

PRO TIPS

“Why Every Garden Needs Conifers”

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To meet the challenges of climate change, gardeners want a sustainable garden that lasts without excessive use of maintenance and resources while providing habitat for wildlife and pollinators. **Evergreen conifers are a key component of sustainable gardens because they are long-lived, drought tolerant, adaptable, require little care once established, and provide year-round structure, beauty, and interest.** Additionally, conifers are aesthetically, functionally, and ecologically versatile¹. Furthermore, conifers provide a host of environmental benefits: capture carbon to help diminish global warming, cool the air by shading and transpiration, remove pollutants from air and water year-round, minimize runoff and erosion, conserve energy and water, and enhance wildlife habits¹. Check out below for some conifers’ facts and strategies to successfully choosing the best conifer for your garden.

Did you know that conifers are drought tolerant? In fact, among several special characteristics, they have great adaptation to limited water. They also have specialized structures for resins and oils which play an essential role in plant’s defense¹. *Did you also know that most dwarf conifers are derived from a witch’s broom?* There is in fact a variety of invading organisms that can cause some conifers to form a witch’s broom or an abnormal cluster of dense growth from a single bud or shoot. These stable mutations can be propagated vegetatively by grafting¹.



Conifers come in a myriad of sizes, forms, colors, and textures, with the colors often changing seasonally. This can make selecting the right conifer for your garden from among the many hundreds of species and cultivars a bit of a challenge.

To do so, you should consider:

- Selecting species that are compatible with your climate and specific microclimate,
- the desired function(s) you aim to achieve with your conifer,
- selecting the correct size, form, color, and texture you would like to add to your garden.

All these criteria will help you choose the best conifer for your green oasis that will be long-lasting, functional, and esthetically pleasing.

¹ Albers, John J. with photography by David E. Perry. *Growing Conifers: The Complete Illustrated Gardening and Landscaping Guide*. New Society Publishers, 2021.



It is crucial to choose the best location for your conifer that will maximize its chances of surviving the ever-changing climates our planet is experiencing. In fact, after the 2021 heat wave experience in the Pacific Northwest, we started noticing a few trends among different conifers at the Albers Marcovina Vista Gardens [<https://albersvistagardens.org/>].

- Conifer cultivars of **fir, spruce, pine, and hemlock** that were in full sun without supplemental water once established *were susceptible to leaf browning and twig dieback*.
- Conifer cultivars of **cypress, juniper, cedar, false- cypress (Chamaecyparis), Japanese-cypress (Cryptomeria)** exhibited minimal leaf browning.^{2,3}
- Conifers shaded in the afternoon sun did not have leaf browning.

There are a few steps you can take to protect your conifers from future heatwaves. You should (1) select species and cultivars that are more resistant to extreme heat, (2) provide supplemental water during hot and dry periods, and (3) mulch the conifers' roots to help retain moisture.



Some of the common mistakes in growing conifers include the following:

1. not matching the conifer to the specific microclimate,
2. not providing adequate space for your conifer, and
3. improper conifer planting and care.

Most conifers prefer sunny conditions, good drainage, and plenty of organic matter. However, you can also find conifers that can tolerate and even thrive in adverse conditions. If your site has poor drainage, shady conditions, or other less-than-ideal characteristics, you need to select the best conifers that will thrive in your specific location. See **Growing Conifers**¹ for lists of conifers that will thrive in potentially difficult situations or adverse conditions.



Regarding proper planting, it is important not to plant the conifer too deep. In fact, you should dig a saucer-shaped hole only as deep as the root ball. Spread the roots radially and downward and place the root ball so the root flare is just slightly above the surrounding grade. Next, backfill with native soil so that all the feeder roots are in direct contact with it.

² Klein, Tamir, Jose M. Torres-Ruiz, John J. Albers. "Conifer Desiccation in the 2021 NW Heatwave Confirms the Role of Hydraulic Damage". *Tree Physiology* 42, no 4., April 2022

³ Albers, John J. and Perry, David E. "Selected Browning of Conifer Cultivars in the 2021 Northwest Heatwave". *American Conifer Society Conifer Quarterly*, 39, No1/Winter 2023



If the soil is deficient in organic matter, other constituents, or has poor drainage, you can improve the soil by adding amendments to the entire planting area, not just the planting hole. Conifers growing in fertile healthy soil generally do not need to be fertilized.



Water the conifer infrequently, but deeply during dry periods, particularly during the first two years of establishment. Mulch your conifer with 2-3 inches of mulch, such as wood chips, to retain moisture and minimize weeds. Conifers grown in containers require fertilization and more frequent watering. Regularly monitor the health of your conifer.



When selecting conifers for your space, examine the conifer's label for its expected ten-year height and width. Remember, *it is always best to give your conifer some extra space* as the height and spread of a conifer can vary considerably depending on the specific growing conditions.

Here are some references for Creating a Sustainable Garden:



1. Albers, John J. *Gardening for Sustainability: Albers Vista Gardens of Kitsap*. Vista Gardens Press, 2013

2. Albers, John J. *The Northwest Garden Manifesto: Create, Restore, and Maintain a Sustainable Yard*. Skipstone, Mountaineers Books, 2018.



3. National Public Television, Growing a Greener World, Episode 909. Available on YouTube: <https://youtu.be/gNJY2MZ4Rjs>

The best place to view many different conifers in the landscape:
Albers Marcovina Vista Gardens (www.albersvistagardens.org), Bremerton, WA.