of 10-12 inches. Thyme can be propagated from cuttings, by layering, and division. Harvest the entire plant by cutting it back to 2 inches above ground in midsummer. One more harvest can be expected before the season ends. Pest and disease problems include spider mites and root rot.

## Are Herbs Free of Insect and Disease Problems?

As discussed earlier, culinary herbs have their share of disease and insect problems. More disease and pest problems are being discovered as more research is being done on herb production. A good integrated pest management program (IPM) should be implemented when growing herbs. Some of the insecticides labeled for "herbs" are as follows:

- pyrethrins: Pyrethrin (pyrethrins); Pyrellin (pyrethrins + rotenone)
- B.t.s (Javelin, DiPel, Agree, etc.)-for caterpillars only
- neems: Align, Azatin, Neemix- for caterpillars, some beetles, leafhoppers.
- soaps (M-Pede, etc.)-for aphids, mites, and other soft-bodied pests only.

It is very important to check the pesticide label to make sure that the specific herb(s) is/are listed on the label before applying any pesticides. Few, if any, fungicides are registered for use on herbs.

In summary, herbs add color, texture, and fragrance to your garden in addition to the wonderful flavor of your prepared dishes. Many of the herbs are relatively easy to grow and complement other flowers very well. You will be rewarded with beautiful flowers and pleasing fragrances at the same time.

## Useful References

Cornell Book of Herbs and Edible Flowers. 1993. Media Services at Cornell University, Ithaca, New York.

Herbs for the Home Gardener. 1994. Pennsylvania State University, University Park, Pennsylvania.

Rodale's Illustrated Encyclopedia of Herbs. 1987. Rodale Press, Inc., Emmaus, Pennsylvania.

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