



Winter Bird Feeding: The Basics

Action, color, drama, song; it's all there at your backyard bird feeder. Feeding birds is a great way to brighten a dreary winter day. It's also a never-ending source of entertainment and enjoyment. You'll get to know the regulars and, if you're lucky, you'll be rewarded with surprise visits from birds not usually found in your area. This fact sheet provides the information you will need to begin.

Who's Who at the Backyard Bird Feeder

In winter approximately 35 species of birds may be seen at feeders in Pennsylvania. The type of habitat around your home influences the number of birds visiting your feeder. The greatest diversity appears at feeders in wooded rural areas, whereas the smallest comes to feeders in urban areas. In one suburban yard in southeastern Pennsylvania, feeders attracted 25 bird species during the winter. This diversity no doubt was bolstered by an abundance of trees and shrubs and a heated birdbath, in addition to numerous feeders.

On page 2 we have listed the 10 species of birds most commonly observed at bird feeders in Pennsylvania. To learn to identify the species at your feeder, get a field guide to the birds. You can find good field guides at bookstores and libraries.



Downy woodpecker at suet feeder

Food and Feeders

There are many kinds of seeds and feeders, and the choice may seem overwhelming at times. Different species of birds prefer different types of seeds and feeders (see page 3), and no one type is preferred by all birds. Where you set up your feeders and how much cover and water you have also affects feeder use. In the following sections we discuss what to consider in developing your feeding program.

Bird Seed and Other Food for Birds

The type of seed you provide influences how many birds come to your feeder. Over 20 types of seeds are sold as birdseed. The best all-around is probably the small black-oil sunflower seed. It costs a little more but is preferred by many smaller species, including chickadees, nuthatches, and titmice. It has a high oil content that is nutritionally important for birds, and a thin seed coat that is easy for them to crack open. If you are going to provide one seed, this is the one to choose.

The striped sunflower seed, slightly larger, is very popular with blue jays and cardinals, but it is difficult for many smaller species to crack open. Sunflower seeds usually are provided in a hanging feeder. A disadvantage of sunflower seeds is that birds crack them open to eat the hearts and then drop the hulls on the ground, creating a mess under the feeder. You may instead opt to buy hulled sunflower seeds, which come without the seed coat. These are more expensive but leave no mess.

If you want to attract a variety of species, try providing a variety of foods. Besides sunflower seeds, other popular seed types include white proso millet, niger, and peanuts. White proso millet is cheap and attracts many species, but it may also attract less desirable ones, such as house sparrows and brown-headed cowbirds. Niger or thistle seed is popular because of its attractiveness to goldfinches, house finches, and purple finches. Niger seed is very small and usually offered in a special feeder with small holes for dispensing the seeds.

Peanuts attract blue jays, chickadees, titmice, and woodpeckers. They can be offered as shelled kernels, in the shell, or as peanut hearts—the small chips left when peanut halves are broken apart. The hearts are valuable because they are small and can be eaten by many smaller species of birds.

Many feed stores and specialty stores sell a birdseed mix whose content allows you to provide a variety of seed in one place. When purchasing a mix, look at the seed content. All seed is not alike, and birds can tell the difference among seeds. Some of the inexpensive commercial mixes contain items such as wheat, milo, hulled oats, rice, and rye seed that are not attractive to birds. If you have used these mixes in the past, you may have noticed how the birds sorted through the mix, selecting the seeds they preferred and discarding the rest.

Besides seed, you can offer other types of foods to enhance the attractiveness of your feeding station. Suet is a high-quality animal fat that is highly sought after in winter. It is particularly attractive to woodpeckers, chickadees, nuthatches, and titmice, although some atypical feeder birds like Carolina wrens and brown creepers also like it. Suet is sold at grocery stores in the meat section. It can be hung in a mesh bag (often provided with the suet) or you can buy special suet feeders. Processed suet cakes are available at many stores that sell bird feeding supplies. These cakes may contain other pieces of seed and fruit and are processed so that they don't turn rancid in warmer weather.

“Marvel Meal,” a mixture of peanut butter and other items, is fun for children to make and is a favorite of chickadees, titmice, wrens, and even bluebirds. It can be pressed into the holes of a log feeder or smeared directly onto the bark of trees. It also can be frozen into blocks and put in a suet feeder or sliced into chunks and placed on a feeder tray.

Recipe for Marvel Meal

1 cup peanut butter
1 cup vegetable shortening
4 cups cornmeal
1 cup flour
1 handful of sunflower seeds
(optional)

Types of Feeders

Just as different species prefer different types of seeds, so do they prefer different kinds of feeders. Consider providing a variety of feeder types to increase the diversity of visitors. The ideal feeder is sturdy and tight so that it stays put and does not allow water in. It also is easy to assemble and clean. The three main types of feeders are hopper or house feeders, tube feeders, and tray or platform feeders.

A hopper feeder looks like a house with Plexiglas sides on top of a platform where

Pennsylvania's Top Ten: Birds Most Commonly Observed at Feeders

Species	Percentage of feeders visited
Dark-eyed junco	97
Mourning dove	94
Tufted titmouse	93
Northern cardinal	91
Blue jay	89
White-breasted nuthatch	89
Downy woodpecker	88
House finch	88
American goldfinch	87
Black-capped chickadee	77

Source: Project FeederWatch, Cornell Lab of Ornithology.

the seed is dispensed as birds eat it. The Plexiglas makes it easy to tell when more seed needs to be added. The seed is protected against the weather but not so well against squirrels.

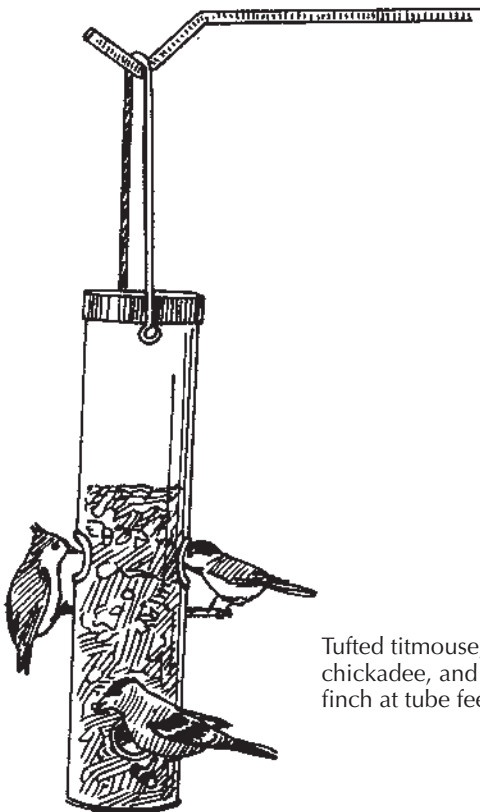
Tube feeders are hollow Plexiglas cylinders with multiple feeding ports and perches. These hanging feeders attract species that typically feed off the ground, and perch size to some extent influences which species use them. Large birds need large perches, whereas small birds can feed on either large or small perches. You can attach a tray to the bottom to catch scattered seeds and to allow larger species to feed.

Tray or platform feeders are simply flat, raised surfaces on which you spread seed. Easy to make, they are one of the most popular feeders. Birds that typically feed on the ground are particularly attracted to this type of feeder. A disadvantage of platform feeders is that they are not squirrel proof or weather resistant. They should have drainage holes for water and need to be cleaned often to remove bird droppings. Only one day's worth of food should be put out at a time.

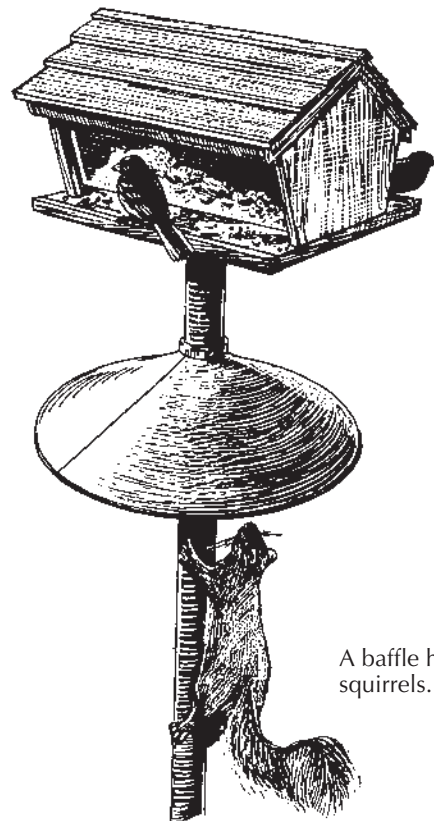
Besides the three primary types, there are various specialty feeders, including those designed specifically for suet, thistle, peanuts, mealworms, and fruit.

Species Food and Feeder Preferences

Species	Food Preference	Feeder Preference
Mourning dove	Cracked corn, millet, sunflower seeds	Ground, platform feeder
Red-bellied woodpecker	Suet, sunflower seeds, peanuts	Suet feeder, hanging feeder
Downy and hairy woodpeckers	Suet, sunflower seeds, peanuts	Suet feeder, hanging feeder
Blue jay	Sunflower seeds, suet, peanuts	Platform feeder
Black-capped chickadee	Sunflower seeds, suet, peanuts	Almost all feeders
Tufted titmouse	Sunflower seeds, suet, peanuts	Hanging feeder, suet feeder
White-breasted nuthatch	Sunflower seeds, suet	Almost all feeders
Red-breasted nuthatch	Sunflower seeds, suet	Suet feeder, hanging feeder
Carolina wren	Peanut butter, suet	Suet feeder
European starling	Peanut butter, suet, sunflower seeds	Suet feeder, platform feeder
White-throated sparrow	Sunflower seeds, millet	Ground, platform feeder
Song sparrow	Sunflower seeds, millet	Ground, platform feeder
Dark-eyed junco	Sunflower seeds, millet	Ground, platform feeder
Northern cardinal	Sunflower seeds, seed mixes	Ground, platform feeder, tube feeder with tray
Common grackle	Cracked corn, sunflower seeds	Platform feeder, tube feeder with tray
Brown-headed cowbird	Millet	Platform feeder
Purple finch	Niger, sunflower seeds, millet	Niger feeder, hanging tube feeder
House finch	Niger, sunflower seeds, millet	Niger feeder, hanging tube feeder, ground
American goldfinch	Niger, sunflower seeds	Niger feeder, hanging tube feeder, ground
House sparrow	Millet, sunflower seeds	Platform feeder, tube feeder with tray



Tufted titmouse, black-capped chickadee, and American goldfinch at tube feeder



A baffle helps to deter squirrels.

Feeder Placement

When selecting a site for establishing your feeding station, consider feeder placement from your point of view and that of the bird. Your feeders should be visible to you from inside your house while being safe and secure for the birds. With this in mind, place feeders near a favorite window and within 10 feet of protective cover, such as trees and shrubs. Most birds don't like to venture far from cover that gives them protection from the elements, a safe retreat, and a place to perch while opening seeds or resting between feeder visits.

Water

Along with providing food for birds, it is a good idea to supply a source of water that birds can use for drinking and bathing. Water also attracts species that do not normally visit your feeder. Bird baths come in a variety of sizes, shapes, and prices. You can buy them at most lawn and garden stores or make them at home with a variety of materials. All that is required is a nonslippery surface and a depth of no more than three inches. Terra-cotta saucers used under large plants make excellent bird baths. You can also use a garbage can lid with a few stones placed inside.

Cold winter temperatures can mean a time of drought for birds. Thus, water becomes particularly attractive to birds in winter. Heaters to keep the water from freezing are available at stores that sell bird feeding supplies. Ideally, your bird bath should be placed near a tree with overhanging branches so that the birds have a place to sit and preen after bathing. If cats are present, place the bath away from dense shrubbery where cats can hide and surprise the birds. Different species will be attracted to the bath depending on its height and location. You may want to experiment to see what works best.

Questions and Concerns

Whether you are feeding birds for the first time or have been feeding them for years, you may have one or more of the following concerns:

■ Why are there no birds at my feeders?

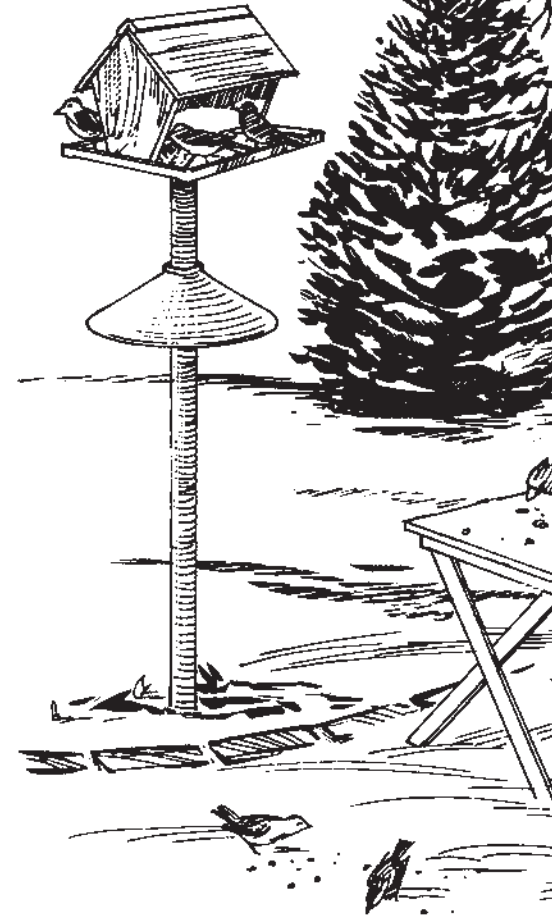
There can be many reasons: birds may not have found the feeders or there may be a bad supply of seed, an abundance of natural food, or low bird numbers in the local area. If you recently established your feeding site, the birds may not have found it yet. You may want to make your feeding site more visible by scattering seed around the feeders. If this is not the problem, check your seed to make sure it is not moldy or infested with insects. Mold or infestation is a particular problem in seed that has been sitting for a long time. If you suspect that seed quality is bad, dump out the seed and refill your feeders with a new batch.

Another possibility is that natural foods are abundant enough that birds are not attracted to the feeder. Feeder use usually is low in summer, fall, and early winter because natural food sources, such as seeds and berries, are abundant then. In addition, if you are having a mild winter and food is plentiful, birds will not visit the feeder as much. Similarly, if there is no snow cover, birds that typically feed on the ground will be much less common at feeders.

Finally, there may not be many birds in your local area for some reason unrelated to bird feeding. Check with others in your area to find out if they are seeing many birds. Also, birds tend to visit feeders most often in early morning and at dusk, so if you only look at the feeders in the middle of the day, you may be missing the visitors.

■ How can I reduce the risk of disease?

Bird feeders may help spread disease if a sick bird comes to your feeder. You can reduce the risk of disease by following these recommendations:



1. If you feed on the ground, rotate your feeding area and, on a regular basis, rake up and remove debris and droppings.
2. If you use a platform feeder or feed on a deck or balcony, feed only as much seed as birds can consume in a day. Scrub your feeder with soap and a disinfectant once a week.
3. Do not allow residue and mold to accumulate in the bottom of hanging tube feeders. To remove mold and residue, empty the feeder and scrub the interior thoroughly. Use only feeders that can be dismantled or otherwise cleaned easily.
4. Store seed in a cool, dry place and if it becomes moldy, do not use it.



■ A hawk hunts birds at my feeder.

The Cooper's hawk and sharp-shinned hawk occasionally hunt birds at feeders. They are attracted to the feeder because of the concentration of food, but in this case, the food is the birds themselves. Although no one likes to see one of "their" birds killed by a hawk, on a population level hawks have little, if any, negative effect. The number of hawks present is very low compared to the number of smaller birds at a feeder, and their hunting success is low. Hawks are a natural part of the ecosystem and signify a healthy environ-

ment. In addition, watching a hawk hunt at a feeder is an exciting drama to behold.

All that being said, the best way to protect songbirds from raptors is to provide cover for them with a well-planted yard. This gives smaller birds a place to hide if a hawk is nearby. If a hawk has been hanging around, you can also take down the feeders for a couple days. The hawk will eventually look elsewhere for food.

■ What can I do about cats?

Cats are nonnative predators that can present a problem at bird feeders. You don't want your bird feeder to become a cat feeder. The obvious solution is to keep your cat indoors, but if this is not an option or the cat is not your cat, you can try to change your feeder placement to make it difficult for the cat to surprise the birds. Move your feeder away from cover such as low shrubs or tree branches where cats may hide. If the birds can see the cat, they generally can stay out of its way. Another option is to surround the feeder with chicken wire fencing to protect the birds feeding at and below the feeder.

■ How can I control squirrel problems?

There is no good answer to this question. You are trying to attract birds to your feeder, but inevitably the squirrels will come too. Some people enjoy watching squirrels, while others consider them pests. There are a few things you can try to keep them away from your feeders, but after observing these creatures for a while, you will notice how intelligent they are and how difficult it is to outsmart them.

Many feeders on the market claim to be squirrel proof. You could try one of these or add a baffle to your feeder. A baffle is a bowl- or umbrella-shaped plastic or metal barrier placed on the pole on which the feeder is mounted. The idea behind a baffle is that squirrels cannot get past it, although they often do. Another option is to offer squirrels dried ears of corn, peanuts, or cracked corn at a location away from the feeders. This allows the squirrels to enjoy a free meal while distracting them, it is hoped, from the more expensive sunflower seed.

■ How can I keep birds from flying into my window?

Windows can be a great hazard for birds, especially large windows that reflect the outdoors. Birds do not realize an obstruction is there and think they can fly right through it. When they hit the window at high speeds, they often are killed instantly.

To minimize window crashes, place feeders within 3 feet of windows. Birds will slow down to land on the feeders and when they take off again, they will not have enough speed to hit the window with much impact. In addition, if the birds are feeding right next to the window, they may realize it is a barrier and not an opening.

Hawk silhouettes are not effective in reducing window strikes. The most effective way to make the glass visible is to apply black vertical tape stripes over the entire window, but this is not an option for most people. One of the best solutions is to purchase bird netting at a garden supply store and put this over the window. The birds will hit the netting instead of the window, and you will still be able to see out the window.

■ When should I stop feeding birds in spring?

To some extent, when to stop feeding depends on personal preference. Once the weather warms up and insects and natural foods become more abundant, feeder use drops off and many people stop feeding. Others like to feed throughout the spring, particularly to see some of the spring migrants. Indigo buntings and rose-breasted grosbeaks, for example, visit feeders at this time.

There is one situation during which you should always stop feeding: when a black bear has discovered your feeder. In early spring when bears arouse from hibernation, they are hungry and often attracted to bird feeders. Bears are particularly fond of black-oil sunflower seeds. If you see a bear at your feeder or find that your feeders have been smashed by a bear, stop feeding immediately. The bear or bears will return as long as food is available, and this can lead to other problems for both you and the bear.

Landscaping for Birds

While bird feeders are one way to attract birds, they are only one aspect of enhancing habitat for birds. Another important aspect is how your yard is landscaped. You can plant trees, shrubs, and flowers to provide nesting sites, cover from predators, winter shelter, and natural food sources. Providing a variety of trees and shrubs can double the number of bird species that come to your yard. For more information on landscaping for birds and other wildlife see other fact sheets in the Pennsylvania Wildlife series (below).

For Additional Information

Pennsylvania Wildlife Fact Sheet Series

Pennsylvania Wildlife No. 1: Wildlife-Habitat Relationships

Pennsylvania Wildlife No. 2: Attracting Wildlife: Sources of Assistance

Pennsylvania Wildlife No. 3: Managing Habitat for Eastern Bluebirds

Pennsylvania Wildlife No. 4: House Finch Conjunctivitis

Pennsylvania Wildlife No. 5: Meadows and Prairies: Wildlife-Friendly Alternatives to Lawns

Pennsylvania Wildlife No. 6: Attracting Hummingbirds

Pennsylvania Wildlife No. 7: Landscaping for Wildlife: Trees, Shrubs, and Vines

Pennsylvania Wildlife No. 8: Gardening for Butterflies

Pennsylvania Wildlife No. 9: Managing Habitat for Eastern Cottontails

Pennsylvania Wildlife No. 10: Neighborly Natural Landscaping: Creating Natural Environments in Residential Areas

Pennsylvania Wildlife No. 12: Warm-Season Grasses and Wildlife

Pennsylvania Wildlife No. 13: Managing Habitat for American Kestrels

Pennsylvania Wildlife No. 14: Water for

Wildlife: Bird Baths and Backyard Ponds

Pennsylvania Wildlife No. 15: Vernal Ponds: Seasonal Habitats for Wildlife

Pennsylvania Wildlife No. 16: Riparian Buffers for Wildlife

All are available from your county extension office.

Cornell Lab of Ornithology

www.birds.cornell.edu/pfw

This is the website for Cornell Lab of Ornithology's Project FeederWatch. It has a link for information about birds and bird feeding.

Wild Birds Unlimited, Inc.

www.wbu.com

This site has a source of supplies and also offers tips for feeding birds.

Books

Barker, M. A., and Grigg, J. L. *Feeder-watcher's Guide to Bird Feeding*. Harper-Collins. 2000. This book, based on data compiled from the Cornell Lab's Project FeederWatch, offers information on how to attract and feed birds.

Dennis, J. V., and Kalmenoff, M. A. *A Complete Guide to Bird Feeding*. Knopf. 1994. Information on bird foods, feeder designs, life-history information, and more.

Dunn, E. H., Tessaglia-Hymes, D. L., and Price, J. *Birds at Your Feeder*. Norton. 1999. Also compiled from data from the Project FeederWatch. It tells what species come to feeders, their seed preferences, and where and when to spot a particular species.

Henderson, Carrol L. *Wild About Birds: The DNR Bird Feeding Guide*. Minnesota Department of Natural Resources. 1995. Contains extensive information on types of birds that come to feeders, types of bird food, types of feeders, and even feeder designs.

Authors

Heather Beck, extension assistant,
and Margaret C. Brittingham,
professor of wildlife resources

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Jeffery Mathison

extension.psu.edu

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