connect

community + climate + action

Climate-Community Connections

Gardens and Landscaping

As the climate changes, the Great Lakes region will experience dry periods, severe storms, heat waves, and overall warmer temperatures. All this affects gardens and landscapes. On a bigger scale, climate change affects agriculture.

Gardeners have been noticing changes in the climate for years. The growing season is longer than it used to be, and plants that used to be considered too tender can now survive in more northern regions. Across the country, invasive species are becoming established in areas where they haven't been seen before.

Objective: Learn how climate change connects to gardens and landscaping and how to take climate action in your community
Audience: High school and up
Materials: Computer with Internet access (optional)
Time Needed: 15-20 minutes to read closely; additional time to explore linked content

You can see this reflected in the changing maps of "hardiness zones" below—maps that are based on climatic conditions and how "hardy" a plant must be to survive in different regions. Hardiness zones have shifted northward, meaning that less-hardy plants can survive conditions further north than they have in the past. For example, kudzu, an invasive plant in the southeastern U.S., has recently been found in northern Illinois, far north of its usual range.

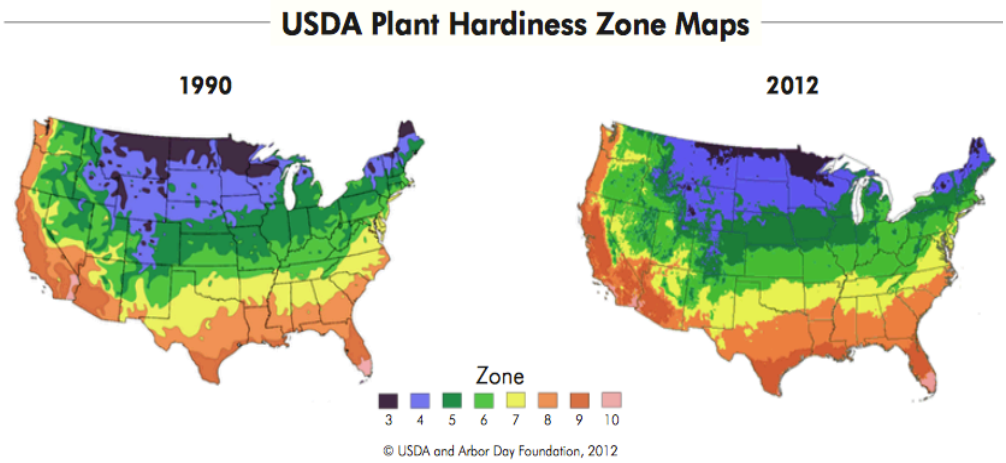
Gardeners can adapt their landscapes and their gardening practices to be more resilient in a changing climate. There are many ways to do this. A key strategy is to move beyond conventional grass lawns and exotic flower gardens and embrace a diverse landscape of vegetables, fruits, and native plants. Gardeners can also make landscaping choices that reduce greenhouse gas emissions directly and indirectly, by conserving energy, using water wisely, selecting sustainable materials, and more.

The Field Museum's Climate Action Plan for Nature Community Action Strategies provides a great introduction for designing and maintaining climate-friendly lawns and gardens. This tool builds on that resource by connecting these landscapes and practices to community services, such as providing job training, fostering environmental education, alleviating food deserts, and connecting people to their landscape heritage.

Gardeners throughout the region are creating rich, creative landscapes that serve community and conservation goals. What community climate action do you want to take with your landscape?

Volunteers help install a pollinator garden at John Heinz National Wildlife Refuge at Tinicum near Philadelphia, PA.

Photo courtesy of Chuck Lafferty.



USDA Plant Hardiness Zones have shifted substantially northward over the last 22 years

Source: USDA and Arbor Day Foundation.

Take Action

Plant a Vegetable and Fruit Garden

Does your community have a plot of land that could be transformed into a garden? Maybe there's an unused bit of lawn at a school, place of worship, community center, or park? Work with partners in the community to create a new garden or to reinvigorate a neglected garden. Locally grown food has many benefits for the community and the climate.

- **Share the produce from vegetable gardens to feed the community**. Some gardens donate all their produce to food pantries, soup kitchens, or neighbors in need. Other gardens have donation boxes that gardeners contribute to regularly or when they find they have a surplus. Consider sharing recipe cards along with the food donations—just remember to keep the ingredients simple so that people can find most ingredients at their local grocer or at a food pantry. Find a pantry that accepts food donations here: Ample Harvest
- **Offer garden beds to community members.** Park districts, community organizations, and places of worship sometimes offer garden beds to local residents (sometimes for a small fee) so they can grow food even if they don't have access to other land. Many vegetable varieties can be grown in containers, if land space is limited.
- **Provide job training and jobs for small farmers.** Communities throughout the region have developed job-training programs focused on growing local crops and bringing fresh food to market. They respond to community needs

Urban farming pioneer Will Allen displays a tilapia produced by the aquaculture system integrated into his greenhouses in Milwaukee, WI.

Photo courtesy of Will Allen.

by providing training for people looking for work, including refugees, at-risk youth, formerly incarcerated people and others. In addition to supplying fresh produce and extra income, refugee gardens also build on traditional agricultural and cooking skills refugees bring with them from their homeland.

Explore these programs for inspiration:

- Global Garden Refugee Training Program
- Windy City Harvest

You can also look up your State Cooperative Extension Program—many have bulletins and training resources to help small producers and farmers markets—or enroll in an Extension Master Gardener program to get training that you can share with others.

Community Action

Ginkgo Organic Gardens provides more than 1,000 pounds of fresh produce to a food pantry for people living with HIV in Chicago. Fresh vegetables and fruits are grown on two adjacent city lots that were once abandoned in tough financial times. Plant material that would typically end up in the compost pile, such as radish greens, is donated to animal shelters to help feed rabbits.

Reimagine Your Lawn

Lawns provide great settings for picnics and recreation. However, turf lawns often consume far more outdoor space than is required for these activities. Sections of these overly expansive or underutilized lawns can be converted into a beautiful food garden or native habitat. Native plants require less maintenance than lawns, reducing use of harmful chemicals, water, and fossil fuels. They also provide food and habitat for wildlife, and celebrate local heritage and landscape. Think about the lawns in your community. How much is just a "dead zone"? Consider repurposing it. By making wise use of outdoor spaces we can produce food, reduce pollution and energy use, and support wildlife.

- **Shrink your lawn.** Rebel against the traditional golf course aesthetic: make your yard a beneficial landscape for you and your environment! Replace turf grass areas with native plantings that require less water and fertilizer.
- **Water smart.** Watering lawns and gardens accounts for up to 40 percent of summer water use. Water during the coolest part of the day (early morning or evening) to reduce water loss to evaporation.
- **Replace traditional turf grasses with "no-mow" varieties.** In areas you do want lawn, consider alternatives to traditional turf grass. Grass varieties have been developed that stay short, requiring less maintenance. Making this switch can save you time and money, and reduce fossil fuel use.
  Helpful resources:
  - Chicago Grows Green – a Guide to Growing a Climate-Friendly Lawn & Garden
  - Missouri Botanical Garden: Lawns
  - Your State Cooperative Extension Service (many have lawn care and landscaping bulletins)

Provide Living Classrooms

Especially in urban areas, parks provide much-needed windows into the natural world. All kinds of gardens—from edible to native plants—provide outdoor laboratories for teaching about the environment, history, and culture.

- **Make native gardens into living classrooms.** These spaces provide great opportunities to teach about human, plant, and animal connections.

  Helpful resources:

  - Habitat and Hospitality: Telling Migration Stories of Butterflies, Birds, and Us
  - Getting Started: A Guide for Creating School Gardens as Outdoor Classrooms. The Center for Ecoliteracy

- **Engage in citizen science projects.** There are many types of projects you can contribute data to based on your interests. Even projects not directly focused on climate change can provide important long-term data on plant and animal communities over time.

  Helpful resources:

  - Project BudBurst
  - eBird
  - iNaturalist

Students install rain gardens and learn about the effectiveness of green infrastructure in Chicago.

Photo courtesy of the Center for Neighborhood Technology.

Community Profiles

The UIC Heritage Garden, on the University of Illinois at Chicago campus, cultivates environmental sustainability, cultural diversity, and social justice. Students manage six gardens on the campus, collect stories about sustainable traditions, create theater, and make art. Their work engages their campus and neighbors in hands-on community climate action.

Cultivate Cultural Heritage

Did you have a garden as a child? Has your family passed down stories and traditions about growing food or flowers? Gardening and cultivating plants has long been part of human experience, and we've developed distinctive cultural practices and preferences. Many of these traditions have a long record of sustainability, from a period before industrial agriculture and the prevalence of synthetic pesticides and fertilizers.

- **Create a heritage garden that celebrates the cultures of the people in the neighborhood.** Invite people from your community to share stories, pictures, and memories of plants that are important to them. Work together to design a garden that reflects the traditions and knowledge of your neighbors. Then, work together to plant and maintain the garden, share knowledge with neighbors and visitors, and enjoy time together in the garden.

  Helpful Resource:

  - Chicago Community Climate Action Toolkit: Bronzeville Community Garden

Web Addresses

Plant a vegetable and fruit garden:

- Ample Harvest (http://www.ampleharvest.org/find-pantry.php)
- Global Garden Refugee Training Program (http://www.globalgardenfarm.com/)
- Windy City Harvest (http://www.chicagobotanic.org/urbanagriculture)

(You can also look up your State Cooperative Extension Service online.)

Reimagine your lawn:

- Chicago Grows Green: A Guide to Growing a Climate-Friendly Lawn and Garden (http://midwestpesticideaction.org/what-we-do/reducing-climate-impact/)
- Missouri Botanical Gardens: Lawns (https://www.missouribotanicalgarden.org/Portals/0/Gardening/Gardening Help/Factsheets/Lawns - Planting and Renovation29.pdf)
- Habitat and Hospitality: Telling Migration Stories of Butterflies, Birds, and Us (http://www.chicagobotanic.org/sites/default/files/pdf/education/connect/MIGRATION-STORIES-Introduction.pdf)

(You can also look up your State Cooperative Extension Service online.)

Provide living classrooms:

- *Getting Started: A Guide for Creating School Gardens as Outdoor Classrooms*. (The Center for Ecoliteracy, 2007). (http://www.ecoliteracy.org/sites/default/files/uploads/getting-started-2009.pdf)
- Project BudBurst (http://budburst.org)
- eBird (http://ebird.org/content/ebird/)
- iNaturalist (https://www.inaturalist.org)

Cultivate cultural heritage:

- Chicago Community Action Toolkit: Bronzeville Community Garden (http://climatechicago.fieldmuseum.org/bronzeville)