



## Miniature and Dwarf Conifers

*Miniature and dwarf conifers come in a range of sizes, forms, colors, and textures. Group them in rock gardens, in among perennials, in front of larger evergreens, or nestle them in any space in need of evergreen texture or winter interest. They are great for troughs, container gardens or raised beds. With time and patience, they may also be shaped into a bonsai tree.*

### What's in a Name?

'Miniature and Dwarf' does not refer to mature size but to a conifer's rate of growth in all directions. Dwarfes grow 1"-6" per year, reaching from 1-5 feet in ten years. Miniatures grow less than 1" per year, reaching less than a foot in ten years. To put this in perspective, Intermediate conifers grow 6"-12" per year, hitting 5-10 feet in ten years and Large conifers grow more than 12" each year and most will be more than 10 feet in ten years. Remember that, just like all woody plants, conifers will continue to grow at a similar rate for the life of the plant. In addition, cultivar sizes will also vary by climate, geographical region and ongoing care.

### Placing and Planting a Miniature or Dwarf Conifer

- Most conifers require full sun (at least six hours), good drainage, consistent moisture, and fertile, slightly acidic soil.
- Before planting your conifers experiment with different design ideas. It is important to know the growth habit, ultimate size and mature shape of your conifer. Immature plants in their little pots are somewhat deceptive and will have quite a different silhouette once they've had a few years' growth.
- Prepare garden beds by adding *Turface* to improve drainage and amending the soil with *Dr. Earth Acid Lovers Compost*.
- Conifers should be planted at the same level as they are found in their pots or slightly higher. Gently knock the plant from its pot and loosen any roots visible on the outside of the root-ball. If the roots have begun to circle and cannot be loosened with your hands, make several vertical cuts with a knife.
- Apply *Espoma Holly-tone 4-3-4* twice yearly, once in spring and again in late fall, following package directions given for the size of your container or for the conifer's current size if it is planted in the ground.
- Mulch with 1"-2" of pine bark mulch, compost or fine gravel to keep roots moist and the soil temperature cool.
- Monitor water needs carefully year-round for the first two years. Once established, conifers will need supplemental water only when it is very hot and dry. Those in containers will continue to need attention even during rainy periods.

### Pruning of Conifers

Very little pruning is needed for most miniature and dwarf conifers. Occasionally, plants may send out a branch that has reverted to its original, large-plant form and these branches should be removed right away. Should you wish to selectively prune your conifers at some point, we include the following guidelines. These hints will also help when choosing and forming bonsai creations.

- Yews and hemlocks are simple to shape, since they form buds on both old and new wood. These buds will develop into twigs when the wood above them is cut. Prune them in the spring just before the new growth begins.

- Firs, cedars, and spruce have buds along the current season's growth and can be lightly pruned back to a bud at any time to control size and produce denser branching.
- On pines, the buds are only present at the tip of the current season's growth. Candles, the soft, new growth that appears only in spring, may be cut or pinched before the needles are fully elongated. Buds will develop below the cut. This "candling" will produce a more compact plant with fuller branching.
- Junipers, arborvitae, and falsecypress all have buds *only* where there are green leaves. Their interior branches are leafless and twiggy. If you cut a branch back to this non-leafy region it will not produce new foliage. Prune carefully and only when the plant is actively growing in the spring.

## Miniature and Dwarf Conifers in the Winter

Conifers are temperate climate plants that require a cold dormancy period. Most are hardy in Zone 6 and below and will do fine when planted in the garden here in St. Louis. Those that have been planted into containers, however, will need special winter care. Unlike tropicals which are brought indoors as houseplants, conifers should stay outside until late fall.

### **Conifers in the garden:**

- Add 2"-3" of mulch after several hard freezes (below 25°) to help moderate winter soil temperatures, reduce heaving, and conserve moisture – thus reducing winter stress on the plant.
- Typically, the time to add mulch will be some time around mid-December.
- Check your conifers periodically, especially if we're having a dry fall and winter, and water them when necessary.
- If you wish, apply an anti-transpirant such as *Wilt Pruf* in mid-December to reduce moisture loss and plant stress.

### **Conifers in containers:**

- Do not bring your containerized conifers indoors. Nothing needs to be done except regular watering until late fall.
- As days become shorter and nighttime temperatures approach 25° - 35° they will gradually develop cold hardiness.
- When temperatures start to fall below 20° (usually around mid-December), their roots will require further protection.
- Containerized conifers may be stored in an unheated garage or inside a cold-frame out of direct sunlight.
- Your goal is to keep their surrounding temperatures *above* 15° (to protect their roots) and *below* 40° (to provide cold dormancy). The idea is to keep your containerized plants in a consistent state of dormancy until the spring arrives.
- Conifers need *only 40 days below 40°* to acquire the requisite hours of cold dormancy. This is tricky with the famously unpredictable St. Louis winter weather. If temperatures increase, they will *break* dormancy and begin growing, even if kept in the dark! A subsequent *return* to cold weather will kill new growth and buds!
- Monitor temperatures in your storage area, adding a space heater for the garage or heater cables for a cold frame, if and when temperatures begin to dip down to 15°. A minimum-maximum thermometer is very helpful.
- Remember to check your conifers periodically to see if they need water.
- Burying containerized conifers in the ground is often recommended. In St. Louis, however, we don't have enough persistent snow cover to provide insulation from extremes of temperature.
- One option is to cover them completely with straw bales or shredded leaves secured by chicken-wire or Reemay row cover. Place them somewhere out of direct sunlight in an area protected from wind. Light is not necessary during dormancy, but they must be checked periodically for dryness and watered thoroughly during periods of thaw.

## For Further Information

We recommend searching the *ConiferBase* at the American Conifer Society: <http://conifersociety.org/conifers/> for more information about specific cultivars and their needs and to access inspiration for designing your conifer garden.