####  UC Resources: Gardening with Climate Change

UC Davis - Latest Climate Change News: <https://www.ucdavis.edu/news/climate-change>

UC Davis Climate Change Experts: <https://climatechange.ucdavis.edu/science/climate-change-experts/>

UC Davis Plant Sciences Department online resources <https://www.plantsciences.ucdavis.edu/articles/climate-change>



UC Davis Arboretum – Living Landscape Adaption Plan
<https://arboretum.ucdavis.edu/news/climate-tomorrow-uc-davis-living-landscape-adaptation-plan>

UC Davis Arboretum – Sustainable Gardening
<https://arboretum.ucdavis.edu/tags/sustainable-gardening>

UC Davis - Climate Change what can I do: <https://climatechange.ucdavis.edu/what-can-i-do/cover-crop-your-garden/>

<https://climatechange.ucdavis.edu/what-can-i-do/18-simple-things-you-can-do-about-climate-change/>

#### Some OTHER resources: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**From National Wildlife Federation** - **Gardening for Climate Change**

For millions of Americans, gardening is much more than a hobby—it is a passion. Unfortunately, climate change is threatening the gardening experience across the country. Fortunately, there are actions that you can take to be part of the solution—even while gardening.

Why Gardeners Care

As many gardeners and backyard wildlife enthusiasts across the country have noticed, climate change is already having a significant impact on our backyard habitats.

* Higher average temperatures and shifting precipitation patterns are causing plants to bloom earlier, creating [unpredictable growing seasons](http://climate.gov/news-features/featured-images/planting-your-spring-garden-consider-climate%E2%80%99s-%E2%80%98new-normal%E2%80%99). Even warm-weather plants like tomatoes can be harmed by increased temperatures.
* Invasive, non-native plants and animals’ ranges are expanding and making them more apt to take advantage of weakened ecosystems and outcompete native species. Some of the most problematic species, including kudzu, garlic mustard, and purple loosestrife, may thrive under new conditions and move into new areas.
* Climatic shifts also mean that many native and iconic plants may no longer be able to survive in portions of their historic range. In fact, many states across the country may lose their official State Trees and Flowers. Imagine Virginia without the flowering dogwood or [Ohio without the Ohio buckeye](http://www.dispatch.com/content/stories/local/2014/11/24/climate-change-could-shift-buckeyes-habitat-to-michigan.html)!
* Important connections between [pollinators](https://www.nwf.org/Garden-for-Wildlife/About/National-Initiatives/Pollinators), breeding birds, insects, and other wildlife and the plants they depend on will be disrupted. Pollinators such as hummingbirds and bees may arrive either too early or too late to feed on the flowers on which they normally rely.

These are major warning signs indicating that we need to take meaningful steps now to curb our carbon emissions. Given the strong relationship between gardens and natural variables such as temperature and rainfall, a changing climate will create some enormous new challenges for gardeners. Numerous studies show any potential benefits from a longer growing season will be outmatched by a host of problems—from watering restrictions and damaging storms, to the expansion of unruly weeds and garden pests.

Climate Solutions are in Gardeners’ Hands

Although the predictions for climate change are dire, they are not inevitable. Just as [serious consequences](https://www.nwf.org/Educational-Resources/Wildlife-Guide/Threats-to-Wildlife/Climate-Change) are projected, the impacts will be significantly lessened if we take steps now to reduce our carbon pollution. We can also take actions to help both natural and human communities adapt to the changes that are already underway.

Gardeners are both stewards and guardians of our environment, and can make a difference in the fight against climate change. Below are some ideas for how, we can make a difference both in our own backyards and communities, and across the country.

Taking Action in Your Backyard and Community

* [**Improve your energy efficiency.**](https://www.nwf.org/Get-Involved/Live-Green/Energy-Conservation) Using energy-efficient products and reducing your household’s energy consumption will reduce your contribution to carbon pollution. In your backyard alone, you can replace outdoor light bulbs with high-efficiency LED bulbs, install outdoor automatic light timers, or purchase solar-powered garden products.
* [**Reduce the use of gasoline-powered yard tools.**](https://www.nwf.org/Get-Involved/Live-Green/Energy-Conservation) Avoid using gasoline-powered tools such as lawn mowers and leaf blowers. Instead, use human-powered tools such as push mowers, hand clippers, and rakes or reduce the amount of lawn area that needs maintenance. Using a gasoline-powered mower for an hour pollutes 10 to 12 times more than the average car.
* [**Reduce the threat of invasive species expansion and incorporate diverse native species instead.**](https://www.nwf.org/Garden-for-Wildlife/About/Native-Plants) Removing invasive plants from your garden and choosing an array of native alternatives can minimize the threat of invasive species expansion. Native plants help to maintain important pollinator connections and ensure food sources for wildlife; nonnative plants can outcompete these important native species for habitat and food. Contact your local or state native plant society to find out what plants are native to your area.
* [**Reduce water consumption.**](https://www.nwf.org/Get-Involved/Live-Green/Water-Conservation) There are a number of ways to reduce water consumption in your garden, which is particularly important during increased heat waves and droughts. These include mulching, installing rain barrels, adjusting your watering schedule, and using drip irrigation. Practices like mulching also provide nutrients to the soil, reducing the need for chemical fertilizers which take significant amounts of energy to produce.
* [**Compost kitchen and garden waste.**](https://www.nwf.org/Garden-for-Wildlife/Sustainability/Soil-Water-Conservation/Worm-Compost-Bin) Composting this waste can significantly reduce your contribution to carbon pollution, especially methane, a highly potent greenhouse gas. It also provides an excellent source of nutrients for your garden, again reducing the need for chemical fertilizers.
* [**Plant lots of trees to absorb carbon dioxide.**](https://www.nwf.org/Trees-for-Wildlife/About/Trees-Make-a-Difference) Trees can absorb and store as much as a ton of carbon pollution (CO2) from the atmosphere. If every one of America’s 85 million gardening households planted just one young shade tree in their backyard or community, those trees would absorb more than 2 million tons of CO2 each year. Shade trees planted near your home can also reduce energy used for cooling in the summer.
* [**Connect places for wildlife by certifying your backyard or neighborhood as a Certified Wildlife Habitat™ with the National Wildlife Federation.**](https://www.nwf.org/Garden-for-Wildlife/Certify) By certifying your own backyard and encouraging your neighbors to do the same, you can turn your neighborhood into a Community Wildlife Habitat, which can help maintain or reconnect fragmented habitats and provide ways for wildlife to better cope with the impacts of climate change.

Actions for Your Elected Officials

In addition to implementing solutions in your backyards and communities, gardeners can play an important role in moving America toward a cleaner, safer, and more sustainable future by contacting your elected officials at the local, state, and federal levels and urging them to implement a strong plan of action to combat climate change and safeguard people and wildlife from climate change impacts.

Contact your members of congress and let them know that you support the Clean Power Plan, EPA’s first-ever rule to regulate carbon pollution from power plants. This rule will benefit wildlife and our communities and foster the growth of clean energy. Ask your members of congress to vote against any measures to delay or weaken this standard and advocate for protecting our gardens from the impacts of carbon pollution.

More Resources

* [Backyard Solutions to Climate Change](https://www.nwf.org/~/media/PDFs/Misc/nwf_climate_flyer_print.pdf) (handout)
* [The National Wildlife Federation’s Garden for Wildlife program](https://www.nwf.org/Garden-for-Wildlife): <https://www.nwf.org/Garden-for-Wildlife>

See the National Wildlife Federation website for more information:

<https://www.nwf.org/Our-Work/Environmental-Threats/Climate-Change/Greenhouse-Gases/Gardening-for-Climate-Change>