

# Mecklenburg Audubon Society



## Backyard Notes:

### Mighty, Meaty Meal[worms]

If you have been providing seed and suet to the birds in your backyard for a while you might want to think about adding mealworms to the menu. They add much needed protein to a bird's diet. Remember probably 75%-85% of the birds in your backyard eat insects. Protein is especially important during the breeding season and to the young. But it is equally important to our insect eating winter residents and visitors. Mealworms are like bird candy but are much more nutritious. Mealworms can save a bird's life when it cannot find food during the winter or during a sudden cold snap in spring. When early arriving migrants come to your backyard, there may not be many insects yet. Mealworms will be a welcome sight to these weary travelers.

Birds that would not normally come to your seed and/or suet feeders will chow down on these morsels. Bluebirds are especially fond of mealworms but other species that relish the addition to your banquet are: Mockingbird, Robin, Brown Creeper, Carolina Wren, Chipping Sparrow, Wood Thrush, Red-eyed Vireo, Indigo Bunting, Ruby and Golden Crowned Kinglet, Summer and Scarlet Tanager, a variety of warblers and woodpeckers and many more.



What are mealworms anyway? They are not really worms at all. Mealworms are the larvae of the beetle *Tenebrio molitor*, also known as the

darkling beetle. They stay in this larval stage for about 10 weeks before turning into beetles.

So what exactly do you do with these worms once you get them? First you need a place to store them. Most people put them in the refrigerator where they will keep for weeks at 40 - 50 degrees F. (Warning: be sure to label the container WELL so unsuspecting family members won't open it, hoping for a treat.) Make sure the container has adequate air hole so the mealworms do not suffocate. Place a slice of apple, carrot or potato in the container for moisture.

Put out one or two dozen mealworms for each bluebird pair. Mockingbirds will eat about a dozen a day. Smaller birds will eat fewer, of course. One thing to remember when putting mealworms out for food is these guys can climb. Don't put them on a seed or platform feeder. They will just wiggle away and you can take my word on that. Use a straight edge can like a tuna can or an empty plastic margarine container. You can place it on the platform feeder, the ground, a ledge or punch holes in the sides of the container, attach a wire and hang it somewhere. Make sure the sides are high enough and slick enough to prevent the worms from crawling out.

Once your birds get hooked on mealworms you might find it a little expensive to keep buying your supply from a store. What is nice about mealworms is you can grow them yourself.

That way you will have an unending supply to delight your backyard friends. Mealworms are easy to grow and maintain. But basically all you need to do is supply them with



something to eat – usually oat bran or some other type of coarse grain, some moisture via an apple, carrot or potato, and a place to hide and lay eggs.

Where can you get supply of these nuggets of nutrition? There are many ways to get them. Locally, all the bird supply stores [see the end of this article for names and locations] sell them as do many of the bait shops in the area or you can order them over the internet. When you buy them make sure you get the smaller size worms. Some can grow too big for small birds to handle. Also the giant ones don't propagate as well.

So you too can have birds eating out of your hand if you take the time. It doesn't take much to get a mockingbird interested. It only took a day or so for my resident Mockingbird to put two and two together. Mealworms appeared right after I did. So the bird kept an eye out for me. Whenever I went into yard she would show up looking for a handout. It took the Bluebirds and Carolina Wrens to get in on the act, mainly because the Mockingbird won't let them need the supply until she was done! Adding mealworms to the backyard menu will definitely add a new dimension to life in your patch of wilderness.

## How to Raise Mealworms

Want to raise mealworms so you have an inexpensive and never-ending supply? Follow these easy directions to create your own "mealworm ranch." Delight the birds in your yard! [Adapted from About.Com]

1. Get a supply of mealworms. Do NOT get the giant ones since they don't seem to multiply as well as the smaller ones.
2. Get a 5-gallon plastic pail or a clear plastic container with a lid and with sides about 6" tall. If using the clear container, get out the drill and make about 30 - 40 holes in the lid so the mealworms will get plenty of air. If the inside of the container gets water droplets, simply drill a few more holes. If using the pail or a container without a lid, get a piece of screening that will lay across the top to keep things from falling into the container.
3. Get enough oat bran to fill half of the pail or container. You can buy it at a feed store (cheapest place) or a natural food store or most grocery stores. The oat bran is food for newly hatched mealworms.
4. Normally mealworms are packed in crumbled newspaper. You do not need to touch them. Take the container and shake them out into the pail or container. Put no more than 1,000 in one pail or 30-40 per square foot if using the clear plastic container. Be sure to not exceed these amounts since overcrowding will generate heat and may kill the mealworms!
5. Place your container or pail out of direct sunlight. Keep them in a place that has temperatures between 45 and 75 degrees F.
6. Mealworms need moisture. The easiest way is to simply cut an apple, potato, or carrot in half. Push the cut side

down into the oat bran until it can barely be seen. Do not spend time cutting off the skin. This is enough moisture - DO NOT add more. Every couple of weeks, take out the old one and replace it with a new half.

7. On top of the oat bran, put 3-4 layers of torn brown grocery bags or newspaper. The mealworms will crawl in and hide between the layers of bags.
8. Mealworms are the larval stage of beetles. During their lifetime, they will go through 10-20 molts, turn into a whitish pupa and then transform into an adult beetle. These beetles can not fly but to make your family feel better, you might want to put a screen over the top of the pail or keep the lid on the plastic container.
9. It can take 100-300 days for the mealworms to become beetles depending on the available food and temperature at which they are kept. When the mealworms turn into beetles, they lay eggs and then die. The female beetle lays 500 to 1000 bean-shaped white sticky eggs. Eggs hatch in about one week but the larva are very small so it may take a few weeks before the larvae are large enough to be fed to birds. You could have as many as 3,000 new mealworms per square foot! Make sure to add an additional apple half when you see the newly hatched mealworms.
10. When the new mealworms are the size birds like, take them out of the oat bran, and put them in a different container with crumbed newspaper for them to hide in. Clearly label this container (avoid domestic horrors) and keep it in the refrigerator to keep the mealworms in the larval stage.
11. Every several months take some mealworms from the pail or container and start a new pail or container. Doing so will ensure that backyard birds will have a steady supply of tasty mealworms.

## Where to get Mealworms

### Local Wild Bird Stores:

- Backyard Wild [Matthews Festival]
- Wild Bird Center [South Charlotte, Arboretum]
- Wild Birds Unlimited [SE Charlotte, Galleria]
- Wild Birds Unlimited [Concord Mills]

### Mail/Web Ordering

- Grubco [1-800-222-3563] <http://www.grubco.com/>
- Nature's Way [1-800-318-2611] <http://www.herp.com/nature>
- New York Worms [516-759-3538] <http://www.nyworms.com/mealworms.htm>
- Rainbow Mealworms and Crickets [800-777-9676] <http://www.rainbowmealworms.com>
- Southeastern Insectaries [Toll-free 1-877-967-6777] 606 Ball Street, Perry, GA 31069
- Sunshine Mealworms [503 873-8989] <http://www.sunshinemealworms.com>

### Additional Information

- Birder's World Online - <http://www.birdersworld.com/askbirders/askbirders.html>
- Center for Insect Science Education Outreach - <http://insected.arizona.edu/home.htm>
- National Bluebird Society - <http://www.nbluebirdsociety.org/mealworm.htm>

