

Grow A Garden for Hummingbirds



Weighing less than a penny, this acrobat of a bird beats its wings 50 to 100 times per second and can dive up to 50 mph! Using a figure-eight wing pattern, hummingbirds can fly backwards, upside down, and even hover like helicopters for refueling. The ruby-throated is the only species of hummingbird that breeds in the eastern United States and each fall, they make a monumental journey to their winter homes in Panama and Central America. Every spring the ruby-throated hummers fly back to where their lives began.

The male ruby-throated hummingbird has an iridescent red throat. The female has a shiny green back with a silver belly. These tiny birds get their name from the sound of their wings beating in constant motion. Both male and female hummingbird hearts beat about 1,200 times per minute and even faster when migrating. To support this high rate of metabolism, the tiny birds voraciously gorge on insects and nectar. By flying from flower to flower, the hummingbird drinks its body weight or more in nectar each day and often pollinates the plants on which it feeds. Some plants can only reproduce because of hummingbird pollination.

Hummingbirds have incredible vision and are attracted to red and brightly-colored flowers. [Recent research has shown that native red flowers have sweeter nectar.](#) Hummers also favor long tubular-shaped flowers that can only be reached by pollinators with long bills or tongues. Some of our larger queen bumblebees, which are also active in early spring, have tongues long enough to reach the nectar in such flowers; others “cheat” by tearing holes in the nectar spurs to steal the sugary reward without performing pollination services. Hummingbirds don’t have to “cheat” because their tongues are so long.

To attract hummingbirds to your garden, a variety of nectar-rich flowers are essential. In designing a garden to entice these jeweled birds, it is important to cluster flowers together and to include plants of different heights. They love flowering shrubs and trees to perch in between feedings. They also love to bathe in fine mist, so adding a hummingbird water feature is always welcome. Perhaps the most essential element of the garden is the inclusion of tubular-shaped flowers that bloom all season long.

Hummingbirds return to their summer homes in spring. In New Jersey, we start to see hummingbirds in April. The males return first to establish territories and the females follow them. They mate, and the female builds the nest; she is responsible for incubating two tiny white eggs the size of jellybeans. It is also the female that then raises the young birds. It takes a lot of nectar to have enough energy to raise a hummingbird family.



Hummingbirds stay in their summer breeding grounds until the fall. The males migrate south first, sometimes as early as July or August. But the females stay until September and sometimes into October before they make the 1,500 to 2,000-mile journey to their winter homes in Panama, Costa Rica, and other Central American countries.



To entice hummingbirds to your garden and to be successful in having them visit often, you must offer nectar-rich flowers that start blooming in April and have a succession of blooms through the entire growing season.

Activity: Create a Garden for Hummingbirds

Use the following information on how to build a hummingbird garden to grow one in your yard! Remember to take pictures throughout the process and keep track of when the flowers bloom.

Objective: Create garden for ruby-throated hummingbirds at home

Location: Outdoors

Season: Plant in spring or early summer for summer and fall blooms

Materials for a first hummingbird garden:

- In-ground tilled garden space or a raised bed (about 4 ft. x 6 ft.) filled with soil and compost
- Trowels or shovels
- Nectar plants for hummingbirds (4 kinds of flowers x 3 each = 12 plants) including the hummingbird's favorite plants that bloom through spring, summer and fall





Choose Hummingbird Favorites

x3 Columbine

Aquilegia canadensis

(Blooms April to May)



x3 Fire pink

Silene virginica

(Blooms May to June)



x3 Beebalm

Monarda didyma

(Blooms June to July)



x3 Cardinal flower

Lobelia cardinalis

(Blooms July through September)



Instructions

1. Begin by finding a garden location that receives at least 4 to 6 hours of sunlight. Ideally your spot will be near trees, so the hummingbirds will have places to perch between nectar feedings. Start with a small space; 4 feet by 6 feet is a good size for a garden plot or for a raised bed.
2. Remove all grass, weeds, and rocks from your plot and till the soil. Add composted leaves or bags of compost to the soil so it is fertile and easy to dig. If using a raised bed, fill with garden soil and compost.
3. Select red or pink tubular or bell-shaped flowers to attract hummingbirds. Native flowers are best because they have the sweetest nectar. Hummingbirds do not have a keen sense of smell and rely on bright colors to find their food. Research has also shown that native red flowers have higher sugar concentrations than other colored flowers. Since hummingbirds live life in fast motion they need as many sugar calories as possible with every sip of nectar. (See example plants above and in the next section)
4. When selecting plants, if you have a big garden, then choose a variety of species that begin blooming in April when Hummingbirds return to their summer homes and others that continue to bloom throughout the growing season. This will keep hummingbirds coming to your garden every day until they migrate in September or October. Start small; the example plants listed above is a good amount for beginners.
5. Plan your garden layout; group 3 of each kind of plant together. Hummingbirds like to fly from flower to flower on a single plant, then zip away before returning to the same bed. Plant each kind of flower in groups of at least three that bloom at similar times so the hummingbird does not have to travel far to find another flower from which to feed.
6. Plant each plant in the soil in the bed as you planned; space them 10 to 12 inches apart.
7. If you have a lot of space in your garden, then consider adding shrubs or even trees to it. Planting native flowering shrubs, vines, and trees provide more options for hummingbirds.
8. Hummingbirds love to bathe in mist, so consider adding a hummingbird mister to your garden.
9. Water the plants deeply when you plant them and keep plants watered in between rains. Remove weeds throughout the season. You may need to stake the beebalm and cardinal flower as they can get quite tall.
10. Now that you've created the garden, the hummingbirds will come. But be patient, in time your garden will be a haven not just for hummingbirds, but for butterflies, bees, and other pollinators as well.

Important: Never use pesticides! They are can be deadly to hummingbirds and other pollinators



More Native Nectar Plants

Use these additional plants if you want to make a bigger garden or swap out some of the nectar plants above for other hummingbird favorites. (Or see the Additional Resources page at the end for more recommendations.)



Bergamot
Summer



Coral bells
Late Spring/Summer



Foxglove beard tongue
Late Spring/Summer



Turtlehead
Late Summer



Swamp rose mallow
Large Shrub
Late Summer



Trumpet honeysuckle
Large vine
Late Spring through Summer



Feeding Hummingbirds

Adding a hummingbird feeder to your yard is a fun way to supplement hummingbird diets while getting a close-up look at hummingbirds, but they are a big responsibility. They must be cleaned every other day in hot weather to prevent the sugar water from turning to alcohol which can kill hummingbirds. Don't get one unless you can take care of it!

In New Jersey, if you are going to set out a feeder, then the time to do it is mid to late April. As soon

as the birds return to their summer breeding grounds, they establish nesting and feeding territories.

[If you wait to hang a feeder till later in the season, they may not find it.](#)

Hummingbirds have incredible vision and are attracted to the color red. The hummingbird feeder you choose should be easy to clean and have red parts to attract the birds by sight. An adult hummingbird eats its weight or more in sugar water each day and refuels at intervals of ten minutes or less all day long. Your feeder must be filled with a sugar solution that will provide enough energy to meet the demands of their high-speed metabolisms.

The solution you prepare to fill your feeder should be like nectar found in nature. When formulating your hummingbird mixture, remember that nectar in flowers is typically in the range of 12%-35% sugar (sucrose). To make your own hummingbird nectar, the usual recipe is **4 parts water to 1 part sugar or about 20% sugar. That's ¼ cup sugar mixed in 1 cup of water. Never use honey to make hummingbird food as bacteria and fungi thrive in honey water. Red food coloring or dyes should never be added to the nectar; it can be dangerous to the birds! Just table sugar and water are the best choice. During cold or rainy conditions when the birds need more energy, it is helpful to make the mixture with ⅓ cup of sugar per cup of water.**

On cool days in spring when the birds are not draining the feeders daily, you can leave the nectar mix in the feeder for 4-5 days or until the mix starts to cloud up. **As the days get warmer, the nectar mix needs to be replaced every 1 to 2 days to prevent the sugary water from fermenting and turning to toxic alcohol. Your birds won't just get drunk, they will die if they drink it!**

It is also critically important to keep the feeders clean. When you refill, you should inspect each feeder, scrub with a brush or sponge and clean any parts where mold, ants and dirt may have accumulated. Be careful about where you hang your hummingbird feeders, as some cats have learned to lurk in the shadows waiting to snatch your precious jewels!

Duke Farms Connection

Hummingbirds are often spotted at Duke Farms sipping nectar in the Pollinator Hoop House behind the Orchid Range. There is always something in bloom throughout the growing season.



Duke Farms Native Nursery Coordinator, Callie Valent, teaches Junior Naturalists how to plant a hummingbird garden.



Cardinal flower, a hummingbird garden essential, in bloom in August at the Duke Farms Pollinator Hoop House





Where to Buy Hummingbird Native Plants

The best nectar plants for hummingbirds are native plants. Although many local nurseries carry useful flowering plants, they do not always have a large selection of native plants. Here are some resources for native plants:

- The [Native Plant Society of New Jersey](#) is a great resource to help you find where to buy native butterfly plants or to get more information
- [Jersey Friendly Yards](#)
- [List of native nurseries](#)

Additional Resources

- [Rutgers University: Attracting Ruby-throated hummingbirds to Your Yard](#)
- [Penn State: Attracting Hummingbirds](#)
- [Creating Inviting Habitats for Birds, Butterflies and Hummingbirds](#)
- [Hummingbird Feeders](#)
- [Attracting Hummingbirds](#)