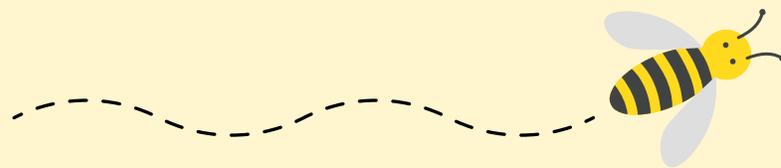

Generate Some Buzz

**Your Backyard
Pollinator Garden
- Handbook -**

Bee The Solution

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AN INTRODUCTION TO POLLINATORS

What Are Pollinators?

Pollinators are any species of animal which carries pollen from flower to flower. Examples of some pollinators include butterflies, bees, beetles, flies, wasps, moths, birds and small mammals like bats. They visit and rely on flowering plants not only for food but also shelter and mating opportunities. The nectar they gather is sweet-tasting and has a high amount of carbohydrates while pollen has proteins, fats and other important nutrients.

What Do Pollinators Do?

When pollinators land on a flower, they pick up pollen available -- sometimes on purpose, sometimes on accident. In order for flowers to reproduce, they need pollen to be moved from the male part of one flower to the female part of a second flower. This movement of pollen is absolutely essential for our plants!



TENNESSEE'S POLLINATORS

Bees

There are over 400 species of native bees in Tennessee; these are just a few of them. Native bees have evolved alongside native flowers and are uniquely equipped to pollinate them. There are two main sets of bees: solitary and social. Solitary bees often live alone or in limited social settings while social bees are gregarious and reside in hives with hundreds or thousands of other bees.



Carpenter Bee

Nests by burrowing into wood

Bumble Bee

Carries pollen with special pouches located behind their legs



Sweat Bee

Builds nest in the dirt and are also attracted to sweat



Mason Bee

Uses mud to make their nests in cracks or other cavities



Butterflies and More

Many other animals are pollinators like the ones listed below. Tennessee is home to many!

Ruby-Throated Hummingbird

Moves pollen from flower to flower when slurping up nectar



Monarch

Pollinates many wildflowers, but needs milkweed to survive



Paper Wasp

Feeds on pollen and other insects like flies and beetle larvae

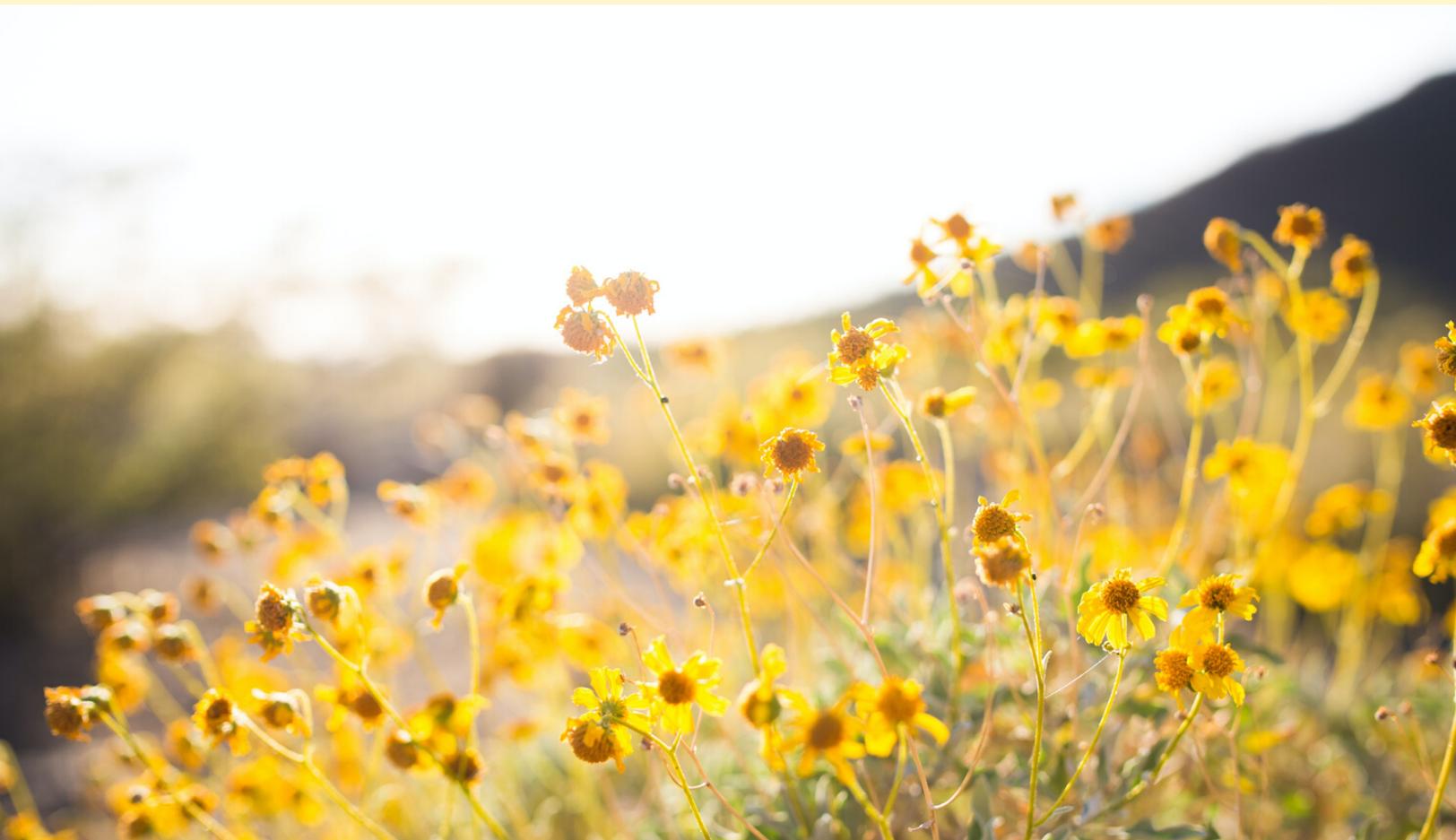


GOING NATIVE

Why Are Native Plants Important?

Native plants are specifically adapted to the environment of Tennessee and are able to withstand the diversity of our state's climate. Some native plants are endemic to certain areas of Tennessee meaning that they only occur in that spot and nowhere else. Our native pollinators love and rely on them!

Tennessee was once covered with a mosaic of woodlands, prairies, and wetlands. Many of these ecosystems have disappeared and been replaced by farms and residential/urban areas. Unfortunately, these new environments provide little refuge for pollinators forcing their populations to decline in recent decades. But you can make all the difference by planting your own pollinator garden!



TENNESSEE'S NATIVE PLANTS

Our Native Plants

The species listed below are just a few of the many native plants in Tennessee that our pollinators depend upon. Plant these in your yard and it will be teeming with bees and butterflies in no time!

Butterfly Milkweed
Smooth Beardtongue
White Indigo
Wild Quinine
Goat's Rue
Golden Alexanders
Bottlebrush
Woolly Panicum
Deer Tongue
Bergamont
Slender Mountain Mint
Scaly Blazing Star
Compass Plant
Partridge Pea
Common Milkweed
Rattlesnake Master
Indian Grass
Little Bluestem
Splitbeard Bluestem
Slender Lespedeza
Tall Coreopsis
Downy Sunflower
Prairie Dock

Ashy Sunflower
Tickseed Sunflower
Rosinweed
Grey Goldenrod
Sampson Snakeroot
Virginia Wild Rye
Eastern Gamma Grass
Brown Eyed Susan
Cardinal Flower
Cup Plant
Swamp Milkweed
Seed Box
Wild Senna
Culver's Root
Showy Tick Trefoil
Blue Vervain
Sawtooth Sunflower
False Aster
Tall Dropseed
Switch Grass
Button Blazing Star
Illinois Budleflower
Sweet Joe Pye Weed



A FEW EXAMPLES

Butterfly Milkweed



Brown Eyed Susan



Golden Alexander's



Sweet Joe-Pye Weed



Common Milkweed



Swamp Milkweed



Bergamot



Southern Blue Flag Iris



Sawtooth Sunflower



Wild Indigo



Rattlesnake Master



Showy Tick Trefoil



YOUR GARDEN

Important Tips to Remember

No matter the size of your pollinator garden, there are a handful of tips to consider. Like all animals, pollinators need access to shelter and water in addition to food.



Plant a Diverse Garden

Native plants have different blooming periods. This means that the nectar and pollen will be available at different times of the year. Make sure to plant many different species in order to ensure a consistent food source from spring to fall.

A pollinator garden with over 15 different species is recommended. Gardens with a higher number of native plants will attract a higher number of native pollinators! Choose plants with different colors, smells, heights and blooming periods in order to get the largest diversity of pollinators



Provide Shelter and Water

Shelter looks different for all animals. Some insect species require open dirt to nest while others need dead trees or branches. You can ensure shelter is provided by resisting your urge to clear your garden of brush or decomposing leaves.

Your pollinator garden isn't complete without a water source. A small water dish or depression in the ground will do just fine! Water will then collect and provide hydration for pollinators present. Some plants like the Cup Plant can hold water as well.



Avoid Pesticides

Pesticides will make your garden a less welcoming environment for the pollinators, thus the plants will get no love.

GETTING STARTED

Pick Your Site

Pollinator gardens, both big and small, can have a significant impact on the health of your local ecosystems. If you have a large yard you will be able to establish an extensive pollinator garden of many square feet. If you have just a small plot or a balcony your pollinator garden will look a bit different by utilizing flower pots or a raised bed.

Native plants, which are popular among our native pollinators, enjoy full sun or partial shade.

Pay attention to the types of soil in your yard. Some gardens thrive in wet, clay soils while others do best in dry, sandy areas. It depends! Contact your local agricultural extension agent for help understanding what your soil type means.

Prepare Your Site

In order to establish your pollinator garden, you will likely have to clear the area of any invasive species or grass. You can prepare the site by hand weeding or using a tool such as a hoe or rake. Consider using compost to amp up your garden soils!

Get Your Seeds or Plants!

You can buy native plants or native plant seeds from a local nursery. Avoid planting any nonnative or hybrid plant species... Pollinators are not adapted to visit these as easily.

PLANTING YOUR GARDEN

When to Plant

Depending on if you are planting seeds or plants will determine when you actually plant your garden. If you are planting seeds, you should plant them in late fall or early winter. If you are planting seedlings or full grown plants, you should plant those after the last frost of winter or in early spring.

Most native plants are perennials, meaning the plant will grow in the same spot year after year. Once a pollinator garden is established, it will need less hands on attention compared to other gardens.

How to Plant

Planting pollinator seeds in your garden is easy! Simply "broadcast" or toss the seeds throughout the garden. Then cover the seeds with a thin layer of soil. If you are planting the seeds in winter, just throw the seeds over the snow and let them be. Over the course of winter the seeds will be protected and will germinate come springtime.

When you are planting full grown plants or seedlings, just dig a hole large enough for the plant and pop it in. Mix some compost into the soil to give the plants an extra boost. And make sure not to overplant your garden to allow for enough space per plant.

Caring For Your Garden

Your garden should be able to take care of itself soon! During the first year, you should pull any weeds that are competing with your native plants. You will only have to water your garden in its early stages or in times of severe drought. Adding new species of plants to your garden over time will further create a pollinator oasis!

MORE RESOURCES

Chattanooga Area Pollinator Partnership- provides resources and information about pollinators in Chattanooga and surrounding areas

Nashville Arocha- an organization in Nashville focusing on backyard pollinator gardens

The Pollinator Partnership- a leader working to protect our pollinators

The Xerces Society- another leader in the pollinator world

US Fish and Wildlife Service- has extensive information and detailed how-to's designed to support your journey to creating a pollinator haven

US Fish and Wildlife Service Guide- provides a great guidebook to help you through the steps

Wild Ones- the Tennessee chapter is focused on providing help gardening with native plants

