



## WINTERIZING THE HERB GARDEN

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If treated properly, many herb plants will survive in the garden for a number of years. Others are sensitive to frost or severe cold weather and must be brought indoors, protected, or replanted each year. Annual herbs will be killed with the first hard frost in the fall. Remove dead plants in order to minimize overwintering insects and disease problems. Some frost sensitive herbs, such as basil and geranium, can be brought indoors for the winter. Take cuttings to root or pot the entire plant.

Many perennial herbs are winter hardy in all or parts of North Carolina and can be left in the garden. A few plants are

marginally winter hardy; in a mild winter they survive but may die during a severe winter. They can be brought indoors to overwinter. Unless they receive adequate light indoors they may drop some of their leaves. Lemon verbena is a deciduous plant; it will lose all of its leaves indoors.

After a severe winter, some outdoor plants such as rue, sage, thyme, and southernwood, may appear brown and dead. The leaves may simply be dehydrated or the plant may be dead almost to the ground. Scrape the bark of a few stems to determine the extent of damage. If the stem is green, delay pruning until after new growth begins. Additional information on winter hardiness of specific herbs can be found in Table 1.

**Table 1. Hardiness and winter care of select herbs.**

Common Name	Scientific Name	Hardiness*	Comments
Angelica	<i>Angelica archangelica</i>	M, P, C	
Artemisia	<i>Artemisia</i> spp.	M, P, C	Requires good drainage
Basil	<i>Ocimum basilicum</i>	—	Tender annual
Bee balm	<i>Monarda</i> spp.	M, P, C	
Caraway	<i>Carum carvi</i>	M, P, C	Biennial; lightly mulch
Cardamon	<i>Elettaria cardamomum</i>	—	Tender annual
Chamomile	<i>Chamaemelum nobile</i>	M, P, C	Lightly mulch; provide wind protection
Chives	<i>Allium schoemoprasum</i>	M, P, C	Lightly mulch
Comfrey	<i>Symphytum uplandicum</i>	M, P, C	Lightly mulch
Coriander (cilantro)	<i>Coriandrum sativum</i>	—	Tender annual
Costmary	<i>Chrysanthemum balsamita</i>	M, P, C	Lightly mulch
Dill	<i>Anethum graveolens</i>	—	Tender annual
Echinacea	<i>Echinacea purpurea</i>	M, P, C	
Fennel	<i>Foeniculum vulgare</i>	M, P, C	
Feverfew	<i>Chrysanthemum parthenium</i>	M, P, C	Lightly mulch

(continued on the next page)

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**Table 1. Hardiness and winter care of select herbs. (continued)**

Common Name	Scientific Name	Hardiness*	Comments
Garlic	<i>Allium sativu</i>	M, P, C	Plant cloves in fall; lightly mulch
Garlic chives	<i>Allium tuberosum</i>	M, P, C	
Garlic, elephant	<i>Allium ampeloprasum</i>	M, P, C	Plant cloves in fall; lightly mulch
Geranium	<i>Pelargonium</i> spp.	—	Tender annual; bring indoors
Lemon grass	<i>Cymbopogon citratus</i>	—	Tender annual
Hops	<i>Humulus lupulus</i>	M, P, C	
Horehound	<i>Marrubium vulgare</i>	M, P, C	Lightly mulch
Hyssop	<i>Hyssopus officinalis</i>	C	Tender perennial
Lavender	<i>Lavendula angustifolia</i>	M, P, C	Hardiness varies with cultivar; mulch; provide wind protection; requires good drainage
Lemon balm	<i>Melissa officinalis</i>	M, P, C	Lightly mulch
Lemon verbena	<i>Akitsu truogtkka</i>	C	Tender perennial; bring indoors or heavily mulch
Lovage	<i>Levisticum officinale</i>	M, P, C	
Marjoram	<i>Origanum majorana</i>	C	Tender perennial; bring indoors or heavily mulch
Mints	<i>Mentha</i> spp.	M, P, C	Lightly mulch; provide wind protection
Oregano	<i>Origanum</i> spp.	M, P, C	Hardiness varies with species
Parsley	<i>Petroselinum crispum</i>	—	Biennial; treat as annual
Pennyroyal	<i>Mentha pulegium</i>	P, C	Provide wind protection
Rosemary	<i>Rosmarianum officinalis</i>	P, C	Tender perennial; bring indoors or heavily mulch; requires good drainage
Sage	<i>Salvia officinalis</i>	M, P, C	Lightly mulch; provide wind protection
St. John's wort	<i>Hypericum perforatum</i>	M, P, C	
Sweet cicely	<i>Myrrhis odorate</i>	M, P, C	
Tansy	<i>Tanacetum vulgare</i>	M, P, C	Lightly mulch
Tarragon	<i>Artemisia dracunculus</i>	M, P, C	Provide wind protection; requires good drainage
Thyme	<i>Thymus vulgaris</i>	M, P, C	Hardiness varies with cultivar; lightly mulch; provide wind protection; requires good drainage
Valerian	<i>Valeriana officinalis</i>	M, P, C	Lightly mulch
Verascum	<i>Verebasum</i> spp.	M, P, C	

\*Normally hardy in: M = Mountains, P = Piedmont, C = Coastal Plain

## Improving Winter Survival

Most herbs benefit from a 2- to 3-inch layer of organic mulch (pine straw, coco bean hulls, hardwood bark, bark and sawdust mixture) during the growing season. Mulch is an adequate winter protection for herbs such as mint, chives, and fennel providing protection to minus 20 oF. A winter mulch helps maintain uniform soil temperatures around the root system and provides protection against heaving cause by frequent freezing and thawing of the soil.

Some herbs require a thicker layer of mulch to protect their roots during extended freezing weather. Heavy mulching before cold weather occurs should be avoided since it will keep the soil warmer and

may actually decrease winter hardiness. After the first hard freeze, apply a 3- to 6- inch layer of organic material such as straw, pine needles, or chopped leaves. Most of the mulch should be removed in the spring as new growth begins.

Rosemary, lemon verbena, and a few other perennial herbs are not reliably winter hardy. Extra winter protection can be provided by cutting plants back to within a couple inches of the ground after the first hard frost and covering the remaining stub with soil. Then cover the soil with a 4- to 5-inch layer of mulch. For lemon verbena, the use of a microfoam ground cover (the packing material used around fragile items also works) held down with soil works very well providing over 95% survival in most years. An

alternative method is to encircle the plant with a cage of hardware cloth or chicken wire. The cage diameter should be about 12 inches larger than the plant (6 inches on each side). Fill the cage with mulch.

Harsh, drying winds can prove as fatal as cold temperatures to some of the less cold tolerant herbs. Wind breaks can aid the survival and appearance of herbs such as French tarragon, germander, English lavender, Roman chamomile, and winter savory. Covering with a few evergreen boughs will prevent drying out of silver and lemon thyme foliage. The more cold-sensitive herbs have a better chance of survival if grown in a protected location.

Other cultural practices that influence winter hardiness include: fertilization, pruning, soil drainage, and watering.

**Fertilizing** - Herbs should not be fertilized after early August. Late summer applications of nitrogen fertilizer will promote new growth that may not have time to mature before frost. The herbs will remain actively growing instead of becoming acclimated for cold weather.

**Pruning** - Avoid significant pruning (light harvesting is acceptable) in August which will stimulate new growth that will not have time to mature before frost. Also, avoid severe pruning in late fall since winter

hardiness is reduced until the cuts have healed. Woody plants should not be severely pruned within 4 to 6 weeks of the first severe freeze. In western North Carolina, the last severe cutting on sage, lavender, or oregano should be made before early September. Light pruning after frost is acceptable.

**Soil drainage** - Excessively wet soil or sites with standing water can decrease winter hardiness of some plants. This is especially true for Mediterranean plants such as rosemary, thymes, lavenders, and French tarragon that are adapted to dry climates. Provide adequate drainage by incorporating pine bark mulch or planting in raised beds.

**Watering** - Keep plants adequately watered during late summer and fall. Drought stressed plants are weaker and are often less cold hardy. Water during a dry winter, especially before a severe freeze. This is especially true for evergreen plants that will lose water from their foliage on bright, sunny days even when the ground is frozen.

#### **For Further Reading**

- *Growing Herbs in the Home Garden*, Horticultural Information Leaflet 8110.
- *Harvesting and Preserving Herbs*, Horticultural Information Leaflet 8111.