

What Native Plants Need to Thrive

Landscaping with Colorado Native Plants Conference 27 Feb 2021

native n. a plant that is indigenous to a particular place or region.

What Do Natives Need?

A place that reminds them of “home.” First learn the ecosystems and climate where the plant naturally lives. Then, look at what your site provides. Once you combine that information, you can figure out a good planting site, and a specific culture or care routine.

KNOW THE PLANT

ECOREGION

Start with the where, as in where is the plant native in Colorado. The mountains, alpine, desert, plains, foothills? If you can learn the ecoregion, that gives you information on soils, landforms, climate, and plant community. All of which are critical to understanding what will make your native plants feel at home. For instance, If you want an alpine plant native to the windswept zones atop Colorado’s highest peaks to thrive in your yard in suburban Denver or in Grand Junction, you’re going to have to find that plant a cool spot in your yard, somewhere it won’t desiccate in the summer’s heat, and will stay blanketed with snow in winter.

TIP: Find your ecoregion and that of your native plants on this downloadable ecoregions poster from EPA: ftp://newftp.epa.gov/EPADDataCommons/ORD/Ecoregions/co/co_front.pdf

FROM THE PLANT LABEL

Sun/shade Plants use sunlight to make their food through the process of photosynthesis. No sunlight means they starve and die. Too much sunlight can be a problem though, as plants sunburn just the way people do: UV light can damage their cells. Know how much is enough, and how much is too much.

Drought tolerance: What does that symbol mean? Ask at the nursery or check the grower’s website for details.

TIP: For more information, look the plant up on the Lady Bird Johnson Wildflower Center’s Native Plant Information website (address below).

Soil: Some labels include soil information; if so, soil type is important. Many native plants prefer particular soil textures, whether sand or clay or loamy soils. Almost all do not last as long in enriched garden soils: they grow faster and die sooner.

KNOW THE SITE

Learn your site the way a plant would. Note where the sunny spots are, which spots get shade and when. Take time to feel where the air moves through the site—are there windy spots? Look at slope, drainage, and aspect (which way different parts of the site face), and microclimate, areas of the site that are hotter and dryer or cooler and moister.

TIP: Spend time sitting in different parts of your yard at different times of day to get a sense of how a plant experiences sun angles, wind patterns, and exposure. Remember that your plants are rooted in place and can't pick up and move when conditions are too intense for them.

Landform: Is your site flat? Sloping? Are there low spots that will collect runoff water and also cold air? Not sure? Try this simple test: Use a hose to flood an area of the yard with water and watch where it flows and collects. Map the slopes and low spots.

Soils: Use a simple test to determine soil texture: Take a generous clump of soil (the size of a large marble) in your hand. Pour a bit of water on the soil. Now squeeze it together. Does the clump feel grainy and fall apart? If so, you've got gravelly or sandy soil. Does it hold together? That's loam. If you can squeeze the clump into a ribbon, you've got clay.

Topography: Look at the shape of your site. Does it slope? If so, in which direction, and how much (gently? moderately? steeply?). Water runs off of slopes, creating drainage problems. Steep slopes are drier than flat spots. But flat spots can act like ponds when snowmelt or hard rain pools.

TIP: Use a hose to flood an area of the yard with water and watch where it flows and collects. Map the slopes and low spots.

Microclimate: Every site has microclimates, pockets that are hotter and drier, or cooler and wetter than the rest of the site. Walls that face south or west create hot spots perfect for desert gardens. Shady spots on the north or east sides of buildings, fences, or tall trees create cooler, moister microclimates idea for mountain plants.

TIP: Don't put a forest understory species in full sun, or plant a desert species in heavy shade.

PLANT CARE OR CULTURE

Once you know your plant's needs and your site characteristics, you can determine the planting site and culture that will help your natives thrive.

Water: More plants are killed by overwatering than under-watering, and many native perennials are susceptible to crown rot, especially in winter and early spring. If the soil is saturated, the water molecules drive out the oxygen molecules the plant root needs to breathe, and your plants literally drown. So less is better, but pay attention to your plants. If they're wilted a bit on a hot afternoon, don't worry. If they're still wilted the next morning, then they need a drink.

Tip: Group plants of like watering needs together.

Fertilizer: Native plants are adapted to our native soils, which means they will thrive without fertilizer. Adding organic matter to the soil may be necessary for species like columbines that grow in moist forests, but otherwise, let your natives take hold without fertilizer and other amendments. They'll live longer and be less attractive to deer and rabbits.

Pesticides: If you have "pest" problems, give your native plants and your yard environment a break and don't rush for pesticides. Use Integrated Pest Management, and start with the least harmful solution first. For insect pests, put up bird nest boxes and let nesting birds consume pest insects. For weeds, hand-pull or hoe.

Tidyness: Don't rake away all yard detritus—it gives the soil some protection and also is home to overwintering pollinators. And don't cut back plants in fall; those seed-heads and dead stalks provide food and home for all manner of garden friends, from native bees and other beneficial insects to wintering songbirds. Cut back in early spring at the first sign of green-up instead.

Mulch: Mulch is critical for starting native plants from seed, and it can be a huge help in establishing nursery-grown plants too. Gravel mulch is best for retaining soil moisture without causing crown rot, and it doesn't blow away. Next best is local shredded bark mulch. Avoid buying mulch that comes from outside our region, because it brings with it microbes, fungi, and insect eggs that may be harmful in our area.

Resources

EPA Ecoregion Map: ftp://newftp.epa.gov/EPADDataCommons/ORD/Ecoregions/co/co_eco_lg.pdf

Native Plant Information Network from The Lady Bird Johnson Wildflower Center: <https://www.wildflower.org/plants-main> (As the website says: The most comprehensive database for native plants of North America. Photos, descriptions, horticultural information, pollinator info)

The Gardener's Botanical, Ross Bayton. 2020. Princeton University Press. 351 pages, illustrated