Would you like to attract birds to your backyard? Welcome to Bird Feeding 101 – your introduction to creating a successful bird feeding garden.

The tips and suggestions in this show are based on the experiences of thousands of bird feeding enthusiasts from across North America who participate in Project FeederWatch. These volunteers watch the birds at their feeders and help scientists monitor the abundance and distribution of common feeder birds.

Anyone can become a FeederWatcher, and most of the photos in this show, including this White-breasted Nuthatch showing off his peanut, were taken by project participants.
Simply providing food and shelter can be effective for bringing birds closer to your home, but how can you attract a diversity of birds to your yard?

Which feeders should you use?

What foods will attract the most species?

How can you attract birds without spending a fortune on feeding the neighborhood squirrels as well?

How can you make your yard a friendlier place for birds?

And what can you do to keep birds safe while visiting your yard?

These questions and more will be answered in this quick primer on bird feeding.
Why do tens of millions of Americans feed birds?

First and foremost, feeding birds brings these spectacular animals into our backyards, allowing us to connect with them and helping us to appreciate nature.

Feeding birds is also fun—who can resist watching the antics of a chickadee? And attracting a colorful goldfinch or a cardinal to your yard can brighten even the most gloomy day.

Wild birds generally don't need the “free” food that we provide at bird feeders, in fact, studies show that the bulk of a birds’ diet comes from natural sources even where feeders provide plenty of food. But birds do need us to protect habitats. Making your yard or neighborhood more attractive to birds is a first step in ensuring that future generations can enjoy feeding birds as well.
The number of foods offered to wild birds continues to increase. In most areas, however, **black-oil sunflower** is the best all-around choice for attracting a wide variety of species. Finches, chickadees, titmice, cardinals, nuthatches, and many other common feeder birds readily consume black-oil sunflower.

**Safflower** is superficially similar to sunflower, but fewer species consume it. It is most readily eaten by cardinals. **Millet** is a favorite of many ground-feeding species, including sparrows, doves, and juncos. **Corn**, either whole or cracked, is attractive to pigeons and doves. **Nyjer** (not shown here) is another common food item that is favored by finches such as the American Goldfinch, Common Redpoll, and Purple Finch.

**Suet** – which is made from beef fat – is a favored food item of many woodpeckers and nuthatches. Unprocessed suet is available at most grocery store meat counters. Today, however, many companies are selling packaged suet mixes that contain a wide variety of seeds, fruits, and other food items. These suet cakes make offering suet quite convenient.
Besides the standard feeder fare, many other food items can attract birds to your yard.

Fruit is readily consumed by many species including robins, bluebirds, and mockingbirds. Fresh fruit – such as apples and oranges -- can be offered. Orioles are particularly fond of oranges. Dried fruits may be consumed by these species as well.

Bird watchers are increasingly offering insects, such a mealworms, at their feeders. Many birds that eat insects, including titmice, chickadees, and bluebirds, are attracted by mealworms.
Look for feeders that do not have sharp edges and are:
- Easy to clean
- Easy to fill
- Sturdy

The variety of feeders available on the market is staggering. Different feeders are best for offering different food items and for attracting different birds. To attract the greatest diversity of species, maintain several feeders of different designs and offer various food items.

Be sure that all of your feeders meet a few basic requirements. Feeders should be easy to clean and refill. They should be sturdy enough to last, and they should not have any parts that are sharp or could hurt birds in any way.
The next few slides will provide you with an idea of the variety of feeders available.

For instance, a hopper feeder is a platform upon which walls and a roof are built, forming a "hopper" that protects seed fairly well against the weather, less well against squirrels. Hoppers are attractive to most species of feeder birds, from small birds such as chickadees to large birds such as jays. Most hoppers hold a good quantity of seed. Few are weatherproof, however, so the food may get wet and moldy if it sits for a few days.
A “tray” or “platform” feeder is any flat, raised surface onto which bird food is spread. Trays attract most species of feeder birds, but they offer no protection against squirrels, chipmunks, rain, or snow. Tray feeders placed near the ground are most likely to attract juncos, doves, and sparrows. Be sure these feeders have plenty of drainage holes.
Nectar feeders, also known as hummingbird feeders or oriole feeders, are generally made of a bottle or tube with small ports through which birds can access “nectar”. The feeders are usually constructed of glass or plastic and may have small mesh guards over the feeding ports to restrict access for bees. Some feeders also come with a built-in water reservoir that serves as a moat to prevent ants from reaching the nectar.

Make sure that hummingbird feeders are easy to take apart and clean, because they should be washed frequently.

To make nectar, add one part sugar to four parts boiling water. When the mixture is cool, it is ready for use. Adding red food coloring to nectar is unnecessary and possibly harmful to birds. Red portals on the feeder, or even a red ribbon tied on top, will attract the birds just as well.

NOTE: Change the nectar every three to five days to prevent mold and deadly fermentation. NEVER use honey or artificial sweeteners when making hummingbird nectar.
A tube feeder is a hollow cylinder, often made of plastic and metal, with multiple feeding ports and perches. Tube feeders keep seed fairly dry, and they are often somewhat squirrel resistant.

The species of birds attracted to a tube feeder depends on the size of the perches under the feeding ports: short perches accommodate small birds such as finches, but exclude larger birds such as grackles and jays.
Nyjer seed, also known as thistle seed, can be fed in a specially designed tube feeder with small seed ports that will prevent this tiny seed from falling on the ground.

Nyjer can also be offered in specially designed seed "socks" with small holes for dispensing the seed.

Nyjer seed is preferred by finches such as American Goldfinch, Pine Siskins, and Common Redpolls.

Nyjer is imported from Africa and Southeast Asia and is not related to the North American thistles.
Suet can be offered in a wire-mesh cage or plastic bag, such as an onion bag.

Occasionally suet feeders can attract starlings and other species that you may not want to be feeding. Hanging suet cages that are covered on top and open at the bottom are starling-resistant, but will still allow woodpeckers and nuthatches to feed by clinging upside down.
While suet is almost guaranteed to attract woodpeckers, other birds that may not normally visit a seed feeder may also try suet.

Species that are not normally considered “feeder birds”, such as the Pine Warbler and Western Tanager shown here, may eat suet, especially during cold spells when insects are scarce.
Peanuts can also be fed to birds. Shelled peanuts are readily eaten by woodpeckers and nuthatches. Peanuts in the shell are favored by jays, and they may be stored for later consumption. Peanut hearts and pieces are likely to attract chickadees and Carolina Wrens.
A fun project, particularly for kids, is to make your own feeders. Simply drilling holes in a log and stuffing the holes with suet or peanut butter will attract birds.

Create your own original design, or follow one of the many feeder designs and plans that can be found on the Internet.
No matter where you live, if you feed birds, chances are you will attract other animals as well. Squirrels are often the number one challenge for people feeding birds. Squirrels can consume a lot of food and can be quite destructive by chewing holes in your feeders.

Squirrels continue to outsmart humans by defeating our anti-squirrel efforts. However, there are a number of tricks that can help you gain the upper hand on these athletic and hungry rodents.
One option is to try to “baffle” squirrels by creating a barrier between the squirrels and your feeders.

Squirrel “baffles” come in all shapes, sizes, and materials, but their common purpose is to keep squirrels from reaching feeders. Often cone-shaped, baffles are hung either below feeders to prevent a squirrel from approaching from the ground, or above feeders to prevent an attack from the trees. Baffles need to be large enough to prevent the rodents from reaching around the barrier. They also need to be mounted high enough to prevent squirrels from jumping past the baffle.

For instance, baffles in this photo are mounted on top of the feeders to prevent squirrels from reaching the feeders from above.
Here we see baffles mounted on the poles below the feeders to prevent squirrels from climbing up from the ground. It appears as though these baffles are doing the job! Note that the feeders are located some distance from the nearest trees so that squirrels cannot jump onto the feeders.
Another option is to buy feeders that are resistant to squirrels. Some feeders come wrapped in a metal mesh barrier that prevents squirrels from reaching the seeds. Small birds can slip through the mesh and feed, but larger birds are left outside with the squirrels.
Remember that no feeder is completely squirrel proof. Many squirrel resistant feeders are on the market today, but the squirrels always seem to find a way to defeat the human engineers.
Another option is to simply surrender and feed the squirrels. Installing a squirrel feeder some distance from your bird feeders can distract squirrels that would normally eat your bird seed. However, if your squirrel population is high or your food supply runs low at the squirrel feeders, you can bet the rodents will turn their attention to the bird feeders.
When you start offering food to the birds, be prepared that other wildlife besides squirrels may also be attracted.

While moose and elk sightings at feeders are rare, a few lucky (or unlucky?) FeederWatchers have hosted these animals.

Raccoons can be found in much of North America, and chances are they will visit your feeders at some point.
And if you look in your backyard and see a black bear on your platform feeder, you should probably stop feeding the birds until the bears are hibernating…
Creating bird-friendly habitat

- Shelter
- Natural food sources
- Water

Creating an attractive environment for common feeder birds is as easy as providing shelter, food, and water.

Birds need to feel safe in order to visit your feeders, and providing shelter can help them escape predators and harsh weather conditions. Evergreen trees and shrubs provide excellent shelter, and a large brush pile is also a favored refuge for backyard birds.
Creating bird-friendly habitat

- Shelter
- Natural food sources
- Water

You can encourage birds to nest in your yard by providing nest boxes. Many common feeder birds, such as chickadees and titmice, readily nest in birdhouses. Bluebirds are also likely to inhabit backyard bird houses, and they can be attracted to your feeders by offering mealworms.
“Birdscaping” your yard with native vegetation is an excellent way to attract more birds.

Birdscaping involves growing plants with birds in mind. Growing a variety of native plants that provide food, shelter, and potential nest sites will attract the greatest diversity of bird species.

Some plants to consider include perennials such as black-eyed susans and annuals such as sunflowers for their seeds; tubular-shaped nectar producing flowers for hummingbirds, small trees and fruiting shrubs such as crabapple, dogwoods, viburnums, and serviceberries for their fruits; and conifers such as pines and spruces that provide cover, seeds, and nesting sites.
Creating bird-friendly habitat

- Shelter
- Natural food sources
- Water

Providing water is an effective way of attracting many species of birds—even those that won’t eat the seeds and other foods that you provide. Running water is particularly attractive to birds. A small garden pond with a waterfall or a slow drip from a hanging bucket into a birdbath will likely bring a wide variety of birds to your yard.

Finding unfrozen water can be particularly challenging for birds in the north during the winter. Many companies now produce heating elements that are specifically designed to keep birdbaths free of ice.
If you are attracting birds to your yard, you are responsible for reducing the threats that birds face while they are visiting your feeders. A number of potential dangers exist that you should be aware of.

At some point, the bird activity at your feeders is likely to attract a bird-eating hawk, such as a Sharp-shinned Hawk or a Cooper’s Hawk. You may welcome the close-up view of these fantastic birds, but some people become upset if the hawk eats or scares their feeder birds away.

If you would like to discourage hawks from visiting your yard, try taking your feeders down for a few days. Your feeder birds will disperse, and the hawk will likely move on. Your songbirds will quickly return once the food supply is restored.

Also be sure to provide adequate cover for songbirds in your yard, such as dense shrubs or piles of brush, where birds can escape from predators.
A number of bird diseases affect wild birds, and some could potentially be spread when birds congregate at feeders. Birds can become ill from leftover bits of seeds and seed hulls that grow molds and bacteria. Bacteria can also thrive on the bird droppings that accumulate on and around feeders. To maintain a healthy feeding garden:

• Clean your feeders every two weeks—many feeders are dishwasher safe.
• If your feeders are not dishwasher safe, wash them thoroughly in soapy water, then soak or rinse in a solution of one part bleach to nine parts water.
• Dry your feeders before refilling so that the food remains dry
• Be sure to clean hummingbird feeders at least once a week
• And rake the ground below your feeders to limit accumulation of waste
Cats are the most numerous pet in North America. Unfortunately, they kill hundreds of millions of birds each year. Keeping your cat indoors will:

- Help keep your feeder birds safe
- Limit your cat’s exposure to diseases, parasites, and poisons
- Keep your cat safe from other dangers such as cars and other animals
- Result in a longer, healthier life for your cat and the wildlife in your yard

To learn more about outdoor cats and their impact on bird populations, visit the website of the American Bird Conservancy.
Millions of birds are killed each year by colliding with windows that are perceived as pathways through buildings. Placing feeders more than 30 feet from windows usually limits collisions. Another option is to place feeders within 3 feet of a window. If birds make contact with a window after leaving a feeder that is close to the window, they are generally moving slowly and will not hurt themselves.

You can further reduce window strikes by:

- Installing window awnings and screens.
- Fastening hawk silhouettes or other objects to windows to break-up reflections of surrounding open space and trees.
- And, for problematic windows, consider attaching bird netting to the window frame (the type used to keep birds away from fruit). Birds will bounce off of the netting and fly away unharmed.
This has been a quick introduction to bird feeding. If you would like to learn more, there are plenty of resources available. Hundreds of books and web sites provide a wealth of information about bird feeding. We recommend *The FeederWatcher’s Guide to Bird Feeding* and *Birds at Your Feeder*. Both of these books have drawn on the experiences of thousands of Project FeederWatch participants.

Also, it is extremely helpful to have a field guide handy to help you identify the birds at your feeders.

But beware—the hobby can be addicting.
Finally, you may consider taking part in Project FeederWatch. You certainly don’t need to be an expert birder to help scientists learn more about bird populations. All you need is a feeder and some seed. When you sign-up for the project you will receive all of the materials that you need to participate, including a handy poster to help you identify all of the common feeder birds.
Project FeederWatch is a joint research and education project of the Cornell Lab of Ornithology, Bird Studies Canada, Audubon, and the Canadian Nature Federation.

To learn more about feeding birds and Project FeederWatch, visit their web site at www.birds.cornell.edu/pfw