

# Feeding and Growing Mealworms

*From Steve & Regina Garr*

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Feeding live mealworms to songbirds can add a whole new dimension to enjoying the birds in your backyard. You will be afforded the opportunity to watch adult birds teach fledglings to find food, be able to witness “courtship” activities of mate-feeding in some species, and in times of extreme weather conditions, actually provide a safe place for non-seed eating birds to find food. In the case of cavity nesting birds (like our Bluebirds) a mealworm supply can also assist the birds in finding a consistent food source near the nest box so they do not have to leave the eggs or nestlings for long periods of time when they could be subjected to predators. Another big plus to feeding mealworms: Squirrels really aren’t interested in eating them!

**Mealworms are not really worms at all. They are the larvae stage of the Darkling Beetle (*Tenebrio molitor*) They are a favorite food of many birds in your back yard!**

## Offering mealworms to Bluebirds and other Backyard Birds

Mealworms may be fed to backyard birds in a great variety of ways! A simple dish with 10-25 mealworms placed in it each day will soon become a routine “daily feeding stop” for your birds. Platform tray feeders, whether hanging or post mounted, are great ways to offer mealworms. Bluebirds are by nature ground feeders, so open feeders with large stable perch area is an attractive place for them to feed. However, MANY birds like the mealworms and some may not be the birds you want to attract to your yard (like starlings). One way to reduce—or even eliminate—the occurrence of starlings, flocks of Robins, or other larger birds “stealing” all of the mealworms is to place the mealworms in specially designed feeders that restrict entry into the feeder. Feeders with 1 1/2” entrance holes on each end or surrounded by woven wire with openings 1 1/2” wide are good examples. Our favorite “bluebird feeders” are two which Steve designed with coated wire on all sides and lots of perch area where the fledglings may be fed by the adults at the feeder until they learn to use it themselves. One of the best times to “train” your bluebirds to come to the mealworm feeder is when they have babies in the nest box. They are very happy to learn a new way to get food when they have a house full of hungry youngsters! As we suggest with all feeding stations, place your bluebird feeder where you can see and enjoy it, but approximately 10-20 feet away from a shrub, tree, fence, or some other type of cover to allow the birds to perch and scope out the area before flying to the feeder. For years



we have trained our Bluebirds to come to our whistle to signal them that we are putting out the mealworms— any other “signal” (such as a bell or call) works just as well!

**Mealworms may be purchased in containers to feed to your birds, or you may opt to raise your own mealworms! Following are instructions for caring for “container” store-bought mealworms as well as some advice on growing your own mealworms.**

## **Instructions for care of Mealworms purchased from Birds-I-View:**

In order to keep your mealworms in the healthiest condition prior to your purchase, we have them over-nighted to us from the grower. Immediately upon arrival we open the containers and let the worms either warm up or cool down (depending on the time of year) and place a small piece of carrot or vegetable matter in each container of worms. We let the worms remain out of the refrigerator in this manner all day long, and then remove the vegetable matter before put the lids back on the containers and storing them in the refrigerator. We do this one day every 4 to 7 days as long as we have the mealworms.

We strongly suggest that you continue this practice when you take the worms home! Remember to remove the vegetable matter before returning the worms to the refrigerator. Mealworms are the larvae stage of the darkling beetle. Keeping the mealworms refrigerated keeps them dormant and slows down the process of their becoming beetles. Taking them out every four to seven days to warm up from the refrigerator helps to keep them from shrinking and losing body mass —they stay nice and big and juicy for your birds!

# Instructions for Raising your own mealworms:

Mealworms are actually the larvae stage of the Darkling Beetle, so really are not “worms “ at all.

Mealworms are easy to raise , requiring only a grain source such as wheat bran, oatmeal , etc. ( we avoid cornmeal because it can be more likely to hatch out insects we do not want in our mealworm farm). At Birds-I-View, we mix one and a half gallons of wheat bran with one pound of **non-medicated** chick starter feed to make a growing medium. (the chick starter provides protein and food for the mealworms) Next, Add a piece of carrot, potato, or banana peeling about once per week to provide moisture. Avoid letting the meal medium itself become too moist.

Mealworms can be kept in a shallow plastic container with a capacity of 2-5 gallons. If you cover the container do so with a lid that allows good air circulation. Keep the container in the dark as much as possible because , as the name darkling beetle implies, they prefer darkness.

The mealworms will burrow below the surface of the grain medium and undergo a series of molts. **Their development is most rapid at the optimum temperature of 80 degrees F.** At Birds-I-View we stock a “germination mat” which can be used to raise the temperature of the growing medium 10—20 degrees, thus accelerating the rate of metamorphosis. Our tests have shown this to be the best mechanism for increasing the temperature without getting the medium too warm (which can sometimes happen when dog bed warmers are used). Trying to warm the medium using a heat lamp or light bulb of some type is not recommended since the Darkling Beetles really do prefer darkness. After the last molt , the larvae come to the surface and metamorphose into naked white pupae for 6-18 days and then into beetles. Adult beetles have wings but rarely fly. They lay their eggs 9-20 days after emergence and then die. Egg incubation is 4-19 days. Eventually , waste products ( or “frass”- a sandy looking product ) will build up. At this time , the grain should be sifted through to separate worms ( larvae) and the adult beetles from the grain. Wash the container and add new grain. Keep an eye on the vegetable material you have added as moisture and do not allow it to mold.

***It is important to allow about 90 days of “growing” time to start your mealworm farms. During this period you will not want to pull mealworms from your farm to feed the birds. If you do so , you will be feeding off your future stock of Beetles that will lay the eggs to make you more mealworms!*** After about 90 days you should be able to begin pulling out mealworms to feed the birds.

Use an inexpensive strainer to sift the mealworms from the bran mixture before placing in your mealworm feeder. Sometimes dumping too much of the bran mixture into a feeder with the worms can actually attract undesirable visitors to the feeders ( such as squirrels or opossums,) that would not otherwise be interested in the mealworms.



There are many ways to be successful raising mealworms for birds! Find what works best for you and enjoy feeding the birds!



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Above: A Baltimore Oriole scoops up a mouthful of live mealworms to take to nestlings! Soon, the juveniles were coming to the feeder to get the worms themselves.