

Understanding what a ‘carbon footprint’ is or which plant is ‘native’ takes a little definition of terms. The terms defined below will help your understanding of what being ‘Green’ means. These descriptions are courtesy of the Denise Corkery, Horticultural Writer, Chicago Botanic Garden.

The article describing these terms appears in the [October 2008 issue of Gardening Tips](#)

Bioswale

A bioswale is a shallow channel that has been created in the landscape to temporarily store rainfall draining from “hard” surfaces like rooftops, parking lots, and roads. Bioswales reduce the amount of rainfall diverted to storm sewers by allowing some of the water to percolate into the soil and replenish local groundwater aquifers. Usually lined by grass or specially selected plants, bioswales improve water quality by filtering out water-borne pollutants. More and more often, you can find bioswale channels running through paved parking lots or between expressway lanes. In some communities, commercial building codes require bioswales to reduce the need for larger sewer systems.

Biodegradable

Biodegradable products or packages decompose into elements found in nature within a reasonably short period of time after normal disposal or use. Biodegradable products help to reduce the volume of materials stored in landfill and offer alternatives to products that can be recycled. In gardening, biodegradable seed-starting pots, nursery pots and containers are available.

Carbon Footprint

Carbon dioxide is one of a handful of common greenhouse gases associated with global climate change. A carbon footprint is a measure of green house gas emissions a person, business or even municipality is adding directly or indirectly to the environment. Lifestyle changes that reduce carbon emissions help to mitigate the negative impact of global climate change. Driving fewer miles in gas-powered vehicles and using less coal-generated electricity are common approaches for reducing one's carbon footprint.

Garden-related practices and products that increase the size of a carbon footprint are using gas-powered garden equipment, using municipal water for irrigation, and the production of synthetic fertilizers. Planting trees and long-lived shrubs help to mitigate the effects of climate change because they remove and store carbon already in the atmosphere.

Compost

Compost is the end product of composting; a process where organic matter is collected, mixed and allowed to decompose. Compost can be used to amend soil, or as a mulch layer on garden beds and around trees. In nature, deciduous leaves create a mulch layer that eventually decomposes. Like human-made compost, this natural recycling process returns nutrients to the soil and improves soil structure, and it is one reason why native plants growing in natural ecosystems usually do not need more fertilizer than nature provides. Composting is a favorite technique for homeowners looking for easy ways to

“green” their gardening practices. In addition to reducing the need for expensive fertilizer — and the adverse impacts fertilizer runoff can have on our lakes and stream — composting reduces the amount of garden debris that ends up in landfills.

Ecosystem

An ecosystem is the complex set of natural relationships between the landscape and the organisms that live there. An ecosystem includes the plants, insects, birds, soil, waterways, fish, and people living together. Individual ecosystems are interconnected, and changes in one can have a serious impact on others. Healthy ecosystems are in balance and able to perpetuate themselves. Concerns about climate change include the impact that changing temperatures and precipitation amounts are having on ecosystems, and the ability of native plant and animal communities to survive. Scientists worldwide are creating banks where seeds can be stored and used, if needed, to prevent plant extinction or restore biodiversity.

Green roof

A green or “living” roof uses specialized roofing material, a soil substitute and drought-tolerant plants to help building and home-owners save energy, better manage storm water and mitigate the urban heat island effect. Green roofs absorb and store storm water, a key component in a storm water management system which often includes the use of bioswales and native plants. A green roof slows storm water discharge from building eaves and gutters, reducing the immediate demand placed on sewer systems during large storms, which helps to decrease the likelihood of flooded basements. Green roofs also help to insulate building — keeping buildings cooler in summer and warmer in winter — leading to lower energy bills and reduced carbon emissions related to energy production.

Native communities

A native community is the population of native plants, animals and soil microbes in a specific ecosystem. Each community has evolved together over hundreds of thousands of years and the members depend on each other for shelter, food, and survival. Non-native and invasive animals, plants and insects have demonstrated their ability to have an adverse impact on native communities and disrupt entire ecosystems.

Native plants

Native plants are the trees, shrubs, perennials and annuals that were growing in an ecosystem before non-native settlers and plant explorers introduced new plants. Native plants have adapted to native soils, soil organisms and weather, and provide important habitat and food for native animals and insects. They often need little supplemental water and can have fewer serious disease or insect problems – with the result often being that it takes less time, money and garden chemicals to keep native plants healthy. Plants can be native to cities, regions, or continents. Most non-native plants are not invasive, but those that are can have a serious negative impact on the health of ecosystems and native communities.

Organic

The primary goals of organic agriculture are to optimize the health and productivity of

natural communities. Adhering to organic practices promotes the health and productivity of the soil's microbial community, plants, animals and ultimately people. For home gardening, organic principles are best put into practice by:

- Improving soil health
- Choosing appropriate plants
- Using soil amendments and fertilizers when necessary, and then, only those made from naturally-occurring (non-synthetic) substances
- Employing cultural, biological, and/or mechanical practices to address challenges posed by pests and pathogens
- Composting disease-free plant material for later use as a soil amendment or mulch

Rain gardens

Similar to bioswales, rain gardens are an ornamental feature for home landscapes that help to manage rainfall and solve problems caused by slopes and low spots. Rain gardens capture and collect rainfall so it can be absorbed into the soils slowly over time. They also remove silt, filter contaminants, and replenish groundwater aquifers. Rain gardens use plants that can tolerate periods of both extreme moisture and drought.

Sustainable

Sustainable practices are those that meet the needs of today without compromising the needs of the future. Sustainability can apply to every aspect of our lives — what we eat, how we shop, where we live, how we travel and even how we garden. In gardening, sustainable practices conserve energy and water and reduce waste. This includes selecting long-lived plants that are right for the conditions you have for planting — the amount of sun or shade, type of soil, winter hardiness, and ability to thrive in the natural variations in rainfall. Sustainable gardening practices also include growing plants or crops that don't need frequent irrigation or chemical controls to keep them healthy and using light carbon-footprint techniques such as mowing turf grass with an electric mower.

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